Initial Environmental Examination

June 2022

Uzbekistan: Integrated Urban Development Project (Urban Development Component)

Volume I: Main Report

Prepared by Ministry of Investments and Foreign Trade of the Republic of Uzbekistan for the Asian Development Bank.

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CURRENCY EQUIVALENTS

(as of 1 June 2022)

Currency unit	–	Uzbekistan Sum (UZS)
UZS1.00	–	$0.000091
$1.00	–	UZS10,012.23

ABBREVIATIONS

ADB	-	Asian Development Bank
AASL	-	Aydar-Arnasay System of Lakes
AASHTO	-	American Association of State Highway and Transportation Officials
ACMMP	-	Asbestos-Containing Materials Management Plan
ASEWPH	-	Agency for Sanitary and Epidemiological Welfare and Public Health
CCMP	-	Construction Camps Management Plan
CDIA	-	Cities Development Initiative for Asia
CNR	-	Construction Norms and Rules
COVID-19	-	Coronavirus Disease
CSEE	-	Center of the State Environmental Examination
DED	-	Detailed Engineering Design
EBRD	-	European Bank of Reconstruction and Development
EHS Guidelines	-	the World Bank Group's Environment, Health and Safety Guidelines
EIS	-	Environmental Impact Statement
EMP	-	Environmental Management Plan
FAO	-	Food and Agriculture Organization
GHG	-	Greenhouse-Gas
GIS	-	Geographic Information System
GRM	-	Grievance Redress Mechanism
IBA	-	Important Bird Areas
IEE	-	Initial Environmental Examination
IFC	-	International Finance Corporation
ISAAC	-	Institutional Strengthening, Sustainability and Awareness Consultant
IUCN	-	International Union for Conservation of Nature
IUDP	-	Integrated Urban Development Project
JSC	-	Joint Stock Company
LED	-	Light-emitting diodes
LARP	-	Land Acquisition and Resettlement Plan
LLC	-	Limited Liability Company
MAC	-	Maximum Allowance Concentrations
MAD	-	Maximum Allowable Discharge
MIFT	-	Ministry of Investments and Foreign Trade of the Republic of Uzbekistan
MPC	-	Maximum Permitted Concentration
NFS	-	National Feasibility Study
NGO	-	Non-Governmental Organization
OHSP	-	Occupational Health and Safety Plan
OHSE	-	Occupational Health and Safety Engineer
PEIS	-	Preliminary Environmental Impact Statement
PIU	-	Project Implementation Unit
PIU-NES	-	Project Implementation Unit – National Environmental Specialist
PMDSC	-	Project Management and Design Supervision Consultant
PMSC	-	Project Management Supervision Consultant
PMSC-IES	-	Project Management and Supervision Consultant International Environmental Specialist
PMSC-NES	-	Project Management and Supervision Consultant National Environmental Specialist
PPE	-	personal protective equipment
RCCE	-	Risk Communication and Community Engagement

RCM	-	Resolution of Cabinet Ministries
REA	-	Rapid Environmental Assessment (ADB checklist)
RUz	-	Republic of Uzbekistan
SAS		Swiss Association of Standardization
SAEMR	-	Semi-Annual Environmental Monitoring Report
SanN&R	-	Sanitarian Norms and Rules
SCADA	-	Supervisory Control And Data Acquisition system
SCEEP	-	State Committee on Ecology and Environmental Protection
SDDR	-	Social Due Diligence Report
SEC	-	Statement on Environmental Consequences
SEE	-	State Environmental Expertise
SIZ	-	Specialized Industrial Zone
SPS	-	Safeguard Policy Statement
SSEMP	-	Site Specific Environmental Management Plan
TMP	-	Traffic Management Plan
TRTA	-	Transaction Technical Assistance
TSEMP	-	Topic Specific Environmental Management Plan
UGISC	-	Urban Governance & Institutional Strengthening Consultants
UNESCO	-	United Nations Educational, Scientific and Cultural Organization
UNFCCC	-	United Nations Framework Convention on Climate Change
WHO	-	World Health Organization
WSS	-	Water Supply and Sanitation
WWTP	-	Wastewater Treatment Plant

WEIGHTS AND MEASURES

km^2	–	square kilometer
kWh	–	kilowatt hour
dB	–	decibels
kV	–	kilovolts
km	–	kilometer
mm/s	–	millimeters per second
mg/m^3	–	milligram per cubic meter
µg/m3	–	micrograms per cubic meter
mg/dm^3	–	milligram per cubic decimeter
ºC	–	degree Celsius
mg/kg	–	milligram to kilogram
m	–	meter
MVA	–	mega volt ampere
ha	–	hectare
mm	–	millimeter
m^3/s	–	cubic meter per second
g/l	–	gram per liter
km^2	–	square kilometer
g/m^3	–	gram per cubic meter

GLOSSARY

BR&N	Building Rules and Norms
Glavgosexpertisa	State department responsible for environmental expertise Under the State Committee for Ecology and Environmental Protection
Goskomgeodezkadastr	State Committee for Land Resources, Surveys, Cartography, and the State Cadastre
Goskomgeologia	State Committee for Geology and Mineral Resources
Goskompriroda	State Committee for Ecology and Environmental Protection
Khokim	Governor of municipality
Khokimiyat	Regional or district government authority
KMK	National acronym for construction norms and regulations
Mahalla	Independent and selfgoverning community of neighbors
Oliy Majlis	The Supreme Assembly, comprising the Legislative Chamber and the Parliament
OVOS	National acronym for environmental assessment process
O'z DSt	National acronym for state standard of the Republic of Uzbekistan
PZVOS	National acronym for concept statement on environmental impact
Sanoatgeokontekhnazorat	State Inspectorate for Exploration Supervision, Operations Safety Supervision of Industry, Mining and Utilities Sector
SanR&N	Sanitary and epidemiological norms and regulations
Sum	Local currency
SNiP	Set of basic regulatory requirements and regulations governing the design and construction in all sectors of national economy of Uzbekistan
Suvokova	Provincial water supply and sanitation utilities mandated to deliver Water Supply and Sanitation improvements within each province of Uzbekistan
Uzhydromet	State governing body in the field of hydrometeorology in the Republic of Uzbekistan under the Cabinet of Ministers
Uzsuvtaminot	National Joint Stock Company responsible for water supply and sanitation
ZVOS	National acronym for environmental impact statement
ZEP	National acronym for environmental consequences statement

NOTE

In this report, "$" refers to US dollars.

EXECUTIVE SUMMARY

1. In 2019, the Government of Uzbekistan has requested the Asian Development Bank (ADB) to support urban development projects in accordance with the National Urbanization Program, which was adopted later in the same year as part of National Development Strategy to 2030. The proposed Integrated Urban Development Project (IUDP) scheduled for loan approval in 2022, according to the ADB Country Operations and Business Plan for 2020-2022 is the outcome of this request.

2. This will be the first ADB-supported integrated urban development project in Uzbekistan. A Transaction Technical Assistance (TRTA) was provided by ADB for preparation of the project's Feasibility Study Report which includes the main report, technical due diligence (technical analysis) and other safeguard reports.

3. As a part of its request to ADB for project preparation assistance, the Government has selected Khiva, Djizzak, Yangiyer and Havast cities (**Figure 1**) as the pilot cities to be developed under different scenarios and has an intention to replicate their results nationwide.

4. Due to complexity of the project and to simplify its impact assessment, all activities were grouped in three subcomponents:

(i) Water Supply and Sanitation in Djizzak;
(ii) Urban Development Component in Havast, Khiva, and Djizzak;
(iii) Solid Waste Management in Djizzak, Khiva, Havast and Yangiyer.

5. For each subcomponent, a separate Initial Environmental Examination (IEE) has been prepared. This IEE presents impact assessment of second component: Urban Development Component in Havast, Khiva, and Djizzak. Second component of IUDP includes four sub-components and their description is presented below.

1) **Component 1.1: Area-based urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak**. The subproject will demonstrate holistic area-based community re-development in three underserved mahallas with poor infrastructure services and public space. The project will improve livability through the improvement of: (i) street corridors (7.3 km in Ittifoq, 19.5 km in Dustlik, 2.5km in Yoshlik) including surfaces, drainage pavements, lightings, pedestrian sidewalks; (ii) public open spaces, including children playgrounds, sport facilities, open space, neighborhood green parks and surfaced footpaths (4.5 ha open space, 0.92 km of footpaths in Ittifoq, 1.1 ha open space in Dustlik, 2.8 ha open space and 1.2 km of footpaths in Yoshlik); and (iii) an existing small bus terminal in Ittifoq. All pedestrian and public space areas will be designed to support universal access for people with disabilities and elderly, and a safe environment for women including, where possible, streetlights. This subproject will benefit 5,032 households (3,050 Ittifoq, 890 Dustlik, 1,092 Yoshlik). All facilities will be owned and operated by the hokimiyat. The subproject also includes water and sanitation improvements (see output 2).

2) **Component 1.2: New Polvon Canal greenway in Khiva.** The subproject will convert an existing 2.4 km stretch of the Polvon drainage canal embankment into a new recreational greenway with: (i) 1.1 m wide cycle and 2.2 m wide pedestrian paths at both sides of the canal; (ii) green space (lawns, trees, flowers, irrigation); (iii) street furniture (including decorative lamp posts, benches and urns in traditional style); (iv) tourist friendly signage; (v) a multifunctional recreational open space with a football field (798m^2), tennis court (448m^2), basketball court (448m^2), children playground (211m^2), and an administrative building (260m^2) with changing rooms, washbasins, coaching room, and showers; (vi) 2 footbridges of 10 by 1.5 m; (vii) 2 observation bridges of 10 by 9 m; (viii) 1 fitness and kids playground, and; (ix) fencing along the canal. The greenway will be universally accessible for people with disabilities and elderly and will feature tree planting for shading, and water retention and women friendly facilities such as street lighting, clear signage and women's washrooms.

3) **Component 1.3: New visitor information center with digital museum in Khiva**. The subproject will construct a two-story multifunctional visitor center of 3,500-4,000 m^2 with information desk, offices, retail and food and beverage space, and handicraft demonstration outlets. The center will also feature Uzbekistan's first digital museum showcasing Khiva's Silk Road heritage. The center will be complemented by a vehicle parking area (100 spaces), bicycle rental facility (50 bikes), an access road and ornamental landscaping. The facility design includes solar power, water recycling facilities and will provide universal access for people with disabilities and elderly, and women friendly facilities such as women's washrooms and nursing facilities.

4) **Component 1.4: New 6 ha green open space with livelihood training and multifunctional community center with training facility in Havast**. This subproject will convert an existing unused open area in central Havast into an attractive 6 ha community green space to improve urban livability and attractiveness for residents, businesses, and visitors. The new public space will introduce walking/cycling paths (1.2 ha), administrative space (0.30 ha); zones for cultural and educational events (0.0.9 ha); children's leisure zones (0.75 ha); sports (1.4 ha); public areas (0.5 ha); and zones for passive and quiet rest (0.95 ha). The park will be designed with universal access for people with disabilities and the elderly and will feature women-friendly facilities such as street lighting, women's washrooms and by maintaining clear sight lines throughout the park. The park will feature LED lighting for energy efficiency. The design also includes an access road (1.2 km), connecting the park to the main road. A two-story multifunctional training, co-working and community center of 1,100 m^2 will be located in the park to support livelihood and skill development for small and medium-sized businesses targeting women and youth. The center will be universally accessible and designed with green building principles for energy, water and materials efficiency.[1] Both the park and training center will be owned and operated by the hokimiyat. This subproject will benefit the entire population of Havast (28,400 people).

6. **Implementation Arrangements.** Ministry of Investment and Foreign Trade (MIFT) is the executing agency responsible for overall project coordination with government agencies and high-level decision-making authorities to ensure timely implementation, and for liaison with ADB and other development partners. Other related to this subcomponent stakeholders including Djizzak, Khiva, Havast hokimiyats, relevant branches of State Committee on Ecology and Environmental Protection of Uzbekistan (SCEEP) will be involved in evaluation process to ensure their active involvement during project implementation.

7. The MIFT-PIU will appoint three PIU Field Coordinators for Khiva, Djizzak city and Havast/Yangiyer respectively to supervise and monitor project activities including safeguards implementation on the ground, together with Project Management and Supervision Consultant (PMSC, second part of assignment of Project Management, Design and Supervision Consultant [PMDSC]).[2] There will also be a local coordination committee comprised of project stakeholders, who will meet on a semi-annual basis (or as needed) to review project progress and ensure timely implementation.

[1] Green building features includes: i) maximize use of natural light, ii) LED lighting, iii) double pane windows, iv) energy efficient boilers, v) ventilation, and vi) centralized Variable Refrigerant Flow (VRF) system (technology that circulates only the minimum amount of refrigerant needed during a single heating or cooling period).

[2] Project Management, Design and Supervision Consultant (PMDSC) was hired to implement consultancy service consisted of two parts: Part 1: Detail Engineering Design (DED) and Procurement Support and Part 2: Construction Supervision, Project and Contract Management. PMDSC's TOR says "*On successful completion of Part 1 and towards award of works for Part 2 work with suitably modified TOR and additional staffing as required*." Therefore, after the completion of the design works Part 1 of the task - the DED component will end and the implementation of Part 2 will begin. During Part 2, the consultant will act as Project Management and Supervision Consultant (PMSC). During the IEE preparation, the name of consultancy under Part 2 "Construction Supervision, Project and Contract Management" was changed to the PMSC.

8. The MIFT-PIU will be responsible for monitoring of implementation of EMP to comply with ADB safeguards requirements and environmental national regulations. The PIU will hire one full time National Environmental Specialists (PIU-NES) exclusively for this project, who will be assisted by the PMSC's international environmental specialist (PMSC-IES) and national environmental specialists (PMSC-NES) in the process of overseeing the implementation of the EMP.

9. The Contractors will be responsible for mitigation measures during construction phase. During construction, the Contractors will retain their expertise of a full-time and qualified Environmental Engineer and a full-time Occupational Health and Safety Engineer (OHSE) to implement and update the Site-Specific Environmental Management Plans (SSEMPs), and to report on the mitigation measures throughout the contract period.

10. **Project Category**. In accordance with ADB Safeguard Policy Statement (SPS, 2009), the project is classified as category B for environment, as a project will have site-specific impacts, some of which are irreversible, and in most cases the mitigation measures can be readily designed. The project therefore requires an IEE, based on data from the feasibility study, preliminary design and site visits, and interviews with technical experts, as well as primary and secondary data including feedback received during the public consultations.

11. In accordance with the national environmental categorization requirements, the urban development subcomponent is classified as Category III (low risk) and Category IV (local impacts). Six Preliminary Environmental Impact Statements (PEISs, environmental assessment document required for Category III and Category IV projects or PZVOS[3]) were prepared by MIFT-PIU and submitted by the Khokimiyats of Djizzak, Khiva and Havast cities to the Djizzak, Khorezm and Syrdarya branches of the SCEEP between September 2021 and March 2022 (**Table 1**). Mitigation measures identified in the PEISs are included in this IEE. Environmental Appraisals (Environmental Permission) were received in November-December 2021 for three sub-components and remaining three are being reviewed by SCEEP as of June 2022 (Copy of the appraisal documents are in **Appendix 1.** Environmental Appraisal of State Environmental Expertise). The conditions of the appraisal are listed in **Table 2**.

12. **Due diligence**. The project will be implemented in the inhabited area which has modified ecosystem. There are no protected areas, species included in the Red Book of Uzbekistan or International Union for Conservation of Nature (IUCN) Red List and historical heritage within the project area.

13. **Project impacts**. Evaluation of the project impacts has been done using an impact significance matrix, which is a combination of receptors' sensitivity and impact magnitude. The Sensitivity of each environmental and social receptor was defined. Further Assessment of the impact magnitude was done with consideration of duration, probability, extent, and frequency of each impact. The following impacts were assessed for each type of project activity: direct, indirect, and cumulative.

14. All anticipated environmental impacts have been assessed at three stages – pre-construction, construction, and operation.

15. **At the pre-construction stage**, it will be imperative to ensure that all necessary permissions for the project are secured and received from government agencies, and that the IEE is updated if any unanticipated environmental impacts become apparent, to reflect any modifications, such as changes in the project design, scope etc., if any.

16. **Construction period.** During the construction period, the main impact will be related to the generation of wastes, increased noise level and pollutant emissions from machinery. All impacts will be short term. The magnitude of the impact will be higher for the sub-components "Component 1.2: Improvement of Polvon Canal Area in Khiva" and "Component 1.1: Urban

[3] PZVOS is Russian translation of Preliminarily Environmental Impact Statement (PEIS) – 1st stage of national Environmental Impact Assessment Procedure.

upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak", since project works will be implemented in the immediate vicinity of residential buildings.

17. Baseline monitoring of air quality and noise levels has been implemented at the points located next to the sensitive receptors, such as schools, kindergarten, and polyclinics. The PMSC will conduct monitoring of these parameters during construction in accordance with an Environmental Monitoring Plan (EMoP, **Table 44**) included in this IEE.[4]

18. Impact on water resources will be negligible for almost all sub-components. However, during construction works of "Component 1.2: Improvement of Polvon Canal Area in Khiva", Contractor will strictly follow developed mitigation measures to avoid adverse impact on water quality in canal.

19. Impact on biodiversity during construction phase will be minimal, since one of the core requirements for contractors will be to avoid cutting trees during construction. The project detail design was prepared in a way avoiding or minimizing cutting trees. On the contrary, green zones will be created under all four sub-components. If cutting tree will be unavoidable, contractor will obtain all permits for cutting trees and pay compensations in accordance with national legislation.

20. It is anticipated that, during the construction phase, a substantial volume of wastes will be generated. Most of them will be non-hazardous and will be represented by removed asphalts covering roads. This impact will be most significant during construction of internal roads in Djizzak city. Contractors will be required to develop Waste Management Plan, receive approval from PMSC and PIU and ensure its proper implementation.

21. There is a possibility that asbestos wastes will be generated due to demolishing of some buildings for construction of open spaces under "Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak". PMSC-IES/NES together with Contractor's environmental engineer will examine the buildings/structures which are subject for removal. In case of presence of asbestos materials, an Asbestos-Containing Materials Management Plan (ACMMP) will be developed by Contractor (**Appendix 2. Sample of Asbestos-Containing Materials Management Plan**).[5]

22. Besides impacts on air, water and soil quality, risks also relate to community and occupational health and safety. The impacts on community health are the risk related to increasing movement and operation of construction machinery and vehicles, and potential difficulties related to the access to the houses and commercial entities. Since the major part of civil works will be implemented in the densely populated areas, the implementation of all relevant measures provided in EMP and close communication with local communities will be crucial to avoid or minimize negative impacts.

23. Safe working conditions, together with compliance with sanitary, fire protection and other construction norms and requirements, will be strictly adhered to prevent electrical shocks and other accidents during the construction period. Each contractor will be required to develop an occupation health and safety plan, which will cover such requirements as the usage of Personal Protective Equipment (PPE) and fire protection equipment, proper handling of fiber cable, and participation in a training program. To address COVID-19 risks, COVID-19 health and safety management plan and emergency response plan will be developed as part of the SSEMP.

24. During the construction phase, labor camps will be located within residential areas, or suitable open spaces. To ensure proper organizing of the camps operation, the contractor will develop Construction Camp Management Plan (CCMP) and ensure its proper implementation.

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[4] In addition to the monitoring conducted by the PMSC, noise level measurement will be conducted by the contractors on daily basis.

[5] ADB's Good Practice Guidance for the Management and Control of Asbestos: Protecting Workplaces and Communities from Asbestos Exposure Risks (Mar 2022) <Good Practice Guidance for the Management and Control of Asbestos: Protecting Workplaces and Communities from Asbestos Exposure Risks | Asian Development Bank (adb.org)> will also be referred when the ACMMP is prepared.

25. All national regulations related to the construction works and the World Bank Group's *Environment, Health and Safety Guidelines* (hereafter referred to as the *EHS Guidelines*)[6] will have to be complied with. The MIFT-PIU will closely coordinate with the communities regarding the planning and implementation of project works.

26. **Operation Phase**. No negative impact on ambient air quality is anticipated during operation of all facilities. The subprojects will provide services to the population that do not lead to the emission of pollutants. Therefore, the anticipated impact on air quality will be negligible. Air quality will improve due to improvement of conditions of existing roads under "Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak". Amount of generated dust and exhausted gases will decrease due to improved quality of roads.

27. Among all sub-components, impact on water resources more likely may occur during operation of project facilities along Polvon canal. A negative impact on water quality could be caused by wastewater discharge and solid wastes disposal into the canal. Oil refueling or work with hazardous substances for operation of the facilities located along the canal's banks is not expected.

28. Municipal wastes will be generated during operation of all sub-components and their improper handling and disposal may lead to soil pollution and deteriorating sanitarian epidemiological situation in the project areas and dissatisfaction of population living in adjacent territories. Administration of project facilities (Khokimiyats of Khiva, Djizzak and Havast cities) will conclude agreement with relevant solid waste and sewage disposal agencies and ensure proper management.

29. In general, urban development component of the IUDP will have a significant beneficial impact on the well-being of the population of the project areas, due to the creation of improved areas for recreation and sports. In the case of the city of Havast, the creation of co-working on the territory of the park will help to increase the educational and creative potential of residents, especially the youth of nearby mahallas and the entire city.

30. Improvement of the banks of the Polvon Canal, along with the improvement of recreation conditions for the population, the construction of a tourist center will increase the tourist potential of the city, which, in turn, will have a positive impact on the socio-economic development of the city.

31. **Information disclosure.** Preparation of this IEE coincided with the COVID-19 lockdown period. During this period, any meetings with public were limited. to avoid gathering of people and to prevent spread of COVID-19, the meetings with the main stakeholders were held in accordance with all precautions. In order to prevent large numbers of people from gathering together and the spread of COVID-19, meetings were held with the main stakeholders in accordance with all precautions. The community meetings were held in a narrow format. The main components of the project, expected environmental and social impacts, proposed mitigation measures, Grievance Redress Mechanism (GRM), principles and contacts for feedback were discussed with the leaders of the affected mahallas and with several residents.

32. To deliver information about the project, its potential environmental and social impacts, and proposed GRM, TRTA consultants prepared leaflets with brief information regarding these topics. In addition, the leaflets provided some information on the type of mitigation measures, entitlement matrix for compensation calculations, and contact details for clarifications and grievance. The leaflets were distributed in September and October 2021 in the settlements located around the project sites and they were placed at the entrance of the administration buildings of three mahallas and other public places – such as schools, market bus station, etc. (**Appendix 6.** Leaflet distributed during the Public Consultation)

33. To receive feedback of project stakeholders, a special group was created in Telegram social media covering main stakeholders and mahalla leaders. Moreover, the leaflets were

[6] Environmental, Health, and Safety Guidelines (ifc.org)

posted on MIFT-PIU website[7] and Djizzak, Khiva and Havast Khokimiyat's websites[8] in both Russian and Uzbek languages. Full version of IEE will be translated in Russian and the summary of IEE will be translated into Uzbek, including Executive Summary, EMP and GRM. All translated documents will be posted on MIFT-PIU website.

34. The MIFT-PIU will be responsible for supervision and monitoring of EMP implementation to comply with ADB SPS and national environmental regulations. The PIU will hire one full time PIU-NES designated to this project, who will be assisted by the PMSC-IES/NES in overseeing the EMP implementation.

35. Contractors will be responsible for mitigation measures during the construction phase. The Contractors will hire their 2 full-time qualified engineers: (i) environmental engineer and (ii) OHSE. The environmental engineer will be responsible for preparation, implementation and updating of the SSEMPs and reporting on the mitigation measures performance throughout the contract period. The OHSE will be in charge for implementation of occupational health and safety requirements, ensuring proper setting up of construction camps and implementation of COVID-19 requirements during the construction period.

36. Costs for EMP implementation will cover the following activities: (i) implementation of the instrumental environmental monitoring of air, water, and noise levels by the PMSC, (ii) implementation of the environmental measures as indicated in the EMP, and (iii) implementation of the capacity building and awareness programs.

37. This IEE will be updated if any unanticipated environmental impacts become apparent based on results of the DED. The updated IEE will be submitted to ADB for clearance and disclosure on ADB's website.

[7] MIFT PIU's website link: https://cutt.ly/2Pv5A1v

[8] Hokimiyat website links: Havas - https://xovos-tuman.uz/315-shaharlarni-kompleks-rivojlantirish-loyihasi-taqdim-etildi.html, Djizzak- https://t.me/jizzaxshaharhokimligi, Khiva- https://t.me/khiva_city_press/19079,

I. INTRODUCTION

A. Project Overview

1. In 2019, the Government of Uzbekistan has requested the Asian Development Bank (ADB) to support urban development projects in accordance with the National Urbanization Program, which was adopted later in the same year as part of National Development Strategy to 2030. The proposed Integrated Urban Development Project (IUDP) scheduled for loan approval in 2022, according to the ADB Country Operations and Business Plan for 2020-2022 is the outcome of this request.

2. The project is aligned with: (i) the National Development Strategy for 2017–2021[9]; (ii) ADB's Country Partnership Strategy for Uzbekistan, 2019–2023; (iii) Central Asia Regional Economic Cooperation (CAREC) Tourism Strategy 2030; (iv) ADB's Strategy 2030 Operational Plan (OP) for Priority 1 (poverty, inequality), OP2 (gender equality), OP3 (climate change, environment), OP4 (livable cities), OP6 (governance, institutional), OP 7 (regional)[10]; and (v) Urban Sector Group Guidance Note on post COVID-19 livable cities. It is included in the ADB's Country Operations and Business Plan for Uzbekistan 2021–2023.

3. Urban population of Uzbekistan (16.8 million) declined from 51.5% in 2010 to 50.5% in 2019, indicating a lagging trend of urbanization. More than a half of the population is concentrated in its easternmost regions around the capital city of Tashkent and Fergana Valley, an industrial center that shows a significant regional imbalance. While a considerable share of the urban population lives in the large cities, the fastest population growth rate (54%) was observed in the medium- sized cities in 1990-2017. The recent lifting of internal mobility restrictions, a large youth population, and a growing share of urban job opportunities (manufacturing, construction, services) are expected to make migration to cities more intensive. However, following a business-as-usual approach of unregulated growth and limited investments will result in urban services, being under pressure now, will continue to be overburdened.

4. Recognizing the pivotal role that well-planned, efficient cities play in broad-based, inclusive growth, the Government enacted sustainable urbanization as a development priority with the goal of increasing urbanization to 60% by 2030. In 2020, the Government established the Department of Urbanization Policy Development under the Ministry of Economic Development and Poverty Reduction to govern its urban agenda. The related reforms include a new Urban Planning Code requiring public participation, fiscal decentralization, and new agencies for public–private partnership, water supply, solid waste management, and cadaster.

5. This will be the first ADB-supported integrated urban development project in Uzbekistan. A TRTA was provided by ADB for preparation of the project's Feasibility Study Report which includes the main report, technical due diligence (project technical analysis) and other safeguard reports.

6. As a part of its request to the ADB for project preparation assistance, the Government has selected Khiva, Djizzak, Yangiyer and Havast cities (**Figure 1**: Project cities, below) as the pilot cases under different development scenarios and has an intention to replicate their experience nationwide.

[9] Government of Uzbekistan. 2017. Presidential Decree No. 4947. On Strategy of Actions for Further Development of the Republic of Uzbekistan. Tashkent.

[10] https://www.adb.org/sites/default/files/institutional-document/495951/strategy-2030-op1-poverty-inequalities.pdf

Figure 1: Project cities

7. The project will be aligned with the following impact: sustainable urbanization and improved welfare of the urban population; and the following outcome: improved access to inclusive, resilient, and sustainable urban services in the secondary cities. The project's expected outputs are:

8. **Output 1: Inclusive municipal and tourist infrastructure and services provided.** The project will: (i) develop a new 6 hectare (ha) public park in Havast with green space, multifunctional community center including public library and livelihood training facility to support skills development for small and medium-sized enterprises targeting women and youth; (ii) construct a new two-story visitor center in Khiva featuring Uzbekistan's first digital museum showcasing Silk Road-themed heritage, and with women-friendly facilities and bicycle rental;[11] (iii) create a new 2.4 kilometer (km) linear public greenway in Khiva linked to the new visitor center along an existing irrigation canal with cycle and pedestrian paths, green space, street furniture, signage, and playgrounds; and (iv) demonstrate holistic area-based development in three underserved communities (mahallas) (Ittifoq, Dustlik, Yoshlik) in Djizzak through the integrated development of street corridors including surfaces, drainage, pavements, lightings, pedestrian sidewalks, public open spaces with neighborhood parks and playgrounds, and a bus stand, and include water supply and sanitation (WSS) improvements under Output 2. All facilities will be designed with universal access for persons with mobility impairments and feature women-friendly designs. Assets under Output 1 will be owned and operated by local governments.

9. **Output 2: Climate-resilient drinking water, sanitation, and solid waste services enhanced with smart systems.** In Djizzak city the project will (i) support universal coverage of basic WSS services in three underserved mahallas (Ittifoq, Dustlik, and Yoshlik) through the development of around 21 km of distribution networks with metered house connections, construction of around 14 km of sewerage networks with house connections,[12] and a smart

[11] The visitor center, located near the rail station, will complement the ADB rail electrification project between Bukhara and Khiva to boost tourist arrivals. Women-friendly travel services include information on safety and security.

[12] The water and sanitation investments in the three mahallas are part of the comprehensive area-based development approach supported under Output 1, and will benefit 4,598 households (2,620 Ittifoq, 926 Dustlik, 1,052 Yoshlik). The three mahallas have not received support from other government or donor funded urban development programs.

water pilot demonstrating NRW management in six new district metered areas;[13] (ii) improve the bulk water supply transmission, distribution, and monitoring system for Djizzak city through the development of around 12.5 km of water transmission pipelines and around 27 km of distribution pipelines, installation of ultrasonic bulk water meters, energy efficient variable frequency controlled pumps, water disinfection systems, new pressure regulators and air vent valves, and improve two intake facilities (chlorination equipment, fencing), installation of a Supervisory Control and Data Acquisition (SCADA) system to optimize remote monitoring of water production, establishment of a geographic information system (GIS) hydraulic model for the Djizzak city-wide water supply network, implementation of an asset management system, energy audit, and purchase O&M equipment. In the four cities, the project will implement a WASH+H program by providing toilet and handwashing facilities at project-area public facilities (schools, hospital, public spaces) complemented by community awareness and behavior change campaigns.[14] The project will enhance SWM services in the four cities as follows: (i) provide collection equipment and waste containers; (ii) construct total 25 community collection points in Yangiyer and Havast;[15] (iii) construct a shared transfer station for Havast and Yangiyer located in Havast; and (iv) implement a public awareness campaign on waste minimization and recycling in all four cities. Assets under Output 2 will be operated by the respective utility operators.

10. **Output 3: Urban governance, institutional capacity, and livelihood support strengthened.** The project will provide a structured capacity development program to improve sustainability, operational efficiency, and services delivery in the four project cities. The four city governments will receive comprehensive training in integrated urban development including strategic planning and budgeting, municipal finance, asset management, O&M, e-governance, citizen participation, and private sector cooperation. The water operator in Djizzak will receive training in key areas of utility management including O&M, asset management, business development, financial management, service standards, digital tools, operational efficiency, and customer service. The solid waste operators and communities will be exposed to waste minimization and reduce, reuse, recycle (3R) awareness campaigns. This output will also support livelihood programs in tourism, among other areas for local businesses and residents in the project area targeting women and youth. Output 3 will be supported by the urban governance and institutional strengthening consultants, and TA experts in municipal finance, tourism, and livelihood development.[16]

11. Due to complexity of the project and to simplify a process of environmental assessment, all activities were grouped in three subcomponents:

(i) Water Supply and Sanitation in Djizzak;
(ii) Urban Development Component in Havast, Khiva, and Djizzak;
(iii) Solid Waste Management in Djizzak, Khiva, Havast and Yangiyer.

12. For each subcomponent a separate IEE has been prepared. This IEE presents impact assessment results of the second subcomponent – Urban Development Component in Havast, Khiva, and Djizzak**.**

[13] The smart water pilot will be implemented in close coordination with the proposed United States Trade and Development Agency (USTDA) grant-funded pilot on digital twin technology for remote monitoring of pressure and leaks in the pilot area. This USTDA pilot is a scaling up of a successful demonstration activity supported by a grant under ADB's Digital Innovation Sandbox Grant Program (2020–2021) in Tashkent Province.

[14] ADB. 2020. *Technical Assistance for the COVID-19 Infection Prevention and Control through an Integrated Water, Sanitation, Hygiene, and Health Approach*. Manila (TA 6612-REG). This TA supports an awareness building and behavior change program in project cities. Toilet facilities will be maintained by building owners or city government.

[15] Waste collected in the four project cities will ultimately be disposed in new regional landfills being planned in parallel by the government with commissioning planned around the time of the project completion.

[16] ADB. 2020. Support to the Implementation of Strategy 2030 Operational Plans. Manila (TA 6574-REG). This TA supports capacity building in municipal finance and financial sustainability in the project cities. Other TA support for Output 3 in areas of tourism and livelihood support will be provided by the RCIF-funded TA (para 22).

B. Environmental Assessment Requirement

1. Purpose of IEE Study

13. This IEE forms a part of preparations for the project. It has been prepared in accordance with ADB SPS, and the Uzbekistan's Law on Nature Protection (1992) and Law on Environmental Expertise (2000), and other relevant laws, regulations, and requirements. The objective of the IEE is to (i) identify and assess potential project impacts and risks on the physical, biological, cultural, and socio-economic environments of the project area, and (ii) recommend measures to avoid, mitigate and provide compensation for adverse impacts, while enhancing positive impacts. Relevant references, desk assessments, site reconnaissance, community consultations, and discussions with government agencies, Non-Governmental Organizations (NGOs) and other stakeholders have provided the basis for the IEE preparation.

14. The Project has been screened and classified by the ADB as Environmental Category B, and accordingly requires an IEE, including an EMP.

2. IEE Structure

15. The IEE is structured in accordance with ADB SPS. It consists of an executive summary, eleven chapters, and attachments. It has been prepared based on the infrastructure design undertaken by technical experts; primary surveys and secondary data collection and analyses carried out by environmental, biodiversity, hydrogeology, and social experts; and public and stakeholder consultations. Briefly, each section provides the following information:

- **Executive Summary:** summary of the main aspects related to the environment and project details, highlights of mitigation and residual significant effects, recommends mitigation measures.
- **Policy, Legal, and Administrative Framework:** Summarizes the project policy context. Provides information on legislation and national and international standards applicable to the project and the receiving environment. Gap analysis, compliance with good practices and national legislation;
- **Project Description:** Provides overview of project objectives. Summarizes main elements of the project and key activities which may have some environmental impacts;
- **Description of Environment (Baseline Data)**: Provides description of the relevant environmental and social baseline conditions, information on presence of any protected areas within the project area;
- **Anticipated Environmental Impacts and Mitigation Measures:** Anticipated positive and negative environmental impact assessment. The chapter is based on the findings of the primary and secondary data collection, field surveys, site reconnaissance, stakeholder consultations, applicable sections of the Uzbekistan Environmental Impact Assessment regulations and ADB SPS.
- **Analysis of Alternatives:** Reviews alternatives of various types of road design, locations of open space facilities.
- **Information Disclosure and Public Consultations**: Provides concise information on consultation process with data of consultations and summary of comments and concerns. Includes how the project responded to the comments.
- **Grievance Redress Mechanism (GRM):** Includes both environmental and social aspects, updated ADB requirements and relevant national legislation.
- **Environmental Management Plan (EMP):** Defines mitigation measures to avoid or minimize identified potential negative impacts with pointing the responsible parties for EMP implementation. The EMP provides for required institutional arrangements and costs.

- **Conclusion and recommendation:** Provide information about the significant project impacts on the environment.

16. Primary physical and biological baseline data was collected through a range of baseline surveys within the study area as well as from consultation meetings and literature reviews (mainly desk based) (**Appendix 5. Report on results of baseline environmental monitoring**). Secondary data was collected from Uzbekistan Hydrometeorological Service (Uzhydromet), State Statistic Committee, Institute on Hydrogeology and Geology, Academy of Science of Republic of Uzbekistan (RUz), other governmental and academic institutions and atlases to receive data on topography, demographical situation, and another project relevant information.

17. Project technical description and technology selection decisions were taken from the National Feasibility Study (NFS) and International Feasibility Study prepared by TRTA consultants and DED Consultant (footnote 2).

18. Institutional part and GRM were developed in collaboration with the MIFT (Executing Agency), the MIFT-PIU (Implementing Agency), stakeholders in the project area.

3. Environmental Assessment Methodology

19. Impact identification and assessment started with scoping and continued through the environmental assessment process. Any potential significant impacts are subject to a detailed impact assessment. The principal environmental assessment steps included the following:

- **Impact prediction**: Determine what could potentially happen to resources or receptors because of the project and its activities.
- **Impact evaluation**: Evaluate the significance of the predicted impacts by considering their magnitude and likelihood, and sensitivity, value and/or importance of the affected resource or receptor.
- **Mitigation and enhancement**: Identify appropriate and justified measures to mitigate negative impacts and enhance positive impacts.

20. **Residual impact evaluation**: Evaluate the significance of impacts assuming effective implementation of mitigation and enhancement measures.

21. The details of the project activities required for the project implementation have been reviewed with assistance of the NFS and DED Consultant (footnote 2). The list of the reviewed project activities covers the entire project period from initial contractor mobilization to operation phase of roads and open spaces in three mahallas (Djizzak city), Polvon canal and New Tourist Visitor Center (Khiva city), and New Park and Co-working Center (Havast city). Detail information on Impact Assessment is provided in **Chapter V**.

II. POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

22. ADB SPS sets out policy principles and outlines the delivery of the ADB's safeguards policy in relation to environmental safeguards. ADB has adopted sets of specific safeguards requirements that borrowers/clients are required to meet in addressing environmental and social impacts and risks. ADB staff will ensure that borrowers and clients comply with these requirements during project preparation and implementation.

23. The safeguard requirements are operation policies that seek to avoid, minimize, or mitigate the adverse environmental and social impacts of projects. ADB safeguard policy framework consists of three operational safeguard requirements: (i) environmental safeguards requirements, (ii) involuntary resettlements safeguards requirements, and (iii) indigenous people safeguards requirements.

24. In accordance with ADB SPS, the project is category B for environment, as the project will have site-specific impacts, some of which are irreversible, and in most cases adequate mitigation measures can be readily implemented. The project requires preparation of an IEE, which will be based on data from the Feasibility Study, preliminary design, site visits and interviews with technical experts, as well as primary and secondary data including feedback received during the public consultation process.

A. National Environmental Requirements

1. National Institutional Framework for Environmental Assessment

25. The SCEEP of the RUz (Goskomekologiya) is the primary environmental regulator. The Goskomekologiya reports directly to the Parliament and is responsible at national, regional (oblast) and local (rayon) levels for the development and enforcement of the national environmental and conservation policy, environmental compliance, integrated environmental management across various sectors, and securing healthy environment conditions across the country.

26. According to its structure, the Goskomekologiya has a central body in Tashkent and regional branches and agencies providing research and technical support. Regional environmental authorities are structured similarly to the Goskomekologiya.

27. The other state agencies involved in the regulation and protection of the environment include:

- Ministry of Water Resources;
- State Committee for Geology and Mineral Resources
- Centre of Hydro-meteorological Service (Uzhydromet);
- Ministry of Health (MoH);
- State Inspectorate for Exploration Supervision, Operations Safety Supervision of Industry, Mining and Utilities Sector (Sanoatgeokontekhnazorat);
- Agency for Sanitary and Epidemiological Welfare and Public Health (ASEWPH).

2. National Environmental Requirements

28. The national environmental assessment procedure is regulated by the Law "On State Environmental Expertise" (SEE) and the Regulation "On further improvement of the environmental impact assessment mechanism", approved by the Resolution of the Cabinet of Ministers No. 541 (2020). The Resolution specifies the legal requirements for environmental assessment documents in Uzbekistan. According to the Resolution, SEE is a type of environmental examination carried out by specialized expert bodies to ensure compliance of the planned activities with the environmental requirements and determine permissibility of the project implementation.

29. SCEEP is the authorized state body in the field of the SEE. The Center of State Environmental Examination (CSEE) under SCEEP carries out the SEE for projects classified under categories I and II categories to assess their environmental impact (high and medium risk).

30. The CSEE of the regions and the Republic of Karakalpakstan carry out the SEE classified under category III and IV to assess their environmental impact (low risk and local risk).

31. The regulation sets out a procedure of arrangement and carrying out the SEE (Annex 2 to RCM). The environmental assessment stages and their required results are summarized as follows

- **Stage I:** A Preliminary Environmental Impact Statement (PEIS or PZVOS, see footnote 3) shall be prepared during preparation of a proposed project prior to any fund allocation for development.
- **Stage II:** An Environmental Impact Statement (EIS or ZVOS[17]) shall be carried out on a basis of a conclusion of the environmental expertise issued at the first stage of the assessment. The second stage of the assessment is also submitted to the CSEE, and the conclusion must be received before the start of construction.
- **Stage III:** State Environmental Consequences (SEC) is the final stage of the SEE process and shall be carried out prior to the project start. The report describes in detail the changes to be made to the project design as a result of the CSEE review during the first two stages of the environmental assessment process, comments received during public consultations, environmental standards applicable to the project, and environmental monitoring requirements related to the project, as well as the key opinion.

32. All types of economic activities assessed by SEE are classified as one of four categories:

- Categories I and II are "high and medium risks of environmental impact" (all stages of environmental assessment are required);
- Category III is "low risk of impact" (all stages of environmental assessment are required); and
- Category IV - "local impact" (only the first stage of environmental assessment - PEIS is required).

33. The SEE opinion is valid for three years from the date of its issuance. If a project is not implemented within three years from the date of issuing the opinion, the environmental assessment reports (PEIS or EIS) need to be revised and re-submitted to the CSEE for revision and approval.

34. The opinion of the SEE shall be shared with the relevant regional (city) Control Environmental Inspectorates for their follow up and supervision. Such Inspectorates under the SCEEP supervise the compliance with the requirements and terms specified in the SEE's opinion.

3. Environmental Assessment required for the Subcomponent

35. In accordance with the national environmental categorization requirements, the urban development subcomponent is classified as Category III (low risk) and Category IV (local impacts). Six PEIS were developed, and three Environmental Appraisals were obtained for this subcomponent and remaining three are still under revision as summarized in **Table 1**.

[17] ZVOS is Russian translation of Environmental Impact Statement (EIS) – 2st stage of national Environmental Impact Assessment Procedure

Table 1: Summary of Preliminary Environmental Impact Statement (PEIS) required for urban development subcomponent

Component	Category	Submitted		Environmental Appraisal	
		by	in	by	in
1. Construction of New Visitor Center	IV	Khiva city Khokimiyat	Nov 2021	Khorezm branch of SCEEP	Dec 2021
2. Reconstruction activities along the Polvon canal in Khiva city	III	Khiva Khokimiyat	Nov 2021	Khorezm branch of SCEEP	Dec 2021
3. New Park and Co-working Center (Havast city)	IV	Havast city khokimiyat	Sep 2021	Syrdarya branch of SCEEP	Oct 2021
4. Urban related project activities (reconstruction of mahallas roads, construction of open spaces) in Ittifoq mahalla	III	Djizzak city Khokimiyat	Mar 2022	Djizzak branch of SCEEP	Anticipated in Jun 2022
5. Urban related project activities (reconstruction of mahallas roads, construction of open spaces) in Dustlik mahalla	III	Djizzak city Khokimiyat	Mar 2022	Djizzak branch of SCEEP	Anticipated in Jun 2022
6. Urban related project activities (reconstruction of mahallas roads, construction of open spaces) in Yoshlik mahalla	III	Djizzak city Khokimiyat	Mar 2022	Djizzak branch of SCEEP	Anticipated in Jun 2022

SCEEP = State Committee on Ecology and Environmental Protection of Uzbekistan

36. The Environmental Appraisals endorsed the Environmental Assessment and provided several conditions needed to be implemented by Project owners before and during the construction phase, as summarized in **Table 2**.

Table 2: Conditions of Environmental Appraisal

Component	Conditions of Environmental Appraisal
1. Construction of New Visitor Center	• Receive non-objections and technical specifications for conduction of civil works in project area from the public utilities, such as gas, water, electricity supply, Traffic Police, and ASEWPH; • Act in accordance with Resolutions of the President # 5863 “On Approval of Concept of Environmental Protection until 2030” and # 6155 “On the State Program for implementing the Strategy of actions on five priority areas of development of the Republic of Uzbekistan in 2017 - 2021"; • Ensure implementation of requirements on waste management indicated in Resolution of Cabinet Ministries #40 dated from January 28, 2021 “On Improvement of construction wastes management procedure”; • If cutting trees is required, calculate compensation in accordance with national legislation and pay compensation in accordance with RCM # 290 dated from October 2014;
2. Reconstruction activities along the Polvon canal in Khiva city	• Receive non-objections and technical specifications for conduction of civil works in project area from the public utilities,

Component	Conditions of Environmental Appraisal
	such as gas, water, electricity supply, Traffic Police, and ASEWPH; • Ensure compliance with the requirements of the Regulation approved by the Cabinet of Ministers of the Republic of Uzbekistan "On the procedure for regulating the use of biological resources and permitting procedures in the field of nature management" dated 20 October 2014, No 290, strengthening protection of existing decorative trees and shrubs, prevention of illegal felling of trees; • Ensure compliance with the requirements of the Regulation (Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated 28 January 2021 "On measures to further improve the procedure for work with construction waste" No. 40 "On the procedure for work with construction waste") on, timely delivery of generated construction and other wastes to the relevant organizations, taking measures to use low-emission technologies and alternative energy sources.
3. New Park and Co-working Center (Havast city)	• **Construction phase:** If during the construction works it is necessary to cut down any tree during the construction of structures or roads, according to the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated 31 March 2018, No. 255, apply to the Center for Public Services for a permit to cut down trees. In the absence of a permit to cut down ornamental trees, construction projects are required to be carried out without damaging the ornamental trees; • **Operation phase: T**he use of drinking water in the process of landscaping on the territory of the facility is prohibited; • To place the generated household waste in a special container and ensure its disposal to the district landfill on the basis of a contract with regional “Toza Hudud"; • Burning of any type of waste on the site is prohibited; • to take measures to prevent damage to flora by ensuring the movement of vehicles engaged in transportation on the designated roads.
4. Urban related project activities (reconstruction of mahallas roads, construction of open spaces) in Ittifoq mahalla	Will be fulfilled after receiving Environmental Appraisal
5. Urban related project activities (reconstruction of mahallas roads, construction of open spaces) in Dustlik mahalla	Will be fulfilled after receiving Environmental Appraisal
6. Urban related project activities (reconstruction of mahallas roads, construction of open spaces) in Yoshlik mahalla	Will be fulfilled after receiving Environmental Appraisal

37. The environmental appraisal will be valid for three years. If construction activity does not start within three years from the date of Environmental Appraisal, the revised version of PEISs will be submitted for approval.

38. Table 3 presents permissions from the national agencies needed to be received prior to commencement of civil works and prior to the project operation:

Table 3: List of required approvals and permissions

#	Name of the document	Time of permission	Agency issuing permission	Responsible entity
1	Permission/license for using existing borrow pits or opening new ones (if any)	Prior to commencement of the construction works	Provincial Land cadastre department, SCEEP in Djizzak, Khiva and Havast cities	Contractor
2	Permission for cutting trees (if necessary) for road construction component in Djizzak	Same as above	Djizzak branch of SCEEP	Contractor
3	Permission on water use during construction phase	Same as above	Relevant provincial branch of SCEEP and State Committee on Geology and Mineral Resources	Contractor
4	Permission on water use during operation phase for all facilities	Prior operation phase	Relevant provincial branch of SCEEP and State Committee on Geology and Mineral Resources	Havast, Djizzak and Khiva cities Khokimiyats
5	SEC for Polvon Canal, Urban Development in three mahallas (para. 289 on page 124)	Prior to starting operation of recreated zone along canal and open spaces in three mahallas	Provincial SCEEP	Djizzak and Khiva cities Khokimiyats

SCEEP = State Committee on Ecology and Environmental Protection, SEC = Statement on Environmental Consequences

4. Environmental Regulatory Framework

39. The major emphasis of the environmental policy of Uzbekistan is aimed at environmental safety being regarded as the strategic component of national security, and the most important aspect of protecting the vital interests of the state, society, and identity. The environmental safety policy of the country is based on the Constitution, national laws, the National Security Concept of Uzbekistan, principles of the Rio de Janeiro Declaration on Environment and Development and Johannesburg Declaration on Health and Sustainable Development with due regard to national commitments under various international conventions and agreements, as well as legislative experience of the developed countries.

40. Since the country gained its independence, RUz has developed over 100 laws and regulations, and inherited old Soviet legislation and policies. One of the national objectives is to transit to sustainable social and economic development. For this purpose, RUz has revised and improved the national environmental legislation, enacted new environmental laws and regulations, developed programs and action plans to address environmental issues and promote sustainable use of natural resources.

41. The legal framework in the field of nature protection and management established in Uzbekistan, provides to the citizens the rights and duties specified in the Constitution. Specific articles of the Constitution around environmental issues include:

- Article 50. All citizens shall protect the environment;
- Article 51. All citizens shall be obliged to pay taxes and local fees established by law;
- Article 54. Any property shall not inflict harm to the environment;
- Article 55. Land, subsoil, flora, fauna, and other natural resources are protected by the state and considered as resources of national wealth subject to sustainable use.

42. Uzbekistan has updated several sub- laws and statutes for environmental management and is a party to several international and regional environmental agreements and conventions. The key national environmental law is the Law on Nature Protection (1992). A brief overview of this law and the other sub- laws related to environment is presented below.

43. The law **"On Nature Protection"** (1992) states legal, economic, and organizational foundations for conservation of environment and rational use of natural resources. Its purpose is to ensure balanced relations between humans and nature to protect the environmental system and to guarantee the rights of population to live in safe environment. Article 25 of the law states that the SEE is a mandatory measure for environmental protection, preceded to decision-making process. In addition, article 25 says that the implementation of a project without Positive Conclusions on the SEE is prohibited.

44. The Law of the RUz **"On Ambient Air Protection"** (1996, amended on 10 October 2006). It specifies regulations on air protection and its objectives. It also includes standards, quality and negative impact, norms, and requirements on fuels and lubricants, production and operation of vehicles and other machinery and equipment, ozone layer protection requirements, obligations of enterprises, institutions and organizations toward air protection, and compensations for damages from air pollutions.

45. Law of the RUz **"On Water and Water Use"** (1993). It regulates water relations, efficient water use by the population and economy. The law regulates protection of water from pollution and depletion, prevention, and elimination of harmful impact on water, improvement of water bodies and protection of the rights of enterprises and institutions, organizations and dehkan farms and individuals in the field of water relations.

46. **Land Code of the RUz** (1998). It aims to regulate land relations to ensure that present and future generations have evidence -based, sustainable use and conservation of land and improvement of soil fertility, conservation and improvement of the environment and conditions for equitable development of all forms of management, protection of individuals and legal entities' rights for land, as well as strengthening the rule of law in this area.

47. **Law on Wastes** (2002, amended in 2011). It addresses waste management, exclusive of emissions and air and water pollution, and confers authority to the SCEEP concerning inspections, coordination, environmental expertise and establishes certain parameters regarding locations for waste disposal. Enterprises are responsible for their waste, but, if they recycle, they may be provided with assistance from the state budget, the National Fund for Nature Protection, or voluntary payments. The key objective of this law is to prevent negative effects of solid wastes on people's lives and health, as well as on the environment, reduce waste generation, and encourage rational use of waste reduction methods in household activities.

48. Other laws and standards applicable for the current project are:

- Urban planning code of the Republic of Uzbekistan (22.02.2021);
- Decree of the Cabinet of Ministers of Uzbekistan on measures for the comprehensive development of the city of Khiva, Khorezm province for 2019 – 2022 (#673 of 15.08.2019);
- Decree of the Cabinet of Ministers of Uzbekistan on approval of the regulation on the methodology of organizing recreation parks and green areas (#671 of 17.08.2018);
- Resolutions of the President # 5863 "On Approval of Concept of Environmental Protection of the Republic of Uzbekistan till 2030";
- Resolutions of the President # 6155 "The State Program for implementation of the national action strategy on five priority development areas 2017-2021 in the year of active investments and social development"
- Decree of the Cabinet of Ministries of the Republic of Uzbekistan on measures for further improvement of the order of development of urban planning documentation for the development and development of territories of cities and urban villages (#3 05.01.2016);
- SanR&N No 0339-16 - Sanitary Rules and Norms for Planning and Development of Populated Areas of Uzbekistan;

- SanR&N No 0289-10 - Sanitation rules hygiene requirements for the organization of construction production and construction work;
- SanR&N No 0146-04 - Sanitary rules and standards for the design of residential buildings in the climatic conditions of Uzbekistan;
- Law on Protection and Use of Archeological Heritage (2009);
- SanR&N No 0318-15 - Hygienic and anti-epidemic requirements for the protection of water in reservoirs on the territory of the Republic of Uzbekistan;
- SanR&N No 0255-08 - Main criteria for hygienic assessment of the water bodies contamination for assessing health risks for population in Uzbekistan;
- SanR&N 0202-06 - The procedure for issuing permits for special water use, development and approval of projects of maximum permissible discharges (MPD) of substances entering with wastewater into water bodies and on the terrain;
- SanR&N 0293-11 - Hygienic standards list of maximum permissible concentrations (MPC) of pollutants in the atmospheric air of populated areas on the territory of the Republic of Uzbekistan;
- KMK 3.01.02-00 - Construction safety;
- SanR&N No.0267-09 - Sanitary norms and rules for ensuring permissible noise in the premises of residential, public buildings and on the territory of residential buildings;
- O'z DSt 1057:2004 - Vehicles. Safety requirements for technical conditions;
- Decree of Cabinet Ministries of RUz – "On the regulation of the use of biological resources and on the procedure of passing permissioning procedures in the sphere of nature use (# 290 as of 20.10.2014);
- Decree of the Cabinet of Ministries of the Republic of Uzbekistan – "On measures for ordering the use of underground water, enhancing their protection from pollution, and also preventing reduction" (#179 as of 08.04.1992);
- SanR&N No 0212-06 - Hygienic assessment of the degree of soil pollution of different types of land use under specific conditions of Uzbekistan;
- SanR&N No 0183-05 - Hygienic requirements for the quality of the soil in settlements areas in specific natural and climatic conditions of Uzbekistan;
- BR&N No 2.01.08-96 – Noise protection;
- BR&N No 3.01.02-00 - Construction Safety Standards;
- BR&N No 2.07.01.03-09 - Urban planning. Planning the development and development of urban and rural areas.

B. Environment Quality Standards

1. Noise and Vibration Standards

49. National and international noise standards are presented in Table 4**.** National norms comply with the international ones for both - day time (55 dB) and nighttime (45 dB) in residential area and they are more stringent for offices by 10 dB.

Table 4: Maximum allowable noise standards (dB): comparison of national and international maximum allowable noise standards (dB)

Receiver	National[18]		General EHS Guidelines[19]	
	Daytime (7am – 11pm)	Nighttime (11pm – 7am)	Daytime (7am – 10pm)	Nighttime (10pm – 7am)
Residential	55	45	55	45

[18] Sanitarian Norms and Rules (SanR&N) # 0331 (2016) Admissible noise level into the living area, both inside and outside the buildings, Table 10.2.4.2

[19] *World Bank Group, Environmental, Health, and Safety Guidelines*, April 30, 2007, Washington, USA. https://www.ifc.org/wps/wcm/connect/29f5137d-6e17-4660-b1f9-02bf561935e5/Final%2B-%2BGeneral%2BEHS%2BGuidelines.pdf?MOD=AJPERES&CVID=nPtguVM in English. https://www.ifc.org/wps/wcm/connect/be37221a-fc47-4379-b539-eca3fe72c3e6/General%2BEHS%2B-%2BRussian%2B-%2BFinal_.pdf?MOD=AJPERES&CVID=nPtgFKk&ContentCache=NONE&CACHE=NONE in Russian.

Receiver	National[18]		General EHS Guidelines[19]	
	Daytime (7am – 11pm)	Nighttime (11pm – 7am)	Daytime (7am – 10pm)	Nighttime (10pm – 7am)
Offices, commercial	60	-	70	70

50. There is some difference in defining a daytime and nighttime between General EHS Guidelines and the national standards. General EHS Guidelines indicate as nighttime period is from 10 pm to 7 am, while the national standards define this period between 11 pm and 7 am. On this aspect, more stringent standards (General EHS Guidelines) will be applied for this project.

51. The national standards for vibration level in residential houses are provided in Sanitarian Norms and Rules (SanN&R) № 0331-16 “Residential house design in climatic conditions of Uzbekistan”. For residential houses the standard is 67 dB for nighttime and 72 dB for daytime with a frequency of 37 and 61 Hz. For non-continuous vibration, the standards should be decreased by 10 dB **Table 5**. However, the standard does not provide any coefficient/allowance for non-frequent events such as passing trains. For the construction phase the vibration limit will be 72 dB.

Table 5: National vibration standards

	Permanent vibration, dB
Daytime	72
Nighttime	67

52. The manual cites criteria developed by the United States Federal Transit Administration (FTA), which indicates vibration impact level on residences and building where people.

Table 6: Federal Transit Administration (FTA) Vibration Impact Criteria

Land Use Category	Vibration Impact Level for Frequent Events (VdB)	Vibration Impact Level Infrequent Events (VdB)
Category I: Buildings where low ambient vibration is essential for interior operations	65	65
Category II: Residences and buildings where people normally sleep	72	80
Category III: Institutional land uses with primarily daytime use	75	83

Note: “Frequent events” is defined as more than 70 events per day. “Infrequent events” is defined as fewer than 70 events per day.

53. For non-residential areas, standards for buildings integrity were accepted in accordance with **Table 7.** Maximum continuous vibration levels for preventing damage (mm/s).

54. **Table 7** presents maximum continuous vibration level for preventing damages for different type of buildings, as set by the American Association of State Highway and Transportation Officials (AASHTO) and Swiss Association of Standardization (SAS). This data could be used as thresholds for both phases – construction and operation for structural integrity of buildings/houses.

Table 7: Maximum continuous vibration levels for preventing damage (mm/s)

Description of building type	AASHTO (1990)		SAS (1992)	
	mm/s	dB*	mm/s	dB*
Historic sites or other critical locations	2.5	94	2.5	94
Residential buildings with plastered walls / Building with foundation walls and floors in concrete, wooden ceilings, and walls in	5.1-7.6	100-104	5.1	100

masonry				
Residential buildings in good repair/ Building with foundation walls and floors in concrete, walls in concrete or masonry	10.2-12.7	106-108	7.6	100
Engineered structures without plaster / Buildings in steel or reinforced concrete	25.4-38.1	114-118	12.7	108

AASHTO = American Association of State Highway and Transportation Officials, SAS = Swiss Association of Standardization

Source: California Department of Transportation (2013), US Transportation Research Board (2012)

55. As international standards for vibration were used, the standards provided in general guidance on human response to building vibrations is given in: (i) AS 2670.2–1990 Evaluation of human exposure to whole-body vibration: continuous and shock-induced vibration in buildings" (1 to 80 Hz);(ii) ISO 2631–2:2003 Mechanical vibration and shock: evaluation of human exposure to whole body vibration, Part 2: Vibration in buildings (1 Hz to 80 Hz); (iii) BS 6472 –1:2008 Guide to evaluate human exposure to vibration in buildings. Vibration sources other than blasting. Based on these guidelines, the ground vibration limits are presented in **Table 8**.

Table 8: Ground vibration limits for human comfort[20]

Category	Period	Peak component particle velocity (mm/s)	Vibration, dB
Residential	Nighttime	0.2 mm/s	72
	Daytime	0.3 mm/s	76
Offices	When occupied	0.6 mm/s	82
Occupied non-sensitive sites, such as factories and commercial premises	When occupied	2.5 mm/s	94

mm/s = millimeters per second

a sensitive site includes houses and individual residential buildings, theatres, schools, and other similar buildings occupied by people.

56. Therefore, as a result of comparison of both national and international standards for vibration, it was accepted that national standards for vibration in residential areas are more stringent, and therefore will be applied for the project, i.e. 72 dB during daytime and 65 dB during nighttime.

2. Air Quality Standards

57. The following regulatory documents defines standards for the main pollutants in air in the living area: SanR&N 0293-11 Hygienic standards. The list of maximum permissible concentrations of pollutants in the ambient air of settlements in the territory of the RUz" (**Table 9**).

Table 9: Summary of the relevant Ambient Air Quality Standards for Protection of Human Health (mg/m^3)

Air quality parameter	Maximum allowed during 30 min	Maximum allowed average daily	Maximum allowed average monthly	Maximum allowed average yearly
NO_2	0.085	0.06	0.15	0.04
NO	0.6	0.25	0.12	0.06
SO_2	0.5	0.2	0.1	0.05
CO	5	4	3.5	3
Dust (PM_{10})	0.15-0.5	0.1-0.35	0.08-0.2	0.05-0.15

[20] https://industry.gov.au/resource/Programs/LPSD/Airborne-contaminants-noise-and-vibration/Vibration/Pages/Ground-vibration-limits.aspx

58. The WHO standards[21] for air quality are presented in **Table 10** below.

Table 10: WHO air quality standards

Air quality parameter	Period	Norm (μg/m³)
SO_2	24 hours 10 minutes	20 500
NO_2	1 year 1 hour	40 200
PM_{10}	1 hour 24 hours	50 20
$PM_{2.5}$	1 hour 24 hours	25 10

59. The air quality standards recommended for assessment of ambient air quality are presented in **Table 11**.

Table 11: Ambient Air Quality Standards

Pollutant	Average Period	Norm in μg/m³	Norm mg/m³	Source of standards
SO_2	10 min	500	0.5	EHS Guidelines
	30 min	500	0.5	Uzbekistan
	24 hours	20	0.02	EHS Guidelines/
	1 month	500	0.5	Uzbekistan
	1 year	50	0.05	Uzbekistan
NO_2	10 min	200	0.2	EHS Guidelines/ Uzbekistan
	30 min	85	0.085	Uzbekistan
	24 hours	60	0.06	Uzbekistan
	1 month	50	0.05	Uzbekistan
	1 year	40	0.04	EHS Guidelines/ Uzbekistan
NO_x	30 min	600	0.6	Uzbekistan
	24 hours	250	0.25	Uzbekistan
	1 month	120	0.12	Uzbekistan
	1 year	600	0.6	Uzbekistan
CO	30 min	5000	5.0	Uzbekistan
	24 hours	4000	4.0	Uzbekistan
	1 month	3500	3.5	Uzbekistan
	1 year	3000	3.0	Uzbekistan
PM_{10}	1 year	20	0.02	EHS Guidelines
	24 hours	50	0.05	EHS Guidelines
PM_{25}	1 year	10	0.1	EHS Guidelines
	24 hours	25	0.025	EHS Guidelines

3. Water quality standards

60. There are different standards for various type of water bodies in Uzbekistan. Depending on the purpose of use, water bodies could be categorized as for domestic use (could be used as a source for potable water after treatment), fishery, municipal use, and irrigation purposes**. Table 12** and **Table 13** present the national general effluent standards into the water bodies classified by type of use.

[21] WHO Air Quality Guidelines for particulate matter, ozone, nitrogen dioxide and sulfur dioxide, Global Update 2005, Summary of Risk Assessment

Table 12: General water standards[22]

Indicators	Purpose of water use			
	Domestic use	Recreation and service	Fishery needs	
			Highest and first category	Second category
Suspended solids	Depending on natural conditions, the content of suspended solids in wastewater discharge shall not exceed			
	0.25 mg/dm^3	0.75 mg/dm^3	0.25 mg/dm^3	0.75 mg/dm^3
	For reservoirs and watercourses containing at low water above 30 mg/dm^3 of suspended solids, there may be an increase to 5%. Discharge of suspensions with fallout rate of more than 0.4 mm/s for watercourses and more than 0.2 mm/s in water reservoirs are prohibited			
Floating matter	There shall not be a film of oil products and concentrations of other contaminants on the water surface			
Color	Shall not be detected in the column of height		There shall be no adulterants	
	20 cm	10 cm		
Smell and test	Intensity of more than 1 point is not permitted		Water must not give extraneous odors and flavors to fish meat	
Temperature	Temperature of water at the discharge point shall not exceed 3ºC as compared with average monthly temperature of the hottest month		Temperature of water at the discharge point shall not exceed 5ºC as compared with average monthly temperature of the hottest month. Increasing of temperature more than 28ºC in summer and till 8ºC in winter is not allowed	
Hydrogen exponent (pH)	Shall not be beyond 6.5...8.5 pH		Shall not be beyond 6.5...8.5 pH	
Water salinity	Dry residue shall not exceed 1000 mg/dm^3, including chlorides – 350 mg/dm^3 and sulphate - 500 mg/dm^3		Rated according to water bodies intoxications	
Dissolved oxygen	No less than 4 mg/dm^3 in any period of the year in a sample taken by 12 a.m. on the same day		In winter shall be no less than 6 mg/dm^3	
			No less than 6 mg/dm^3 in any period of the year in a sample taken by 12 a.m. on the same day	
BOD	At 20ºC shall not exceed		At 20ºC shall not exceed 3.0 mg/dm^3 if in winter the dissolved oxygen content in water of the first* category fishing water bodies fells to 6.0 mg/dm^3, and in the second** – to 4 mg/dm^3, then discharge is only permitted to wastewater that does not change the BOD	
	3.0 mg/dm^3	6.0 mg/dm^3		
COD	Shall not exceed			
	15.0 mg/dm^3	30.0 mg/dm^3	-	-
Causative agent (of a disease)	Not allowed			
Chemicals (pollutants)**	Shall not be contained in concentrations exceeding the MAC			

*- The first category includes water bodies, where valuable fish species highly sensitive to oxygen are kept and reproduced)

** - The second group includes water bodies used for other aquatic economy needs.

[22] SanR&N No 0172-04 “Hygiene requirements for the protection of surface waters in RUz and Attachment to Construction Norms and Rules (CNR) 1.03.01-96 “Guidelines on content, order, approval and endoresement of design estimate for enterpises, building construction”.

61. Maximum allowed concentrations of most spread chemical pollutants are presented in **Table 13**. As shown in the table, the national standards for irrigation water fully comply with the international standards. Therefore, the national standards for fishery are taken as a basis for this IEE.

Table 13: Maximum permissible concentration of pollutants in water bodies (mg/m^3)

Pollutants	Water use category (Handbook of environmentalist, Tashkent 2010)					
	Fishery	Municipal	Potable water		Irrigation water for direct use without blending	
			Nat	WHO[23]	Nat	FAO[24]
COD	15	30	30	-	40	-
BOD_{20}, mg_{O2}/L	3	3-6	3-6	-	10	-
pH	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5
Water salinity	1,000	1,000	1,000-1,500	1,000	1,000	0-2,000
Including: sulphates	100	500	400-500	-	-	1,900
Chlorides	300	350	250-350	-	-	300
Ammonium nitrogen (ammonium salt) (NH_4^+)	0.5	2	0.5	-	1.5	0-5
Nitrogen	9.1	25	45	-	25	-
Nitrogen nitrite	0.02	0.5	3	-	0.5	0-10
Nitrite	0.08	3.3	3	3	-	-
Nitrate	40	45	45	50	-	-
Phosphate (PO_4^{3-})	0.3	1	3.5	-	1	0-2
Ether soluble	0.05	0.8	0.8	-	0.8	-
Oil products	0.05	0.3	0.1	-	0.3	-
Sodium alkyl sulfates (SAS)	0.1	0.5	0.5	-	0.5	-
Phenol	0.001	0.001	0.001-0.1	-	0.001	-
Fluorine (F)	0.05	1.5	0.7	1.5	1	-
Arsenic (As)	0.05	0.05	0.05	0.01	0.1	-
Iron (Fe)	0.05	0.5	0.3-3	-	5	-
Chromium (Cr^{6+})	0,001	0.1	0.05	0.05	0.1	-
Copper (Cu)	0,001	1	1	2	1	-
Zinc (Zn)	0.01	1	3	-	5	-
Cyanides	0.05	0.1	0	0	-	-
Lead (Pb)	0.03	0.1	0.03	0.01	0.2	-
Nickel (Ni)	0.01	0.1	0.1	0.07	-	-
Cadmium (Cd)	0,005	0.01	-	0,003	-	-
Cobalt (Co)	0.1	1	-	-	-	-
Molybdenum (Mo)	0.0012	0.5	0.25	-	-	-
Strontium (Sr^{2+})		2	7	-	-	-
Selenium (Se)	0.001		0.01	0.04	-	-
Mercury (Hg)		0.005	0.0005	0.006	-	-
Boron (B)		0.53		2.4	0.53	0-7-3

4. Soil quality standards

62. The soil quality standards are defined in the SanR&N # 0191-05 dated from 2005 “Sanitary maximum permitted concentrations (MPC) and tentatively acceptable concentration

[23] WHO, Guidelines for drinking water quality, Fourth Edition, 2017
[24] FAO Guidelines for interpretations of water quality for irrigation, http://www.fao.org/3/t0234e/t0234e01.htm

of exogenous pollutants in the soil". The national standards have been compared with the international ones.

Table 14: Maximum Allowable Concentration (MAC) of pollutants in the soil

Parameter	Unit	Uzbek Standard (1)	Dutch Intervention Values (2)	EHS Guidelines[25]
Antimony	mg/kg	4.5	22	There are no detailed numerical requirements to soil quality established by EHS Guidelines
Arsenic	mg/kg	2.0	76	
Cadmium	mg/kg		13	
Chromium	mg/kg	6.0		
Chromium VI	mg/kg		78	
Cobalt	mg/kg	5.0	190	
Copper	mg/kg	3.0	190	
Mercury (organic)	mg/kg	2.1	4	
Lead	mg/kg	32.0	530	
Molybdenum	mg/kg	10.0	190	
Nickel	mg/kg	4.0	100	
Selenium	mg/kg		100	
Zinc	mg/kg	23.0	720	
Cyanides	mg/kg		20 (free) 50 (complex)	
Benzene	mg/kg	0.3	1.1	
Ethylbenzene	mg/kg		110	
Toluene	mg/kg	0.3	32	
Xylenes (sum)	mg/kg		17	
Styrene (vinylbenzene)	mg/kg	0.1	86	
Phenol	mg/kg		14	
Vanadium	mg/kg	150.0	250	
Nitrates	mg/kg	130.0	-	
Sulphates (H_2SO_4)	mg/kg	160.0	-	
Total Petroleum Hydrocarbons (Mineral Oil)	mg/kg		5,000	
PAHs (total)	mg/kg		40	
Ammonia Nitrogen	mg/kg		1.5	

Notes:
(1) General EHS Guidelines (footnote 19), Wastewater and Ambient Water Quality
(2) SanN&R #0191-05. Sanitary Permissible Concentrations (MPC) and Indicative Acceptable Concentrations (IAC) of Exogenous Harmful Substances in the soil (November 5, 2005)

5. Waste Management

63. This section provides an overview of the key legislation concerning waste management and disposal in Uzbekistan. The Cabinet of Ministers of Uzbekistan sets and approves national policies, strategies, programs and procedures relating to waste management including allocation of hazardous waste disposal sites and adjustment of waste disposal charge rates as set forth in Article 5 of the Law on Wastes. Local governments are responsible for waste management policies, strategies and procedures at the local level.

Table 15: Key environmental legislation of the RUz on waste management

National laws
Constitution of the Republic of Uzbekistan (Article 55) "Land, depths, water, flora and fauna and other natural resources are national wealth, should be rationally used and are under state protection".

[25] Footnote 19.

Law on Wastes (#362-II of 05.04.2002 (as last amended on 11 October 2018) It addresses waste management, exclusive of emissions and air and water pollution, and confers authority to SCEEP concerning inspections, coordination, ecological expertise and establishing certain parameters with regard to the locations where waste may be processed.
Decrees
Decree of the Cabinet of Ministers of the Republic of Uzbekistan on Approval of the collection and disposal of used mercury-containing lamps (#266 of 21 September 2011, as last amended on 30 April 2019)
Decree of the Cabinet of Ministers of the Republic of Uzbekistan on Measures for the Further Improvement of Economic Mechanisms for Ensuring Nature Protection (#820 of 11 October 2018)
Decree of the Cabinet of Ministers of the Republic of Uzbekistan on Enhancing the Use and Recycling of Mercury Lamps and Devices (#405 of 23 October 2000)
Regulations
RD Oz RH 84.3.15.2005 - Regulation Document on the waste inventory procedure
RD Oz RH 84.3.16.2005 - Regulation Document on Guidelines for setting waste disposal limits
RD Oz RH 84.3.17.2005 - Regulation Document on Production and consumption waste. Procedure for developing the Waste Disposal Limit Document
RD Oz RH 84.3.22.2006 - Production and consumption waste. Waste inventory and waste disposal limits approval procedure (issued by the Goskomecologiya of Uzbekistan, 2006)
RD Oz RH 84.3.11.2004 - Requirements for handling mercury and its compounds, mercury-based waste, and mercury containing devices
RD Oz RH 84.3.10.2004 - Regulation on handling mercury-containing products in the Republic of Uzbekistan
RD Oz RH 84.3.8.2004 - Methodology for integrated waste hazard rating
KMK 201.12-96 - A Landfill for burial and land storage of industrial hazardous wastes
Provisional waste norms for cities and regions of Uzbekistan approved by *khokimyats*
Sanitarian Rules and Norms
SanR&N No. 0127-02 - Sanitarian Rules of inventory, classification, storage and disposal of industrial wastes
SanR&N No. 0128-02 - Hygienic classifier of toxic industrial wastes in the Republic of Uzbekistan
SanR&N No. 0157-04 - Sanitarian requirements on storage and disposal of solid waste in special landfills
SanR&N No. 0158-04 - Sanitarian Rules and Norms on collection, transportation and disposal of wastes contained asbestos in Uzbekistan
SanR&N No. 0168-04 - List of asbestos-cement materials and construction, allowed for using and field of its implementation
SanR&N No. 0068-96 - Sanitary regulations for collection, storage, transportation, disposal and recycling of municipal solid waste
Others
GOST 17.0.0.05-93 - Unified system of standards for environmental protection and rational use of resources. Waste Data Sheet. Composition, content, presentation and amendment procedures
GOST 17.9.0.2-99 Environment protection. Waste management. Waste Data Sheet. Composition, content, presentation and amendment procedures
GOST 17.9.1.1-99 Environment protection. Waste management. Waste classification. Waste definition by the genetic principle and categorization
GOST 30774-2001 Resources saving. Waste management. Waste Hazard Data Sheet. Main provisions
GOST 30775-2001 Resources saving. Waste management. Identification and coding. Main provisions

64. Related to the disposal of asbestos, SanR&N No.0158-04 regulates a procedure of ***asbestos waste*** handling. Chapter 7 describes the procedure of collecting wasted asbestos. Wastes contained asbestos have to be disposed by the method which avoids dust generation. In case of manual collection of waste, personnel protective equipment (PPE) for respiratory organs (respirators) should be used. Bulk materials collected by other methods should be placed into the impermeable bags (containers). Replacement of the bags (containers) should be conducted by mechanized methods.

65. Solid wastes containing asbestos should be stored into places where they will not be destroyed during period of storage. Bags (or other containers) used for storage of wastes should be disposal by grinding and packing into the dense transportable piles in the special

indicated places. These bags cannot be reused as a wastepaper or package. It could be reused as secondary materials for production of asbestos – cement and other goods.

66. All containers with asbestos wastes should have appropriate inscriptions and labeling. During all process of collection and temporarily storage of wastes containing asbestos, all workers should wear appropriate uniform and respirators. Works related with wastes loading, transportation, unloading and disposal should be mechanized; transportation should avoid spilling of wastes and prevent pollution of environment. Transportation of unpacked asbestos in open trucks and railway platforms is prohibited.

67. Asbestos containing wastes classified as Hazard Class IV could be disposed as municipal solid wastes without limitations (quantity). Disposal of asbestos containing waste classified as Hazard Class III is limited and amount of such wastes should not exceed 30% of general amount of solid waste. Asbestos wastes (both Hazard Class IV and III) should be disposed on landfills with impervious layers with soil interlayer between them. This legislation also provides specification of landfills location and its organization (arrangement/structure). It is anticipated that asbestos-contained wastes could be generated during the demolishing of some old building which have roofs covered by slates. As per national standards, the content of asbestos materials in slates may vary from 10-20%. Therefore, these types of asbestos wastes will belong to category III wastes and will be disposed of on municipal landfills under the conditions indicated above.

68. Permits for combined landfilling of industrial and municipal waste are granted by local Sanitarial Epidemiological station (SES) [26] based on results of analyses completed by accredited laboratories (SanR&N RUz - 0157-04).

69. Landfill owners are responsible for safe storage and disposal of waste to avoid potential impacts to human health and the environment (SanR&N RUz 0157-04).

C. ADB Safeguard Policy Statement (SPS, 2009)

70. The gap analysis between ADB environmental safeguard requirements and national legislation is provided in **Table 16**. The table also presents information on how the identified gap has been harmonized.

[26] SES is a former name of ASEWPH.

Table 16: Gap analysis between ADB safeguard requirements and Uzbek national environmental legislation

Aspect	Asian Development Bank	National Regulations	Harmonized Framework
Environmental Policy and Regulations	ADB SPS sets out the policy objectives, scope and triggers, and principles for three key safeguard areas: i. Environmental safeguards, ii. Involuntary resettlement safeguards, and iii. Indigenous people safeguards	Environmental assessment and permitting procedure in Uzbekistan are set out in the following laws and regulations: i. Law on Nature Protection (1992); ii. Law on Environmental Expertise (2000), and iii. Resolution of Cabinet Ministries (RCM) "On the further improvement of the environmental impact assessment mechanism" No. 541 (2020)	
Screening	ADB carries out project screening and categorization at the earliest stage of project preparation when sufficient information is available for this purpose using rapid environmental assessment (REA) checklist. Categories A, B, C, FI	A project category is classified in accordance with Appendix 1 to RCM No. 541. The Appendix provides a list of activities split for 4 categories.	The project is classified as Category B (ADB classification) and as Categories III and IV (national legislation)
Scoping	Avoid, minimize, mitigate and/or offset any adverse impacts and enhance positive impacts through environmental planning and management	The environmental assessment should evaluate: (i) compliance of a proposed project with the environmental requirements, (ii) level of risk related to project implementation on people's health and environment, and (iii) efficiency of developed measures to mitigate identified impacts.	Conduct a process of Environmental Impact Assessment that will consider potential environmental (including labor, health, and safety) risks and project impacts.
	Executing Agency considers potential impacts (direct, indirect and cumulative) and risks on physical, biological, resettlement, socio-economic (including health and safety), and physical cultural resources	Environmental assessment considers the project's potential impacts on **physical, biological, socio-economic**, **and cultural resources, including cumulative impacts**.	The Environmental Impact Assessment will consider natural environment (air, water, and land); human health and safety; social aspects (involuntary resettlement, indigenous people, and physical cultural resources).
Alternatives	Examination of financially and technically feasible alternatives to the project location, design, technology and components, their potential environmental and social impacts Consider "without project" scenario.	For the EIS (national Environmental Impact Assessment), consideration of **alternatives** is required. Alternatives that may be assessed include alternatives of processing, technical design, location of a facility, architectural and	Assessment of alternatives will review alternatives of various types of road design, locations of open space facilities

Aspect	Asian Development Bank	National Regulations	Harmonized Framework
		planning options. Another mandatory requirement is consideration of the **zero option**.	
Environmental Assessment Report	Guidelines and Table of Contents are provided for environmental assessment report in ADB SPS: (i) Executive Summary, (ii) Policy, Legal and Administrative Framework, (iii) Description of the project, (iv) Description of the Environment, (v) Anticipated Environmental Impacts and Mitigation Measures, (vi) Analysis if Alternatives, (vii) Information disclosure, Consultations, and Participation, (viii) Grievance Redress Mechanism, (ix) Environmental Management Plan, and (x) Conclusion and Recommendation. EMP will include proposed mitigation measures, monitoring and reporting requirements, institutional arrangements, schedules, cost estimates and performance indicators	The RCM No.541 defines activities to be undertaken under EIS preparation. Description of undertaken activities should be included into the EIS report. The RCM requires the following: (i) assessment of the existing environmental and socio- economic conditions, (ii) project description, (iii) anticipating discharges, emissions, wastes, their impact on environment and disposal methods, (iv) collection, storage and waste disposal (v) review of alternatives, (vi) institutional, technical and technological mitigation measures, (vii) emergency risk assessment, probability of occurrence and emergency response measures, (vii) forecast of changes in the environment after project operation. The complexity of the report depends on the project category.	The IEE and EMP reports will follow the table of contents proposed in ADB SPS. PEIS will be prepared separately following the national regulation, but in line with the IEE.
Public Consultations	Carry out meaningful consultations with affected people and facilitate their informed participation Ensuring women's participation in consultation. Involving stakeholders, project- affected people and concerned NGOs early in the project preparation and ensure that their views and concerns are made known and understood by decision makers and considered. The consultation process and its results are to be documented and reflected in the environmental assessment report.	Public meetings are mandatory for all projects.	Consultations will be carried out with stakeholders, affected people, NGOs in accordance with COVID-19 restrictions. Questions and concerns raised during public consultations held during FS stage have been considered. All questions and concerns raised during public consultation will be included in IEE. Also, signed list of participants, photos from meetings will be attached to this IEE.

Aspect	Asian Development Bank	National Regulations	Harmonized Framework
Public Disclosure	IEE will be disclosed on the websites of ADB. The borrower needs to provide relevant environmental information in a timely manner, in an accessible place and in a form and language(s) understandable to affected people and other stakeholders. For illiterate people, other suitable communication methods will be used.	National environmental legislation does not require disclosure of PEIS/EIS.	The summary of the final IEE, EMP and GRM will be translated into Uzbek language, a full report will be translated into Russian and both documents will be posted on MIFT-PIU website (footnote 7). The printed version of the final IEE report translated into Russian and summary in Uzbek will be sent to the Djizzak, Khiva and Syrdarya branches of SCEEP.
Monitoring and Reporting	The borrow/client must monitor and measure the progress of implementation of the EMP and prepare periodic monitoring reports that describe progress with implementation of the EMP and compliance issues and corrective actions if any	Monitoring of mitigation measures developed under IEE is a responsibility of design consultant developed Feasibility Study (design supervision). External monitoring could be conducted by representatives of the SCEEP. There are no requirements to submit report during construction phase. The report on waste generation will have to be submitted by the Implementing Agency to SCEEP	Environmental Monitoring Plan (EMoP) will be developed under this IEE to monitor implementation of EMP requirements. The IEE also includes requirements on preparation of semi-annual Environmental Monitoring Reports and their submission to ADB for further disclosure on ADB and MIFT-PIU websites.
Grievance Redress Mechanism	The GRM must be established to receive and facilitate resolution of affected peoples' concerns and grievances about the project/s environmental performance.	A grievance redress procedure in Uzbekistan is also regulated by the national legislation, by the law "On Citizens' Applications" and the law" On procedure of submission of appeals from individuals and legal entities" (#378, 03 December 2014), and others	The GRM for this project will be developed in accordance with ADB and national requirements

SCEEP = State Committee on Ecology and Environmental Protection of Uzbekistan

D. International Legislation

71. ADB SPS requires the borrower to, during the design, construction, and operation of the project, apply pollution prevention and control technologies and practices consistent with international good practice, as reflected in internationally recognized standards such as the EHS Guidelines (footnote 19). These standards contain performance levels and measures that are normally acceptable and applicable to projects. When host country regulations differ from these levels and measures, the borrower will achieve whichever is more stringent. If less stringent levels or measures are appropriate in view of specific project circumstances, the borrower will provide full and detailed justification for any proposed alternatives that are consistent with the requirements presented in ADB SPS.

1. World Bank Group's Environment, Health and Safety Guidelines

72. ADB SPS indicates that during design, construction and operation, a project initiator shall prevent pollution consistent with international good practice, as reflected in internationally recognized standards such as EHS Guidelines.

73. Following requirements of ADB SPS, MIFT will apply pollution prevention and control technologies and practices consistent with international good practice as reflected in internationally recognized standards such as EHS Guidelines. When Government regulations differ from these levels and measures, MIFT will achieve whichever is more stringent. If less stringent levels or measures are appropriate in view of specific project circumstances, MIFT will provide full and detailed justification for any proposed alternatives that are consistent with the requirements presented in ADB SPS.

74. In this project, the following EHS Guidelines have been considered:

- *General EHS Guidelines (2007)* (footnote 19) - (i) provides prevention and control measures for each source of pollution applicable to this type of industry Environmental Monitoring programs; and (ii) provides occupational health and safety sources of threats, prevention and control measures and monitoring;
- *A guidance Note by International Finance Corporation (IFC) and the EBRD*:[27] Workers' accommodation: processes and standards.

2. COVID-19

75. During the project implementation, including both construction and operation, COVID-19 related restrictions will be applied. The national procedures on organizing works during pandemic will have to be followed by all subcomponent participants. The relevant national regulations and procedures are based on WHO Guidance on COVID-19.

76. To stimulate the employees of the Sanitary and Epidemiology Service during the COVID-19 pandemic, the following were approved: Decree of the President of the RUz dated March 19, No. UP 5969, resolution of the President of the RUz dated 24 April 2020 No. PP 4695.

77. WHO has issued the technical guidance in dealing with COVID-19, including: (i) Risk Communication and Community Engagement (RCCE) Action Plan Guidance Preparedness and Response; (ii) RCCE readiness and response; (iii) COVID-19 risk communication package for healthcare facilities; (iv) Getting your workplace ready for COVID-19; and (v) a guide to preventing and addressing social stigma associated with COVID-19. All these documents are available on the WHO website[28].

78. The Ministry of Health of the RUz, together with WHO, developed the National COVID-19 Guideline.[29]

[27] A guidance note by IFC and the EBRD Workers' Accommodation: Processes and Standards (August 2009)
[28] https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance
[29] http://minzdrav.uz/openData/csv/nation_rukovodstvo_COVID-19.pdf

79. Guidelines on labor protection and safety are reflected in SanR&N No.0372-20 “Temporary sanitary rules and standards for organizing the activities of government bodies and other organizations, as well as business entities in the context of the COVID-19 pandemic”.

3. International Agreements

80. The RUz has ratified the following international conventions relevant to this IEE. These are shown in **Table 17** below. Fulfillment of these commitments contributes to environmental sustainability, promotes external funding for stabilization and prevention of degradation of natural resources and cultural heritage, and enhances the country's capacity to use its natural and cultural resources as a basis for poverty reduction and socio-economic development.

Table 17: Participation of Uzbekistan in international conventions relevant to the project

International Conventions and Treaties	Date of Ratification	Date of coming into force for Uzbekistan	Main objectives
United Nations Framework Convention on Climate Change	20 Jun 1993 (acceptance)	21 Mar 1994	Stabilizing greenhouse gas concentrations at a level that would prevent dangerous anthropogenic (human induced) interference with the climate system.
Kyoto Protocol	20 Aug 1999	16 Feb 2005	Setting internationally binding emission reduction targets.
United Nations Convention Combat Desertification	31 Aug 1995	29 Jan 1996	Reversing and preventing desertification and land degradation in affected areas to support poverty reduction and environment sustainability.
United Nations Convention on Biological Diversity	6 May 1995 (accession)	17 Oct 1995	Conservation of biodiversity, sustainable use of its components, and equitable sharing of the benefits.
Convention on the Conservation of the World Cultural and Natural Habitats	22 Dec 1995	15 June 1996	Protection of natural and cultural heritage.
Convention on International Trade in Endangered Species of Wild Fauna and Flora	25 Apr 1997 (accession)	8 Oct 1997	Ensuring that international trade does not threaten wild animals and plants.
Convention on the Conservation of Migratory Species	1 May 1998 (accession)	1 Sep 1998	Global platform for the conservation and sustainable use of migratory animals and their habitats.
Ramsar Convention on Wetlands of International Importance Especially as Wildlife Habitat	30 Aug 2001 (accession)	8 Feb 2002	Conservation and wise use of all wetlands through local and national actions and international cooperation to achieve sustainable development.
Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal	22 Dec 1995 (accession)	7 May 1996	Regulation, reduction, and restriction of hazardous wastes transboundary movement.
Stockholm Convention on Persistent Organic Pollutants	22 May 2001	8 May 2019	Convention is a global treaty to protect human health and the environment from chemicals that remain intact in the environment for long periods, become widely distributed geographically, accumulate in the fatty tissue of humans and wildlife, and have harmful impacts on human health or on the environment.

III. DESCRIPTION OF THE PROJECT

A. Introduction

81. “Component 1: Urban Development” consists of 4 subcomponents to be implemented in three project areas. A list of all subcomponents is presented in **Table 18**:

Table 18: Subcomponents of Sub-Project 2

Component	Sub-Component	Project area
Component 1: Urban Development	Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak	Djizzak city (Ittifoq, Dustlik, Yoshlik mahallas)
	Component 1.2: Improvement of Polvon Canal Area in Khiva	Khiva city
	Component 1.3: New Tourist Visitor Center in Khiva	Khiva city
	Component 1.4: Development of New Park and Co-working Center in Havast	Havast city

1. Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak

82. This component will address improved livelihoods and livability in three mahallas of Djizzak city (Ittifoq, Dustlik and Yoshlik), including the creation of employment opportunities and the adoption of green engineering and smart technologies. Djizzak city is administratively divided into 34 units named mahalla. Three mahalla – Ittifoq, Dustlik, and Yoshlik were included into the Project IUDP.

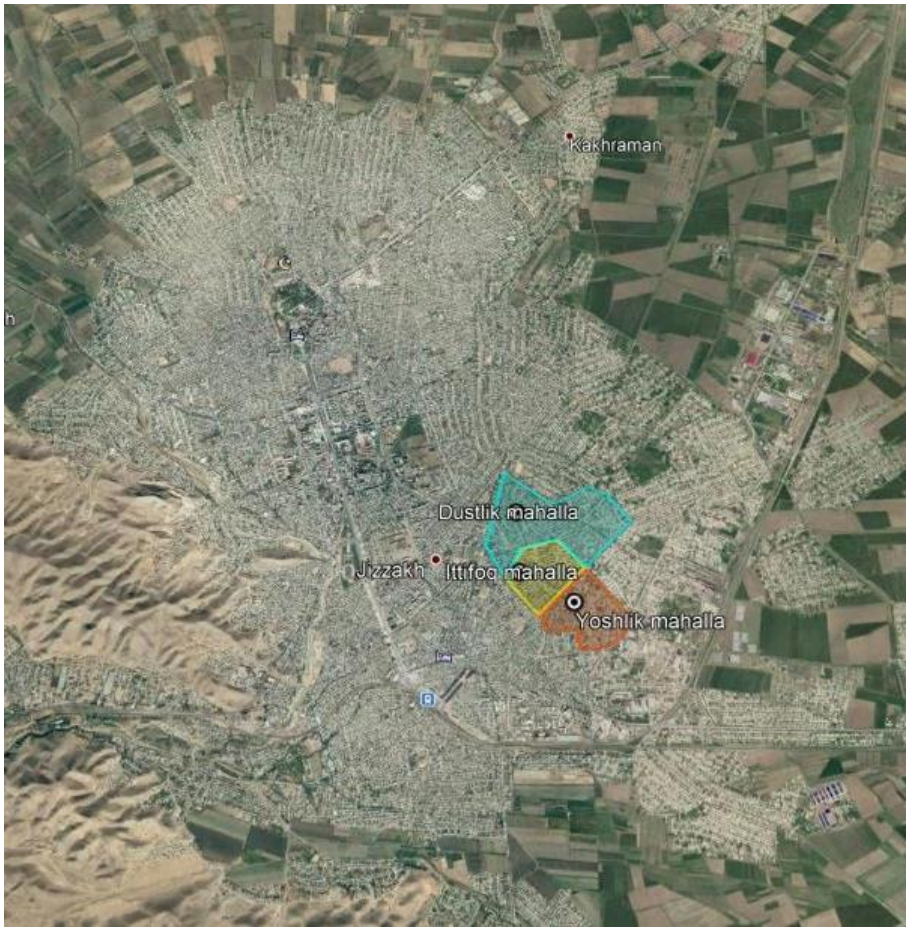


Figure 2: Djizzak mahallas (Dustlik, Yoshlik and Ittifoq) boundaries
Source: TRTA Consultant Team, 2021

83. These three mahallas adjoin each other in central-east Djizzak. Dustlik is the largest of the three and adjoins Ittifoq on its northern and eastern boundary. Yoshlik is of a similar size to Ittifoq and is adjacent to the latter's south-eastern boundary (**Figure 2**). Ittifoq covers an area of 61.2 hectares (ha) (population of 12,050), Dustlik is 172.3 ha (population of 4,245), and Yoshlik is 33.5 ha (population of 4,693). The mahallas are administered at the national level by the Ministry of for Support of Mahalla and Family of the Republic of Uzbekistan, at the provincial and local level by respective city hokimiyats. Their governing body is the mahalla's committee, often located in one of the individual houses within the mahalla's area.

a) Background

(1) Ittifoq Mahalla

84. Ittifoq mahalla is a large Soviet-era neighborhood of housing blocks centrally located in Djizzak. The housing estate is 61.2 ha in size and accommodates 2,620 households with a population of 12,050 (and a male/female split of roughly 41%/59%). There's a population density of 193 persons per hectare. The proportion of youths aged 16-18 years comprise 13% of the population, with those aged 19-30 forming 20% of the population.[30] This mahalla is in poor condition, relative to other estates, and has experienced a significant environmental decline.

85. Ittifoq was built in the 1950s to accommodate workers from a nearby battery factory. There are housing blocks of walk-up apartments, predominantly of two-story and four-story height (**Figure 3**). A more recent block of nine stories is located on the western side of Ittifoq. It is somewhat isolated from the rest of the mahalla by one-story buildings, typically used for storage and workshops. Mostly, they are poorly maintained and unused. Building improvements are needed for almost all the housing blocks.

Figure 3: Ittifoq housing blocks (March 2020)
(i - earlier example of Soviet housing, ii - typical Ittifoq housing block, iii - recently built Youth Union housing)

86. Community facilities, mostly built in the 1970s, include two kindergartens, two primary schools, one 'lyceum' (secondary school), one small endocrinology hospital, and two clinics. There is also an art school in Ittifoq.

87. A very rudimentary bus station facility exists in the center of the mahalla as a terminal point for City Bus #4, where there are no covered facilities, signage, or street lighting.

88. Open Spaces: There are no parks, as such, but there are seven playgrounds and some open space areas, most of which have been abandoned or are in poor condition. There are also three fenced-in five-a-side football pitches, which have been provided on a commercial pay-to-use basis.

89. Ittifoq has no defined pedestrian network and people walk along roads or via informal tracks across these open spaces. The layout of the housing blocks has meant that neighborhood spaces are left with an unsatisfactory configuration whereby building fronts

[30] Passport of 'Ittifoq' Mahalla, Djizzak city, Djizzak province. Prepared by Mahalla Leader Mukhammadjon Khasanov (January 2020).

typically front other building backs, rather than frontages opening out onto open spaces or courtyards. Some of this public open space, especially adjoining blocks, has been 'captured' by owners for use as private gardens. Examples of abandoned open space in Ittifoq mahalla are shown in **Figure 4** below.

Figure 4: Open Spaces in Ittifoq (March 2020)
(examples of abandoned open space in Ittifoq)

90. Roads: Ittifoq's roads are poorly maintained and exist within an unstructured layout with little functional differentiation (primary, secondary, or tertiary access). The quality of road surfacing within the mahalla varies from poorly maintained concrete surfaces to dirt tracks. Road widths are generally 5m-6m wide, which allows for two passing cars. There is little in the way of pedestrian priority or traffic calming measures. Car parking has not been formalized into designated spaces, and cars are therefore parked in a haphazard manner close to housing block entrances.

Figure 5: Road conditions in Ittifoq mahalla (February 2021)

91. Djizzak City hokimiyat has stated that some mahalla roads have been improved with resurfacing, following the Mayor's Decree #221F (22 October 2018), which is relevant to all 32 of Djizzak's mahallas. However, it should be noted that road improvements undertaken by the hokimiyat have been done without associated drainage systems, pavements, and street furniture upgrading.

92. Similarly, while some access roads to building courtyards have been paved, they do not have drainage included. These improvements seem to have been done through the 'Obod Mahalla' government program. However, some roads serving Ittifoq have been surfaced in concrete and do have drainage systems incorporated.

(2) Dustlik Mahalla

93. Dustlik mahalla adjoins the northern and eastern Ittifoq boundary and extends eastwards to the Djizzak Free Economic Zone and as far as the city's eastern edge. The mahalla area is 75 ha with a low density of population which is 24 persons per hectare.

94. It was built in 2005 and, therefore, is the most recent of the three mahallas under consideration. In 2021, Dustlik accommodates 4,245 inhabitants (of which 2,041 are female).[31] Unlike Ittifoq, which more urban and more developed, Dustlik has a more peri- urban features, including a narrow canal passing along the northern edge. There is one kindergarten in the mahalla.

95. The mahalla's buildings are predominantly single-story detached dwellings (704 buildings) with three or two-story houses. Residents typically manage their private gardens for growing vegetables and fruits, and most of these also accommodate some cows and sheep, for example. There are a few cafes and commercial premises along Kalia Street, and elsewhere some single-story retail shops operate in the mahalla. There is one state-run kindergarten. No playgrounds or football pitches exist, or any public open spaces of any usable size within Dustlik. There is a cemetery in the central part of the mahalla with a hill to the west with some abandoned open space.

96. Road Network: There are some surfaced roads in Dustlik, with a network of uniform roads of 5m-6.5m width, but most have loose gravel surfaces with no dedicated pedestrian pavements. There are, however, informal, and natural verges, tracks, and tree plantings that follow adjacent to road carriageways, all within approximate corridor widths of 12m-15m. There does not seem to be any differentiation between primary, secondary, or tertiary access road functions and a little or no street lighting or signage.

Figure 6: Road Network in Dustlik mahalla (May 2021)

(3) Yoshlik Mahalla

97. Yoshlik mahalla is located on the southeastern boundary of Ittifoq. This housing area covers 33.5 ha, and thus the second smallest of the three Djizzak city mahallas under the project. It was built in 1993, and accommodated 4,599 inhabitants (of which 2,189 were female) in 2019,[32] with a population density of 66 persons per ha. In total, 1,032 households

[31] Passport of 'Dustlik' Mahalla, Djizzak City, Djizzak Region. Prepared by Mahalla Leader Nematulla Anarbaev (August 2020).

[32] Passport of 'Yoshlik' Mahalla, Djizzak City, Djizzak Region. Prepared by Mahalla Leader Begzod Rozuqulov (July 2020).

live in Yoshlik mahalla. Yoshlik has a mixed form of development that includes some elements of Ittifoq's more urban environment, especially in the northern part, although much of it resembles Dustlik with its peri-urban features.

98. There are 17 four-story and 18 two-story blocks, with one newly built five-story block of housing, as well as some two-story residential developments (**Figure 7)**. These are sited in the north with some similarities to Ittifoq's residential buildings. In the southern part of the mahalla, there are 42 detached single-story housing units with more rural environmental features. Most residents living in the single-story detached houses use their gardens for growing vegetables and fruit trees, with some keeping cows, sheep, and chickens. There is a four-story dormitory (government hostel) in the northern part of the estate.

Current view of areas to be developed

Walking paths

Figure 7: Current status of the areas to be developed under the project (August 2021)

99. Kalia Street is the main commercial corridor in the north and is shared with Ittifoq mahalla. It includes a five-story shopping center in the northern part, with two new commercial buildings are under construction. There are terraced two-story premises with ground floor shops, cafes, car wash services, petrol stations and construction material outlets. There are also some shops and commercial premises (two stories) in the western part of Kalia Street with some educational establishments. Improvements are needed for this important local road

corridor in conjunction with upgraded bus transport facilities. A limited number of single-story retail shops operate here and there in the mahalla. There is one kindergarten and some playgrounds, albeit in poor condition. Two commercial five-a-side football courts exist on a pay-to-play basis, and there is one recreational area in reasonable condition, which has been built by a private developer. A four-story building, accommodating the Internal Affairs Directorate, is located in the north of the mahalla. In the south, adjacent to an industrial area, there are some small-scale brickworks.

100. Road Network: The network throughout Yoshlik has a mix of surfaced and unsurfaced roads (**Figure 8**). Asphalt surfaced roads are found in the north and west, while most unsurfaced roads provide access to the single-story detached houses in the southern part of the mahalla. The latter are roads of 5m-6m width, surfaced with loose gravel, and with no dedicated pedestrian pavements alongside. There are informal and natural verges, tracks, and tree plantings that adjoin road carriageways, all within approximate corridor widths of 12m-15m. In the south, the roads are mainly service the neighborhood access without street lighting or signage.

101. Those mahalla's undeveloped roads requiring improvement have been visually assessed during site visits. However, it should be noted that road improvements undertaken by the hokimiyat have been designed without any associated drainage systems, pavements, and street furniture upgrade. Currently, the gravel-surfaced roads create dusty conditions during summer and sludgy and wet surfaces during winter. Resurfacing will be beneficial not only in terms of access enhancements but also in improved health conditions for local residents. In conjunction with the road surface improvements, there need to be streetscape enhancements for pedestrian accessibility, drainage, lighting, and signage provision as part of this primary access road corridor upgrading.

Figure 8: Roads to be rehabilitated in Yoshlik mahalla

b) Project Activities

102. The subproject will demonstrate holistic area-based community development in three underserved mahallas with poor infrastructure services and public space. The project will improve livability through the improvement of:

(i) street corridors including surfaces, drainage pavements, lightings, pedestrian sidewalks;
(ii) public open spaces including children's playgrounds, sport facilities, open space, neighborhood parks and surfaced footpaths; and
(iii) an existing small bus terminal in Ittifoq.

103. All pedestrian and public space areas will be designed to support universal access for people with disabilities and elderly, and a safe environment for women including streetlights. This subproject will benefit 5,032 households (3,050 Ittifoq, 890 Dustlik, 1,092 Yoshlik). All

facilities will be owned and operated by the hokimiyat. The subproject also includes water and sanitation improvements.

(1) Rehabilitation of roads in three mahallas of Djizzak city

104. Ittifoq and Yoshlik mahallas consist of 2 and 4-storey buildings and are subdivided into small areas (microdistricts). The layout and conditions in these two mahallas are identical, the roads were built 40-50 years ago, when the mahallas were just being built up, and until now the roads have not been repaired. Therefore, their asphalt-concrete road surface is in an unsatisfactory condition. In addition, sidewalks and road drainage have also fallen into disrepair after many years of operation.

105. Dustlik mahalla used to belong to the Djizzak district (which was outside of Djizzak city), and in recent years has been annexed to Djizzak city. Therefore, not all infrastructure in the microdistrict is developed at the city level. The territory of the Dustlik mahalla consists only single-story private houses. The internal roads of the mahalla are practically not repaired, they are unpaved. Some sand and gravel that the locals themselves lay in front of their houses cannot serve as a sidewalk or foundation for a road. During the year, such a gravel-sand covering, made without considering technologies, becomes unusable after precipitation. This microdistrict needs in major road repairs.

Proposed activities on roads rehabilitation

106. **Ittifoq mahalla.** Due to the fact that the existing asphalt-concrete roads have been operated without maintenance for many years, 30-40% of the road surface is destroyed, the rest of the roads have cracks, potholes and pits 25-30 cm deep, 3-4 m in diameter. The existing asphalt pavement cannot be used. It should be cut off with cutters, leveled and adjusted to the required height with appropriate shoulders. It is advisable to lay pavement 20 cm thick of sand-gravel mixture, 3 cm of crushed stone and 7 cm of a fine-grained asphalt-concrete mixture on the asphalt surface. Failed LK-6 trays must be dismantled and replaced with new ones. The existing unusable pavement made of asphalt-concrete should be demolished and replaced with PTK 2.1.5.14 pavement slabs.

107. A single typical section has been developed for Ittifoq mahalla, with road width 6 m, double-sided tray width 0.6 m, and sidewalks width 1.5 m (**Figure 9**). The reason for using this typical section is that this mahalla consists mainly of multi-story buildings. There are no single-story private houses in this area. The internal roads of Ittifoq mahalla are almost identical. The existing roads are 6 m wide with LK-6 trays (for drainage) and sidewalks on both sides. According to the results of visual inspection, almost all existing roads require rehabilitation. In addition, an observation showed that 50% of the existing trays and sidewalks were in emergency condition. Therefore, during the developing the cost estimate of the Feasibility Study, the construction of trays and LK-6 sidewalks was considered for 50% of the total road length in this microdistrict.

108. In total, 7.3 km of roads will be improved in the Ittifoq mahalla.

109. **Dustlik mahalla.** Internal roads of the mahalla are practically absent and represented with dirt roads. The transverse and longitudinal slopes of the footpath should be mechanically aligned. It is advisable to lay a 20 cm pavement of sand-gravel mixture, 3 cm of crushed stone and 7 cm of a fine-grained asphalt concrete mixture for the asphalt surface. On a small number of streets, a sidewalk can be installed, and it is necessary to lay RTK 2.1.5.14 slabs. To separate the road and the sidewalk, it is necessary to install LK-6 trays.

110. Dustlik mahalla consists of single-story private houses; along all the streets, aryks (ditches) are used to collect water. The ditches are located by the road, the distance between the ditches and the houses is 2-3 m, various fruit trees are planted in these places. For Dustlik mahalla, two "typical sections" are offered.

111. Type I shows pavement and shoulder strengthening work using existing drainage ditches. Type I is intended for relatively narrow mahalla streets and installation of trays and sidewalks for drainage in these streets is not possible (**Figure 10**).

112. Type II is designed for wide mahalla streets, including the construction of roads, trays and sidewalks. As a result of visual inspections, it was determined that Type II should be built in 15-20% of the settlement, and these parameters were considered during developing the cost estimate for the Feasibility Study (**Figure 11**).

113. The project will improve 19.5 km of roads in the Dustlik mahalla.

114. **Yoshlik mahalla.** Due to the fact that the existing asphalt-concrete roads have been operated without any maintenance for many years, 30-40% of the road surface is destroyed, the rest of the roads have cracks, potholes and pits 25-30 cm deep and 3-4 m in diameter. The existing asphalt pavement cannot be used. The existing asphalt pavement should be cut off with milling cutters, then adjusted in height with longitudinal slopes. It is advisable to lay a 20 cm thick pavement of a sand-gravel mixture, 3 cm of crushed stone and 7 cm of a fine-grained asphalt concrete mixture for the asphalt surface. Collapsed LK-6 trays should be dismantled and replaced with new ones. The existing unusable pavement made of asphalt concrete should be demolished and replaced with PTK 2.1.5.14 pavement slabs

115. Yoshlik Mahalla consists of both multi-storey buildings and single-storey private houses. Therefore, it is proposed to use two “typical sections” for this area. The width of the roadway between the multi-storey buildings is 6 meters, and there are drainage ditches and sidewalks on both sides of the road. The streets between one-story private houses have only the road itself, there are no drainage ditches or sidewalks, the distance from wall to wall is very small, 7-8m. The drainage system in the streets between these single-story private houses was not considered at all; during rainy seasons, water accumulates on the road in its lower parts and leads to formation of artificial puddles, while some part of the water infiltrates under the road and the road surface collapses. In this regard, the installation of drainage ditches on the side of the road in Type I "typical section" was considered, the width of the road is 6 m, and the width of double-sided trays is 0.6 m (**Figure 12**).

116. Type II "Typical Section" was developed for a part of the Yoshlik mahalla, built with multi-story buildings. The existing roads are 6 m wide with LK-6 trays (for drainage) and sidewalks on both sides (**Figure 13)**. When developing Type II "Typical section", the existing road condition was considered. Given the high population density of these multi-storey buildings, it will be necessary to install sidewalks along the streets. According to the results of visual inspection, almost half of the existing roads have been repaired at the expense of municipal and national budgets, and another part that has not yet been repaired is 2.5 km. In addition, an observation showed that 50% of the existing trays and sidewalks were in emergency condition. Therefore, during the developing the cost estimate of the Feasibility Study, the construction of trays and sidewalks was considered for 50% of the total road length of the road for this mahalla.

117. The exact installation, location, specification and distribution of trays and sidewalks along the streets should be developed during the preparation of detailed design.

118. Within the framework of the project, 2.5 km of roads in the Yoshlik mahalla will be restored.

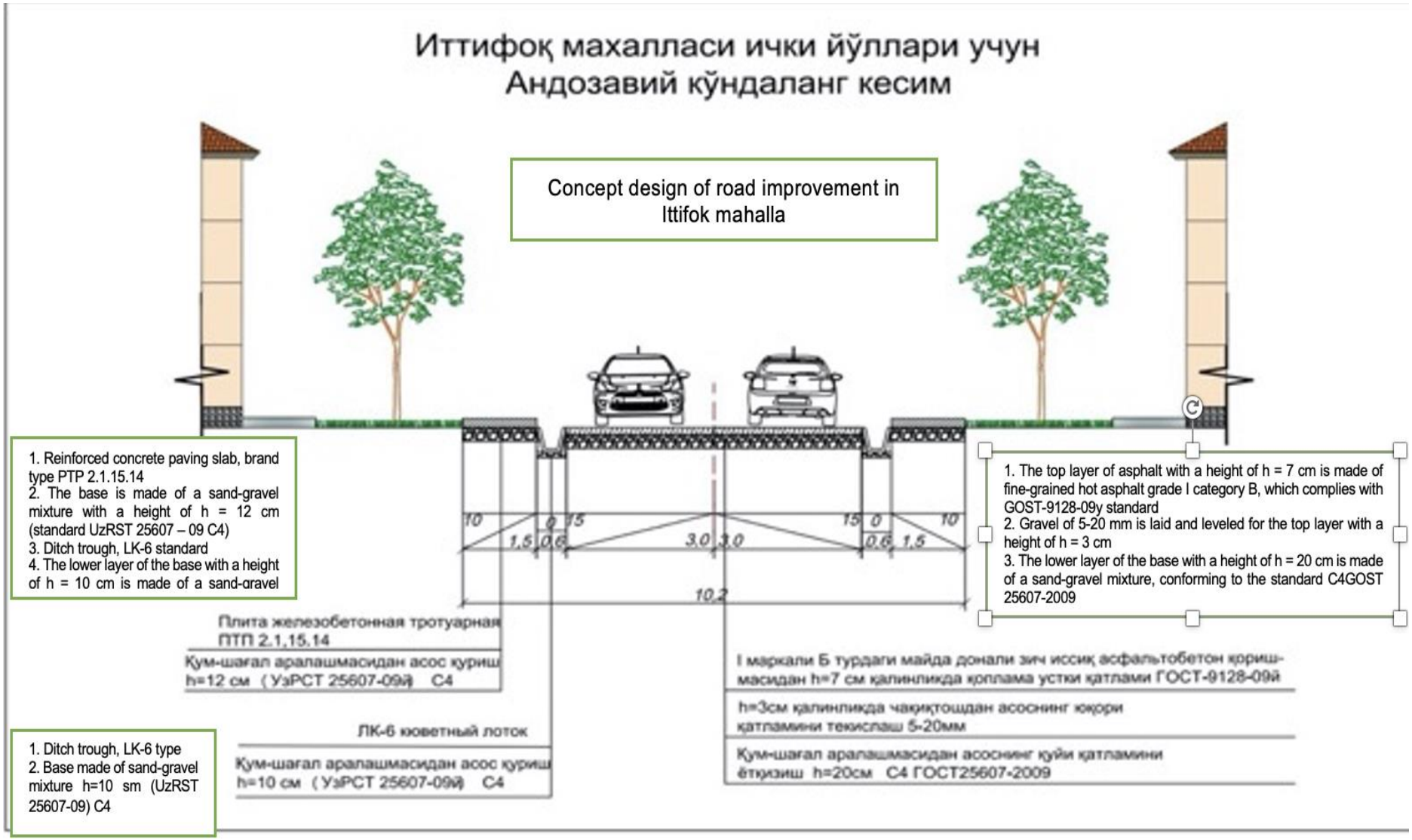


Figure 9: Proposed typical road section developed for the Ittifoq mahalla

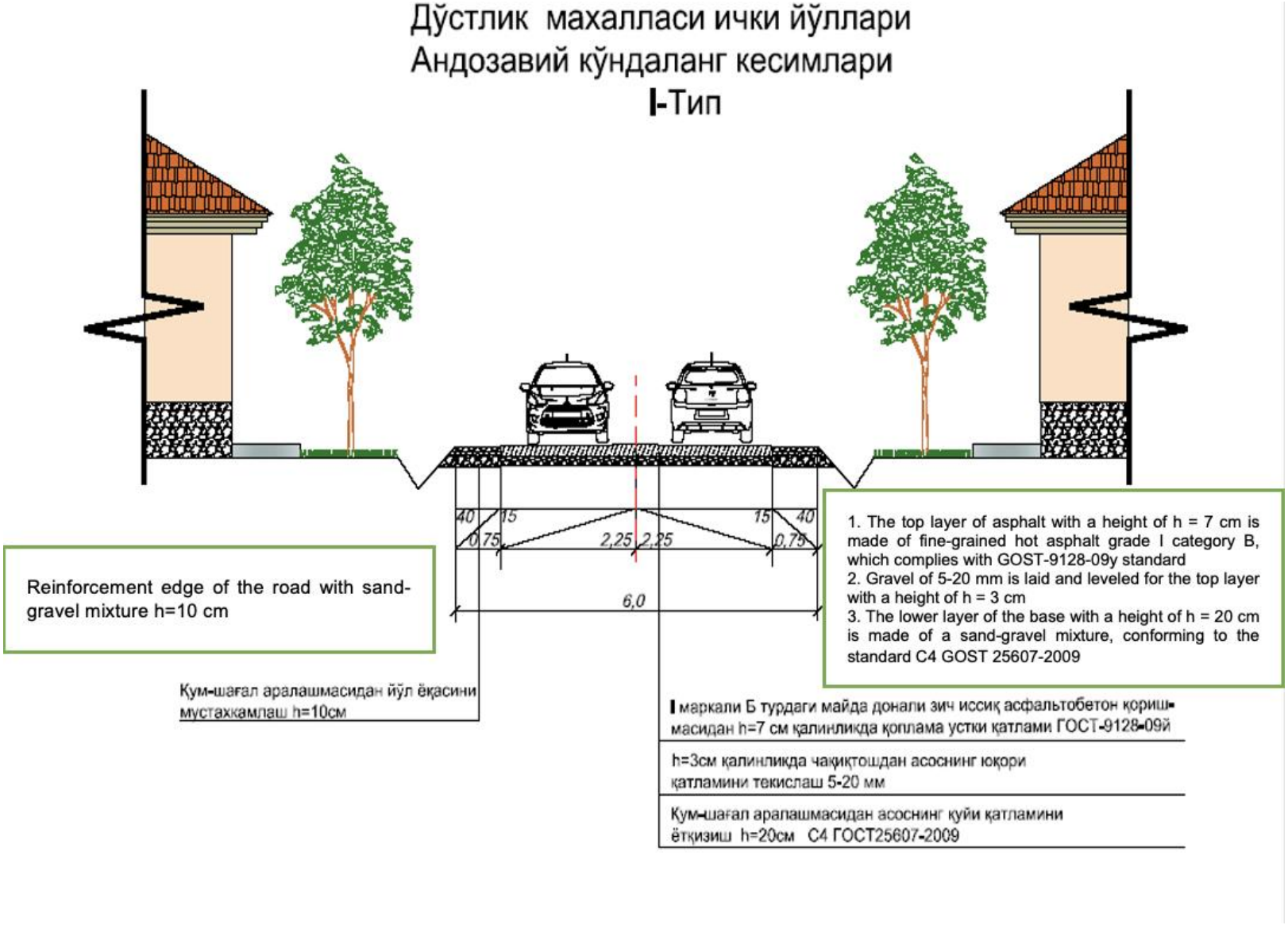


Figure 10: Proposed typical section developed for the Dustlik mahalla. Type I

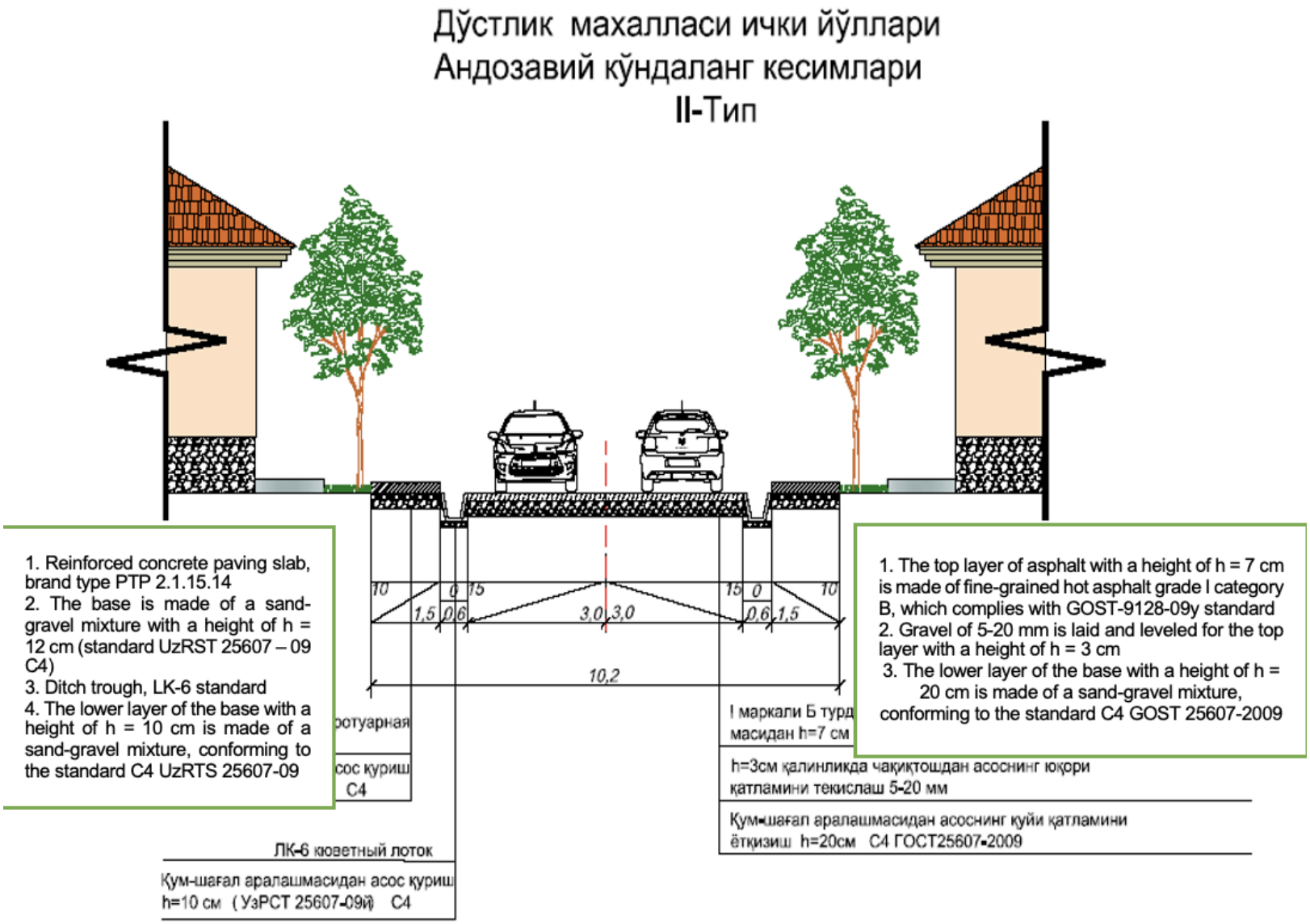


Figure 11: **Proposed typical section developed for the Dustlik mahalla. Type II**

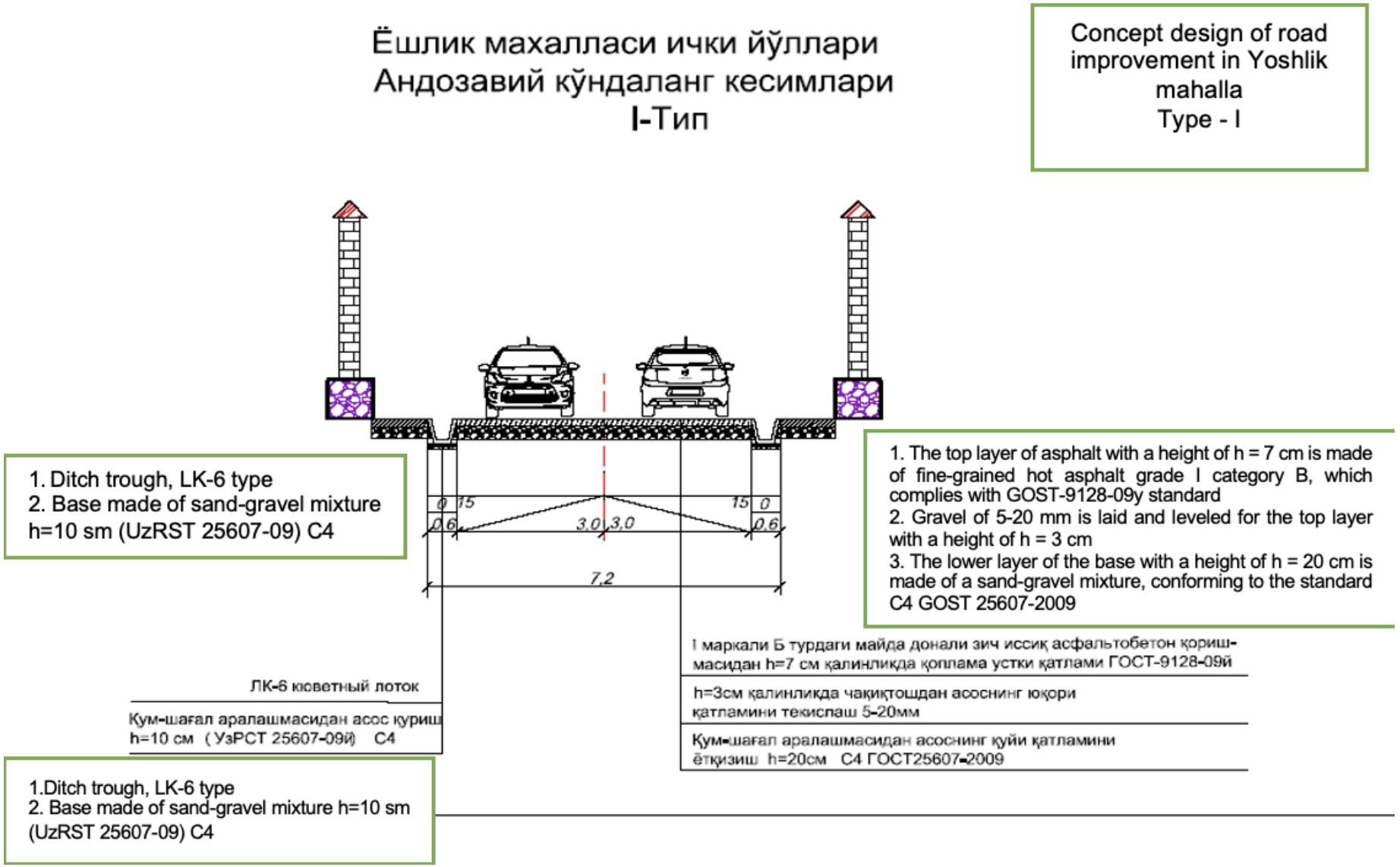


Figure 12: Proposed typical section developed for the Yoshlik mahalla. Type I

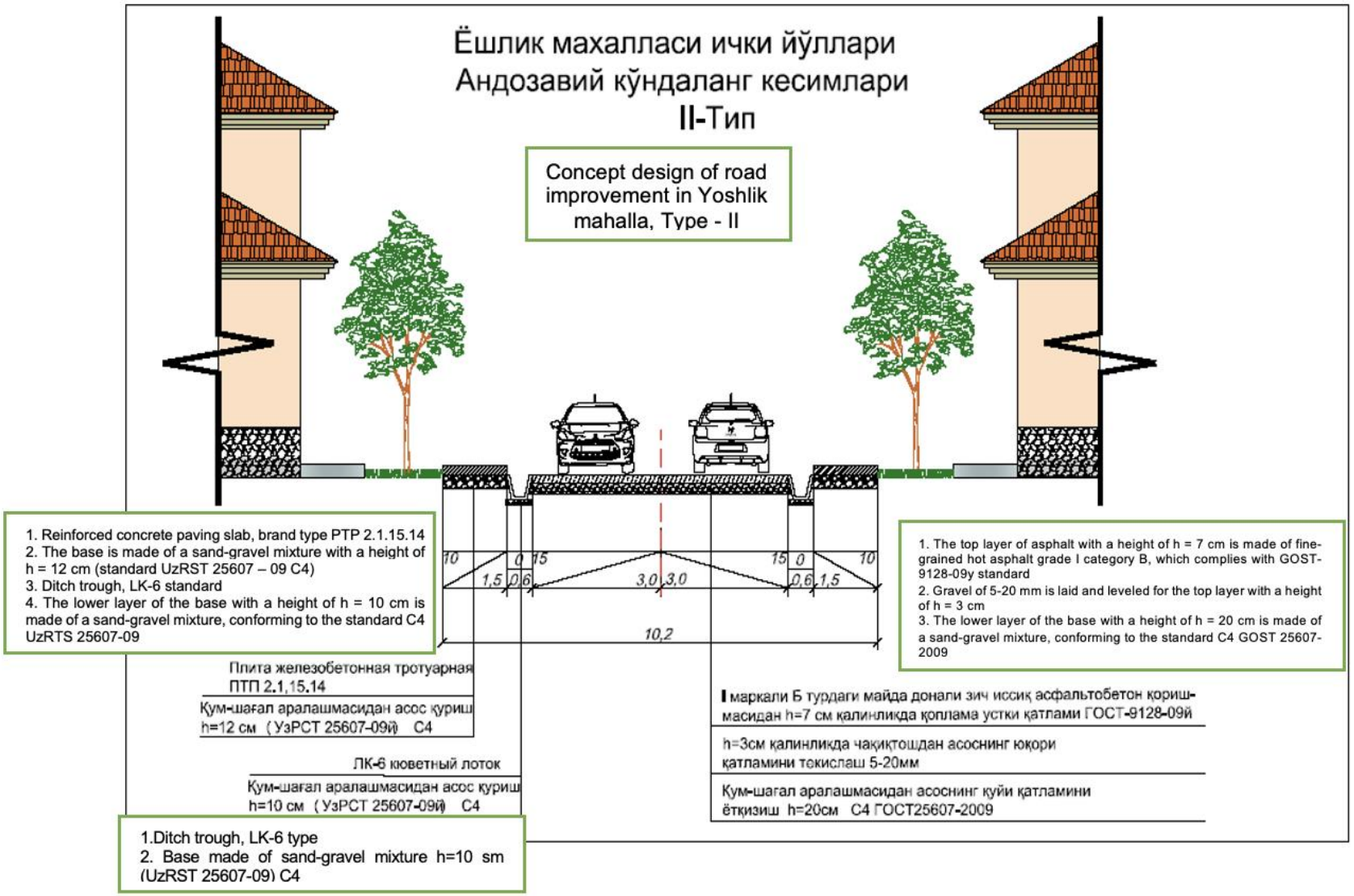


Figure 13: Proposed typical section developed for the Yoshlik mahalla. Type II

(2) Creation of "open spaces" in three mahallas of Djizzak city

119. As part of the implementation of activities for Subcomponent 1.1*. Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak,* it is planned to create “open spaces” on the vacant lands of three mahallas.

120. An open space of any size and purpose performs not one, but a certain set of functions: recreational, sanitary, and hygienic, environmental, planning, and regulatory, commercial and technical. The optimal ratio of the functions of each space can be found by considering a distribution of functions over the entire system of open spaces. At the same time, territorial differentiation and delimitation of incompatible functions could be accompanied with a territorial "overlap" of the complementary ones.

121. The project area of the three mahallas, at present, is not functionally saturated, a potentially of a green area in the urban development is not fully used.

122. Creation of "open spaces" is preferably combined with the environmental improvements. Landscaping should focus on a combination of passive and active recreational facilities that will meet the needs of children (playgrounds) and youth sports facilities, as well as treadmills and outdoor exercise areas.

Approximate composition of "open spaces" in Ittifoq mahalla [33]

123. The approximate area of "open spaces" in Ittifoq mahalla is 4.5 ha and 0.92 km of improves pedestrian paths (to be clarified during detail design). In addition, the project will upgrade a bus stop (**Figure 14**).

1. **Playgrounds for games and recreation:**
   - 1.1 Playgrounds for active recreation of children (playgrounds, trampolines, slides, swings, etc.) – 2,100 m^2.
   - 1.2 Resting and waiting areas for parents from the overlooked area and walking paths (gazebos, libels, benches, etc.). – 1,624 m^2.
   - 1.3 Landscaping of the territory of playgrounds – 3,150 m^2.
2. **Sports grounds:**
   - 2.1 Outdoor exercise area – 2,680 m^2.
   - 2.2 Universal sports grounds for basketball, football, and volleyball (40 m by 20 m) – 2,320 m^2
3. **Public spaces for recreation:**
   - 3.1 *Various walking paths* (non-cyclic and variable walking paths).
   - 3.2 *Places for passive pastime* (with sound barriers around the perimeter: vegetation, landscape drops; with infrastructure in the form of benches, gazebos, etc.) – 8,250 m^2.
   - 3.3 *Passive leisure hotspots with built-in equipment* (chess, checkers, and other various board games) –16 pcs.
   - 3.4 *Area with different landscaping* – 24,750 m^2.
4. **Rehabilitation of the public transport stop:**
   - 4.1 Parking and passenger waiting areas for public transport - 144 m^2.
   - 4.2 Waiting *areas* for passengers with easy access to public transport - 180 m^2.
   - 4.3 Air-conditioned waiting room (4m by 3m) - 24 m^2.
   - 4.4 *Canopy* over the passenger area - 260 m^2

[33] Parameters will be specified during the preparation of detail design and bidding documents

Figure 14: Ittifoq Mahalla Site Plan
Source: NFS, 2021

Approximate composition of "open spaces" in the Dustlik mahalla[34]

124. The approximate area of "open spaces" on in Dustlik mahalla is 1.1 ha (to be clarified during detail design) (**Figure 15**).

1. **Playgrounds for games and recreation:**
   - 1.1 Playgrounds for active recreation of children (playgrounds, trampolines, slides, swings, etc.) – 900 m^2.
   - 1.2 Resting and waiting areas for parents from the viewed area and walking paths (gazebos, libels, benches, etc.). - 750 m^2.
   - 1.3 Landscaping of the territory of playgrounds – 1,350 m^2.
2. **Sports grounds:**
   - 2.1 Outdoor exercise area - 840 m^2.
   - 2.2 Universal sports grounds for basketball, football, and volleyball (40 m by 20 m) – 1,160 m^2.
3. **Public spaces for recreation:**
   - 3.1 Various walking paths (non-cyclic and variable walking paths).
   - 3.2 Places for passive pastime (with sound barriers around the perimeter: vegetation, landscape drops; with infrastructure in the form of benches, gazebos, etc.) – 1,500 m^2.
   - 3.3 Passive leisure hotspots with built-in equipment (chess, checkers, and other various board games) - 8 pcs.
   - 3.4 Area with different landscaping - 4,500 m^2.

[34] Parameters will be specified during the preparation of working and tender documents

Figure 15: Dustlik Mahalla Site Plan
Source: NFS, 2021

Approximate composition of "open spaces" in Yoshlik mahalla[35]

125. Aproximate area of "open spaces" in the "Yoshlik" mahalla - 2.8 ha and 0.92 km of improvement of pedestrian paths (to be clarified during detail design) (**Figure 16**).

1. **Playgrounds for games and recreation:**
   - 1.1 Playgrounds for active recreation of children (playgrounds, trampolines, slides, swings, etc.) – 1,500 m^2.
   - 1.2 Resting and waiting areas for parents from the overlooked area and walking paths (gazebos, libels, benches, etc.). – 1,250 m^2.
   - 1.3 Landscaping of the territory of playgrounds - 2,250 m^2.
2. **Sports grounds:**
   - 2.1 Outdoor exercise area - 1,840 m^2.
   - 2.2 Universal sports grounds for basketball, football and volleyball (40m by 20m) – 1,160 m^2.
3. **Public spaces for recreation:**
   - 3.1 Various walking paths (non-cyclic and variable walking paths).
   - 3.2 Places for passive pastime (with sound barriers around the perimeter: vegetation, landscape drops; with infrastructure in the form of benches, gazebos, etc.) - 5,000 m^2.
   - 3.3 Passive leisure hotspots with built-in equipment (chess, checkers, and other various board games) - 8 pcs.
   - 3.4 Area with different landscaping –15,000 m^2.

[35] Parameters will be specified during the preparation of detail design and bidding documents

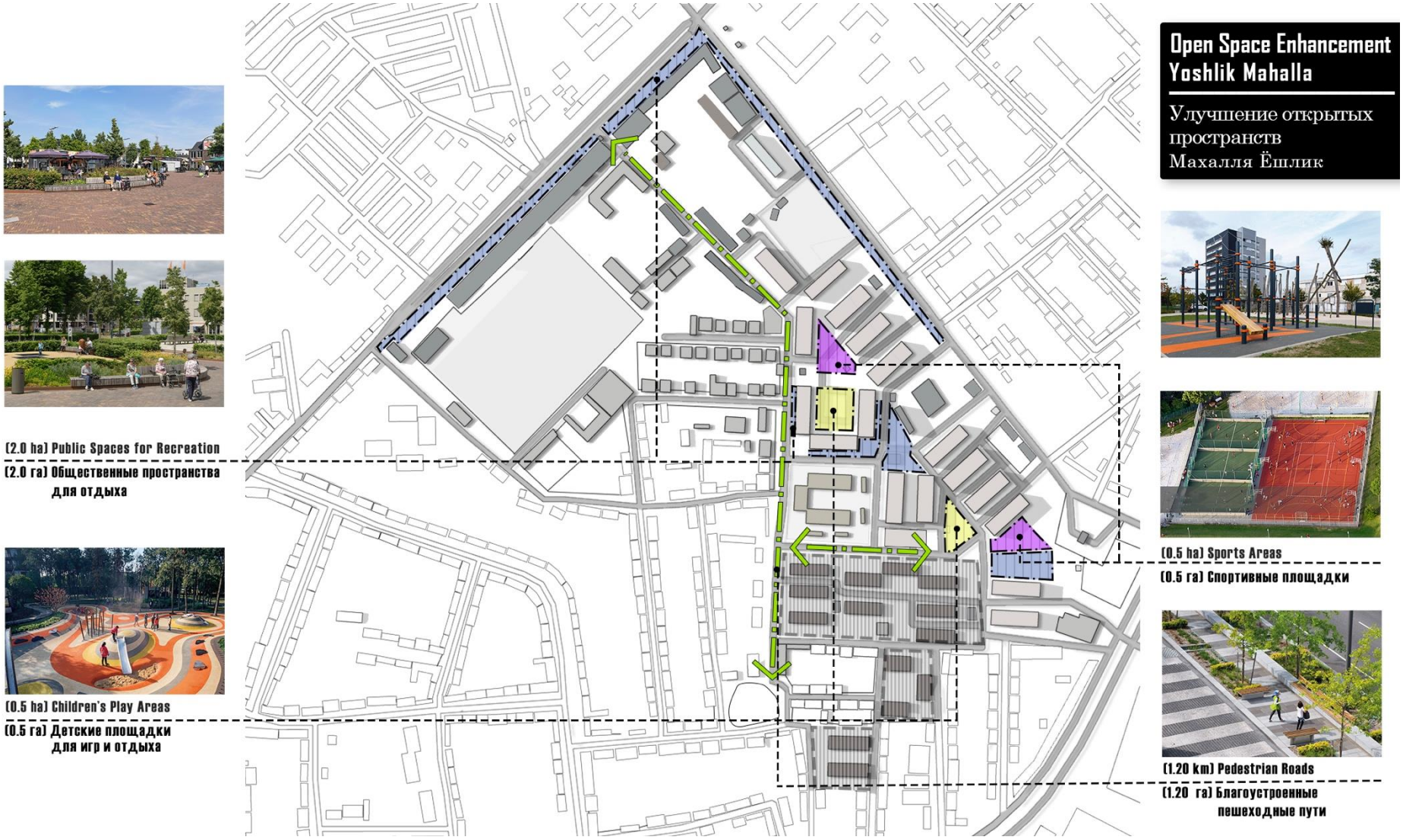


Figure 16: Yoshlik Mahalla Site Plan
Source: NFS, 2021

2. Component 1.2: Improvement of Polvon Canal Area in Khiva

a) Background

126. The proposed measures to improve the tourist infrastructure and services in Khiva, along with the creation of the first multifunctional visitor center in Uzbekistan, include improvements along the banks of the Polvon Canal. The project activities on the canal will improve the overall environment and make the best use of the area for walking and cycling, while creating “green wedges” for the urban area to be a part of Khiva's tourism product diversification.

127. The Polvon Canal route (2.4 km long) could therefore be considered as an environmental improvement subproject.

128. The Polvon Canal (**Figure 17**) is one of two main canals in Khiva, another one is the Syrchali Canal. Both canals and their beds are generally in poor condition. Improvement of the canal adjacent area is supposed to be used for recreational purposes. Hence, for the Polvon Canal, this would include streetscape improvements with upgraded public open spaces at the key route intersections, tree-lined shading, and new street furniture (rubbish bins, street lighting and signage for tourism trails), all of which are proposed for the pedestrian and cycling routes.

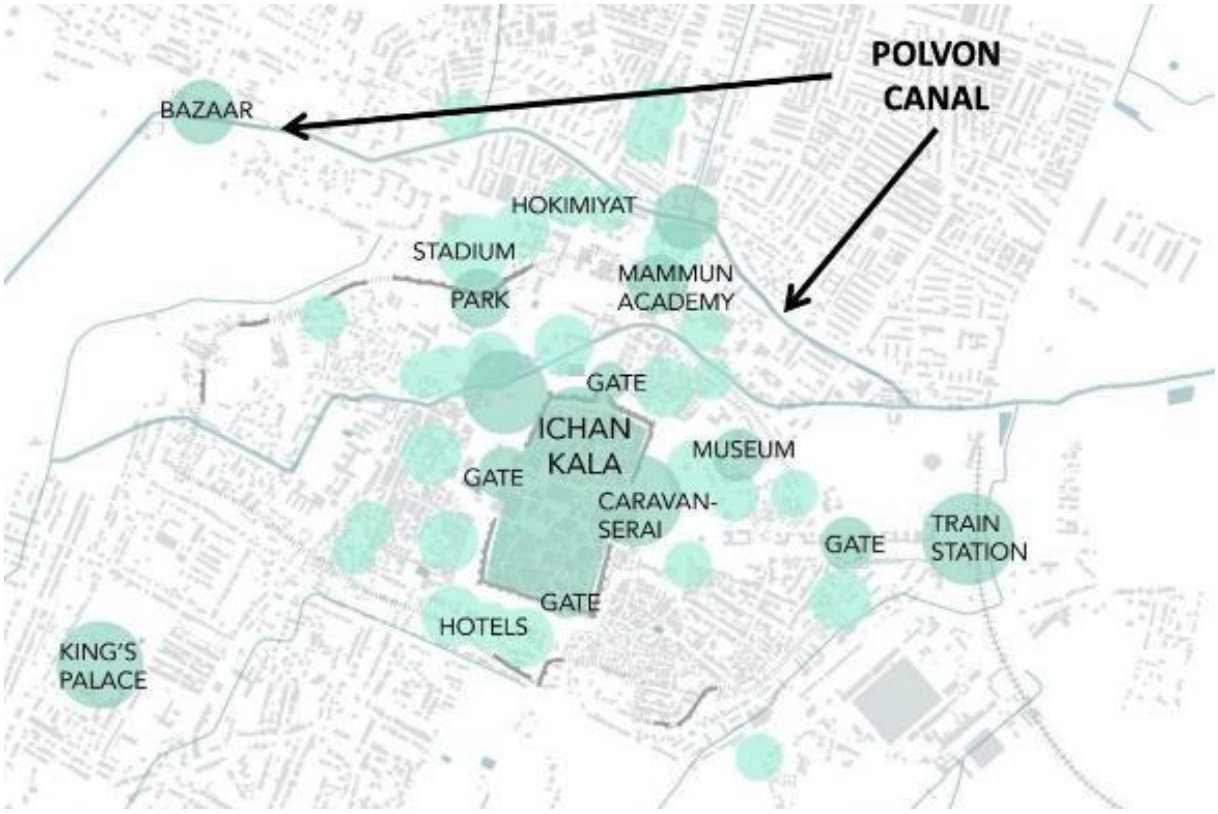


Figure 17: Khiva Canal Routes

Source: Cities Development Initiative for Asia (CDIA) TA team based on PowerPoint for Integrated Cultural Heritage Framework: Land Use Planning and Development in Khiva City and Khorezm Region. Prepared by Superwien for UNESCO and EBRD (31 October 2019).

129. It should be noted that some works have been completed under the Governmental Program (the Program) on improvement of irrigation canals. Under the Program, the Polvon canal was lined with concrete and partially its buffer zone was cleaned from structures and buildings during the first half of 2021. The buffer zone varied from 1m to 5 m. The purpose of buffer zone for irrigation canals is to ensure access by maintenance road for vehicles. To clarify requirements for buffer zone for the Polvon Canal, the TRTA consultant met with

Irrigation System Authority Chapqirgok Amudarya (Left Bank of Amudarya). During the meeting, it was confirmed that due to insignificant capacity of the irrigation canal, its cleaning could be done with using small-scale machinery.

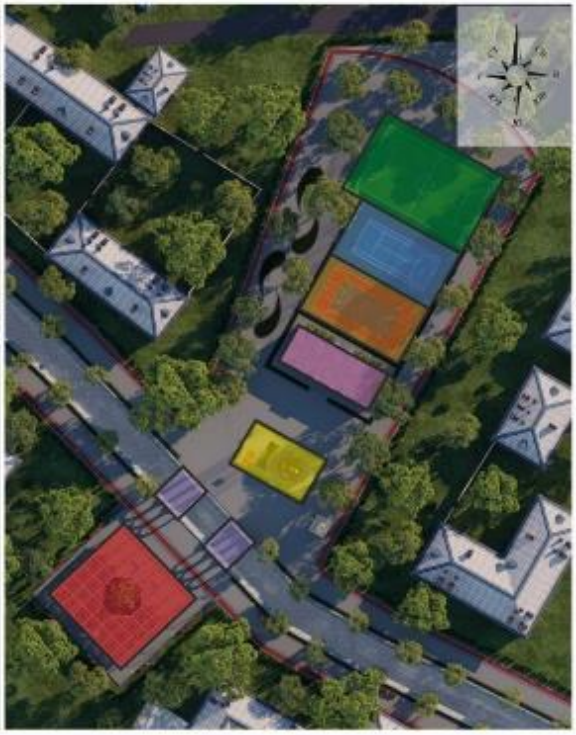
130. At the stage of IEE preparation, only a conceptual design of the project activity was ready. A brief description of the proposed activities is presented in the following sub-chapters.

b) Project Activities

131. As mentioned above, within the framework of the current component, it is proposed to create a 3.3 km long linear zone along the Polvon Canal (**Figure 18**).

Figure 18: Location of Polvon Canal

132. It is proposed to create sidewalks for pedestrians and bike paths, a green area, a decorative shade gazebo, decorative viewing bridges, a playground, and sports grounds (football field, tennis court, basketball court).



Условное обозначение

- Декоративный открытый айван. 25м х 25м
- Смотровые мосты. 10м х 9м
- Детская площадка (качели, песочница, тренировочные турникеты).
- Административное здание 26м х 10м (раздевалки, сан.узлы, комнаты тренеров, душевые комнаты).
- Баскетбольное поле 28м х 16м.
- Теннисный корт 28м х 16м.
- Футбольное поле 35м х 22,8м.

Figure 19: Conceptual public facilities along the Polvon Cana

Green area

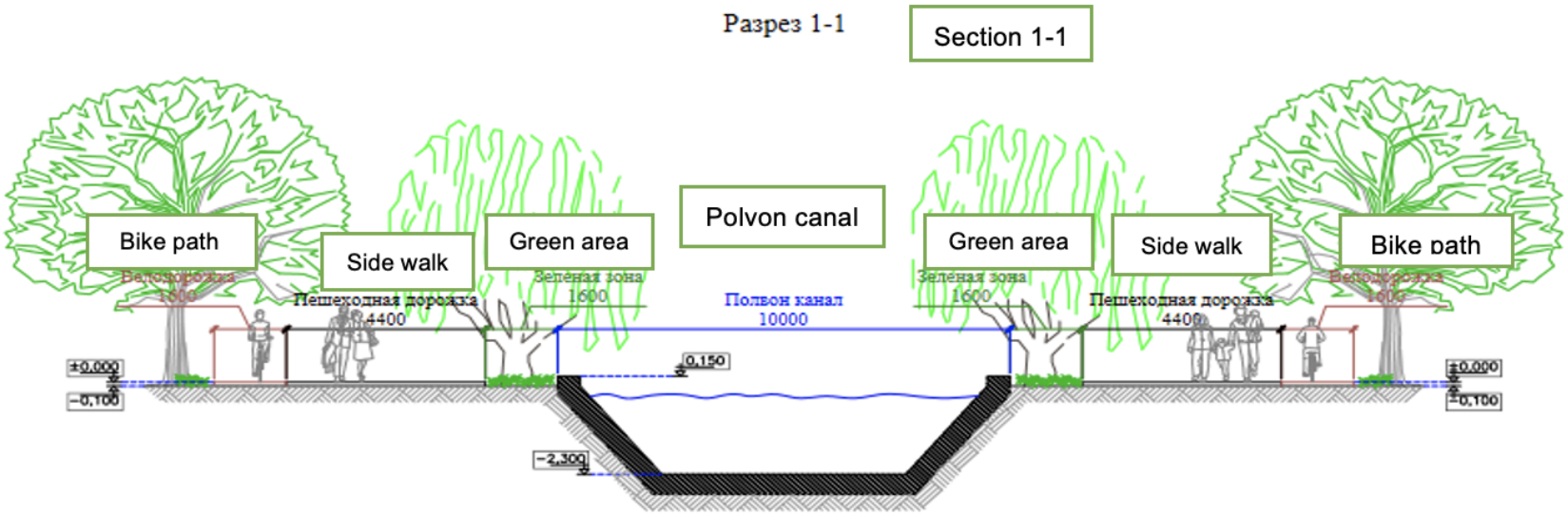


Figure 20: Schematic section of Polvon Canal

133. Modernization of the Polvon Canal's banks would be within a corridor roughly 15m wide, which would be divided for either side of the canal with up to 7.5m apportioned alongside each canal's bank. However, considering the actual canal bed and the availability of the coastal zone, the proposed width of 7.5m on either side could be reduced (or pedestrian and cycle routes could be separated away from the canal banks if sufficient land is not available). The exact dimensions for each side of the bank will be determined during detailed design.

134. As part of this subproject, it is proposed to make improvements forthe existing school sports area (6,000m^2, to the north of the canal), which would include a small football pitch, basketball court, and workout area. This area is used by both school students and residents from the adjoining mahalla. To the south, there is a small public open space, which would also be improved with additional landscape.

135. The indicative facilities and scope of improvements on the Polvon canal are presented in **Table 19.**

Table 19: Indicative facilities and scope of improvement of the Polvon canal

Facilities	m^2/pc
Bicycle path 1.6 mx 3300 m (on both sides of the canal)	8,793 m^2
Pedestrian walkway 4.4 m x 3,300 m (on both sides of the canal)	28,380 m^2
Polvon canal (cleaning, leveling, lining)	33,000 m^2
Green area (lawn, trees, flowers, watering machines)	9,069.6 m^2
Football field 35 mx 22.8 m	789 m^2
Tennis court 28 m x 16 m	448 m^2
Basketball court 28 m x 16 m	448 m^2
Administrative building 26 mx 10 m (changing rooms, bathrooms, coaching room, shower rooms)	258 m^2
Children's playground (swing, sandpit, training turnstiles)	211.2 m^2
Decorative outdoor sitting places (aiwain) 25 m x 25 m	625 m^2
Observation bridges 10 m x 9 m	180 m^2
Decorative floor lamps in national style	660 pc
Benches and trash bins in national style	388

3. Component 1.3: New Tourist Visitor Center in Khiva

a) Background

136. A new multi-functional Visitor Center including visitor information will primarily function as an orientation center and collection point for tourists and would be accommodated in a distinctive architectural structure, designed in the city's ancient heritage style on the Silk Road. The Center would be a focal point or hub for routes that would explore Ichan Kala and Dishan Kala areas, in particular, the heritage trails, cycleways, and proposed electro shuttle bus connections. The Center will also function as the headquarters for guides working in Ichan Kala and other heritage sites in and around the city.

137. The proposed location of the new Visitor Center within the Khiva city is presented in **Figure 21.**

138. The main tasks of the Visitor Center in Khiva will be:

- Guide and prepare a visitor to visit the Ichan Kala World Cultural Heritage Site and its buffer zone in a controlled and sustainable manner, including supporting visitor flow management;
- Promote other attractions, places, and events of the city;
- Promote the city's function as a regional tourist center; and
- Provide a focal point for tourism management and marketing in the city.

Figure 21: Proposed location of new Visitor Center

b) Project Activities

139. This Visitor Center would have, at ground/first-floor level (**Figure 23**)[36]:

- A visitor information and orientation center, with reception and circulation area, information counters, internet stands, and tour operator booths and service area (estimated 620.25 m^2);
- A digital museum for innovative presentation of the city's heritage and role in Khoresm province in Uzbekistan and the Silk Road (estimated 474.46 m^2);
- Prayer rooms and toilets, emergency exit from the 2nd floor (estimated 109.81 m^2).

140. At the second-floor level (**Figure 24**):

- Food and beverage outlets, souvenir sales/bookshop (estimated 408.26 m^2);
- Offices, conference rooms/rooms for trainings, Khokimiyat's offices, rooms for guides and events for working with industry and public (estimated 278/18 m^2);
- Storage rooms and toilets for the Ccenter's staff, technical rooms, inventory room and emergency exit (estimated 77/59 m2);
- A rooftop observation tower or space, which could accommodate roughly 40 people (**Figure 25** and **Figure 26)**

141. To accommodate the above facilities, it is expected to have a two-storey building with a total area of 3,746.12 m^2 (including the first floor of the building - 1,246.03 m^2, the second floor - 929.81 m^2, terrace - 1243.1 m^2, and observation tower 327.18 m^2). In addition, an access road and parking (for 100 cars and 10 buses) and associated utilities for the Center will be required, preferably with installations for solar energy and water recycling.

142. Cleaning and security services for the Center will be outsourced. The Center will require 15 full-time staff and 9 part-time staff to support its operation and maintenance.

143. Figure 22is situational plan of the Visitor Centerm while Figure 27 shows conceptual view.

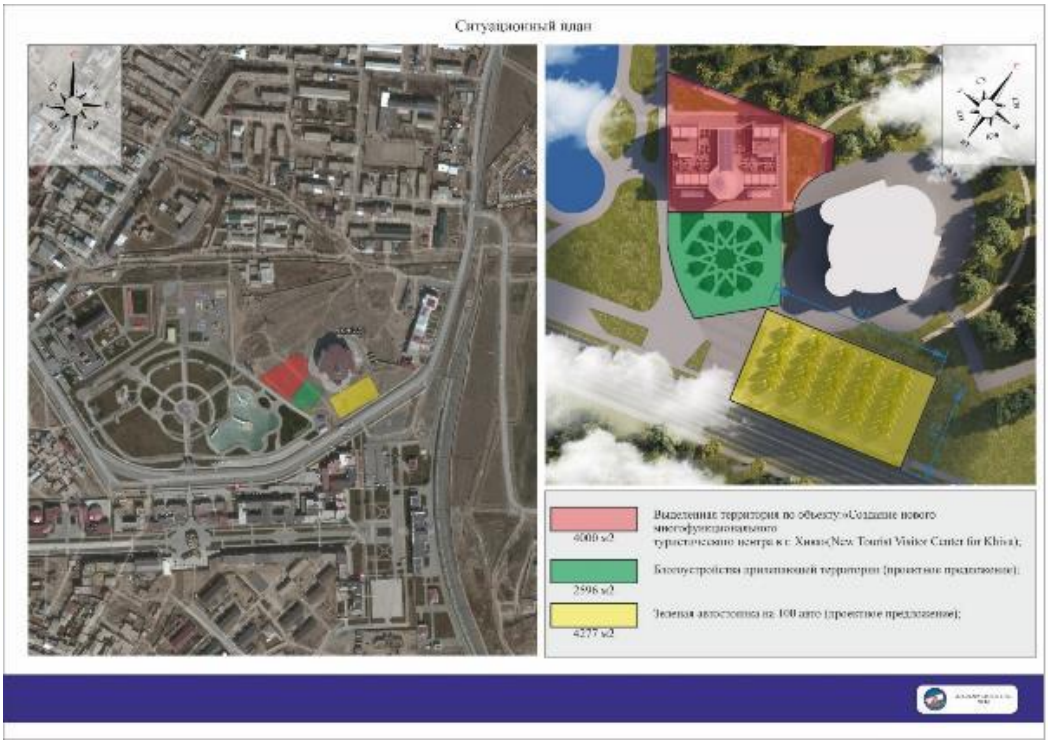


Figure 22: Situational plan of Visitor Center

[36] Estimated parameters will be specified at the detailed design stage

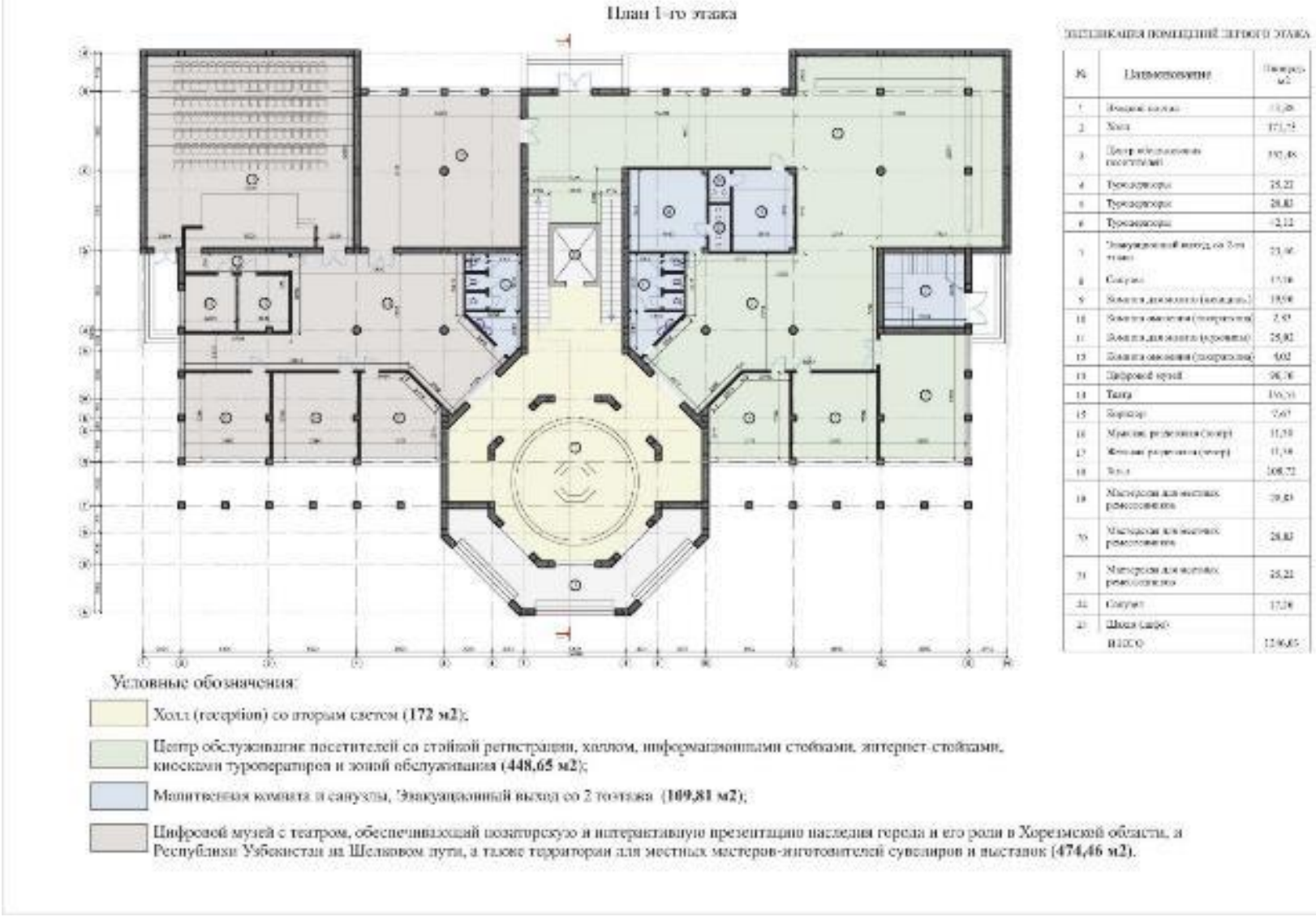


Figure 23: The ground/first-floor level of the Visitor Center plan

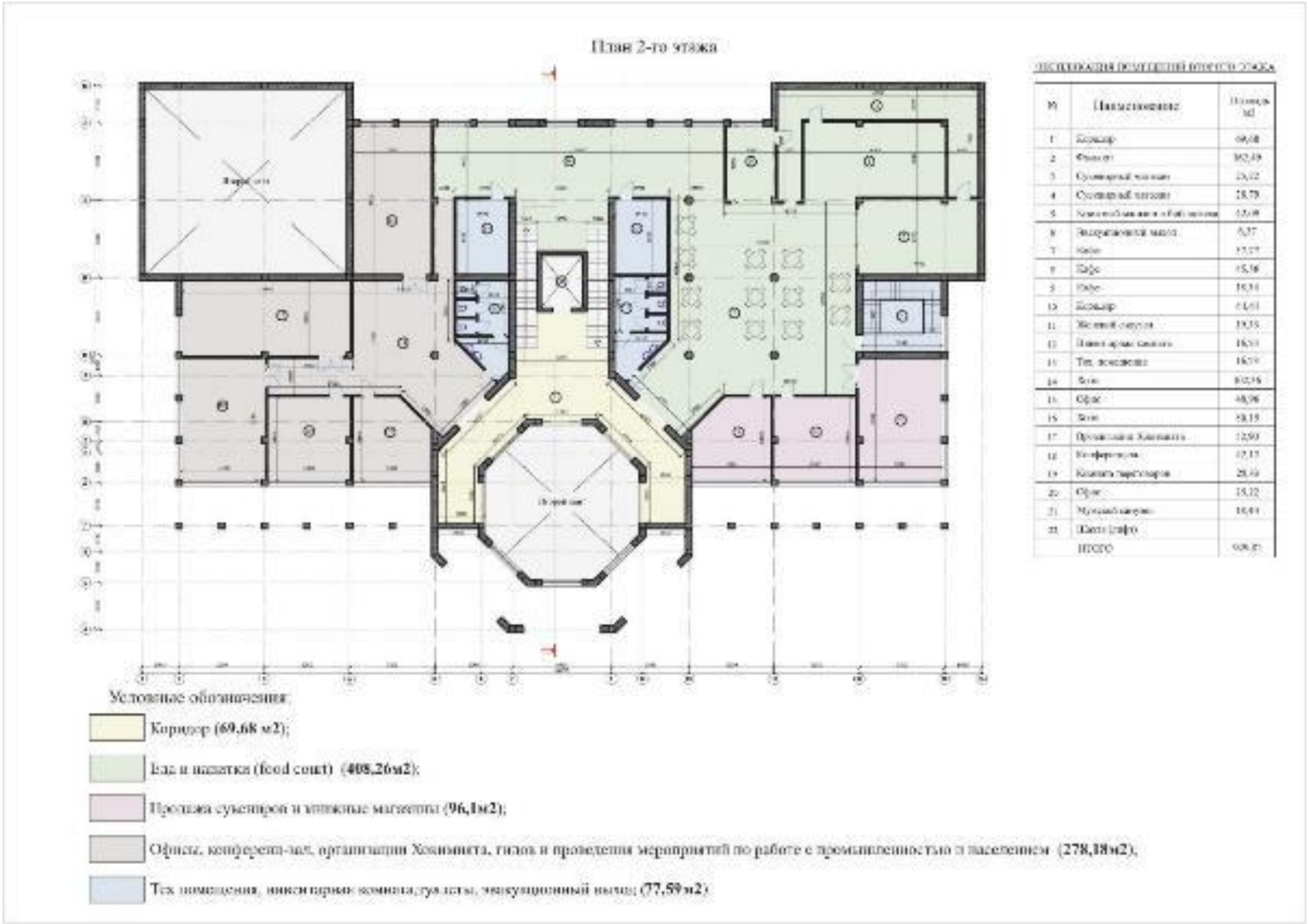


Figure 24: Second-floor level of the Visitor Center plan

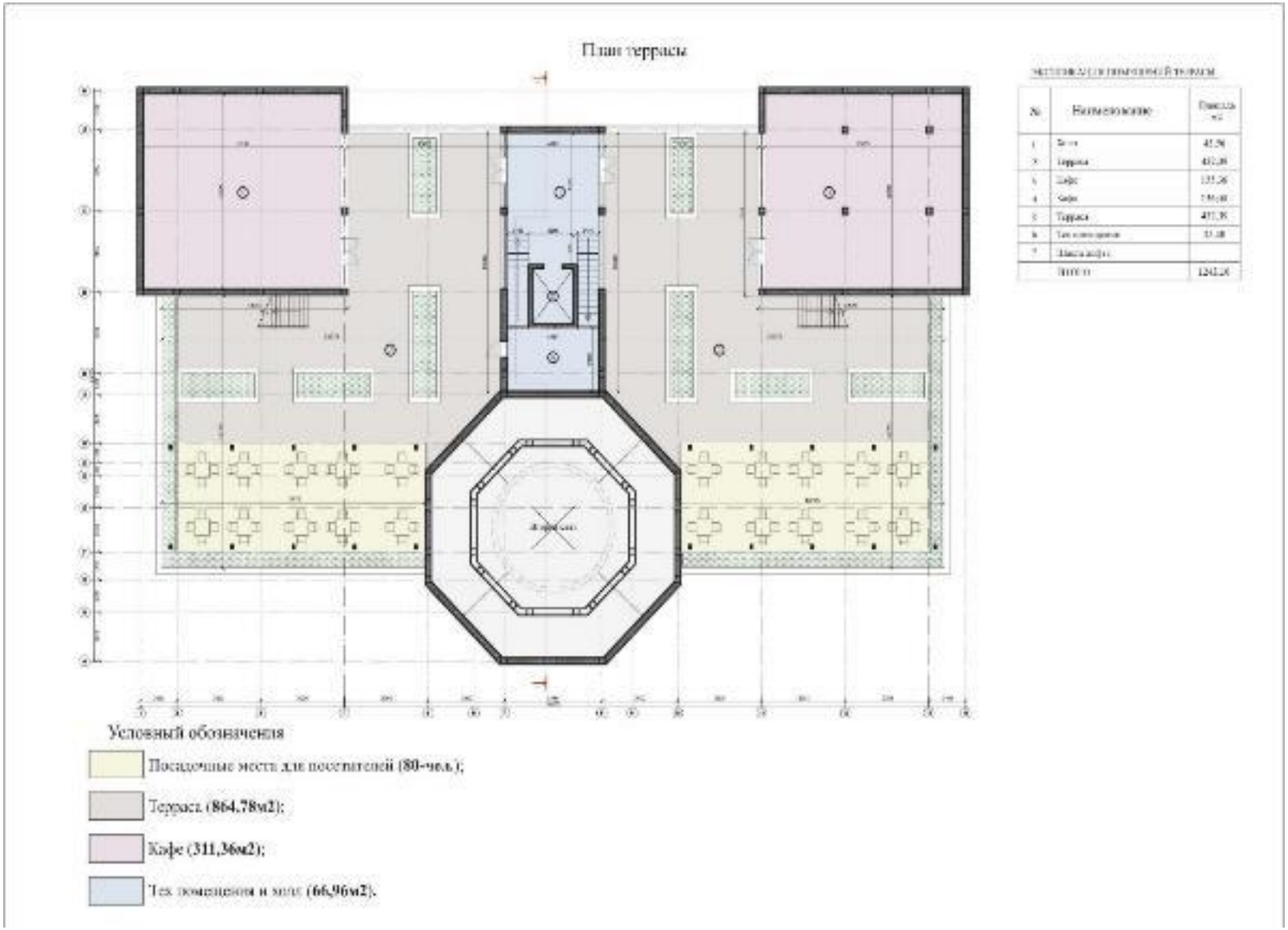


Figure 25: Terrace plan

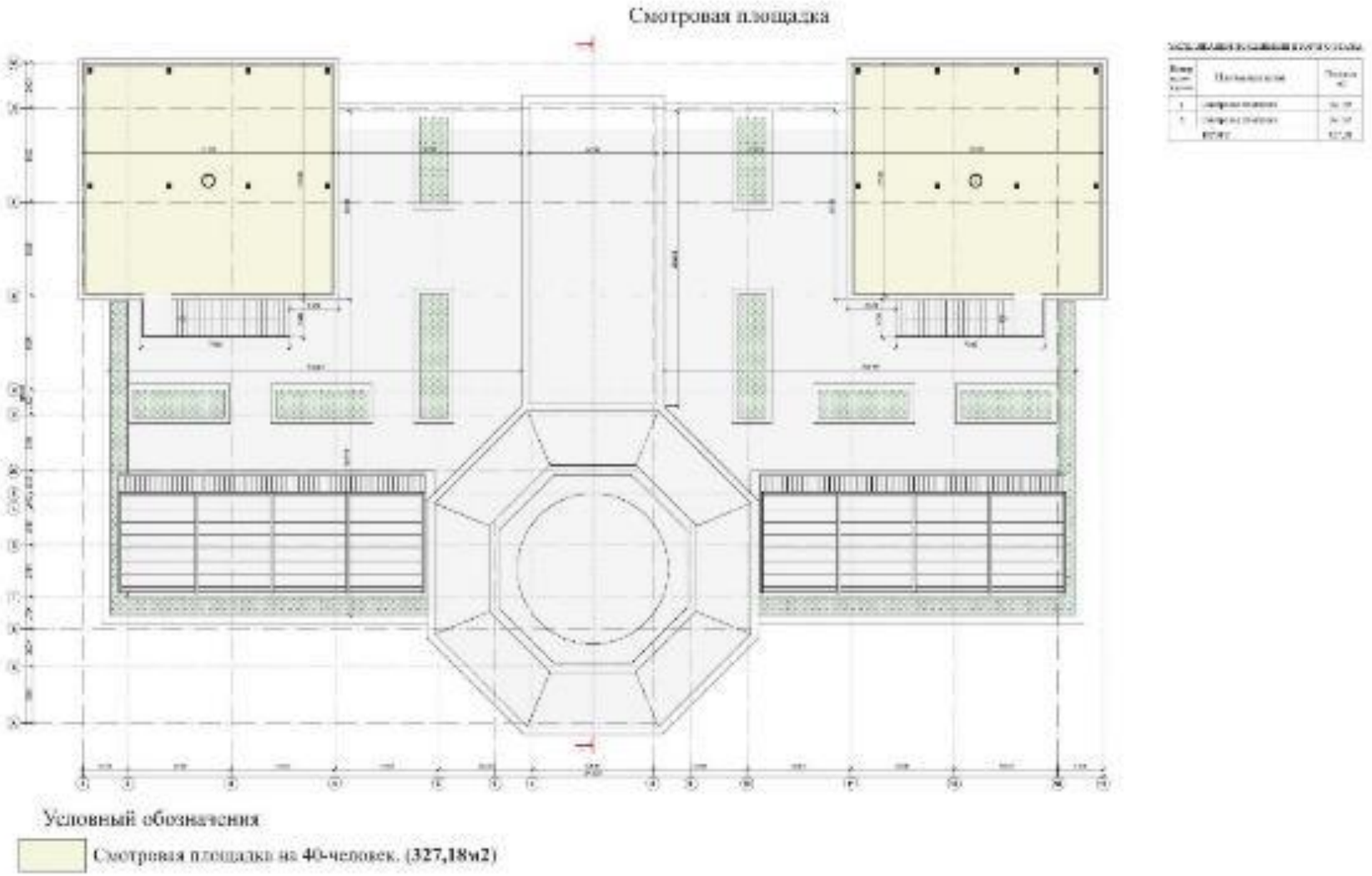


Figure 26: Rooftop observation tower plan

Figure 27: Conceptual view of Visitor Center

4. Component 1.4: Development of New Park and Co-working Center in Havast

a) Background

144. A new city park in Havast will be located on the area of about 6 ha (to be specified during detailed design). The building of the Co-Working Center will be in the park.

145. The proposed area is currently not functionally operated, and the potential for developing a green area in the city is not fully used.

The proposed location of the New Park and Co-working Center within the Havast city is presented in **Figure 28.**

b) Project Activities

146. During detailed design of the park, it is important to consider a concept of developing an integral recreational zone in the park with landscaping interventions to create a single “green frame”, a place for leisure for residents and guests of Havast with a unique appearance of the space to be a comfortable urban environment following the principles of the “sustainable development”. The recreational zone will maintain a balanced state of its constituent components and an integral architectural and landscape solutions. Also, it is important to ensure convenient and safe pedestrian connections, including for people with limited mobility.

147. Area zoning for accommodating the following:

- active activity zones (for sports, games, social events);
- passive activity zones for walks, emotional relief;
- equipment installation zone of a temporary nature to create a public space in demand by the population, considering a season and local climate;
- elements of integrated landscaping: transformation of landforms, decoration, design of green spaces, modern small forms, including "public art", evening lighting and artistic illumination of landscaping elements;
- infrastructure for cyclists in the zones;
- possible development options for a public space, including interactive technologies (sound, color effects, media projection.

Table 20: Park zoning and area sizes (approximate balance of the territory)[37].

Functional zones of the park	Zone area ha, (% of the total area of the park)
Transit public zone	1.20 ha (20%)
Administrative zone	0.30 ha (5%)
Zones of cultural and educational events	0.90 ha (15%)
Children's leisure zone	0.75 ha (12.5%)
Sport zone	1.4 ha (23%)
Public zone	0.5 ha (8%)
Areas for passive and quiet relaxation	0.95 ha (16.5%)

[37] Data from Eptisa Servicios de Ingeniria, SL in JV Eptisa Muhendislik Mus. Hiz. Bil. Ins. Tc. Ltd. Sti. (Consultant on Detailed Engineering Design).

Figure 28: Proposed location of New Park and Co-working Center

Indicative park program for concept development:

1. **Transit public zone:**
   - 1.1 Entrance for groups (along the perimeter of the park; the main entrance, which is easily accessible from the main road).
   - 1.2 Parking (for 118 places).
   - 1.3 Sites for the temporary location of small architectural forms (SAF) (trade booths, sheds, entertainment facilities, attractions).
   - 1.4 Universal sports and cycling track (with a cyclic track 1.6 km).
   - 1.5 Various walking paths (throughout the territory and perimeter of the park).
   - 1.6 Storage cells.
   - 1.7 Public toilets M / F and universally accessible.
2. **Administrative zone:**
   - 2.1 Administrative and amenity buildings (park administration, premises for park personnel, storage facilities).
   - 2.2 Technical and repair buildings (repair shops, storage facilities for repair equipment, garages for park equipment).
   - 2.3 Container sites for separate accumulation of solid waste.
3. **Zones for cultural and educational events:**
   - 3.1 "Co-working center" building (approximate area 1,100.0 m^2).
     - 3.1.1 Multifunctional premises (for recreational, seminars, lectures, master classes, conferences and seminars) with an approximate total area of 200 m^2 + 250 m^2.
     - 3.1.2 Small public library with an approximate area of 32 m^2+ 193 m^2 (reading room).
     - 3.1.3 Office space (small offices for rent) with an approximate area of 100 m^2 + 20 m^2.
     - 3.1.4 Cafeteria (where pre-prepared food will be sold) with an approximate area of 24 m^2.
     - 3.1.5 Administrative premises (administration rooms, accounting office, staff rooms, etc.) (120 m^2).
     - 3.1.6 Housekeeping premises (warehouses, bathrooms, technical premises) with an approximate total area of 97 m^2.
4. **Children's leisure zones:**
   - 4.1 Playgrounds for outdoor activities for children (playgrounds, trampolines, ropeways, mini climbing walls, etc.).
   - 4.2 Resting and waiting areas for parents nearby (gazebos, libels, benches, etc.).
   - 4.3 Equipped playgrounds for the installation of children's attractions.
5. **Sport zone:**
   - 5.1 Active recreation area
     - 5.1.1 Sports equipment for rent 140m^2 (rental office, warehouse, staff room)
     - 5.1.2 Sports equipment repair workshop (22 m^2)
     - 5.1.3 Skate park (area size 30 x 35 m).
     - 5.1.4 Locker room with storage compartments (20 m^2)
   - 5.2 Outdoor exercise area
     - 5.2.1 Workout (area size 12 x 20 m).
     - 5.2.2 Climbing wall (area size 13 x 24 m).
     - 5.2.3 Universal sports grounds for basketball, football, and volleyball.
6. **Public zone:**
   - 6.1 Open area for mass festivities and group recreation (with sufficient shading, commercial facilities, equipped picnic areas).
   - 6.2 Universal spaces for public events (provide space for temporary placement of stage equipment for concerts, public performances, exhibitions, etc.).
7. **Passive and quiet relaxation zone:**

7.1 Zone with different landscaping.

7.1.1 Various walking paths (non-cyclic and variable walking paths).

7.1.2 Areas with different types of landscaping and waterways.

7.2 Places for passive pastime (with sound barriers around the perimeter: vegetation, landscape drops; with infrastructure in the form of benches, gazebos, etc.).

7.2.1 Areas for passive leisure and built-in equipment (chess, checkers and other various board games).

148. Preliminary composition of the premises of the building "Coworking center" in the Havast is;

- Multifunctional premises (for workshops, lectures, master classes, conferences and seminars) (300 m^2).
- Small public library (120 m^2).
- Office premises (small offices for rent) (300 m^2).
- Cafeteria (for selling semi-processed food products) (60 m^2).
- Administrative premises (administration rooms, accounting offices, staff rooms, etc.) (120 m^2).
- Household premises (warehouses, bathrooms, technical premises) (100 m^2).

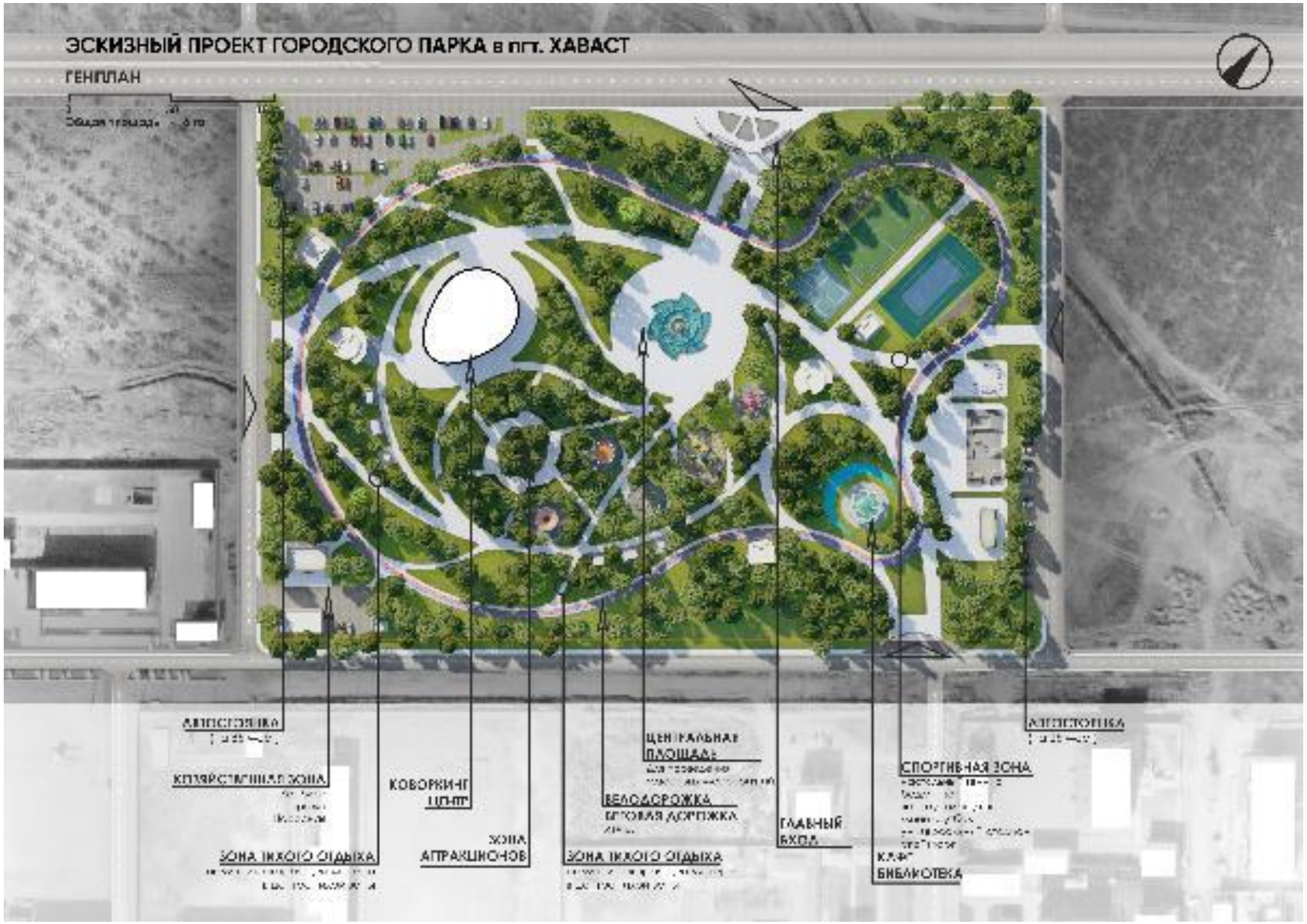

ЭСКИЗНЫЙ ПРОЕКТ ГОРОДСКОГО ПАРКА в пгт. ХАВАСТ
ГЕНПЛАН
АВТОСТОЯНКА
КОВОРКИНГ ЦЕНТР
ЦЕНТРАЛЬНАЯ ПЛОЩАДЬ
ВЕЛОДОРОЖКА
ЗОНА ТИХОГО ОТДЫХА
ЗОНА АТТРАКЦИОНОВ
ЗОНА ТИХОГО ОТДЫХА
ГЛАВНЫЙ ВХОД
СПОРТИВНАЯ ЗОНА
КАФЕ
БИБЛИОТЕКА
АВТОСТОЯНКА

Figure 29: **Concept plan and zoning of New Park and Co-working Center**

IV. DESCRIPTION OF THE ENVIRONMENT

149. This chapter presents the baseline of the project area under the following headings:

- Physical environment;
- Biological environment;
- Cultural heritage; and
- Socio-economic conditions.

150. Baseline data has been collated from desktop research of available data. Secondary data was collected from various government agencies. Climatic data was obtained from the Centre of Hydrometeorological Service at the Cabinet of Ministers of the RUz (Uzhydromet).[38] A separate desk study and site visits were conducted for the assessment of biological resources in the project area. Socioeconomic data was obtained from yearbooks and from socio-economic reports prepared under the current project. data on cultural resources was collected from available sources and city consultations.

151. The baseline monitoring for the above-mentioned parameters (air quality and noise levels) in the area close to construction sites were conducted for the Djizzak and Havast sites. For Khiva site, baseline measurements have not been conducted due to the restriction to access to the area during the project preparation. Therefore, for Khiva site, baseline monitoring will be conducted at the pre-construction phase. The requirement on baseline monitoring is included in the EMP and EMoP.

A. Introduction

152. This section presents the baseline of the project area under the following headings:

- Physical Environment
  - Climatic and air quality
  - Geography and topography
  - Water resources
  - Soils
- Biological environment
  - Flora
  - Fauna
  - Protected areas & habitats
- Cultural Heritage
- Socio-economic environment

153. The Location of subcomponent cities (Havast in Syrdarya Province, Khiva in Khorezm Province, and Djizzak in Djizzak Province) is shown in **Figure 30**. Baseline data has been collected based on desktop research of available data. Secondary data was collected from various government agencies. Climatic data from Gulistan (data for Djizzak and Havast cities) and Urgench (data for Khiva city) meteostations (where requested parameters are being observed by Uzhydromet and the closest to the sites) on temperature, wind and extremal weather conditions was obtained from Uzhydromet.

[38] Including climat data (temperature, wind and extreme weather conditions), and surface water flow and quality data for water courses in Djizzak, Khoresm and Syrdarya provinces.

Figure 30: **Project cities location**

B. Djizzak province

1. Physical Environment

a) Climate and Air Quality

154. By its natural and climate conditions, Djizzak province belongs to the zone of sharp continental climate - summers are hot and dry, and winters are relatively mild. The average temperature in January is between + 1°C, to + 4°C, and in July between + 26°C, + 28°C. Up to 400-500 mm of precipitation falls per annum. The vegetation period lasts for 240-260 days. Relative humidity is 78-80%, and in the summer 20-40%.

155. In the area of Djizzak city, northern and north-west winds coming from Tamerlan Gates[39] mountain pass. An average monthly wind speed is 1.4 - 26.7 m/sec.

156. Cold air entering from the northern part of the province causes sharp temperature fluctuations. Frosts occur even in late spring, and damage fruit trees and crops. Seismic zoning of the province belongs to the 7-seismic magnitude zone (the zones range from 1 to 9 with 9 being the worst)

157. Climate map of Djizzak province is presented in **Figure 31**.

[39] Tamerlan Gates - the narrowest part of the Sangzar river ravine – it is a passage in the mountains separating the Malguzar and Nuratau ranges (Uzbekistan), located in 15 km from Djizzak city. The width of the ravine, formed by almost sheer rocky walls, is 35 m. A highway and a railway from Tashkent to Samarkand pass through the ravine. At the top of the rocks there are inscriptions, including ancient ones, in Persian. One of them was made by the order of Ulugbek, the astronomer and ruler of Samarkand, the grandson of Tamerlane.

Figure 31: Climatic map of Djizzak province

158. Data on climatic conditions for the period of 2018-2020 Gulistan meteostation on the project sites is presented in **Figure 32.**

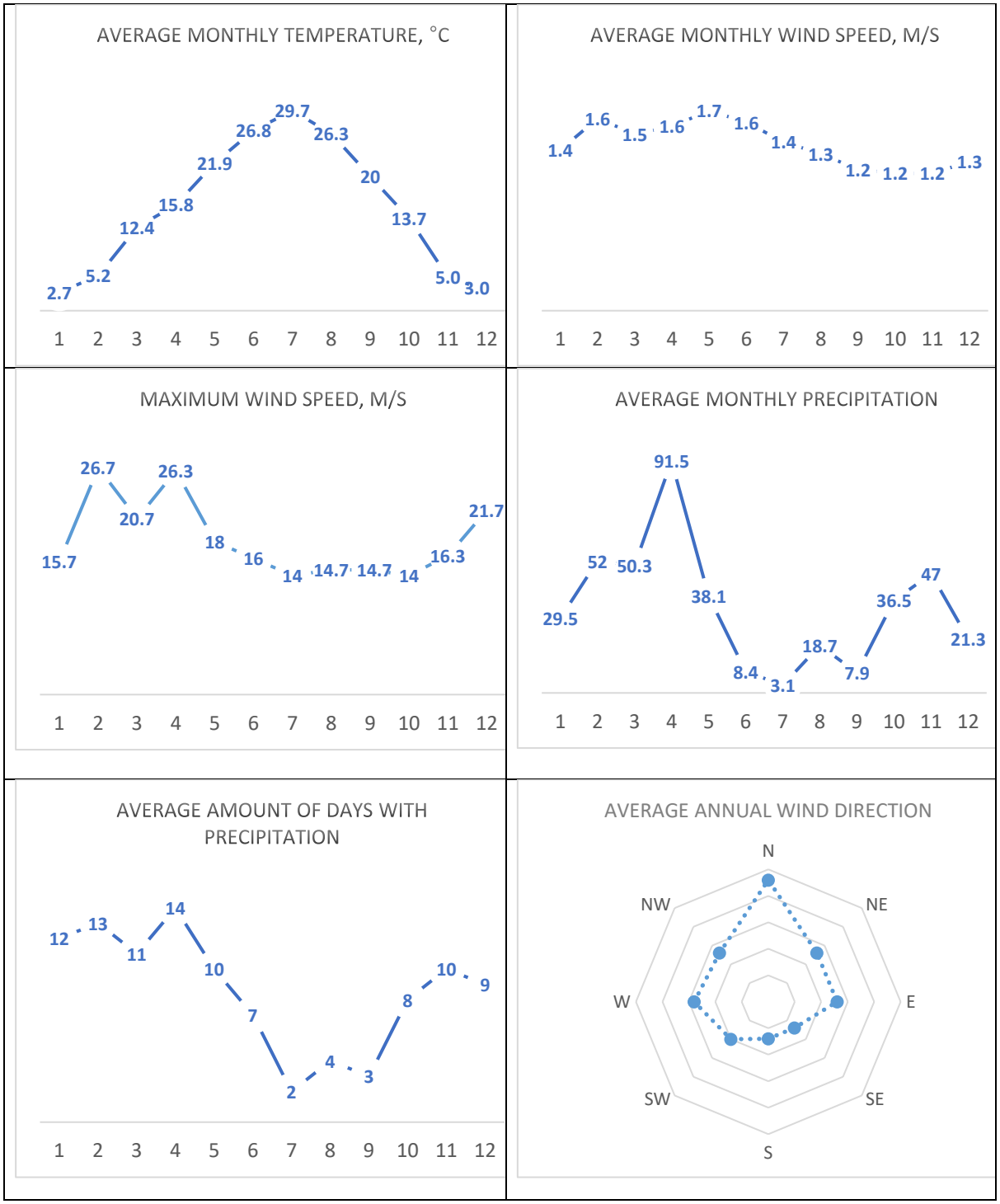


Figure 32: Climatic data of Djizzak city

159. The results of air quality monitoring for 2018-2020 are presented in **Figure 33**. According to the data the ambient air quality in Djizzak city complies with the standards - Maximum Allowed Concentrations (MAC).

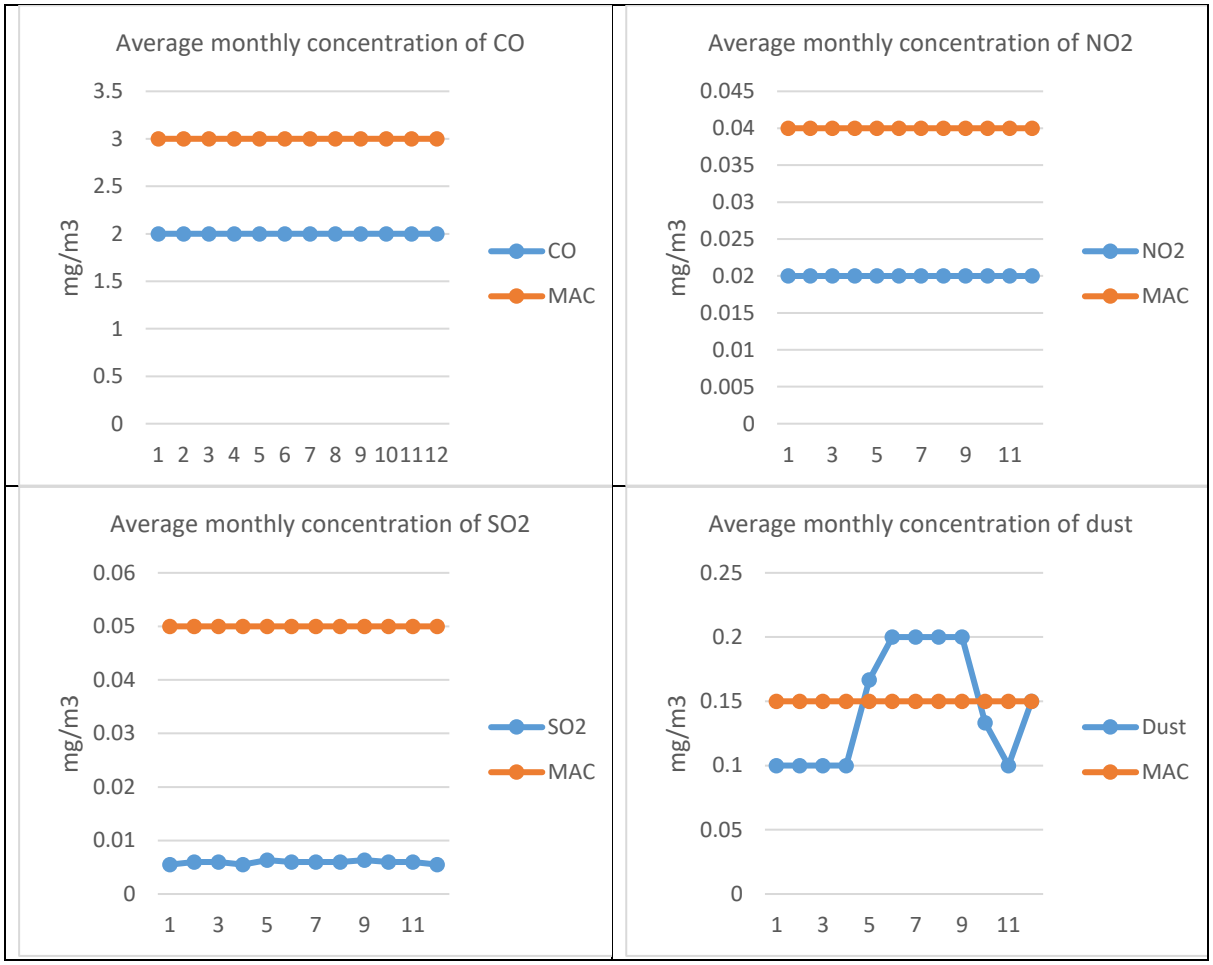


Figure 33: Ambient air quality data of Djizzak city

160. The number of days with atmospheric phenomena according to the Gulistan meteostation for the period of 2018-2020 is shown in **Table 21**.

Table 21: Average values of atmospheric phenomena for 2018-2020

Year	Month	Heavy rain	Rain	Drizzle	Ice rain	Liquid precipitation	Snow	Heavy snow	Snow grains	Solid precipitation	Hail	Dew	Frost	Black ice	Mist	Fog (all types)	Haze	Dust storm	Dust storm and snowdrift	Storm
2018-2020	1	6	4	2	0	10	5	1	0	5	0	1	14	1	8	6	0	0	0	0
2018-2020	2	9	3	1	1	11	4	1	0	4	0	1	7	1	5	2	0	0	0	1
2018-2020	3	11	1	1	0	11	1	1	0	1	0	13	2	0	1	0	0	0	0	2
2018-2020	4	14	1	0	0	14	1	0	0	1	0	12	1	0	1	1	0	1	1	3
2018-2020	5	10	0	0	0	10	0	0	0	1	1	9	0	0	0	0	0	0	0	8
2018-2020	6	7	0	0	0	7	0	0	0	0	0	2	0	0	0	0	0	1	1	5
2018-2020	7	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
2018-2020	8	2	0	0	0	2	0	0	0	0	0	3	0	0	0	0	0	1	1	1
2018-2020	9	3	0	0	0	3	0	0	0	0	0	7	0	0	0	0	0	0	0	0
2018-2020	10	6	0	0	0	6	0	1	0	1	0	7	3	0	0	0	1	1	1	1
2018-2020	11	6	2	1	0	7	4	0	1	4	0	8	11	2	4	2	0	0	0	1
2018-2020	12	6	3	2	0	8	3	0	0	3	0	3	9	1	14	7	0	0	0	0

Source: Centre of Hydrometeorological Service of Uzbekistan (Uzhydromet)

b) Geography and *topography*

161. Djizzak province is located in the central part of the country, between the Syrdarya and Zarafshan rivers. It borders in the north and northeast with the Republic of Kazakhstan and Syrdarya province, in the southeast with the Republic of Tajikistan, and in the west and southwest with Navoi and Samarkand provinces. The total area of the area is 21,210 km^2. The central, northern and northwestern parts of the province are located in Golodnaya Steppe[40] and Kyzylkum desert. The province is framed by spurs of the Turkestan Ridge (Malguzar) from the south, and from the west – by spurs of Nuratin Ridge, which are separated from Turkestan Ridge by the narrow Valley of the Sangzar river.

162. The center of Djizzak province is Djizzak city (**Figure 34**). Djizzak is located on a flat area, where in the north-eastern part the height is 362 meters above sea level, and in the south-eastern part it is 373 meters. The slope of the city's relief is 0.2% an average.

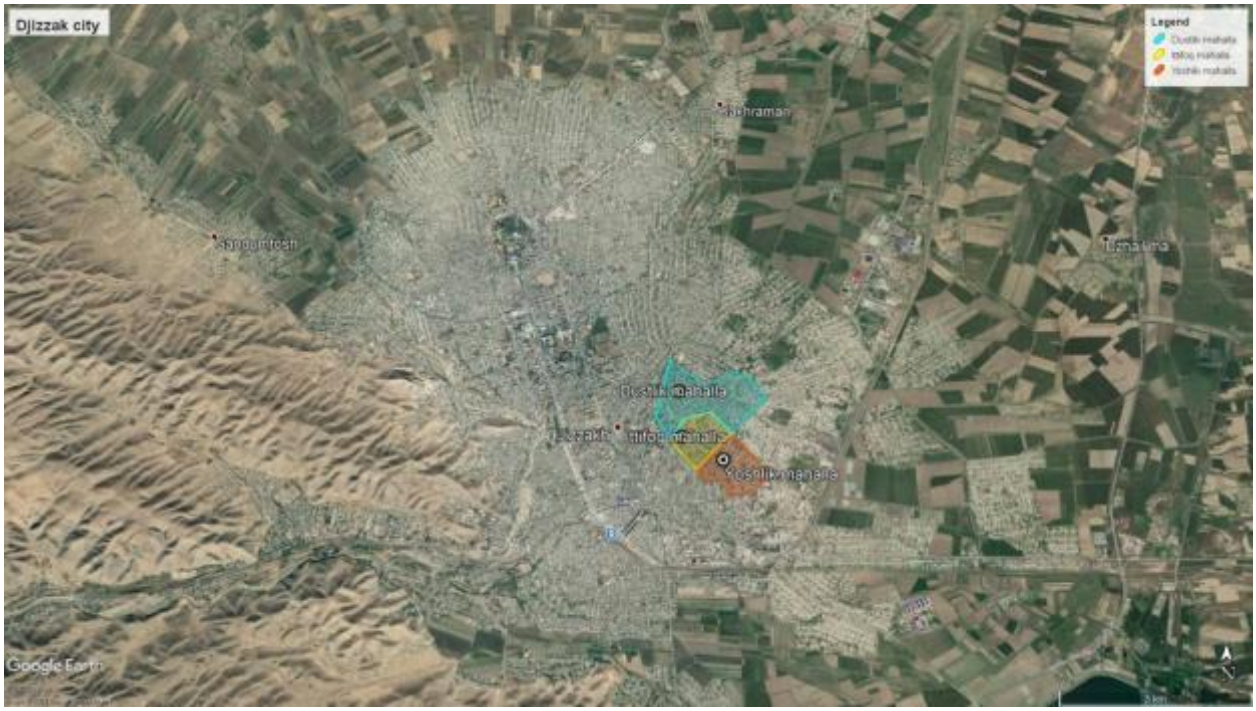


Figure 34: Djizzak city

c) Water Resources

163. The main waterways of the province are the Sangzar and Kly rivers. There are also numerous mountainous watercourses, such as the Achisay, Jalair, Ravat and others that flow down from the slopes of the Turkestan and Nuratin Ridges (**Figure 35**). The province has water reservoirs and lakes; the closest reservoir to the project area is Djizzak reservoir at the distance of 3-5 km. The largest reservoir is the Aydar-Arnasay system of lakes (AASL) that covers an area of more than 350,000 ha. AASL is located in two provinces: Djizzak and Navoi. The distance between AASL and Djizzak city is more than 45 km.

164. In Djizzak city, the Sangzar river turns northward and as it passes Kly Village it is diverted into the Kly Canal, much of it being used for irrigation. The Kly is also a wastewater drainage collector and ends up discharging its flow into the Aydar Lake.

165. The hydrology of Djizzak is dominated by the network of artificial canals and drains which carry water diverted from all mountain runoff waters, as well as effluent discharged from WWTP, industries and general surface runoff from precipitation. This system of artificial canals has

[40] Golodnaya steppe (Mirzachul) is a clay-saline desert in Central Asia (Uzbekistan, South Kazakhstan, Zafarabad region of Tajikistan). It is located on the left bank of the Syrdarya river, starting from its exit from the Fergana Valley. The area is about 10,000 km².

reshaped the provinces surface hydrology, resulting in the formation of the Aydarkul lKE, located along the northern border of the province.

166. The main waterways and their distance from the subprojects' sites are presented in **Figure 35**.

167. In Djizzak province, groundwater in the flat area are very shallow, the depth does not exceed 3-4 m. Groundwater is saline, coming out to the surface, causing soil salinization. With an increase in the height of the relief, the depth of groundwater occurrence increases, on the foothills and plains it is 10-25 m, while its salinity decreases. Groundwater in the mountainous areas are associated with river valleys and shallow as well (4-5 m), have high taste characteristics. In the mountainous and foothill areas of Djizzak province, 209 springs were recorded downstream with cold waters, which are confined to the Nurata-Turkestan group of hydrogeological massifs.

d) Soils

168. In Djizzak province, most of the flat territory is presented with light gray soils. In the Golodnaya Steppe, these soils are salty, loamy and clayey in texture, while at the northern foot of the Nurata ridge, they are eroded skeletal or cartilaginous and pebble-loamy soils. In the east of the Golodnaya Steppe, meadow-serozem soils, saline and slightly saline soils are spread. Presence of some humus (11.8%) and, accordingly, nitrogen is a specific feature of light gray soils. A high carbon content and alkaline reaction promotes transition of phosphorus into difficult-to-digest forms. In addition, light gray soils undergo secondary salinization during irrigation. The main reasons for soil salinization are due to unsatisfactory drainage and lack of efficient drainage network, lack of leaching and proper agricultural practices, evaporation of filtrated water reaching the gypsum horizon.

169. In the extreme north of the flat territory, semi-stable sands with spots of desert sandy soils are widespread. In the south of the province, on the slopes of the Turkestan ridge and its spurs, the soil cover has vertical zoning. Typical gray soils, clayey and loamy, sometimes eroded soils are widespread in the foothills and in the hilly foothills up to an altitude of 1,000-1,200 m. In the high foothills, at an altitude of 1,200-1,400 m, dark clay and loamy soils are developed, mostly eroded. In the middle zone of the mountains, at an altitude of 1,400-2,500 m, brown clay and loamy erosion prevails, in some places - gravel and brown mountain loamy or gravel soils. At more than 2,500 m brown eroded gravel soils are common among rocks and talus and have small spots - light brown alpine soils, gravel, with rock outcrops. In the eastern part of the Nurata ridge, which is a part of the Djizzak province, vertical zoning is limited, since the height of the mountains does not exceed 2,000 m. Foothills and the lower belt of the Nurata mountains are typical with dark gray soils, in the middle zone of the mountains and at the watershed - brown soils. Due to the desert climate of this mountain range, the soils here are skeletal, thin, highly eroded with frequent outcrops of bedrocks. In the northwest of the province, large areas are occupied by sands, salt marshes and *takyrs* growing between them.

170. Typical serozem soils are limited to higher areas of foothill plains and hilly foothills, forming a belt of the middle zone. The Djizzak province is located on 300 – 450 m. The humus profile is more distinct, gray and pale gray; the humus content in its upper part is 1.5-2.5%, in arable soils - 1.0-1.5%. The profile is wetted by precipitation up to 1.5 m. Weakly saline genera are less common than among light gray soils. Brown soils develop under the cover of shrubs, grasses and various herbaceous vegetation on clays, loams, yellow-brown, eluvial and dense bedrocks. The humus content in brown soils is on average 5-8%.

171. The natural resources of the province include deposits of marble, limestone and gypsum. Nonferrous metals are found in mountainous provinces. The northern foothills of the Turkestan ridge and Malguzar are undulating loess plain. In Djizzak province, light and typical serozem and meadow-serozem soils of plains, meadow and meadow-boggy soils of river valleys are used for irrigated agriculture or are lands of promising development. Typical and dark eroded gray soils of the foothills and low mountains are used for grazing livestock and rainfed ones. The brown soils of the middle mountain belt are used as pastures.

172. Soil map of Djizzak province is presented in **Figure 36.**

Figure 35: Main waterways and its remoteness from subprojects' sites

Figure 36: Soil map of Djizzak province

2. Biological Environment

a) Flora

173. In general, the natural vegetation of the Djizzak province occupies an area not suitable for plowing. In the north of the Djizzak region, ephemeral *juzgunniks* with an admixture of singrene and white saxaul prevail on fixed and semi-fixed sands, and wormwood and saltwort prevail on gravel and saline areas. At the northern foot of the Nurata ridge, ephemeral wormwoods prevail on gravelly light gray soils. On the undulating plain of the northern foothills of the Malguzar mountains and the Turkestan ridge, on light gray soils, ephemeral-ephemeroid

vegetation is widespread, which is replenished by representatives of drought-resistant perennial motley grasses – scurfy pea, cousinia, and phlomis as the mountains approach. In the hilly foothills of the Turkestan ridge and in the low mountains of Nuratau, on typical sierozems, perennial drought-resistant motley grass prevails over ephemeroids and ephemeroids. In the high foothills and middle belt of the Turkestan ridge, Malguzar and Chumkartau, in the middle belt and in the watersheds of Nuratau within the limits of heights of 1200-2200 m on typical and dark sierozems and partially on brown soils ephemeroid couch grasslands with wormwood are widely developed. Due to the dryness of these mountainous areas, mesophytic motley grasses and large grasses are not widespread here.

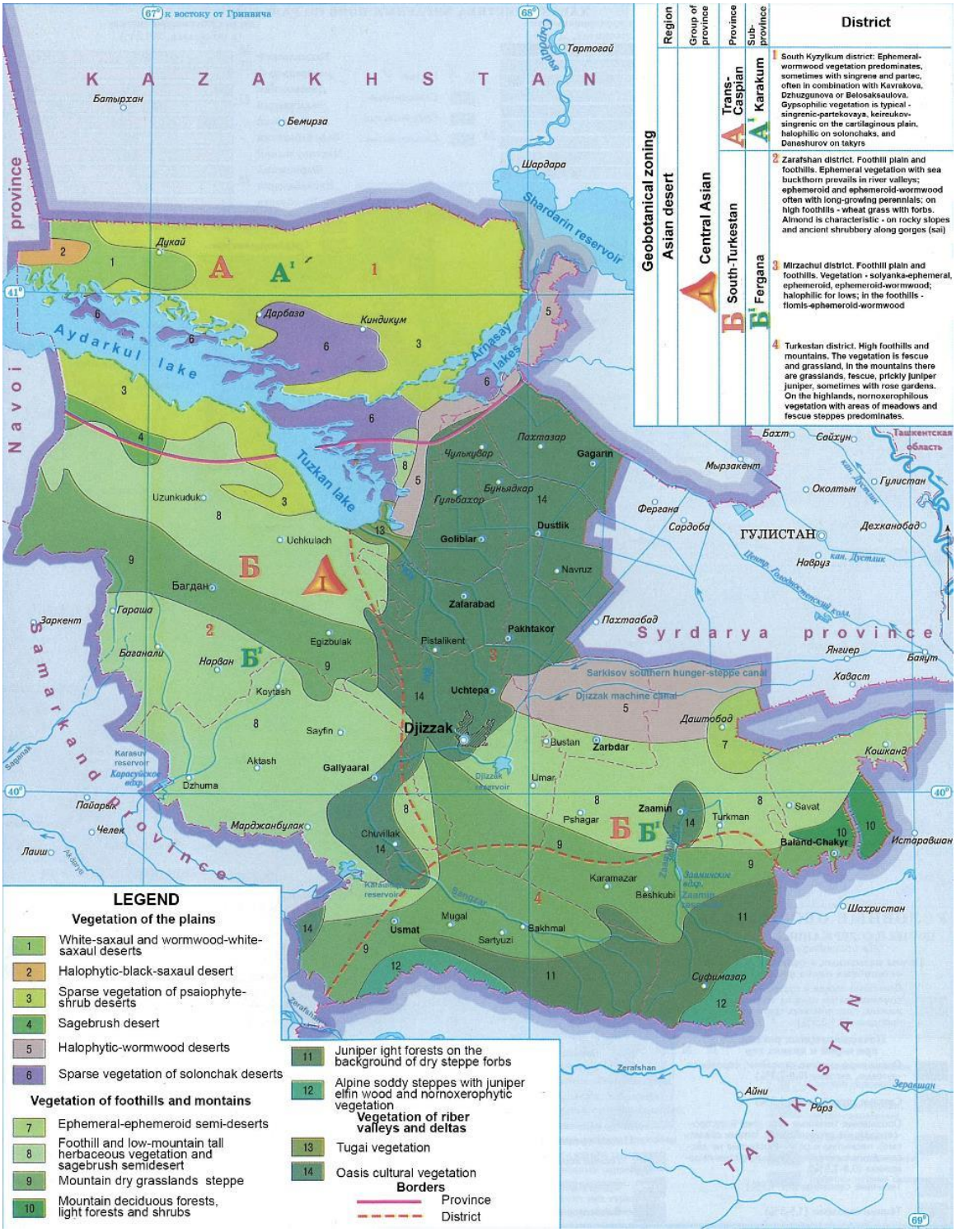


Figure 37: Vegetation map of Djizzak province

174. On the Turkestan ridge and its spurs, in the upper reaches of the rivers Sangzar and Zaaminsu, at altitudes exceeding 2,000 m, a typical type of vegetation is juniper, alternating with areas of wheat grassland steppes, and in some parts - with the typical steppe vegetation and mountainous xerophytes. Juniper forests in the upper reaches of Sangzar and Zaamin are protected. Highland vegetation has very limited development and is represented by spots of alpine meadows on the slopes of Turkestan ridge, Malguzar and Chumkartau above 2,500 m.

175. A total of 28 of plant species included in the Red Book of Uzbekistan grow in Djizzak province. A total of 26 of them are endemic, such as the *Astragalus reedy-bubbly*, *Olga's Stubbendorfiya*, *Isakul's onion*, *Shirach Lacteous-flowery*, *Sage Calvish* and others. There are 44 protected species of animals also included in the Red Book of Uzbekistan inhabit in the province; four of them, the Fedchenko's Assassin Bug, Shestakov's Digger Wasp, Sulfur Flowerfly and Desert Monitor, are endemics.

176. The vegetation map of Djizzak province is presented in **Figure 37**.

177. The project area is in a foothill (along the water main) and urban area (in mahallas) where flora and fauna are typical for these zones. The fauna of the project area is represented by foothill species, dominated by reptiles, rodents and birds, with low species diversity. Typical vegetation for Project area is represented by annual plants, fruit trees, bushes and poplars, as shown in **Figure 38.**

Figure 38: Vegetation in Project area (May, 2021)

a) *Fauna*

178. The map of fauna of Djizzak province is presented in **Figure 39** below.

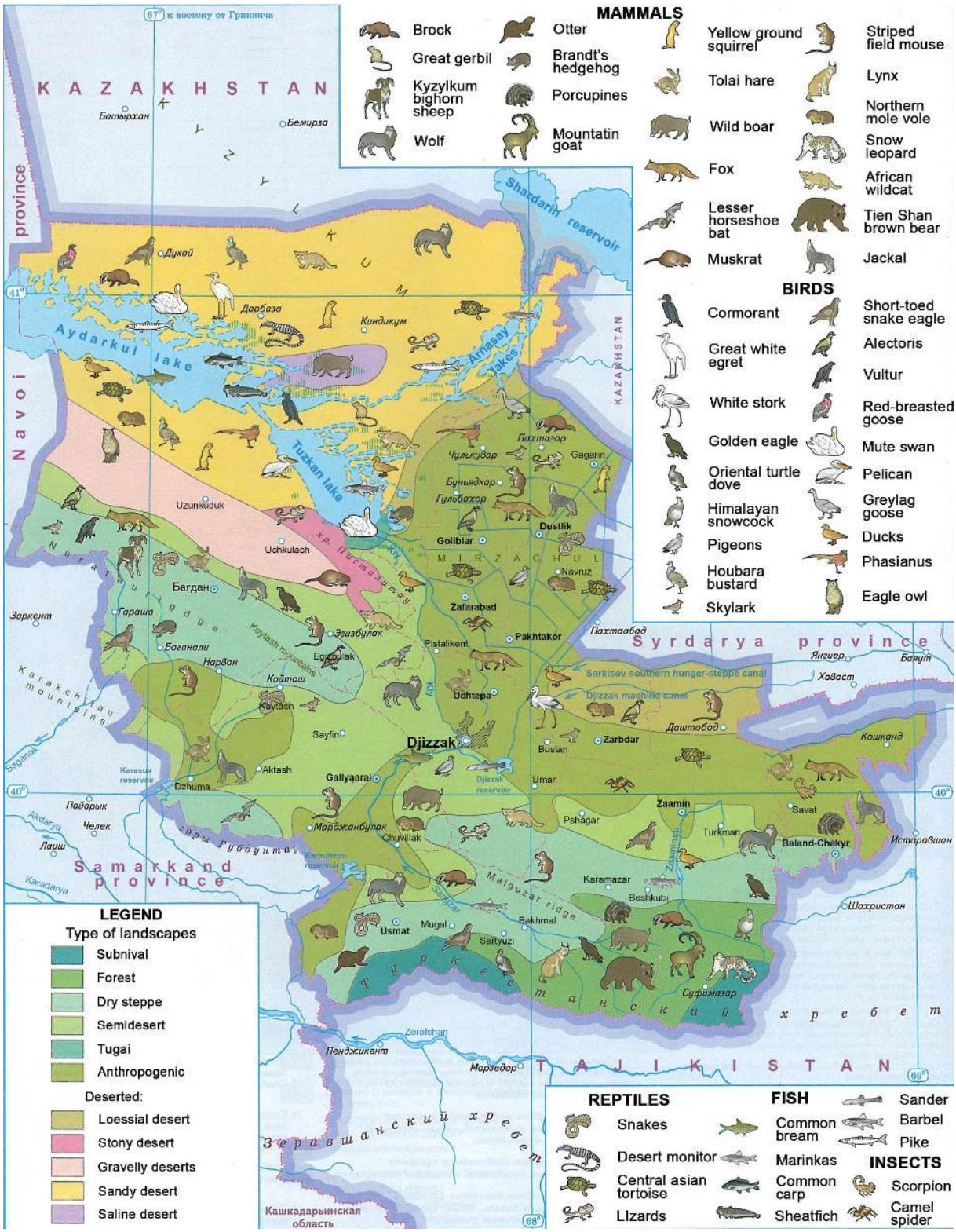


Figure 39: Fauna map of Djizzak province

b) *Protected* Areas & Habitats

179. There are also four specially protected natural areas, and five important bird areas (IBA) in the province (**Table 22**):

Table 22: Main protected natural areas and IBA zones in Djizzak province

SPNA name, organization year	Location		Area, km²	IUCN Category	Distance from the Project site
	Administrative boundires	Geographical location			
Reserves					
Zaamin mountain-juniper Reserve (1926; 1960)	Djizzak province (Zaamin and Bakhmal districts)	Pamir-Alay, Northern Slope of the Turkestan Range	268.4	I	55 km
Nurata mountain-nut-fruit Reserve (1975)	Djizzak province (Farish province)	Pamir-Alay, Northern slopes of the central part of the Nurata Range	177.52	I	86 km
National parks					
Zaamin National Park (1976)	Djizzak province (Zaamin district)	Pamir-Alay, Northern Slope of the Turkestan Range	241.1	II	57 km
Preserves					
Arnasay (1983)	Djizzak province	Arnasay water system	663.0	IV	45 km
Important Bird Areas (IBA)					
North Aydarkul	Djizzak province, Navoi province	50 km northeast of the district center of Nurata	1,581.98	N/A	95 km
Arnasay Lake System	Djizzak province (Mirzajul district)	45 km northwest of the city Gagarin	317.06	N/A	45 km
Tuzkan Lake	Djizzak province (Arnasay and Farish provinces)	35 km west of the village of Dustlik	1,077.32	N/A	45 km
Nurata Range	Djizzak province (Farish province); Samarkand province (Payaryk and Koshrabat districts)	Central part of the Nuratau ridge, 120 km west of the city of Djizzak	346.81	N/A	86 km
Jum-Jum	Djizzak province (Bahmal district)	North-western spurs of the Turkestan range, 60 km east of the city of Samarkand and 50 km south of of Djizzak	415.17	N/A	38 km

180. The Remoteness of subcomponents from the main natural protected areas is shown in **Figure 40** below. As it was confirmed by representatives of the SCEEP, there are no Red List species (both flora and fauna) on the territory of Djizzak city and adjusted area.

2. Cultural Heritage

181. The cultural heritage includes Tamerlane Gate (the road laid through the mountains and forming a "gate" of rocks), Khoja Nuriddin XIX madrasah, Gubdin-ota spring and others. Some of them are shown in **Figure 41.**

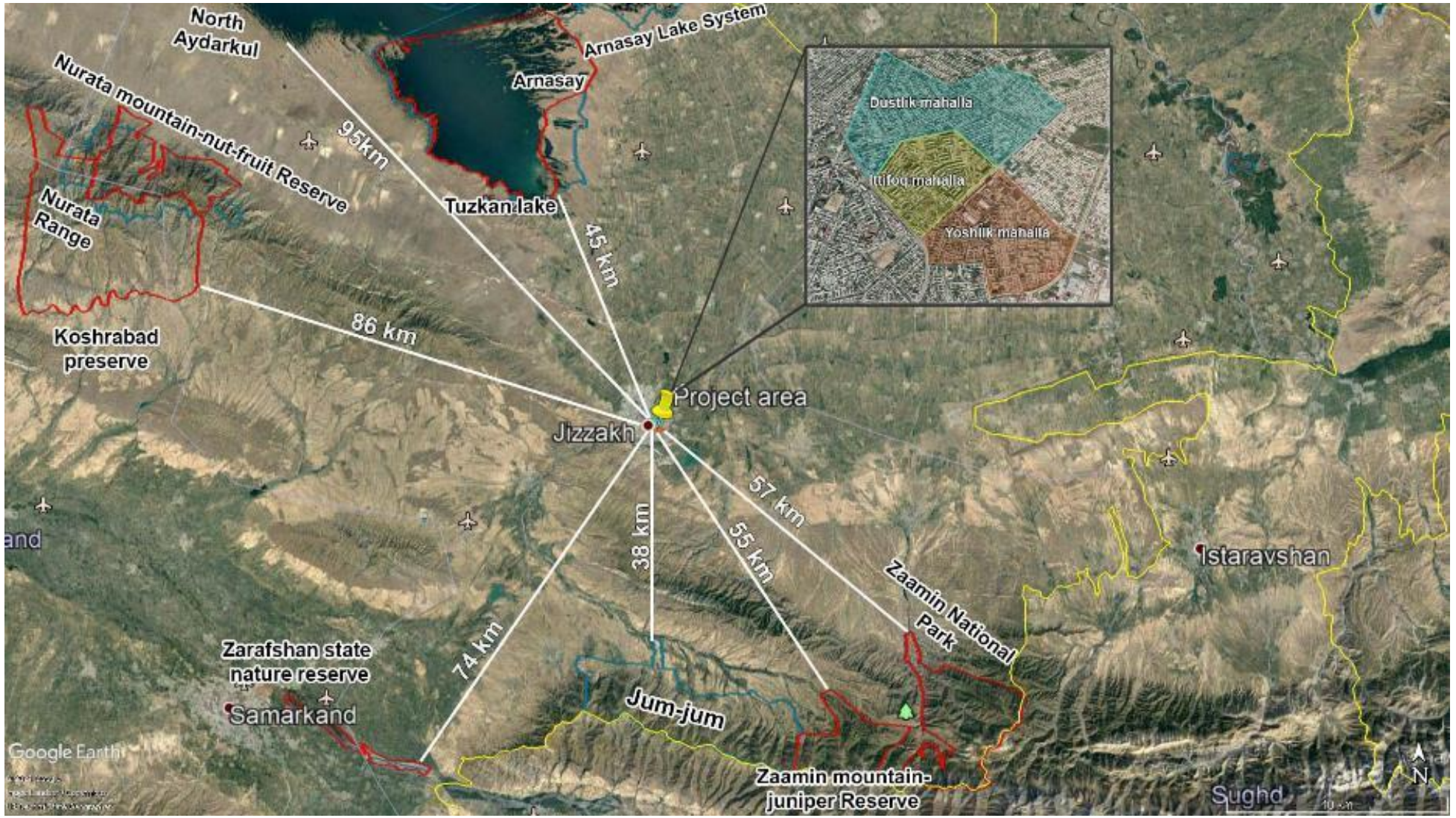


Figure 40: Main protected areas close to Djizzak subprojects

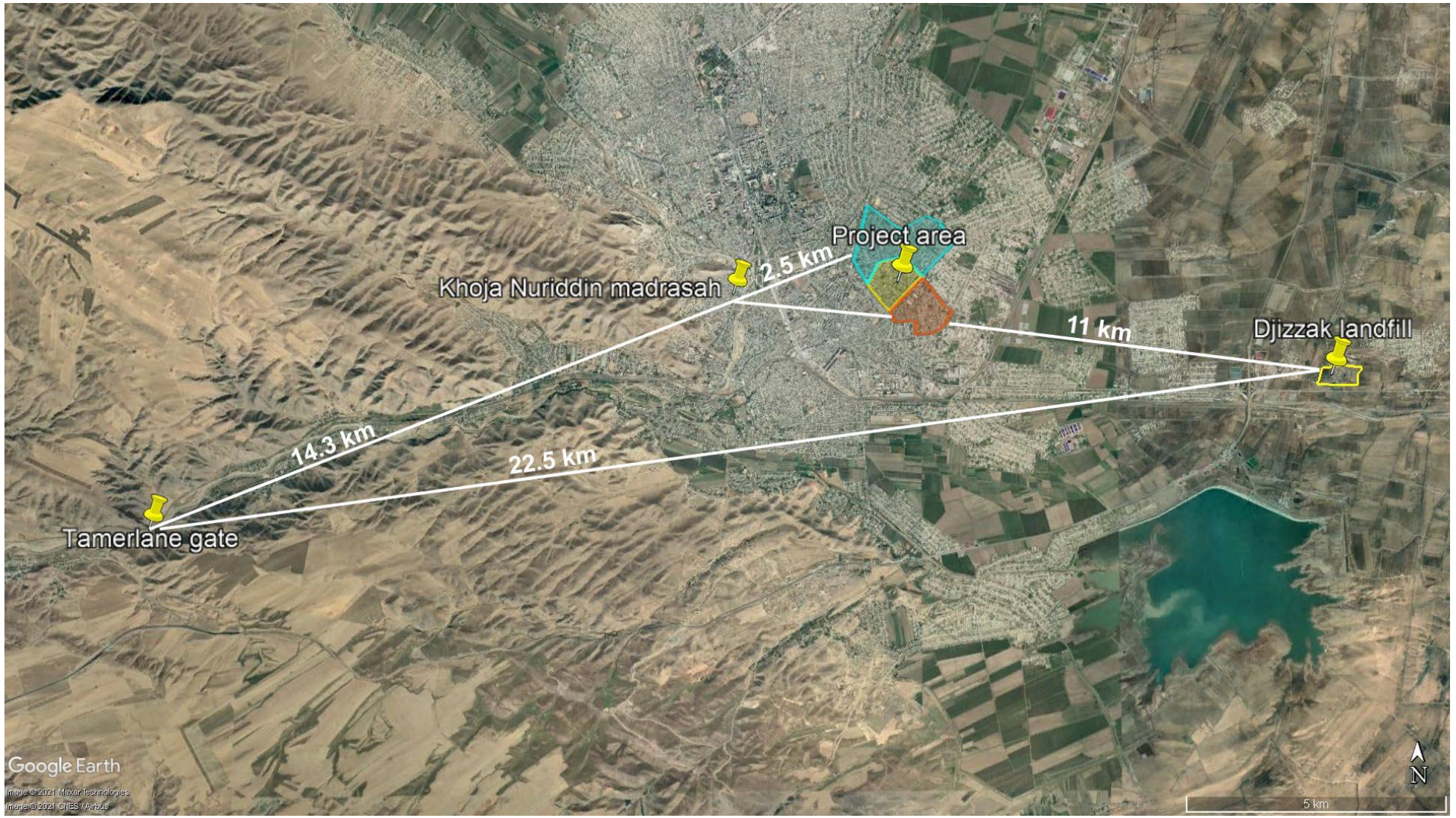


Figure 41: Some architectural monuments close to Djizzak

3. Socio-economic conditions

182. Djizzak province was founded on 29 December 1973. The administrative center of the province is Djizzak city. The province is divided into 12 administrative districts: namely Arnasay, Bakhmal, Dustlik, Farish, Gallaorol, Djizzak, Mirzachul, Pakhtakor, Yangiabad, Zaamin, Zafarobod, Zarbdor. The administrative division of Djizzak province is presented in **Figure 42** below.

Figure 42: Administrative map of Djizzak province

183. The key agricultural production activities include cotton growing, grain growing, vegetable growing, horticulture and viticulture, and meat and dairy farming. The main industries are electric power industry, machine building, metalworking, building materials, and textile and food industry.

184. Djizzak city was founded in 1918 in the western part of Djizzak province and today is the administrative and economic center of the province. Djizzak city is located in the central part of Uzbekistan between the capital of the country - Tashkent, located 170 km to the northeast, and Samarkand, located 90 km to the southwest, on the Sangzar River, at the northern foot of the Nurata mountains and the southern part of the Golodnaya Steppe.

185. Djizzak is an important transport junction connecting the eastern regions with the center and other cities of the country by a railway line going west to Samarkand city, and east to Tashkent city.

186. The territory of the city is around 100 km2 (9,640 ha), of which land allotted for buildings is 12.9%. Djizzak is located on a flat area, at the height of 362 meters above sea level in the north-eastern part and 373 meters in the south-eastern part. The slope of the city's relief is 0.2% on an average.

187. Administratively, the city consists of 35 mahallas with the total population of 176,643 people (1st January 2021) (**Table 23**).

188. The population in 3 project mahallas (Ittifoq, Dustlik and Yoshlik) is presented in the following table (according to the data from the passports of mahallas).

Table 23: Population size by project mahallas

No.	Name of mahalla	Number of (2021)		
		Population, people	Households	Families
1	Dustlik mahalla	4 525	704	890
2	Yoshlik mahalla	4 693	1 052	1 092
3	Ittifoq mahalla	12 050	2 620	3 050
	In total in all city mahallas	**176 643**	**32 628**	**40 407**

189. A Specialized Industrial Zone (SIZ) named Djizzak was created in March 2013 in Djizzak city. The land area allocated for the SIZ is 244 ha. About 87.8% of the city population are Uzbeks. The other major ethnic groups include Russians (3.9%), Tajiks (1.7%) and others (6.6%). The city consists of 35 urban mahallas. There are 2,560 small business enterprises in the city, including 38 farms with average area of 38 ha, 10 industrial enterprises, and 32 joint-ventures. The social infrastructure includes 26 kindergartens, 30 schools (including two specialized ones), 2 music schools, 9 vocational colleges, 3 academic lyceums, and 2 universities. There are 22 clinics in the city.

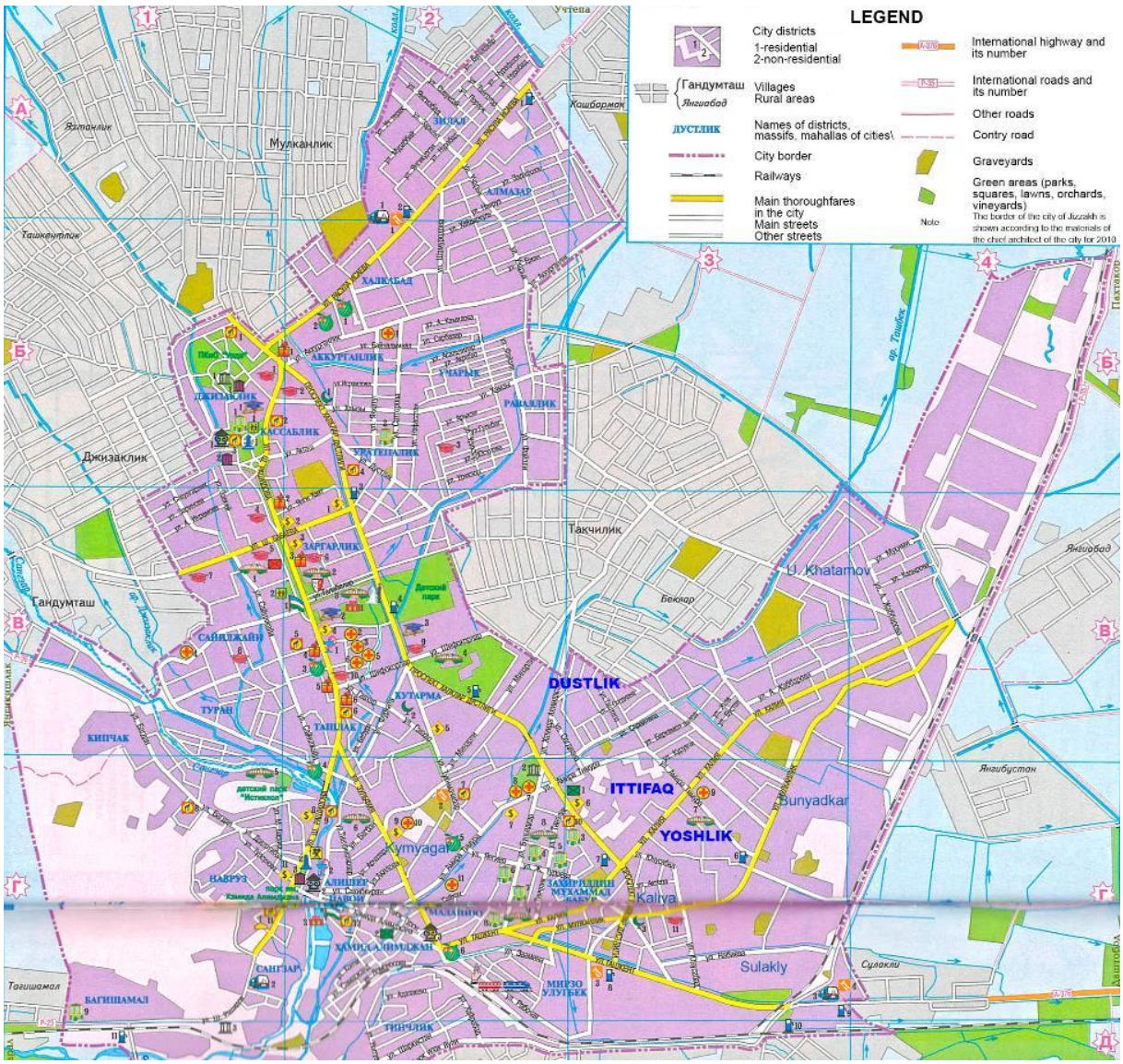


Figure 43: Administrative map of Djizzak city

C. Syrdarya province

1. Physical Environment

a) Climate and Air *quality*

190. The climate of Syrdarya province is sharply continental, with relatively mild winters and long hot summers. According to observations over the past ten years, the average annual air temperature is + 15.8°C, the average maximum temperature of the hottest month of July is + 30°C, and the minimum is +3.3°C. The sharp continentality of the climate is characterized by a large temperature amplitude: the average temperature in summer is about + 30°C, in winter season is +3.3-5.6°C. The prevailing wind directions are southeast and southwest, with a repeatability of 21 and 16.0%, respectively.

191. The average annual wind speed is 2.4 m/s. Most often, weak winds (0-1 m/s) and winds with a speed of 2-3 m/s are recorded, the repeatability of which reaches 38.2% and 36.8%, an exception is the winter period with an average speed of 3-5 m/s. The first autumn frosts occur mainly at the end of October to the beginning of November. The duration of the frost-free period averages 260-270 days. About 320 mm of precipitation falls, 80% of which falls on winter-spring time.

192. Climatic map of Syrdarya province is presented in **Figure 44**.

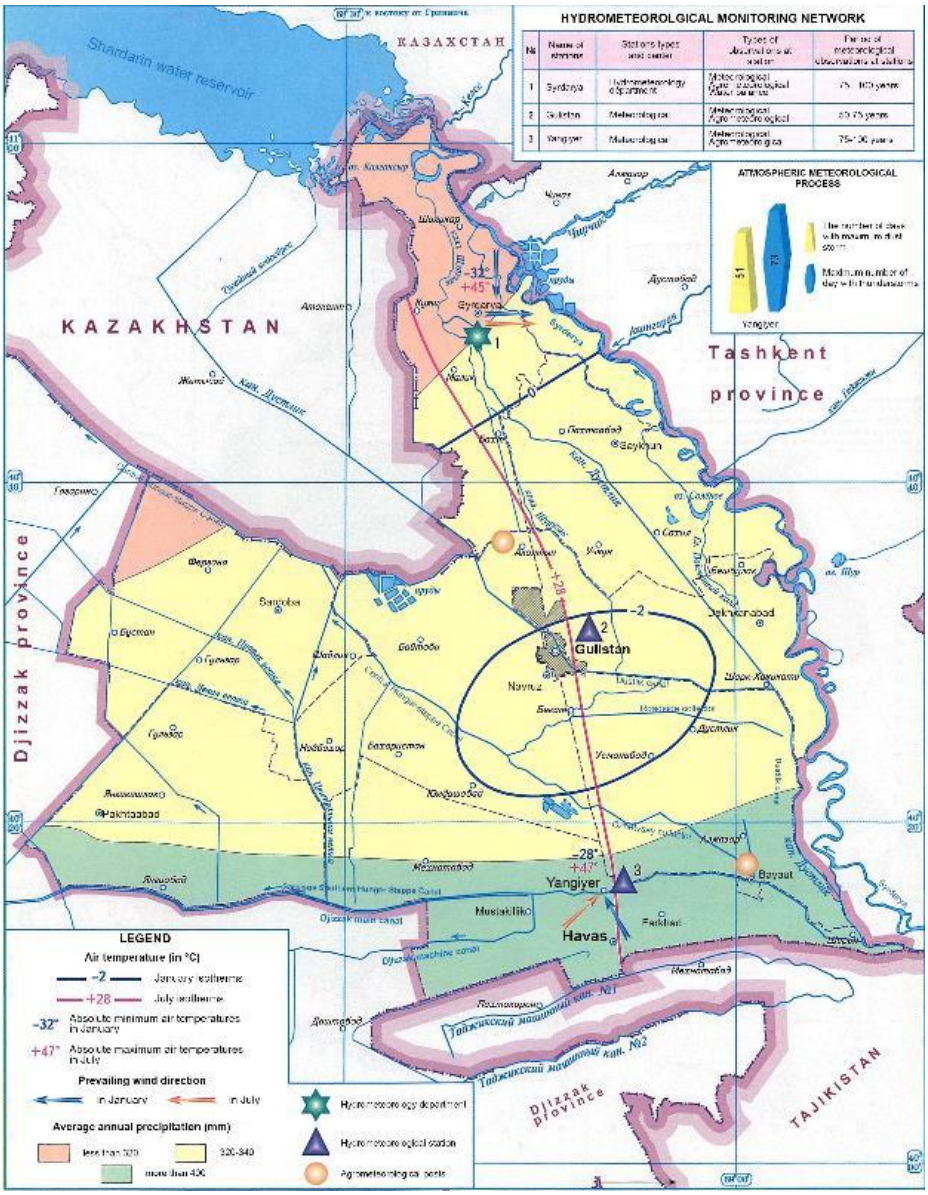


Figure 44: Climatic map of Syrdarya province

193. Data on climatic conditions for the period 2018-2020 collected from Gulistan meteostation is presented in **Figure 45**.

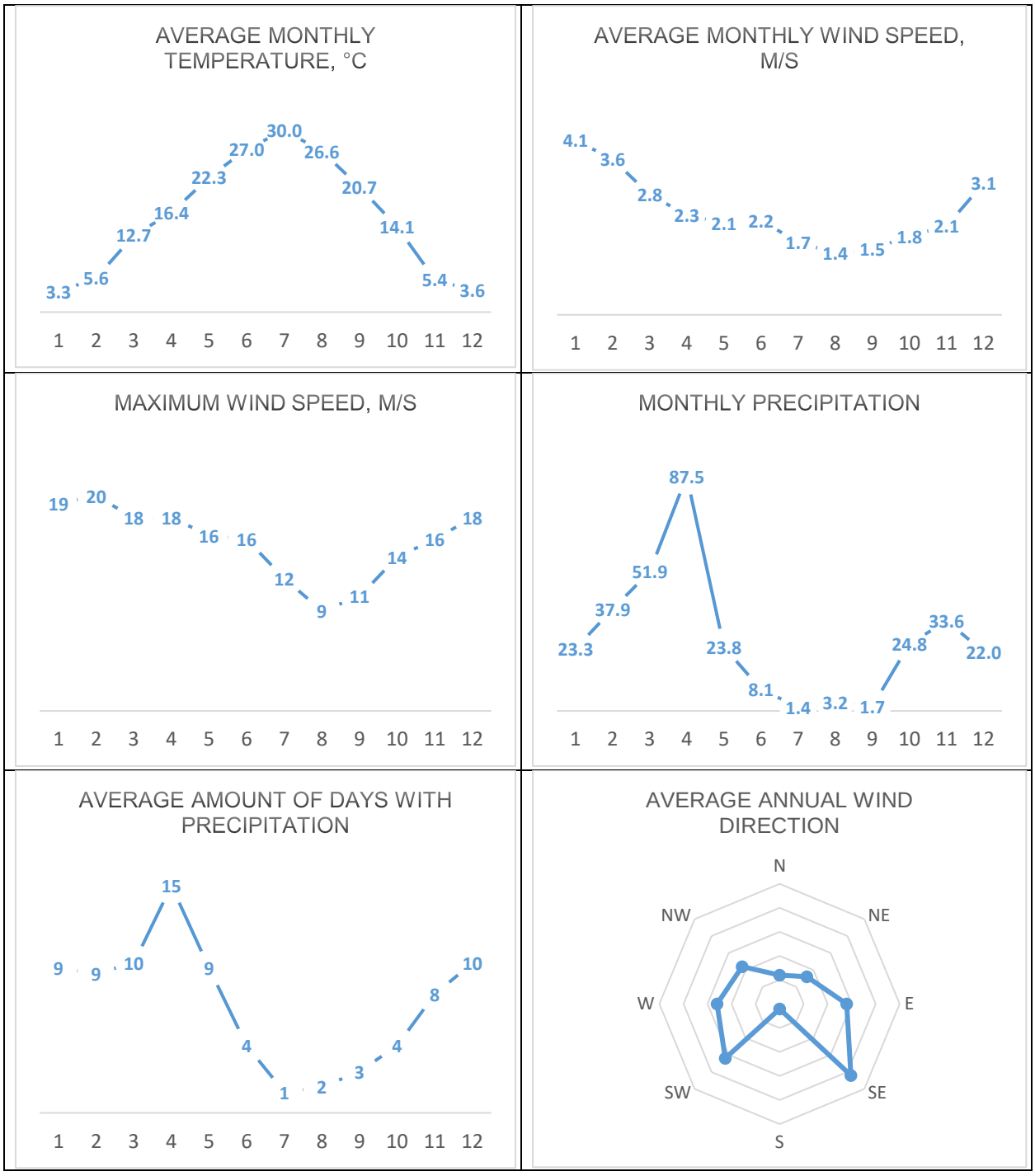


Figure 45: Climatic data for 2018-2020

194. The results of air quality monitoring and average value of atmospheric phenomena for 2018-2020 are presented in **Figure 46** and **Table 24.**

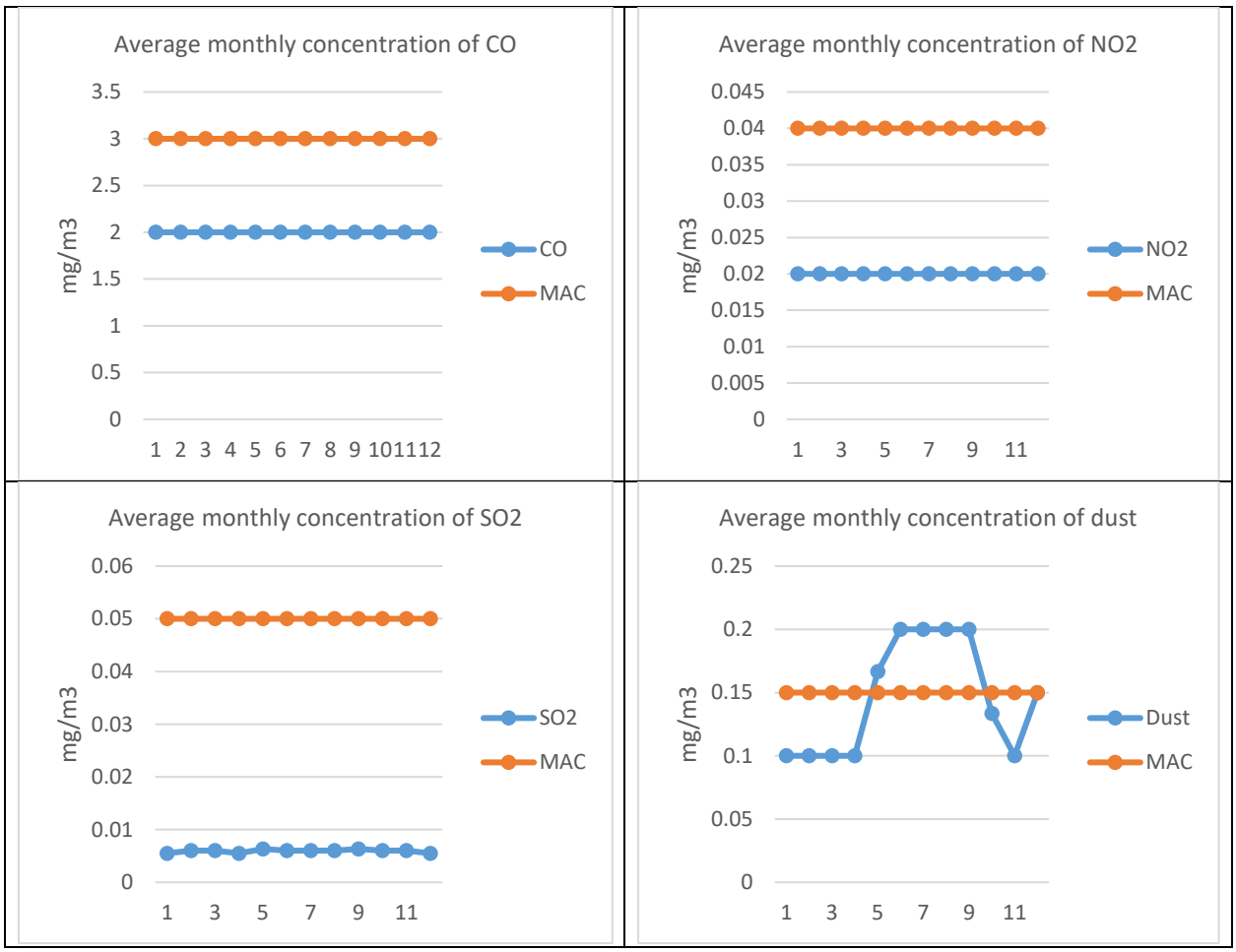


Figure 46: The results of air quality monitoring for 2018-2020

195. According to data, the ambient air quality exceeds a maximum allowed concentration (MAC) for dust during the summertime. Other ingredients do not exceed MAC.

Table 24: Average value of atmospheric phenomena for 2018-2020

Year	Month	Heavy rain	Rain	Liquid precipitation	Snow	Heavy snow	Solid precipitation	Hail	Fog (all types)	Storm
2018-2020	**1**	3	6	8	3	0	3	1	3	0
2018-2020	**2**	3	6	8	4	0	4	0	2	0
2018-2020	**3**	10	1	10	1	0	1	0	0	1
2018-2020	**4**	15	0	15	1	0	1	0	1	2
2018-2020	**5**	10	0	10	0	0	0	0	1	3
2018-2020	**6**	5	0	5	0	0	0	0	0	2
2018-2020	**7**	2	0	2	0	0	0	0	0	1
2018-2020	**8**	2	0	2	0	0	0	0	0	0
2018-2020	**9**	3	0	3	0	0	0	0	0	0
2018-2020	**10**	4	2	5	1	0	1	0	0	1
2018-2020	**11**	6	2	6	3	0	3	0	2	0
2018-2020	**12**	4	4	7	5	0	5	0	6	0

b) Geography and topography

196. Syrdarya province is situated in the east of the country, on the left bank of the Syrdarya river at its outflow point from Ferghana Valley. It borders in the north with Kazakhstan and in the south with Tajikistan. In physical and geographical terms, Syrdarya province in the south is surrounded by the Turkestan ridge, in the north and east - by the Chatkal ridge. From the west, it borders the Kyzylkum desert and the Golodnaya Steppe, and is open for penetration of warm air masses, which affect the climate.

197. There is 1 project city in Syrdarya province – Havast, where the New park and Co-working center are proposed for development. Havast is an urban-type settlement and the administrative center of Havast district (**Figure 47**).

198. Havast is located on the third left bank terrace of the Syrdarya river. To the south, the terrace adjoins to northern slopes of the Turkestani ridge (Kokshent range). To the north-east and east, some spurs of the Kurama ridge are spread (Altyntopkan and Mogoltau mountains). Golodnaya Steppe plain lies to the west, and Syrdarya river valley to the north, accordingly.

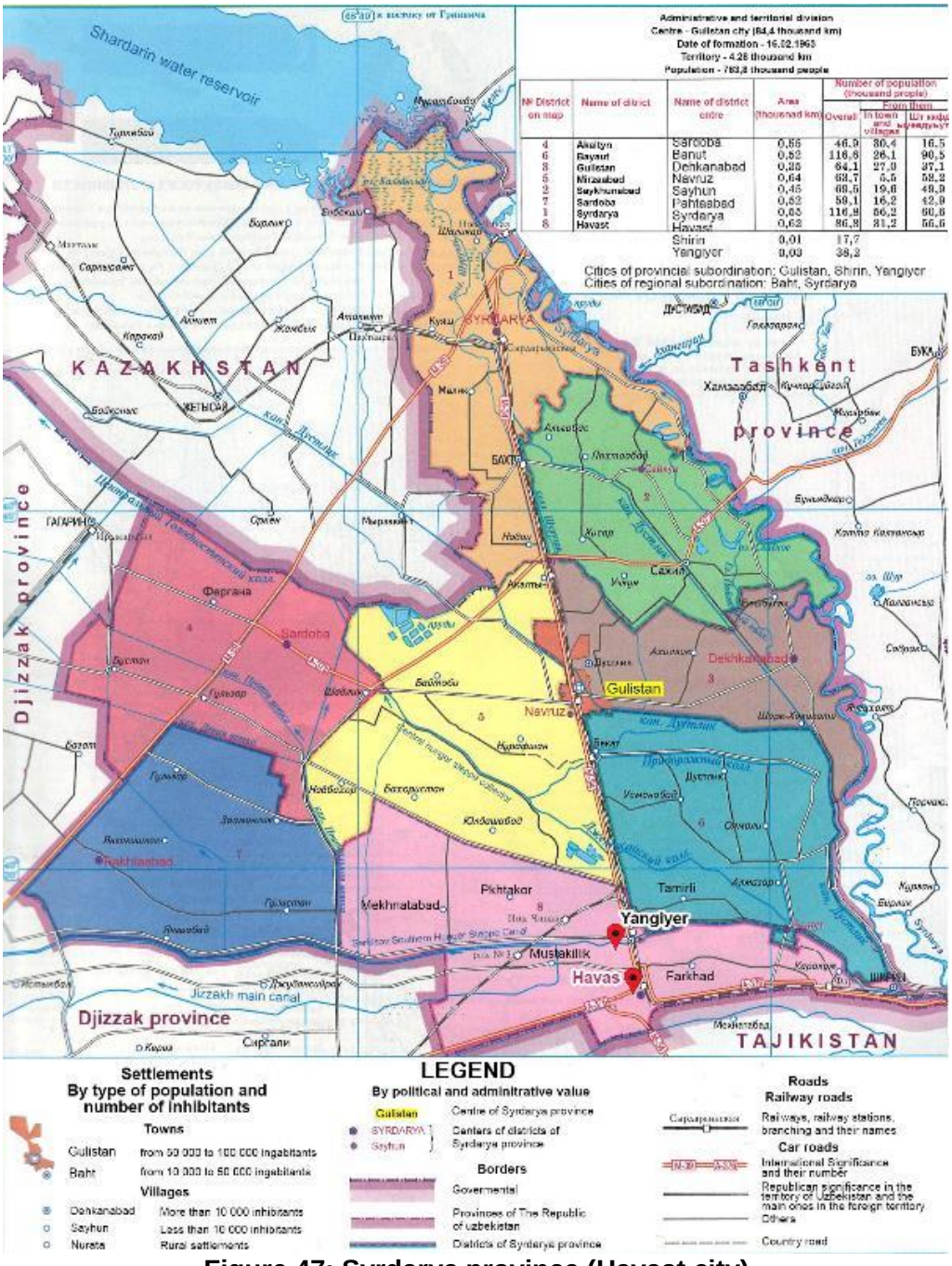


Figure 47: Syrdarya province (Havast city)

c) Water *Resources*

199. The hydrographical network of Syrdarya province is represented by a section of the Syrdarya river, which neighbors Tashkent province from Bekabad city up to the site below the inflow of the Main Flood Collector (MFC), irrigation canals and drains. The main water supply to the territory of the province is delivered by canals springing from the Farkhad Dam, Sarkisov canal and Dustlik canal (named after Kirov). Dustlik canal delivers water to supply Syrdarya province and partially flows to Kazakhstan. The total water consumption of Syrdarya province is 2,700 – 3,800 million m^3/year.

200. Havast district is supplied by irrigation water from Sarkisov canal beginning from a derivation canal at Farkhad Dam on the Syrdarya river and a canal network TM-1, TM-2, M-1, M-2 and etc. Small waterways end in the city area such as Sherbulaksay and others.

201. The main waterways in Havast district and remoteness of subprojects are presented in **Figure 48** and **Figure 49,** respectfully.

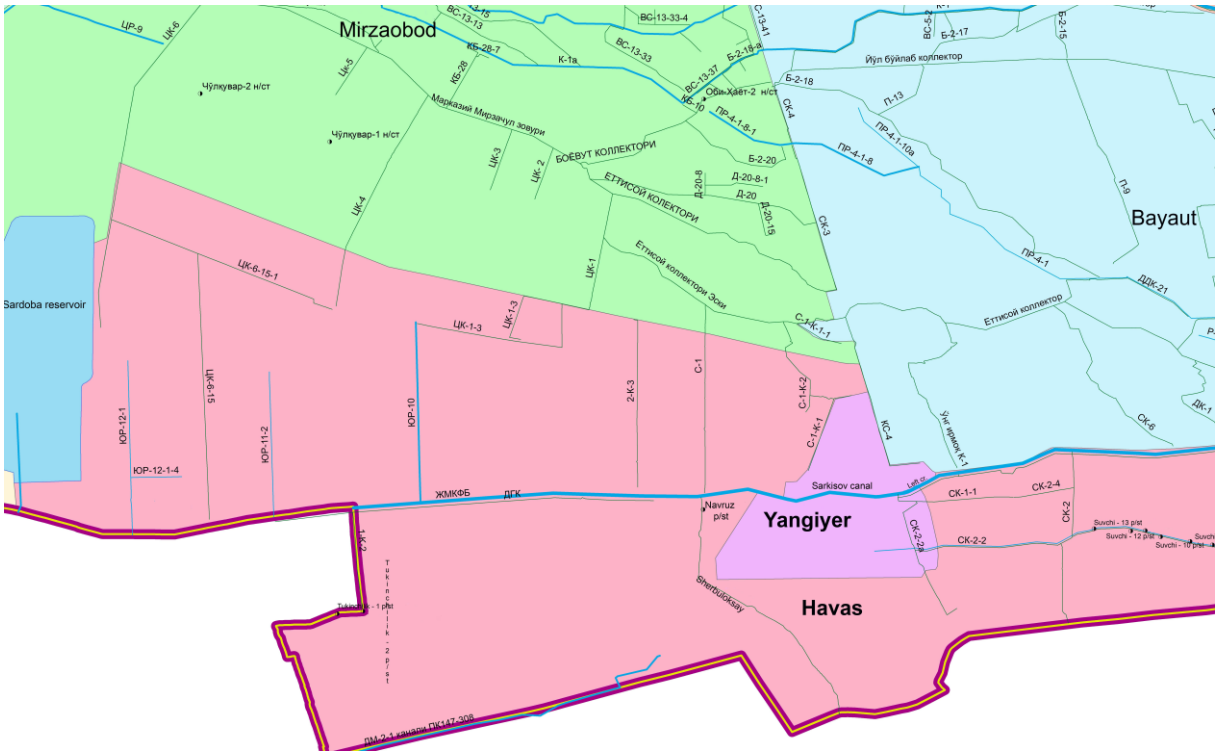


Figure 48: Main waterways in Havast district

202. The average annual water quality of the Syrdarya river at the Chinaz stream gauge (which is the closest operating observation point of Uzhydromet) is presented in **Table 25**.

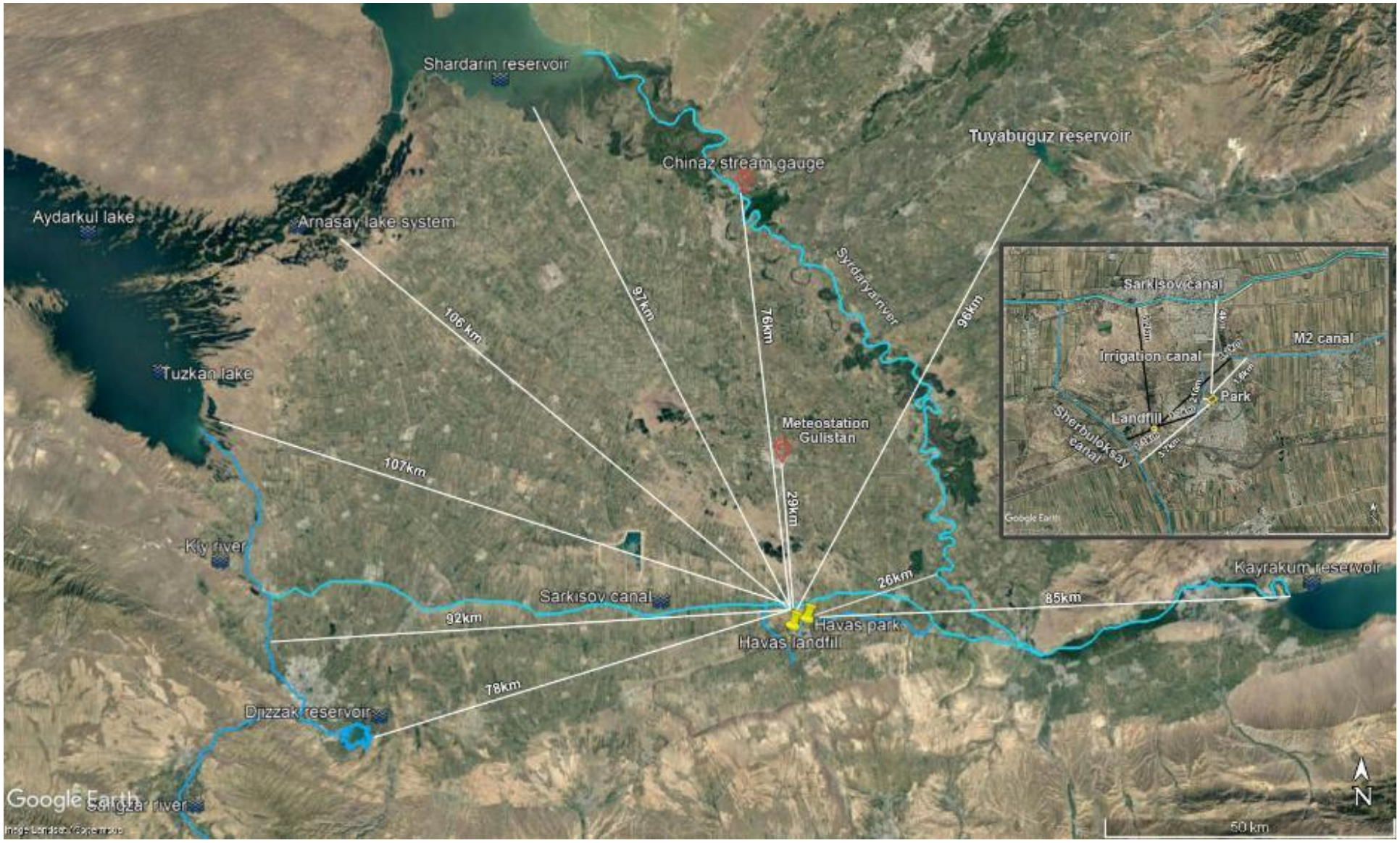


Figure 49: Main waterways in Havast city

Table 25: The average annual water quality of the Syrdarya river at the Chinaz gauging station

Source: Centre of Hydrometeorological Service of the Republic of Uzbekistan (Uzhydromet)

Components	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	MAC[41]
Total Suspended Solids, mg/dm^3	21	36.33	36.33	53	15.33	18.67	71.33	4.33	24	27	13	10.5	25
pH	7.9	7.53	7.9	7.6	7.87	7.73	9.07	50.6	7.46	7.53	7.84	7.58	6.5-8.5
Chlorides, mg/dm^3	17.5	49.15	42.2	39.69	50.65	55.83	50.03	52.73	52.867	56.75	33.77	35.1	350
Sulfates, mg/dm^3	155.5	376.5	372.5	309.1	395	495	459.33	519.33	435.33	446	294	238.5	500
Fe, mg/dm^3	0.025	0.06	0.005	0	0.02	0	0.01	0	0	0	0	0.02	0.5
COD, mg/dm^3	6.495	12.46	9.21	10.44	15.61	11.07	12.25	14.38	16.03	14.95	14.67	14.8	30
BOD_5, mg/dm^3	1.8	1.98	1.46	1.99	1.80	1.44	1.61	1.84	1.63	1.43	1.49	1.42	3-6
Ammonium nitrogen, mg/dm^3	0.165	0.25	0.007	0.06	0.025	0.47	0.29	0.277	0.18	0.13	0.22	0.62	2
Nitrogen nitrite, mg/dm^3	0.026	0.025	0.0107	0.025	0.005	0.065	0.025	0.026	0.049	0.012	0.039	0.064	3.3
Nitrogen nitrate, mg/dm^3	0.705	0.75	0.845	1.045	0.925	0.7367	1.37	1.03	2.237	0.7	1.437	0.88	45
Amount of nitrogen, mg/dm^3	0.896	1.028	0.58	1.1	0.64	1.275	1.69	1.33	2.469	0.842	1.696	1.564	-
Phosphates, mg/dm^3	0.08	0.072	0.092	0.0015	0.082	0.24	0.06	0.04	0.104	0.042	0.071	0.073	0.3

[41] Handbook of environmentalist, Tashkent 2010

203. The main deposits of fresh groundwater are concentrated in the northern and eastern sites of the province in the Syrdarya river valley. The groundwater deposits are confined to quaternary and upper-pliocene sediments. Reserves of five deposits of fresh groundwater are proven in the province: Syrdarya, Central-Gulistan, Upper-Pliocene, Havast and Dustlik.

204. Data on the level, salinity and area distribution of groundwater in Havast district is presented below, in **Table 26**. As indicated in the table, the groundwater level in most part of the Havast district varies from 1.5-2.0 m and 2.0-3.0 m.

Table 26: Groundwater table and salinity in Havast district
(as of October 1, 2018-2020)

Year	Area, ha	Groundwater level, m					Salinity, g/l				
		0-1	1-1,5	1,5-2	2,0-3,0	>3	0-1	1,0-3,0	3,0-5,0	5,0-10,0	>10
2018	38556		319	6564	27165	4508	1	15429	19201	3408	517
2019	38453		78	5843	24144	8388		11097	22876	4266	214
2020	38434			4378	18273	15783	28	3174	29794	4497	941

Source: *Syrdarya Regional Hydrogeological Land Reclamation Expedition*

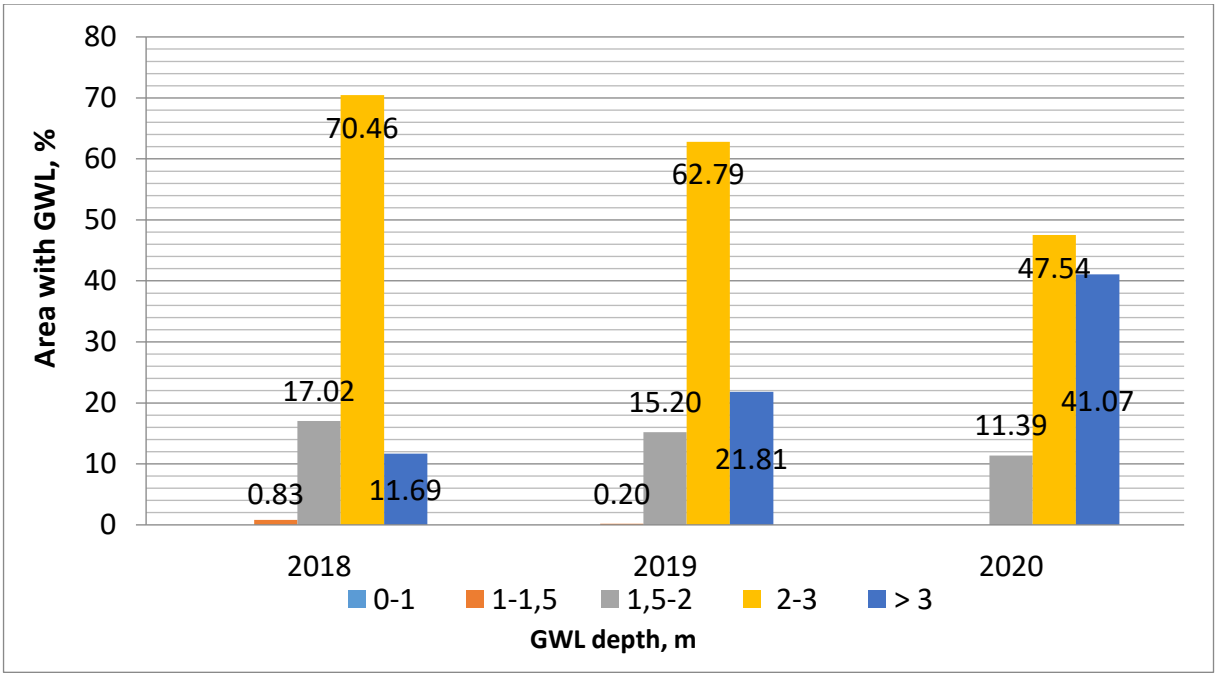


Figure 50: Groundwater level in Havast district
Source: Ministry of Water Resources, 2021

d) Soils

205. Light grey desert soils and in some areas brackish ones prevail in the Tashkent-Golodnosteppe depression (where Syrdarya province is located). Typical grey soils are widespread in the periphery part of the depression. Meadow and meadow-swampy soils are developed in the bottom of the Syrdarya river. Loamy light grey soils of plains are irrigated and used for farming. Gristly eroded light grey soils, clayey and loamy, are formed on loess, mostly irrigated or can be used for agriculture, their less part is used for rainfed farming and pastures. Meadow soils have been used for farming since ancient times.

206. Soil map of Syrdarya province is presented in **Figure 51**.

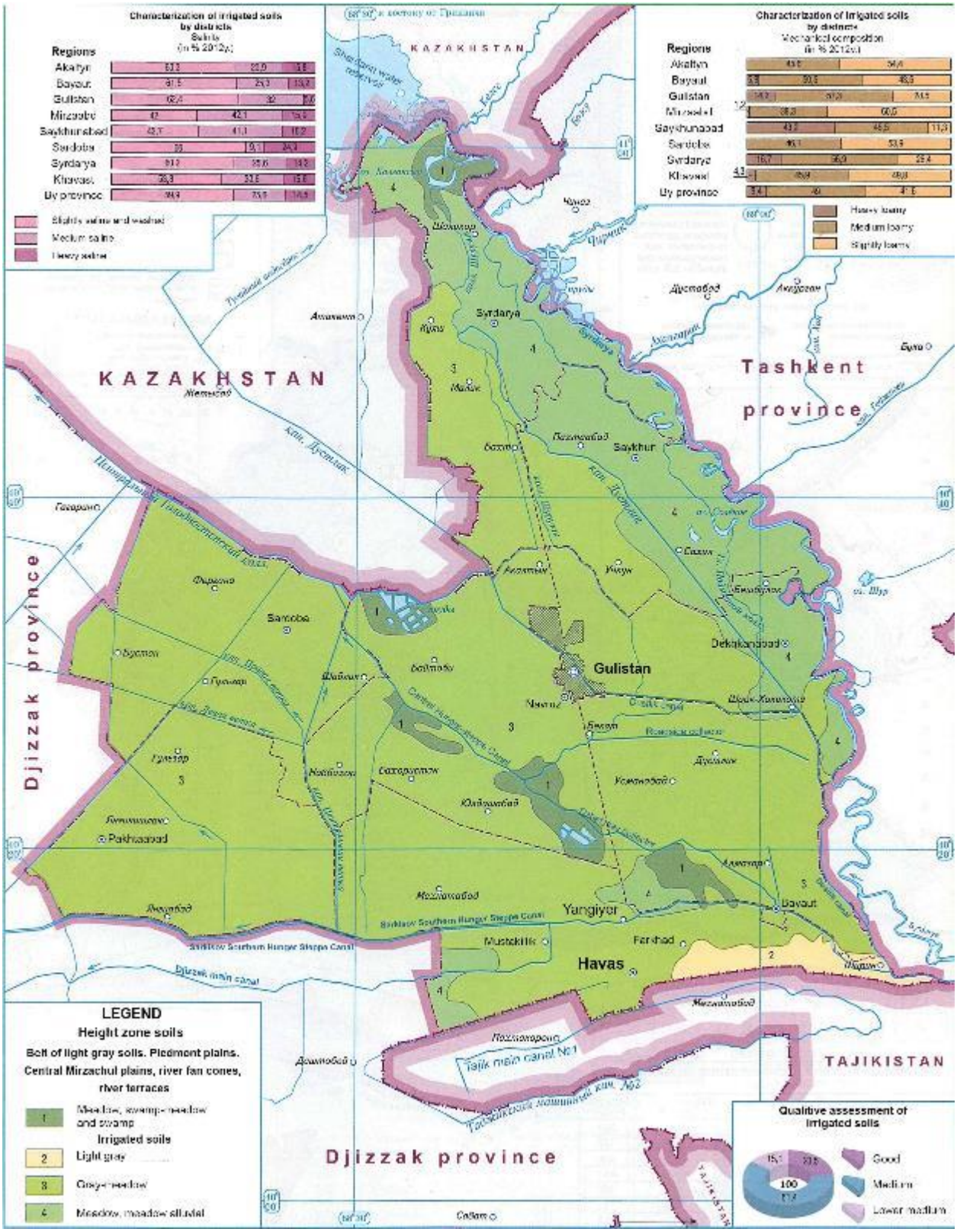


Figure 51: Soil map of Syrdarya province

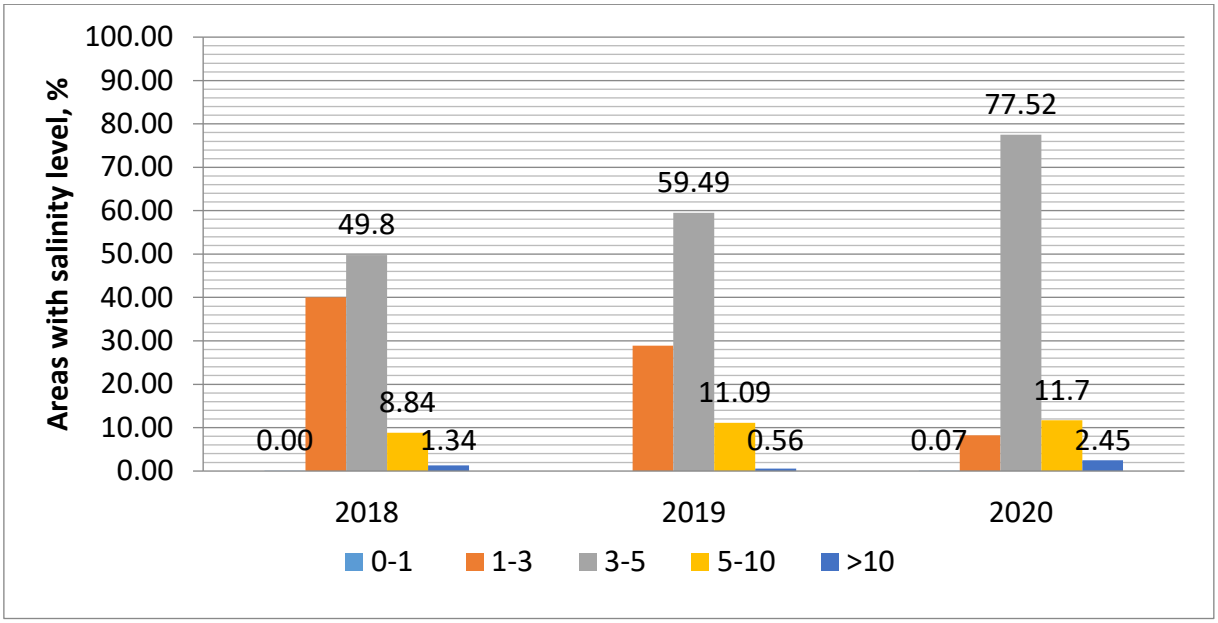


Figure 52: Soil salinity in Havast district

207. The dynamics of groundwater salinity on the irrigated lands of Havast district of the Syrdarya province is shown in **Figure 52**. The diagram shows that the areas of irrigated lands with groundwater salinity of 1-3 g/l are decreasing from year to year. If in 2018 the area of such lands amounted to 40% of the total irrigated lands, then in 2020 they decreased, and amounted to only 0.07%. However, the areas with groundwater salinity of 3-5 and 5-10 g/l increased. It means that the groundwater salinity increases from year to year and may lead to higher levels of salinization on the irrigated lands.

2. Biological Environment

a) Flora

208. The most part of Syrdarya province is occupied by agricultural lands. The arable lands occupy 256,061 ha, technical crops (mainly cotton), grain and legumes are sown on 75,360 ha and 66,988 ha, accordingly. Forest area includes field-protective plantings along the roads and between the fields, parks and settlements. Lombardy poplar (*Populus nigra*) is the most wide-spread species of forest shelter belts. Planted trees and bushes in the parks and settlements differ by their tree specious diversity and include among others the following: Maple (*Acer*), plane tree (*Ulmus*) willows (*Salix*), elms (*Acer*), plane trees (*Ulmus*), willows (*Salix*), mulberry plantations, gardens and vineyards.

209. The vegetation map of Syrdarya province is presented in **Figure 53.**

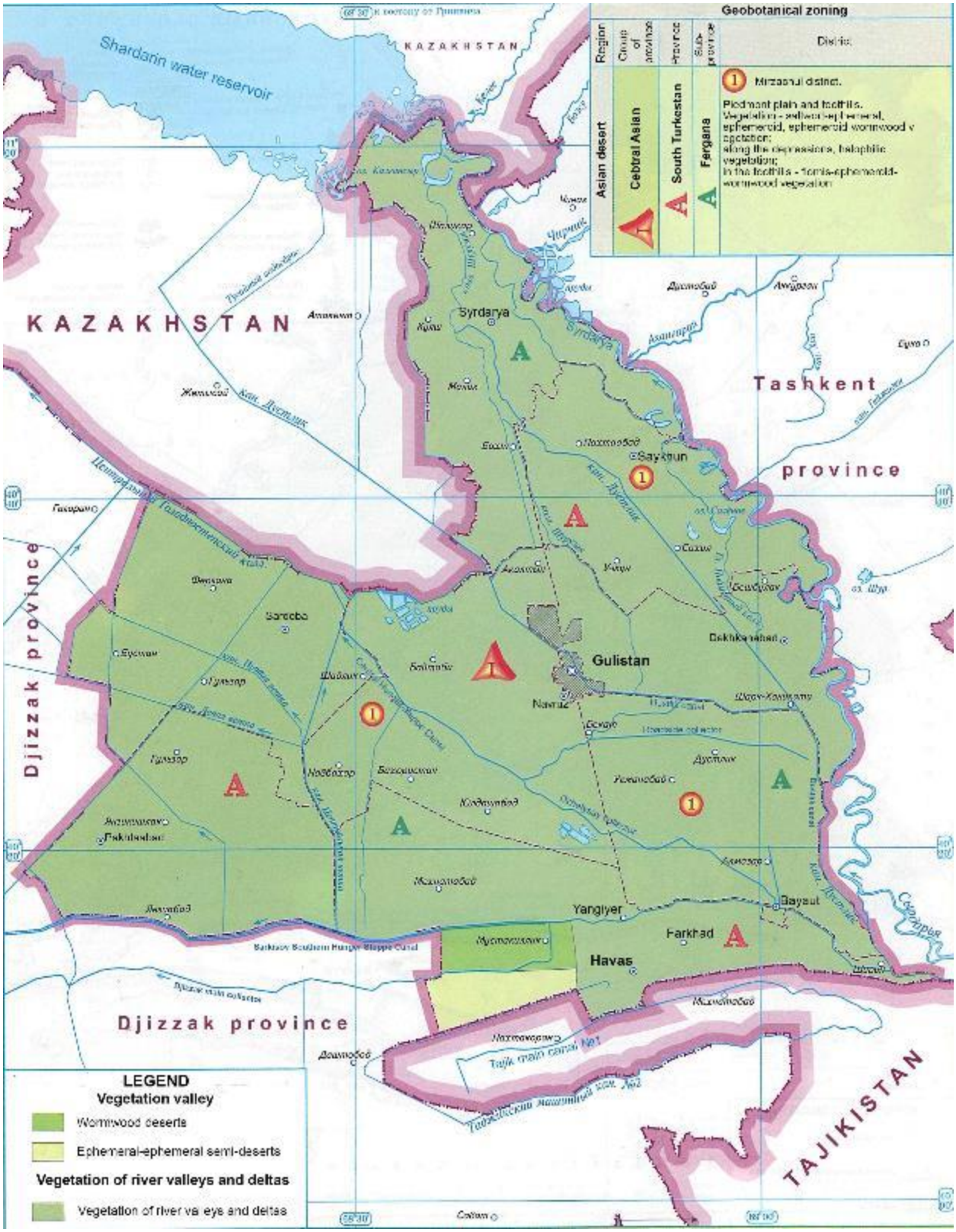


Figure 53: Map of vegetation of Syrdarya province

210. The Project area has a very scare vegetation cover represented by grasses and small bushes. Typical vegetation in the project area is presented in **Figure 54**.

Figure 54: Vegetation in Project area (October 2021)

a) *Fauna*

211. The fauna map of Syrdarya province is presented in **Figure 55**.

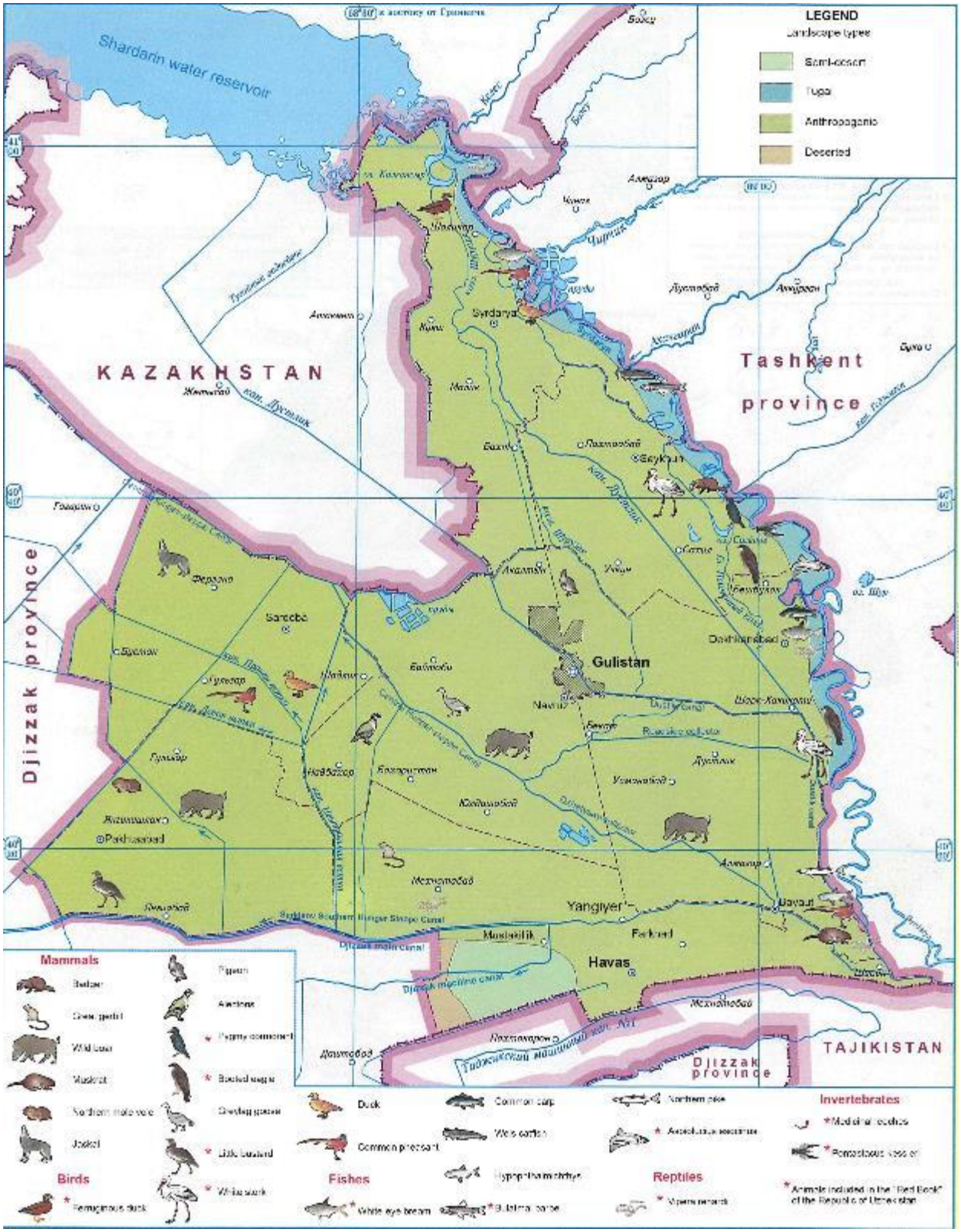


Figure 55: Fauna map of Syrdarya province

a) *Protected* Areas & Habitats

212. There are no natural protected areas within 50 km from the project area. The distance of Havast city from the main natural protected areas is shown in **Figure 56**.

Figure 56: Location of the natural protected areas

3. Cultural Heritage

213. There are no cultural heritage items within 50 km from the project area.

4. Socio-economic situation

214. Syrdarya province was founded on February 16, 1963. The administrative center is Gulistan city. Syrdarya province consists of 9 administrative districts: Akaltyn, Bayaut, Gulistan, Havast, Mekhnatabad, Mirzaabad, Saikhunabad, Sharof Rashidov, and Syrdarya. The administrative division of Syrdarya province is presented in **Figure 57**.

Figure 57: Administrative map of Syrdarya province

215. Havast district is located in the southern part of Syrdarya province. To the south it borders with Tajikistan and Djizzak province of Uzbekistan, to the west – with Mekhnatobad district, to the east and the north – with Bayaut district of Syrdarya province. Population of the district comprises is around 95,400 people (1 January 2021), living in 9 towns and 38 mahallas. The main socio-economic indicators of Syrdarya province are provided in **Table 27.**

Table 27: Socio-economic indicators of Syrdarya province

Name	Indicators
Area, km²	4,280.0
Population	
Population density, per/km²	197.7
Total number of people	846,300
Women, per	421,400
Men, per	424,900
Urban population, per	361,300
Rural population, per	485,000

Name		Indicators
Educational institutions		
Primary schools		312
Secondary professional (colleges)		46
Academic lyceums		2
Higher education institutions		2
Medical institutions		
Hospitals		33
State clinics		144
Infrastructure, km		
Transport	Roads	1,447.0
	Railways	160.9
	Airport	
Social (operated)	Gas pipelines, km	0.9
	Water supply networks, km	67.7

216. The agricultural production includes cotton growing, grain growing, meat and dairy farming, melon-growing, and sericulture. The main industries are electric power, light and food industry, flour and cereal processing.

D. Khorezm province

1. Physical Environment

a) *Climate* and Air quality

217. Khiva's climate is classified as continental, with hot summers and cool winters. The average temperature in summer is +30 - +32°C; winter temperatures average about −1 - +2°C. The province is quite arid, with average annual rainfall between 35 and 55 millimeters, and occurring mostly in winter and spring. Between July and September, little precipitation falls, essentially stopping the growth of vegetation during that period. The wind direction is mostly east and north with a repeatability of 26% and 28%, respectively. The annual average wind speed is slow with just 1-1,5 m/s, however the maximum wind speed reaches - 19 m/s. Climatic map of Khorezm province is presented in **Figure 58**.

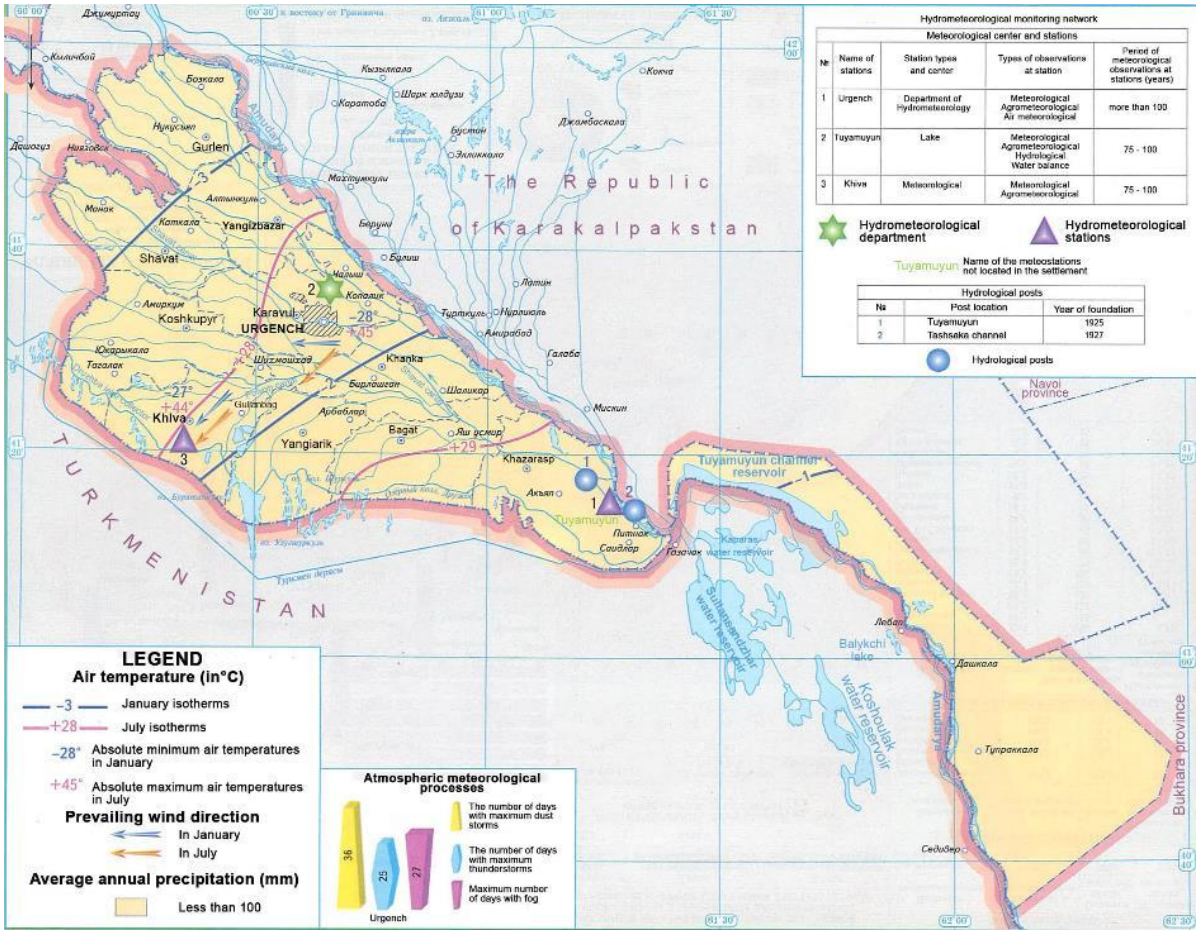
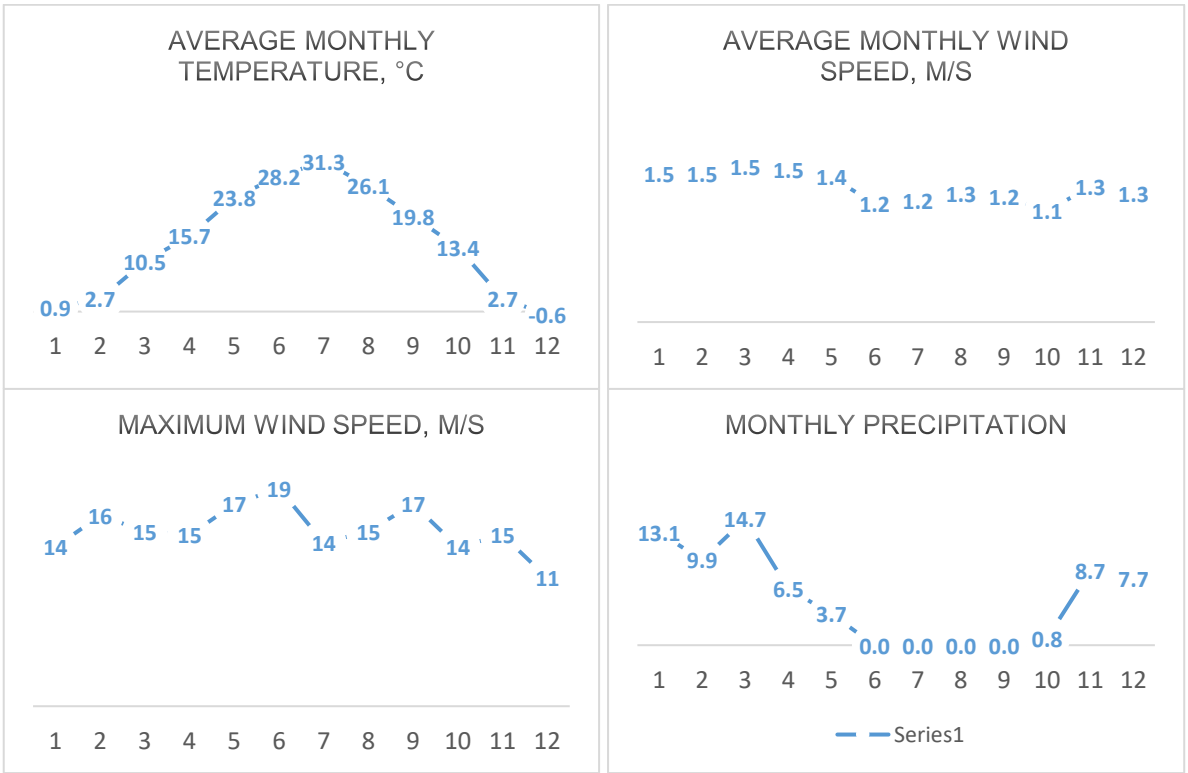


Figure 58: Climatic map of Khorezm province

218. Climate data and air quality monitoring data for 2018-2020 were collected from the Urgench meteostation for the project sites and are presented in **Figure 59** and **Figure 60,** respectfully.



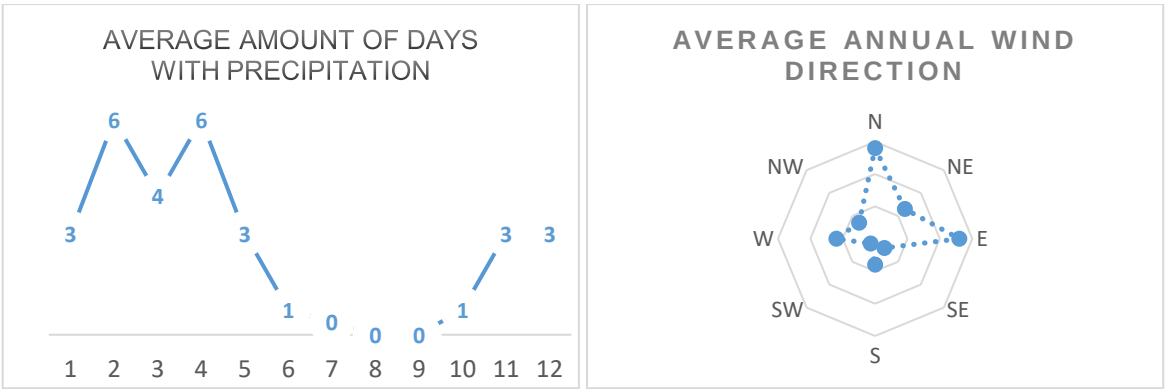


Figure 59: Climatic data from Urgench meteostation (2018-2020)

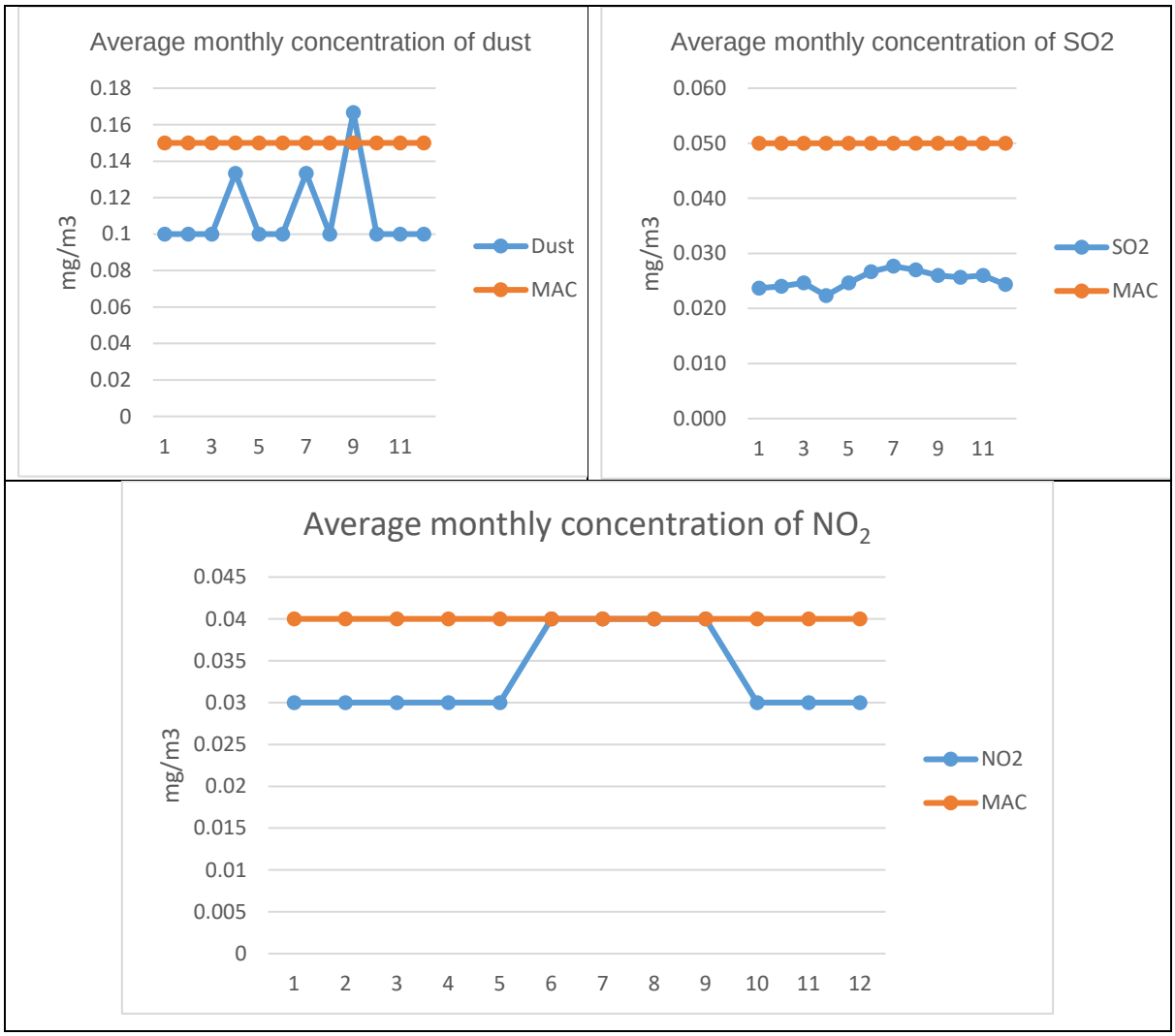


Figure 60: Air quality monitoring data for 2018-2020

b) *Geography* and topography

219. Khorezm province is located in the northwest of Uzbekistan in the lower reaches of the Amudarya river. The total area is 6,300 km^2, occupying 1,4% of the total country area. Urgench is an administrative center of the province with the total population of 200,000 people (2019). In the north, Khorezm province borders with the Republic of Karakalpakstan, in the south with Turkmenistan, and in the northeast with Bukhara province.

220. Geologically, Khiva city's territory is divided into 2 areas. The first area is still subdivided into 3 sub-areas by depth of sand layers (I-1, I-2, I-3).

- Sub-area I-1 of shallow depth of dust-like and fine sand layers, water saturated up to 2m, occupies small parts of the territory in the north-east, south-east and south-west of the city.
- Sub-area I-2 of moderately shallow depth of dust-like and fine sands, water saturated at the depths 2-5m, occupies in the main part of the city area.
- Sub-area I-3 of medium depth of sand water saturated layers at the depths 5-8m occupies the central part in the north and the central part in the south of the city area.

221. Groundwater level depth in the whole area I is similar, 0-2m; therefore, the area can be underflooded.

222. Geological area II includes territory of ancient and used deposits, a fortress, lake, water buffer zones along canals. Any construction is completely prohibited in those areas. Groundwater depth is 0.7-2.5m, and at the old fortress 5.5m from the ground level.

c) Water Resources

223. The Amudarya river is the main waterway of Khorezm province. The river feeds several irrigation canals, such as: Levoberejny, Tashsakay, Shavat, Palvan, Gazavat. There are the following water reservoirs in Khorezm province: Sultansanzhar, Koshbulak and Kaparas. Location of the main water bodies in Khorezm province and Khiva city is presented in **Figure 61**. **Figure 62** provides information on distance between Khiva city's project sites and main water courses.

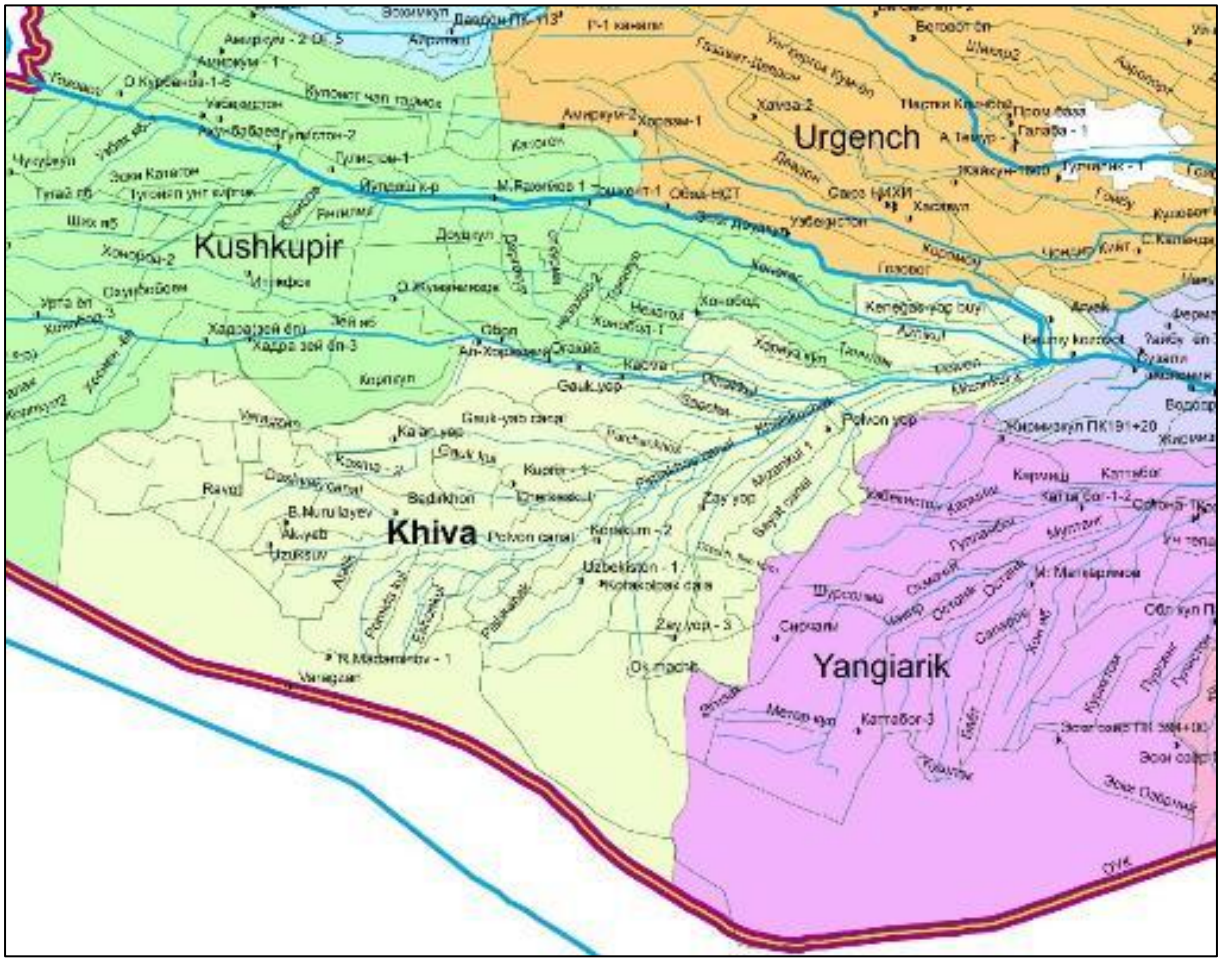


Figure 61: Main waterways in Khiva city

Figure 62: The remoteness of the main waterways from the Khiva city's project sites

224. The average annual water quality of the Amudarya river at the Tuyamuyun stream gauge (the closest appropriate to the project site) is presented in **Table 28**.

Table 28: The average annual quality of the Amudarya river at the Tuyamuyun stream gauge (2018–2020)

Ingredients	April	March	May	June	July	MAC[42]
Total Suspended Solids, mg/dm^3	198	333	965	784	90	25
pH	7.8	7.4	7.45	7.535	7.52	6.5-8.5
Chlorides, mg/dm^3	294.5	151.2	163.45	97.85	63.9	350
Sulfates, mg/dm^3	753	374	405	306	172	500
Fe, mg/dm^3	0	0.05	0.01	0	0	0.5
COD, mg/dm^3	20.1	11.6	13.95	11.87	9.9	30
BOD_5, mg/dm^3	1.57	1.16	1.99	1.265	1.16	3-6
Ammonium nitrogen, mg/dm^3	0.07	0.02	0.19	0.02	0.02	2
Nitrogen nitrite, g/dm^3	0.002	0.015	0.0035	0.02	0	3.3
Nitrogen nitrate, mg/dm^3	0.26	0.04	0.41	0.795	0.08	45
Amount of nitrogen, mg/dm^3	0.332	0.075	0.6035	0.835	0.1	-
Phosphates, mg/dm^3	0.01	0.023	0.009	0.0025	0.011	0.3

Source: Centre of Hydrometeorological Service of the Republic of Uzbekistan (Uzhydromet)

225. Groundwater recharge occurs at the expense of the groundwater flow from the Amudarya and canals, as well as due to infiltration of irrigation water and rainfall. Groundwater can be used for drinking purposes only after desalination.

226. Data on the groundwater level, salinity and distribution area in Khiva city is presented in **Table 29**.

Table 29: Ground water level, salinity and area distribution of groundwater in Khiva city (2019-2020)

Year	Are (ha)	Groundwater level, m							Salinity, g/l				
		0-1	1-1 .5	1 .5-2	2 .0-2 .5	2 .5-3 .0	3 .0-5 .0	5<	0-1	1 .0-2 .0	2 .0-3 .0	3 .0-5 .0	5<
2019	1,425	-	100	220	384	311	410	-	100	600	626	99	-
2020	1,414	-	-	299	220	283	612	-	204	605	506	99	-

Source: Khorezm Regional Hydrogeological Land Reclamation Expedition

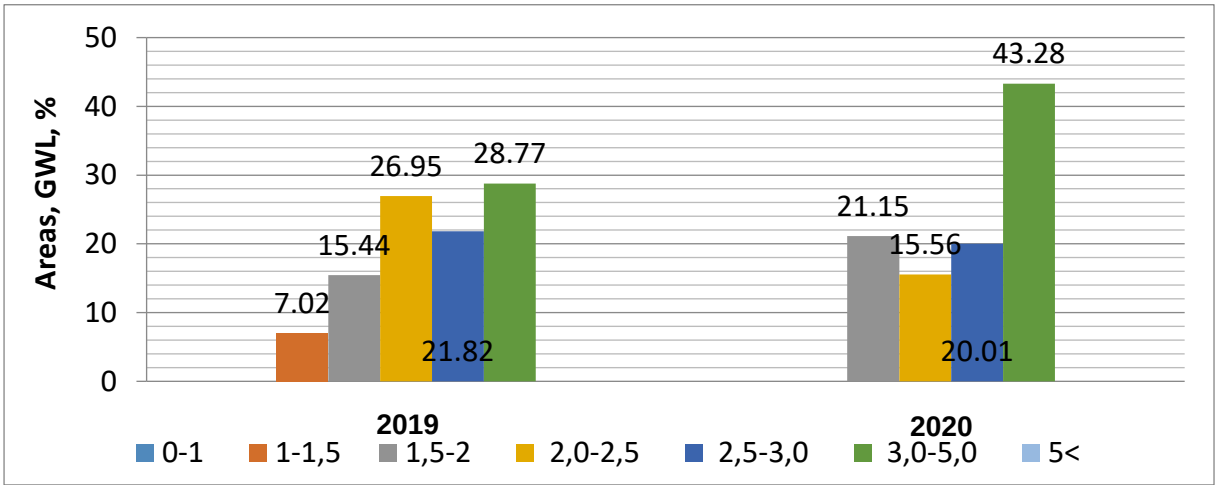


Figure 63: Groundwater level in Khiva city

227. The dynamics in the areas with different groundwater levels on the irrigated lands of Khiva district is shown in **Figure 63**, where it can be seen that the areas of lands with a

[42] Handbook of environmentalist, Tashkent 2010

groundwater level of 1.5-2.5 m are decreasing. While the areas with the groundwater level at the depth of 3-5 m has increased significantly. In 2019, the area of such land was 28.77% of the total irrigated land area of the district, upon that in 2020 the area of land with a groundwater level of 3-5 m reached 43.28%. Therefore, it can be found that, in general, as a result of the cleaning the drainage system, the reclamation state of the irrigated lands is improving.

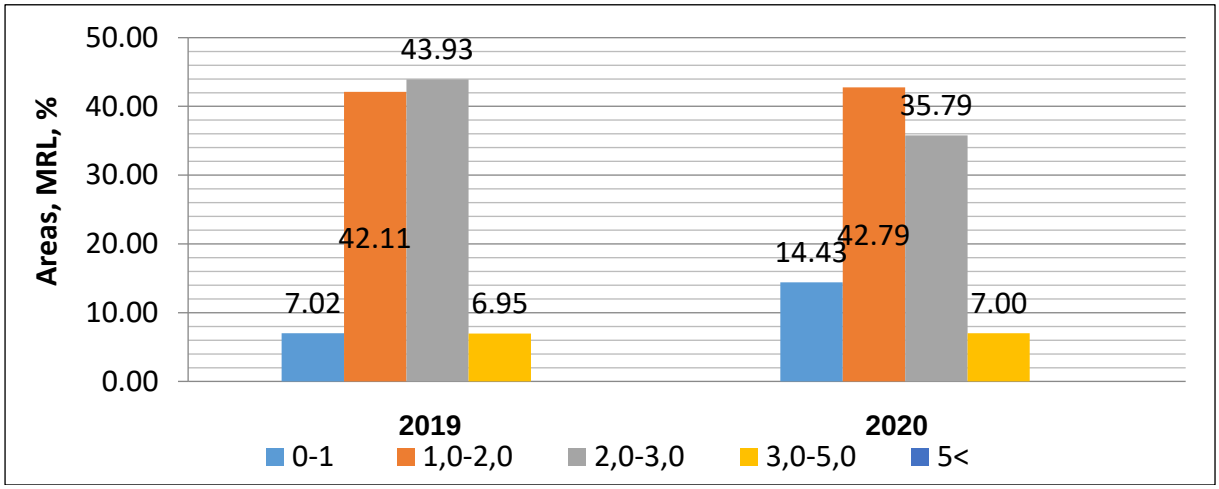


Figure 64: Salinity level of groundwater in Khiva city

d) *Soils*

228. Light grey desert soils and, in some areas, brackish ones prevail in the Tashkent-Golodnosteppe depression. Typical grey soils are widespread in the periphery part of the depression. Meadow and meadow-swampy soils are developed in the bottom of the Syrdarya river. Typical dark grey soils prevail within the foothill plains and low-hill terrains of Western Tien-Shan, and light and typical grey soils –in the foothills of Turkestan ridge. Loamy light grey soils of plains are irrigated and used for farming. Gristly eroded light grey soils, clayey and loamy, are formed on loess, mostly irrigated or can be used for irrigation, their less part is used for rainfed farming and pastures. Meadow soils are used for farming since ancient times.

229. Soil map of Khorezm province is presented in **Figure 65**.

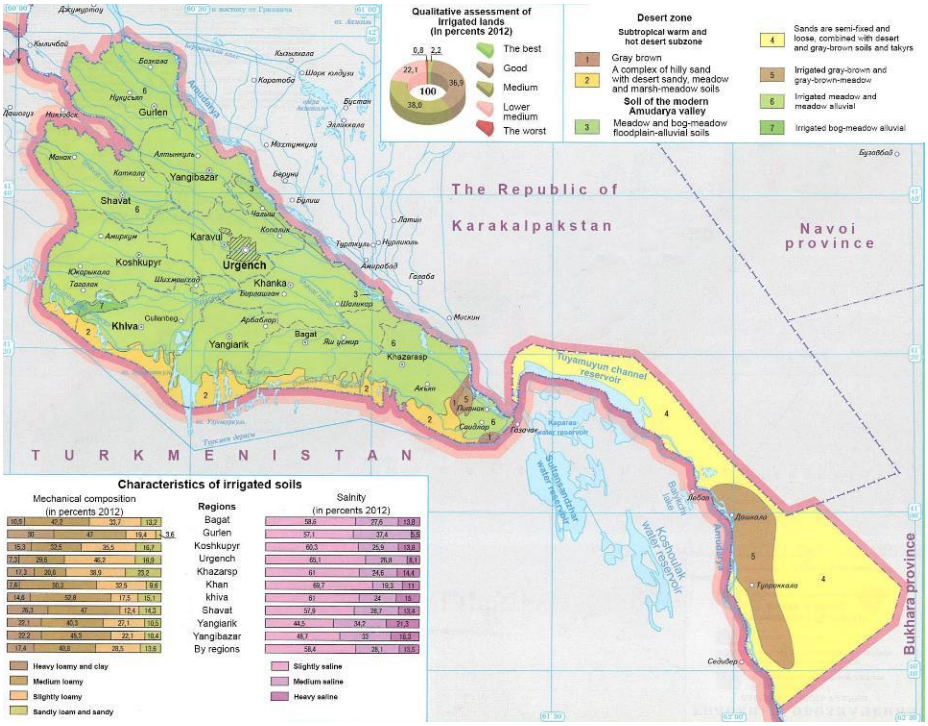


Figure 65: Soil map of Khorezm province

2. Biological Environment

a) Flora

230. Natural vegetation is preserved in the floodplain of the Amudarya river and sands. In the floodplain riparian forests, some alluvial soils with shallow groundwater are common and include *turanga*, olives, *tamarisk*, *halimodendron*, *krugloplodnik*, cane, *kermek*, etc. Associations of crowfoot, narrow-leaved and leafless shrubs, including *kanda*, *sand acacia*, *garnal*, bindweed, *parnolistnik*, wormwood, *euphorbia*, *adzhryk*, *kolyuchelistnik, yantak, epilazna, Astragalus*, and *Salsola*.

231. The vegetation map of Khorezm province is presented in **Figure 66.**

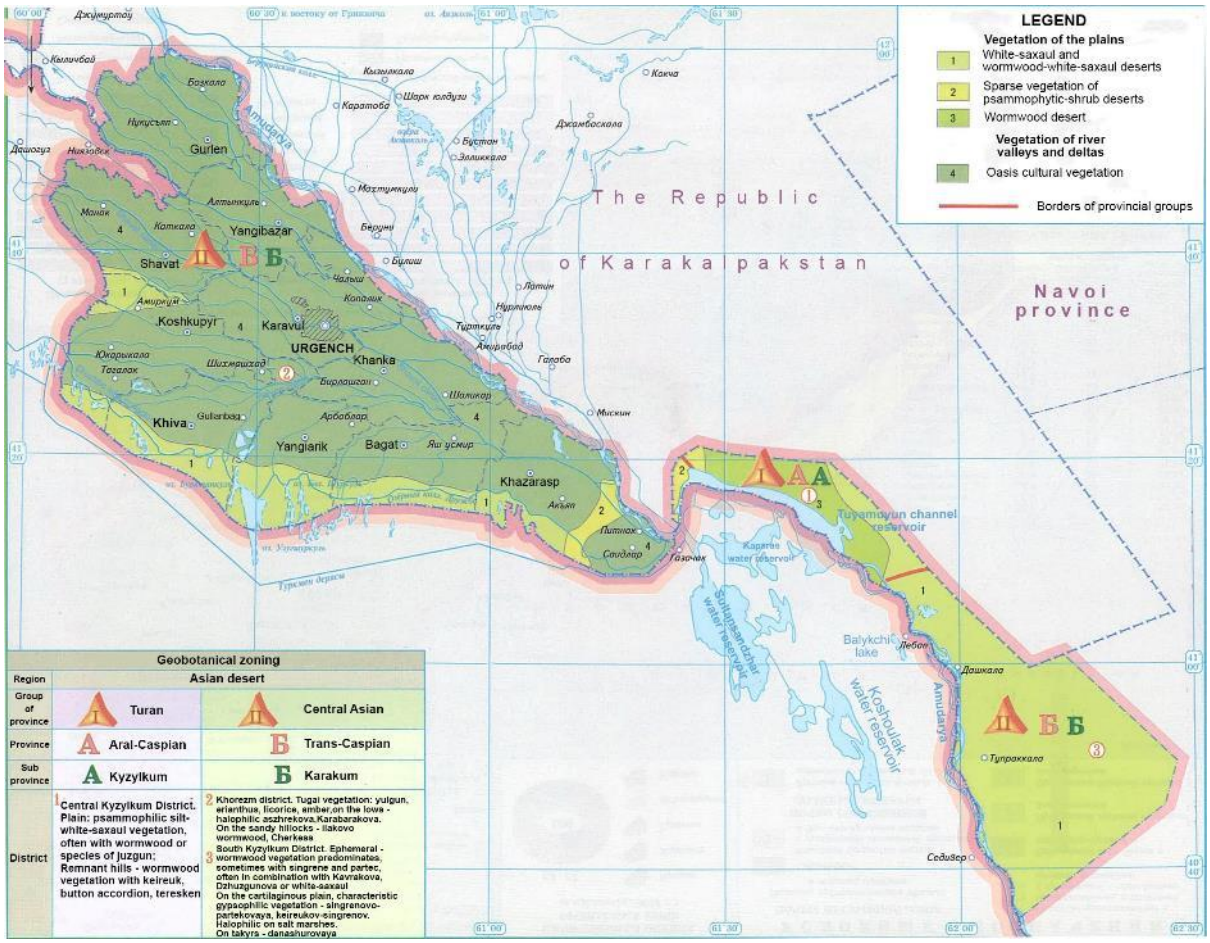


Figure 66: Vegetation map of Khorezm province

232. The project area in Khiva city is located inside of populated area. There is no vegetation cover on the territory of the Visitor center. Fruit trees (apples, apricots) and different bushes are growing within the right of way of Polvon canal. Examples of trees growing along Polvon canal are presented on **Figure 67.**

Figure 67: Vegetation in project area

b) Fauna

233. The fauna of the province is typical for arid lands and represented by rodents, reptiles, insects, arachnids and many species of birds that inhabitat floodplains of rivers and lakes. Animal world is represented by hares, jackals, foxes, gazelles, inreeds - *susliks*, ducks, hawks, larks, sparrows, starlings, golden oriole, by reptiles - geckos, turtles, grass-snakes, lizards, and by rodents - moles, jerboa, field mice, hedgehogs and rats.

234. The fauna map of Khorezm province is presented in **Figure 68**.

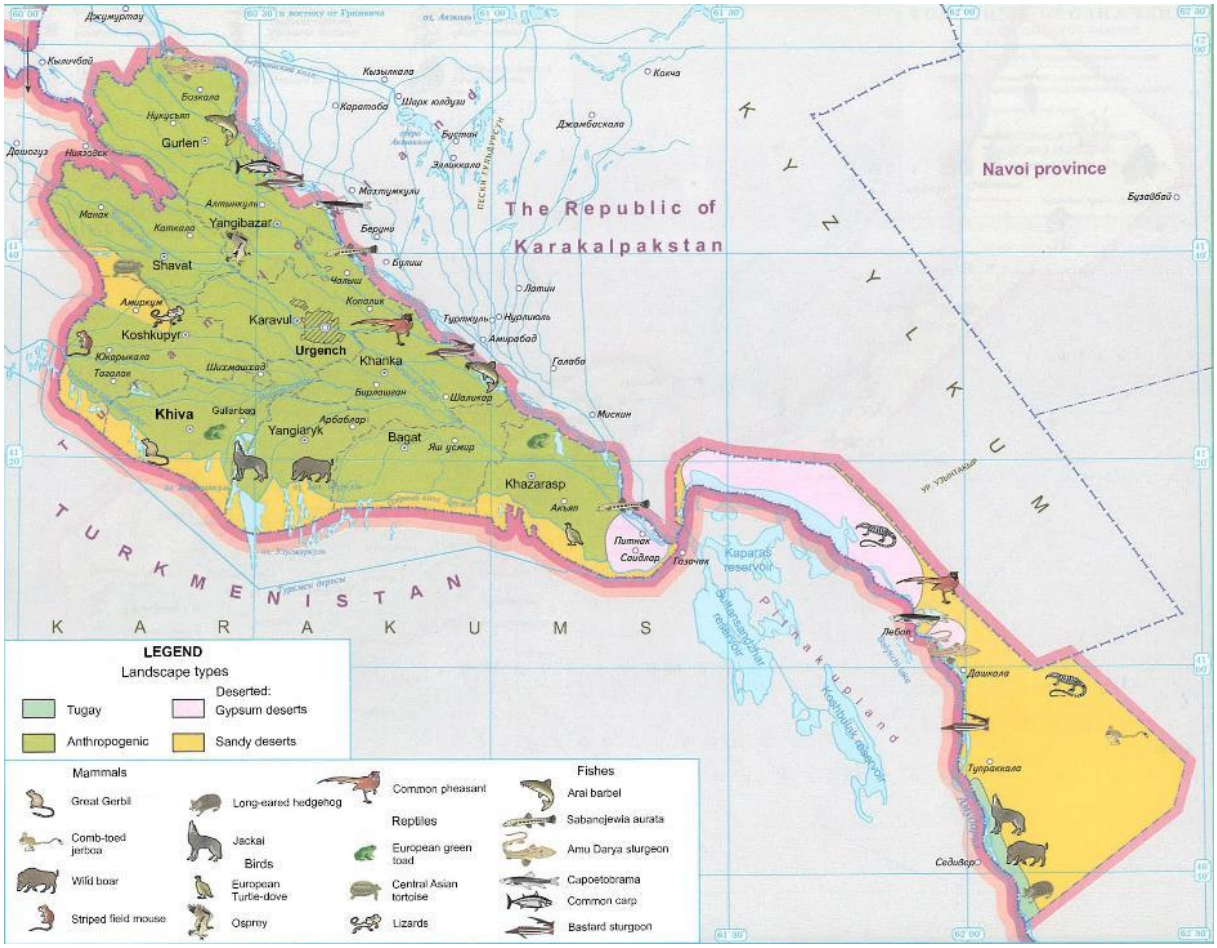


Figure 68: Fauna map of Khorezm province

c) *Protected* Areas & Habitats

235. The main protected natural areas and IBA zones of the province are presented in **Table 30**.

Table 30: Main Protected Natural Areas and IBA Zones in Khorezm province

SPNA name, organization year	Location		Area (km²)	IUCN Category	Distance from the Project site
	Administrative conformity	Geographical location			
Reserves					
Kyzylkum State Tugay-Sand Reserve (1971)	Bukhara province (Romitan district); Khorezm province (Drujba district)	The right bank of the middle course of the Amudarya river	103	I	158 km
Natural Park					
Yangibazar (2003)	Khorezm province		4.9	N/A	45 km
Important Bird Areas (IBM)					
Khorezm fish farm and adjacent lakes	Khorezm province (Bagat and Yangiarik districts)	In the left-bank part of the lower reaches of the Amudarya river, 5 km southeast of Khiva city, on the border of the cultural zone and the Karakum desert. The territory stretches along the border with Turkmenistan, in the north it covers the Khorezm fish farm with a total area of 1,500 ha	221	N/A	5 km

236. A distance of the subprojects from the main natural protected areas is shown in **Figure 69**.

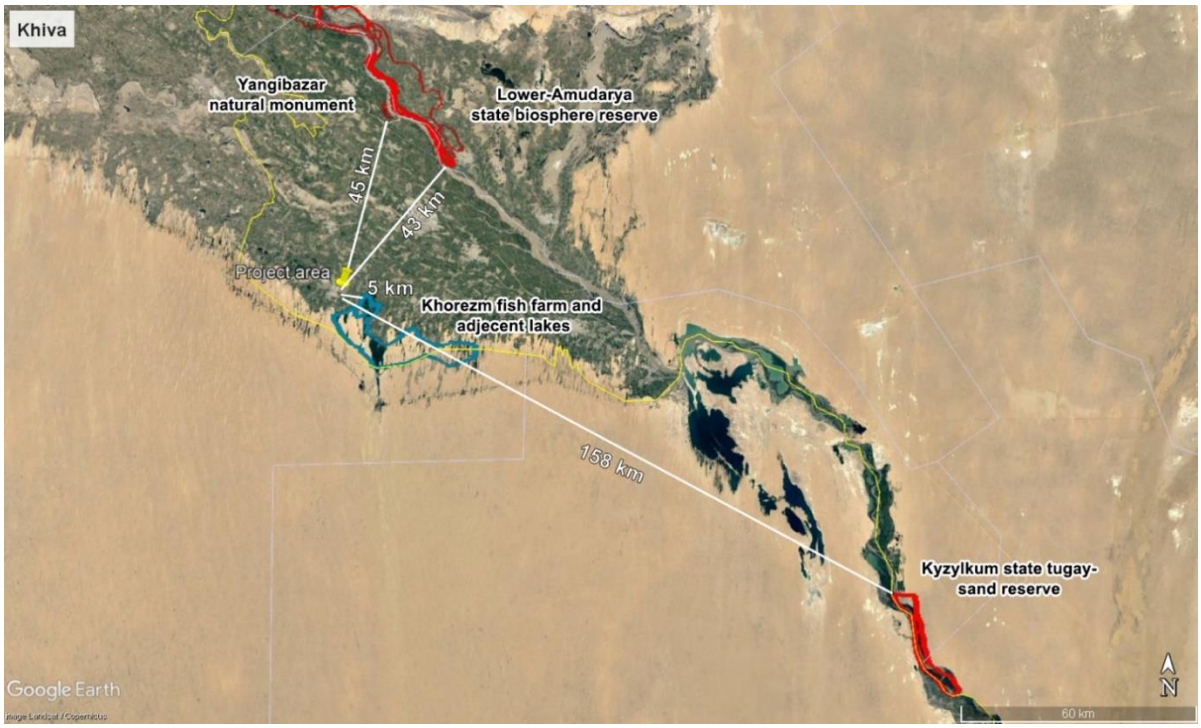


Figure 69: Main protected areas close in Khiva

3. Cultural Heritage

237. There are many cultural and archeological monuments in Khorezm province, such as: Ak, Bogbonla, Dzhuma, All-Kuli-khan Mosques; Amir Temur, Arab-khanai Mukhammad-Amin-inaka, Kutlug-Murad-inakai Abdulla-khan, Kazy-Kalyan, Matpana-baya, Matniyaz-Divan-begi, Mukhammad Amin-khan, Mukhammad Rakhim-khan, Khurdzhum and Alla-Kuli-khan, Shirgazi-khan, Islam Khodzha Madrassas; Seyid Allauddin, Uch-Ovliya Mausoleums; Palvan-Kari, Seyid-biya Minarets and many others.

238. Khiva city is split into two parts. The outer town, called Dichan Kala, was formerly protected by a wall with 11 gates. The inner town, or Itchan Kala, is encircled by brick walls, the foundation if which as they believe were laid in the 10th century. Present-day crenellated walls date back to the late 17th century and attain the height of 10 meters. Itchan Kala in Khiva was the first site in Uzbekistan included in the World Heritage List (1991).

239. Kalta Minor, the large blue tower in the central city square, was supposed to be a minaret, but the Khan died and the succeeding Khan did not complete it.

240. The old town retains more than 50 historic monuments and 250 old houses, mostly dating from the 18th or the 19th centuries. Djuma Mosque, for instance, was established in the 10th century and rebuilt in 1788-89, although its celebrated hypostyle hall still retains 112 columns taken from ancient structures.

241. Khiva has a number of madrassahs (educational establishments), one of which, Sherghazi Khan madrassah, still stands today. It was built in the 18th century by slaves and was one of the oldest buildings in Ichan Kala, the very center of the present-day Khiva.

242. Main historical monuments in Khiva city are shown in **Figure 70**.

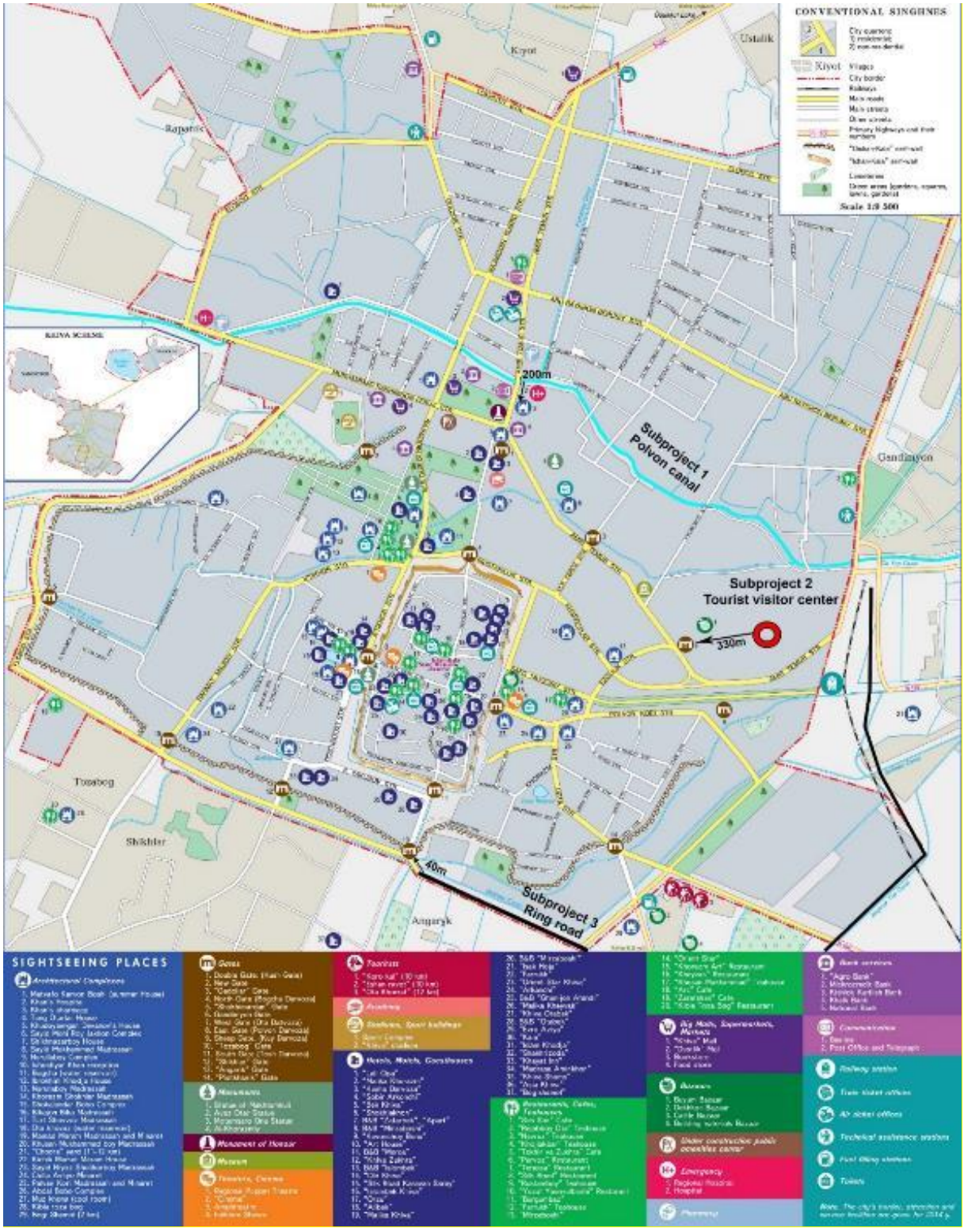


Figure 70: Main sightseeing places in Khiva close to subprojects

243. The distance of subprojects from the main historical places in Khiva is shown in **Figure 71.**

Figure 71: Main historical places close to Khiva subprojects

4. Socio-economic situation

244. Khorezm province was founded on January 15, 1938. The administrative center is Urgench city. Khorezm province consist of 10 administrative districts: Bogot, Gurlen, Khiva, Qoshkopir, Shovot, Urganch, Khonqa, Hazorasp, Yaniariq, Yangibozor. The administrative division of Khorezm province is presented below.

Figure 72: Administrative map of Khorezm province

245. The economy of Khorezm province is primarily based on cotton production. Other main sectors of agriculture include melon-growing, rice-growing, meat and dairy farming, and sericulture. The main industries include electric power, machine building and metalworking, building materials, light, food, flour and cereal industry.

246. Khiva city is the administration and cultural center of Khiva district of Khorezm province, and is one of the main tourist destinations in Uzbekistan. The city also has some textile, silk, and carpet weaving production. It was formerly the last oasis on the Silk Road for westward travelers heading across the desert to Iran. The population of the city is 92,400 (1st January 2020) and is the administrative center of Khiva district. There are 21 mahallas in Khiva and its Khokimiyat is implementing streetscape and utility modernization program for five mahallas, and by 2024 will complete it for the remaining 16.

247. The city occupies a compact area, where the southern half of the territory is occupied with the historical part, and the northern half is occupied with residential and administrative buildings. Besides, the city boundaries include two satellites: Yangiabad district in the north-west, and Gaukul district in the north-east (**Figure 73**).

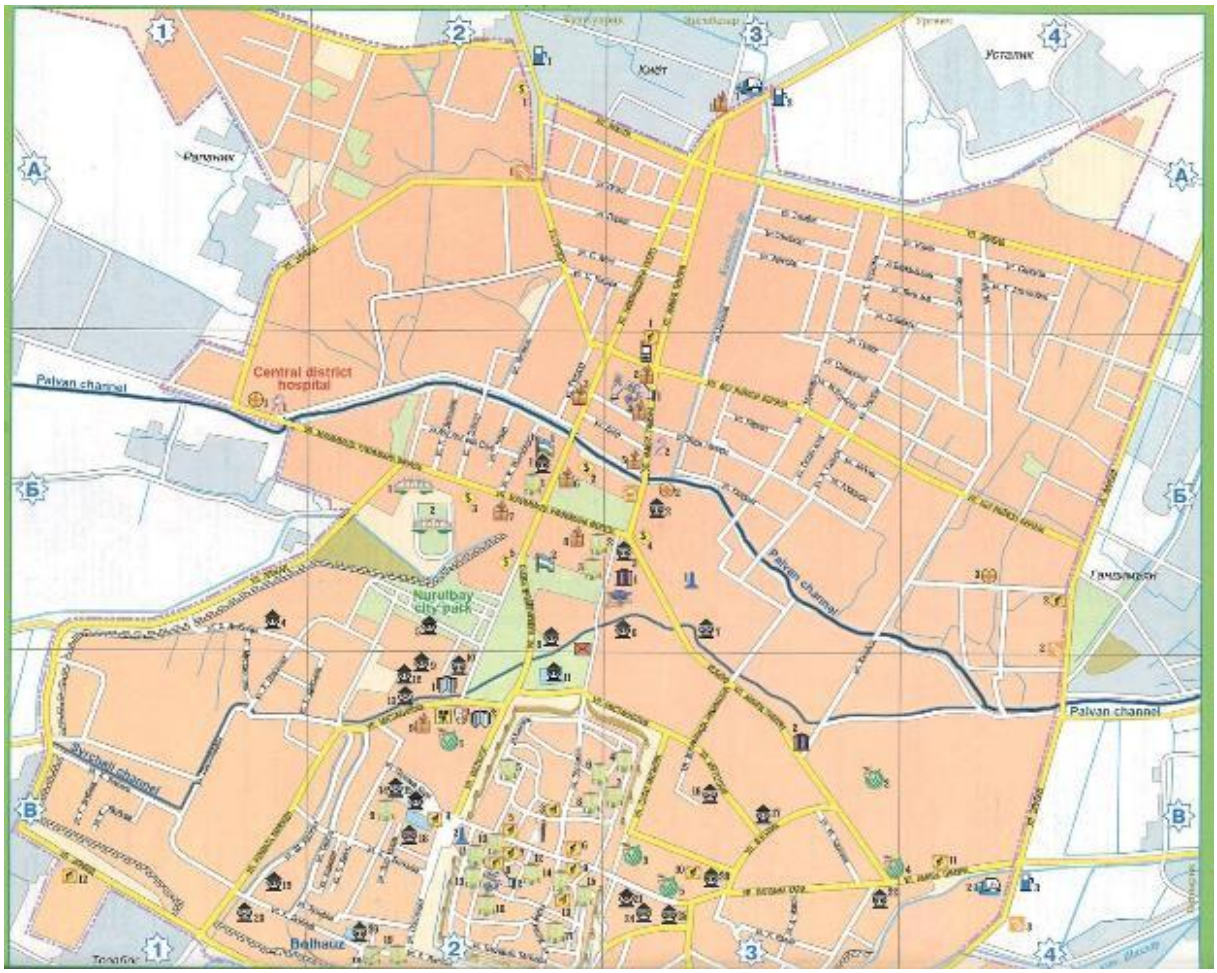


Figure 73: Administrative map of Khiva city

248. The city area is mostly covered with single-story houses. Newer quarters mainly include one-household houses. There are several blocks with 2-story and 4-5-story apartment buildings. The city has common utilities and trees. The seismic intensity of Khiva city is around 7 points according to the Richter scale.

249. Water is supplied to Khiva from the interregional pipeline system Tuyamuyun-Urgench, from Urgench water distribution point located in the east part of the city. The water supply

coverage is 96,1%. District hot water supply system includes some local boiler plants. Gas supply is also available in the city.

E. Climate Change

250. Uzbekistan signed the United Nations Framework Convention on Climate Change (UNFCCC) in 1993 and ratified the Kyoto Protocol in August 1999. Uzbekistan, as a party to the Convention, pursues the consistent policy aimed at decrease in greenhouse gases (GHG) emission in the key sectors of economy. The Government has adopted several documents associated with regulation of actions and implementation of measures in climate change. The tangible success has been achieved in implementation of the Kyoto Protocol mechanisms. 15 Clean Development Mechanism Projects have been registered in the Executive Council of UNFCCC and 14 million tons of Certified Emission Reductions were put into practice. Uzbekistan occupies the first place among the CIS and Eastern Europe countries by number of registered CDM projects.

251. According to the Government decision, the Agency responsible for implementation of the UNFCCC is the Centre of Hydrometeorological Service at Cabinet of Ministries of the RUz (Uzhydromet). There is the National Secretariat of UNFCCC in the Uzhydromet as permanently operating body that coordinates activities for fulfillment of the country's commitments. The Director General of Uzhydromet is the National Focal Point for implementation of the UNFCCC in Uzbekistan. The Climate Change Information Center operates also under Uzhydromet.

252. Trends in change of air temperatures for various regions of the country's territory may be evaluated starting from 1925. The highest warming rates are observed in the northern part of republic and in large cities (0.30-0.43°C over 10 years), and the least ones in mountain zone (0.10-0.14°C over 10 years). Moderate warming rates are observed in the regions where irrigation has been developed over the considered period. The average warming rates by Uzbekistan is 0.27°C over 10 years.

253. In all seasons of year considerable increase in air temperatures is observed, however warming rates in winter period in Uzbekistan have been slowed down. For period from 1950 to 2013, the average rates of air temperatures increase over each 10 years were as follows: 0.13°C in winter, 0.39°C in spring, 0.25°C in summer, and 0.31°C in autumn. The revealed linear trends in seasonal air temperatures change (apart from winter temperatures) were statistically significant. Over the recent 50 years, seasonal air temperatures were increased by 0.8°C in winter, 2.5°C in spring, 1.6°C in summer and 2.0°C in autumn.

254. As already mentioned, the implementation of the pilot projects is planned in four cities: Khiva, Djizzak, Yangiyer and Havast. As for the sensitivity to the climate change, Djizzak, Yangier and Havast cities are found less sensitive to the climate change. Khiva city was found as highly sensitive to the Climate Change.

255. For assessment of climate change impact in Uzbekistan it was selected three scenarios of GHG emissions with use of the MAGICC5.3 (Model for the Assessment of Greenhouse-gas Induced Climate Change): (i) The softest scenario reflects global warming within range of 2°C against pre-industrial period. It is scenario of CO2 stabilization at the level of 450 ppm (WRE450), which envisages introduction of strict measures for restriction of GHG emissions; (ii) Moderate scenario assumes CO2 stabilization at the level of 750ppm (WRE750), which will lead to increase in global temperature 3°C up to year 2100; (iii) Extreme scenario (A1FI), by year 2100, increase in global temperatures will reach 4.9°C, and concentration of carbon dioxide will approach to 990 ppm.

256. This Climate Change assessment Report was prepared under TA-8556 REG: Supporting the Cities Development Initiative for Asia[43] - Project Preparation Study for the ADB

[43] 47285-001: Supporting the Cities Development Initiative for Asia | Asian Development Bank (adb.org)

Integrated Urban Development Project in Uzbekistan, which was being funded and implemented by the Cities Development Initiative for Asia.

257. According to the Climate Change assessment conducted by Cities Development Initiative for Asia (CDIA) and TRTA teams, the following climate changes aspects will have to be considered during the project preparation:

For Djizzak:

- Relatively large increases in precipitation intensity and maximum 1-day precipitation events;
- Moderate increase in maximum temperatures (increase in maximum annual temperature of 1.5-3°C with a baseline maximum of 38°C) and frequency of heatwaves;

For Havast and Yangiyer:

- Moderate increase in maximum temperatures and frequency of heatwaves.

For Khiva

- Moderate increases in precipitation intensity, maximum 1-day precipitation events.
- Moderate increase in maximum temperatures and frequency of heatwaves.

258. The assessment of the project impact on Climate Change is provided in Chapter IV.E.

V. ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

A. Impact Assessment Methodology

259. Impact identification and assessment starts with scoping and continues through the remainder of the environmental assessment process. Interactions with the potential for significant effects are subjected to a detailed impact assessment. The principal environmental assessment's steps comprise the following:

- **Impact prediction**: to Determine what could potentially happen to resources or receptors as a consequence of the Project and its associated activities.
- **Impact evaluation**: to evaluate the significance of the predicted impacts by considering their magnitude and likelihood of occurrence, and the sensitivity, value and/or importance of the affected resource or receptor.
- **Mitigation and enhancement**: to Identify appropriate and justified measures to mitigate negative impacts and enhance positive impacts.
- **Residual impact evaluation**: to evaluate the significance of impacts assuming effective implementation of mitigation and enhancement measures.

1. Identification and Characterization of Impacts

260. An 'impact' is any change to a resource or receptor caused by the presence of a project component or by a project-related activity. Impacts can be negative or positive and are described in terms of their characteristics. Impact characteristics are defined in the subsections below.

Type of Impact

- *Direct*: Applies to an impact which can be clearly and directly attributed to a particular environmental or social parameter;
- *Indirect*: Applies to impacts which may be associated with or subsequent to a particular impact on a certain environmental or social parameter;
- *Cumulative*: Multiple and successive environmental and social impacts from existing developments can reinforce each other, leading to more serious consequences on environment and people than each of the developments separately.

Duration of impact

- *Temporary* - Applies to impacts whose effects are limited to a period of less than 3 years, or only associated with project pre-construction or construction phases.
- *Short-term*: Applies to impacts whose effects are limited to a five-year period.
- *Long-term*: Applies to impacts whose effects last longer than a period of five years but limited to within the project lifetime.
- *Permanent:* Applies to **impacts** whose effects last longer than the life of project – i.e. irreversible.

Extent of impact

- *On-site*: Impacts that are limited to the project site.
- *Local:* Impacts that are limited to the project site and adjacent properties.
- **Regional**: Impacts that are experienced at a regional scale.
- **National**: Impacts that are experienced at a national scale.
- **Trans**-*boundary/International:* Impacts that are experienced outside of Uzbekistan.

Frequency of impacts

261. The frequency of an impact the measure of the constancy or periodicity of an impact, described using numerical values or a qualitative description (daily, weekly, monthly).

Likelihood

262. Likelihood is a measure of the degree to which the unplanned event (e.g. incidents, spills) is expected to occur. The likelihood of an unplanned event occurring is determined qualitatively, or when data is available, semi-quantitatively. Definitions of likelihood as applied in the IEE are provided as follows:

- *Unlikely*: The Event is unlikely but may occur at some time during normal operating conditions
- *Possible*: The Event is likely to occur at some time during normal operating conditions.
- *Likely*: The Event will occur during normal operating conditions (i.e. it is essentially inevitable).

2. Evaluation of impacts

263. A consistent approach to the assessment of impacts will be followed to enable environmental and social impacts to be broadly compared across the IEE. A set of generic criteria are used to determine significance and are applied across the various environmental and social parameters.

264. As far as possible, environmental and social impacts will be quantified. Where it is not possible to quantify impacts, a qualitative assessment will be conducted using professional judgement, experience and available knowledge, and including the consideration of stakeholder views. Where there are limitations to the data, and/or uncertainties, these will be recorded in the relevant chapters, along with any assumptions made during the assessment.

265. to determine the significance of each impact, two overall factors are considered:

- Magnitude and nature of impacts
- *The* Importance and/or sensitivity of the environmental and social receiving parameter, as determined *during* the assessment of baseline conditions.

Magnitude of impacts

266. After impacts characterization they are assigned a “magnitude”. magnitude is typically a function of some combination (depending on the resource/receptor in question) of the following impact characteristics:

- *extent*
- *duration*
- *scale*
- *frequency*

267. For biophysical impacts, the semi-quantitative definitions for the spatial and temporal dimension of the magnitude of impacts used in this assessment are provided as follows:

- **High Magnitude Impact** affects an entire area, system (physical), aspect, population or species (biological) and at sufficient magnitude to cause a significant measurable numerical increase in measured concentrations or levels (to be compared with legislated or international limits and standards specific to the receptors) (physical) or a decline in abundance and/or change in distribution beyond which natural recruitment (reproduction, immigration from unaffected areas) would not return that population or species, or any population or species dependent upon it, to its former level within several generations (physical and

biological). A high magnitude impact may also adversely affect the integrity of a site, habitat or ecosystem.

- **Moderate Magnitude Impact** affects a portion of an area, system, aspect (physical), population or species (biological) and at sufficient magnitude to cause a measurable numerical increase in *measured* concentrations or levels (to be compared with legislated or international limits and standards specific to the receptors) (physical) and may bring about a change in abundance and/or distribution over one or more plant/animal generations, but does not threaten the integrity of that population or any population dependent on it (physical and biological). A moderate magnitude impact may also affect the ecological functioning of a site, habitat or ecosystem but without adversely affecting its overall integrity. The area affected may be local or regional.
- **Low Magnitude Impact** affects a specific area, system, aspect (physical), group of localized individuals within a population (biological) and at sufficient magnitude to result in a small increase in measured concentrations or levels (to be compared with legislated or international limits and standards specific to the receptors) (physical) over a short time (one plant/animal generation or less but does not affect other trophic levels or the population itself), and localized area.

3. Sensitivity of receiving parameter

268. In addition to characterizing the magnitude of impact, the other principal step necessary to assign significance for a given impact is to define the sensitivity of the receptor. The universal sensitivity of receptor is low, medium and high.

269. For ecological impacts, sensitivity is assigned as low, medium or high based on the conservation importance of habitats and species. For socio-economic impacts, the degree of sensitivity of a receptor is defined as the level of resilience (or capacity to cope) with sudden social and economic changes. Criteria for deciding on the value or sensitivity of biological and socioeconomic receptors are presented as follows:

270. *High:* For ecological receptors, specifically protected under Uzbek legislation and/or international conventions e.g. for social receptors, those affected will not be able to adapt to changes and continue to maintain pre-impact status.

271. *Medium:* For ecological receptors, not protected or listed but may be a species common globally but rare in Uzbekistan with little resilience to ecosystem changes, important to ecosystem functions, or one under threat or population decline. For social receptors, those able to adapt with some difficulty and maintain pre-impact status but only with a degree of support.

272. *Low:* For ecological receptors, not protected or listed as common / abundant; or not critical to other ecosystem functions (e.g. key prey species to other species). For social receptors, those affected can adapt with relative ease and maintain pre-impact status.

4. Assessing the significance of impacts

273. to assess the significance of an impact, the sensitivity of the receiving environmental or social parameter is considered in association with the magnitude of the impact, according to the matrix shown in **Table 31** below.

Table 31: Impact Significance Matrix

Magnitude of impact	Sensitivity of receiving receptor		
	Low	**Medium**	**High**
Negligible	Negligible	Negligible	Negligible
Low	Negligible	Minor	Moderate
Medium	Minor	Moderate	Major

Magnitude of impact	Sensitivity of receiving receptor		
	Low	Medium	High
High	Moderate	Major	Major

274. While the above matrix provides a framework for the determination of significance and enables comparison across environmental and social parameters, a degree of professional judgement must be used, and some parameter-specific factors considered in deciding of impact significance.

275. Below provides Additional guidance to the degrees of significance in the IEE. Positive impacts provide resources or receptors, most often people, with positive benefits. Note that positive impacts are defined, but not rated for significance.

- *Major significance*: an accepted limit or standard may be exceeded, or large magnitude impacts occur to highly valued/sensitive resource/receptors. An aim of impact assessment is to get to a position where the project does not have any major residual impacts, certainly not ones that would endure into the long-term or extend over a large area.
- *Moderate significance*: Has an impact magnitude that is within applicable standards but falls somewhere in the range from a threshold below which the impact is minor, up to a level that might be just short of breaching a legal limit. Clearly, to design an activity so that its effects only just avoid breaking a law and/or cause a major impact is not best practice. The emphasis for moderate impacts is therefore on demonstrating that the impact has been reduced to a level that is as low as reasonably practicable.
- *Minor significance*: a Resource/receptor will experience a noticeable effect, but the impact magnitude is sufficiently small and/or the resource/receptor is of low sensitivity/ vulnerability/ importance. In either case, the magnitude should be well within applicable standards.
- *Negligible significance*: a Resource/receptor (including people) will essentially not be affected in any way by a particular activity, or the predicted effect is deemed to be 'imperceptible' or is indistinguishable from natural background variations.

5. Residual Impacts

276. A key objective of an IEE is to identify and define socially, environmentally and technically acceptable and cost-effective measures to manage and mitigate potential impacts as well as actions to enhance positive project benefits. Mitigation measures are developed to avoid, reduce, remedy or compensate for potential negative impacts, and to enhance potential environmental and social benefits.

277. The approach taken to defining mitigation measures is based on a typical hierarchy of decisions and measures, as described in **Table 32** below. The priority is to first apply mitigation measures to the source of the impact (i.e., to avoid or reduce the magnitude of the impact from the associated project activity), and then to address the resultant effect to the resource/receptor via abatement or compensatory measures or offsets (i.e. to reduce the significance of the effect once all reasonably practicable mitigations have been applied to reduce the impact magnitude).

278. Once mitigation measures are declared, the next step in the impact assessment process is to assign residual impact significance. This is essentially a repeat of the impact assessment steps discussed above.

Table 32: Mitigation Hierarchy

Avoid / reduce at source: Avoiding or reducing at source through the design of the Project (e.g., avoiding by siting or re-routing activity away from sensitive areas or reducing by restricting the working area or changing the time of the activity).

Abate on Site: Add something to the design to abate the impact (e.g., pollution control equipment).
Abate at Receptor: If an impact cannot be abated on-site then control measures can be implemented off-site (e.g., traffic measures)
Repair or Remedy: Some impacts involve unavoidable damage to a resource (e.g., material storage areas) and these impacts require repair, restoration, and reinstatement measures
Compensate in Kind; Compensate through other means where other mitigation approaches are not possible or fully effective, then compensation for loss, damage and disturbance might be appropriate (e.g., financial compensation for degrading agricultural land and impacting crop yields)

279. Once mitigation measures are declared, the next step in the impact assessment process is to assign residual impact significance. This is essentially a repeat of the impact assessment steps discussed above, considering the assumed implementation of the additional declared mitigation measures.

280. Once mitigation measures are declared, the next step in the impact assessment process is to assign residual impact significance. This is essentially a repeat of the impact assessment steps discussed above, considering the assumed implementation of the additional declared mitigation measures.

6. Cumulative Impacts

281. A cumulative impact is one that arises from a result of an impact from the Project interacting with an impact from another activity to create an additional impact. How the impacts and effects are assessed is strongly influenced by the status of the other activities (e.g. already in existence, approved or proposed) and how much data is available to characterize the magnitude of their impacts.

282. The approach to assessing cumulative impacts is to screen potential interactions with other projects based on:

- Projects that are already in existence and are operating;
- *Projects* that are approved but not yet built or operating; and
- *Projects* that are a realistic proposition but are not yet built.

B. Result of Impacts Assessment

283. The project's anticipated environmental impacts were reviewed at the three stages – pre-construction, construction and operation stages for four sub-components:

(i) Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak,

(ii) Component 1.2: Improvement of Polvon Canal Area in Khiva,

(iii) Component 1.3: New Tourist Visitor Center in Khiva, and

(iv) Component 1.4: Development of New Park and Co-working Center in Havast.

1. Pre-construction stage

Impacts

284. During pre-construction stage the following aspects may impact on effectiveness of implementation of environmental safeguards during whole project cycle and may lead to non-compliance with requirements: (i) environmental requirements that are not included in bidding documents and contracts, (ii) non-compliance with requirements to obtain approvals and permissions per national legislation, and, (iii) non-compliance of goods, equipment and

machinery procurement does not comply with the ADB Prohibited Investment Activities List set forth at Appendix 5 of ADB SPS and national standards on exhausted gases.

285. Main part of civil works will be implemented inside settlements with developed utility networks. Most of the utility networks will go underground, therefore obtaining approvals from the relevant agencies (gas, water supply and other utilities) prior to commissioning the civil works is critical and shall be included as a requirement for contract award.

286. If there are any unanticipated impacts, the IEE/EMP will be updated accordingly to account for any additional or new environmental impacts and relevant corrective actions.

287. A situation when environmental requirements are not included in bidding documents and contracts may lead to improper implementation of EMP and low capacity and responsibility of Contractors in the field of environmental performance.

288. In accordance with the national environmental regulations, six PEISs (footnote 3) were prepared and approved (**Table 1**). According to the statement in Environmental Appraisals, preparation of the next step of Environmental Assessment – EIS is not required.

289. Prior to starting operation of recreated zone along canal and open spaces in three mahallas, Positive Conclusions on SEC from provincial SCEEP must be received (

290. Table 3). The SEC will include information on permitted water discharge, air emissions and waste generation during the operation.

291. Procurement of goods, equipment and machinery which does not comply with ADB Prohibited Investment Activities List set forth at Appendix 5 of ADB SPS and national standards on exhausted gases will not be allowed.

292. Any earth works without approval of local utility company may cause emergency situation during digging ditches. Therefore, it will be important to get non-objections from all relevant municipal agencies.

293. Prior to commissioning of the civil works, Contractors will have to develop SSEMP including Topic Specific EMPs (TSEMPs) as defined in the following chapters. Proposing list of TSEMPs are presented below:

- Traffic Management Plan (TMP, **Appendix 4.** Template for Traffic Management Plan);
- Asbestos-Containing Materials Management Plan (ACMMP);
- Wastes Management Plan;
- Spoil Management Plan;
- Spill Response Plan;
- Construction Camp Management Plan (CCMP);
- Occupational Health and Safety Plan (OHSP);
- COVID-19 Health and Safety Management Plan and emergency response plan.

294. The following measures will be taken to mitigate impacts identified at the pre-construction stage.

Mitigation measures

- PIU with the assistance of PMSC will ensure inclusion of environmental provision along with EMP in the bidding documents and in contracts for Contractors;
- Bids' evaluation needs to be done with consideration of capacity of bidders to meet EMP requirements, proposing adequate budget efficient for EMP implementation, existence of good practice in environmental performance within other similar projects;

- prior to commencing any physical works, SSEMPs including TSEMPs will be developed by the Contractors under the guidance of the PMSC, and be endorsed by PMSC before submission to PIU for approval;
- TSEMPs mentioned above will be prepared by Contractors as part of the SSEMPs, endorsed by PMSC and approved by PIU for the following activities:
- Prior to civil works, the Contractor will get non-objection from all utility agencies such as gas supply, telecommunications etc.
- Goods procured for project implementation will be done in compliance with ADB Prohibited Investment Activities List set forth at Appendix 5 of ADB SPS;
- Environmental specifications will be included in bidding packages for procurement of machinery under the project. Particularly, toxic level of machinery will meet "Euro 3" environmental requirements as defined by national regulations[44];
- If there are any unanticipated impacts, the IEE/EMP will be updated to account for any additional or new environmental impacts and relevant corrective actions;
- Prior to commencement of civil works, if cutting trees will be required, receive permission on cutting trees from SCEEP as it is indicated in RCM #43 dated from 2021;
- Update LARP (if necessary) and pay compensations prior to cutting trees;
- Prior to commencement of construction works PMSC will conduct vision observation of demolishing buildings on presence of asbestos materials;
- In case of presence of asbestos materials, the Contractor will develop ACMMP that includes identification of hazards, the use of proper safety gear and disposal methods.
- Any activities involving asbestos materials will be prohibited until the ACMMP is approved by the PIU and the PMSC.

2. Construction stage

a) Physical resources

(1) Impact on air quality

(a) **Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak**

295. Construction of open spaces and roads in Djizzak will be conducted in densely populated area. Equipment and machinery will move inside settlements as well. Several buildings will be demolished for construction of open space elements. During these works, dust generation will intensify. There is a number of sensitive receptors in three mahallas: 6 schools, 4 polyclinic and 2 kindergartens.

296. Significant amount of dust will be generated during removal of old pavement slabs and asphalt. It will require a continuous monitoring of air quality and implementation of mitigation measures. Location of monitoring points (18 locations in total: 9 in Ittifoq, 6 in Dustlik, and 3 in Yoshlik) are shown in **Figure 74, Figure 75**, **Figure 76** and **Table 33**.

297. The impact on air quality during the construction phase is anticipated to be moderate.

[44] Resolution of President of RUz "On measures for further development of production at the Samarkand automobile plant and renewal automobile park", dated from 14 December 2006.

Figure 74: Air monitoring points in Ittifoq mahalla

Figure 75: Air monitoring points in Dustlik mahalla

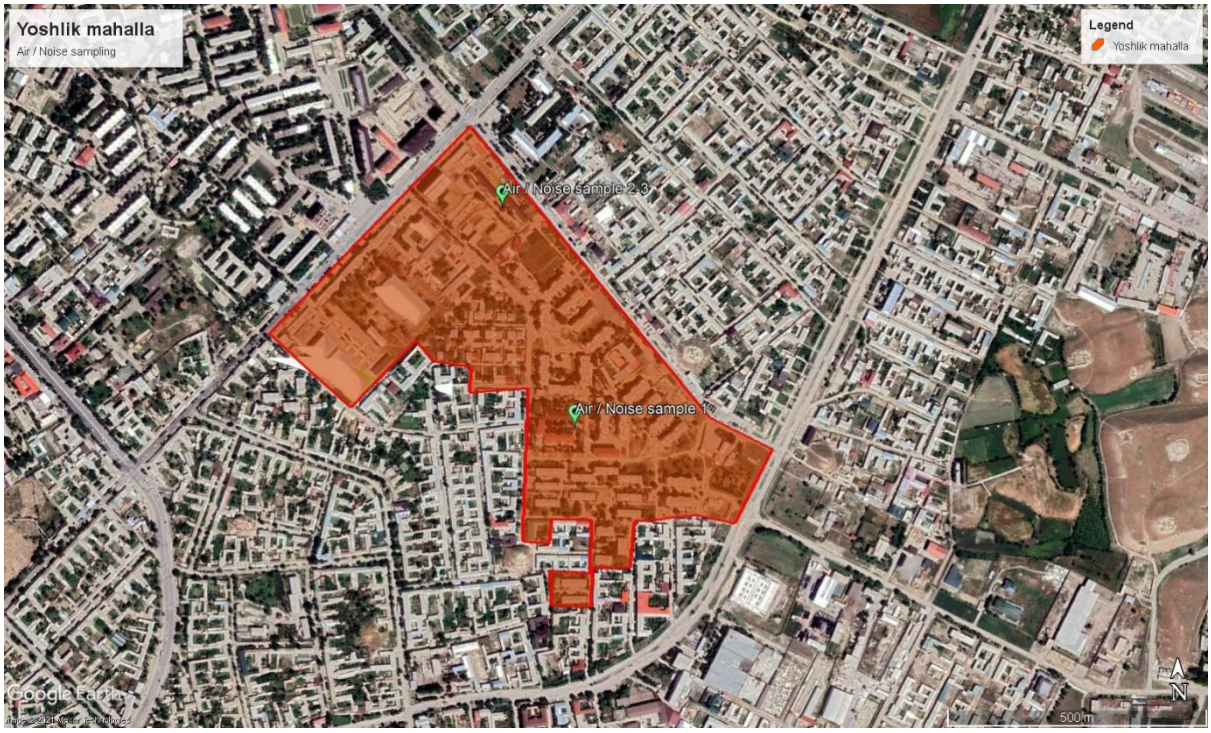


Figure 76: Air monitoring points in Yoshlik mahalla

298. At the stage of IEE preparation, baseline air quality measurements were conducted next to each sensitive receptor in July 2021. The results of baseline measurements are presented in **Table 33**. According to the measurements, it was found that the concentrations of pollutants did not exceed the national standards.

Table 33: Air quality monitoring results (Baseline) in mahallas

#	Location	NO_x		SO_2		CO		Dust	
		Act	Std	Act	Std	Act	Std	Act	Std
Ittifoq mahalla									
1	Kindergarten #36	N/d	0.6	N/d	0.5	N/d	5.0	0.11	0.5
2	Neurological Hospital	N/d	0.6	N/d	0.5	N/d	5.0	0.13	0.5
3	School #17	N/d	0.6	N/d	0.5	N/d	5.0	0.2	0.5
4	Specialized Art School	N/d	0.6	N/d	0.5	0.015	5.0	0.22	0.5
5	Endocrinologic treatment Center	N/d	0.6	N/d	0.5	0.02	5.0	0.24	0.5
6	Kindergarten #9	N/d	0.6	N/d	0.5	N/d	5.0	0.12	0.5
7	Children's Sports School	N/d	0.6	N/d	0.5	0.015	5.0	0.25	0.5
8	Family Clinic #4	N/d	0.6	N/d	0.5	0.02	5.0	0.2	0.5
9	School #7	N/d	0.6	N/d	0.5	N/d	5.0	0.11	0.5
Yoshlik mahalla									
1	Kindergarten #32	N/d	0.6	N/d	0.5	N/d	5.0	0.1	0.5
2	Institute of Obstetrics and Gynecology 1	N/d	0.6	N/d	0.5	N/d	5.0	0.14	0.5
3	Institute of Obstetrics and Gynecology 2	N/d	0.6	N/d	0.5	N/d	5.0	0.18	0.5
Dustlik mahalla									
1	Sugdiyona Street	N/d	0.6	N/d	0.5	N/d	5.0	0.16	0.5
2	Nurlitepa Street	N/d	0.6	N/d	0.5	N/d	5.0	0.18	0.5
3	Near Confectionery	N/d	0.6	N/d	0.5	0.13	5.0	0.22	0.5

#	Location	NO_x		SO_2		CO		Dust	
		Act	Std	Act	Std	Act	Std	Act	Std
4	Tongotar Street	N/d	0.6	N/d	0.5	N/d	5.0	0.14	0.5
5	Ziyokor Street	N/d	0.6	N/d	0.5	N/d	5.0	0.17	0.5
6	Ziyokor 1 A Street	N/d	0.6	N/d	0.5	0.12	5.0	0.19	0.5

Act = actual, Std = standard
N/d - not detected - pollutants were not detected, because their concentration was below the detection threshold of mesureament device.

Mitigation measures:

299. During construction period, regular mitigation measures will be implemented in most of the cases:

- All dust generating roads will be watered to suppress dust formation during movement of vehicles, as frequent as necessary depending on circumstances. During hot dry summer days and active construction works, it is a usual practice to water access roads every two hours;
- No burning of any waste is allowed on any construction sites throughout the subproject implementation period;
- Cover transported bulk materials canvas tarpaulins;
- Control speed limitation for vehicles during movement in the settlements - no more than 30 km/h;
- All vehicles and equipment will comply with technical requirements and will pass regular inspection according to the national standards[45];
- Restrict demolition activities during high wind periods or under more stable conditions when winds could direct dust towards adjacent houses;
- Do not allow machines and equipment to idle for more than 5 minutes;
- In case of non-compliances with standards or complaints from the population, apply additional mitigation measures, such as more frequent watering.

Excavation, construction activites and traffic					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Temporary (weeks)	Local	Daily	Likely	Low
Receptor					**Sensitivity**
Residents of the project mahallas					Medium
Significance of Impact					
Moderate					

Residual Impact

300. Following implementation of mitigation measures described above, the residual impact will be:

Negligible

Cumulative Impact

301. Cumulative impact may occur in project mahallas (Dustlik and Ittifoq), during construction of roads before completion of another IUDP sub-component under Water Supply and Sanitation in Djizzak City. Roads rehabilitated under the IUDP program will be destroyed twice that will create disturbances for people.

Mitigation measures

[45] "O'z DSt 1057:2004 Vehicles. Safety requirements for technical conditions" and "O'z DSt 1058:2004 Vehicles. Technical inspection. Method of control".

302. PIU will coordinate all civil works to ensure that road rehabilitation sub-project is implemented after completion of civil works on water supply and sewage networks.

Road rehabilitation					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Temporary (weeks)	Local	Daily	Possible	Low
Receptor					**Sensitivity**
Residents along rehabilitated roads					Medium
Significance of Impact					
Minor					

Residual Impact

303. Following implementation of the mitigation measures described above, the residual impact is considered to be:

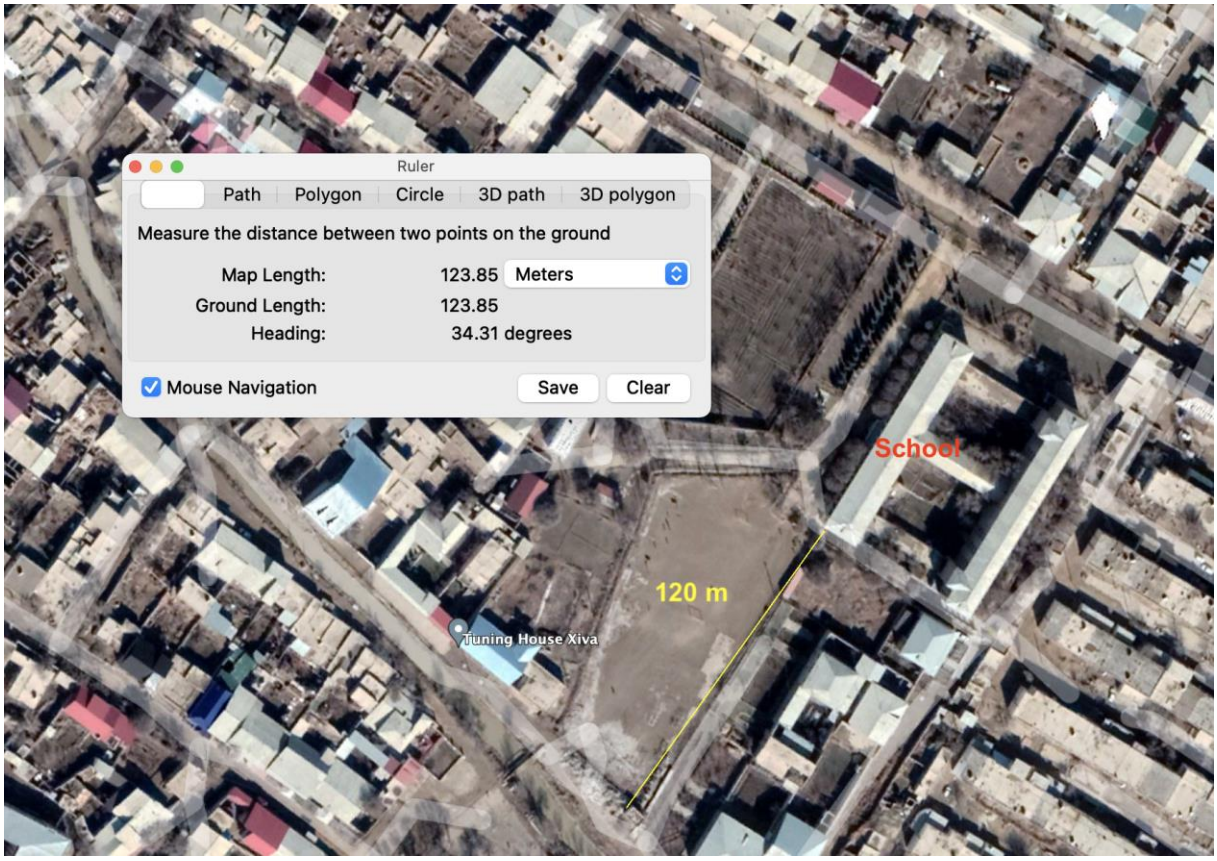
Negligible

(b) Component 1.2: Improvement of Polvon Canal Area in Khiva

304. The Polvon canal goes through settlements where houses are located quite close to the canal (**Figure 77**). The distance between houses and canal banks is no more than 10 meters.

Figure 77: Houses located along Polvon canal

305. There are two sensitive receptors in the project area: (i) a secondary school and (ii) a polyclinic. The school is located at the distance around 120 m from the project site, and the polyclinic at the distance of 30 m (**Figure 78**).



Location of school

Location of polyclinic

Figure 78: Location of school and polyclinic along canal

306. All required construction materials will be delivered to the construction site by the existing roads along the canal. Taking into account the proximity of the houses to the

construction site, the impact on ambient air is considered as moderate. It will require a continuous monitoring of air quality and implementation of mitigation measures. Location of the monitoring points (4 locations for air quality and 11 locations for surface water quality) are shown in **Figure 79.**

Mitigation measures

- Apply watering of construction sites and access roads during dry season;
- Limit speed of tracks movements inside settlement (30 km/h)
- Cover transported bulk materials;
- All vehicles and equipment will comply with technical requirements and will pass regular inspection according to the national standards[46];
- In case of non-compliances with standards or complaints from the population, apply additional mitigation measures, such as more frequent watering.

Earth works, construction activities and traffic					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Temporary (weeks)	Local	Daily	Likely	Medium
Receptor					**Sensitivity**
Residents in closest settlements and officers working in administrative buildings					Medium
Significance of Impact					
Moderate					

Residual Impact

307. Following implementation of the mitigation measures described above, the residual impact is considered to be:

Negligible

Cumulative Impact

308. There are no other activities be conducted on the project site which may lead to pollution of ground water. Therefore, cumulative impact is considering as:

Negligible

[46] "O'z DSt 1057:2004 Vehicles. Safety requirements for technical conditions" and "O'z DSt 1058:2004 Vehicles. Technical inspection. Method of control".

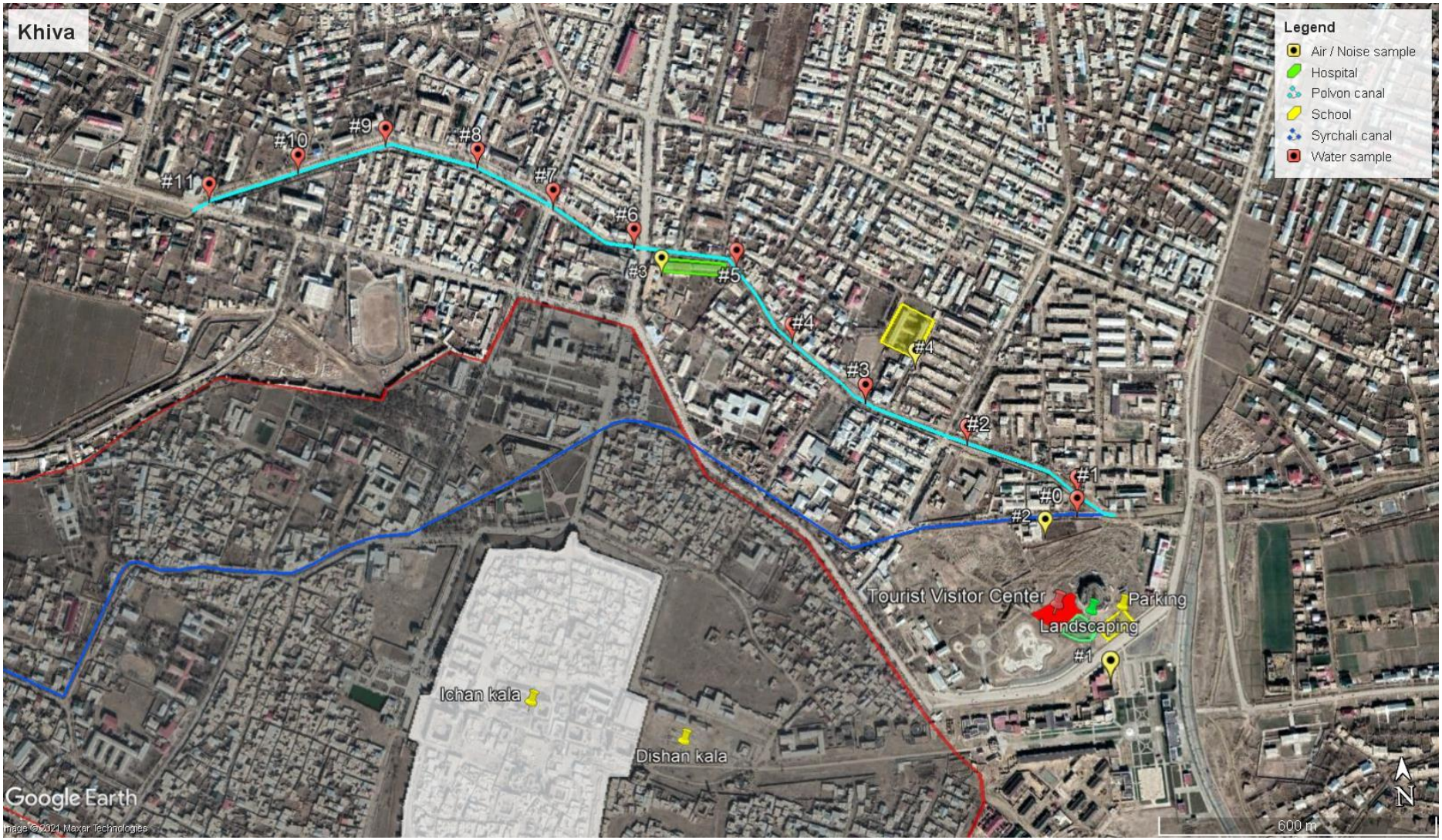


Figure 79: Air and water quality monitoring points close to the Polvon canal

(c) Component 1.3: New Tourist Visitor Center in Khiva

309. The Visitor Center will be constructed on the site located at the distance 160 m from the dwellings and 120 and 90 m from office buildings and a restaurant (**Figure 80**). Dust generation during earth works will be the main impact for this site located in the open area without any vegetation cover.

Figure 80: Location of Visitor Center

310. During the windy weather the dust from construction site may have impact on visibility on the road which is the next to the project site. Therefore, the impact on air quality is assessed as moderate and it will require the following mitigations measures:

Mitigation measures

- Apply watering of construction sites and access roads during the dry season;
- Cover transported bulk materials;
- All vehicles and equipment will comply with technical requirements and will pass regular inspection according to the national standards[47];

Earth works, construction activities and traffic					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Temporary (months)	Local	Daily	Likely	Low
Receptor					**Sensitivity**
Officers working in administrative buildings, drivers, population in closest settlements					Medium
Significance of Impact					
Minor					

[47] "O'z DSt 1057:2004 Vehicles. Safety requirements for technical conditions" and "O'z DSt 1058:2004 Vehicles. Technical inspection. Method of control".

Residual Impact

311. Following implementation of the mitigation measures described above, the residual impact is considered to be:

Negligible

Cumulative impact

312. There are no other activities be conducted on the project site which may lead to pollution of ground water. Therefore, cumulative impact is considering as:

Negligible

(d) Component 1.4: Development of New Park and Co-working Center in Havast

313. The construction site area in Havast is located in the open space surrounded by the administrative buildings of various agencies (City Khokimiyat, Prosecutor's office, Customs, etc.) and dwellings. The distance between the proposed construction site and the closest buildings is around 280-300 m (**Figure 81)**.

Figure 81: **Proposed location of New Park and Co-working Center**

314. During construction stage, pollutant emissions (SO_2, NOx, CO and dust) shall be generated due to earth works, construction activities and traffic. It is expected that dust pollution will occur more frequently. Risk of dust pollution will increase during windy weather. The proposed access road does not go through the settlements (**Figure 82**).

Figure 82: **Access roads to the New Park and Co-working Center**

315. Equipment and vehicles with improper technical characteristics or in poor conditions may also lead to pollution due to exhausted gases. Improper waste management, particularly burning of construction and domestic wastes may lead to air pollution. It will require a continuous monitoring of air quality and implementation of mitigation measures. Location of monitoring points (3 locations) are indicated in **Figure 83**.

316. The impact is considered as minor and could be minimized via implementation of the following mitigation measures as described below.

Mitigation measures

- Apply watering of construction sites and access roads during dry season;
- Cover transported bulk materials;
- All vehicles and equipment shall comply with technical requirements and have to pass regular inspection according to the national standards[48];
- In case of non-compliances with standards or complaints from the population, apply additional mitigation measures, such as more frequent watering.

Earth works, construction activities and traffic					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Temporary (weeks)	Local	Daily	Likely	Low
Receptor					**Sensitivity**
Residents in closest settlements and officers working in administrative buildings					Medium
Significance of Impact					
Minor					

[48] "O'z DSt 1057:2004 Vehicles. Safety requirements for technical conditions" and "O'z DSt 1058:2004 Vehicles. Technical inspection. Method of control".

Residual Impact

317. Following implementation of mitigation measures described above, the residual impact is considered to be:

Negligible

Cumulative Impact

318. There are no other activities be conducted on the project site which may lead to pollution of ground water. Therefore, cumulative impact is considering as:

Negligible

Figure 83: Air quality monitoring points close to the New Park and Co-working Center

(2) Noise Impact

319. ***For all components:*** During construction works, the following activities could generate noise:

a. Earth works
b. Construction activities
c. Movement of vehicles transporting construction materials
d. Demolishing
e. Road repair (if required)

320. To assess an anticipated noise level from these works, the following estimates were done based on the existing information about operation of various equipment. During construction works, the following construction machinery will be used: auto cranes, bulldozers, excavators, asphalt rollers and trucks. Noise levels generated by equipment at the distance of 15 m from these vehicles is presented in **Table 34**:

Table 34: Noise level form various machinery (at the distance of 15 meters)

Noise source	Equivalent noise level, dBA
Excavator	81
Dozer (Bulldozer)	82
Auto (mobile) crane	83
Truck	88
Roller	80

Source: WSDOT measured data from FHWA's Roadway Construction Noise Mode Database (2005)

321. During construction works, mainly bulldozers, auto (mobile) cranes, and excavators will be operated. Using the Rules on Decibel Addition, the maximum noise level from construction equipment may reach 86 dB. Table 34 provides results of noise propagation exercise during main works. The surface factor (area between construction site and houses is mostly empty ground) will reduce noise at least by 2.5 dB. **Table 35** also provides noise levels at the "first" proximity. Noise levels for receptors located behind any other facility will be reduced by such "barriers" as houses, other buildings and trees.

Table 35: Noise propagation at distances (maximum and with noise reduction factors)

Distance	Noise level-1 (maximum) (dB)	Noise level-2 (dB) (reduced by surface factor)
15	86	85
20	87	82
65	77	74
80	75	70
120	71	68
160	67	64

322. The figures in **Table 35** show the noise level of noise without any barriers. The allowed noise level in front of educational entities and polyclinics is 55 dB. Anticipated noise impacts during the various project activities are considered in the following sections.

(a) Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak

323. Almost all open spaces facilities and rehabilitated roads are located in the populated area with several sensitive receptors (schools, kindergartens and hospitals/polyclinics) (Figure 84). Therefore, noise impact will be significant for these receptors. Although this impact will be short term, in view of close location of houses and sensitive receptors (10 m to houses up to 500 m to schools and polyclinics), the appropriate mitigation measures will be implemented.

324. Main noticeable impacts will be generated during removal of old pavement slabs and asphalt, transportation of wastes and construction materials. The following mitigation will be implemented:

Figure 84: Project activities close to school

Mitigation measures:

325. In general, the following measures need to be implemented to avoid noise impact on project sites located in the settlements:

- Construction works generating noise (mainly earth works) will be undertaken during the period between 8am and 8 pm;
- Inform population of the closest settlement about anticipated works at least one week before.
- establish limits on speed for vehicles inside of settlements (30 km/h);
- Use Euro-4 class equipment;
- Avoid construction works in front of schools between 8:30am and 3pm during the weekdays and Saturday. Apply additional mitigation measures (installation of acoustic screens, mufflers for machinery, etc.) in case of urgency or technical needs of such works;
- Schedule construction to minimize the multiple use of noisier equipment near sensitive receptors (such as houses, schools, wtc.);
- Use of PPE by workers involved in demolishing and construction works in conditions of increased noise level is mandatory;
- In case the noise level exceeds the standards (Table 4) or complaints is received, apply additional measures (installation of acoustic screens, schedule construction so as to minimize multiple use of noisy equipment);

Excavation, laying and traffic movements					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Temporary (weeks)	Local	Daily	Likely	Medium
Receptor					**Sensitivity**
Residents of the project mahallas					Medium/High
Significance of Impact					
Moderate/High					

Residual Impact

326. Following implementation of mitigation measures described above, the residual impact is considered to be:

Negligible

Cumulative Impact

327. Cumulative impact may occur in project mahallas (Dustlik and Ittifoq) when construction works be continued after completion of another sub-component of IUDP – Water Supply and Sanitation in Djizzak city. In this case, roads rehabilitated under the IUDP program will be destroyed twice, which would lead to extra disturbances for people.

Mitigation measures

328. The below mitigation measures will be implemented to avoid and mitigate the cumulative impacts.

- PIU will coordinate all civil works contractors under IUDP to ensure that civil works of multiple subcomponents does not take place at the same time at each project area.
- In the cases when such an approach is impossible, request the relevant contractors to monitor noise level in a nearby settlement and, if the standards are exceeded, apply additional noise reduction measures.

Road rehabilitation					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Temporary (weeks)	Local	Daily	Possible	Low
Receptor					**Sensitivity**
Residents around project sites					Medium
Significance of Impact					
Minor					

(b) Component 1.2: Improvement of Polvon Canal Area in Khiva

329. Since almost all civil works on Polvon canal will be carried out in the immediate vicinity of the residential houses, it will be required to apply the maximum mitigation measures and ensure continuous monitoring of noise levels.

330. One of the sensitive receptors – a school is located at the distance of 120 m. The anticipated noise level at this distance will be 55 dB or less. However, additional mitigation measures will be applied for the second sensitive receptor which is a polyclinic. To avoid disturbance of the polyclinic normal operation, all design work that could potentially increase the noise level should be carried out during the hours when the polyclinic is closed, i.e., after 3pm.

Mitigation measures

331. In addition to the measures listed under para. 325 on page 139, conduction works near the polyclinic (100 m from the outside corners) during its working hours (8am-3pm) will be prohibited. In case of necessity conduction of works, install acoustic screen.

Excavation, pipe laying and traffic					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Temporary (months)	Local	Daily	Likely	Medium
Receptor					**Sensitivity**
Residents of the closest mahalla					Medium
Significance of Impact					
Moderate					

Residual Impact

332. Following implementation of the mitigation measures described above, the residual impact is considered to be:

Negligible

Cumulative Impact

333. Construction of Visitor Center, which is close to the initial point of the Polvon canal, may generate cumulative noise impact. To minimize this impact, the following mitigation measures will be implemented:

Mitigation measures

334. To avoid and mitigate the cumulative impacts, the measures listed under para. 328 on page 140 will be implemented.

Excavation, pipe laying and traffic					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Temporary (months)	Local	Daily	Likely	Medium
Receptor					**Sensitivity**
Residents of the closest mahalla					Medium
Significance of Impact					
Minor					

(c) Component 1.3: New Tourist Visitor Center in Khiva

335. The construction site is located at the distance of 160 m from the residential houses and 90 m from the commercial building (a restaurant).

Mitigation measures

336. The measures listed under para. 325 on page 139 will be implemented to mitigate the impacts.

Excavation, pipe laying and traffic					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Temporary (months)	Local	Daily	Likely	Low
Receptor					**Sensitivity**
Residents of the closest mahalla					Medium
Significance of Impact					
Minor					

Residual Impact

337. Following implementation of the mitigation measures described above, the residual impact is considered to be:

Negligible

Cumulative Impact

338. To avoid and mitigate the cumulative impacts, the measures listed under para. 328 on page 140 will be implemented.

(d) Component 1.4: Development of New Park and Co-working Center in Havast

339. The distance between construction site and the closest residential houses is around 300 m. The closest offices are located at the distance around 150 m. There are no sensitive receptors in the radius of 500 m from the project site. Based on the calculation presented in

Table 36, the noise level in the closest buildings will exceed the standard of 55 dB during daytime. The maximum allowed noise level is 70 dB.[49]

340. At the stage of IEE preparation, baseline noise level was measured next to each sensitive receptor in July 2021. The results of baseline measurements are presented in **Table 36**. According to the measurements, nose level did not exceed the national standard.

Table 36: Results of noise analysis

№	Location	Measurement period	Equivalent noise level (dB)	Standard (dB)	Coordinates
Yoshlik mahalla					
1	Near the Kindergarten #32	Day time	48	55	40.109972° 67.867708°
2	Near the Institute of Obstetrics and Gynecology 1	Day time	52	55	40.113768° 67.866101°
3	Near the Institute of Obstetrics and Gynecology 2	Day time	52	55	40.113765° 67.866538°
Ittifoq mahalla					
1	Near the Kindergarten #36	Day time	52	55	40.114690° 67.854151°
2	Near the Neurological Hospital	Day time	54	55	40.115100° 67.856708°
3	Near the School #17	Day time	54	55	40.116816° 67.857706°
4	Near the Specialized Art School	Day time	53	55	40.116007° 67.858508°
5	Near the Endocrinological Dispensary	Day time	58	55	40.115861° 67.853792°
6	Near the Kindergarten #9	Day time	48	55	40.115116° 67.860776°
7	Near the Children's Sports School	Day time	56	55	40.117871° 67.861598°
8	Near the Family Clinic	Day time	56	55	40.116784° 67.862811°
9	Near the School #7	Day time	53	55	40.112780° 67.860940°
Dustlik mahalla					
1	Sugdiyona Street	Day time	46	55	40.118340° 67.853475°
2	Nurlitepa Street	Day time	48	55	40.120210° 67.860154°
3	Near Confectionery	Day time	53	60	40.122028° 67.864448°
4	Tongotar Street	Day time	50	55	40.119908° 67.865438°
5	Ziyokor Street	Day time	49	55	40.117980° 67.863200°
6	Ziyokor 1 A Street	Day time	51	55	40.116901° 67.865714°

Mitigation measures

341. To mitigate potential negative noise impacts, the measures listed under para. 325 on page 139 will be implemented to mitigate the impacts.

[49] SanN&R 0331-16

Excavation, pipe laying and traffic					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Temporary (months)	Local	Daily	Likely	Low
Receptor					**Sensitivity**
Residents of the closest mahallas and offices workers					Medium
Significance of Impact					
Minor					

Residual Impact

342. Following implementation of the mitigation measures described above, the residual impact is considered to be:

Negligible

Cumulative Impact

343. There are no other activities be conducted on the project sites which may lead to increasing of the noise levels. Therefore, the cumulative impact is considered to be

Negligible

***(3) Vibration* Impact**

344. ***For all components:*** Vibration impact during construction stage could be caused by operation of construction machinery. Vibration level from different machinery was calculated in accordance with methodology provided in Transportation and Construction Vibration Guidance Manual (2013). Values of vibration level calculated in accordance with this formula are presented in **Table 37. Table 37** does not provide data on mobile and assembled cranes since their vibration level is not significant.

Table 37: **Vibration from machinery**

Distance, m	**Vibration from equipment,**					
	Roller		**Loaded trucks**		**Excavator**	
	in PPV (in/sec)	**dB**	**in PPV (in/sec)**	**dB**	**in PPV (in/sec)**	**dB**
7.5	0.8	84	0.3	75	0.13	68
10	0,6	81	0.1	72	0.10	66
20	0,3	75	0.05	66	0.04	59
30	0,2	71	0,028	64	0.03	55

345. National standards for vibration level in residential houses are provided in Sanitarian Norms *and* Rules (SanN&R) № 0331-164 “Design of the living houses in climatic conditions of Uzbekistan”. For living houses, the standards is 67 dB for nighttime and 72 dB for daytime with frequency in 37 and 61 Hz and for nighttime is 67 dB (**Table 38**).

Table 38. National vibration standards

Period	**Permanent vibration, dB**
Day time	72
Nighttime	67

346. As shown above, the calculation of vibration level (Table 37), vibration from roller may have a negative impact on people and old structures if roller is used at the distance less than 30 meters from the receptors. For such areas, Contractor will use equipment with less vibration than roller.

(a) Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak and Component 1.2: Improvement of Polvon Canal Area in Khiva

347. Increased vibration level may occur during the works related to these two sub-components.

Mitigation measures

348. The appropriate mitigations measures as below will be implemented by the contractors:

- To confirm the status before project, the Contractor will document conditions of the houses close to the constructed and rehabilitated roads. Photographs of all residential houses nearby the road will be taken as a protection for possible complaints regarding cracks/damages in house walls, etc. This to be a part of the contract.
- To avoid damages due to vibration, special construction methods will be applied in the areas where buildings and structures are located right near the road and the vibration monitoring shows that the specified construction vibration threshold is reached at a particular location.
- Suspend any construction activities that generate the excessive vibration at such location.
- With the approval of the PMSC, the Contractor will take mitigation actions necessary to keep the construction vibration below the specified threshold. Such actions may include, alternative construction methods, such as: (i) decrease of vibration emission from a particular equipment item; (ii) substitute the particular equipment item at such location by other equipment capable to ensure variable vibration control; (iii) use smaller equipment; (iv) compact without vibration rollers; (v) install wave barriers (trench or ditch) where appropriate; and any other method of upon Contractor's discretion that may be used while ensuring compliance with the specifications of the material to be compacted.

Excavation, laying of traches and traffic movement					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Temporary (weeks)	On-site	Daily	Likely	Medium
Receptor					**Sensitivity**
Residents along areas where construction/rehabilitation of roads will be implemented					Medium
Significance of Impact					
Moderate					

Residual Impact

349. Following implementation of the mitigation measures described above, the residual impact is considered to be:

Negligible

Cumulative Impact

350. There are no other activities be conducted on the project site which may lead to increasing a noise level. Therefore, the cumulative impact is considered to be:

Negligible

(b) **Component 1.3: New Tourist Visitor Center in Khiva and Component 1.4: Development of New Park and Co-working Center in Havast**

351. For other sub-components in Khiva (construction of the Visitor center) and Co-working Center in Havast, the vibration impact will be negligible, since the closest buildings and settlements are located at the distance of more than 30 m. Therefore, the vibration impact is considered to be:

Negligible

(4) Impact on surface water and groundwater

(a) Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak and Component 1.4: Development of New Park and Co-working Center in Havast

352. There are no surface water courses located next to the construction sites of these sub-components. Therefore, the anticipated impact on water resources from these two sub-components is considered as:

Negligible

353. Impact on ground water quality for these components could occur due to pollution of soil. This impact is described in more detail in Chapter V.B.2.a)(5) Impact on soil.

(b) **Component 1.2: Improvement of Polvon Canal Area in Khiva and Component 1.3: New Tourist Visitor Center in Khiva**

354. Improper layout and design of construction camps and labor camps could have negative impacts to hydrology, both surface and groundwater, through improper disposal of liquid wastes and spills of hazardous liquids.

355. **For component 1.2,** All construction works on the Polvon canal will be implemented right next to the canal. The canal is mainly used for irrigation by the neighboring settlements and other water users located downstream. Potential impacts on water quality from construction activities include pollution from the construction vehicles, equipment and material storage houses, poor cleaning of work sites, and release of soil where earthworks take place adjacent to the canal. In 2020-2021, the main part of the Polvon canal has been cleaned and lined under the state program initiated by the Ministry of Water Resources. Therefore, cleaning works inside canal are not scheduled under this sub-component.

356. **For component 1.3,** Construction of the Visitor Center in Khiva will be done at the distance of around 150 m from the closest water course – the Syrchali canal **(Figure 85**). Therefore, the main impact on surface and groundwater is anticipated from improper layout and design of construction camps and labor camps.

Figure 85: Location of Syrchali canal

Mitigation measures:

357. Construction wastewater will be generated in a limited volume. Water will be used mainly for the watering of construction sites. However, clogging of existing drainage system or contamination of public water/soil may occur if construction wastewater (construction surface runoff, wastewater from vehicle washing, wastewater from fuelling and vehicle/equipment maintenance area etc.) is discharged to the public without treatment. Appropriate mitigation measures are required to prevent such disturbance and pollution.

358. Especially at the Polvon and Syrchali canals, water quality monitoring will be conducted during construction activities. Location of monitoring points (11 locations in total: 9 for Polvon Canal and 2 for Syrchali Canal) are shown in Figure 79.

359. The following mitigation measures will be implemented to minimize impact on water resources:

- There will be no direct discharge of wastewater to the Polvon or Syrchali canal. Disposal of materials such as, but not limited to, lubricating oil onto the ground or water bodies will be prohibited.
- Location of construction camps for Visitor Center will be 500 m away from the canal. Location of labor camps (without workshops, fuel and chemical storage facilities) closer than 50 m will be prohibited;

360. The below measures will be applicable to all four components.

- Construction and work sites will be equipped with sanitary latrines that do not pollute surface waters. Domestic wastewater from labor camps and construction sites will be canalized into septic tanks which will be installed by the contractors. The septic tanks will be timely emptied by hired septic trucks and transported to municipal wastewater treatment plant. Contractors will make agreements with municipal wastewater treatment plant for timely disposal of wastewater. Keep copies of the transportation company's licenses and provide waste transfer manifests at its camp site for routine inspection by the engineer.
- No vehicle/equipment washing is allowed with any surface water throughout the subproject implementation period.

- construction wastewater (construction surface runoff, wastewater from vehicle washing will be collected into several low points of the sites and treated by plain sedimentation tanks. After that water could be re-used for watering of the construction site.
- Disposal of lubricating oil and other potentially hazardous liquids onto the ground or to the canals will be prohibited.
- Management and storage of fuel, waste oil, hazardous waste will be planned in accordance with EHS General Guidelines on Hazardous Materials Management. This includes the use of appropriate secondary containment structures capable of containing the larger of 110 % of the largest tank or 25% of the combined tank volumes in areas with above-ground tanks with a total storage volume equal or greater than 1,000 liters;
- Fueling operations and equipment maintenance will occur only within special designated containment areas bounded and provided with impermeable lining to contain spillage and prevent soil and water contamination. The area will be equipped with a drainage system which will be connected to wastewater treatment system including oil separator. Prohibit conduct this works in the area within 50 m from water streams;
- Spill cleanup equipment will be maintained on-site. Should any accidental spills occur, the immediate cleanup will be undertaken, and all cleanup materials will be stored in a secure area for further disposal. Disposal of such will be undertaken by a waste management company contracted by the Contractors. The waste management company must have the required licenses to transport and dispose any hazardous waste before any such waste is removed from the site. The Contractors will keep copies of the company's licenses and provide waste transfer manifests at their camp site for routine inspection by the engineer.

Construction activities, maintenance of construction camps					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Temporary (months)	Local	Daily	Likely	Medium
Receptor					**Sensitivity**
Polvon and Syrchali canals					Medium
Significance of Impact					
Medium					

Residual Impact

361. Following implementation of the mitigation measures described above, the residual impact is considered to be:

Negligible

Cumulative Impact

362. There are no other activities be conducted on the project site which may lead to groundwater pollution. Therefore, the cumulative impact is considered to be:

Negligible

(5) **Impact *on soil***

363. **For Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak,** Gravel for reconstruction/construction of roads in Djizzak city will be required as a groundwork base material.

364. **For Component 1.3: New Tourist Visitor Center in Khiva,** generation of surplus soils is not anticipated. The excavated soil could be re-used for leveling the surrounded areas or disposed at the sites indicated by Khokimiyat of Khiva city.

365. ***For all components:*** The main impacts on soil include: (i) soil contamination due to spills or hazardous materials, (ii) compaction of soil/soil erosion, and (iii) usage of borrow pits without permission or open new ones. The impacts may occur during all four subcomponents. For the construction and rehabilitation of roads in all project areas, construction on batching plant will not be needed. Materials for construction of buildings and roads will be taken from operating plants located in the same regions. Potential soil contamination could possibly result from poorly managed fuels, oils and other hazardous liquids used during the civil works.

Mitigation measures:

366. To minimize impact on soil, the following measures will be implemented:

- The topsoil of about 30 cm depth will be removed and stored separately during excavation works, and after the completion of land leveling, the same soil will be backfilled on the top, in unpaved areas;
- To minimize soil compaction, movement of all machinery will be allowed only by identified assess roads.
- If borrow pits are required, only authorized borrow pits with getting all necessary permissions as per the national legislation will be allowed;
- Install protection screens/nets along the river in the points crossing the river, to prevent collapsing of excavated soil into the river;
- Storage of all fuel and chemicals (if any) will be placed in the impervious facilities within a bund and secured by fencing. The storage area will be located away from any watercourses. The facility and bund walls will be impermeable and of sufficient capacity to contain 110% of the tank's volume (or tanks if more than one tank is located in the bund).
- The construction camp maintenance yard will be constructed on impervious hard standing with adequate drainage to collect spills, there will be no vehicle maintenance activities on the open ground.
- Develop Spoil Management Plan as part of SSEMP and will ensure its proper implementation.
- The construction camp maintenance yard will be constructed on impervious hard standing with adequate drainage to collect spills, there will be no vehicle maintenance activities on open ground.

Excavation works, pipe laying and traffic movements					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Temporary (months)	Local	Daily	Possible	Medium
Receptor					**Sensitivity**
Soil on the project sites					Medium
Significance of Impact					
Moderate					

Residual Impact

367. Following implementation of the mitigation measures described above, the residual impact is considered to be:

Negligible

Cumulative Impact

368. Similar activities which may impact on soil quality are not anticipated in the project area, therefore the cumulative impact is considered to be:

Negligible

b) Waste management

369. During construction works, both municipal/general waste from the site offices, construction camps, and hazardous wastes from the items of machinery on site will be generated.

(1) Hazardous *construction wastes*

370. ***For all components:*** During construction phase, the following hazardous wastes will be generated from vehicle operation and maintenance: engine, hydraulic and transmission oils along with oil filters and absorbents. In case of improper handling and disposal of such materials contamination of soil, ground and surface water may occur. Besides, such materials are hazardous to human health.

Mitigation measures:

- Develop Waste Management Plan as part of SSEMP and will ensure its proper implementation. The Plan has to include information about a type of waste to be generated, their amount, procedure of their collection and disposal. The plan will also include information about responsible persons, training, response action plan for emergency situations;
- Refueling vehicles and replacement of oils will be conducted in special designated and properly equipped places. Emergency facilities will be ensured at the place for elimination of accidental oil spills;
- Used oil from vehicles and machinery will be collected into containers placed at the concreted sites and disposed to the national oil company designated for accepting and treatment of used oils;
- Used batteries will be collected separately and transferred to the local Cvetmet branches[50] for further disposal.

Construction machinery maintenance, demolishing of structures					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Temporary (months)	Local	Weekly	Possible	Low
Receptor					**Sensitivity**
Soil, surface and ground water within the project sites					Medium
Significance of Impact					
Minor					

Residual Impact

371. Following implementation of the mitigation measures described above, the residual impact is considered to be:

Negligible

Cumulative Impact

372. Similar activities which may impact on soil quality are not anticipated in the project area, therefore the cumulative impact is considered to be as:

Negligible

[50] Local entity responsible for collection and treatment non-ferrous metals

(a) Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak

373. The subproject will involve demolishing of few existing buildings which may have roofs containing asbestos materials (in roofing slate). Therefore, additional mitigation measures will be required during construction works. National regulation requires that asbestos wastes be disposed on the municipal landfills in compliance with requirements of SanR&N 0158-04 "Collection, transportation and disposal of asbestos contained materials in condition of Uzbekistan". The closest dumpsite which can accept these wastes is Djizzak dumpsite, The facilities are located on the distance about 20-25 km from the project sites.

Mitigation measures:

- Prior to commencement of any construction works, PMSC will conduct visual observations of buildings to be demolished on presence of any asbestos materials.
- In case of presence of the asbestos materials, the Contractors will develop Asbestos-Containing Materials Management Plan (ACMMP) and will ensure its proper implementation. The ACMMP includes identification of hazards, use of proper safety gear and disposal methods. Any activities involving asbestos materials will be prohibited until the ACMMP is approved by PIU and PMSC;
- All demolishing works will be performed in accordance with the approved ACMMP;
- Conduct awareness program on safety precautions during the construction works.

Construction machinery maintenance, demolishing of structures					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Short-term	Local	Monthly	Unlikely	Low
Receptor					**Sensitivity**
Contractor's workers and residents of houses which constructions are demolishing					High
Significance of Impact					
Moderate					

Residual Impact

374. Following implementation of the mitigation measures described above, the residual impact is considered to be:

Negligible

Cumulative Impact

375. Similar activities which may impact on soil quality are not anticipated in the project area, therefore the cumulative impact is considered to be:

Negligible

(2) Non*-hazardous *wastes

376. ***For all components:*** Municipal solid wastes and wastewater will be generated at the construction and camp sites. They are mainly rubbish, plastic or glass bottles, glasses, waste food, etc. Improper waste management may cause spread of infectious diseases, emergence of insects and parasites on the construction camp sites. In addition, it may lead to conflicts with local people.

377. The construction wastes may consist of broken bricks, glasses, and used woods. Besides these wastes, used welding rods, packing materials, woods will be generated as well.

378. For **Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak and Component 1.2: Improvement of Polvon Canal Area in Khiva,** unsuitable and surplus excavation material (cut to waste) will be generated during land leveling, construction and rehabilitation of internal roads. These materials will need to be safely disposed.

Mitigation measures:

379. The followings will be implemented for proper non-hazardous waste management:

- Conclude contract with waste disposal organization for the timely transportation and disposal of non-recyclable wastes, prior to the commencement of any civil works
- Waste disposal will be done in accordance with agreement concluded between Contractor and authorized wastes disposal company in timely manner (no more than 3 days) only on official landfills;
- Put proper waste bins at a related areas of construction sites and workers camps;
- Segregation of wastes on recyclable and non-recyclable wastes;
- Selling recyclable wastes to relevant organizations (paper, scraps, accumulators) and timely disposal of non-recyclable wastes to the municipal landfill.
- Re-use construction wastes (removed old road pavement) as much as possible. Recycled material from the existing pavement and special recycling techniques will be used in the rehabilitation of the new pavement layers. The cost effectiveness of rehabilitation measures could be enhanced greatly by the application of recycled pavement materials. If re-use of construction wastes is not possible, the wastes will be disposed on the municipal landfills.;
- Burning of waste on any construction site is forbidden.
- Provide bio toilets for workers at the construction sites and ensure timely disposal of wastewater to the municipal WWTP.

Construction camps management					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Temporary (months)	Local	Daily	Non-likely	Low
Receptor					**Sensitivity**
Groundwater deposits, residents of the project area					Medium
Significance of Impact					
Minor					

Residual Impact

380. Following implementation of the mitigation measures described above, the residual impact is considered to be:

Negligible

Cumulative Impact

381. Similar activities which may impact on soil quality are not anticipated in the project area, therefore the cumulative impact is considered to be:

Negligible

c) Biological resources

(1) Impact on Flora

382. Under each sub-components, planting of trees is expected. Creation of new park in Havast city, open spaces in Djizzak and green zone around Visitor Center in Khiva will positively impact on biodiversity in the project areas.

(a) Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak

383. The same approach will be used during construction works on the open spaces and roads in Djizzak city (**Figure 86**). The trees will not be cutted, however some bushes (*Ligústrum vulgáre)* will be removed during cleaning of the areas for the open spaces.

Figure 86: Open space area in Djizzak city

384. In case of necessity of cutting trees during such kind of works, the Contractor will have to get permission from the SCEEP and pay compensation in accordance with national legislation.

(b) **Component 1.2: Improvement of Polvon Canal Area in Khiva**

385. All construction works will be implemented along the Polvon canal. As described in **Chapter III**, there is no species listed in the Red Book of Uzbekistan on the project sites. The following trees and bushes grow along the canal: willow (*Salix*), poplars, *Juniperus*, fruit trees (apples, apricot) and some grasses. The subproject aims do not cut any trees along canals and save them as much as possible to create green spaces for recreation purposes.

Figure 87: Vegetation along the project canal

Mitigation measures:

386. To mitigate adverse impact on vegetation and wildlife and to comply with national requirements the following measures are required:

- Prior to starting any civil works PMSC will review the project site and identify a need for cutting and will mark out each tree which to be cut;
- In case of cutting the trees, it is required to fulfill the Resolution of Cabinet of Ministries of RUz #43 dated from 17 January 2019;
- Use of chemicals and burning for removing vegetation is prohibited.

Construction camps management					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Temporary (months)	Local	One time	Likely	Low
Receptor					**Sensitivity**
Flora of the project site					Medium
Significance of Impact					
Minor					

Residual Impact

387. Following implementation of the mitigation measures described above, the residual impact is considered to be:

Negligible

Cumulative Impact

388. Similar activities which may impact on soil quality are not anticipated in the project area, therefore the cumulative impact is considered to be:

Negligible

***(c)* Component 1.3: New Tourist Visitor Center in Khiva and Component 1.4: Development of New Park and Co-working Center in Havast**

389. These two components will be implemented in the areas with very minor vegetation. Therefore, the impact on biodiversity from the construction activities will be:

Negligible

(2) Impact on Fauna

390. ***For all components:*** The fauna of the project sites is represented by typical for urban areas species: cats, dogs and rodents.

391. As per discussion with the representatives of SCEEP in Khiva and residents of the settlements close to the canal, there are no fish in the Polvon canal. The Polvon canal is part of the irrigation system regulated by the Irrigation Authority under the Ministry of Water Resources. During non-irrigation season (November-March) water flow in the canal is very low or almost absent.

392. Therefore, the project impact on fauna is considered to be:

Negligible

(3) Impacts on land use

393. ***For all components:*** Social Due Diligence Report (SDDR) was prepared for all subcomponents. The LAR due diligence at this project preparation stage confirmed that, the subprojects covered in this SDDR are not expected to cause any land acquisition and resettlement impacts as they will be implemented on the state-owned lands and on barren lands, with no private formal or informal land users, agricultural, livelihoods and any economic activities on the sites.

394. The findings of this SDDR will be reconfirmed upon availability of the project DED. In case of identification of any unanticipated resettlement impact, a LARP will be prepared and implemented in accordance with the ADB SPS 2009 and laws of Uzbekistan[51].

395. Therefore, the project impact on fauna is considered to be:

Negligible

d) Socio-economic resources

396. ***For all components:*** Construction works will have positive impact and also may have some negative impacts on socio-economic resources.

397. Construction works will require personnel with different skills and qualifications, besides the local population may be hired for some activities meaning creation of new jobs. Moreover, indirect services may be required to meet the needs for (possibly) housing, catering, and other services. These economic benefits to the community shall contribute to the overall positive project impact.

398. Besides the economic impact, civil works may create some risks related to safety of population. These risks are described in the following chapters. The impact related to disturbance of population caused by noise from construction, so the required mitigation measures have been presented in Chapter V.B.2.a)(2) on Noise Impact.

399. It is anticipated that traffic intensity will be increasing as well, including heavy trucks. Besides nuisance for population, it may have risks for related road accidents. More detailed description of this impact and proposed mitigation measures are provided in Chapter V.B.2.e)(1) on Community Health and Safety.

400. **Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak** and **Component 1.2: Improvement of Polvon Canal Area in Khiva** will be implemented close to the residential houses. Therefore, access to some commercial facilities (shops, service centers) will be limited during construction works. It could cause some loos of livelihoods. Therefore, the Contractors will be required to undertake the appropriate mitigation measures in order to minimize duration of this impact. As an alternative, small temporary bridges could be constructed to ensure continuous operation of such facilitates.

Mitigation measures

401. For identified socio-economic impact the following mitigation measures for contravtors are proposed:

- Inform population about anticipated works in the settlement at least one week prior to starting any construction works. Share work plan with indications timeline and places with the leaders of communities (mahallas);
- Hire local population with suitable qualifications for works to the extent possible;
- Develop a Code of Conduct and include it as part of contracts with each worker.

Construction camps					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Temporary (months)	Local	Daily	Likely	Medium
Receptor					**Sensitivity**
Local population					Medium
Significance of Impact					
Moderate					

[51] SDDR for Urban Development project, October 2021

Residual Impact

402. Following implementation of the mitigation measures described above, the residual impact is considered to be:

Negligible

Cumulative Impact

403. Similar activities which may impact on soil quality are not anticipated in the project area, therefore the cumulative impact is considered to be:

Negligible

e) Community and Occupational Health and Safety

404. ***For all components:*** Besides impacts on air, water and soil quality, described in the previous chapters, certain risks may take place related to community health and safety, and to workers on construction sites and campsites.

(1) Community Health and Safety

405. Inadequate lighting and fencing of construction sites inside the settlement areas can be dangerous for pedestrians and vehicles especially during nighttime. Increased traffic due to movement of trucks and vehicles to and from construction sites, temporary closing of roads during pipe lying in the settlements may cause inconvenience for local people as well. In addition, pipe lying will cause temporary blockage of household access.

406. Untimely and inefficient disposal of solid waste and improper sanitary conditions caused by the construction workers at construction sites can create some environmental pollution and affect the health of local people.

407. During the construction phase, the traffic will have the potential impact on the local community safety, workforce safety and traffic flow on the project sites.

408. There could also be some social problems due to irresponsible behavior of some expat workers such as gambling, alcoholism and disrespect to local people and their culture.

409. Interface of workers with local communities may cause HIV and sexually communicable diseases spreading in case of law awareness about these diseases among the workers and community.

410. Moreover, a movement of heavy tracks can destroy or deteriorate local roads in the settlements.

Mitigation measures

411. The following measures need to be undertaken by contractors to minimize these impacts:

- Develop TMP as part of the SSEMPs with clear indication of routes for vehicles' movements, placement special signs, and speeding allowance in the settlements and schedule transportation activities for avoiding peak traffic periods. The TMP will be approved by the Traffic Police and disclosed to local community prior to commencement of any construction works on respective sites;
- Identify and use appropriate access routes, speed limits and timing;
- Avoid transportation of construction materials in densely populated areas;
- Clear signs will be placed at construction sites visible to the public, warning people of potential dangers such as moving vehicles, hazardous materials, excavations etc. and raising awareness on safety issues.
- Install temporary bridges and effectively organize works, which will allow avoid unreasonable delaying of construction works;

- Install safe temporary bridges across ditches for residents living in areas close to construction sites to minimize potential of falls due to the need to use alternative passages;
- All construction sites (especially in the settlements) will be properly lightened and fenced;
- After completion of construction works, all roads will be rehabilitated at least up to the pre-construction condition;
- Carry out regular awareness campaigns among work staff, including specific hazards associated with the spread of HIV/AIDS.
- After completion of the main construction, provide full reinstatement of the construction and camp sites by bringing them to its primary condition;
- Remove all rubbish, or temporary structures (such as buildings, shelters, and latrines) which are no longer required;
- All hardened surfaces within the construction camp area will be ripped, all imported materials removed.

412. In addition, PMSC jointly with PIU will conduct post-construction audit during defect liability period to make sure that construction sites and camps are properly cleaned and restored to their pre-project conditions before acceptance of works and handover to the relevant agencies (City Khokimyats)

Construction camps					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Temporary (months)	Local	Daily	Likely	Moderate
Receptor					**Sensitivity**
Local population					Medium
Significance of Impact					
Moderate					

Residual Impact

413. Following implementation of the mitigation measures described above, the residual impact is considered to be:

Negligible

Cumulative Impact

414. Similar activities which may impact on community H&S are not anticipated in the project area, therefore the cumulative impact is considered to be as:

Negligible

(2) Occupation Health and Safety

415. ***For all components:*** During construction works, a risk for workers may occur from moving equipment and operating mechanisms, work at heights, work with flammable substances, poor sanitary conditions on construction sites, etc. To prevent such impacts, the Contractors will develop an OHSP which will cover all potential risks for workers.

416. The construction/civil works on the project will involve a workforce, as well as suppliers and ancillary units and services. The workforce can include workers from national, regional and local labor markets. They may need to live on site, settle close to their jobs, or return to their homes after work. A site could be a home to a variety of contractors performing different types of activities, each with their own dedicated employees. Supply chains can include regional and national suppliers facilitating the regular flow of goods and services for the project (including supplies needed for the project such as fuel and water). Therefore, there will also be a regular stream of different stakeholders entering and leaving the site; ancillary services

such as catering, cleaning services, supply of equipment, materials and supplies, as well as specialized subcontractors engaged to perform certain elements of work.

417. Given the complexity and concentrated number of workers, the likelihood of the infectious disease dissemination in the construction subprojects is high, as there will be some consequences of such a dissemination. The subprojects could experience a large number of sick workforces, placing pressure on site health facilities, having implications for local emergency and health services, and jeopardizing construction progress and project schedule. This impact will be exacerbated if the workforce is numerous and/or the subproject is located in remote or underdeveloped areas. In such circumstances, relationships with the community could get strained or complicated and conflicts could arise, especially if people feel that they are getting sick as a result of a subproject or have to struggle to get access to limited resources. The subproject will also take appropriate precautions against invasion of infections into the local communities.

418. The GOU has adopted the special procedure on response actions during pandemic - the Temporary Sanitarian Norms and Rules (SanN&R) # 0372-20: On Organization of Activities of State and Other Agencies and Commercial Entities due to pandemic of COVID-19. The document was approved by the ASEWPH (the 3rd edition), May 11, 2020. The SanN&R provides for general and specific requirements for different sectors: pharmacy, public transport, markets, construction sites, and etc.

419. The rules require safe transportation of workers, arrange medical tests at the entrance points, provision with disinfection equipment and disinfectants, catering facilities, construction camps, etc. Also, SanN&R describes requirements on organizing an isolator in medical centers (if any) in case if patient is identified with a high fever or with individual symptoms of an acute respiratory viral infection (lack of smell, dry cough, malaise, etc.) and isolating him from the work team.

420. All managers will organize introductory trainings for new workers and routine training for the working staff. The rules will provide an action plan for cases when the workers feel COVID-19 symptoms.

421. Section 5.1.4 of SanN&R provides for specific norms on construction sites. The section pays particular attention to dust and provides recommendations for dust mitigation and protection. The rules provide for a list of Personal Protection Equipment for COVID-19.

422. The document also provides for instruction on communication with local health care facilities for organizing regular medical tests among workers and mobilization in case of detected infections.

423. Currently, the Government of Uzbekistan widely introduces COVID-19 vaccination. In accordance with the national regulation, an employer has the right to refuse to hire a potential employee if he/she is not vaccinated. An exception is medical precautions.

Mitigation measures

424. Contractor will

- comply with the requirements of the Labor Code of Uzbekistan (1998) and standards on health and safety[52];
- Develop OHSP and will ensure its proper implementation;
- Conduct initial and regular refresher training for all workers on labor, occupational health and safety matters, ensure provision and distribution of PPE, and keep records and report about any health and safety incidents;
- In conditions of the pandemic risk, arrange their works in accordance with the Temporary Sanitarian Norms and Rules (SanN&R) # 0372-20;

[52] Construction Norms and Rules # 3.01.01-03. Organization of Construction works. 2003

- (i) assess implications of the project-level COVID-19 related risks and impacts; (ii) identify necessary risk mitigation measures; and (iii) prepare a COVID-19 Health and Safety Management Plan as part of the OHSP. The COVID-19 Health and Safety Management Plan should be aligned with any government regulations and guidelines on COVID-19 prevention and control, or in the absence thereof, with international good practice guidelines as may be updated from time to time. The COVID-19 Health and Safety Management Plan should be reviewed by the PMSC in consultation with public health inspectors of the area, local medical officers and other relevant health specialists, with a recommendation forwarded to PIU for clearance. The status and adequacy of project's COVID-19 response will be fully documented in the SAEMRs.
- If a suspected incidence of COVID-19 is reported of any member of the project team during implementation of the project-related activity (including consultation and public participation), the activity will stop immediately for a review of the adequacy of the safety system of work and a corrective action will be implemented to address any identified gaps in the safety system of work prior to recommencement of the activities. All such incidence will be reported to ADB immediately for review.
- Ensure proper recording and reporting of any cases of infection and undertaken actions.

Construction camps					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Temporary (months)	Regional	Daily	Possible	Moderate
Receptor					**Sensitivity**
Contractors' workers and local population					Medium
Significance of Impact					
Moderate					

Residual Impact

425. Following implementation of the mitigation measures described above, the residual impact is considered to be:

Negligible

Cumulative Impact

426. Similar activities which may impact on COVID-19 spread among population and Contractors' workers are not anticipated in the project area, therefore the cumulative impact is considered to be:

Negligible

(3) Operation of worker's camps

427. Without implementing suitable mitigation measures, issues of living conditions, including inadequate water supply, sanitation and energy, poor security arrangements in the camp, conflicts between local residents and workers could arise. The Contractor will provide living accommodation for its staff, including all services including water supply, sanitation and energy.

Mitigation measures

428. To mitigate the impacts, the contractor will

- consider all sanitary laws and other laws and regulations effective in the area of workers' camp.
- provide all necessary fencing and security to these areas.

- not use any hazardous materials for the construction of the workers' camp.
- avoid densely populated areas and will consult appropriately with the local population on the location of the workers' camp. The location of the camp will not be closer than 50-70 m to any irrigation canals. The camp\s location will be agreed with PIU and local government authorities.
- Construction Camp Management Plan (CCMP) will be developed by Contractors as part of the SSEMP following IFC and the EBRD's guidance note on Workers' accommodation: processes and standards (2009). CCMP will describe waste collection and disposal procedure, layout of camp facilities (such as a storage for construction materials and machinery, if any, laundry and toilets, access roads, etc.) in such a way that will allow to minimize disturbance of the local population.
- Will do washing only at the dedicated equipped place outside of labor/construction camp's site.
- Ensure safe and adequate living conditions for workers at the workers' camp, such as dining rooms, toilets, shower rooms etc.
- instruct all the workers to act in a responsible manner.
- After the completion of work at a particular site, remove all equipment and structures, clean up and dispose all waste materials, rehabilitate all construction sites and working areas so that these can be returned to their initial status as much as possible.

Construction camps					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Temporary (months)	Regional	Daily	Possible	Moderate
Receptor					**Sensitivity**
Contractors' workers and local population					Medium
Significance of Impact					
Moderate					

Residual Impact

429. Following implementation of the mitigation measures described above, the residual impact is considered to be:

Negligible

Cumulative Impact

430. Similar activities which may impact on COVID-19 dissemination among population and Contractors' workers are not anticipated in the project area, therefore cumulative the impact is considered to be:

Negligible

f) Cultural heritage

(a) Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak and Component 1.4: Development of New Park and Co-working Center in Havast

431. There are no any historical places located in these subcomponents' project area. This statement was reconfirmed during the meetings with local stakeholders, such as Khokimyats and mahallas. Nevertheless, the Contractor will be required to follow the relevant national regulation and develop some mitigation measures. Contractors will be aware of the mitigation

measures as indicated in the Law of RUz On Protection and Use of Archeological Heritages (2009).

Mitigation measures

432. Appendix 3. Chance Finds Procedure will be followed in case of possibility to find any heritage:

Construction camps operation					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Temporary (months)	Local	Monthly	Unlikely	Low
Receptor					**Sensitivity**
Contractors' workers and local population					Medium
Significance of Impact					
Minor					

Residual Impact

433. Following implementation of the mitigation measures described above, the residual impact is considered to be:

Negligible

Cumulative Impact

434. Similar activities which may impact on the cultural heritages in the project area are not anticipated in the project area, therefore the cumulative impact is considered to be:

Negligible

(b) **Component 1.2: Improvement of Polvon Canal Area in Khiva and Component 1.3: New Tourist Visitor Center in Khiva**

435. Khiva is well-known as a historical city with rich ancient history. It has also been confirmed that all project sites are located outside both: protected and buffer zone.

436. **For Component 1.2: Improvement of Polvon Canal Area in Khiva**, during meetings with local population of the settlements located along the Polvon canal, it was found out that there were three objects of historical importance located on the project sites. The first one is a 150-year-old water well and the second is a mulberry tree which grows for more than 400 years. Both objects are located in Toza Bog mahalla. The well is currently in use and according to the subcomponent design it will form a part of its composition. Another historical object is a polyclinic located in a building constructed in the beginning of the twentieth century. The visual integrity of the building is good, but nevertheless, during construction works, some special precautions will be taken during laying cycle paths next to the building. According to the design, no other works will be carried out that may affect the integrity of the building.

437. **For Component 1.3: New Tourist Visitor Center in Khiva.** Visitor Center will be constructed on an area free from any buildings/constructions space. There is some potential of finding of histrocial heritage during earth works.

Mitigation measures

438. Besides the mitigation measures mentioned in para. 432 on page 160, during construction works near the polyclinic, operation of heavy machinery closer than 50 m from the farthest corner of the building will be avoided.

Construction camps operation					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Temporary (months)	Local	Monthly	Unlikely	Low
Receptor					**Sensitivity**
Contractors' workers and local population					Medium

Significance of Impact
Minor

Residual Impact

439. Following implementation of the mitigation measures described above, the residual impact is considered to be:

Negligible

Cumulative Impact

440. Similar activities which may impact on the cultural heritages in the project area are not anticipated in the project area, therefore the cumulative impact is considered to be:

Negligible

3. Operational stage

a) Impact on the air

441. No negative impact on ambient air quality is anticipated during operation of all facilities. The subprojects will provide services to the population that do not lead to the emission of pollutants. Therefore, the anticipated impact on air quality will be negligible.

Facilities operation					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Permanent	On-site	Daily	Unlikely	Low
Receptor					**Sensitivity**
Population living in the project area					Low
Significance of Impact					
Negligible					

442. Created green areas and park will substantially improve air quality in the project area, and more oxygen. Air quality will also improve due to improvement of conditions of existing roads. Amount of dust and exhausted gases will decrease due to improved quality of roads.

b) Impact on water

(a) Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak, Component 1.3: New Tourist Visitor Center in Khiva and Component 1.4: Development of New Park and Co-working Center in Havast

443. These three subcomponents are in the areas away from water sources. In accordance with the project design, the construction of toilets is envisaged at all facilities. Several public toilets connected to the district sewage will be constructed on the project sites. Buildings constructed under these three subcomponents will be connected to the district sewerage system. This will exclude a chance of groundwater pollution by wastewater.

444. **For Component 1.4: Development of New Park and Co-working Center in Havast,** A storm runoff collection network will be developed throughout the New Park. The storm runoff will be collected in tanks for further disposal to the nearest collector/drainage system.

445. **For Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak** will also include creation of the storm collection system which will be connected to existing municipal storm network. Stormwater collection trays will also be installed on both sides of the rehabilitated/constructed roads. The trays will be connected to the city storm sewer system.

Mitigation measures

446. The following measures will be implemented during operation phase:

- Operating agencies (Khiva, Havast and Djizzak Khokimiyats) will conclude an agreement with local companies (relevant cities Suvtaminot LLCs) on disposal of wastewater;
- Operation agency will ensure proper functioning of storm sewer system.

Facilities operation					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Indirect	Continuous	Local	Yearly	Unlikely	Low
Receptor					**Sensitivity**
Water sources in the project cities					Medium
Significance of Impact					
Negligible					

Residual Impact

447. Following implementation of the mitigation measures described above, the residual impact is considered to be:

Negligible

Cumulative Impact

448. Similar activities which may impact on the water resources in the project area is not anticipated in the project area, therefore cumulative impact is considered to be as:

Negligible

(b) **Component 1.2: Improvement of Polvon Canal Area in Khiva**

449. During operation of the improved banks of the Polvon canal, a negative impact on water quality could be caused by wastewater discharge and solid wastes disposal into the canal. Oil refueling or work with hazardous substances for operation of the facilities located along the canal's banks is not expected. It is envisaged to build several toilets in the walking areas. The toilets will be connected to the district sewerage network.

Mitigation measures

450. To mitigate the impacts, Operating agencies (Khiva, Havast and Djizzak Khokimiyats) will;

- Ensure proper operation of sewage system and conduct regular maintenance.
- Arrange separate storage of garbage at the walking areas by installing trash bins of different colors.
- Conclude an agreement with local wastewater and municipal waste management companies (relevant cities Toza Hudud and Suvtaminot LLCs) on sewage and municipal waste disposal;

451. Urban Governance and Institutional Strengthening Consultant (UGISC) supported by the IUDP will develop and implement a program for reduction, reuse, recycling (3R: reduce-reuse-recycle) on waste management for population d in the project cities, including Khiva.

Facility operation					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Continuous	Local	monthly	Unlikely	Low
Receptor					**Sensitivity**
Polvon canal					Medium
Significance of Impact					
Minor					

Residual Impact

452. Following implementation of the mitigation measures described above, the residual impact is considered to be:

Negligible

Cumulative Impact

453. Similar activities which may impact on the water resources in the project area is not anticipated in the project area, therefore the cumulative impact is considered to be as:

Negligible

c) Waste management

(1) Non-hazardous wastes

454. During operation of the project facilities, non-hazardous household waste will be generated, such as: paper, plastic, glass, food waste and waste generated after cleaning the territories. Inappropriate waste disposal will lead to environmental pollution and spread of disease. As consequences it may also cause discontent among citizens living in the surrounding area.

Mitigation measures

455. To mitigate the impact, the administration of the New Park and Co-Working in Center in Havast, the khokimiyats in Djizzak and Khiva, as well as the administration of the Visitor Center in Khiva will;

- conclude agreements with local companies for the removal and disposal of waste.
- Install sufficient number of bins for collecting household waste at each facility. Each location will have multiple waste bins for different types of waste, such as plastic, glass, paper and food waste.;
- Clean all waste bins daily and store garbage in a specially designated area in the park and open spaces for subsequent removal for disposal on the municipal landfills;
- Sell recyclable wastes to the relevant agencies, non-recyclable will be disposed to the city landfill.

Faculties operation					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Temporary	Local	Monthly	Likely	Low
Receptor					**Sensitivity**
Soil, community, water courses					Medium
Significance of Impact					
Moderate					

(2) Hazardous waste

456. Hazardous waste can be generated during maintenance of amusement rides located on the territory of open areas and parks. Oil spills may occur during repairing or replacing oil or parts of amusement ride mechanisms. Also, hazardous waste will be generated when batteries and lighting bulbs are replaced. Improper handling and disposal of such lamps may lead to poisoning of operating personnel, other persons who will be in contact, and pollution of environment.

Mitigation measures

457. The administration of all facilities will

- Ensure that all oil change operations in parks and open areas are carried out using oil collection trays. Used oil will be disposed to the specialized companies;
- Burning oil will be strictly prohibited;
- Repair and maintenance of all mechanisms will be carried out only by a specialized agency;
- Conclude agreements on disposal used batteries and lamps with relevant agencies specializing on this.

Excavation works and machinery operation					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Temporary	Local	Yearly	Unlikely	Low
Receptor					**Sensitivity**
Soil, community, water courses					High
Significance of Impact					
Minor					

Residual Impact

458. Following implementation of mitigation measures described above, the residual impact is considered to be:

Negligible

Cumulative Impact

459. Similar activities which may impact on hazardous wastes management in the project area are not anticipated in the project area, therefore cumulative impact is considered to be:

Negligible

d) Community and Occupational Health and Safety

(a) Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak, Component 1.2: Improvement of Polvon Canal Area in Khiva and Component 1.4: Development of New Park and Co-working Center in Havast

460. Most of the potential negative health risks during operation of these facilities will be associated with the safety of the machinery. Non-steamy rides can be dangerous for children and adults. Improper lightening of the territory with different sport equipment and rides may also cause risk for walkers.

Mitigation measures

461. The administration of all facilities will;

- Ensure that operation and maintenance of all rides will be implemented by certified companies in accordance with national regulations;
- Ensure that maintenance of the territory of the parks and open spaces in the project areas is in fully compliance with national norms and regulation.

Faculties operation					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Temporary	Local	Monthly	Likely	Moderate
Receptor					**Sensitivity**
Population					Medium
Significance of Impact					
Moderate					

Residual Impact

462. Following implementation of mitigation measures described above, the residual impact is considered to be:

Negligible

Cumulative Impact

463. Similar activities which may impact on community and occupation health and safety are not anticipated in the project area, therefore the cumulative impact is considered to be:

Negligible

(b) **Component 1.3: New Tourist Visitor Center in Khiva and**

464. Besides the risks indicated in previous para, walking along the canal without fencing can cause people to fall into the water. Depth of the canal is not more than 1.5 meters. It could be dangerous for children.

Mitigation measures

465. The administration of all facilities will, in aaddition to the measures listed under para. 461 on page 164,;

- Ensure that decorative fence along the canal is in proper condition;
- Place the signs along warning signs along the canal.

Faculties operation					
Type	**Duration**	**Extent**	**Frequency**	**Likelihood**	**Magnitude**
Direct	Temporary	Local	Monthly	Likely	Moderate
Receptor					**Sensitivity**
Population					Medium
Significance of Impact					
Moderate					

466. In general, the project will have significant positive impact on community health. Created green zones will improve air quality in the project areas. Abandoned and uncomfortable areas will become places of recreation for the population living in the project area. Co-working Center in Havast will also have great educational potential for young people.

467. The construction of a tourist center in Khiva will significantly improve the quality of services provided to tourists, thereby increasing the tourist potential of the region. This, in turn, is associated with the economic growth of the region.

4. Transboundary Impact

468. In accordance with IFC Guidance Note,[53] transboundary impacts are impacts that extend to multiple counties, beyond the host country of the project, but are not global in nature. In the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo, 1991), the notion of "transboundary impact" is defined as any impact, not exclusively of a global nature, within an area under the jurisdiction of a Party caused by a proposed activity the physical origin of which is situated wholly or in part within the area under the jurisdiction of another Party.

469. Within current IEE, it was accepted that transboundary impact is an impact that affects receptors, beyond the boundaries of the country in which the project is located and produces transboundary effects, including global effects. All sub-components are located on remote from the borders from other countries. The anticipated impacts on air and water during

[53] International Finance Corporation's Guidance Notes: Performance Standards on Environmental and Social Sustainability, 2012

construction phase will have local impact and it will extend to the regional level. Therefore, the sub-project will not have transboundary impact during both phases – construction and operation. Thus, during the project operation stage some negative impacts and risks may take place. However, all of them could be mitigated by implementation proposed measures described in EMP and required by national legislation. The project will have significant positive impacts on population wellbeing through improvement of recreation facilities, increasing green spaces within urban areas and will contribute development of various economic activities.

5. Climate Change Impact

470. No climate impact is expected during the Project construction and operation phases. So, greenhouse gas emissions from the operation of equipment will be insignificant. Requirements for contractors included in the EMP for the use of Euro-4 class equipment, the limit for the operation of equipment at idle speed will minimize carbon dioxide emissions.

471. As a result of creating green zones new, it is expected that carbon dioxide emissions into the atmosphere will decrease. Recycling water supply for irrigation green zones will minimize water use and will not lead to decreasing of water resources. According to the assessment of the impact of climate change on the project carried out by TRTA consultants the following potential impacts were identified:

(a) Component 1.2: Improvement of Polvon Canal Area in Khiva

- Increased precipitation potentially leading to increased damage to bicycle and pedestrian paths and inconvenience to users;
- Roads, buildings, and humans at risk of increased heatwaves;
- GHG emissions from streetlights

(b) Component 1.3: New Tourist Visitor Center in Khiva *and* Component 1.4: Development of New Park and Co-working Center in Havast

- Roads, buildings, and humans at risk of increased heatwaves;
- GHG emissions from streetlights

(c) **Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak**

- Roads improved in three mahallas are at risk of damage from intense heat

Mitigation Mesasures

472. To be resilient to the Climate Change impacts, the TRTA consultant integrated the following requirement in the project technical specifications. Incoporation of these measures is listed as measures during pre-constraction stage under **Table 43**:

(d) **Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak**

- use of more heat resistant materials in road construction.
- use of energy efficient (LED) streetlights using renewable energy (solar).

(e) Component 1.2: Improvement of Polvon Canal Area in Khiva

- enhanced drainage has been reflected in the initial design and costing;
- more heat resistant materials in road construction are used;
- new green spaces will be created;
- modern energy efficient (LED) streetlights using renewable energy will be installed

(f) Component 1.3: New Tourist Visitor Center in Khiva *and* Component 1.4: Development of New Park and Co-working Center in Havast

- water recycling has been used for irrigation Havast park;
- green area will be created
- modern energy efficient (LED) streetlights using renewable energy will be installed.

VI. ANALYSIS OF ALTERNATIVES

473. This project envisages the construction of open spaces, new park and visitor center. Due to the specifics of the project works, consideration of alternatives is limited to only three areas:

1) Selection of location of facilities of open space in a way which will avoid cutting trees and demolishing of existing structures as much as possible;
2) Selection of location parking zone for Visitor Center in Khiva – opposite the building or behind the building;
3) The situation “without the project”.

474. In the first direction, the DED Consultant (footnote 2) carried out a detailed study of the project area and made a topographic survey. Based on the results of studies, the optimal location of the open spaces facilities was selected and included in the final design. The DED Consultant will ensure that the DED is prepared in line with the IEE/EMP (Selection of location of facilities of open space in a way which will avoid cutting trees and demolishing of existing structures as much as possible, conditions listed under para. 472 on page 166, etc.).

475. In the second direction, location of parking zone in opposite the building has been selected in order to avoid construction of new access road and acquire additional lands.

476. In the case of "no project" situation, the population of the project areas will not receive socio-economic benefits, opportunity to get new jobs, improve livelihoods conditions.

VII. INFORMATION DISCLOSURE, CONSULTATION, AND PARTICIPATION

A. Consultation

477. One of the main goals of the IEE is to facilitate the participation of all stakeholders and local communities at all stages of the project cycle: from the pre-construction phase and construction activities to its operation. In this regard, a number of consultations with small group of people (2-3 maximum) were held in the project provinces during August and October 2021 to capture the stakeholders' opinions about the project, and agree on the project activities.

478. Prior to the public consultations, several meetings were conducted with internal and external stakeholders, such as representatives of the SCEEP in Tashkent, Djizzak, Syrdarya and Khorezm branches of SCEEP, district khokimiyats and mahallas, Agency's for Sanitary and Epidemiological Well-being branches in the cities and others.

479. Current IEE preparation period (February – December 2021) covered COVID-19 quarantine period and some quarantine restrictions are still in effect on the territory of the country.

480. The IEE has been prepared in the conditions of restriction on holding meetings with more than 3 people. TRTA consultants met with several groups of people (group consisted of 2-3 persons) and briefed them about the project.

481. In order to deliver information about the planning activities under subprojects, its environmental impacts, GRM, TRTA consultants prepared leaflets in Russian and Uzbek languages with brief information on these topics, for respective subcomponent. The leaflets also provided information on type of mitigation measures and contacts for clarifications and complaints submission if any. The information in the leaflet was reviewed by MIFT-PIU and printed versions were distributed in 3 project mahallas in Djizzak city (Ittifoq, Yoshlik and Dustlik), mahalla Bunyodkor in Havast city, which is located close to new park and co-working center and 6 mahallas (Yangi Turmush, Mevastan, Yangi Hayot, Dustlik, Gilamchi, Gazchi) in Khiva city, which are located along the Polvon canal and close to the new touristic visitor center. Besides, the leaflets were also delivered to khokimiyats of Djizzak, Havast and Khiva cities, schools and kindergarten in Djizzak city's mahallas, regional SCEEP branches (in Djizzak, Syrdarya and Khorezm provinces). (**Appendix 6.** Leaflet distributed during the Public Consultation)

482. The main issues raised during the public consultations are presented in **Table 39**,

483. **Table** 40 and **Table 41**. Detailed minutes are in Appendix 7. Minutes of Public Consultations. List of the participants and photos of the public consultations are in **Appendix 8.** Record of public consultations (List of the participants and photos from meetings).

Table 39: Questions raised during the public consultation (in Djizzak mahallas on 24 September 2021)

Issues raised	Response
When the project will start?	According to plan the project will start in 2022
What activities are proposed under the urban subcomponent in 3 mahallas?	Detailes scope of Component 1.1 was explained.
The project is very important for us and for the area where we live. The unsatisfactory condition of local roads and the lack of comfortable resting places make their daily life inconvenient	Noted

Table 40: Questions raised during the public consultation (in Havast mahallas on 26 October 2021)

Issues raised	Response
When the project will start?	According to plan the project will start in 2022
This new park would be very useful and pleasure place for the rest, especially for our kids. Currently we do not have this kind of parks in Havast	Yes
Who will build this park? Will it be local Contractor?	Contractor will be selected in accordance with ADB and national procurement procedure. It could be either – national or international contractor.

Table 41: Questions raised during the public consultation (in Khiva mahallas on 29 October 2021)

Issues raised	Response
When the project will start?	According to plan the project will start in 2022
What activities are proposed under the Urban subcomponent?	Detailes scope of all four subcomponents was explained.
Who is funding agency? Is it grant or loan?	The project will be implemented at the expense of loan from ADB.

B. Information Disclosure

484. The leaflets in both languages – Russian and Uzbek have been published on MIFT-PIU website (footnote 7) and Djizzak, Khiva and Havast Khokimiyat's websites (footnote 8).

485. As part of information disclosure, the summary of the final version of IEE, EMP and GRM will be translated into the Uzbek language, full report will be translated into Russian and both documents will be published on -PIU website. Hard copies of the documents will also be delivered to the Djizzak, Syrdarya and Khorezm branches of SCEEP. For the interested parties the IEE will be available at the offices of the PIU-MIFT.

C. Further communication with stakeholders

486. Future consultations for project stakeholders will follow as mentioned below.

(i) During implementation stage, in case of any changes in the design/alignment/location and unanticipated environmental impacts become apparent, the IEE will be updated accordingly. The PIU -ESS in assistance with PIU Field Coordinator will hold at least one public consultation meeting in project mahallas at early stages to solicit perceived impacts, issues, concerns and recommendations from affected communities. The way of conduction public consultation should be agreed with local khokimiyat and PIU-MIFT in order to meet national requirements and WHO technical guidance in dealing with COVID-19.

(ii) Prior to construction, the MIFT-PIU with support of PIU Field Coordinator will conduct an intensive information, education and communication campaign to ensure the sufficient level of awareness/information among the affected communities regarding the upcoming construction, its anticipated impacts, the GRM, contact details of PIU Field Coordinator and MIFT-PIU, and status of compliance with the Government's environmental safeguard requirements.

VIII. GRIEVANCE REDRESS MECHANISM

487. This mechanism provides for the grievance of any actions and decisions that violate the rights and legitimate interests of citizens affected by the project and stipulates the procedure for dealing with grievance from individuals and legal entities within the framework of the project implementation.

488. In accordance with ADB SPS, the GRM will be established right after the project becomes effective. The main goals of the mechanism are ensuring the free submission and timely redress of grievances and concerns submitted by the project affected persons, as well as resolve grievance at the project level. Along with the ADB requirements on development and establishment of GRM in the processes of investment projects implementation, the grievance redress procedure in the country is also regulated by the national legislation of the RUz by the law “On appeals of individuals and legal entities” (No. 445, 2017).

489. GRM will be established at the project level, considering the local legislation on the resolution of grievance, to ensure that the affected persons are provided with a timely resolution of issues arising because of the project.

490. Individuals and legal entities in the project areas will be fully informed of their rights and of the procedures for addressing grievance whether verbally or in writing during public consultations and through local media.

491. GRM at the project level will not impede access to judicial or administrative remedies. Affected persons can approach a court at any time, independent of the project level grievance redress process.

492. The project proposes three levels of the GRM:

(i) **Level-1** – PIU Field Coordinator together with the project beneficiary (cities khokimiyats, Djizzak Suvtaminot LLC) or contractor;
(ii) **Level-2** –MIFT-PIU;
(iii) **Level-3** – Court of Law (Economic Court).

Table 42: Contacts of the grievances redress responsible agencies

PIU	MIFT-PIU	Tashkent city, T. Shevchenko street, 34 E-mail: iudpuzbekistan@gmail.com contact phone number: 71 252 42 20
Djizzak city	PIU Field Coordinator	To be defined before the first civil work contract is awarded.
	Khokimiyat of Djizzak city	Djizzak city, Uzbekistan street, Hamid Olimjon mahalla, 13 E-mail: jizzak.sh@exat.uz Phone number: +998722224010; +99872222497
	"Djizzak Suvtaminot LLC" LLC	Djizzak city, str. Sharof Rashidov ko’chasi, 115 E-mail: jizzakh_suvtaminoti@mail.ru Contact phone number: +998722260325
Khiva city	PIU Field Coordinator in Khiva	To be defined before the first civil work contract is awarded.
	Khokimiyat of Khiva city	Khiva city, Nadjmiddin Kudro str., 7, E-mail: khiva.sh@exat.uz Phone number: +998623775000; +998623775053
Havast city	PIU Field Coordinator in Havast	To be defined before the first civil work contract is awarded.
	Khokimiyat of Havast city	Havast district, Samarkand str., Bunyodkor mahalla, 9 Tel: (+998) 67 364 66 05 Web: https://xovos-tuman.uz

PIU = Project Implementation Unit

D. Level 1: PIU Field Coordinator together with the project beneficiary (cities khokimiyats, Djizzak Suvtaminot LLC[54]) or contractor

493. At this level, an applicant submit grievance directly to the PIU Field Coordinator, who, after the registration of received grievance (application, proposal, grievance), will notify the applicant of the receipt of the grievance and, if requested, will submit registration data according to the records of the registration card (including the registration number, date of registration, person who received the grievance, etc.).

494. PIU Field Coordinator will inform the applicant concerning the procedure and terms of the grievance redress, will study the nature and specifics of the grievance and, within its powers, will take measures for its redress. In parallel, PIU Field Coordinator will inform MIFT-PIU and the relevant beneficiary of the project (cities khokimiyats, Djizzak Suvtaminot LLC) of the received grievance.

495. If necessary, PIU Field Coordinator will send grievance to the relevant party to resolve the issue in accordance with the established procedure. Depending on the nature of the grievance, it can be forwarded for redress to state authorities and local authorities (contractor, Mahalla community council, khokimiyat, the city's Djizzak Suvtaminot LLC, as well as to specially authorized state bodies such as the SCEEP, the ASEW, the State Architecture and Construction Inspectorate, the State Committee on Land Resources, Geodesy, Cartography and State Cadastre, etc.).

496. Also, affected person may approach the Contractor. A Grievance Redress Register must be maintained by the contractor and shared with MIFT-PIU and PIU Field Coordinator for all such grievances. The contractor shall register the grievance and make efforts to resolve the grievance at that level in a consultative manner.

497. At this level, the grievance will be redressed within 15 days from the date of receipt with the adoption of a relevant decision.

498. Grievance redress will comply with the requirements of the legislation of the RUz requirements.

499. Based on the results of the grievance redress, PIU Field Coordinator will inform the complainant and MIFT-PIU concerning the redress results and the measures taken. At this level, PIU Field Coordinator will be a focal point for dealing with grievance and it will ensure close interaction with local state authorities and public administration bodies for timely and high-quality grievance redress.

E. Level 2: MIFT-PIU

500. In case the grievance cannot be redressed at the first stage due to its specifics or the applicant is not satisfied with the decision made, he/she can submit the grievance directly to MIFT-PIU who address the grievances at this level.

501. After the registration of received grievance (application, proposal, grievance), PIU will notify the applicant of the receipt of the grievance and, if requested, will submit registration data according to the records of the registration card (including the registration number, date of registration, person who received the grievance, etc.).

502. If the issue raised in the grievance is not directly related to the project, PIU will familiarize the applicant with the goals and objectives of the project, the measures provided for within the framework of the project implementation and provide an appropriate explanation of the reasons why this grievance cannot be redressed by PIU, after which the further instance will be recommended to the applicant where he/she should apply for the decision making.

503. When receiving grievance, PIU will take the following actions:

[54] Djizzak Suvtaminot LLC is for the component “Water Supply and Sanitation in Djizzak”.

- If necessary, it will establish grievance handling team, which will include the PIU Field Coordinator, PMSC, representatives of Khiva, Djizzak and Havast Khokimiyats, and Contractors, local state authorities and public administration bodies;
- If necessary, it will arrange the reception of the applicant and consultation on issues of interest within the framework of the project, collection of information regarding the grievance, as well as monitoring for their complete, timely and high-quality redress;
- The team will also ensure interaction with an independent appraiser (in case of grievances related to the assessment) to obtain an appropriate evaluation decision (report);
- The grievance will be redressed within 15 days from the date of receipt, and in the case when additional study is required, up to one month.

F. Level 3: Court of Law (Economic Court)

504. If the grievance raised was not solved or the applicant does not agree or is dissatisfied with the decision made, he/she may apply to a higher authority in the order of subordination or directly to the court for deciding in accordance with national legislation.

G. Overview

505. The GRM will equally apply to all stakeholders (including project affected persons, businesses and households).

506. PIU and the project beneficiary are responsible for grievance registration, ensuring the procedure for grievance redress, including actions taken to resolve the issues raised data collection, minutes of meetings and other materials, recording, summarizing and analyzing grievance, preparing a report on each grievance and compiling an overview.

507. MIFT-PIU will keep records, summarize and analyze the received grievance. In addition, the Contractors will include information about grievances in their monthly and quarterly reports. The PIU, in turn, will include summary information in the SAEMRs and social safeguards monitoring reports that will be submitted to ADB.

508. Complainants can also use the ADB Accountability Mechanism by directly contacting the Headquarters in Manila the Complaint Receiving Officer of the ADB Headquarters Accountability Mechanism at the following address: ADB Avenue, 6, Mandaluyong City 1550, Philippines, Email: amcro@adb.org.

509. The ADB Accountability Mechanism is the highest instance. ADB is available as a resource in case other mechanisms for grievance resolving do not give results.

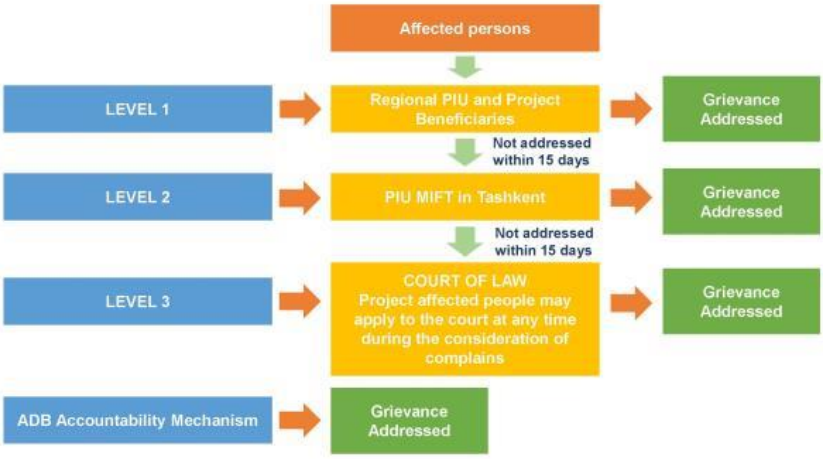


Figure 88: Procedure and stages of the Grievance Redress Mechanism

IX. ENVIRONMENTAL MANAGEMENT PLAN

510. The EMP compiles the comprehensive information gathering a summary of impacts identified during impact assessment, the actions required to mitigate those impacts in accordance with the laws of Uzbekistan and the ADB SPS; and the monitoring activities that are to be undertaken as part of the project to confirm that they have been effective in reaching their objectives.

511. Proposed mitigation and management measures targeted to avoid, reduce, mitigate or compensate for identified significant adverse impacts. The EMP consists of the following key components:

(i) Environmental Mitigation measures;
(ii) Environmental Monitoring;
(iii) Implementation arrangements.

512. The principal purpose of an EMP is to provide a guide for MIFT-PIU and Contractors in the formulation of appropriate management systems, plans and procedures to ensure compliance with national and ADB safeguards requirements. The requirements set out in this section and subsequent EMP should be included within contractual documentation with the relevant parties, as appropriate, to ensure there is clarity and commitment regarding contractor obligations related to environmental, health and safety management of the Project.

513. The EMP also details the institutional arrangements and capacities that currently exist, or that will be put in place during project implementation, to ensure that the IEE (including the EMP) has (i) comprehensively considered both Uzbek and ADB requirements for environmental protection, (ii) identified all likely environmental impacts, (iii) proposed appropriate mitigation measures, and (iv) put in place the necessary systems to ensure that effective procedures for environmental monitoring and control of the project impacts, and mitigation measures are implemented throughout the life of the project.

A. Environmental Mitigation Measures

514. Mitigation measures required to address the impacts identified by this IEE have been consolidated in the following EMP (**Table 43).** The table provides information on anticipated significant impacts during the pre-construction, construction, and operation phases with proposing mitigation measures, defining responsible party(s) for their implementation. PIU-NES, PMSC-IES/NES) and Contractor's environmental engineer and OHSE will be responsible people for EMP implementation.

515. Contractor(s) will be required to prepare SSEMP outlining how they intend to implement the EMP, describing the precise locations of the required mitigation /monitoring, the persons responsible for the mitigation / monitoring, the schedule and reporting methodology. The SSEMP needs to include COVID-19 Health and Safety Management Plan and emergency response plan and other TSEMPs (para. 293 on page124) as required, which are prepared based on risk assessment following relevant government regulations and guidelines or international best practices.

Table 43. Environmental Management Plan

Impact	General mitigation measures for all subprojects	Subcomponent specific measures	Responsibility	Cost
Pre-construction stage				
Lack of proper environmental requirements in the bidding documents	1. PIU with the assistance of PMSC will ensure inclusion of environmental provision along with EMP in the bidding documents and in contracts for Contractors;		PIU procurement specialist, PIU Environmental Safeguards Specialist (ESS) assisted by PMSC-NES	Included in PMSC and PIU budgets
Improper assessment of bidders' environmental capacity	2. Bids evaluation will be done with consideration of capacity of bidders to meet EMP requirements, proposing adequate budget efficient for EMP implementation, existence of good practice in environmental performance within other similar projects;		PIU procurement specialist, ESS assisted by PMSC-IES	Included in PMSC and PIU budgets
Improper development of SSEMP	3. prior to commencing any physical works, SSEMPs including TSEMPs (para. 293 on page124) will be developed by the Contractors under the guidance of the PMSC and be endorsed by PMSC before submission to PIU for approval. TSEMPs will have to be prepared for the activities listed under para. 293 on page124		Contractor, PIU-NES assisted by PMSC-IES	Included in PMSC and PIU budgets
Inadequate monitoring of EMP implementation	4. Develop a format for site inspection to optimize a process of environmental supervision		Contractor with assistance of PMSC-NES	Included in the Contractors and PMSC budgets
Non-compliance with national and international requirements during bidding for procurement of machinery and mechanisms	5. Goods procured for project implementation will be done in compliance with ADB Prohibited Investment Activities List set forth at Appendix 5 of ADB SPS; 6. Environmental specifications will be included in bidding packages for purchase machinery within the project. Particularly, toxic level of machinery will meet "Euro 3" environmental requirements as defined by national regulations[55];		PIU Procurement specialist and PIU-NES assisted by PMSC-relevant specialists	Included in PMSC and PIU budgets

[55] Resolution of President of RUz "On measures for further development of production at the Samarkand automobile plant and renewal automobile park", dated 14 December 2006

Impact	General mitigation measures for all subprojects	Subcomponent specific measures	Responsibility	Cost
Non-compliances with national procedure of works. Accidents due to damage of underground utilities	7. Obtain non-objection from all utility agencies such as gas supply, telecommunications, electricity etc prior to civil works commencement.		Contractor with support of PIU	Included in Contractor's and PIU budgets
6. Generation of different potential environmental impacts due to changes in design, layout	8. If there are any unanticipated impacts, the IEE/EMP will be updated to account for any additional or new environmental impacts and relevant corrective actions;		PIU-NES assisted by DED Consultant, PMSC-IES and PMSC-NES	Included in PMSC and PIU budgets
Non-compliances with national procedure on cutting trees	9. Prior to commencement of civil works receive permission on cutting trees from SCEEP as it is indicated in RCM #43 dated from 2021; 10. Prepare document on waste disposal in accordance with requirements indicated in Resolution of Cabinet Ministries #40 dated from January 28, 2021 "On Improvement of construction wastes management procedure" 11. Prepare LARP (if necessary) and pay compensations prior to cutting trees		Contractor PIU-Social Safeguard Specialist (SSS) assisted by PMSC-NSS	Included in Contractor's budget Included in PIU's budget
8. Interaction with hazardous materials	12. Prior to commencement of construction works PMSC will conduct vision observation of demolishing buildings on presence of asbestos materials. 13. In case of presence of asbestos materials, develop ACMMP that includes identification of hazards, the use of proper safety gear and disposal methods. 14. Any activities involving asbestos materials will be prohibited until the ACMMP is approved by the PIU and the PMSC;		PMSC-NES Contractor in assistance by PMSC	Included in PMSC and Contractor budgets
Receiving all required permission for conducting works	15. Permission/license for using existing borrow pits or opening new ones (if any) 16. Permission for cutting trees (in case of necessity of cutting trees which are not belonged to population and not part of LARP) 17. Permission on water use during construction phase		Contractor with PIU support	Included in Contractor budget
Climate change	**Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak** 18. use of more heat resistant materials in road construction.		DED consultant. PMSC ensure inclusion of these requirements	Included in PMSC and Contractor budgets

Impact	General mitigation measures for all subprojects	Subcomponent specific measures	Responsibility	Cost
	19. use of energy efficient (LED) streetlights using renewable energy (solar). **Component 1.2: Improvement of Polvon Canal Area in Khiva** 20. enhanced drainage has been reflected in the initial design and costing; 21. more heat resistant materials in road construction are used; 22. new green spaces will be created; 23. modern energy efficient (LED) streetlights using renewable energy will be installed **Component 1.3: New Tourist Visitor Center in Khiva** **Component 1.4: Development of New Park and Co-working Center in Havast** 24. water recycling has been used for irrigation Havast park; 25. green area will be created 26. modern energy efficient (LED) streetlights using renewable energy will be installed		in the biding documents.	
Construction stage				
Impact on air quality	1. All dust generating roads will be watered to suppress dust formation during movement of vehicles, as frequent as necessary depending on circumstances. During hot dry summer days and active construction works, it is a usual practice to water access roads every two hours; 2. No burning of any waste is allowed on any construction sites throughout the subproject implementation period; 3. Cover transported bulk materials; 4. Control speed limitation for vehicles during movement inside of settlements - no more than 30 km/h; 5. All vehicles and equipment will comply with technical requirements and will	**Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak** 7. Restrict demolition activities during high wind periods or under more stable conditions when winds could direct dust towards adjacent houses; 8. Do not allow machines and equipment to idle for more than 5 minutes;	Contractors implement PIU-NES and PMSC-NES monitor implementation	Included in the Contractors, PIU and PMSC budgets

Impact	General mitigation measures for all subprojects	Subcomponent specific measures	Responsibility	Cost
	pass regular inspection as indicated in the national standards[56]; 6. In case of non-compliances with standards or complaints from the population, apply additional mitigation measures, such as more frequent watering.			
	Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak 9. Coordinate all civil works to ensure that road rehabilitation sub-project is implemented after completion of civil works on water supply and sewage networks.		PIU	No cost
Noise Impact	10. Construction works generating noise (mainly earth works) will be undertaken during the period between 8am and 8 pm; 11. Inform population of the closest settlement about anticipated works at least one week before. 12. Establish limits on speed for vehicles inside of settlements (30 km/h); 13. Use Euro-4 class equipment; 14. Avoid construction works in front of schools between 8:30am and 3pm during the weekdays and Saturday. Apply additional mitigation measures (installation of acoustic screens, mufflers for machinery, etc.) in case of urgency or technical needs of such works; 15. Schedule construction to minimize the multiple use of noisier equipment near	**Component 1.2: Improvement of Polvon Canal Area in Khiva** 18. Prohibit conduction works near the polyclinic (100 m from the outside corners) during its working hours (8am-3pm). In case of necessity conduction of works, install acoustic screen;	Contractors implement measures PIU and PMSC monitor implementation	Included in the Contractors budget For installation of acoustic barrier/ wall - $10,000 each

[56] "O'z DSt 1057:2004 Vehicles. Safety requirements for technical conditions" and "O'z DSt 1058:2004 Vehicles. Technical inspection. Method of control".

Impact	General mitigation measures for all subprojects	Subcomponent specific measures	Responsibility	Cost
	sensitive receptors (such as houses, schools, etc.); 16. Use of PPE by workers involved in demolishing and construction works in conditions of increased noise level is mandatory; 17. In case the noise level exceeds the standards (Table 4) or complaints is received, apply additional measures (installation of acoustic screens, schedule construction so as to minimize multiple use of noisy equipment);			
Vibration impact	19. PIU will coordinate all civil works contractors under IUDP to ensure that civil works of multiple subcomponents does not take place at the same time at each project area. 20. In the cases when such an approach is impossible, request the relevant contractors to monitor noise level in a nearby settlement and, if the standards are exceeded, apply additional noise reduction measures.	**Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak** **Component 1.2: Improvement of Polvon Canal Area in Khiva** 21. To confirm the status before project, document conditions of the houses close to the constructed and rehabilitated roads. Photographs of all residential houses nearby the road will be taken as a protection for possible complaints regarding cracks/damages in house walls, etc. This to be a part of the contract. 22. To avoid damages due to vibration, special construction methods will be applied in the areas where buildings and structures are located right near the road and the vibration monitoring shows that the specified construction vibration	Contractors implement PIU and PMSC monitor implementation	Included in the Contractors budget

Impact	General mitigation measures for all subprojects	Subcomponent specific measures	Responsibility	Cost
		threshold is reached at a particular location. 23. Suspend the construction activities that generate the excessive vibration at such location. 24. With the approval of the PMSC, take mitigation actions necessary to keep the construction vibration within the specified limit. Such actions may include, alternative construction methods such as: (i) decrease of vibration emission from the particular equipment item; (ii) substitution of the particular equipment item at such location by other equipment capable of variable vibration control; (iii) use of smaller equipment; (iv) compaction without vibration rollers; (v) building wave barriers (trench or ditch) where appropriate; and any other method of contractor's choice that may be used while ensuring compliance with the specification for the material that is being compacted.		
Impact on surface and groundwater	25. Construction and work sites will be equipped with sanitary latrines that do not pollute surface waters. Domestic wastewater from labor camps and construction sites will be canalized into septic tanks which will be installed by the contractors. The septic tanks will be timely emptied by hired septic trucks and transported to municipal wastewater treatment plant. Contractors will make agreements with municipal wastewater treatment plant	**Component 1.2: Improvement of Polvon Canal Area in Khiva** **Component 1.3: New Tourist Visitor Center in Khiva** 1. There will be no direct discharge of wastewater to the Polvon or Syrchali canal. Disposal of materials such as, but not limited to, lubricating oil onto the ground or water bodies will be prohibited.	Contractors implement PIU and PMSC monitor implementation	Included in the Contractors budget

Impact	General mitigation measures for all subprojects	Subcomponent specific measures	Responsibility	Cost
	for timely disposal of wastewater. Keep copies of the transportation company's licenses and provide waste transfer manifests at its camp site for routine inspection by the engineer. 26. No vehicle/equipment washing is allowed with any surface water throughout the subproject implementation period. 27. construction wastewater (construction surface runoff, wastewater from vehicle washing will be collected into several low points of the sites and treated by plain sedimentation tanks. After that water could be re-used for watering of the construction site. 28. Disposal of lubricating oil and other potentially hazardous liquids onto the ground or to the canals will be prohibited. 29. Management and storage of fuel, waste oil, hazardous waste will be planned in accordance with EHS General Guidelines on Hazardous Materials Management. This includes the use of appropriate secondary containment structures capable of containing the larger of 110 % of the largest tank or 25% of the combined tank volumes in areas with above-ground tanks with a total storage volume equal or greater than 1,000 liters; 30. Fueling operations and equipment maintenance will occur only within special designated containment areas	2. Location of construction camps for Visitor Center or Polvon canal will be 500 m away from the canal. Location of labor camps (without workshops, fuel and chemical storage facilities) closer than 50 m will be prohibited		

Impact	General mitigation measures for all subprojects	Subcomponent specific measures	Responsibility	Cost
	bounded and provided with impermeable lining to contain spillage and prevent soil and water contamination. The area will be equipped with a drainage system which will be connected to wastewater treatment system including oil separator. Prohibit conduct this works in the area within 50 m from water streams; 31. Spill cleanup equipment will be maintained on-site. Should any accidental spills occur, the immediate cleanup will be undertaken, and all cleanup materials will be stored in a secure area for further disposal. Disposal of such will be undertaken by a waste management company contracted by the Contractors. The waste management company must have the required licenses to transport and dispose any hazardous waste before any such waste is removed from the site. The Contractors will keep copies of the company's licenses and provide waste transfer manifests at their camp site for routine inspection by the engineer.			
Impact on soil	32. The topsoil of about 30 cm depth will be removed and stored separately during excavation works, and after the completion of land leveling, the same soil will be backfilled on the top, in unpaved areas; 33. To minimize soil compaction, movement of all machinery will be allowed only by identified assess roads. 34. Install protection screens/nets along the river in the points crossing the river, to prevent collapsing of excavated soil into the river;		Contractors implement PIU and PMSC monitor implementation	Included in the Contractors budget

Impact	General mitigation measures for all subprojects	Subcomponent specific measures	Responsibility	Cost
	35. If borrow pits are required, only authorized borrow pits with getting all necessary permissions as per the national legislation will be allowed; 36. Storage of all fuel and chemicals (if any) will be placed in the impervious facilities within a bund and secured by fencing. The storage area will be located away from any watercourses. The facility and bund walls will be impermeable and of sufficient capacity to contain 110% of the tank's volume (or tanks if more than one tank is located in the bund). 37. The construction camp maintenance yard will be constructed on impervious hard standing with adequate drainage to collect spills, there will be no vehicle maintenance activities on the open ground. 38. Develop Spoil Management Plan as part of SSEMP and will ensure its proper implementation. 39. The construction camp maintenance yard will be constructed on impervious hard standing with adequate drainage to collect spills, there will be no vehicle maintenance activities on open ground.			
Waste management	*Hazardous Constraction Wastes* 40. Develop Waste Management Plan as part of SSEMP and will ensure its proper implementation. The Plan has to include information about a type of waste to be generated, their amount, procedure of their collection and disposal. The plan will also include information about responsible persons, training, response action plan for emergency situations; 41. Refueling vehicles and replacement of oils will be conducted in special designated and properly equipped places. Emergency facilities will be ensured at the place for elimination of accidental oil spills; 42. Used oil from vehicles and machinery will be collected into containers placed	**Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak** 44. Prior to commencement of any construction works, PMSC will conduct visual observations of buildings to be demolished on presence of any asbestos materials. 45. In case of presence of the asbestos materials, the Contractors will develop Asbestos-Containing Materials Management Plan (ACMMP) and will ensure its proper implementation. The ACMMP includes identification of hazards, use of proper safety gear and disposal methods. Any activities involving asbestos materials will be prohibited until the ACMMP is approved by PIU and PMSC;	Contractors implement PIU and PMSC monitor implementation	Included in the Contractors budget

Impact	General mitigation measures for all subprojects	Subcomponent specific measures	Responsibility	Cost
	at the concreted sites and disposed to the national oil company designated for accepting and treatment of used oils; *43.* Used batteries will be collected separately and transferred to the local Cvetmet branches [57] for further disposal.	46. All demolishing works will be performed in accordance with the approved ACMMP; 47. Conduct awareness program on safety precautions during the construction works		
	Non-hazardous wastes 48. Conclude contract with waste disposal organization for the timely transportation and disposal of non-recyclable wastes, prior to the commencement of any civil works 49. Waste disposal will be done in accordance with agreement concluded between Contractor and authorized wastes disposal company in timely manner (no more than 3 days) only on official landfills; 50. Put proper waste bins at a related areas of construction sites and workers camps; 51. Segregation of wastes on recyclable and non-recyclable wastes; 52. Selling recyclable wastes to relevant organizations (paper, scraps, accumulators) and timely disposal of non-recyclable wastes to the municipal landfill. 53. Re-use construction wastes (removed old road pavement) as much as possible. Recycled material from the existing pavement and special recycling techniques will be used in the rehabilitation of the new pavement layers. The cost effectiveness of rehabilitation measures could be enhanced greatly by the application of recycled pavement materials. If re-use of construction wastes is not possible, the wastes will be disposed on the municipal landfills.; 54. Burning of waste on any construction site is forbidden. 55. Provide bio toilets for workers at the construction sites and ensure timely disposal of wastewater to the municipal WWTP;		Contractors implement PIU and PMSC monitor implementation	Included in the Contractors budget Cost for one bio toilets is $ 800
Impact on flora	**Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak** **Component 1.2: Improvement of Polvon Canal Area in Khiva** 56. Prior to starting any civil works PMSC will review the project site and identify a need for cutting and will mark out each tree which to be cut;		Contractors implement PIU and PMSC monitor implementation	Included in the Contractors budget.

[57] Local entity responsible for collection and treatment non-ferrous metals

Impact	General mitigation measures for all subprojects	Subcomponent specific measures	Responsibility	Cost
	57. In case of cutting the trees, it is required to fulfill the Resolution of Cabinet of Ministries of RUz #43 dated from 17 January 2019; 58. Use of chemicals and burning for removing vegetation is prohibited.			
Impact on Socio-economic Resources	59. Inform population about anticipated works in the settlement at least one week prior to starting any construction works. Share work plan with indications timeline and places with the leaders of communities (mahallas); 60. Hire local population with suitable qualifications for works to the extent possible; 61. Develop a Code of Conduct and include it as part of contracts with each worker;		Contractors implement PIU and PMSC monitor implementation	Included in the PMSC budget
Community Health and Safety	62. Develop TMP as part of the SSEMPs with clear indication of routes for vehicles' movements, placement special signs, and speeding allowance in the settlements and schedule transportation activities for avoiding peak traffic periods. The TMP will be approved by the Traffic Police and disclosed to local community prior to commencement of any construction works on respective sites; 63. Identify and use appropriate access routes, speed limits and timing; 64. Avoid transportation of construction materials in densely populated areas; 65. Clear signs will be placed at construction sites visible to the public, warning people of potential dangers such as moving vehicles, hazardous materials, excavations etc. and raising awareness on safety issues. 66. Install temporary bridges and effectively organize works, which will allow avoid unreasonable delaying of construction works; 67. Install safe temporary bridges across ditches for residents living in areas close to construction sites to minimize potential of falls due to the need to use alternative passages; 68. All construction sites (especially in the settlements) will be properly lightened and fenced; 69. After completion of construction works, all roads will be rehabilitated at least up to the pre-construction condition; 70. Carry out regular awareness campaigns among work staff, including specific hazards associated with the spread of HIV/AIDS. 71. After completion of the main construction, provide full reinstatement of the construction and camp sites by bringing them to its primary condition;		Contractors implement PIU and PMSC monitor implementation	Included in the Contractors budget

Impact	General mitigation measures for all subprojects	Subcomponent specific measures	Responsibility	Cost
	72. Remove all rubbish, or temporary structures (such as buildings, shelters, and latrines) which are no longer required; 73. All hardened surfaces within the construction camp area will be ripped, all imported materials removed;			
	74. Conduct post-construction audit during defect liability period to make sure that construction sites and camps are properly cleaned and restored to their pre-project conditions before acceptance of works and handover to the relevant agencies (City Khokimyats).		PMSC with PIU	Included in the PMSC cost
Occupational Health and Safety	75. Comply with the requirements of the Labor Code of Uzbekistan (1998) and standards on health and safety (footnote 52); 76. Develop OHSP and ensure its proper implementation; 77. Conduct initial and regular refresher training for all workers on labor, occupational health and safety matters, ensure provision and distribution of PPE, and keep records and report about any health and safety incidents. *COVID-19* 78. In conditions of the pandemic risk, arrange their works in accordance with the Temporary Sanitarian Norms and Rules (SanN&R) # 0372-20; 79. (i) assess implications of the project-level COVID-19 related risks and impacts; (ii) identify necessary risk mitigation measures; and (iii) prepare a COVID-19 Health and Safety Management Plan and emergency response plan. The COVID-19 Health and Safety Management Plan should be aligned with any government regulations and guidelines on COVID-19 prevention and control, or in the absence thereof, with international good practice guidelines as may be updated from time to time. The COVID-19 Health and Safety Management Plan will be reviewed by the PMSC in consultation with public health inspectors of the area, local medical officers and other relevant health specialists, with a recommendation forwarded to the PIU for clearance. The status and adequacy of project's COVID-19 response will be fully documented in the SAEMRs. 80. If a suspected incidence of COVID-19 is reported of any member of the project team during implementation of the project-related activity (including consultation and public participation), the activity will stop immediately for a review of the adequacy of the safety system of work and a corrective action will be implemented to address any identified gaps in the safety system of work prior to recommencement of the activities. All such incidence will be reported to ADB immediately for review.		Contractors implement PIU and PMSC monitor implementation	Included in the Contractors budget Cost for one bio toilets is $ 800

Impact	General mitigation measures for all subprojects	Subcomponent specific measures	Responsibility	Cost
	81. Ensure proper recording and reporting of any cases of infection and undertaken actions; *Operation of worker's camps* 82. consider all sanitary laws and other laws and regulations effective in the area of workers' camp. 83. provide all necessary fencing and security to these areas. 84. not use any hazardous materials for the construction of the workers' camp. 85. avoid densely populated areas and will consult appropriately with the local population on the location of the workers' camp. The location of the camp will not be closer than 50-70 m to any irrigation canals. The camp\s location will be agreed with PIU and local government authorities. 86. Construction Camp Management Plan (CCMP) will be developed by Contractors as part of the SSEMP following IFC and the EBRD's guidance note on Workers' accommodation: processes and standards (2009). CCMP will describe waste collection and disposal procedure, layout of camp facilities (such as a storage for construction materials and machinery, if any, laundry and toilets, access roads, etc.) in such a way that will allow to minimize disturbance of the local population. 87. Will do washing only at the dedicated equipped place outside of labor/construction camp's site. 88. Ensure safe and adequate living conditions for workers at the workers' camp, such as dining rooms, toilets, shower rooms etc. 89. instruct all the workers to act in a responsible manner. 90. After the completion of work at a particular site, remove all equipment and structures, clean up and dispose all waste materials, rehabilitate all construction sites and working areas so that these can be returned to their initial status as much as possible.;			
Cultural heritage	91. Appendix 3. Chance Finds Procedure will be followed in case of possibility to find any heritage	**Component 1.2: Improvement of Polvon Canal Area in Khiva** **Component 1.3: New Tourist Visitor Center in Khiva** 92. During construction works near polyclinic, operation of heavy machinery closer than 50 m from the	Contractors implement PIU and PMSC monitor implementation	Included in the Contractors budget

Impact	General mitigation measures for all subprojects	Subcomponent specific measures	Responsibility	Cost
		farthest corner of the building will be avoided	Representative from Khokimiyat assist in assessment and undertake necessary actions	
Operation phase				
Impact on water resources	**Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak, Component 1.3: New Tourist Visitor Center in Khiva and Component 1.4: Development of New Park and Co-working Center in Havast** 1. Prepare SEC and obtain provincial SCEEP's approval before the open spaces in three mahallas comes into operaion (Component 1.1 only) 2. Conclude an agreement with local companies (relevant cities Suvtaminot LLCs) on disposal of wastewater; 3. Ensure proper functioning of storm sewer system. **Component 1.2: Improvement of Polvon Canal Area in Khiva** 4. Prepare SEC and obtain provincial SCEEP's approval before the recreated zone along canal comes into operaion 5. Ensure proper operation of sewage system and conduct regular maintenance. 6. Arrange separate storage of garbage at the walking areas by installing trash bins of different colors. 7. Conclude an agreement with local wastewater and municipal waste management companies (relevant cities Toza Hudud and Suvtaminot LLCs) on sewage and municipal waste disposal.		Khokimiyats of Djizzak, Khiva and Havast cities	Included in the operational cost of Djizzak, Khiva and Havast cities
	Component 1.2: Improvement of Polvon Canal Area in Khiva 8. Develop and implement a program for reduction, reuse, recycling (3R: reduce-reuse-recycle) on waste management for population d in the project cities, including Khiva.		Urban Governance and Institutional Strengthening Consultant (UGISC)	
Waste management	<u>*Non-hazardous wastes*</u> 9. A conclude agreements with local companies for the removal and disposal of waste. 10. Install sufficient number of bins for collecting household waste at each facility. Each location will have multiple waste bins for different types of waste, such as plastic, glass, paper and food waste.;		Khokimiyats of Djizzak, Khiva and Havast cities	Included in the operational cost of Djizzak, Khiva and Havast cities

Impact	General mitigation measures for all subprojects	Subcomponent specific measures	Responsibility	Cost
	11. Clean all waste bins daily and store garbage in a specially designated area in the park and open spaces for subsequent removal for disposal on the municipal landfills; 12. Sell recyclable wastes to the relevant agencies, non-recyclable will be disposed to the city landfill. *Hazardous wastes* 13. Ensure that all oil change operations in parks and open areas are carried out using oil collection trays. Used oil will be disposed to the specialized companies; 14. Burning oil will be strictly prohibited; 15. Repair and maintenance of all mechanisms will be carried out only by a specialized agency; 16. Conclude agreements on disposal used batteries and lamps with relevant agencies specializing on this			
Community and Occupational Health and Safety	17. Ensure that operation and maintenance of all rides will be implemented by certified companies in accordance with national regulations; *18.* Ensure that maintenance of the territory of the parks and open spaces in the project areas is in fully compliance with national norms and regulation.	**Component 1.3: New Tourist Visitor Center in Khiva** 19. Ensure that decorative fence along the canal is in proper condition; 20. Place the signs along warning signs along the canal.	Khokimiyats of Djizzak, Khiva and Havast cities	Included in the operational cost of Djizzak, Khiva and Havast cities
Impact of Climate Change	**Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak** 21. Use of more heat resistant materials in road construction. 22. Use of energy efficient (LED) streetlights using renewable energy (solar). **Component 1.2: Improvement of Polvon Canal Area in Khiva** **Component 1.3: New Tourist Visitor Center in Khiva** 23. Project design considers enhanced drainage system; 24. More heat resistant materials in road construction are used; 25. New green spaces will be created; 26. Modern energy efficient (LED) streetlights using renewable energy will be installed **Component 1.4: Development of New Park and Co-working Center in Havast**		Khokimiyats of Djizzak, Khiva and Havast cities	Included in the operational cost of Djizzak, Khiva and Havast cities

Impact	General mitigation measures for all subprojects	Subcomponent specific measures	Responsibility	Cost
	27. Water recycling has been used for irrigation Havast park; 28. Green area will be created 29. Modern energy efficient (LED) streetlights using renewable energy will be installed			

DED = detailed engineering design, EMP = Environmental Management Plan, OHSE = (Contractor's) Occupational Health and Safety Engineer, PIU = Project Implementation Unit, PIU-NES = PIU's National Environmental Specialist, PIU-SSS = PIU-Social Safeguard Specialist, PMSC = Project Management and Supervision Consultant, PMSC-IES = PMSC's international environmental specialist, PMSC-NES = PMSC's national environmental specialist, PMSC-NSS = PMSC's national social safeguards specialist, SCEEP = State Committee on Ecology and Environmental Protection, SEC = Statement on Environmental Consequences SPS = ADB's Safeguard Policy Statement (2009), SSEMP = Site Specific Environmental Management Plan

B. Environmental Monitoring

516. To ensure that mitigation actions are implemented in accordance with the requirements of the EMP, monitoring will be undertaken as follows:

- Instrumental Monitoring for environmental quality such as air, water, soil quality and noise level. Costs for this equipment and services are included in PMSC budget.[58] Schedules, parameters, locations are presented in **Table 44**.
- Observational Monitoring – Throughout the Projects Construction phase, Contractor's environmental engineer and OHSE and PMSC will continually monitor the Contractors actions. This will be achieved through weekly inspections of the Contractors environmental performance by PMSC-NES throughout the construction period. PMSC will have the right to suspend works or payments if the Contractor is in violation of any of his obligations under the EMP and SSEMPs.

517. Developed within current IEE, an EMoP provides details on required measurements, the locations of measurements points, frequency and responsibilities associated with each monitoring task **Table 44**.

518. Besides instrumental environmental monitoring indicated in **Table 44**, monitoring of EMP's implementation will be carried out. For efficient implementation of this activity, several levels of supervision activities will be undertaken: (i) daily inspection by Contractor's environmental engineer and OHSE, (ii) monthly inspection by PMSC-NES, and (iii) periodic audit (quarterly) by PIU-NES.

519. Results of environmental performance including monitoring activity will be properly documented and reported. Each Contractor will perform a book logbook with information about conducted training on Environmental, Health and Safety for workers and another book for registration accidents during the civil works. Original records on results of required instrumental environmental monitoring (air and water quality) will also be kept in the separate file for records.

520. Prior to commencement of the civil works, Contractors with assistance of PMSC will develop a format for site inspection to optimize a process of environmental supervision. The format could be in form of checklist with list of mitigation measures to be implemented at the construction sites, their performance status and some explanations as required.

[58] Noise level will be monitored both by PMSC and the contractor.

Table 44. Environmental Monitoring Plan

Mitigation measures	Parameter to be monitored	Location	Frequency	Responsibility	Standards	Cost[59]
Construction Stage						
A. Air quality	NO_x, SO_2, CO, Dust	**Djizzak city** – (18 points indicated in **Figure 74**, **Figure 75**, **Figure 76** and **Table 33**) - Construction works will be implemented for 2 months (8 weeks) in the area. **Khiva city** (4 points indicated in **Figure 79**). Construction works will be implemented for 2 months (8 weeks) in the area close to the sensitive receptors. **Havast city** - (3 points indicated in **Figure 83**). Construction works will be implemented for 10 months (40 weeks).	Weekly and in case of grievance from population[60]	PMSC will hire certified laboratory to conduct analysis	Table 11: Ambient Air Quality Standards	Costs of hiring external laboratory is included in PMSC budget
B. Noise level	Noise level		Weekly by PMSC and in case of grievance from population	PMSC	Table 4: Maximum allowable noise standards (dB): comparison of national and international maximum allowable noise standards (dB)	Noise measurement devices. The cost will be included in PMSC budgets
C. Water quality	Oil products, dry residual, BOD, COD, pH, ammonia, SO_4	**Khiva city** Polvon cnal and Syrchali canal (11 points in dicated in **Figure 79** at every 200 m,). Construction works will be implemented for approximately 4 months.	1. Baseline – before construction works 2. Monthly During construction works	PMSC will hire certified laboratory to conduct analysis	Table 13: Maximum permissible concentration of pollutants in water bodies (mg/m3)	Costs of water quality analysis will be included in PMSC budget
D. Waste generation	Amount/kind of wastes generated and how they were	All construction sites	Monthly	Contractors	Compliance with the EMP and Waste Management Plan and Spoil	Costs included in the Contractor's budget.

[59] See Chapter IX.F: Cost estimation for environmental management
[60] For Khiva city, baseline data needs to be collected prior to the commencement of civil works (para. 151 on page 73).

Mitigation measures	Parameter to be monitored	Location	Frequency	Responsibility	Standards	Cost[59]
	disposed (how and when)				Management Plan	
Operation Stage						
E. Water quality of Polvon Canal	Oil products, dry residual, BOD, COD, pH, ammonia, SO_4	Upstream and downstream of the concerned point.	As per receiving complaints on surface water quality	Khokimiyat of Khiva city	Table 13	Costs are included in the operation budget of Khiva Khokimiyat

C. Reporting

521. The proposed reporting system is for whole Integrated Urban Development Project. The semi-annual environmental monitoring report (SAEMR) will cover three sub-components: (i) WSS in Djizzak; (ii) Urban Development Component in Havast, Khiva, and Djizzak; and (iii) Solid Waste Management in Djizzak, Khiva, Havast and Yangiyer.

522. During pre-construction, after loan effectiveness, the PIU-NES will prepare the SAEMRs for submission to ADB. The report will provide relevant information on implementation of mitigation measures/actions indicated in EMP for pre-constration phase.

523. During construction, contractor(s)' environmental engineer and OHSE will be responsible for the preparation of weekly environmental checklists and environmental section of the contractor's monthly progress reports. The template of checklist and format of monthly progress report will be endorsed by PMSC and approved by PIU prior to the construction commencement. The reports should comprehensively address all relevant aspects of environmental requirements and all environmental audits undertaken during the period covered by the report. The monthly reports will be reviewed and endorsed by the contractor's project manager and then submitted to the PMSC and PIU for review.

524. PMSC will prepare Quarterly Progress Reports to PIU which includes the information on the implementation and compliance with the EMP/SSEMP, including information on oil spills, accidents, grievance received, if any, and appropriate actions taken.

525. Based on the contractor's monthly environmental reports, observation from the site visit and the PMSC's Quarterly Progress Reports, the PMSC will support PIU in preparing SAEMRs (in January and July every year). MIFT-PIU will keep records, summarize and analyze the received grievances, include information about this in the semi-annual environmental monitoring reports (SAEMRs) and social safeguards monitoring reports, that will be submitted to ADB.

526. Within three months after completion of all civil works, a report on the project's environmental compliance performance (including lessons learned that may help MIFT and PIU in their environmental monitoring of future projects) will also be prepared. This report will be part of the input to the overall Project Completion Report.

527. During operation phase, MIFT-PIU will collect monitoring result information from (A) Djizzak Suvtaminot LLC on (i) WSS in Djizzak, (B) three Khomiyats on (ii) Urban Development Component in Havast, Khiva, and Djizzak; and (C) one regional Toza Hudud agency[61] on (iii) SWM in Havast and Yangiyer, and then prepare the SAEMR and submit to ADB until ADB's Project Completion Report is issued. Djizzak Suvtaminot LLC and Khiva and Djizzak Khomiyats will also develop reports in accordance with requirements indicated in the SEC (para. 289 on page 124), in approved tabular formats on annual base and submit them to the provincial SCEEP.

528. The SAEMRs will be disclosed on ADB website. The relevant information of the reports will be translated into both Uzbek and Russian languages and disclosed to the affected people by posting on MIFT- PIU website (footnote 7). In addition to the above-mentioned reports, in case of any accident related to occupational and community health and safety, PIU is expected to (i) report to ADB within 72 hours, and (ii) prepare and submit an incident report with action plan within 7 days of the occurrence. PMSC will support the PIU in preparing such reports.

[61] Toza Hudud –agencies responsible for waste management on the provincial level

D. Implementation arrangements

1. Ministry of Investment and Foreign Trade (MIFT)

529. **MIFT** is the executing agency and responsible for overall Project coordination with government agencies, high-level decision making to ensure timely implementation, and liaising with ADB and other development partners. MIFT will provide detailed PIU staffing arrangement for Tashkent and other regions, and associated costs.

2. MIFT - Project Implementation Unit (MIFT-PIU)

530. MIFT-PIU will be the implementing agency and responsible for (i) day-to-day project management and administration; (ii) overseeing detailed designs, procurement, bid evaluation report preparation, and construction supervision; (iii) acting as the employer in all contracts; (iv) overseeing project financial management, accounting and auditing; (v) implementing institutional strengthening and capacity development; (vi) managing safeguards compliance; (vii) ensuring loan covenant compliance; (viii) maintaining a project performance monitoring system and preparing progress reports, and (ix) reporting to ADB and other government agencies.

531. The MIFT-PIU will be responsible for monitoring of implementation of EMP to comply with ADB's safeguards requirements and environmental national regulations. Currently, the MIFT-PIU is being implementing similar project named "Medium-Size Cities Integrated Urban Development Project" (World Bank) where full time environmental specialist is supervising project environmental compliance with Environmental and Social Management Framework. For IUDP, new MIFT-PIU (in Tashkent) with three PIU Field Coordinators (for Khiva, Djizzak city and Havast/Yangiyer respectively) will be established. The MIFT-PIU will hire one full time National Environmental Specialist (PIU-NES) exclusively for this project, who will be assisted by the PMSC-IES and PMSC-NES in overseeing the implementation of the EMP.

532. The PIU-NES should have at least a bachelor's degree in environmental sciences or equivalent, with at least 5 years' working experience in conducting environmental impact assessments and implementation of environment mitigation plans and/or monitoring implementation of environmental mitigation measures during implementation of projects including foreign aided project. The PIU-NES should be fluent in English, Russian and Uzbek.

533. The PIU-NES's responsibilities include the following, but not limited to:

(i) Ensure all necessary government permits and license, including ecological expertise opinion, permission for cutting trees and for all civil works will be obtained;
(ii) Ensure inclusion of EMP cleared by ADB and conditions of SCEEP's Environmental Appraisal in bid and contract documents;
(iii) Review and clear contractor's Site-Specific EMPs (SSEMPs);
(iv) Ensure that the SSEMPs contain COVID-19 Health and Safety Management Plan and Emergency Response Plan following international good practice and relevant national/local requirements;
(v) Carry out public consultation during project implementation;
(vi) Establish a GRM after the project becomes effective and act as the GRM secretary to make sure that the GRM is operational to effectively handle environmental and social concerns of project affected persons;
(vii) Build up and sustain institutional capacity in environmental management;
(viii) Supervise contractors and PMSC in implementation of the EMP for overall compliance with ADB SPS and project environment-related legal covenants;
(ix) Conduct environmental monitoring and ensure that the construction activities are carried out following the EMP and SSEMPs and in an environmentally-sound and sustainable manner;

(x) Ensure corrective actions are implemented when necessary;
(xi) Prepare semi-annual environmental monitoring reports (SAEMRs) and submit to ADB for disclosure, within 30 days after a completion of the monitoring period, until ADB's Project Completion Report is issued;
(xii) Disclose relevant information from environmental safeguards documents (including SAEMRs) to affected persons;
(xiii) Report in a timely manner to ADB of any non-compliance or breach of ADB safeguard requirements.
(xiv) Update the project's Initial IEE in case of unanticipated impacts.

3. PIU Field Coordinator

534. MIFT-PIU will mobilize three PIU Field Coordinators (for Khiva, Djizzak city and Havast/Yangiyer respectively) to supervise and monitor project activities and safeguards on the ground together with PMSC. The PIU Field Coordinators in each city will also serve the main role in handling grievances at GRM Level 1 as well.

4. DED Consultant

535. DED Consultant (footnote 2) which is already on board has a National Environmental Specialist (3 person-months). His/her tasks are to:

(i) Ensure the DED is prepared in line with the IEE/EMP;
(ii) Assist MIFT-PIU in updating this IEE if there are any unanticipated impacts;
(iii) Cost all items in EMP and prepare BoQ items to be included in the procurement for the works;
(iv) Assist MIFT-PIU to establish a system to monitor environmental safeguards of the Project;
(v) Ensure that the relevant environmental mitigation measures specified in the EMP cleared by ADB is incorporated into bidding documents prior to issuance of the invitation for bidding;
(vi) Provide on-the-job training programs to PIU staff involved in project implementation for strengthening their capacity in managing and monitoring environmental safeguards.

5. PMSC

536. The PMSC is tasked with specific responsibility to assist PIU in ensuring safeguard compliance of IUDP civil works – with particular emphasis on the monitoring of implementation of EMP through the Contractors SSEMP and related aspects of the project. PMSC will assign an PMSC-IES) (4 person-months) and full time PMSC-NES (60 person-months) to ensure that the Contractor is compliant with its environmental obligations, and ensure compliance with environmental and social safeguards, including the EMP, SSEMP, health and safety standards and core labor standards.

537. The PMSC-IES, with the support of the PMSC-NES, will be responsible for supervising the contractor's environmental performance, coordinating the public consultations and project GRM, and assisting PIU to prepare SAEMRs.

538. During the pre-construction stage, s/he will prepare a detailed action plan including environmental monitoring checklists to be completed by the PMSC-NES to ensure that the Environmental Management System is established, implemented, maintained and will monitor its performance. S/he will also take care of all environmental issues during construction works. S/he will also review the buildings which will be demolished during civil works and check presence of asbestos materials. In case of presence of such materials, assist to Contractor to develop ACMMP.

539. S/he will also conduct environmental training and briefings to provide environmental awareness on ADB and the government environmental safeguards policies, requirements and standard operating procedures in conformity with the government's regulations and international practice for project; ensure baseline and periodic monitoring and reporting of Contractor's compliance with contractual environmental mitigation measures during the construction stage. PMSC-IES will assist PIU in preparation of guidance for the preparation of TSEMPs, as indicated in EMP (Table 43). Upon completion of the civil works, PMSC-IES and PMSC-NES will prepare a report on the project's environmental compliance performance; including lessons learned that may help PIU and MIFT in their environmental monitoring of future projects. This report will be part of the input to the overall Project Completion Report.

540. The detail tasks for the PMSC-IES and PMSC-NES are provided below[62]:

(i) Observance of the Contractor's compliance with all contractual environmental safeguards and health and safety (ESHS) standards in accordance with ADB requirements;

(ii) Draft IEE/EMP and RPs have been prepared and provided in each bid document. Both documents in each contract shall be critically reviewed and updated with view to the Detailed Design or updated designs. These requirements are important and should be observed, monitored, and reported from the inception phase on in all documents to be prepared by the Consultant;

(iii) Inform the Contractor that relevant contract shall not commence prior to the Consultant's approval and satisfaction of appropriate measures in place to address ESHS risks and impacts;

(iv) Approve after due revision Contractor's SSEMPs and, during the execution of the works, instruct the Contractor to update the SSEMPs if it becomes necessary (e.g. due to unanticipated impacts, change in site, change in construction method etc.). The revised version shall highlight the new elements incorporated in the document;

(v) Supervise the Contractor's implementation of the EMPs and report quarterly on compliance of the Contractor with the EMP and ESHS Works Requirements (as provided in section 6 of bid document); This includes health and safety performance and conformance with labour and working condition standards in case of severe ESHS violations (and in particular OHS risks to life), the Consultant shall suspend the work at that stretch until the Contractor has rectified the situation;

(vi) Document Contractor's non-conformances. Review and approve the Contractor's proposals for remedial action/s and their timeframe for implementation. Follow up on correction/remediation.

(vii) Follow up on the results of any inspections or audits by labour, health and safety or environmental regulatory authorities.

(viii) Check if the Contractor provides instructions and trainings to workers, Subcontractors and Suppliers (in particular those for major supply items) to assure that they understand their respective ESHS requirements and that the Contractor complies with the Code of Conduct.

[62] As per TOR of PMDSC, section d. Environmental, Health and Safety, Gender, Social Resettlement and Participation.

(ix) Advise the Contractor on the ESHS risks and impacts of any design change proposals and the implications for compliance with IEE, EMP, consent/permits and other relevant project requirements.

(x) Review the Contractor's monthly progress reports, and check if detected nonconformities are documented and analyzed and are addressed by corrective actions; Documentation shall include a digital photograph and with captions to provide a visual illustration, explicitly indicating the location, date of inspection and the non-conformity in question.

(xi) Follow-up on the resolution of any grievances in relation to ESHS.

(xii) Inform the Employer on any ESHS related situation that might arise which could jeopardize the successful completion of the Project. Reflect such situations in the periodic reporting.

(xiii) Prepare and submit monthly, quarterly, and semi-annual safeguards monitoring report.

(xiv) Ensure that the GRM established for the project is in place and is working effectively. Ensure proper documentation and support in speedy redressal of grievances.

(xv) Observance of the Contractor's compliance with all contractual ESHS.

6. Contractors

541. According to Procurement Plan, five Contractors will implement the Urban Development sub-components:

(i) **Package UR01:** Constructing a 6ha Public Community Park with 1.2km access road in Havast along with a Training and Co-Working Center in Havast (duration – 12 months)[63];

(ii) **Package UR02:** Area Based Integrated Urban Development in Dustlik, Ittifoq and Yoshlik Mahallas in Djizzak City (construction of road) (duration – 12 months);

(iii) **Package UR03:** Creating Public Open Spaces in Dustlik, Ittifoq and Yoshlik Mahallas in Djizzak City (duration – 12 months);

(iv) **Package UR04:** Constructing a Fully Furnished Tourist Visitor Centre with Digital Museum in Khiva (duration – 12 months);

(v) **Package UR05:** Conversion of 2.4 km Polvon Canal Embankment into Greenway in Khiva (duration 12 months).

542. Contractors will be responsible for EMP/SSEMP implementation during construction phase. Prior to commencing any physical works, SSEMPs including TSEMPs will be developed by the Contractors under the guidance of the PMSC and be endorsed by PMSC before submission to PIU for approval. The SSEMP is the document that the Contractors will prepare outlining how it intends to implement the EMP and ensure that all mitigation and monitoring measures are completed according to the implementation arrangements specified in this EMP. SSEMPs will be needed for major environmental issues and most critical sites relating to sensitive receptors.

543. During the Construction phase, each contractor must retain the expertise of a full-time Environmental Engineer and OHSE to prepare and update the SSEMP and to oversee and report on the SSEMP implementation throughout the contract period.

[63] NFS, 2021

7. Urban Governance & Institutional Strengthening Consultants (UGISC)

544. The objective of the UGISC is supporting MIFT, in achieving the project outputs of strengthening institutional capacity in areas of urban governance and urban services delivery including urban management, and water and sanitation; creating public awareness; strengthening financial and operational sustainability; introducing innovative and technology-driven approaches, implementing livelihood programs, and ensuring gender focus and social inclusion. The scope broadly includes (i) implementing an urban management and urban services capacity development program in the four municipalities, in areas of strategic planning and budgeting, municipal finance, asset management, O&M, e-governance, citizen participation, and private sector cooperation; (iii) implementing a water and sanitation capacity development program for Djizzak water utility; (iv) carrying out a Water Supply Operation Efficiency Improvement Program for Djizzak City; (v) designing and carrying out various awareness campaigns related to areas of intervention including recycling and waste minimization for project communities and toza haduds, (vi) supporting skills and livelihood development in four project cities; and; (vii) targeted activities for integrating gender and social inclusion in urban governance and monitoring and implementing the gender action plan prepared for the project.

545. UGISC will assign water supply specialist and health and safety specialist. Below is a list of major tasks among others required for fully achieving the objective and scope as stated above related to environmental aspects:

(i) Develop and implement an intensive vocational training program for technical staff of Djizzak Suvtaminot, focusing on operating SCADA, GIS and conducting energy efficiency audits;

(ii) Develop a raw, drinking, and wastewater testing concept based on Hazard Analysis and Critical Control Points (HACPP), train laboratory staff, and preparing a drinking water safety plan for the city of Djizzak.

8. Djizzak, Khiva and Havast cities hokimiyats

546. Three hokimiyats will appoint a staff who will be in charge for ensure compliance with national environmental requirements during operation of Open spaces in Djizzak (Component 1.1), Polvon Canal Area in Khiva (Component 1.2), and New Park in Havast (Component 1.4). The hokimyat staff will be in charge for implementation of mitigation measures indicated in EMP. They will conduct EMP monitoring of all comoponents (incluuding Tourist Visitor center in Khiva and Co-Working Center in Havast) and report the result semi-annually to MIFT-PIU who will prepare SAEMR and submit to ADB unti ADB's Project Completion Report is issued (para. 527 on page 194).

547. Djizzak and Khiva hokimiyats will also prepare SEC and submit to provincial branch offices before the respective facility comes into operation (para. 289 on page 124). These two Khomiyats will also develop reports in accordance with requirements indicated in the SEC, in approved tabular formats on annual base and submit them to the provincial SCEEP.

9. Administration of Tourist Visitor Center in Khiva (Component 1.3) and New Park and Co-Working Center in Havast (Component 1.4)

548. Administration office of Tourist Visitor Center, New Park amd Co-Working Center wil be established respectively before these facilities come into operation. Each office will appoint a staff who will be in charge for obtaining and timely updating permissions on discharge wastewater, disposal of solid waste, and providing other relevant information to the SCEEP as it is required by the national regulations. These staff will also conduct EMP monitoring of respective facility and inform the result semi-annually to respective Khokimiyats.

10. SCEEP of Syrdarya (for Havast), Khorezm (for Khiva) and Djizzak Provinces

549. Provincial SCEEPs will be also involved in the process of project implementation and further operation. SCEEP reviewed six PEISs (footnote 3) and issued Environmental Appraisals (**Table 1**). Based on the results of conducted national Environmental Impact Assessment, a list of mitigation measures and monitoring activities are indicated in respective Environmental Appraisal. The requirements are mandatory for implementation during construction phase by the respective project owner. Inspectors from provincial SCEEP will monitor implementation of the requirements indicated in the Environmental Appraisal. Representatives of the SCEEP will also participate in the hand-over process as member of State Acceptance Commission. SCEEP will review the SEC developed by the Djizzak and Khiva Khokimiyats and will approve the document (para. 289 on page 124).

550. The project institution structure is presented in **Figure 89** below.

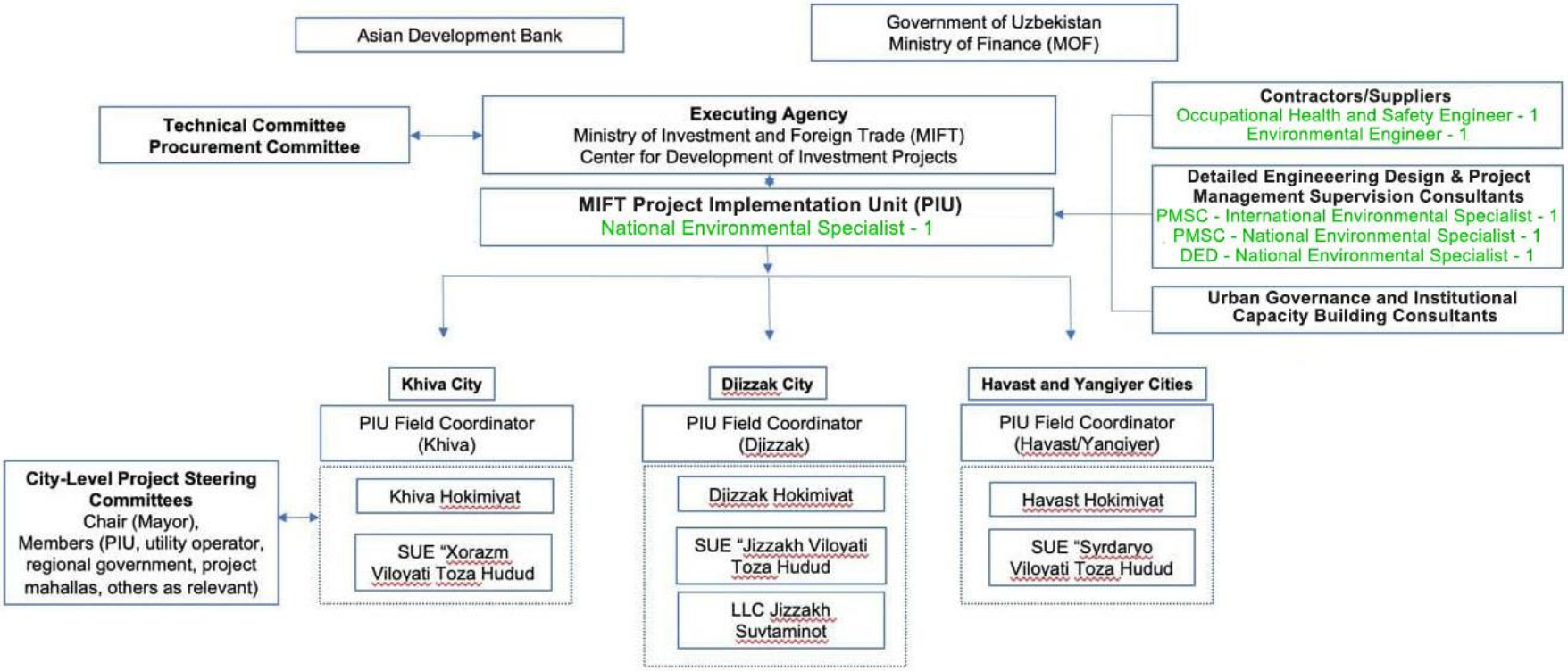


Figure 89: Project's institutional structure and environmental team

E. Capacity building activity

551. Capacity building for the project will be implemented with support of two Consulting firms (i) PMDSC (both DED Consultant and PMSC, footnote 2 and Chapter IX.D.4 on page 196), and (ii) UGISC (Chapter IX.D.7 on page 199). the Project's capacity building on environmental aspects will cover three main directions:

i) ***PIU's and Contractor capacity*** on EMP implementation during construction stage – to enhance PIU's capacity on the EMP implementation, PMSC-IES will provide respective training for PIU staff (including PIU-NES) and PIU Field Coordinators and further assistance in monitoring SSEMP implementation and guidelines for Contractor's environmental engineer and OHSE as required. In case of determining a presence of Asbestos materials in the demolishing buildings, PMSC-IES will support Contractor in developing ACMMP and will conduct separate training for handling and disposal of hazardous materials. Contractor's environmental engineer and OHSE with support of PMSC will also provide training to the workers on SSEMP implementation including occupational health and safety at least on monthly basis.;

ii) ***Cities khokimiyats' capacity*** on overall environmental performance during the project operation – PMSC-IES, PMSC-NES and PIU-NES will develop and conduct training program on general compliance with national environmental requirements such as timely receiving necessary permission, monitoring of environmental performance (during operation) and preparation and submission of reports to respective national agencies and ADB etc. With support of UGISC, the project will support operational efficiency capacity trough implementation of the following activities: (i) training courses on organizational management, financial, asset and quality management for cities khokimiyats, and; (ii) development of a grievance redress mechanism, and performance based corporate business plan for cities khokimiyats.

iii) ***Awareness program for population*** in the project area – the program will be implemented by the UGISC. Among other technical aspects, the UGISC will be responsible for development of educational materials.

552. The tentative plan of required training is presented in **Table 45**.

Table 45: Tentative program of training

Training Agenda	Timing	Recipients	Organizer
For PIU and Contractor (para.551 i))			
Overall EMP implementation, Environmental Monitoring Reports preparation	Prior to commencement of the civil works and refresh training regularly during construction phase	PIU staff including PIU-NES, Contractor workers	PMSC-IES (with PMSC-NES's support)
Handling and disposal of hazardous materials (asbestos)	Before starting works on building demolishing	Same as above	PMSC-IES
SSEMP implementation including occupational health and safety	Prior to commencement of the civil works and refresh training regularly (at least on monthly base) during construction phase	Contractor workers	Contractor's environmental engineer and OHSE with support of PMSC
For Khokimiyats (para.551 ii))			
On general compliance with national environmental requirements	Prior construction and prior commissioning	Khiva, Havast and Khiva Khokimiyats' staff involved in maintenance of project facilities	PMSC-NES (with PMSC-IES's support) and PIU-NES

Training Agenda	Timing	Recipients	Organizer
On occupational health and safety	Regularly (at least on monthly base) during operation period	Same as above	Engineer on health and safety, Department on capital construction under Khokimiyat
Development and implementation of GRM	During construction phase	Khiva, Havast and Khiva Khokimiyats' relevant staff	PMSC-IES and PMSC-NES with UGISC's support
For Khokimiyats (para.551 iii))			
Awareness program: information campaigns on waste reduction, water conservation, environmental awareness, project progress, etc.	During the construction phase	Khiva, Havast and Khiva Khokimiyats' relevant staff and population of the project area	UGISC

EMP = Environmental Management Plan, OHSE = (Contractor's) Occupational Health and Safety Engineer, PIU = Project Implementation Unit, PIU-NES = PIU's National Environmental Specialist, PMSC = Project Management and Supervision Consultant, SSEMP = Site Specific Environmental Management Plan, UGISC= Urban Governance & Institutional Strengthening Consultants

F. Cost estimation for environmental management

553. Costs required for environmental management will cover the following activities:

(i) Implementation of mitigation measures by all parties as indicated in the EMP;
(ii) Payment for cutting trees and planting seedlings;
(iii) Environmental monitoring; and
(iv) Implementation of capacity building program.

554. Although some of the measures included in EMP are an integral part of the civil works (watering, storage of topsoil etc.), some measures (implementation of ACMMP, bio toilets etc.) require additional funds. Cost estimation for environmental management is presented in the below tables. According to Procurement Plan, five Contractors will implement the Urban Development sub-components (para. 541 on page 198). **Table 46** present cost divided by Contractors.

Table 46: Indicative Cost Estimate for Contractor's Environmental Management

Description	Unit	Quantity	Rate	Amount
Package UR01 (12 months construction period)				
Installation of noise and dust protection screens	Lump sum	1	$10,000	$10,000
Noise measurement device	unit	1	$400	$400
Installation of bio toilets	unit	3	$800	$2,400
Environmental Engineer	month	12	$500	$6,000
Occupational Health and Safety Engineer (OHSE)	month	12	$500	$6,000
		Package UR01 Total		**24,800**
Package UR02 (12 months construction period)				
Installation of noise and dust protection screens	Lump sum	1	$10,000	$10,000
Expenses on planting new trees to compensate removed trees[64]	Lump sum	1	$10,000	$10,000
Noise measurement device	unit	1	$400	$400
Installation of bio toilets	unit	3	$800	$2,400
Environmental Engineer	month	12	$500	$6,000

[64] According to the site observation, there are no trees or shrubs on the site which will be cut for construction purposes

Description	Unit	Quantity	Rate	Amount
OHSE	month	12	$500	$6,000
			Package UR02 Total	**34,800**
Package UR03 (12 months construction period)				
Installation of bio toilets	unit	3	$800	$2,400
Noise measurement device	unit	1	$400	$400
Asbestos Management Facility[65]		1	$500	$500
Expenses on planting new trees to compensate removed trees (same as footnote 64)	Lump sum	1	$10,000	$10,000
Installation of noise and dust protection screens	Lump sum	1	$10,000	$10,000
Environmental Engineer	month	12	$500	$6,000
OHSE	month	12	$500	$6,000
			Package UR03 Total	**35,300**
Package UR04 (12 months construction period)				
Installation of noise and dust protection screens	Lump sum	1	$10,000	$10,000
Expenses on planting new trees to compensate removed trees (same as footnote 64)	Lump sum	1	10,000	$10,000
Noise measurement device	unit	1	$400	$400
Installation of bio toilets	unit	3	$800	$2,400
Environmental Engineer	month	12	$500	$6,000
OHSE	month	12	$500	$6,000
			Package UR04 Total	**34,800**
Package UR05 (12 months construction period)				
Installation of noise and dust protection screens	Lump sum	1	$10,000	$10,000
Expenses on planting new trees to compensate removed trees (same as footnote 64)	Lump sum	1	10,000	$10,000
Noise measurement device	unit	1	$400	$400
Installation of bio toilets	unit	3	$800	$ 2,400
Environmental Engineer	month	12	$500	$6,000
OHSE	month	12	$500	$6,000
			Package UR05 Total	**32,400**

555. **Table 47** shows the cost estimate for the PMSC's environmental monitoring required for the Urban Development sub-components, while **Table 48** shows the cost for entire Project (WSS subcomponent, Urban Development Component and Solid Waste Management). Aside from this, DED Consultant (footnote 2) has 3 person-months of a National Environmental Specialist (Chapter IX.D.4 on page 196).

Table 47: Cost Estimate for the PMSC's Environmental Monitoring[66]

Description	Unit	Quantity	Rate	Amount
Surface Water Quality	Sample	**66** (11 locations x 6 times)	$50[67]	$3,300
Air Quality (SO_2, NO_2, CO, Dust)	Sample	**296** [68]	$60[69]	$17,760
Noise measurement	Device	**3**	$400	$1,200
			Sub-Total	**$22,260**
			Contingencies (10%)	$2,260
			Total	**$24,520**

Table 48: Cost Estimate for PMSC's IUDP Environmental Management

[65] Estimated based on Asbestos materials management plan developed for Kyrgyz Republic: Issyk-Kul Sustainable Development Project (2015)
[66] This is prepared in reference to Table 44. Environmental Monitoring Plan.
[67] Unit rate was provided by ASEWPH.
[68] 144 samples in Djizzak (18 locations x 8 times), 32 samples in Khiva (4 locations x 8 times), and 120 samples in Havas (3 loctaions x 40 times)
[69] Unit rate was provided by ASEWPH.

Description	Unit	Quantity	Rate	Amount
International Environmental Specialist (IES)	month	4	$15,400	$61,600
National Environmental Specialist (NES)	month	60	$2,500	$150,000
Environmental Monitoring				
WSS component				$8,096
Urban Development Component				$24,520
Solid Waste Management Component				$ 1,760
Trainings[70]				$0
			Sub-Total	**$245,976**
			Contingencies (10%)	**$24,598**
			Total	**$271,574**

PMSC = Project Management and Supervision Consultant, PMSC-IES = PMSC's International Environmental Specialist, PMSC-NES= PMSC's National Environmental Specialist, WSS = Water Supply and Sanitation

Table 49: Cost Estimate for the PIU's Environmental Management

Description	Unit	Quantity	Rate	Amount
National Environmental Safeguard Specialist	month	60	$1,200	$72,000
			Contingencies (10%)	**$7,200**
			Total	**$79,200**

[70] No additional cost is needed for trainings.

XI. CONCLUSIONS AND RECOMMENDATIONS

556. The IEE has confirmed that the project's urban development component will have environmental impacts limited within the project area, therefore, the project is Category B under ADB SPS.

557. For sub-components six PEISs (footnote 3) and issued Environmental Appraisals (Table 1). Next stage of impact assessment – SEC for Polvon canal in Khiva and Havast park will be required (para. 289 on page 124).

558. The project will be implemented in a populated area, at remote distance from any protected areas. There are no species included in the RUz Red Book or the IUCN Red List in the project area. The main findings and conclusion are presented below by the sub-components:

1. Component 1.1: Urban upgrading of three mahallas (Ittifoq, Dustlik, Yoshlik) in Djizzak

559. The main types of anticipated impact will be: dust emissions, increased noise levels, waste generation. It is expected that hazardous and non-hazardous wastes will be generated. The generation of hazardous wastes (such as asbestos) is possible during dismantling of several buildings in the process of construction of some facilities of open spaces.

560. A significant amount of waste will be generated during rehabilitation and construction of internal roads. The wastes will be disposed in accordance with Waste Management Plan which will cover requirements of national regulation and best practice. Another major impact will be associated with public safety during construction of the open spaces and roads inside the mahallas. To mitigate all identified impacts, SSEMP including TSEMPs (para. 293 on page 124) in accordance with the EMP will be developed.

2. Component 1.2: Improvement of Polvon Canal Area in Khiva

561. The main types of anticipated impact will be: dust emissions, increased noise levels, waste generation. It is not expected that hazardous wastes will be generated. To ensure full implementation of the environmental requirements, environmental monitoring will be conducted following Table 44. If the monitoring results exceed the standards adopted in the document, additional mitigation measures will be required.

562. The project will not cause generation of any greenhouse gases. On the contrary, created green zones will contribute consumption of CO_2 gas and generation O_2. Applied water saving technology for irrigation of green zone will not increase load on water resources.

563. Air quality will also improve due to improvement of conditions of existing roads. Amount generated dust and exhausted gases will decrease due to improved quality of roads.

564. In general, this component of the project will have a significant beneficial effect on the well-being of the population of the project areas, thanks to the creation of improved areas for leisure and sports.

565. Improvement of the banks of the Polvon Canal, along with the improvement of leisure conditions for the population, the construction of a tourist center will increase the tourist potential of the city, which, in turn, will have a positive impact on the socio-economic development of the city.

3. Component 1.3: New Tourist Visitor Center in Khiva

566. Construction of Tourist Visitor Center will increase touristic potential of the city and province in general. Innovation museum will introduce tourists with Khiva heritage.

567. As consequences, this facility will improve socio-economic conditions of the historical city through creation of new job opportunities and landscape and aesthetic improvement.

568. Construction of the visitor center will mainly impact on air quality, increase noise level, traffic and construction waste generation.

569. All identified impact could be mitigated by implementation of measures recommended in EMP. The anticipated negative impacts are minor, while benefits from construction of the Visitor Center is substational.

4. Component 1.4: Development of New Park and Co-working Center in Havast

570. In the case of the city of Havast, the creation of co-working center on the territory of the park will help to increase the educational and creative potential of residents, especially the youth of nearby mahallas and the entire city.

5. Overall

571. For effective implementation of environmental management, it is important to strengthen the institutional capacity through recruitment of qualified environmental and health and safety officer/specialists by all project stakeholders.

572. PIU will ensure a proper functioning of the GRM established under the current IEE and discussed with various stakeholders during Public Consultations which will continue throughout the Project implementation. The Public Consultations will be conducted with due consideration of COVID-19 safety requirements.

573. During the entire project implementation and further operation, it is important to closely cooperate with the local communities, comply with all national environmental requirements, and conduct awareness program to ensure sustainable and safe operation of the facilities developed by the Project.

574. Following requirements of ADB SPS, MIFT will apply pollution prevention and control technologies and practices consistent with international good practice as reflected in internationally recognized standards such as EHS Guidelines. When Government regulations differ from these levels and measures, MIFT will achieve whichever is more stringent. If less stringent levels or measures are appropriate in view of specific project circumstances, MIFT will provide full and detailed justification for any proposed alternatives that are consistent with the requirements presented in ADB SPS.

575. MIFT-PIU will have the right to suspend works or payments if any contractor is in violation of any of its obligations under the EMPs and the IEEs. This IEE will be updated if any unanticipated environmental impacts become apparent during implementation phase and will be submitted to ADB for approval and disclosure on the ADB’s website.

Initial Environmental Examination

June 2022

Republic of Uzbekistan: Integrated Urban Development Project (Urban Subcomponent)

Volume II: Appendices

Prepared by Ministry of Investments and Foreign Trade of the Republic of Uzbekistan for the Asian Development Bank.

LIST OF APPENDICES

APPENDIX 1. Environmental Appraisal of State Environmental Expertise

Khiva Construction of New Visitor Center

O`ZBEKISTON RESPUBLIKASI EKOLOGIYA VA ATROF MUHITNI MUHOFAZA QILISH DAVLAT QO`MITASI
XORAZM VILOYATI EKOLOGIYA VA ATROF MUHITNI MUHOFAZA QILISH BOSHQARMASI
220100, Xorazm viloyati, Urganch shahri, Yoshlik ko`chasi, 1-uy. tel.: 62-224-14-89, faks: 62-224-14-90
elektron manzil: xorazm@uznature.uz E-xat: xorazmtabiat@exat.uz

ДАВЛАТ ЭКОЛОГИК ЭКСПЕРТИЗАСИ ХУЛОСАСИ

По объекту:	Хива шаҳар маркази худудидан кўп тармоқли туристик маркази қурилишининг «Атроф мухитга таъсир тўғрисидаги баёнот» лойиҳаси.
Буюртмачи:	"XIVA SHAHAR OBODONLASHTIRISH BOSHQARMASI" null
СТИР	305111507
Тоифа:	4, п.7, ПКМ РУз №541 от 07.09.2020 г.
Ишлаб чиқувчи:	"PROEKT ECO SERVISE" МЧЖ
Эксперт:	Худайберганов Максуд Алимович

Буюртмачи томонидан Хива шаҳар маркази худудидан кўп тармоқли туристик маркази қурилишига тайёрланган «Атроф муҳитга таъсир тўғрисидаги баёнот» лойиҳаси ҳужжатлари «Хоразм вилояти давлат экологик экспертиза маркази» ДУКга тақдим қилинди. Тақдим қилинган лойиҳанинг асосий мақсади Хива шаҳар маркази худудидан кўп тармоқли туристик маркази қурилиши ва фаолияти жараёнида уни – атроф муҳитга таъсир кўрсатиши тўғрисидаги маълумотларни тўлиқ баҳолашдан иборат. Лойиҳа Ўзбекистон Республикаси Вазирлар Маҳкамасининг OSIYO TARAQQIYOT BANKI ISHTIROKIDA "O`ZBEKISTON RESPUBLIKASIDA SHAHARLARNI RIVOJLANTIRISH LOYIHALARINI TAYYORLASHNI MOLIYALASHTIRISH" LOYIHASINI AMALGA OSHIRISH CHORA-TADBIRLARI TO`G`RISIDAги 07.07.2020 йил № 426-сон қарори ҳамда Ўзбекистон Республикасининг «Табиатни муҳофаза қилиш тўғрисида»ги, «Атмосфера хавосини мухофаза қилиш тўғрисида»ги, «Сув ва сувдан фойдаланиш тўғрисида»ги, «Чиқиндилар тўғрисида»ги, «Экологик экспертиза тўғрисида»ги қонунлари хамда тегишли тартибдаги рахбарий хужжатлар ва КМК, ШНКлар асосида ишлаб чиқилган бўлиб, объект Ўзбекистон Республикаси Вазирлар Маҳкамасининг 2020 йил 07 сентябрдаги 541-сонли «Атроф муҳитга таъсирни баҳолаш механизмини янада такомиллаштириш тўғрисида"ги қарорига асосан атроф-муҳитга таъсир кўрсатишнинг 4-тоифасига мансуб бўлиб, махаллий таъсир кўрсатиш объекти хисобланади. Лойиҳада объектни жойлашган ўрни, минтақанинг иқлими, физик-географик тафсилотлари, тупроқ таркиби, ер ости сувларининг сатхи, ўсимлик ва хайвонот дунёси, объектдан фойдаланиш жараёнида авария содир бўлганда амалга ошириладиган тадбирлар тўғрисида хамда атроф муҳитнинг хозирги холати тўғрисида маълумотлар келтирилган.

Лойиҳа учун танланган ер майдони Хива шаҳрида жойлашган бўлиб, кўп тармоқли туристик марказ хар хил турдаги туризм хизматлари, онлайн ва офлайн музей, конференц зал, тахоратхона ва биотуалет, сан узеллар, савдо хизматлари учун умумий майдони 3746.12 кв.м бўлган кўп қаватли бино, бунда юқоридаги келтирилганлардан ташқари, терраса, юқори қаватида томоша килиш майдончаси, ёрдамчи хоналар ва бошқалар жойлаштирилиши режалаштирилган. Танланган ер майдонида замонавий лойиҳа асосида кўп тармоқли туристик марказ биноси барпо қилиниши, шунингдек йўлаклар майдончалари, чиқиндиларни вақтинча сақлаш майдончаси ва ободонлаштирилган худуд барпо қилиниши режалаштирилган.

Объектда атмосфера хавосига зарарли таъсири кузатилмаслиги лойиҳада қайд қилинган.

Объектнинг сувдан фойдаланиш манбалари: қурилиш даврида фойдаланиладига ва туристик марказ фаолиятидаги ичимлик – хўжалик эхтиёжлари учун яқиндаги сув қувури тармоғидан тегишли ташкилотларнинг техник шартлари асосида олинади. Ишлатиладиган сувнинг умумий миқдори 698м3/йилга тенг бўлиб, хосил бўладиган оқова сувлар шаҳар оқава сув тизимига ташланиши режалаштирилган.

Объект фаолиятидан чиқадиган маиший қаттиқ чиқиндилар ҳисоби йилига 1.035 тоннани ташкил қилиб, қаттиқ чиқиндилар вақтинчалик махсус яшикда тўпланиб, шартнома асосида махсус ташкилот томонидан чиқиндихонага ташиб кетилади.

Лойиҳада объектни ободонлаштириш ва кўкаламзорлаштириш ишлари кўзда тутилган.

«Хоразм вилояти давлат экологик экспертизаси маркази» ДУКга буюртмачи томонидан тақдим қилинган объектни лойиҳа ҳужжатларини экологик экспертизадан ўтказиб, лойиҳада режалаштирилган тадбирлар қабул қилинган табиатни муҳофаза қилиш қонун-қоидаларига ва меъёрий ҳужжатларига зид эмаслиги аниқланди ва юқорида келтирилган маълумот ҳамда тақдим этилган лойиҳа ҳужжатга асосланиб давлат экологик экспертизасининг талаб ва тавсиялари:

-Объектни қурилиш қилишдан олдин, шаҳар қурилиш бўлими, ер ресурслари ва давлат кадастри бўлими, СЭО ва ЖСХ, ЙХХБ, электр, сув ва газ тармоқлари бошқармаси, ички ишлар бўлимининг давлат ёнғиндан сақлаш бўйича назорат бўлимлари томонидан берилган техник шартлар асосида амалда бажариш.

-Ўзбекистон Республикаси Президентининг ПФ-5863-сон ҳамда ПФ-6155-сон Фармонларига биноан давлат ўрмон фондига кирмайдиган дарахтлар ва буталар қиммат баҳо навларининг кесилишига мораторий белгиланганлиги сабабли ушбу фармонлар талабларини амалда бажариш

-Ўзбекистон Республикаси Вазирлар Маҳкамасининг "Биологик ресурслардан фойдаланишни тартибга солиш ва табиатдан фойдаланиш соҳасида рухсат бериш тартиб-таомилларидан ўтиш тартиби тўғрисида"ги 2014 йил 20 октябрь 290-сонли қарори билан тасдиқланган Низомда кўрсатилган талабларга риоя қилиш, мавжуд манзарали дарахт ва буталарни муҳофазасини кучайтириб сақлаб қолиш, дарахтларни ноқонуний кесиш холатларини олдини олиш.

-Объектдан фойдаланишда ҳосил бўлган оқова сувларни бетонлаштирилган оқава сув чуқурчасига ташлаш ва белгиланган тартибда чиқарилиб турилишини таъминлаш, маиший чиқиндилар учун махсус идишлар қўйиш жойи ташкил қилиш, қаттиқ чиқиндиларни мунтазам ташиб чиқариш учун транспорт воситаларини кириб чиқишини таъминлаш, СЭО ва ЖСХ кўрсатмаси асосида қаттиқ чиқиндиларни белгиланган жойларга жойлаштириш.

-Вилоят СЭО ва ЖСХ лаборатория ходимлари ёрдамида қурилиш қилинаётган ер майдони тупроғидан намуна олдириб, захарли кимёвий моддалар қолдиғи бор йўқлиги бўйича тахлилий хулосалар олиш.

-Ўзбекистон Республикаси Вазирлар Махкамасининг 2021 йил 28-январдаги "Қурилиш чиқиндилари билан боғлиқ ишларни амалга ошириш тартибини янада такомиллаштириш чора-тадбирларини янада такомиллаштириш чора-тадбирлари тўғрисида"ги 40-сон қарорининг 1-иловаси билан тасдиқланган "Қурилиш чиқиндилари билан боғлиқ ишларни амалга ошириш тартиби тўғрисидаги Низом талабларирига риоя қилиш, қурилиш чиқиндиларни таалуқлиги бўйича тегишли ташкилотларга муддатларида топширилишини таъминлаш, кам чиқитли технологиялардан ва муқобил энергия турларидан фойдаланиш чораларини кўриш.

-Режалаштирилган объект жойлашувида Ўзбекистон Республикаси Вазирлар Маҳкамасининг 2019 йил 11 декабрдаги "Ўзбекистон Республикаси худудидаги сув обьектларининг сувни муҳофаза қилиш ва санитария-муҳофаза зоналарини белгилаш тартиби тўғрисидаги Низомни тасдиқлаш ҳақида"ги 981-сонли қарори талабларига қатъий риоя қилиш,

-Ўзбекистон Республикаси Вазирлар Махкамасининг 2021 йил 12-апрелдаги «Ўзбекистон Республикаси худудида атроф табиий муҳитни муҳофаза қилишнинг иқтисодий механизмларини янада такомиллаштириш чора-тадбирлари тўғрисида»ги 202-сонли қарори билан тасдиқланган "Ўзбекистон Республикаси худудида атроф табиий муҳит ифлослантирилганлиги ва чиқиндилар жойлаштирилганлиги учун компенсация тўловларини қўллаш тартиби тўғрисида" Низом талабларига фаолияти даврида мунтазам омалга ошириб бориш.

-Объектни қурилиши тугалланиб, эксплуатацияга топшириш комиссиясида экология ва атроф-муҳитни муҳофаза қилиш бошқармаси вакили иштирокини таъминлаш.

Х У Л О С А

Юқорида баён қилиниб ўтилганларга асосланиб, «Хоразм вилояти давлат экологик экспертиза маркази» ДУКга буюртмачи томонидан тақдим қилинган Хива шаҳар маркази худудидан кўп тармоқли туристик маркази қурилишининг «Атроф мухитга таъсир тўғрисидаги баёнот» лойиҳасини маъқуллайди ва уни рўёбга чиқаришга тавсия қилади.

Хоразм вилоят экология ва атроф-муҳитни муҳофаза қилиш бошқармаси Хива шаҳар инспекцияси зиммасига обьектни қурилиши даврида атроф-муҳит муҳофазаси қонунчилиги талабларига риоя қилиш назорати юклатилсин..

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Ташкилот: "XIVA SHAHAR OBODONLASHTIRISH BOSHQARMASI" null

Раҳбар: PARXAD JANIBEKOV LATIPOVICH

Баж.: Худайберганов Максуд Алимович
тел. 95-620-10-42

Хулоса рақами 1/12-1860

Хулоса санаси 27.12.2021

Текшириш учун

Khiva Reconstruction activities along the Polvon canal in Khiva city

O`ZBEKISTON RESPUBLIKASI EKOLOGIYA VA ATROF MUHITNI MUHOFAZA QILISH DAVLAT QO`MITASI
XORAZM VILOYATI EKOLOGIYA VA ATROF MUHITNI MUHOFAZA QILISH BOSHQARMASI

220100, Xorazm viloyati, Urganch shahri, Yoshlik ko`chasi, 1-uy. tel.: 62-224-14-89, faks: 62-224-14-90 elektron manzil: xorazm@uznature.uz E-xat: xorazmtabiat@exat.uz

ДАВЛАТ ЭКОЛОГИК ЭКСПЕРТИЗАСИ ХУЛОСАСИ

По объекту:	Хоразм вилояти Хива шаҳри худудидан оқиб ўтувчи Полвон канали ободонлаштирилишининг «Атроф муҳитга таъсир тўғрисидаги баёнот» лойиҳаси.
Буюртмачи:	"XIVA SHAHAR OBODONLASHTIRISH BOSHQARMASI" null
СТИР	305111507
Тоифа:	3, п.20, ПКМ РУз №541 от 07.09.2020 г.
Ишлаб чиқувчи:	"PROEKT ECO SERVISE" МЧЖ
Эксперт:	Худайберганов Максуд Алимович

Буюртмачи томонидан «Хоразм вилоят давлат экологик экспертизаси маркази» давлат унитар корхонасига давлат экологик экспертизасининг 28.12.2021 йил №1868-сонли хулосасида қайд қилинган камчиликлар тузатилган холда Хоразм вилояти Хива шаҳри худудидан оқиб ўтувчи Полвон канали ободонлаштирилишига қайта тайёрланган “Атроф муҳитга таъсир тўғрисидаги баёнот” лойиҳасини тақдим қилган. Тақдим қилинган лойиҳани асосий мақсади шаҳар худудидан оқиб ўтувчи Полвон каналининг ободонлаштириш ва бетонлаштириш ишларининг атроф муҳитга таъсирини баҳолаш бўлиб, лойиҳа Ўзбекистон Республикаси Вазирлар Маҳкамасининг OSIYO TARAQQIYOT BANKI ISHTIROKIDA “O`ZBEKISTON RESPUBLIKASIDA SHAHARLARNI RIVOJLANTIRISH LOYIHALARINI TAYYORLASHNI MOLIYALASHTIRISH” LOYIHASINI AMALGA OSHIRISH CHORA-TADBIRLARI TO`G`RISIDAги 07.07.2020 йил №426-сон қарори ҳамда Ўзбекистон Республикасининг «Табиатни муҳофаза қилиш тўғрисида»ги, «Атмосфера хавосини муҳофаза қилиш тўғрисида»ги, «Сув ва сувдан фойдаланиш тўғрисида»ги, «Чиқиндилар тўғрисида»ги, «Экологик экспертиза тўғрисида»ги қонунлари хамда тегишли тартибдаги рахбарий хужжатлар асосида ишлаб чиқилган бўлиб, объект Ўзбекистон Республикаси Вазирлар Маҳкамасининг 2020 йил 07 сентябрдаги 541-қарорига мувофиқ, атроф-муҳитга таьсир кўрсатишнинг 3-тоифасига (паст даражада хавфли) фаолият тури хисобланади. Лойиҳада объектни жойлашган ўрни, минтақанинг иқлими, физик-географик тафсилотлари, тупроқ таркиби, ер ости сувларининг сатхи, ўсимлик ва хайвонот дунёси хамда атроф муҳитнинг хозирги холати тўғрисида тўлиқ маълумотлар келтирилган.

Режалаштирилаётган объект ер майдони Хоразм вилояти Хива шаҳри худудидан оқиб ўтувчи Полвон каналининг 3.3 км қисмида икки томонлама қирғоқ бўйининг 7.5мда ободонлаштириш ишлари ва канални бетонлаштириш ишлари бажарилиши лойиҳада қайд қилинган. Бунинг учун 3.3 км узунликда канал тубини лойқадан тозалаш, ён тарафларини тегишли параметрларга келтириб, канал бетонлаштириши, канал қирғоқининг 7.5 метр хар икки томони ободонлаштирилиши- пиёдалар йўлакчалари, велосипед йўлаклари, кўкаламзор худудлар, очиқ бостирмали ўриндиқлар, томоша кўприклари, туташ худудларда 0.2 гектар сунъий қопламали спорт ва болалар ўйин

майдончалари барпо этилади. Бунда биринчи навбатда канал худудига туташ 7.5 метр ер майдонлари текисланиши, тасдиқланган лойиҳа бўйича тупроқ зичланиши, шағал ётқизилиши ва майда донадар иссиқ асфалт бетон қопламаси ётқизилади, сунъий қопламали спорт майдончаси текисланиб, дренаж тизими лоийҳалаштирилиши, сув шимиш менбранаси ўрнатилиши, сунъий қоплама ётқизилиши, чоқлар махсус елим билан ёпиштириш ишлари амалга оширилади. Канални бетонлаштириш ишлари қуйидагиларни ўз ичига олади: канал туби ва ёнларини лойқадан тозалаш, бетонлаштириш учун мосламалар ўрнатиш ва 0.1-0.12 м қалингликда бетон қуйиш ишлари ўтказилади. Бетон махсулотлар (5000 тн) хажмда махсус қурилиш корхонаси майдончасида тайёрланган холда бетон ташиш транспортларида келтирилиб, каналда бетонлаштириш ишларида фойдаланиш режалаштирилган.

Обьектда атмосфера хавосига таъсири асосан ташкиллаштирилмаган манбалардан, жумладан ер майдонларини текислаш, асфалт аралашмасини ва бетон махсулотларини ётқизиш, ишларида қатнашадиган механизм ва техникалардан ҳамда спорт майдончаларга ётқизиладиган сунъий қоплама чокларини елимлаш ишларидан кузатилиб, атмосфера хавосига жами 0.67221 тн/йил, шу жумладан 0.229912 тн/йил неорганик чанг, 0.00265058 тн/йил углерод оксиди, 0.00106043 тн/йил азот икки оксиди, 0.00041096 тн/йил қурум, 0.43739508 тн/йил углеводородлар буғлари, 0.000134 тн/йил ксилол, 0.000059 тн/йил бутилацетат каби ифлослантирувчи моддалар ташланиши лойиҳада қайд қилинган. Атмосфера юзасидаги ифлослантирувчи модданинг корхона чегарасидаги ер усти максимал концентрациялари УПРЗА “Эко центр” дастурида амалга оширилиб, хисоб натижаларига барча ифлослантирувчи моддаларнинг корхона чегарасида тарқалиш майдонлари хосил бўлмаганлиги ва белгиланган меъёрлардан /квота/ ошмаслиги лойиҳада келтирилган.

Объектни ободонлаштирилиши ва фаолияти мобайнида атроф мухитга чиқиндилар хосил бўлиши ва оқавалар чиқарилиши қайд қилинган. Жумладан қазиш, қайта кўмиш, бетон ишларини бажарилишидан катнашадиган ишчилардан хосил бўлиши кутилган кутилган 1.0 тн/йил маиший-хўжалик чиқиндилар хосил бўлиб, вактинчалик чиқиндиларни сақлаш майдончаларида сақланиб, буюртмачи корхонаси томонидан олиб чиқиб кетилиши, 0.035 тн/йил латта (ветош) чиқиндиси хосил бўлиб, махсус беркитиладиган сиғимларда сақланиб, чиқиндихоналарга чиқарилиши, 8250 кв.м канал тубини тозалашдан хосил бўлган 6.6 тн/йил лойқа чиқиндиси фермер хўжаликлари далаларига ерлар хосилдорлигини ошириш учун чиқарилиши ҳамда сунъий қопламали спорт майдончасига сарфланган 8 тонна хом ашёсининг беш йил мобайнида ишлатилишидан хосил бўлиши кутилган 0.48 тн/йил чиқиндиси махсус корхоналарга қайта ишлаш учун топширилиши, бетонлаштириш ишларидан хосил бўлиши кутилган 25 тн бетон махсулотлари чиқиндилари ободонлаштириш ва йўл қурилиш ташкилотларига қайта ишлатилиши учун чиқарилиши лойихада қайд қилинган.

Объектда сув ичимлик-хўжалик эхтиёжлари учун 130 м3/йил сув келтирилиб фойдаланишни ташкил қилиб, хосил бўлган оқавалар махсус шимувчанликка қарши биохожатхонага ташланиши ва махсус автотранспортларда олиб чиқилиши режалаштирилган. Лойиҳада келиб чикиши мумкин бўлган авария холатларини олдини олиш чора-тадбирлари ва атроф-худудини ободонлаштиришни амалда бажариш лойихада келтирилган.

Юқоридаги лойиҳа хужжатларини кўриб чиқиб, “Хоразм вилоят давлат экологик экспертизаси маркази” давлат унитар корхонаси обьектни давлат экологик экспертизасидан ўтказиб, тақдим қилинган лойиҳадаги обьект фаолияти натижасида атроф муҳит муҳофазаси билан боғлик харакатдаги қонунлар талабларига мослигини эътироф қилиб, куйидагиларни инобатга олишни:

-ободонлаштириш ва қурилиш ишлари бошланишидан олдин, шаҳар қурилиш бўлими, ер ресурслари ва давлат кадастри бўлими, СЭО ва ЖСХ, ЙХХБ, фавқулодда вазиятлар бошқармаси, электр , сув оқава ва газ тармоқлари бошқармаси ҳамда ички ишлар бўлимининг ёнғиндан сақлаш бўйича назорат бўлимлари томонидан берилган техник шартлар асосида амалда бажариш,

-Ўзбекистон Республикаси Вазирлар Маҳкамасининг “Биологик ресурслардан фойдаланишни тартибга солиш ва табиатдан фойдаланиш соҳасида рухсат бериш тартиб-таомилларидан ўтиш тартиби тўғрисида”ги 2014 йил 20 октябрь 290-сонли қарори билан тасдиқланган Низомда кўрсатилган талабларга риоя қилиш, мавжуд манзарали дарахт ва буталарни муҳофазасини кучайтириб сақлаб қолиш, дарахтларни ноқонуний кесиш холатларини олдини олиш.

-Ўзбекистон Республикаси Президентининг ПФ-5863-сон ҳамда ПФ-6155-сон Фармонларига биноан давлат ўрмон фондига кирмайдиган дарахтлар ва буталар қиммат баҳо навларининг кесилишига мораторий белгиланганлиги сабабли ушбу фармонлар талабларини амалда бажариш

-Ўзбекистон Республикаси Вазирлар Маҳкамасининг 2019 йил 11 декабрдаги "Ўзбекистон Республикаси худудидаги сув обьектларининг сувни муҳофаза қилиш ва санитария-муҳофаза зоналарини белгилаш тартиби тўғрисидаги Низомни тасдиқлаш ҳақида"ги 981-сонли қарори талабларига қатьий риоя қилиш,

-Объектдан маиший чиқиндилар учун махсус идишлар қўйиш жойи ташкил қилиш, қаттиқ чиқиндиларни мунтазам ташиб чиқариш учун транспорт воситаларини кириб чиқишини таъминлаш, СЭО ва ЖСХ кўрсатмаси асосида қаттиқ чиқиндиларни белгиланган жойларга жойлашириш, худуда биохожатхона ўрнатилишини таъминлаш.

-Вилоят СЭО ва ЖСХ лаборатория ходимлари ёрдамида қурилиш қилинаётган ер майдони тупроғидан намуна олдириб, захарли кимёвий моддалар қолдиғи бор йўқлиги бўйича тахлилий хулосалар олиш.

-Ўзбекистон Республикаси Вазирлар Маккамасининг 2021 йил 28-январдаги "Қурилиш чиқиндилари билан боғлиқ ишларни амалга ошириш тартибини янада такомиллаштириш чора-тадбирларини янада такомиллаштириш чора-тадбирлари тўғрисида"ги 40-сон қарорининг 1-иловаси билан тасдиқланган "Қурилиш чиқиндилари билан боғлиқ ишларни амалга ошириш тартиби тўғрисидаги Низом талабларирига риоя қилиш, хосил бўлган қурилиш ва бошқа чиқиндиларни таалуқлиги бўйича тегишли ташкилотларга муддатларида топширилишини таьминлаш, кам чиқитли технологиялардан ва муқобил энергия турларидан фойдаланиш чораларини кўриш.

-Сув хўжалиги органларининг техник шартларига қатьий риоя қилиш,

-обьектда ишлатиладиган механизмларнинг ёқилғи мойлаш махсулотлари билан таъминлаш ишларини махсус темир тўшамали майдончаларда амалга ошириш, механизмлар кўриги ва таьмирлаш ишларини корхона базаси худудида режалаштириб, канал қирғоқ бўйини нефт махсулотлари билан ифлосланишини олдини олиш чораларини кўриш,

-ташиш ишларида банд бўлган автотранспортларни белгиланган йўллардан харакатланишини таьминлаб, ўсимлик дунёси обьектларини зарарланишини олдини олиш чораларини кўриш,

-Объектда ободонлаштириш ва қўрилиш ишлари тугалланиб, эксплуатацияга топшириш жараёнида вилоят экология ва атроф муҳитни муҳофаза қилиш бошқармаси вакилини қатнашишини таьминлаш,

Х У Л О С А

Юқорида кўрсатилган талабларни бажариш шарти билан Хоразм вилояти Хива шаҳри худудидан оқиб ўтувчи Полвон канали ободонлаштирилишининг «Атроф муҳитга таъсир тўғрисидаги баёнот» лойиҳасисини маъқуллайди ва уни рўёбга чиқаришга тавсия қилади. Ушбу талабларни бажариш устидан назорат қилиб бориш вилоят экология ва атроф-муҳитни муҳофаза қилиш бошқармаси Хива шаҳар инспекцияси зиммасига юклатилсин.

Ташкилот: "XIVA SHAHAR OBODONLASHTIRISH BOSHQARMASI" null

Раҳбар: PARXAD JANIBEKOV LATIPOVICH

Баж.: Худайберганов Максуд Алимович
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Номер заключения 1874

Дата заключения 30.12.2021

Для проверки

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Д А В Л А Т
ЭКОЛОГИК ЭКСПЕРТИЗА ХУЛОСАСИ

Объект:	Ховос тумани Бунёдкор МФЙ ҳудудидан қурилиши режалаштирилаётган "Истироҳат боғи ва коворкинг биноси" нинг "Атроф муҳитга таъсири тўғрисидаги баёнот" лойиҳаси (пр.ЗВОС).
Буюртмачи:	"XOVOS TUMANI HOKIMLIGI"
СТИР	200970355
Тоифа:	IV, п. 7, ЎзР ВМҚ № 541 07.09.2020
Ишлаб чиқувчи:	"PROEKT ECO SERVISE" МЧЖ
Эксперт:	Камалов Комилжон Курбанбаевич

Ташкилот:	"XOVOS TUMANI HOKIMLIGI"
Раҳбар:	UCHKUN KAMOLOV IBROGIMOVICH

Ховос тумани ҳокимлиги томонидан тақдим этилган ҳужжати, яъни Ховос тумани Бунёдкор МФЙ ҳудудидан қурилиши режалаштирилаётган "Истироҳат боғи ва коворкинг биноси" нинг "Атроф муҳитга таъсири тўғрисидаги баёнот" лойиҳаси ўрганилиб таҳлил этилганда қуйидагилар маълум бўлди.

Объектнинг атроф муҳитга ўтказадиган таъсири IV тоифадаги маҳаллий таъсир кўрсатиш объектлар турига мансуб бўлиб, унинг фаолияти атроф муҳитнинг салбий ўзгаришини келтириб чиқармайди.

Истироҳат боғи ва коворкинг биноси қурилиши учун 60000,0 м² ер майдони ажратилган. Шундан қаттиқ ер майдони 20300,0 м² ни, кўкаламзорлаштириш майдони 35200,0 м² ни ташкил этади.

Объект шимол ва шарқ томонлардан бўш ер майдони билан билан, ғарб томондан 200 метр масофадаги қурилиш майдонлари билан, жануб томондан ички йўл билан чегараланган.

Истироҳат боғи ва коворкинг биноси фаолиятида 15 киши иш билан таъминланиши режалаштирилган.

Объект фаолияти давомида ичимлик суви туман марказий сув таъминоти тармоғидан фойдаланилади. Ичимлик эхтиёжини қондиришдаги сув сарфи йиллик 76,25 м³ ни, ички хўжалик эхтиёжини қондиришдаги сув сарфи йиллик 0,374 м3 ни, санитария гигиеник ҳолатини яхшилашдаги сув сарфи йиллик 0,04 м3 ни, ошхона фаолияти учун сув сарфи йиллик 0,06 м3 ни, қаттиқ ер майдонидан чанг чиқишини олдини олиш мақсадида сарфланадиган сув миқдори йиллик 0,03 м3 ни, кўкаламзорлаштириш майдонига сарфланадиган сув миқдори йиллик 19267,2 м3 ни ташкил этади.

Оқава сувлари махсус гидроизоляция қилинган қувурлар канализация тизимига ташланади. Йилнинг ёғингарчилик мавсумида ҳосил бўладиган оқава сувлар объект ҳудудидан тўсиқсиз чиқиб кетиши таъминланилади.

Объект фаолияти давомида асосан маиший ва супуринди чиқиндилар ҳосил бўлади. Шундан маиший чиқиндилар йиллик 0,75 тн/ни, объект ичидан чиқадиган супуринди чиқиндилар йиллик 1,8 тн/ни, қаттиқ ер майдонидан чиқадиган супуринди чиқиндилар йиллик 2,75 тн/ни, кўкаламзорлаштириш майдонидан чиқадиган супуринди чиқиндилар йиллик 1073,6 тн/ни ташкил этиши кўрсатилган. Маиший чиқиндилар махсус ажратилган контейнерда вақтинча сақланади ва туман чиқиндихонасига чиқариб ташланади.

Шу билан биргаликда яроқсиз ҳолга келувчи акфа чироқлари йиллик 0,0006 тн/ни ташкил этади.

Объектнинг қурилиши ва кейинги фаолияти ШНҚ 02.07.01–03 "Шаҳар ва қишлоқ аҳоли пунктлари ҳудудларини ривожлантириш ва қурилишини режалаштириш" меъёрлари асосида барпо этилиши тақдимот лойиҳа ҳужжатида эътироф этилган.

Объект "Табиатни муҳофаза қилиш тўғрисида"ги Қонуни ва ҳаракатдаги бошқа меъёрий ҳужжатлар асосида барпо этилади.

Давлат экологик экспертиза марказига тақдим этилган ҳужжати, яъни Ховос тумани Бунёдкор МФЙ ҳудудидан қурилиши режалаштирилаётган "Истироҳат боғи ва коворкинг биноси" нинг "Атроф муҳитга таъсири тўғрисидаги баёнот" лойиҳа ҳужжати Ўзбекистон Республикасининг "Экологик экспертиза тўғрисида"ги Қонуни ҳамда Ўзбекистон Республикаси Вазирлар Маҳкамасининг 07.09.2020 йилдаги "Атроф муҳитга таъсирини баҳолаш механизмини янада такомиллаштириш тўғрисида" ги
№ 541-сонли қарорлари талабларига мувофиқ келиши маълум бўлди.

Юқорида келтирилган маълумотлар ҳамда тақдим этилган ҳужжатга асосланиб давлат экологик экспертизасининг талаб ва тавсиялари:

· Қурилиш ишлари олиб бориш даврида иншоотлар қуриш ёки йўл чиқаришда бирор бир дарахт кесиш лозим бўлган ҳолда Ўзбекистон Республикаси Вазирлар Маҳкамасининг 2018 йил 31 мартдаги 255-сон қарорига кўра дарахтларни кесишга рухсатнома расмийлаштириш учун Давлат хизматлари марказига мурожаат қилиши лозим. Манзарали дарахтларга кесиш учун рухсатнома берилмаган тақдирда қурилиш лойиҳаларини манзарали дарахтларга зарар етказилмаган холда амалга ошириш талаб этилади.

· Ўзбекистон Республикаси Вазирлар Маҳкамасининг 2021 йил 12 апрелдаги "Ўзбекистон Республикаси ҳудудида атроф табиий муҳитни муҳофаза қилишнинг иқтисодий механизмларини янада такомиллаштириш тўғрисида" 202-сон қарорига асосан компенсация тўловлари амалга оширилсин.

· Объект худудида кўкаламзорлаштириш амалларини олиб бориш жараёнида ичимлик сувидан фойдаланиш тақиқланади.

· Ҳосил этиладиган маиший чиқиндилар махсус контейнерга жойлансин ва "Тоза ҳудуд" ДУК билан шартнома асосида туман чиқиндихонасига чиқарилиши таъминлансин.

· Мутасадди ташкилот ва корхоналарнинг техник шартларига риоя қилинсин.

· Йилнинг ёғингарчилик мавсумида ҳосил бўладиган оқава сувлар объект ҳудудидан тўсиқсиз чиқиб кетиши таъминлансин.

· Объект ҳудудида ҳар қандай чиқинди турларини ёқилиши таъқиқланади.

· Ободонлаштириш ва кўкаламзорлаштириш мақсадида баҳор ва куз ойлари объект ҳудуди бўйлаб кислородга бой бўлган ҳар хил декоратив дарахтлар экилсин.

· Давлат экологик экспертиза маркази талаб ва тавсияларини бажарилиши масъулияти Ховос тумани ҳокимлиги раҳбарияти зиммасига юклатилади.

Ўзбекистон Республикасининг "Табиатни муҳофаза қилиш тўғрисида" ги қонунига асосланиб Сирдарё вилоят Экология ва атроф-муҳитни муҳофаза қилиш бошқармаси давлат экологик экспертиза маркази Ховос тумани ҳокимлиги томонидан тақдим этилган ҳужжати, яъни Ховос тумани Бунёдкор МФЙ ҳудудидан қурилиши режалаштирилаётган "Истироҳат боғи ва коворкинг биноси" нинг "Атроф муҳитга таъсири тўғрисидаги баёнот" лойиҳаси ҳамда юқорида келтирилган талаб ва тавсияларга риоя қилган холда маъқуллайди.

Ушбу хулосада кўрсатилмаган фаолият турлари амалга оширилиши режалаштирилса, буюртмачи томонидан давлат экологик экспертиза марказига белгиланган тартибда "Атроф муҳитга таъсирини баҳолаш" лойиҳаси тақдим этилиши шарт.

Давлат экологик экспертиза маркази талаб ва тавсияларининг бажарилишининг назорати Сирдарё вилояти Экология ва атроф-муҳитни мухофаза қилиш бошқармаси Ховос тумани инспекцияси зиммасига юклатилсин.

Баж: Камалов Комилжон Курбанбаевич
тел: 67-225-06-39

Номер заключения 10/610

Дата заключения 15.11.2021

Для проверки

APPENDIX 2. Sample of Asbestos-Containing Materials Management Plan

The Asbestos-Containing Materials Management Plan (ACMMP) describes and evaluates the risk of contractors (and others) encountering asbestos-containing material (ACM) at the Project construction sites during the implementation stage of the project; and it provides a procedure for dealing quickly and safely with any ACM that may be found.

The ADB *Safeguard Policy Statement* (SPS) requires that ADB-funded projects apply pollution prevention and control technologies and health and safety measures that are consistent with international good practice, as reflected in international standards such as the IFC/World Bank *Environmental, Health and Safety General Guidelines* (2007). If national legislation differs from these standards, the borrower is required to achieve whichever is more stringent. There is national procedure Sanitarian Norms and Rules (SNR) of RUz # 0300-11 dated from 2011 "Organization of collection, inventory, classification, disposal, storage and recycling of industrial waste in the conditions of Uzbekistan" covering disposal of ACM[1] in Uzbekistan. However, the procedure does provide clear description of handling ACM, therefore, the ACMMP follows the World Bank Guidelines.
The main principles of the ACMMP are as follows:

A. Prompt recognition of ACM;

B. Prompt and effective action to contain and deal appropriately with the ACM (including safe management and disposal); and

C. Maintaining the safety of site personnel and the general public at all times.

The ACMMP is designed for use by the Project's Project Implementation Unit (PIU) to manage the ACM risk over the project as a whole, and by contractors to deal efficiently with any ACM they or their workers encounter. The procedural element of the ACMMP is therefore designed to provide straightforward instructions that can be easily and quickly understood without the need for specialist knowledge and without referring to other sources.

PROTOCOL FOR HANDLING AND DISPOSAL OF ACM AT IUDP SITES

A. Source

This protocol was developed from guidance given by the UK Health and Safety Executive (HSE), which complies with European Union (EU) legislation and the UK *Control of Asbestos Regulations* (2012). For further information see the HSE website: http://www.hse.gov.uk/asbestos/essentials/[2]

B. Applicability

The Project ACMMP applies to all project construction sites and any related areas (eg workshops, parking lots, storage or disposal areas, etc. used by Project contractors). Contractors employed by Project are legally responsible for their construction sites and related areas and must follow the provisions of the Project ACMMP within those locations. Specifically, this protocol must be used to ensure the safe handling, removal and disposal of any and all ACM from those areas.

C. Immediate Action

On discovering ACM on the Project site, the Contractor must:

a) Stop all work within a 5 m radius of the ACM and evacuate all personnel from this area;

b) Delimit the 5 m radius with secure fencing posts, warning tape and easily visible signs warning of the presence of asbestos;

[1] Uzbek Sanitary Norms SanPiN 0233-07 "National standards "Sanitarian Norms and Rules on Work Hygiene and Environment Protection during production and usage of ACM" was one of a number of pieces of legislation deregulated in the 1980's. Notwithstanding their lack of legal status, as the most recently-available local standard, the regulations were referred to in preparing the ACMMP and the protocol for handling and disposal of ACM (see Section 3) incorporates soil covering requirements from the SanPin.

[2] ADB's Good Practice Guidance for the Management and Control of Asbestos: Protecting Workplaces and Communities from Asbestos Exposure Risks (Mar 2022) <Good Practice Guidance for the Management and Control of Asbestos: Protecting Workplaces and Communities from Asbestos Exposure Risks | Asian Development Bank (adb.org)> will also be referred when the ACMMP is prepared.

c) If the site is in an inhabited area, place a security guard at the edge of the site with instructions to keep the general public away;

d) Notify the Project Management and Design Supervision Consultant (PM&DSC) and Environmental Supervisors and arrange an immediate site inspection; also notify the PIU.

The PIU must:

e) Notify the Territorial Department of the State Sanitary Epidemiological Service.

D. Equipment

To remove asbestos from a construction site, contractors must provide the following equipment:

a) Warning tape, sturdy fence posts and warning notices;

b) Shovels;

c) Water supply and hose, fitted with a garden-type spray attachment;

d) Bucket of water and rags;

e) Sacks of clear, strong polythene that can be tied to close;

f) Asbestos waste containers (empty, clean, sealable metal drums, clearly labelled as containing asbestos).

E. Personal Protective Equipment (PPE)

All personnel involved in handling ACM must wear the following equipment, provided by the contractor:

g) Disposable overalls fitted with a hood;

h) Boots without laces;

i) New, strong rubber gloves;

j) A respirator is not normally required if there are only a few pieces of ACM in a small area, and if the ACM is damp;

k) In large or heavily contaminated areas, a disposable respirator is needed (not a dust mask) with an Assigned Protection Factor of 20 or more (e.g. a respirator with a P3 filter);

l) There must be no smoking, eating or drinking on a site containing ACM.

F. a. Decontamination Procedure 1: Removing small pieces of ACM

a) Identify the location of all visible ACM and spray each lightly but thoroughly with water;

b) Once the ACM is damp, pick up all visible ACM with shovels and place in a clear plastic bag;

c) If ACM debris is partially buried in soil, remove it from the soil using a shovel and place it in the plastic bag;

d) Insert a large label inside each plastic bag stating clearly that the contents contain asbestos and are dangerous to human health and must not be handled;

e) Tie the plastic bags securely and place them into labelled asbestos waste containers (clean metal drums) and seal each drum;

f) Soil that contained ACM debris must not be used for backfill and must instead be shoveled by hand into asbestos waste containers;

g) At the end of the operation, clean all shovels and any other equipment with wet rags and place the rags into plastic disposal bags inside asbestos waste containers.

F. b. Decontamination Procedure 2: Removing ACM-contaminated backfill

a) If soil containing ACM debris has inadvertently been used for backfill this must be sprayed lightly with water and shoveled out by hand to a depth of 300 mm and placed directly into asbestos waste containers (i.e. not stored temporarily beside the trench);

b) Any ACM uncovered during the hand shoveling must be placed in a clear plastic bag;

c) Once the trench has been re-excavated to 300 mm, if there is no visible ACM remaining, the trench may be refilled by excavator using imported clean topsoil.

F. c. Decontamination Procedure 3: Removing AC pipes or large pieces of ACM

1. If AC pipes or other large pieces of ACM are uncovered during excavation in an undamaged condition and they can be re-covered by soil and left in place in the ground undisturbed, this should be done. If AC pipes or other large pieces of ACM need to be removed from site:

a) Inform the city Toza Hudud of the nature and size of the large ACM and arrange for them to dig a suitable cavity at the disposal site to receive and bury the material;

b) Sprinkle the ACM thoroughly with water, ensuring that any broken or damaged areas in particular are thoroughly wetted;

c) Inform excavator and truck drivers of the dangers associated with ACM and instruct them to remain inside their cabs with the windows closed throughout the operation.

d) Lift the material by excavator into a dump truck, without causing additional breakage and with as little disturbance as possible;

e) Cover the bed of the truck with a secure tarpaulin and transport the ACM to the disposal site with as little disturbance of the carried material as possible;

f) Manual assistance should be limited to securing the tarpaulin if possible, and personnel providing such assistance should wear PPE as indicated in Section E;

g) At the disposal site, tip the ACM directly into the prepared cavity and arrange for it to be covered with soil immediately.

G. Disposal

2. ACM should be disposed of safely at a local hazardous-waste disposal site if available, or at the city municipal dumpsite after making prior arrangement for safe storage with the site operator.

- The Contractor must arrange for the disposal site operator to collect the sealed asbestos waste containers as soon as possible and store them undisturbed at the disposal site.
- At the end of construction Contractors must arrange for the disposal site operator to bury all ACM containers in a separate, suitably-sized pit, covered with a layer of clay that is at least 250 mm deep.

a) Personal Decontamination

At the end of each day, all personnel involved in handling ACM must comply with the following decontamination procedure:

- At the end of the decontamination operation, clean the boots thoroughly with damp rags;
- Peel off the disposable overalls and plastic gloves so that they are inside-out and place them in a plastic sack with the rags used to clean the boots;
- If a disposable respirator has been used, place that in the plastic sack, seal the sack and place it in an asbestos waste container;
- All personnel should wash thoroughly before leaving the site, and the washing area must be cleaned with damp rags afterwards, which are placed in plastic sacks as above.

b) Clearance and Checking-Off

- The decontamination exercise must be supervised by PM&DSC site supervisors (engineering or environmental).
- After successful completion of the decontamination and disposal, the PM&DSC should visually inspect the area and sign-off the operation if the site has been cleaned satisfactorily.

- The contractor should send a copy of the completion notice to the PIU, with photographs of the operation in progress and the site on completion.

TRAINING

PM&DSC's Environmental Specialist will conduct training on ACMMP implementation for Contractors staff and PIU. The training will include a session focusing on ACM, which covered:

a. Risks of contact with ACM (in general and the IUDP risk assessment);

b. Responsibilities for dealing with ACM on IUDP construction sites;

c. The IUDP ACMMP and the Protocol for site clean-up;

d. Awareness-raising for the contractors' workforce.

COST ESTIMATE

Costs incurred by contractors in implementing the ACMMP are included in their budget in EMP budget.

APPENDIX 3: Chance finds procedure

1. Purpose

Construction sites could be considered as subject to heritage survey and assessment at the planning stage. These surveys are based on surface indications alone, and it is therefore possible that sites or items of heritage significance will be found in the course of development work. The procedure set out here covers the reporting and management of such finds.

Scope: The "chance finds" procedure covers the actions to be taken from the discovery of a heritage site or item, to its investigation and assessment by a trained archaeologist or other appropriately qualified person.

Compliance: The "chance finds" procedure is intended to ensure compliance with relevant provisions of the Law of RUz "On protection and Use of Objective of the Archeological Heritage" (2009). The procedure of reporting set out below must be observed so that heritage remains reported to the Ministry of Archeology are correctly identified in the field.

2. Responsibility

Operators/Workers - To exercise due caution if archaeological remains are found

Foreman/construction site manager - To secure site and advise management timeously

Contractor's manager - To determine safe working boundary and request inspection

Archaeologist: To inspect, identify, advise management, and recover remains

3. Procedure

MITIGATION/MONITORING ACTION	RESPONSIBILITY	SCHEDULE
Should a heritage site or archaeological site be uncovered or discovered during the construction phase of the project, the "change find" procedure should be applied. The details of this procedure are highlighted below:	Person identifying archaeological or heritage material	When necessary.
• If operating machinery or equipment: stop work • Identify the site with flag tape • Determine GPS position if possible • Cease any works in immediate vicinity	Person identifying archaeological or heritage material	
• Report findings to foreman • Report findings, site location and actions taken to superintendent	Foreman/construction site manager	

• Visit site and determine whether work can proceed without damage to findings • Determine and mark exclusion boundary • Site location and details to be added to project GIS for field confirmation by archaeologist	Contractor's manager	
• Inspect site and confirm addition to project GIS • Advise the Ministry of Archeology (MoA) and request written permission to remove findings from work area • Recovery, packaging and labelling of findings for transfer to National Museum	Archaeologist	
• Should human remains be found, the following actions will be required: ➢ Apply the change find procedure as described above. ➢ Schedule a field inspection with an archaeologist to confirm that remains are human. ➢ Advise and liaise with the (MoA) and Police ➢ Remains will be recovered and removed either to the National Museum or the National Forensic Laboratory.	Archaeologist Representatives of Khokimiyat and Ministry of Archeology Police	

APPENDIX 4. Template for Traffic Management Plan

TRAFFIC MANAGEMENT PLAN

(Template)

GENERAL INFORMATION

1. Full postal address of the site
2. Contact details for the person responsible for submitting the Site-Specific Traffic Management Plan (Name, tel., e-mail)
3. Brief description of the work.

PROGRAMME/KEY DATES

4. A broad-brush program and total timescale for the project, giving the duration of each major phase of the construction and the anticipated start date if known. There are examples of works which could be included in the Table:

#	Type of work	Planning start date	Duration	Completion
1	Mobilization			
2	Demolishing of building			
3	Leveling of the territory			
4	Earth works			
5	Construction of the main buildings			
6	Finishing works			
7	Equipment installation			
8	Site cleaning			

5. Indicate site operation date and hours.

ROUTEING OF DEMOLITION, EXCAVATION AND CONSTRUCTION VEHICLE

6. Proposed supply route to and from the site, showing details of links to the strategic road network (A and B roads). – provide a map with indication directions.

SITE ACCESS

7. Site plan showing all points of access and where materials, skips and plant will be stored, and how vehicles will access the site.
8. How will vehicles enter and leave the site?
9. Provide plan of site with indication of above-mentioned items (para 7 and 8)

VEHICLES ACCESSING THE SITE PER DAY/WEEK

10. Provide a breakdown of the number, type, size and weight of vehicles accessing the site.
11. Deliveries and collections should generally be restricted to between 9.30am and 4.30pm. Please confirm your acceptance to this condition and describe how it will be forced.
12. Provide information will vehicle wheel wash facilities be provided or not. If yes, describe who it will be organized.

IMPACT ON OTHER ROAD USERS

13. Site plan showing all points of access and where materials, skips and plant will by stored, and how vehicles will access the site.

GENERAL MANAGEMENT

14. Indicate who will be responsible for overall management of CTMP and coordination with local Traffic Police

APPENDIX 5: Report on results of baseline environmental monitoring

Djizzak

Air quality and Noise

Methodology of analysis:

- Air quality - SanPIN 0293-11
- Noise - SanPIN 0325-16

Date: July, 2021

Measuring instruments:

- Psychrometer "HANNA"
- Aspirator
- Sound level meter "ВШВ 003"

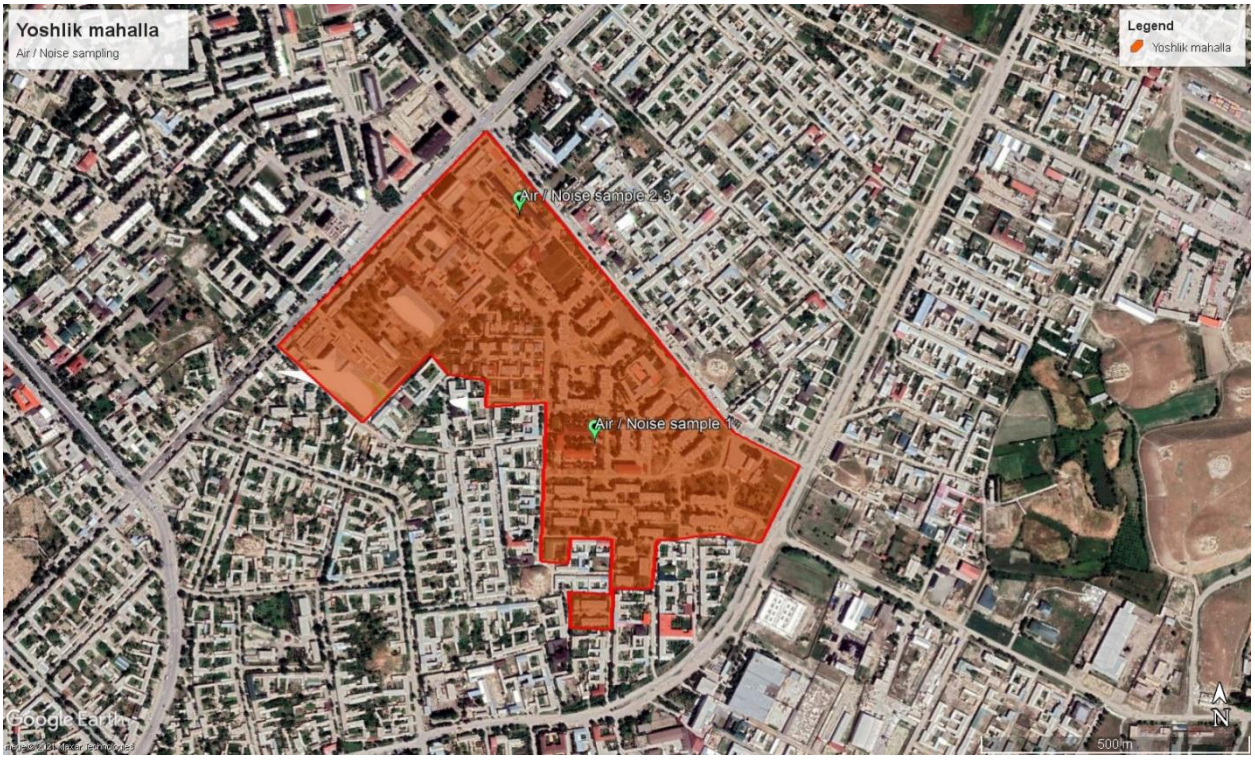


Figure 1: Sampling in Yoshlik mahalla

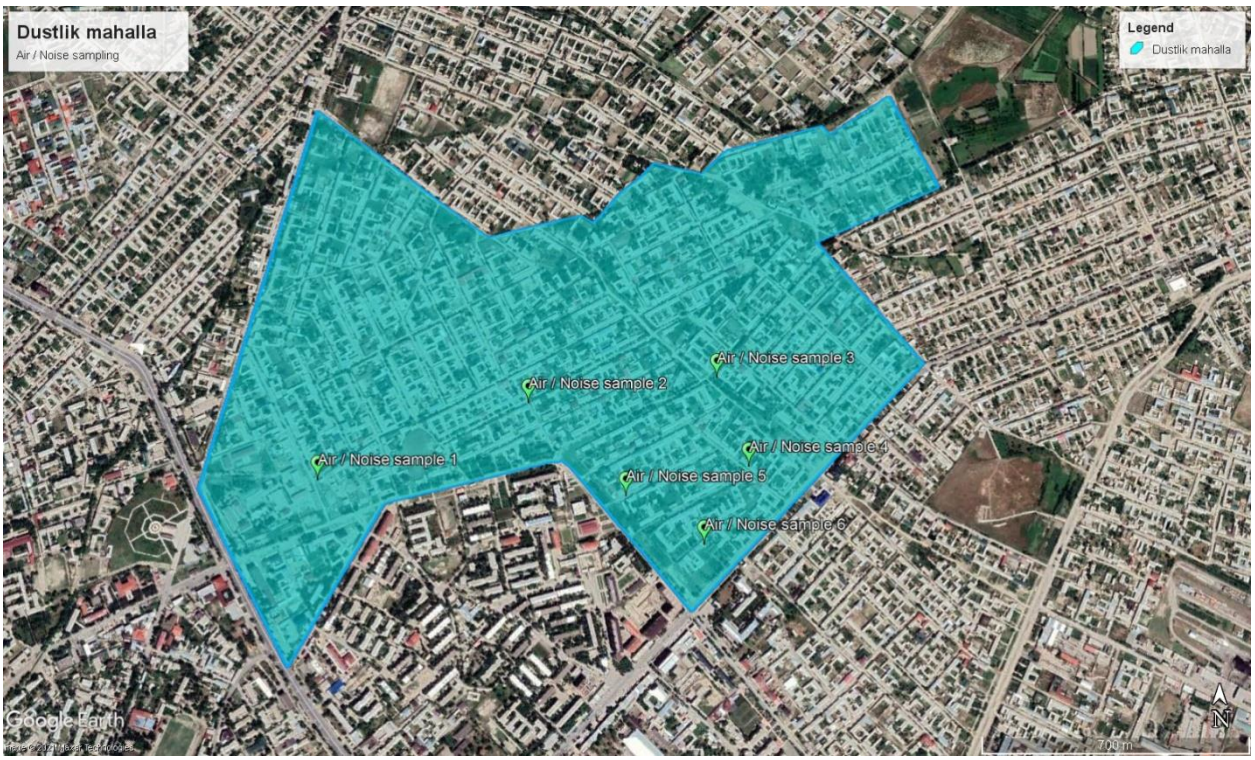


Figure 2: Sampling in Dustlik mahalla

Figure 3: Sampling in Ittifoq mahalla

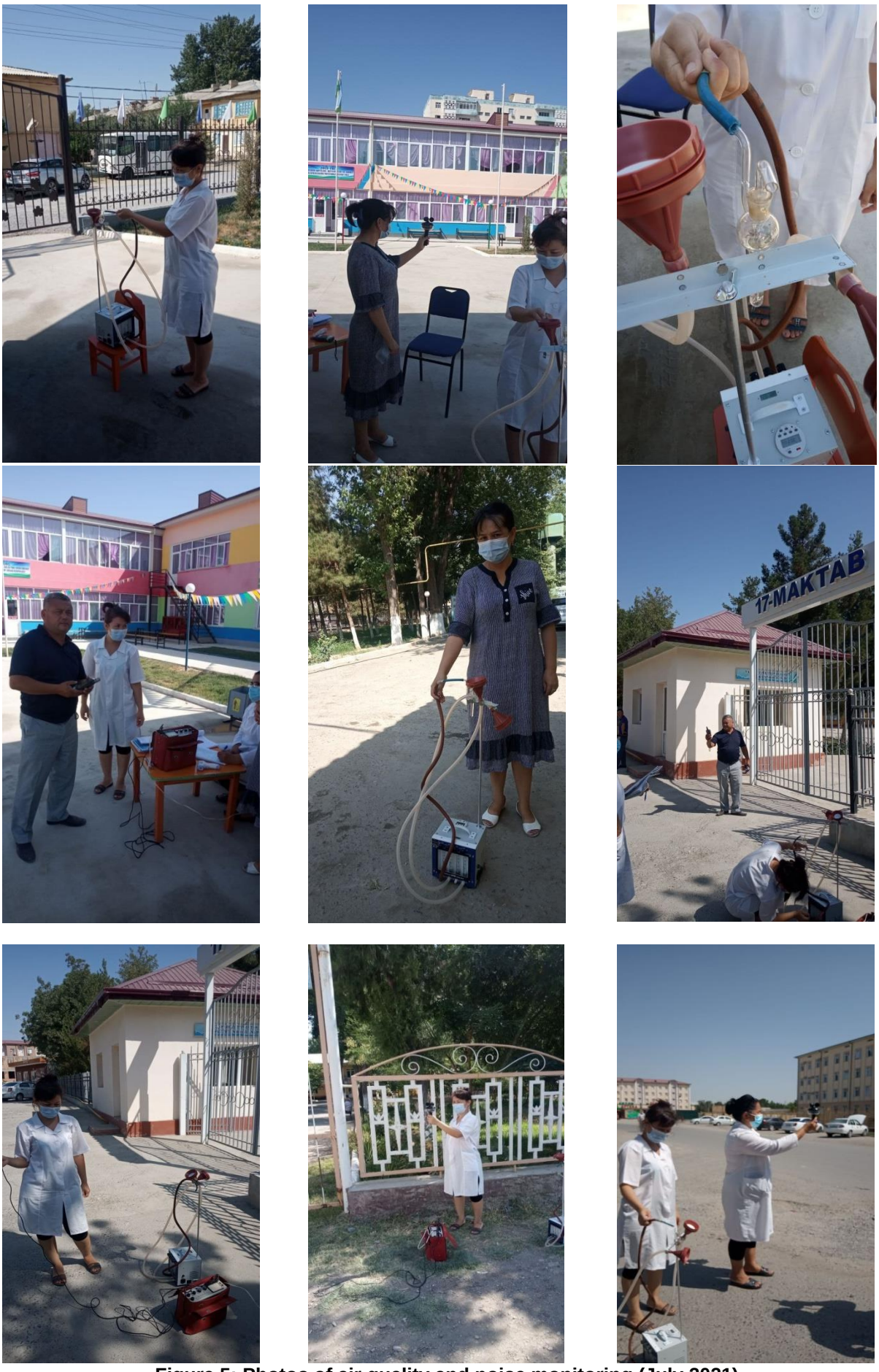


Figure 5: Photos of air quality and noise monitoring (July 2021)

Table 1: Results of Air quality analysis

#	Location	Name of pollutant and concentration, mg/m3								Coordinates
		NO_2		SO_2		CO		Dust		
		Actual	Standard	Actual	Standard	Actual	Standard	Actual	Standard	
Makhalla Yoshlik										
1	Near the Kindergarten #32	-	0,6	-	0,5	-	5,0	0,1	0,5	40.109972° 67.867708°
2	Near the Institute of Obstetrics and Gynecology 1	-	0,6	-	0,5	-	5,0	0,14	0,5	40.113768° 67.866101°
3	Near the Institute of Obstetrics and Gynecology 2	-	0,6	-	0,5	-	5,0	0,18	0,5	40.113765° 67.866538°
Makhalla Ittifoq										
1	Near the Kindergarten #36	-	0,6	-	0,5	-	5,0	0,11	0,5	40.114690° 67.854151°
2	Near the Neurological Hospital	-	0,6	-	0,5	-	5,0	0,13	0,5	40.115100° 67.856708°
3	Near the school #17	-	0,6	-	0,5	-	5,0	0,2	0,5	40.116816° 67.857706°
4	Near the Specialized Art School	-	0,6	-	0,5	0,015	5,0	0,22	0,5	40.116007° 67.858508°
5	Near the Endocrinological Dispensary	-	0,6	-	0,5	0,02	5,0	0,24	0,5	40.115861° 67.853792°
6	Near the Kindergarten #9	-	0,6	-	0,5	-	5,0	0,12	0,5	40.115116° 67.860776°
7	Near the Children's Sports School		0,6	-	0,5	0,015	5,0	0,25	0,5	40.117871° 67.861598°
8	Near Family Clinic #4		0,6	-	0,5	0,02	5,0	0,2	0,5	40.116784° 67.862811°
9	Near the School #7		0,6	-	0,5	-	5,0	0,11	0,5	40.112780° 67.860940°
	Makhalla Dustlik									
1	Sugdiyona Street	-	0,6	-	0,5	-	5,0	0,16	0,5	40.118340° 67.853475°
2	Nurlitepa Street	-	0,6	-	0,5	-	5,0	0,18	0,5	40.120210° 67.860154°
3	Near Confectionery	-	0,6	-	0,5	0,13	5,0	0,22	0,5	40.122028° 67.864448°

#	Location	Name of pollutant and concentration, mg/m3								Coordinates
		NO_2		SO_2		CO		Dust		
		Actual	Standard	Actual	Standard	Actual	Standard	Actual	Standard	
4	Tongotar Street	-	0,6	-	0,5	-	5,0	0,14	0,5	40.119908° 67.865438°
5	Ziyokor Street	-	0,6	-	0,5	-	5,0	0,17	0,5	40.117980° 67.863200°
6	Ziyokor 1 A Street	-	0,6	-	0,5	0,12	5,0	0,19	0,5	40.116901° 67.865714°

Table 2: Results of noise analysis

№	Location	Day time (7 am – 11 pm) Night time (11 pm - 7 am)	Sound pressure levels, dB, in octave frequency bands with geometric mean frequencies, Hz											Noise level (equivalent noise level in db)	Standard	Coordinates
			8	16	31,5	63	125	250	500	1000	2000	4000	8000			
Yoshlik makhalla																
1	Near the Kindergarten #32	Day time			79	55	50	45	36	33	32	30	28	48db	35	40.109972° 67.867708°
		Night time			78	56	50	43	38	32	31	30	29		35	
2	Near the Institute of Obstetrics and Gynecology 1	Day time			78	62	48	42	40	35	37	34	29		35	40.113768° 67.866101°
		Night time			78	59	48	42	42	38	41	34	30	52db	35	
3	Near the Institute of Obstetrics and Gynecology 2	Day time			79	63	49	43	41	36	38	36	28		35	40.113765° 67.866538°
		Night time			79	60	49	43	44	38	41	34	30	52db	35	
Ittifoq makhalla																
1	Near the Kindergarten #36	Day time			82	70	59	54	50	48	45	43	41	52db	35	40.114690° 67.854151°
		Night time			81	68	57	52	49	47	43	41	40		35	
2	Near the Neurological Hospital	Day time			79	69	59	52	49	47	43	41	40	54db	35	40.115100° 67.856708°
		Night time			79	60	49	43	44	38	41	34	30		35	
3	Near the School #17	Day time			79	69	59	52	49	47	43	41	40	54db	35	40.116816° 67.857706°
		Night time			79	60	49	43	44	38	41	34	30		35	
4		Day time			79	60	49	43	44	38	41	34	30	53db	40	40.116007° 67.858508°

№	Location	Day time (7 am – 11 pm) Night time (11 pm - 7 am)	Sound pressure levels, dB, in octave frequency bands with geometric mean frequencies, Hz											Noise level (equivalent noise level in db)	Standard	Coordinates
			8	16	31,5	63	125	250	500	1000	2000	4000	8000			
	Near the Specialized Art School	Night time			78	59	48	44	43	39	40	35	31		40	
5	Near the Endocrinological Dispensary	Day time			82	70	59	54	50	48	45	43	41	58db	35	40.115861° 67.853792°
		Night time			81	68	57	52	49	47	43	41	40		35	
6	Near the Kindergarten #9	Day time			79	55	50	45	36	33	32	30	28	48db	35	40.115116° 67.860776°
		Night time			78	56	50	43	38	32	31	30	29		35	
7	Near the Children's Sports School	Day time			60	58	56	54	52	50	50	44	44	56db	40	40.117871° 67.861598°
		Night time			59	57	55	54	50	49	49	42	42		40	
8	Near the Family Clinic	Day time			59	57	58	55	53	51	49	45	43	56db	35	40.116784° 67.862811°
		Night time			59	57	55	54	50	49	49	42	42		35	
9	Near the School #7	Day time			60	58	56	54	52	50	50	44	44	53db	40	40.112780° 67.860940°
		Night time			59	57	55	54	50	49	49	42	42		40	
Dustlik makhalla																
10	Sugdiyona Street	Day time			75	68	58	52	49	46	44	42	40	46db	55	40.118340° 67.853475°
		Night time			72	58	56	51	48	46	42	40	39		45	

№	Location	Day time (7 am – 11 pm) Night time (11 pm - 7 am)	Sound pressure levels, dB, in octave frequency bands with geometric mean frequencies, Hz											Noise level (equivalent noise level in db)	Standard	Coordinates
			8	16	31,5	63	125	250	500	1000	2000	4000	8000			
11	Nurlitepa Street	Day time			79	69	59	52	48	47	43	42	40	48db	55	40.120210° 67.860154°
		Night time			79	67	58	51	47	47	42	41	39		45	
12	Near Confectionery	Day time			79	60	49	43	44	38	41	34	30	53db	60	40.122028° 67.864448°
		Night time			78	59	48	44	43	39	40	35	31		60	
13	Tongotar Street	Day time			77	73	58	52	51	47	44	42	40	50db	55	40.119908° 67.865438°
		Night time			79	67	56	51	48	46	42	40	39		45	
14	Ziyokor Street	Day time			79	55	50	45	36	33	32	30	28	49db	55	40.117980° 67.863200°
		Night time			78	56	50	43	38	32	31	30	29		45	
15	Ziyokor 1 A Street	Day time			60	58	56	54	52	50	50	44	44	51db	55	40.116901° 67.865714°
		Night time			59	57	55	54	50	49	49	42	42		45	

Havast
Air quality and Noise

Methodology of analysis:

- Air quality - SanPin 0293-11
- Noise - SanPin 0325-16; SanPin 0065-96; O'z DSt 0008-20
- SanPin 0318-15

Date: June, 2021

Measuring instruments:

- Gaz Analyser
- Sound level meter "ВШВ 003-М3"

Note: Upon arrival at the site for water sampling, the water itself was not found in the canal

Figure 6: Sampling in Bunyodkor mahalla

Table 3: Results of Air quality analysis

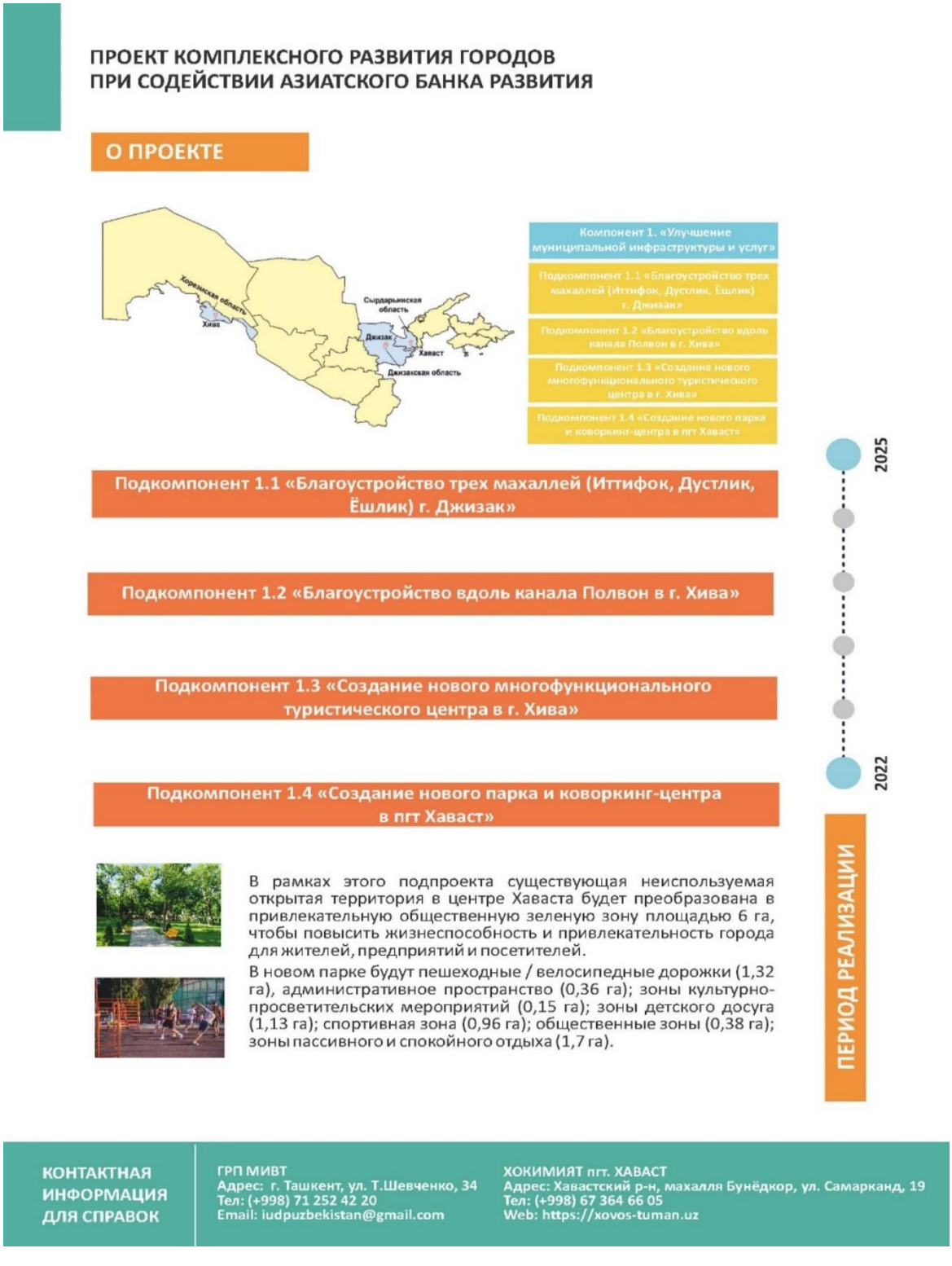
#	Location	Name of pollutant and concentration, mg/m3								Coordinates
		NO_2		SO_2		CO		Dust		
		Actual	Standard	Actual	Standard	Actual	Standard	Actual	Standard	
Makhalla Bunyodkor										
1	Near North Settlement	-	0,6	-	0,5	-	5,0	-	0,5	40.233227° 68.833433°
2	Near West Settlement	-	0,6	-	0,5	-	5,0	-	0,5	40.226244° 68.827306°
3	Near East Settlement	-	0,6	-	0,5	-	5,0	-	0,5	40.229294° 68.837888°

Table 4: Results of noise analysis

№	Location	Day time (7 am – 11 pm) Night time (11 pm - 7 am)	Sound pressure levels, dB, in octave frequency bands with geometric mean frequencies, Hz											Noise level (equivalent noise level in db)	Standard	Coordinates
			8	16	31,5	63	125	250	500	1000	2000	4000	8000			
Makhalla Bunyodkor																
1	Near North Settlement	Day time			61,9	55,1	45,1	40,4	37,7	30,8	27,2	24,8	21,5	37.1db	35	40.233227° 68.833433°°
		Night time			-	-	-	-	-	-	-	-	-	-	35	
2	Near West Settlement	Day time			62,2	56,4	46,8	41,3	36,1	32	27,4	25,2	21,9	37,5db	35	40.226244° 68.827306°
		Night time			-	-	-	-	-	-	-	-	-	-	35	
3	Near East Settlement	Day time			68,2	60,2	50,6	43,3	38,3	36,8	31,2	33,9	32,4	44,3db	35	40.229294° 68.837888°
		Night time			-	-	-	-	-	-	-	-	-	-	35	

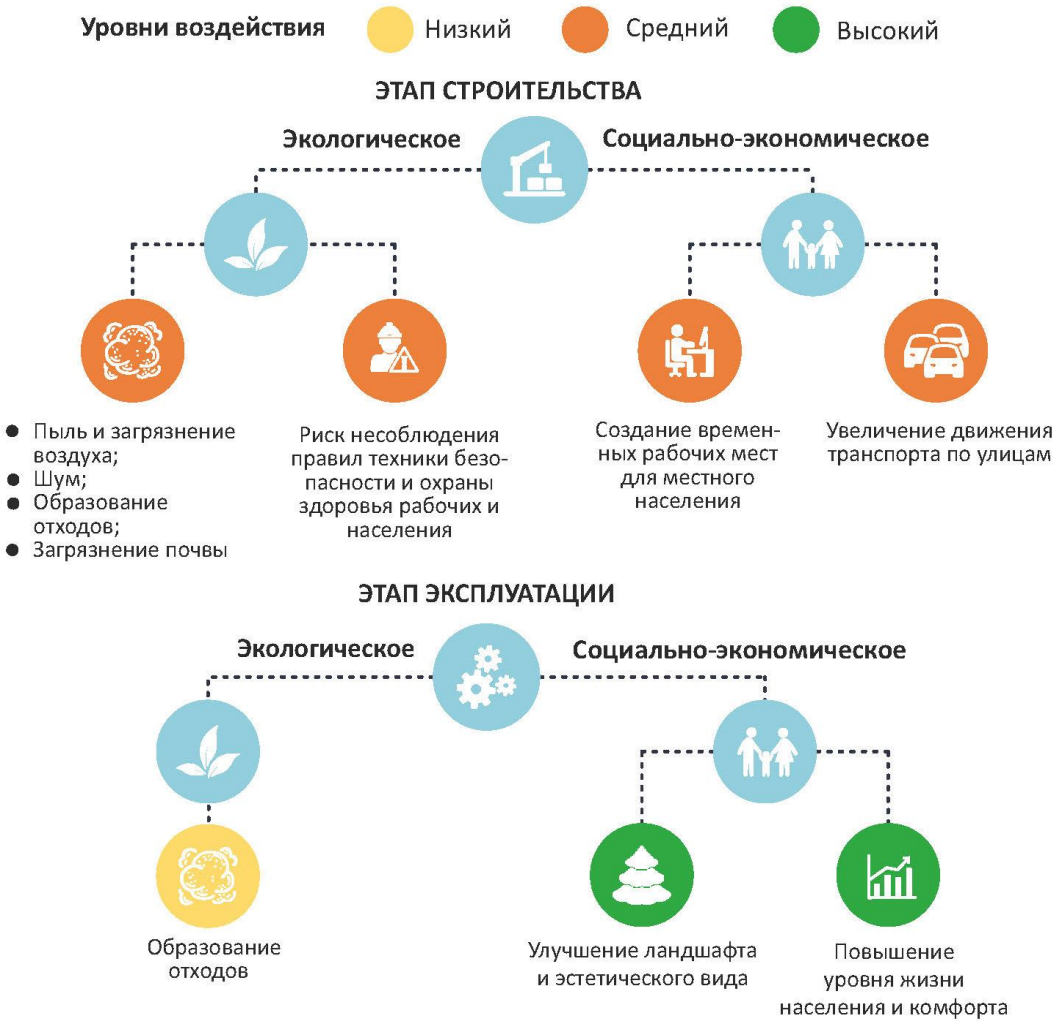
APPENDIX 6: Leaflet distributed during the Public Consultation

Havast city (Russian)
Russian version



СОБЛЮДЕНИЕ ЗАЩИТНЫХ МЕР ПРИ РЕАЛИЗАЦИИ ПРОЕКТА

Первоначальная экологическая оценка (ПЭО) и **национальный документ - Заявление о воздействии на окружающую среду** будут проводиться в соответствии с Положением о Политике по Защитным Мерам (2009 г.) Азиатского Банка Развития (АБР) и национальным экологическим законодательством. Целью ОВОС является определение типов воздействий проекта на этапах строительства и эксплуатации. Ниже приводится краткое изложение основных воздействий:



Для смягчения негативных воздействий в рамках Проекта будут разработаны *План по управлению окружающей средой (ПУОС) и План управления и мониторинга охраны труда и техники безопасности (ПУМОТТБ).*

КОНТАКТНАЯ ИНФОРМАЦИЯ ДЛЯ СПРАВОК

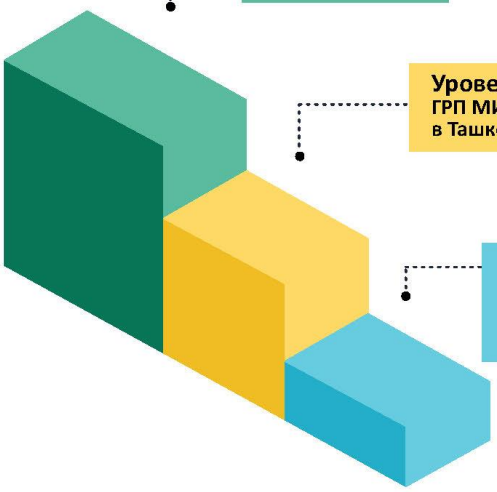
ГРП МИВТ
Адрес: г. Ташкент, ул. Т.Шевченко, 34
Тел: (+998) 71 252 42 20
Email: iudpuzbekistan@gmail.com

ХОКИМИЯТ пгт. ХАВАСТ
Адрес: Хавастский р-н, махалля Бунёдкор, ул. Самарканд, 19
Тел: (+998) 67 364 66 05
Web: https://xovos-tuman.uz

ПРОЕКТ КОМПЛЕКСНОГО РАЗВИТИЯ ГОРОДОВ ПРИ СОДЕЙСТВИИ АЗИАТСКОГО БАНКА РАЗВИТИЯ

РАСКРЫТИЕ ИНФОРМАЦИИ И МЕХАНИЗМ РАССМОТРЕНИЯ ЖАЛОБ

Печатные версии результатов экологической оценки будут предоставлены в махаллинские комитеты, городской хокимият и Госкомэкологии, где можно ознакомиться с документами и оставить свои комментарии.



Уровень 3: **Механизм подотчетности АБР и Экономический суд РУз**

- Заявители жалоб также могут использовать Механизм подотчетности АБР путем прямого обращения в Штаб Квартиру в Маниле.
- Люди, затронутые проектом, могут обратиться в Экономический суд в любой момент во время рассмотрения жалобы.

Уровень 2: **ГРП МИВТ РУз в Ташкенте**

- Регистрация жалоб производится специалистом по защитным мерам в ГРП МИВТ РУз;
- Обсуждение и решение выносится в течении 15-20 дней.

Уровень 1: **Региональные ГРП и бенефициары Проекта**

- Регистрация жалоб местным специалистом РГРП;
- Параллельно РГРП информирует соответствующего бенефициара проекта (подрядной организации, сход граждан махалли, хокимият пгт. Хаваста) о поступившем обращении
- Обсуждение и решение в течение 14 дней.

- **ГРП –** Группа реализации проекта
- **РГРП –** Региональная группа реализации Проекта
- **МИВТ –** Министерство инвестиций и внешней торговли
- **АБР –** Азиатский Банк Развития

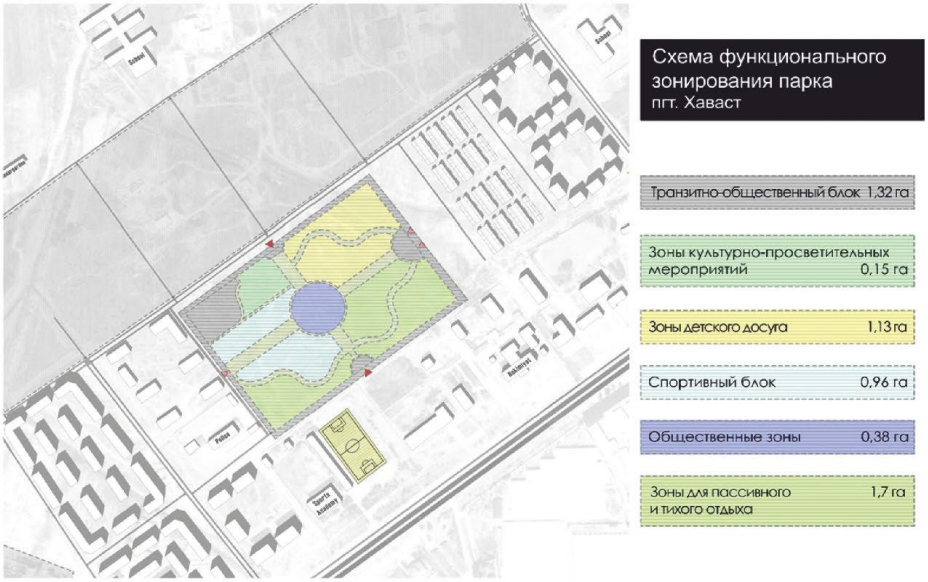
КОНТАКТНАЯ ИНФОРМАЦИЯ ДЛЯ СПРАВОК

ГРП МИВТ
Адрес: г. Ташкент, ул. Т.Шевченко, 34
Тел: (+998) 71 252 42 20
Email: iudpuzbekistan@gmail.com

ХОКИМИЯТ пгт. ХАВАСТ
Адрес: Хавастский р-н, махалля Бунёдкор, ул. Самарканд, 19
Тел: (+998) 67 364 66 05
Web: https://xovos-tuman.uz

ПРОЕКТ КОМПЛЕКСНОГО РАЗВИТИЯ ГОРОДОВ
ПРИ СОДЕЙСТВИИ АЗИАТСКОГО БАНКА РАЗВИТИЯ

СОЗДАНИЕ НОВОГО ПАРКА И КОВОРКИНГ-ЦЕНТРА В ПГТ ХАВАСТ



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Djizzak city (Russian)

ПРОЕКТ КОМПЛЕКСНОГО РАЗВИТИЯ ГОРОДОВ
ПРИ СОДЕЙСТВИИ АЗИАТСКОГО БАНКА РАЗВИТИЯ

СИТУАЦИОННЫЙ ПЛАН БЛАГОУСТРОЙСТВА В МАХАЛЛЕ ИТТИФОК

СИТУАЦИОННЫЙ ПЛАН БЛАГОУСТРОЙСТВА В МАХАЛЛЕ ДУСТЛИК

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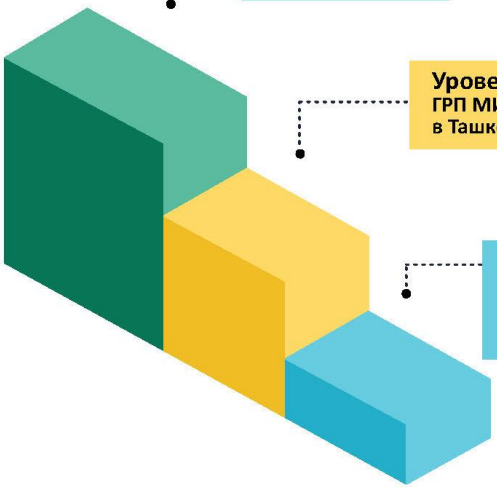
ПРОЕКТ КОМПЛЕКСНОГО РАЗВИТИЯ ГОРОДОВ ПРИ СОДЕЙСТВИИ АЗИАТСКОГО БАНКА РАЗВИТИЯ

РАСКРЫТИЕ ИНФОРМАЦИИ И МЕХАНИЗМ РАССМОТРЕНИЯ ЖАЛОБ

Печатные версии результатов экологической оценки будут предоставлены в махаллинские комитеты, городской хокимият и Госкомэкологии, где можно ознакомиться с документами и оставить свои комментарии.



Уровень 3: **Механизм подотчетности АБР и Экономический суд РУз**

- Заявители жалоб также могут использовать Механизм подотчетности АБР путем прямого обращения в Штаб Квартиру в Маниле.
- Люди, затронутые проектом, могут обратиться в Экономический суд в любой момент во время рассмотрения жалобы.

Уровень 2: **ГРП МИВТ РУз в Ташкенте**

- Регистрация жалоб производится специалистом по защитным мерам в ГРП МИВТ РУз;
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- **ГРП –** Группа реализации проекта
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ПРОЕКТ КОМПЛЕКСНОГО РАЗВИТИЯ ГОРОДОВ ПРИ СОДЕЙСТВИИ АЗИАТСКОГО БАНКА РАЗВИТИЯ

СОБЛЮДЕНИЕ ЗАЩИТНЫХ МЕР ПРИ РЕАЛИЗАЦИИ ПРОЕКТА

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Для смягчения негативных воздействий в рамках Проекта будут разработаны План по управлению окружающей средой (ПУОС) и План управления и мониторинга охраны труда и техники безопасности (ПУМОТТБ).

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- Подкомпонент 1.4 «Создание нового парка и коворкинг-центра в пгт Хаваст»

Подкомпонент 1.1 «Благоустройство трех махаллей (Иттифок, Дустлик, Ёшлик) г. Джизак»

Восстановление дорог в трех махаллях города Джизак, в том числе: в махалле Иттифок - 7,3 км, в махалле Дустлик - 21,6 км, в махалле Ёшлик - 2,5 км.

Создание «открытых пространств» в трех махаллях города Джизак, в том числе: в махалле Иттифок - 5,2 га, в махалле Дустлик - 4,0 га, в махалле Ёшлик - 2,8 га и модернизация автобусной остановки в махалле Иттифок.

Подкомпонент 1.2 «Благоустройство вдоль канала Полвон в г. Хива»

Подкомпонент 1.3 «Создание нового многофункционального туристического центра в г. Хива»

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ПЕРИОД РЕАЛИЗАЦИИ

2022 — 2025

КОНТАКТНАЯ ИНФОРМАЦИЯ ДЛЯ СПРАВОК

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СИТУАЦИОННЫЙ ПЛАН БЛАГОУСТРОЙСТВА В МАХАЛЛЕ ЁШЛИК

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Khiva city (Russian)

ПРОЕКТ КОМПЛЕКСНОГО РАЗВИТИЯ ГОРОДОВ ПРИ СОДЕЙСТВИИ АЗИАТСКОГО БАНКА РАЗВИТИЯ

РАСКРЫТИЕ ИНФОРМАЦИИ И МЕХАНИЗМ РАССМОТРЕНИЯ ЖАЛОБ

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ХОКИМИЯТ г. ХИВА
Адрес: г. Хива, ул. Наджмиддина Кубро, 27
Тел: (+998) 62 377 50 00; (+998) 62 377 50 53

СОБЛЮДЕНИЕ ЗАЩИТНЫХ МЕР ПРИ РЕАЛИЗАЦИИ ПРОЕКТА

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ПРОЕКТ КОМПЛЕКСНОГО РАЗВИТИЯ ГОРОДОВ ПРИ СОДЕЙСТВИИ АЗИАТСКОГО БАНКА РАЗВИТИЯ

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- Подкомпонент 1.3 «Создание нового многофункционального туристического центра в г. Хива»
- Подкомпонент 1.4 «Создание нового парка и коворкинг-центра в пгт Хаваст»

Подкомпонент 1.1 «Благоустройство трех махаллей (Иттифок, Дустлик, Ёшлик) г. Джизак»

Подкомпонент 1.2 «Благоустройство вдоль канала Полвон в г. Хива»

Планируется создание линейной зоны протяженностью 2,3 км вдоль канала Полвон.

В рамках этого планируется создание пешеходных и велосипедных дорожек, зеленой зоны, декоративной тенистой беседки, декоративных смотровых мостиков, детской и спортивной площадки (футбольное поле, теннисный корт, баскетбольная площадка).

Подкомпонент 1.3 «Создание нового многофункционального туристического центра в г. Хива»

В рамках подпроекта будет построен двухэтажный многофункциональный центр для посетителей площадью 3500-4000 м2 с информационным столом, офисами, торговыми площадями, помещениями для продуктов питания и напитков, а также местами для демонстрации изделий ручной работы.

В центре также будет представлен первый в Узбекистане цифровой музей, демонстрирующий наследие Хивинского Шелкового пути.

Центр будет дополнен автостоянкой (80 мест), местом для проката велосипедов (10 велосипедов), подъездной дорогой и декоративным озеленением.

Подкомпонент 1.4 «Создание нового парка и коворкинг-центра в пгт Хаваст»

ПЕРИОД РЕАЛИЗАЦИИ

2022 — 2025

КОНТАКТНАЯ ИНФОРМАЦИЯ ДЛЯ СПРАВОК

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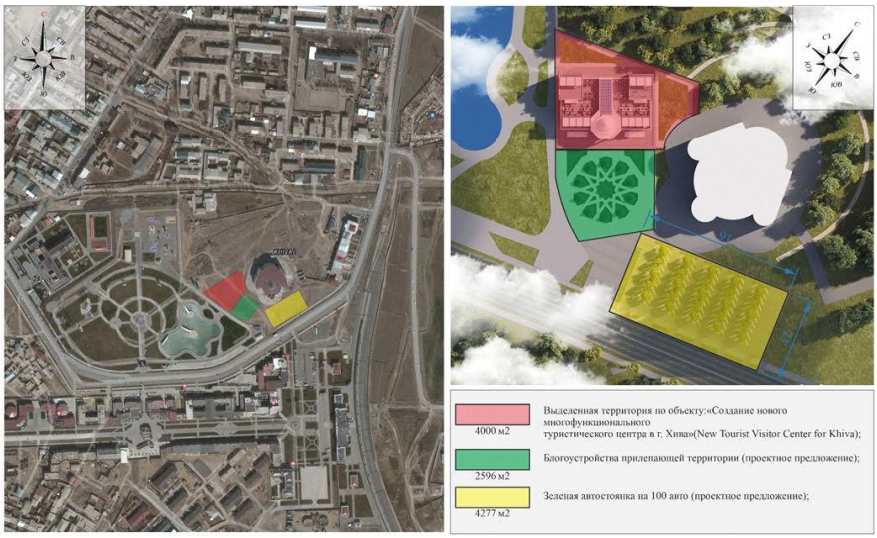
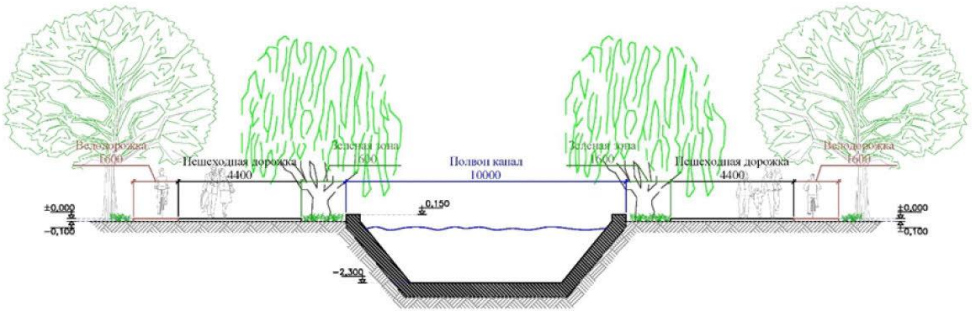
СИТУАЦИОННЫЙ ПЛАН НОВОГО ТУРИСТИЧЕСКОГО ЦЕНТРА

Ситуационный план



ПРЕДВАРИТЕЛЬНАЯ СХЕМА БЛАГОУСТРОЙСТВА ВДОЛЬ КАНАЛА ПОЛВОН

Разрез 1-1



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Тел: (+998) 62 377 50 00; (+998) 62 377 50 53

Uzbek version

Havast city (Uzbek)

ОСИЁ ТАРАҚҚИЁТ БАНКИ ЁРДАМИДА «ШАХАРЛАРНИ КОМПЛЕКС РИВОЖЛАНТИРИШ» ЛОЙИХАСИ

ЛОЙИҲАНИНГ НОМЛАНИШИ

1-компонент. «Муниципал инфратузилма ва хизматларни яхшилаш»

1.1-кичик компонент «Жиззах шаҳридаги учта маҳаллани (Иттифоқ, Дўстлик, Ёшлик) ободонлаштириш»

1.2-кичик компонент «Хива шаҳридаги Полвон канали бўйини ободонлаштириш»

1.3-кичик компонент «Хива шаҳрида кўп функцияли янги туристик комплексни ташкил қилиш»

1.4-кичик компонент «Хаваст шаҳрида янги паркни барпо этиш ва коворкинг-марказини ташкил қилиш»

1.1-кичик компонент «Жиззах шаҳридаги учта маҳаллани (Иттифоқ, Дўстлик, Ёшлик) ободонлаштириш»

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2025

2022

АМАЛГА ОШИРИШ ДАВРИ

Ушбу кичик лойиҳа доирасида шаҳарчани аҳоли, корхоналар ва ташриф буюрувчилар учун кўркам ва жозибали кўринишга келтириш мақсадида Хаваст марказидаги фойдаланилмаётган бўш ҳудуд майдони 6 гектарни ташкил қилувчи яшил жамоат зонасига айлантирилади.

Янги паркда пиёда/велосипед йўлкалари (1,32 га), маъмурий ҳудуд (0,36 га), маданий-маърифий тадбирлар зонаси (0,15 га); болалар учун дам олиш зоналари (1,13 га); спорт зонаси (096 га); жамоат зоналари (0,38 га); пассив ва фаол дам олиш зоналари (1,7 га) ташкил этилади.

МАЪЛУМОТЛАР УЧУН КОНТАКТ АХБОРОТ

ИТСВ ЛАОГ:
Манзил: Тошкент ш., Т.Шевченко кўчаси, 34-уй
Тел: (+998) 71 252 42 20
E-mail: iudpuzbekistan@gmail.com

ХОВОС ШАХАР ХОКИМЛИГИ
Манзил: Ховос тумани, Бунёдкор махалласи, Самарканд кўчаси
Тел: (+998) 67 364 66 05
Web: https://xovos-tuman.uz

ОСИЁ ТАРАҚҚИЁТ БАНКИ ЁРДАМИДА «ШАХАРЛАРНИ КОМПЛЕКС РИВОЖЛАНТИРИШ» ЛОЙИХАСИ

ЛОЙИҲАНИ АМАЛГА ОШИРИШДА ҲИМОЯ ЧОРАЛАРИГА РИОЯ ҚИЛИШ

Дастлабки экологик бахолаш (ДЭБ) ва миллий хужжат – Атроф мухитга таъсир кўрсатилиши тўгрисидаги баёнотни тузиш Осиё Тараккиёт Банки (ОТБ)нинг химоя чоралари бўйича сиёсат хакидаги Низоми (2009й.) ва экология сохасига оид миллий конун хужжатларига мувофик ўтказилади. АМТК тўгрисидаги баёнотнинг максади курилиш ва эксплуатация боскичида лойиханинг таъсир кўрсатиш турларини аниклашдан иборат.

Лойиҳанинг салбий таъсирларини юмшатиш учун Атроф Муҳитни Бошқариш Режаси (АМБР) ҳамда Меҳнат муҳофазаси ва хавфсизлик техникасини бошқариш ва мониторинги режаси (ММХТБМР) ишлаб чиқилади.

МАЪЛУМОТЛАР УЧУН КОНТАКТ АХБОРОТ

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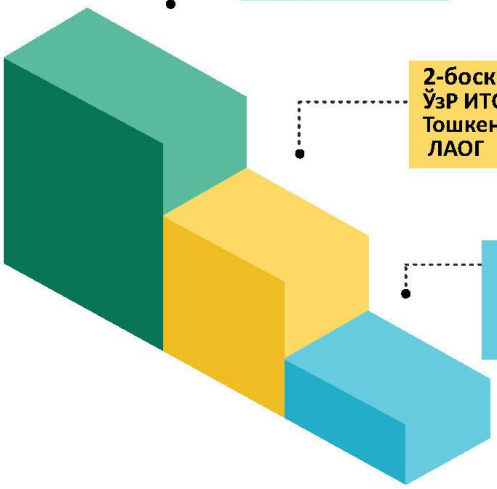
МАЪЛУМОТЛАРНИ ОШКОР ҚИЛИШ ВА ШИКОЯТЛАРНИ КЎРИБ ЧИҚИШ МЕХАНИЗМИ

Экологик баҳолаш натижаларининг босма вариантлари тегишли ҳужжатлар билан танишиб чиқиб, ўз изоҳларини баён этиш учун маҳалла қўмиталарига, шаҳар ҳокимлиги ва Давлат экология қўмитасига тақдим этилади.



3-боскич: ОТБнинг ҳисоборлик механизми ва ЎзР Иқтисодий суди

- Шикоят берувчилар, шунингдек, Манила шаҳридаги Штаб-квартирага тўғридан тўғри мурожаат қилиш йўли билан ОТБнинг ҳисобдорлик механизмидан фойдаланиши ҳам мумкин.
- Лойиҳа билан боғлиқ шахслар шикоят кўриб чиқишнинг исталган босқичида Иқтисодий судга мурожаат қилиши мумкин.

2-боскич: ЎзР ИТСВнинг Тошкентдаги ЛАОГ

- Шикотлар ЎзР ИТСВ ЛАОГнинг ҳимоя чоралари бўйича мутахассис томонидан рўйхатга олинади;
- Муҳокама ва қарор қабул қилиш 20 кун давомида амалга оширилади.

1-боскич: Ҳудудий ЛАОГ ва лойиҳа бенефициарлари

- Шикоятлар ҲЛАОГ маҳаллий мутахассиси томонидан рўйхатга олинади;
- ҲЛАОГ лойиҳанинг тегишли бенефициари (пудрат ташкилоти, маҳалла фуқаролар йиғини, Хаваст шаҳар ҳокимлиги)ни келиб тушган мурожаат ҳақида хабардор қилади;
- Муҳокама ва қарор қабул қилиш 14 кун давомида амалга оширилади.

- **ЛАОГ – Лойихани амалга ошириш гурухи**
- **ХЛАОГ – Худудий лойихани амалга ошириш гурухи**
- **ИТСВ – Инвестициялар ва Ташки Савдо Вазирлиги**
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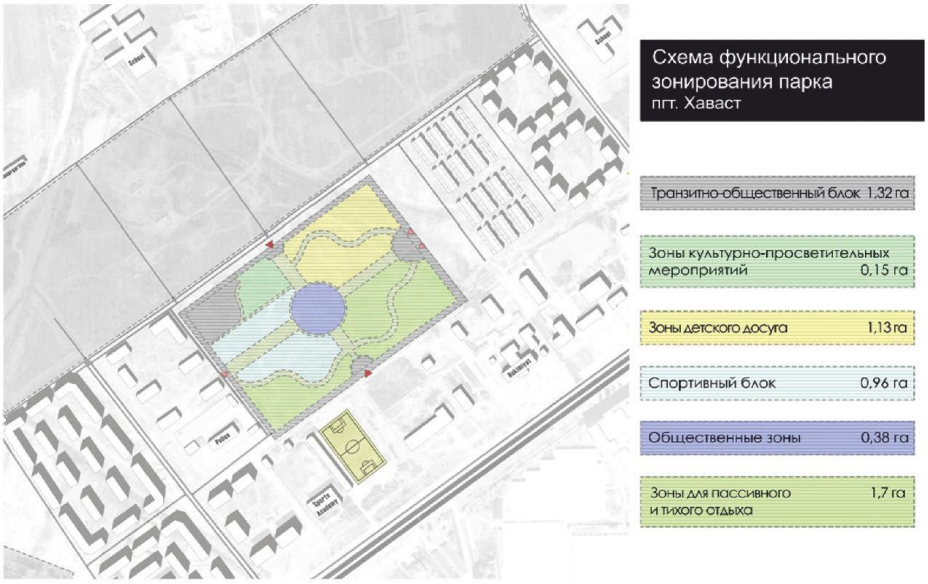
ХАВАСТ ШАҲРИДА ЯНГИ ПАРКНИ БАРПО ЭТИШ ВА КОВОРКИНГ-МАРКАЗИНИ ТАШКИЛ ҚИЛИШ



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Djizzak city (Uzbek)

ОСИЁ ТАРАҚҚИЁТ БАНКИ ЁРДАМИДА «ШАХАРЛАРНИ КОМПЛЕКС РИВОЖЛАНТИРИШ» ЛОЙИХАСИ

ЛОЙИҲАНИНГ НОМЛАНИШИ

1-компонент. «Муниципал инфратузилма ва хизматларни яхшилаш»

1.1-кичик компонент «Жиззах шаҳридаги учта маҳаллани (Иттифоқ, Дўстлик, Ёшлик) ободонлаштириш»

1.2-кичик компонент «Хива шаҳридаги Полвон канали бўйини ободонлаштириш»

1.3-кичик компонент «Хива шаҳрида кўп функцияли янги туристик комплексни ташкил қилиш»

1.4-кичик компонент «Хаваст шаҳрида янги паркни барпо этиш ва коворкинг-марказини ташкил қилиш»

1.1-кичик компонент «Жиззах шаҳридаги учта маҳаллани (Иттифоқ, Дўстлик, Ёшлик) ободонлаштириш»

Жиззах шаҳрининг учта маҳалласида, шу жумладан: Иттифоқ маҳалласида - 7,3 км, Дўстлик маҳалласида - 19,5 км, Ёшлик маҳалласида - 2,5 км йўлларни қайта тиклаш.

Жиззах шаҳрининг учта маҳалласида, жумладан: Иттифоқ маҳалласида - 4,5 гектар, Дўстлик маҳалласида - 1,1 гектар, Ёшлик маҳалласида - 2,8 гектар "очиқ майдонлар" ташкил этиш ва Иттифоқ маҳалласидаги автобус бекатини модернизация қилиш.

1.2-кичик компонент «Хива шаҳридаги Полвон канали бўйини ободонлаштириш»

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2025

2022

АМАЛГА ОШИРИШ ДАВРИ

МАЪЛУМОТЛАР УЧУН КОНТАКТ АХБОРОТ

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ЖИЗЗАХ ШАХАР ХОКИМЛИГИ
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ЛОЙИҲАНИ АМАЛГА ОШИРИШДА ҲИМОЯ ЧОРАЛАРИГА РИОЯ ҚИЛИШ

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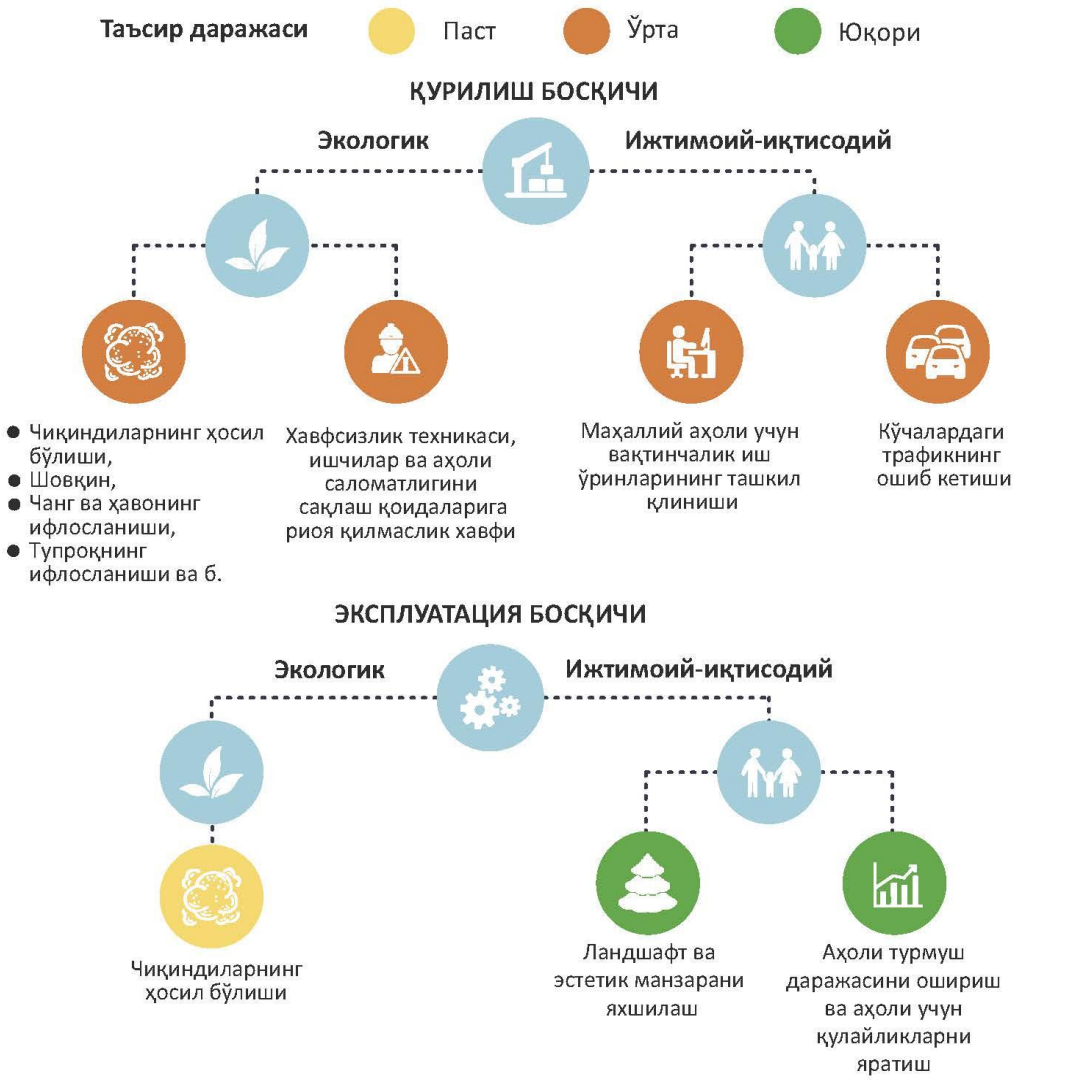

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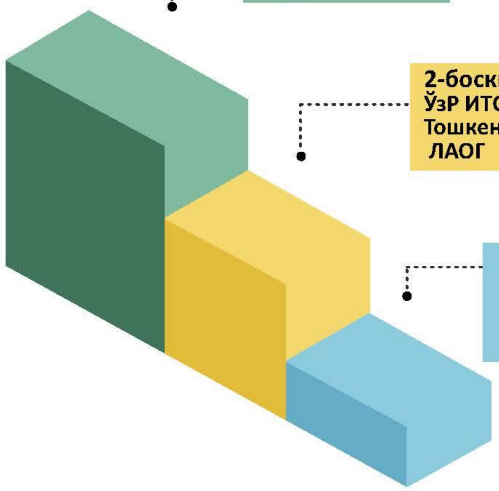
МАЪЛУМОТЛАРНИ ОШКОР ҚИЛИШ ВА ШИКОЯТЛАРНИ КЎРИБ ЧИҚИШ МЕХАНИЗМИ

Экологик баҳолаш натижаларининг босма вариантлари тегишли ҳужжатлар билан танишиб чиқиб, ўз изоҳларини баён этиш учун маҳалла қўмиталарига, шаҳар ҳокимлиги ва Давлат экология қўмитасига тақдим этилади.



3-боскич: ОТБнинг ҳисоборлик механизми ва ЎзР Иқтисодий суди

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2-боскич: ЎзР ИТСВнинг Тошкентдаги ЛАОГ

- Шикотлар ЎзР ИТСВ ЛАОГнинг ҳимоя чоралари бўйича мутахассис томонидан рўйхатга олинади;
- Муҳокама ва қарор қабул қилиш 20 кун давомида амалга оширилади.

1-боскич: Ҳудудий ЛАОГ ва лойиҳа бенефициарлари

- Шикоятлар ҲЛАОГ маҳаллий мутахассиси томонидан рўйхатга олинади;
- ҲЛАОГ лойиҳанинг тегишли бенефициари (пудрат ташкилоти, маҳалла фуқаролар йиғини, Жиззах шаҳар ҳокимлиги)ни келиб тушган мурожаат ҳақида хабардор қилади;
- Муҳокама ва қарор қабул қилиш 14 кун давомида амалга оширилади.

- **ЛАОГ – Лойихани амалга ошириш гурухи**
- **ХЛАОГ – Худудий лойихани амалга ошириш гурухи**
- **ИТСВ – Инвестициялар ва Ташки Савдо Вазирлиги**
- **ОТБ – Осиё Тараккиёт Банки**

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ОСИЁ ТАРАҚҚИЁТ БАНКИ ЁРДАМИДА «ШАХАРЛАРНИ КОМПЛЕКС РИВОЖЛАНТИРИШ» ЛОЙИХАСИ

ИТТИФОК МАХАЛЛАСИДА ОБОДОНЛАШТИРИШНИНГ ВАЗИЯТЛИ РЕЖАСИ

ДУСТЛИК МАХАЛЛАСИДА ОБОДОНЛАШТИРИШНИНГ ВАЗИЯТЛИ РЕЖАСИ

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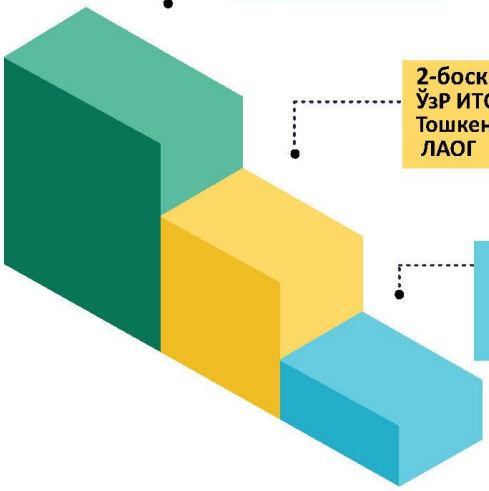

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1-боскич: Ҳудудий ЛАОГ ва лойиҳа бенефициарлари

- Шикоятлар ҲЛАОГ маҳаллий мутахассиси томонидан рўйхатга олинади;
- ҲЛАОГ лойиҳанинг тегишли бенефициари (пудрат ташкилоти, маҳалла фуқаролар йиғини, Хива шаҳар ҳокимлиги)ни келиб тушган мурожаат ҳақида хабардор қилади; Муҳокама ва қарор қабул қилиш 14 кун давомида амалга оширилади.

- **ЛАОГ – Лойихани амалга ошириш гурухи**
- **ХЛАОГ – Худудий лойихани амалга ошириш гурухи**
- **ИТСВ – Инвестициялар ва Ташки Савдо Вазирлиги**
- **ОТБ – Осиё Тараккиёт Банки**

МАЪЛУМОТЛАР УЧУН КОНТАКТ АХБОРОТ

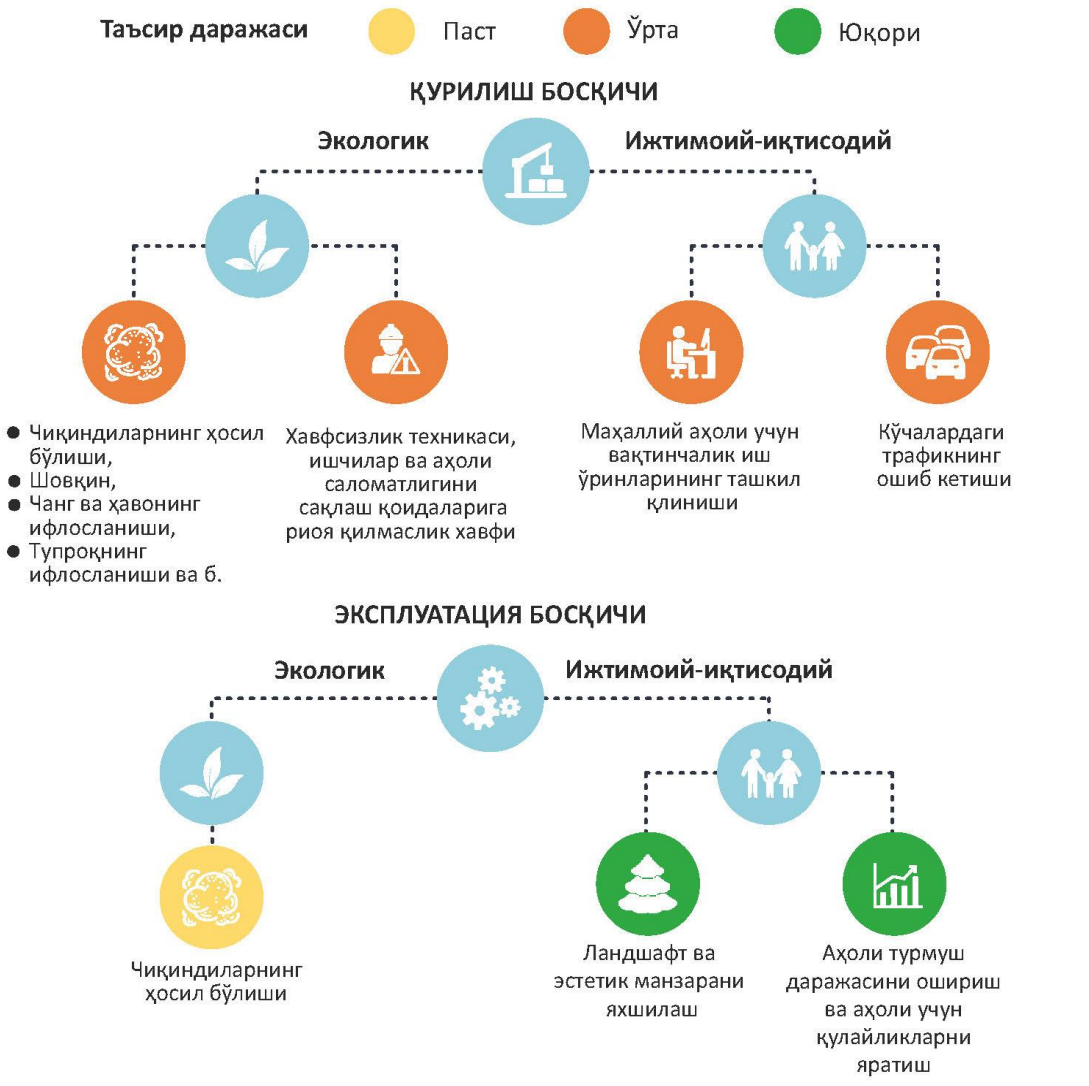
ИТСВ ЛАОГ:
Манзил: Тошкент ш., Т.Шевченко кўчаси, 34-уй
Тел: (+998) 71 252 42 20
E-mail: iudpuzbekistan@gmail.com

ХИВА ШАХАР ХОКИМЛИГИ
Манзил: Хива шахри, Нажмиддин Кубро кучаси, 27
Тел: (+998) 62 377 50 00; (+998) 62 377 50 53

ОСИЁ ТАРАҚҚИЁТ БАНКИ ЁРДАМИДА «ШАХАРЛАРНИ КОМПЛЕКС РИВОЖЛАНТИРИШ» ЛОЙИХАСИ

ЛОЙИҲАНИ АМАЛГА ОШИРИШДА ҲИМОЯ ЧОРАЛАРИГА РИОЯ ҚИЛИШ

Дастлабки экологик бахолаш (ДЭБ) ва миллий хужжат – Атроф мухитга таъсир кўрсатилиши тўгрисидаги баёнотни тузиш Осиё Тараккиёт Банки (ОТБ)нинг химоя чоралари бўйича сиёсат хакидаги Низоми (2009й.) ва экология сохасига оид миллий конун хужжатларига мувофик ўтказилади. АМТК тўгрисидаги баёнотнинг максади курилиш ва эксплуатация боскичида лойиханинг таъсир кўрсатиш турларини аниклашдан иборат.



Лойиҳанинг салбий таъсирларини юмшатиш учун Атроф Муҳитни Бошқариш Режаси (АМБР) ҳамда Меҳнат муҳофазаси ва хавфсизлик техникасини бошқариш ва мониторинги режаси (ММХТБМР) ишлаб чиқилади.

МАЪЛУМОТЛАР УЧУН КОНТАКТ АХБОРОТ

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ОСИЁ ТАРАҚҚИЁТ БАНКИ ЁРДАМИДА «ШАХАРЛАРНИ КОМПЛЕКС РИВОЖЛАНТИРИШ» ЛОЙИХАСИ

ЛОЙИҲАНИНГ НОМЛАНИШИ

1-компонент. «Муниципал инфратузилма ва хизматларни яхшилаш»

1.1-кичик компонент «Жиззах шаҳридаги учта маҳаллани (Иттифоқ, Дўстлик, Ёшлик) ободонлаштириш»

1.2-кичик компонент «Хива шаҳридаги Полвон канали бўйини ободонлаштириш»

1.3-кичик компонент «Хива шаҳрида кўп функцияли янги туристик комплексни ташкил қилиш»

1.4-кичик компонент «Хаваст шаҳрида янги паркни барпо этиш ва коворкинг-марказини ташкил қилиш»

2025

2022

АМАЛГА ОШИРИШ ДАВРИ

1.1-кичик компонент «Жиззах шаҳридаги учта маҳаллани (Иттифоқ, Дўстлик, Ёшлик) ободонлаштириш»

1.2-кичик компонент «Хива шаҳридаги Полвон канали бўйини ободонлаштириш»

Полвон канали бўйлаб узунлиги 2,3 км ни ташкил қилувчи чизиқли зонани ташкил қилиш режалаштирилмоқда.

Ушбу лойиҳа доирасида пиёдалар ва велосипед йўлкалари, яшил зона, соя-салқин декоратив шийпон, декоратив кузатиш кўприкчалари, болалар ва спорт майдончасини (футбол майдони, теннис корти, баскетбол майдончаси) яратиш режалаштирилган.

1.3-кичик компонент «Хива шаҳрида кўп функцияли янги туристик комплексни ташкил қилиш»

Кичик лойиҳа доирасида офислар, ахборот столлари, савдо майдончалари, озиқ-овқат маҳсулотлари ва ичимликлар учун хоналар билан жиҳозланган, шунингдек қўлда ясалган буюмларни намойиш қилиш учун махсус жойлари бўлган умумий майдони 3500-4000 м2 ни ташкил қилувчи икки қаватли кўп функцияли марказ қурилади.

Шунингдек, марказда Ўзбекистондаги биринчи рақамли музей ташкил қилиниб, унда Хива Ипак йўли ҳақидаги маълумотлар тақдим этилиб, Ипак йўли мероси намуналари намойиш қилинади. Марказ ҳудуди автотураргоҳ (80 ўринли), велосипед ижара пункти (10 та велосипед), кириш йўли ва манзарали кўкаламзор билан тўлдирилади.

1.4-кичик компонент «Хаваст шаҳрида янги паркни барпо этиш ва коворкинг-марказини ташкил қилиш»

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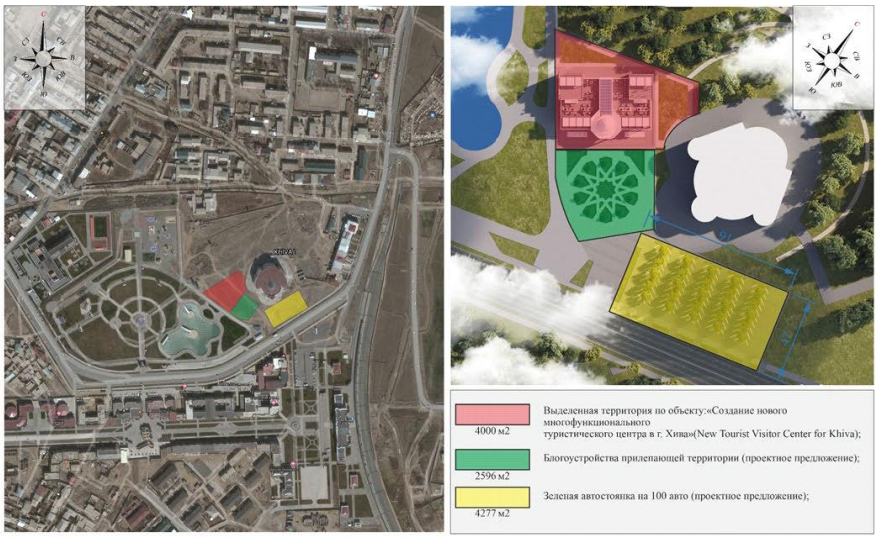
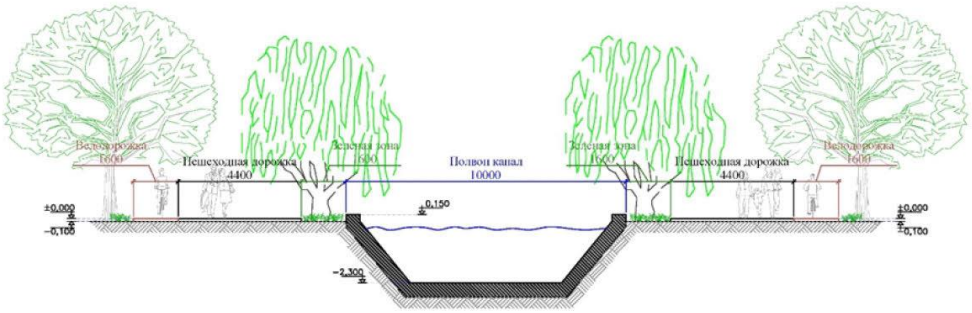
ЯНГИ ТУРИСТИК МАРКАЗНИНГ СИТУАЦИОН РЕЖАСИ

Ситуационный план



ПОЛВОН КАНАЛИ БУЙИДА ОБОДОНЛАШТИРИШ ИШЛАРИ БОШЛАНҒИЧ СХЕМАСИ

Разрез 1-1



МАЪЛУМОТЛАР УЧУН КОНТАКТ АХБОРОТ

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APPENDIX 7: Minutes of Public Consultations

Havast

Ховос тумани "Бунёдкор" маҳалла фуқаролар йиғинининг умумий мажлиси

БАЁНИ № 25

"12" ноябрь 2021й. "Бунёдкор" МФЙ

Йиғилиш раиси: С.Абдужоджаева

Иштирок этган фуқаролар _____ киши.

КУН ТАРТИБИ:

Ховос тумани "Бунёдкор" МФЙ ҳудудида Осиё тараққиёт банки кредит маблағлари ҳисобидан қуриладиган янги истироҳат боғининг қурилишига аҳолининг муносабати тўғрисидаги йиғилиш баёни

ЭШИТИЛДИ:

Йиғилишни Ховос тумани ҳокимлиги Ф. Эрназаров туман ҳокимининг инвестиция бўйича ўринбосари (лавозими ва ФИО) очиб бериб, йиғилишда иштирок этаётган манфаатдор томонлар вакилларини барчага таништирди.

Инвестициялар ва ташқи савдо вазирлиги ташаббуси билан Ховос тумани "Бунёдкор" МФЙ ҳудудида Осиё тараққиёт банки кредит маблағлари ҳисобидан қуриладиган янги истироҳат боғининг қурилиши тўғрисида маълумот бериб, тайёрланган тақдимот материалларини сўзлаб берди ва лойиҳа тўғрисида тарқатма флаерларни йиғилиш иштирокчиларига тақдим этди ва қуйидагиларни билдирди:

Ўзбекистон Республикаси Вазирлар Маҳкамасининг 2020 йил 7 июлдаги "Осиё тараққиёт банки иштирокида "Ўзбекистон Республикасида шаҳарларни ривожлантириш лойиҳаларини тайёрлашни молиялаштириш» лойиҳасини амалга ошириш чора-тадбирлари тўғрисида"ги қарори ижроси сифатида амалга ошиpалаётган ушбу "Истироҳат боғи қурилиши" лойиҳаси туман аҳолиси саломатлигига ва маданий ҳордиқ чиқариш, атроф муҳитга ҳам ижобий таъсири жиҳатидан муҳимлиги сабабли ушбу лойиҳани амалга оширишни давом эттиришни ва қўллаб қувватлаш таклифларини кўриб чиқилишини кун тартибидаги муҳим масала деб биламан.

Шундан сўнг, "Бунёдкор" МФЙ раиси С. Абдужоджаева га сўз берилиб, қуйидаги фикрлар эшитилди:

Ҳурматли маҳалладошлар "Ёшларни қўллаб қувватлаш ва аҳоли саломатлигини мустаҳкамлаш йили" муносабати билан бирга, қатор истиқболли лойиҳалар амалга оширилаяпти, шунинг шарофати ўлароқ бизнинг аҳоли саломатлигига юртбошимизнинг эътибори ва саъй-ҳаракатларини қўллаб кувватлашимизни жоиз деб биламан. Бугунги сизларни йиғишимиздан мақсад шуки, "Бунёдкор" МФЙнинг "Истироҳат боғи қурилиши" лойиҳасига ўз муносабатингизни билдиришингиздир. Шу муносабат билан, маҳалламизда кўплаб янги иш ўринлари яратилишига, болалар ва ёшлар учун спорт майдончаларини қурилиши, ко-воркинг маркази биноси кўп тадбиркорларга янги имкониятлар яратиши ва умуман боғ ҳудуди кексалар ва бутун Ховос тумани аҳолиси учун ажойиб дам олиш ва ҳордиқ чиқариш жойига айланиши, маҳалламиз ёшларини иш билан таъминлашда ҳамда ободонлаштириш ишларига ўз муносабатингизни билдиришингизни сўраймиз.

Сўзга чиқди: Абдуллаева Мубарак (ФИО) маҳалла фаоли: президентимиз бежизга атроф муҳитга, аҳоли саломатлигига ва тадбиркорликни ривожлантиришга алоҳида эътибор қаратмаяптилар, бунинг сабаби хаммамизга маълумки биз халқнинг фаравонлигини таъминлаш мақсадидадир, демакки мен эътироз билдирмайман.

Сўзга чиқди: Ғофирова Гулнора (ФИО) маҳалла фуқароси: мен ушбу истироҳат боғи қурилиши тушадиган яқин хонадон сифатида ушбу лойиҳани амалга оширилишидан мамнунлигимни ва қўллаб-қувватлашим лозимлигини ҳамда бу лойиҳанинг ташаббускорларидан миннатдорлигимни билдираман.

Сузга чиқди: Жумбаева Мубарак (ФИО) мен, юқоридаги маҳалладошларимнинг сўзларига қўшиламан, чунки ҳозирги куннинг ҳар томонлама тўғри йўли бу одамларнинг саломатлигини мустаҳкамлаш ва бунга шароит яратиш бўлиб, давр талабига айланди.

Юқоридаги маърузалар ва таклифлар овозга қўйилди. Маҳалла фуқаролари томонидан "Истироҳат боғи қурилиши" лойиҳасига ташаббускорларга миннатдорчилик билдириб, лойиҳани давом эттириш бир овоздан маъқулланди.

Кун тартибдаги масала юзасидан йиғилиш

ҚАРОР ҚИЛАДИ:

1. Ховос тумани "Бунёдкор" МФЙ ҳудудида "Истироҳат боғи қурилиши" ва боғнинг фаолият юритишига маҳалламиз фуқаролари қаршилик кўрсатмасликлари инобатга олинсин.
2. Йиғилиш иштирокчилари ва ушбу қурилиши мўлжалланган истироҳат боғига яқин жойлашган ҳудудларда истиқомат килувчилар розиликлари рўйхати ва иловага мувофиқ тасдиклансин.
3. Ушбу қарорни назорат қилиш истироҳат боғи қурилиши масъул буюртмачи ва жалб қилинадиган пудрат ташкилоти зиммасига юклатилсин.

"Бунёдкор" МФЙ раиси- йиғилиш Раиси: _____

"Бунёдкор" МФЙ котиби-йиғилиш Котиби: _____

Ховос туман ҳокимлиги мутахассиси _____ Р. Жўраев

№____-сон баённомасига илов

Йиғилиш иштирокчилари ва Ховос туманида қуриладиган янги истироҳат боғига энг яқин жойлашган уйларнинг розилик берган уй эгалари
РЎЙХАТИ:

1. Абдуқодирова Сарбар (ФИО, паспорт серия раками)	АА-2751699 (имзо)
2. Исенова О. АА-0801535 (ФИО, паспорт серия раками)	(имзо)
3. Ч.Давронова АА-8884423 (ФИО, паспорт серия раками)	(имзо)
4. М.Мамаюсупова АА-5727642 (ФИО, паспорт серия раками)	(имзо)
5. С.Норкурбонова АВ-9066820 (ФИО, паспорт серия раками)	(имзо)
6. Ж. Исроева АА-0695394 (ФИО, паспорт серия раками)	(имзо)
7. М. Ғоибова АА 3939057 (ФИО, паспорт серия раками)	(имзо)
8. М.Нуралиева АА-8800212 (ФИО, паспорт серия раками)	(имзо)
9. С.Исенова АА-4765358 (ФИО, паспорт серия раками)	(имзо)
10. Г.Ғозиева АВ-3165957 (ФИО, паспорт серия раками)	(имзо)
11. Г. Сапарбердиева АА-6026793 (ФИО, паспорт серия раками)	(имзо)
12. Ф.Абдугофорова АА-6518529 (ФИО, паспорт серия раками)	(имзо)

Djizzak

Давлат экология қўмитаси
раиси ўринбосарининг
2021 йил "_14_" октябрдаги
04-01/10-281 - сон топшириғига илова

Жиззах шахар ободонлаштириш бошқармаси томонидан
(буюртмачининг номи)
Жиззах шахри Дўстлик МФЙ худудида
(обьект манзили)
Ички йўллар реконструкцияси ва ободонлаштириш фаолиятини
(фаолият тури)
ташкил этиш бўйича ўтказилган жамоатчилик назорати (эшитуви)

ХУЛОСАСИ

"26" январь 2022 й. Жиззах шаҳар (туман)

Катнашдилар:	-
Буюртмачи вакили:	-
Экология ва атроф-муҳит муҳофазаси бошқармаси Жиззах шаҳар (туман) инспекцияси вакили	- Худойкулов
Дўстлик МФЙ раиси	- Ш Ахмедов
Қўшни худуд корхона вакиллари:	-
1.	-
2.	-
3.	-
Объект худудига яқин масофада истиқомат қилувчи аҳоли:	-
1. Ботиров Ё.	-
2. М. Жуванова	-
3. У Гаффоров	-
4. Астанкулов Х	-
5. Азизов Акмал	-
6. Хазраткулов У	-
7. Ходиқова Х	-
8. Холматов Х	-
9. Жўракулова Б	-
10. Нурматов Н	-

КУН ТАРТИБИ

Жиззах ш. ободонлаштириш бошқ. томонидан Жиззах ш. Дўстлик МФЙ
(буюртмачининг номи) (обьект манзили)

худудида режалаштирилаётган (мўлжалланаётган, амалга оширилаётган) Сгаи Йўллар рек-цияси ва ободонлаштириш **фаолиятининг экологик талабларга**
(фаолият тури)

мувофиқлигини белгилаш ҳамда экологик экспертиза объектини рўёбга чиқариш мумкинлиги юзасидан жамоачилик фикрини ўрганиш тўғрисида.

Кун тартибидаги масала юзасидан қуйидаги маълумотлар тақдим этилди.

Объект жойлашган майдон _______ м^2 ни ташкил қилиб, чегараланиши қуйидагича:

шимол томондан: ____;

шарқ томондан: ____;

ғарб томондан: ____;

жануб томондан: ____;

Объект ҳудудига яқин масофада истиқомат қилувчи аҳоли: _____ м.

Объект буюртмачининг *балансида* ёки *ижарада*.

Объект ____

____

____

____.*

** янгидан ташкил этилаётган экспертиза объекти ёки фаолият кўрсатаётган объект реконструкция, модернизация қилинган, қайта ташкил этилган, кенгайтирилган ёки жойлашуви ўзгартирилганлик тўғрисидаги маълумотлар киритилади.*

Ҳудудда мавжуд ўсимликлар дунёси бўйича тўлиқ маълумот:

Ўсимликларнинг умумий сони: _____ туб дарахт ва ____ туб бўта мавжуд бўлиб, шундан:

№	Дарахт тури	Диаметри	Бўйи	Холати
1.				
2.				
3.				
....				
№	**Бўталарнинг турлари**	**Диаметри**	**Бўйи**	**Холати**
1.				
2.				
3.				
...				

Режалаштирилаётган (мўлжалланаётган, амалга оширилаётган) фаолиятни рўёбга чиқарилиши натижасида:

ҳудудда мавжуд бўлган _____ туб дарахт ва ____ туб бўта кесилиши;

қўшимча ____ м2 ҳудуд кўкаламзорлаштирилиши кўзда тутилган.

Ўзбекистон Республикаси Вазирлар Махкамасининг 2021 йил 7 сентябрдаги 541-сон қарорининг 1-иловаси билан тасдиқланган фаолият турларининг рўйхатига мувофиқ режалаштирилаётган (мўлжалланаётган, амалга оширилаётган) фаолият тури ___ - тоифага мансуб.

Режалаштирилаётган (мўлжалланаётган, амалга оширилаётган) фаолият учун танланган ер майдонига нисбатан яқин масофада сув объекти (дарё, сой, сув

омбори ва бошқа сув ҳавзаси)нинг мавжудлиги:

________________________ - сув объекти танланган ер майдонидан ____ м узоқ масофада жойлашган.

Фаолиятни амалга ошириш натижасида йилига __ $м^3$ миқдорида оқава, __ $м^3$ маиший чиқинди ҳамда __ $м^3$ қурилиш чиқиндилари ҳосил бўлиб, улар қуйидаги тартибда бартараф этилади:

____
____
____
____.

(чиқиндиларни ташиб кетиш, оқаваларни тозалаш ва уларни ташланиши тўғрисида маълумот)

Кун тартибидаги масала атрофлича муҳокама қилиниб, жамоатчилик назорати (эшитуви) иштирокчилари қарор қилади:

Жиззах ш. ободонлаштириш бошқ. томонидан Жиззах ш. Дўстлик МФЙ
(буюртмачининг номи) *(объект манзили)*

ҳудудида режалаштирилаётган (мўлжалланаётган, амалга оширилаётган) Ички йўллар рек-си ва ободонлаштириш фаолиятининг экологик талабларга
(фаолият тури)

мувофиқлигини инобатга олиб, танланган ер майдонида фаолиятни ташкил этиш ва юритишга розилик билдиради.

ёки,

_________________________________ томонидан _____________________________
(буюртмачининг номи) *(объект манзили)*

ҳудудида режалаштирилаётган (мўлжалланаётган, амалга оширилаётган) _________________________________ фаолиятининг экологик талабларга
(фаолият тури)

мувофиқ бўлмаганлиги сабабли, танланган ер майдонида фаолиятни ташкил этишни рад этади.

Қабул қилинган қарорларни тўғри деб имзо чекувчилар:

Буюртмачи вакили: - [signature]

Экология ва атроф-муҳит муҳофазаси бошқармаси Жиззах шаҳар (туман) инспекцияси вакили - [signature] Хужақулов

Дўстлик МФЙ раиси - Ахмедов

Қўшни ҳудуд корхона вакиллари: -

1. -
2. -
3. -

Объект ҳудудига яқин масофада истиқомат қилувчи аҳоли: -

1. Ботиров Ё. - [signature]
2. М. Зубатова - [signature]
3. У Гаффоров - [signature]
4. Асатуллаев Х - [signature]
5. Азизов Акмал - [signature]
6. Хазратқулов У - [signature]
7. Қодирова Х - [signature]
8. Холматов Х - [signature]
9. Журақулова Б - [signature]
10. Нурматов Ш - [signature]

Давлат экология қўмитаси
раиси ўринбосарининг
2021 йил "14" октябрдаги
04-01/10-281 - сон топширигига илова

Жиззах шахар ободонлаштириш бошкармаси **томонидан**
(буюртмачининг номи)
Жиззах шахри Ёшлик МФЙ **худудида**
(обьект манзили)
Ички йўллар реконструкцияси ва ободонлаштириш **фаолиятини**
(фаолият тури)

ташкил этиш бўйича ўтказилган жамоатчилик назорати (эшитуви)

ХУЛОСАСИ

"26" январь 2022 й. Жиззах **шаҳар (туман)**

Катнашдилар: -
Буюртмачи вакили: -

Экология ва атроф-муҳит муҳофазаси бошқармаси Жиззах шаҳар (туман) инспекцияси вакили -
Ёшлик МФЙ раиси -

Қўшни худуд корхона вакиллари: -

1. -
2. -
3. -

Объект худудига яқин масофада истиқомат қилувчи аҳоли: -

1. Иномов Ариф Икромович -
2. Жумбутаев Санжар -
3. Саидов Ансура Мирзаметова -
4. Иномова Хуршида Га -
5. Юсупбоев Шакир -
6. Пармонова Хосият -
7. Менсирова Эъзифор -
8. Тургалова Асалбор -
9. Маманиев Нематулла -
10. Жобиров Нуриши -

КУН ТАРТИБИ

Жиззах ш. ободонлаштириш бошқ. томонидан Жиззах ш. Ёшлик МФЙ
(буюртмачининг номи) (объект манзили)

худудида режалаштирилаётган (мўлжалланаётган, амалга оширилаётган) Чиқинди тўплаш рек-си ва ободонлаштириш фаолиятининг экологик талабларга
(фаолият тури)
мувофиқлигини белгилаш ҳамда экологик экспертиза объектини рўёбга чиқариш мумкинлиги юзасидан жамоачилик фикрини ўрганиш тўғрисида.

Кун тартибидаги масала юзасидан қуйидаги маълумотлар тақдим этилди.

Объект жойлашган майдон _______ м^2 ни ташкил қилиб, чегараланиши қуйиидагича:

шимол томондан: ________________________________;

шарқ томондан: ________________________________;

ғарб томондан: ________________________________;

жануб томондан: ________________________________;

Объект худудига яқин масофада истиқомат қилувчи аҳоли: _____ м.

Объект буюртмачининг *балансида* ёки *ижарада.*

Объект ____

____

____

____.*

** янгидан ташкил этилаётган экспертиза объекти ёки фаолият кўрсатаётган объект реконструкция, модернизация қилинган, қайта ташкил этилган, кенгайтирилган ёки жойлашуви ўзгартирилганлик тўғрисидаги маълумотлар киритилади.*

Ҳудудда мавжуд ўсимликлар дунёси бўйича тўлиқ маълумот:

Ўсимликларнинг умумий сони: _____ туб дарахт ва ____ туб бўта мавжуд бўлиб, шундан:

№	Дарахт тури	Диаметри	Бўйи	Холати
1.				
2.				
3.				
....				
№	**Бўталарнинг турлари**	**Диаметри**	**Бўйи**	**Холати**
1.				
2.				
3.				
...				

Режалаштирилаётган (мўлжалланаётган, амалга оширилаётган) фаолиятни рўёбга чиқарилиши натижасида:

худудда мавжуд бўлган _____ туб дарахт ва ____ туб бўта кесилиши;

қўшимча ____ м2 ҳудуд кўкаламзорлаштирилиши кўзда тутилган.

Ўзбекистон Республикаси Вазирлар Махкамасининг 2021 йил 7 сентябрдаги 541-сон қарорининг 1-иловаси билан тасдиқланган фаолият турларининг рўйхатига мувофиқ режалаштирилаётган (мўлжалланаётган, амалга оширилаётган) фаолият тури ___ - тоифага мансуб.

Режалаштирилаётган (мўлжалланаётган, амалга оширилаётган) фаолият учун танланган ер майдонига нисбатан яқин масофада сув объекти (дарё, сой, сув

омбори ва бошқа сув ҳавзаси)нинг мавжудлиги:

__________________________ - сув объекти танланган ер майдонидан _____ м узоқ масофада жойлашган.

Фаолиятни амалга ошириш натижасида йилига __ $м^3$ миқдорида оқава, __ $м^3$ маиший чиқинди ҳамда __ $м^3$ қурилиш чиқиндилари ҳосил бўлиб, улар қуйидаги тартибда бартараф этилади:

____

____

____

____.

(чиқиндиларни ташиб кетиш, оқаваларни тозалаш ва уларни ташланиши тўғрисида маълумот)

Кун тартибидаги масала атрофлича мухокома килиниб, жамоатчилик назорати (эшитуви) иштирокчилари қарор қилади:

Жиззах ш. ободонлаштириш бошқ. томонидан Жиззах ш. Ёшлик мфй
(буюртмачининг номи) *(объект манзили)*
ҳудудида режалаштирилаётган (мўлжалланаётган, амалга оширилаётган) Ички йўллар рек-ся ва ободонлаштириш фаолиятининг экологик талабларга
(фаолият тури)
мувофиқлигини инобатга олиб, танланган ер майдонида фаолиятни ташкил этиш ва юритишга розилик билдиради.

ёки,

________________________________ томонидан ____________________________
(буюртмачининг номи) *(объект манзили)*
ҳудудида режалаштирилаётган (мўлжалланаётган, амалга оширилаётган) ________________________________ фаолиятининг экологик талабларга
(фаолият тури)
мувофиқ бўлмаганлиги сабабли, танланган ер майдонида фаолиятни ташкил этишни рад этади.

Қабул қилинган қарорларни тўғри деб имзо чекувчилар:

Буюртмачи вакили: - А. Комил.

Экология ва атроф-муҳит муҳофазаси бошқармаси Жиззах шаҳар (туман) инспекцияси вакили - Худойқулов

Ёшлик МФЙ раиси - В. Турдиев

Қўшни худуд корхона вакиллари: -

1. -
2. -
3. -

Объект худудига яқин масофада истиқомат қилувчи аҳоли: -

1. Иноков Ариф Икромович -
2. Юсупбоев Сайисар -
3. Саидов Шерзод Мирзоевич -
4. Иноkova Хурсаной Ф -
5. Курбонов Шакар -
6. Тарасова Хосият -
7. Махсудова Эътибор -
8. Худойқулова Дилбар -
9. Масалова Ж. -
10. Юсупов Нуриддин -

Давлат экология қўмитаси
раиси ўринбосарининг
2021 йил "14" октябрдаги
04-01/10-281 - сон топшириғига илова

Жиззах шаҳар ободонлаштириш бошқармаси **томонидан**
(буюртмачининг номи)
Жиззах шаҳри Иттифоқ МФЙ **ҳудудида**
(объект манзили)
Ички йўллар реконструкцияси ва ободонлаштириш **фаолиятини**
(фаолият тури)

ташкил этиш бўйича ўтказилган жамоатчилик назорати (эшитуви)

ХУЛОСАСИ

"26" январь 2022 й. Жиззах **шаҳар (туман)**

Катнашдилар: -
Буюртмачи вакили: - Ғофур Раҳмонқулов

Экология ва атроф-муҳит муҳофазаси бошқармаси Жиззах шаҳар (туман) инспекцияси вакили - Ш. Жалилов.
Иттифоқ МФЙ раиси -

Қўшни худуд корхона вакиллари:

1. -
2. -
3. -

Объект ҳудудига яқин масофада истиқомат қилувчи аҳоли: -

1. Исанов Фарход -
2. Хусанов Исмоил -
3. Нормуродов Хусан -
4. Саидов Анвар -
5. Жураева Салима -
6. Саидқосимова Фароғат -
7. Жамилова Зулчехра -
8. Ёқубова Гулнора -
9. Гоффурова Озода -
10. Номозов Шўхрат -

КУН ТАРТИБИ

Жиззах ш. ободонлаштириш бошқ. томонидан Жиззах ш. Истиқлол МФЙ

(буюртмачининг номи) *(обьект манзили)*

ҳудудида режалаштирилаётган (мўлжалланаётган, амалга оширилаётган) Истм чўллар рек-ни ва ободонлаштириш **фаолиятининг экологик талабларга**

(фаолият тури)

мувофиқлигини белгилаш ҳамда экологик экспертиза объектини рўёбга чиқариш мумкинлиги юзасидан жамоачилик фикрини ўрганиш тўғрисида.

Кун тартибидаги масала юзасидан қуйидаги маълумотлар тақдим этилди.

Обьект жойлашган майдон _____ м^2 ни ташкил қилиб, чегараланиши куйиидагича:

шимол томондан: _____;

шарқ томондан: _____;

ғарб томондан: _____;

жануб томондан: _____;

Объект ҳудудига яқин масофада истиқомат қилувчи аҳоли: _____ м.

Объект буюртмачининг *балансида* ёки *ижарада*.

Объект _____

_____

_____

_____.*

* *янгидан ташкил этилаётган экспертиза объекти ёки фаолият кўрсатаётган объект реконструкция, модернизация қилинган, қайта ташкил этилган, кенгайтирилган ёки жойлашуви ўзгартирилганлик тўғрисидаги маълумотлар киритилади.*

Ҳудудда мавжуд ўсимликлар дунёси бўйича тўлиқ маълумот:

Ўсимликларнинг умумий сони: _____ туб дарахт ва _____ туб бўта мавжуд бўлиб, шундан:

№	Дарахт тури	Диаметри	Бўйи	Холати
1.				
2.				
3.				
....				
№	**Бўталарнинг турлари**	**Диаметри**	**Бўйи**	**Холати**
1.				
2.				
3.				
...				

Режалаштирилаётган (мўлжалланаётган, амалга оширилаётган) фаолиятни рўёбга чиқарилиши натижасида:

ҳудудда мавжуд бўлган _____ туб дарахт ва _____ туб бўта кесилиши;

қўшимча _____ м2 ҳудуд кўкаламзорлаштирилиши кўзда тутилган.

Ўзбекистон Республикаси Вазирлар Махкамасининг 2021 йил 7 сентябрдаги 541-сон қарорининг 1-иловаси билан тасдиқланган фаолият турларининг рўйхатига мувофиқ режалаштирилаётган (мўлжалланаётган, амалга оширилаётган) фаолият тури ___ - тоифага мансуб.

Режалаштирилаётган (мўлжалланаётган, амалга оширилаётган) фаолият учун танланган ер майдонига нисбатан яқин масофада сув объекти (дарё, сой, сув

омбори ва бошқа сув ҳавзаси)нинг мавжудлиги:

_______________________ - сув объекти танланган ер майдонидан ____ м узоқ масофада жойлашган.

Фаолиятни амалга ошириш натижасида йилига __ м^3 миқдорида оқава, __ м^3 маиший чиқинди ҳамда __ м^3 қурилиш чиқиндилари ҳосил бўлиб, улар қуйидаги тартибда бартараф этилади:

____

____

____

____.

(чиқиндиларни ташиб кетиш, оқаваларни тозалаш ва уларни ташланиши тўғрисида маълумот)

Кун тартибидаги масала атрофлича мухокома килиниб, жамоатчилик назорати (эшитуви) иштирокчилари қарор қилади:

Жиззах ш. ободонлаштириш бошқ. томонидан Жиззах ш. Иттифоқ МФЙ
(буюртмачининг номи) *(объект манзили)*
ҳудудида режалаштирилаётган (мўлжалланаётган, амалга оширилаётган) Ички йўллар рек-си ва ободонлаштириш фаолиятининг экологик талабларга
(фаолият тури)
мувофиқлигини инобатга олиб, танланган ер майдонида фаолиятни ташкил этиш ва юритишга розилик билдиради.

ёки,

_______________________________ томонидан ___________________________
(буюртмачининг номи) *(объект манзили)*
ҳудудида режалаштирилаётган (мўлжалланаётган, амалга оширилаётган) _______________________________ фаолиятининг экологик талабларга
(фаолият тури)
мувофиқ бўлмаганлиги сабабли, танланган ер майдонида фаолиятни ташкил этишни рад этади.

Қабул қилинган қарорларни тўғри деб имзо чекувчилар:

Буюртмачи вакили:

Экология ва атроф-муҳит муҳофазаси бошқармаси Жиззах шаҳар (туман) инспекцияси вакили

Иттифоқ МФЙ раиси -

Қўшни худуд корхона вакиллари: -

1. -
2. -
3. -

Объект ҳудудига яқин масофада истиқомат қилувчи аҳоли: -

1. Исаков Фарход -
2. Хусанов Исмоил -
3. Норяхлодов Хасан -
4. Саидов Акмал -
5. Халилова Гулчехра -
6. Ёкубова Гулнора - Гаффурова Озода
7. -
8. Номозов Зуҳраб -
9. Саидқосимова Фарида -
10. Жўраева Сайёра -

Khiva City

Хива тумани "Бўстон" маҳалла фуқаролар йиғинининг умумий мажлиси

БАЁНИ № 1

"10" февраль 2022й. "Бўстон" МФЙ

Йиғилиш раиси: Б. Курбонов

Иштирок этган фуқаролар 12 киши.

КУН ТАРТИБИ:

Хива тумани "Бўстон" МФЙ ҳудудида Осиё тараққиёт банки кредит маблағлари ҳисобидан ёпилиши мўлжалланган мавжуд чиқинди полигонига аҳолининг муносабати тўғрисидаги йиғилиш баёни

ЭШИТИЛДИ:

Йиғилишни Хоразм вилояти "Тоза Ҳудуд" давлат унитар корхонаси Хива тумани филиали директори Умид Бакаев очиб бериб, йиғилишда иштирок этаётган манфаатдор томонлар вакилларини барчага таништирди.

Инвестициялар ва ташқи савдо вазирлиги ташаббуси билан Хива тумани "Бўстон" МФЙ ҳудудида Осиё тараққиёт банки кредит маблағлари ҳисобидан мавжуд чиқинди полигонининг ёпилиши тўғрисида маълумот бериб, тайёрланган тақдимот материалларини сўзлаб берди ва лойиҳа тўғрисида тарқатма флаерларни йиғилиш иштирокчиларига тақдим этди ва қуйидагиларни билдирди:

Ўзбекистон Республикаси Вазирлар Маҳкамасининг 2020 йил 7 июлдаги "Осиё тараққиёт банки иштирокида "Ўзбекистон Республикасида шаҳарларни ривожлантириш лойиҳаларини тайёрлашни молиялаштириш» лойиҳасини амалга ошириш чора-тадбирлари тўғрисида"ги қарори ижроси сифатида амалга оширалаётган ушбу "Чиқинди полигонини ёпиш" лойиҳаси туман аҳолиси саломатлигига ва атроф муҳит тозалигига ҳамда атроф муҳитга ҳам ижобий таъсири жиҳатидан муҳимлиги сабабли, ушбу лойиҳани амалга оширишни давом эттиришни ва қўллаб қувватлаш таклифларини кўриб чиқилишини кун тартибидаги муҳим масала деб биламан.

Шундан сўнг, "Бўстон" МФЙ раиси Бахтиёр Курбонов га сўз берилиб, қуйидаги фикрлар эшитилди:

Ҳурматли маҳалладошлар "Инсон қадрини улуғлаш ва фаол маҳалла йили" муносабати билан қатор истиқболли лойиҳалар амалга оширилаяпти, шунинг шарофати ўлароқ бизнинг маҳалламиз тозалиги ва аҳолимиз саломатлигига юртбошимизнинг эътибори ва саъй-ҳаракатларини қўллаб қувватлашимизни жоиз деб биламан. Бугунги сизларни йиғишимиздан мақсад шуки, "Бўстон" МФЙ ҳудудида "Чиқинди полигонини ёпиш" лойиҳасига ўз муносабатингизни билдиришингиздир. Шу муносабат билан, маҳалламизда тозаликка бўлган эътиборнинг яхшиланиши, атроф муҳит муҳофазасининг яхшилинишига ушбу лойиҳага ўз муносабатингизни билдиришингизни сўраймиз.

Сўзга чиқди: Одилов Сойдулло (ФИО) маҳалла фаоли: президентимиз бежизга атроф муҳитга, аҳоли саломатлигига ва тадбиркорликни ривожлантиришга алоҳида эътибор қаратаяптилар, бунинг сабаби ҳаммамизга маълумки

биз халкнинг фаровонлигини таъминлаш мақсадидадир, демакки мен эътироз билдирмайман.

Сўзга чиқди: Юсупова Сакобар (ФИО) маҳалла фуқароси: мен ушбу чиқинди полигонига яқин хонадон эгаси сифатида ушбу лойиҳани амалга оширилишидан мамнунлигимни ва қўллаб-қувватлашимни ҳамда бу лойиҳанинг ташаббускорларидан миннатдорлигимни билдираман.

Сузга чиқди: Ибодуллаев Қуронбой (ФИО) мен, юқоридаги маҳалладошларимнинг сўзларига қўшиламан, чунки ҳозирги кунниинг ҳар томонлама тўғри йўли бу атроф-муҳит тозалиги ва одамларнинг саломатлигини мустаҳкамлаш ва бунга шароит яратиш бўлиб, давр талабига айланди.

Юқоридаги маърузалар ва таклифлар овозга қўйилди. Маҳалла фуқаролари томонидан тумандаги "Чиқинди полигонини ёпиш" лойиҳаси ташаббускорларига миннатдорчилик билдириб, лойиҳани давом эттириш бир овоздан маъқулланди.

Кун тартибдаги масала юзасидан йиғилиш

ҚАРОР ҚИЛАДИ:

1. Хива шаҳри "Бўстон" МФЙ ҳудудида "Чиқинди полигонини ёпиш" лойиҳасига маҳалламиз фуқаролари қаршилик кўрсатмасликлари инобатга олинсин.
2. Йиғилиш иштирокчилари ва ушбу мавжуд чиқинди полигонини ёпиш бўйича лойиҳага яқин жойлашган ҳудудларда истиқомат қилувчи фуқаролар розиликлари рўйхати иловага мувофиқ тасдиқлансин.
3. Ушбу қарорни назорат қилиш Хоразм вилояти "Тоза Ҳудуд" ДУК Хива туман филиали, қурилишга масъул буюртмачи ва жалб қилинадиган пудрат ташкилоти зиммасига юклатилсин.

"Бўстон" МФЙ раиси- йиғилиш Раиси: _____ Б. Курбонова

"Бўстон" МФЙ котиби-йиғилиш Котиби: _____ Д. Рўзметова

Хива туман (шаҳар) ҳокимлиги мутахассиси _____

Хоразм вилояти "Тоза Ҳудуд" ДУК Хива тумани филиали директори _____ Ж. Баллиев

Хива тумани Экология бўлими инспектори

Каршибергенов

APPENDIX 8: Record of public consultations (List of the participants and photos from meetings)

	Name/Surname of Specialists	Position / Place of work	Contacts
		Khiva City	
1	Babaev Khamidjon Atabayevich	1st Deputy Khokim of Khiva	
2	Doniyor Djabbarov	Khiva district road	
3	Alisher Umirov	Road Engineer	
4	Farukh	Chief architect	
5	Umid	Vodkhoz along the Palvan canal in a part of Khiva	
6	Otojon	Irrigation department	
7	Ilkhombek Bobozhonov	Environmental Inspector of Khiva	
8	Shahriddin Abdullaev	Specialist – architect	
9	Murodjon Metkarimov	Deputy Chief Architect	
10	Farkhod Zhonibekov	Head of City Renewal	
11	Umid Shakirov	Head of the city cadaster	
12	Fakhriddin Abdullaev	Specialist architecture	
13	Arslon Ernazarov	Chief Engineer, Toza Hudud Regional	
14	Mardon	Khiva Khokimiyat	
		Yangiyer City	
15	Nurbek Kurbanov	Deputy Mayor on Investment issues	
16	Hayot Shodmonkulov	Head of City Department of Environmental Protection	
17	Bakhrom Hudayberdiyev	Head of Toza Hudud	
18	Azamat Tadjibayev	Cadaster Department Engineer	
19	Adkham Karabayev	Head of City Architecture Department	
20	Olimjon	Accountant of Toza Hudud	
		Havast City	
21	Uchkun Kamolov	the Mayor of Havast district	
22	Zokirjon Babayev	1st Deputy Mayor of Havast district – IUDP responsible	
23	Bekzod Berdiyev	Deputy Mayor of Havast district, Mayor of Havast city	
24	Khakim Mallayev	Deputy Mayor of Havast district on Investment issues, IUDP responsible	
25	Ulugbek Isakov	Chief architect of the district	
26	Saydullo Khayrolloyev	Investment department	
		Gulistan city	
27	Feruza Tulkinivna	Head of Laboratory of Syrdarya SES	
		Djizzakh city	
28	Komil Kholmurodov	The Mayor of Djizzak city	
29	Shahboz Kamalov	Deputy Mayor on Investment issues, IUDP responsible	
30	Oybek Usmanov	Head of department on investment issues, IUDP responsible	
31	Mamadjon Khasanov	Ittifoq Makhalla Head	
32	Djamshid Khasanov	Head of City Department of Environmental Protection	
33	Nosir Eshkobilov	Senior Specialist of City Department of Environmental Protection	
34	Bunyed	Deputy Director of Toza Hudud	
35	Ramzitdin	Chief accountant of Toza Hudud	
36	Ulugbek	Head of Sharof-Rashidov dumpsite	

	Name/Surname of Specialists	Position / Place of work	Contacts
37	Ulugbek	Head of Laboratory of Djizzak SES	[redacted]
38	Sherzod	Laboratory Assistant	
39	Akhmad	Chief Physician of Djizzak SES	
40	Bobur Rahmonberdiev	Chief Engineer of Djizzak Suvloyiha	
41	Olim Ravshanov	Deputy for the operation of pumping stations/Head of the production and technical department	

Djizzak

Общественные консультации по проекту«ПРОЕКТКОМПЛЕКСНОГОРАЗВИТИЯГОРОДОВ ПРИСОДЕЙСТВИИАЗИАТСКОГОБАНКАРАЗВИТИЯ”»

СПИСОК УЧАСТНИКОВКОНСУЛЬТАЦИИ

Дата:24 Сентября, 2021 год

Место проведения: г. Джиззак

#	Ф.И.О./To'liqismisharifi	Название махалли/Mahalla nomi	Номер Телефона/Telefonraqami	Подпись/Imzo
1	Хасанова Нодира	махалля Дустлик	житель	
2	Давкатов Сардор	Махалла Дўстлик	контролёр "Узсувлоетеха"	
3	Камилов Дилёрбек	Махала Иттифок	контролёр "Узсувлойтика"	
4	Кодирова Хадоят	махалла Дўстлик	житель	
5	Ёкубова Гулнора	махалла Иттифок	житель	
6	Мамотқулова Лола	Иттифок махалла	житель, 9 детский сад	
7	Жабборов Эргаш	Иттифок. мах	директор школы N7	
8	Иномова Хуршида	"Дўстлик" МФЙ	Махаллинск. комитет	

#	Ф.И.О./To'liqismisharifi	Название махалли/Mahalla nomi	Номер Телефона/Telefonraqami	Подпись/Imzo
9	Алимова Лайло	Ёшлик мфй	детский сад №32	
10	Бобоев Зиёт	А. Олимжон. мфй	жамият.	
11	Нематов Сайфиддин	Бонишамол МФЙ	МФЙ	
12	Тошпулатова Зулфия	Тошкон Кам. Корд	МФЙ	
13	Махамадсултонова З	А. Темур мфй		
14	Гуломбоева М	А. Темур мфй		
15	Жиянбоева Гулсулув	А Темур. мфй		
16	Тораев Шовкат	А Темур. мфй		
17	Хасанова Дилафруза	Сайдор мфй		
18				
19				

Havast

Общественные консультации по проекту «ПРОЕКТ КОМПЛЕКСНОГО РАЗВИТИЯ ГОРОДОВ ПРИ СОДЕЙСТВИИ АЗИАТСКОГО БАНКА РАЗВИТИЯ"»

СПИСОК УЧАСТНИКОВ КОНСУЛЬТАЦИИ

Дата: 26 Октября, 2021 год

Место проведения: Бунёдкор махалля

#	Ф.И.О./ To'liq ismi sharifi	Организация/Tashkilot	Занимая должность/Lavozim	Номер Телефона/ Telefon raqami
1	Абдуназарова Сайбар	Бунёдкор МФЙ	Махалля Раис	
2	Эшманова Олмоса	Бунёдкор МФЙ		
3	Гаибов Бахадыр	Бунёдкор МФЙ		
4	Исламов Фуркат	Хавастский хокимият	Нач. инв. отдела	
5	Саидуллаев Хайрулло	Хавастский хокимият	Сотрудник инв. отдела	
6	Эргашев Рустам	Гос. ком. экол. Сырдар. обл.	Директор организации	
7				
8				

Khiva

Общественные консультации по проекту «ПРОЕКТ КОМПЛЕКСНОГО РАЗВИТИЯ ГОРОДОВ ПРИ СОДЕЙСТВИИ АЗИАТСКОГО БАНКА РАЗВИТИЯ"»

СПИСОК УЧАСТНИКОВ КОНСУЛЬТАЦИИ

Дата: 29 Октября, 2021 год

Место проведения: Хорезмская область, город Хива

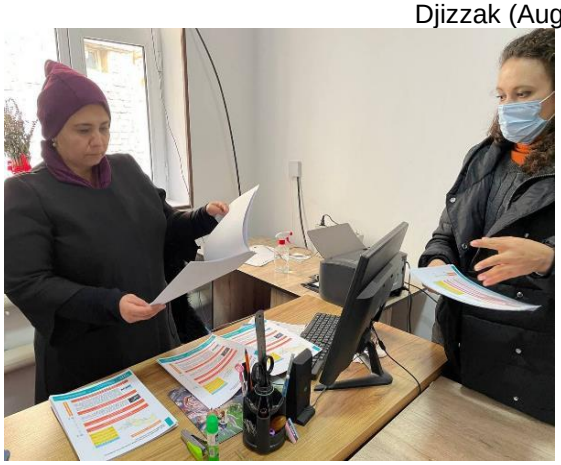
#	Ф.И.О./ To'liq ismi sharifi	Организация/Tashkilot	Занимая должность/Lavozim	Номер Телефона/ Telefon raqami
1	Бекчанова Музайё Бахтияровна	"Дўстлик" М.Ф.Й.	раис ўринбосари	
2	Ф. Абдуллаев	Хива шахар қурилиш бўлими	мутахассис.	
3	Бектурдиева Клара Калимовна	раис ўринбосари "Дўстлик" мфй	раис ўринбосари	
4	Атаманов Байрам Аминович	Янги-ҳаёт фй. раиси	Раис.	
5	Рахмонов Дурнабай	Мевасан мфй	раис	
6	Матякубова Гулира Атабаевна	Гилампомфй	раис ўринбосари	
7	Маткаримова Зулфия	Хива шаҳар 10-сон мактаб	Х.И.Б.Д.Ў.	
8	Назарова Мехрибон	Янги турмуш" МФЙ	МФЙ раис ўринбосари	

#	Ф.И.О./ To'liq ismi sharifi	Организация/Tashkilot	Занимая должность/Lavozim	Номер Телефона/ Telefon raqami
9	Раззаков Давлатёр	профилактика инспектор	Янги турмуш МФЙ	
10	Атамонов Юлдаш	[illegible]	[illegible]	
11	Рахимов [illegible]	Эко-[illegible]	[illegible]	
12	[illegible] Гафур	Хоразм вилояти экология бошқармаси	Бошлиқ ўринбосари	
13	Махмудов Хужаяр	Экология бошқармаси	1-ўринбосар	
14				
15				
16				
17				
18				
19				

Photos
Public Consultation and distribution of leaflets


Djizzak (August 5, 20121)


Djizzak (August 5, 20121)




Khiva (October 29, 2021)

Syrdarya (October 24, 2021)

Meeting with Djizzak SCEEP branch representatives (August 18, 2021)

Meeting with Djizzak SES representatives (August 18, 2021)

Meeting with Syrdarya SES representatives (August 18, 2021)

Meeting with Khorezm SCEEP branch representatives (October 29, 2021)

Meeting with mahalla representative (May 22, 2021)