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Uzbekistan: Integrated Urban Development Project (Solid Waste Management Subcomponent)

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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TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
I. INTRODUCTION	6
A. Project Overview	6
B. Environmental Assessment Requirement	9
1. Purpose of IEE Study	
2. IEE Structure	
3. Environmental Assessment Methodology	
II. POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK	
A. National Environmental Requirements	
1. National Institutional Framework for Environmental Assessment	
 Institutional Framework on Solid Waste Management (SWM) 	
3. National Environmental Requirements	
4. Environmental Assessment required for the Subcomponent	14
 Environmental Regulatory Framework 	14
B. Environment Quality Standards	
1. Noise and Vibration Standards	
 Air Quality Standards 	
 All Quality Standards	
4. Soil quality standards	
5. Waste Management	
C. ADB Safeguard Policy Statement (SPS, 2009)	. 25
D. International Legislation	. 29
1. World Bank Group's Environment, Health and Safety Guidelines	
2. COVID-19	
3. International Agreements	
III. DESCRIPTION OF THE PROJECT	
A. Existing Situation	
1. Djizzak City Profile	
2. Khiva City Profile	
3. Yangiyer City Profile	
4. Havast Urban Village Profile	
B. Proposed Subproject Components	
1. Subcomponent 3.1 Waste Minimization and Recycling Pilot	. 39
2. Subcomponent 3.2. Solid waste collection system upgrade	. 39
3. Sub-component 3.3: Creation of a transfer station for Havast and Yangiyer	. 40
IV. DESCRIPTION OF THE ENVIRONMENT	. 45
A. Introduction	. 45
B. Djizzak province	. 46
1. Physical Environment	
2. Biological Environment	
3. Cultural Heritage	. 58
4. Socio-economic conditions	. 61
C. Syrdarya province	. 63
1. Physical Environment	
2. Biological Environment	
3. Cultural Heritage	
4. Socio-economic situation	
D. Khorezm province	
1. Physical Environment	
2. Biological Environment	
3. Cultural Heritage	
4. Socio-economic situation	
E. Climate Change	
V. ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES	
A. Impact Assessment Methodology	
1. Identification and Characterization of Impacts	
······································	. 30

2. Evaluation of impacts	96
3. Sensitivity of receiving parameter	97
2. Assessing the significance of impacts	97
4. Residual Impacts	
B. Result of Impacts Assessment	
1. Pre-construction stage	
2. Construction stage	
3. Operational stage	
4. Transboundary Impact	
5. Climate Change Impact	
VI. ANALYSIS OF ALTERNATIVES	
A. Construction of WCPs	
1. Selection of locations	
2. The situation "without the project"	
B. Construction of Transfer Station	
1. Selection of locations	
2. The situation "without the project"	121
VII. INFORMATION DISCLOSURE, CONSULTATION, AND PARTICIPATION	
A. Consultation B. Information Disclosure	
 B. Information Disclosure C. Further communication with stakeholders 	
VIII. GRIEVANCE REDRESS MECHANISM	
	124
A Lovel 1: PILL Field Coordinator together with the project heneficiary (cities	
A. Level 1: PIU Field Coordinator together with the project beneficiary (cities	125
khokimiyats, Djizzak Suvtaminot LLC) or contractor	
khokimiyats, Djizzak Suvtaminot LLC) or contractor B. Level 2: MIFT-PIU	125
khokimiyats, Djizzak Suvtaminot LLC) or contractor B. Level 2: MIFT-PIU C. Level 3: Court of Law (Economic Court)	125 126
 khokimiyats, Djizzak Suvtaminot LLC) or contractor B. Level 2: MIFT-PIU C. Level 3: Court of Law (Economic Court) D. Overview 	125 126 126
 khokimiyats, Djizzak Suvtaminot LLC) or contractor B. Level 2: MIFT-PIU C. Level 3: Court of Law (Economic Court) D. Overview IX. ENVIRONMENTAL MANAGEMENT PLAN 	125 126 126 128
 khokimiyats, Djizzak Suvtaminot LLC) or contractor	125 126 126 128 128
 khokimiyats, Djizzak Suvtaminot LLC) or contractor. B. Level 2: MIFT-PIU. C. Level 3: Court of Law (Economic Court). D. Overview. IX. ENVIRONMENTAL MANAGEMENT PLAN. A. Environmental Mitigation Measures. B. Environmental Monitoring. 	125 126 126 128 128 128 138
 khokimiyats, Djizzak Suvtaminot LLC) or contractor	125 126 126 128 128 128 138 139
 khokimiyats, Djizzak Suvtaminot LLC) or contractor	125 126 126 128 128 128 138 139 140
 khokimiyats, Djizzak Suvtaminot LLC) or contractor. B. Level 2: MIFT-PIU. C. Level 3: Court of Law (Economic Court). D. Overview. IX. ENVIRONMENTAL MANAGEMENT PLAN. A. Environmental Mitigation Measures. B. Environmental Monitoring. Yangiyer and Havast cities Toza Hudud. C. Reporting. D. Implementation arrangements. 	125 126 126 128 128 138 139 140 140
 khokimiyats, Djizzak Suvtaminot LLC) or contractor. B. Level 2: MIFT-PIU. C. Level 3: Court of Law (Economic Court). D. Overview. IX. ENVIRONMENTAL MANAGEMENT PLAN. A. Environmental Mitigation Measures. B. Environmental Monitoring. Yangiyer and Havast cities Toza Hudud. C. Reporting. D. Implementation arrangements. 	125 126 126 128 128 128 138 139 140 140 140
 khokimiyats, Djizzak Suvtaminot LLC) or contractor. B. Level 2: MIFT-PIU. C. Level 3: Court of Law (Economic Court). D. Overview. IX. ENVIRONMENTAL MANAGEMENT PLAN. A. Environmental Mitigation Measures. B. Environmental Monitoring. Yangiyer and Havast cities Toza Hudud. C. Reporting. D. Implementation arrangements. 1. Ministry of Investment and Foreign Trade (MIFT). 	125 126 126 128 128 128 138 139 140 140 140 141
 khokimiyats, Djizzak Suvtaminot LLC) or contractor. B. Level 2: MIFT-PIU. C. Level 3: Court of Law (Economic Court). D. Overview. IX. ENVIRONMENTAL MANAGEMENT PLAN. A. Environmental Mitigation Measures. B. Environmental Monitoring. Yangiyer and Havast cities Toza Hudud. C. Reporting. D. Implementation arrangements. 1. Ministry of Investment and Foreign Trade (MIFT). 2. MIFT - Project Implementation Unit (MIFT-PIU). 	125 126 126 128 128 128 138 139 140 140 140 141 142
 khokimiyats, Djizzak Suvtaminot LLC) or contractor	125 126 126 128 128 138 139 140 140 140 141 142 142
 khokimiyats, Djizzak Suvtaminot LLC) or contractor	125 126 128 128 128 128 138 139 140 140 140 141 142 142 142 144
 khokimiyats, Djizzak Suvtaminot LLC) or contractor	125 126 126 128 128 128 138 139 140 140 140 141 142 142 142 144 144
 khokimiyats, Djizzak Suvtaminot LLC) or contractor	125 126 126 128 128 128 128 138 139 140 140 140 141 142 142 142 144 144 145
 khokimiyats, Djizzak Suvtaminot LLC) or contractor	125 126 128 128 128 138 139 140 140 140 141 142 142 142 144 144 145 145 145
 khokimiyats, Djizzak Suvtaminot LLC) or contractor	125 126 128 128 128 138 139 139 140 140 140 141 142 142 142 144 144 145 145 147
 khokimiyats, Djizzak Suvtaminot LLC) or contractor	125 126 128 128 128 128 128 138 139 140 140 140 140 141 142 142 142 144 145 145 148

LIST OF ATTACHMENTS (IEE, VOLUME II)

Appendix 1. Template of Traffic Management Plan Appendix 2. WHO Health and safety practices for health-care and waste workers Appendix 3. Leaflet distributed during the Public Consultation Appendix 4. Minutes of Public Consultations Appendix 5. Record of public consultations (List of the participants and photos from meetings)

TABLES

Table 1: Entities Involved in SWM	. 12
Table 2: List of required approvals and permissions	. 14
Table 3: Maximum allowable noise standards (dB): comparison of national and internation	al
maximum allowable noise standards (dB)	
Table 4: National vibration standards	
Table 5: Maximum continuous vibration levels for preventing damage (mm/s)	. 17
Table 6: Summary of the relevant Ambient Air Quality Standards for Protection of Human	
Health (mg/m ³)	. 18
Table 7: WHO air quality standards	. 18
Table 8: Ambient air quality standards	
Table 9: General water standards	
Table 10: Maximum permissible concentration of pollutants in water bodies (mg/m ³)	
Table 11: Maximum Allowable Concentration (MAC) of pollutants in the soil	
Table 12: Key environmental legislation of the RUz on waste management	
Table 13: Gap analysis between ADB safeguard requirements and Uzbek national	
environmental legislation	. 26
Table 14: Participation of Uzbekistan in international conventions relevant to the project	
Table 15: Preliminary assessment of the need for construction work and equipment	
Table 16: Average values of atmospheric phenomena for 2018-2020	
Table 17: Main protected natural areas and IBA zones in Djizzak province	
Table 18: Average value of atmospheric phenomena for 2018-2020	
Table 19: The average annual water quality of the Syrdarya river at the Chinaz gauging	
station	. 70
Table 20: Groundwater table and salinity in Havast district	.71
Table 21: Socio-economic indicators of Syrdarya province	
Table 22: The average annual quality of the Amudarya river at the Tuyamuyun stream gau	uge
(2018-2020)	
Table 23: Ground water level, salinity and area distribution of groundwater in Khiva city	
(2019-2020)	
Table 24: Main Protected Natural Areas and IBA Zones in Khorezm province	. 88
Table 25: Impact Significance Matrix	. 98
Table 26: Mitigation Hierarchy	. 99
Table 27: Vibration from machinery 1	
Table 28. National vibration standards 1	
Table 29: Questions and answers raised during the public consultation in January 2022 1	122
Table 30: Contacts of the grievances redress responsible agencies 1	124
Table 31. Environmental Management Plan1	
Table 32. Environmental Monitoring Plan1	
Table 33: Tentative program of training1	
Table 34: Indicative Cost Estimate for Contractor's Environmental Management 1	
Table 35: Cost Estimate for the PMSC's Environmental Monitoring 1	
Table 36: Cost Estimate for PMSC's IUDP Environmental Management1	
Table 37: Cost Estimate for the PIU's Environmental Management 1	149

FIGURES

Figure 1: Project cities	
Figure 2: SWM System Schematic	
Figure 3: Example of Waste Collection Point (CDIA report, 2020)	. 33
Figure 4: Project cities location	. 34
Figure 5: Location of Djizzak landfill	
Figure 6: Khiva city and location of Khiva landfill	
Figure 7: Yangiyer city	
Figure 8: Havast urban village	
Figure 9: Schematic drawing of waste collection point	
Figure 10: Current situation with waste management and plans for Syrdarya province	
Figure 11: Current situation with waste management and plans for Khorezm province	
Figure 12: Current situation with waste management and plans for Djizzak province	
Figure 13: Proposed place for transfer station	
Figure 14: An example of a simple transfer station without compacting	
Figure 15: Conceptual plan of the Havast transfer station	
Figure 16: Equipment for Havast transfer station	
Figure 17: Project cities location	
Figure 18: Climatic map of Djizzak province	
Figure 19: Climatic data of Djizzak city	
Figure 20: Ambient air quality data of Djizzak city	
Figure 21: Djizzak city	. 51
Figure 22: Main waterways and its remoteness from subprojects' sites	. 53
Figure 23: Soil map of Djizzak province	. 54
Figure 24: Vegetation map of Djizzak province	. 56
Figure 25: Fauna map of Djizzak province	
Figure 26: Main protected areas close to Djizzak subprojects	
Figure 27: Some architectural monuments close to Djizzak	
Figure 28: Administrative map of Djizzak province	
Figure 29: Administrative map of Djizzak city	
Figure 30: Climatic map of Syrdarya province	
Figure 31: Climatic data for 2018-2020	
Figure 32: The results of air quality monitoring for 2018-2020	
Figure 33: Syrdarya province (Yangiyer and Havast cities) Figure 34: Main waterways in Havast district	
• •	
Figure 35: Main waterways in Havast city	
	. 69
Figure 37: Groundwater level in Havast district	
Figure 38: Soil map of Syrdarya province	
Figure 39: Soil salinity in Havast district	
Figure 40: Map of vegetation of Syrdarya province	
Figure 41: Vegetation in Project area (August 2020)	
Figure 42: Fauna map of Syrdarya province	
Figure 43: Location of the natural protected areas	. 76
Figure 44: Administrative map of Syrdarya province	. 77
Figure 45: Climatic map of Khorezm province	. 79
Figure 46: Climatic data from Urgench meteostation (2018-2020)	. 80
Figure 47: Air quality monitoring data for 2018-2020	
Figure 48: Main waterways in Khiva city	
Figure 49: The remoteness of the main waterways from the Khiva city's project sites	
Figure 50: Groundwater level in Khiva city	
Figure 51: Salinity level of groundwater in Khiva city	
Figure 52: Soil map of Khorezm province	
Figure 53: Vegetation map of Khorezm province	
Figure 54: Fauna map of Khorezm province	
Figure 55: Main protected areas close in Khiva	
Figure 56: Main sightseeing places in Khiva close to subprojects	
רוקעו פ סט. ואמווז אוקווגצפוווץ אמכפא ווז גרוועם נוסצי נט צעטאוטופנגא	. 90

Figure 57: Main historical places close to Khiva subproject	
Figure 58: Administrative map of Khorezm province	
Figure 59: Administrative map of Khiva city	
Figure 60: Location of new WCP (right in blue)	
Figure 61: Procedure and stages of the Grievance Redress Mechanism	
Figure 62: Project's institutional structure and environmental team	

CURRENCY EQUIVALENTS

(as of 1 June 2022)

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

ABBREVIATIONS

ADB AASL AASHTO ASEWPH CCMP CDIA CNR COVID-19 CSEE DED EBRD EHS Guidelines	 Asian Development Bank Aydar-Arnasay System of Lakes American Association of State Highway and Transportation Officials Agency for Sanitary and Epidemiological Welfare and Public Health Construction Camps Management Plan Cities Development Initiative for Asia Construction Norms and Rules Coronavirus Disease Center of the State Environmental Examination Detailed Engineering Design European Bank of Reconstruction and Development the World Bank Group's Environment, Health and Safety Guidelines
EIA	 Environmental Impact Assessment
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
MSW	- municipal solid waste
NFS	- National Feasibility Study
NGO	- Non-Governmental Organization
O&M	- Operation and Maintenance
OHSP	Occupational Health and Safety Plan
OHSE	Occupational Health and Safety Engineer
PEIS PIU	Preliminary Environmental Impact Statement
PIU-NES	 Project Implementation Unit Project Implementation Unit – National Environmental Specialist
PMDSC	 Project Implementation Onit – National Environmental Specialist Project Management and Design Supervision Consultant
PMDSC	 Project Management and Design Supervision Consultant Project Management Supervision Consultant
	 Project Management Supervision Consultant Project Management and Supervision Consultant International
PMSC-IES	Environmental Specialist
	 Project Management and Supervision Consultant National
PMSC-NES	Environmental Specialist
PPE	- personal protective equipment
	poronial protocitio oquipmont

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
mg/m3	_	micrograms per cubic meter
mg/dm ³	_	milligram per cubic decimeter
°C	_	degree Celsius
mg/kg	_	milligram to kilogram
m	_	meter
MVA	_	mega volt ampere
ha	_	hectare
mm	_	millimeter
m³/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			
КМК	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 Ioan 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 (SWM) 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 third component: SWM in Djizzak, Khiva, Havast and Yangiyer. Third component of IUDP includes three sub-components and their description is presented below.

- Waste Minimization and 3R campaigns (all 4 cities). Expose State Committee on Ecology and Environmental Protection of Uzbekistan (SCEEP) and Toza Hududs to international best practices in implementing waste minimization and 3R (reduce, reuse, and recycle) awareness raising campaigns.
- Improving waste collection systems (all 4 cities). This subproject will support the project cities with the following (i) construction of new community collection points (7 in Havast, 18 in Yangiyer); (ii) purchase of waste containers varying from 250 liters to 1,100 liters and 6 cum (38 for Khiva, 679 for Djizzak, 814 for Havast and 696 for Yangiyer); (iii) purchase of vacuum sweeper trucks (2 each for Djizzak, Yangiyer and Havast), and: (iv) purchase of 7 cum waste collection trucks (20 for Djizzak, 15 for Khiva, 17 for Havast and 5 for Yangiyer).¹
- **Transfer station for Yangiyer and Havast**. This subproject will support the construction of a solid waste transfer station located in Havast,² from which solid waste collected in Yangiyer and Havast is transferred to large waste transfer vehicles with trailers and then taken to an existing regional disposal facility in Mirzabad.³ The transfer station will be equipped with 2 hook lift trucks, 2 trailer trucks, 12 containers and 1 front-end loader.

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 and Yangiyer hokimiyats, relevant branches of SCEEP will

¹ SCEEP confirmed that collected waste in Khiva, Djizzak, Havast and Yangiyer will be ultimately disposed in new regional landfills currently under planning for development in the respective regions. Until these regional landfills are developed, the waste will continue to be disposed at the existing disposal sites.

² The transfer station will be located on the premises of the existing Havast dumpsite and will be jointly operated by the Yangiyer and Havast Toza Hudud city branches.

³ SCEEP confirmed plans to upgrade the regional dumpsite in Mirzabad into a sanitary landfill before 2028. It is currently seeking funding from international donors through MIFT.

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]).⁴ 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.

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. The national Law "On Environmental Expertise" and the Resolution of Cabinet Ministries (RCM) of Republic of Uzbekistan "On the State Environmental Expertise (SEE)" # 541 dated from 2020, requires environmental impact assessment (EIA) for all types of activities which may have impact on environment. According to the national legislation, this sub-project activities have been classified as IV (local risk). Twenty-six Preliminary Environmental Impact Statement (PEIS, environmental assessment document required for Category III and Category IV projects or PZVOS⁵) will be developed for this component: 25 for waste collection points (WCP) and 1 for Havast transfer station. 26 PEISs were prepared by the MIFT-PIU and submitted by the Toza Hududs of Havast and Yangiyer cities to the Syrdarya branch of the SCEEP in April 2022. It is anticipated that Environmental Appraisals will be received in June 2022.

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

⁴ 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.

⁵ PZVOS is Russian translation of Preliminarily Environmental Impact Statement (PEIS) – 1st stage of national Environmental Impact Assessment Procedure.

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 – preconstruction, 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 of WCPs, impacts are expected in the form of increased noise levels, dust generation, and emissions of pollutants from operating machinery. All of these impacts can be reduced by applying the mitigation measures described in the EMP.

17. Impact on water resources will be negligible for Yangiyer and Havast WCPs terrirory because there are no water courses on surrounded area.

18. Impact on biodiversity will be minimal, because the selection of the WCPs have been done in a manner avoiding cutting any trees.

19. Besides impacts on air, water and noise level, 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 through settlements. Contractor will be required to inform population of the closest settlements about planning works in advance. Safe working conditions, together with compliance with sanitary, fire protection and other construction norms and requirements, will be strictly adhered to prevent risk to workers health at the construction site. Each contractor will be required to develop an occupation health and safety plan (OHSP). To address COVID-19 risks, COVID-19 health and safety management plan and emergency response plan will be developed as part of the SSEMP.

20. 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.

21. 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.

22. **Operation Phase.** During the operation stage, the WCPs will operate on a continuous basis, fulfilling their functions of accepting community municipal solid waste (MSW), segregating the waste to recover recyclable materials, and consolidating the residual waste for collection by the municipal collection vehicles. The Havast transfer station will also operate continuously from its commissioning, providing the transfer of MSW from the smaller collection trucks into the larger regional transfer vehicles, for transfer to the new regional landfill facility at Mirzaabad district.

23. Waste from Yangiyer and Havast cities will be delivered to and from a transfer station to be constructed at the location of the not operated Havast dumpsite. Although air quality could therefore be polluted by NOx, SO_2 and dust due to these truck movements, this will be partially mitigated due to the utilization of more efficient and less polluting trucks, and improvements to the access road which will improve truck transport efficiencies. There may be minor airborne emissions emanating from waste materials during the transfer of waste from the smaller trucks to the larger waste transfer vehicles, however, these emissions are considered to be minor, and also located within the transfer station facility itself.

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

24. Noise generated by WCPs and transfer station operations will include the movement of waste vehicles to and from these facilities, and noise generated through the manual sorting of waste and other related activities within these facilities, both of which are considered to be negligible.

25. During both – construction and operation phases, usage of personal protective equipment (PPE) by Contractor's workers and Toza Hudud's staff will be highly important.

26. The construction of WCPs will significantly improve the sanitary and epidemiological situation in the project cities. Wastes will be stored in closed containers, on specially equipped sites, equiped with water supply and connected to sewerage.

27. Awareness raising, implementation of the 3R program will help reduce the amount of waste thrown into landfills through the widespread introduction of sorting waste into recyclable and non-recyclable, introducing wastes composting approach.

28. **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. 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 subcomponent 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.

29. In order to deliver information about the planning activities under the subcomponent, its environmental impacts, GRM, TRTA consultants prepared leaflets in Russian and Uzbek languages with brief information on these topics (Appendix 3). The leaflets also provided information on type of mitigation measures and contacts for clarifications and complaints submission if any. At the stage of the IEE finalization, no feedback has been received. The information in the leaflet was reviewed by MIFT-PIU and printed versions were distributed in January 2022 in 3 mahallas in Havast city (Bunyodkor, Istiklol and Tinchlik mahallas) and 8 mahallas in Yangiyer city (Z. Bobur, A. Jamiy, Marifat, Temur Malik, Shodiyona, Shukrona, Navruzobod, and Obod yurt) where WCPs are located. The leaflets were also distributed in 1 mahalla close to Djizzak landfill in Djizzak city (Gozgontepa) and 1 mahalla in Khiva city (Buston). During consultation conducted in Bunyodkor makhalla, impacts related to the construction of transfer station in Havast have been discussed as well. Besides, the leaflets were also delivered to khokimiyats of Djizzak, Yangiyer, Havast and Khiva cities, regional SCEEP branches (in Djizzak, Syrdarya and Khorezm provinces).

30. Public Consultations were held on 13, 14 and 17 January 2022 in city (Z. Bobur, A. Jamiy, Marifat, Temur Malik, Shodiyona, and Shukrona) and on 6 and 14 January 2022 in Havast city (Bunyodkor, Istiklol and Tinchlik mahallas) by PIU-NES. Minutes of Public Consultations are in Appendix 4.

31. 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.

32. 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.

33. Costs for EMP implementation will cover the following activities: (i) implementation of the environmental measures as indicated in the EMP, and (ii) implementation of the capacity building and awareness programs.

34. 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.

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 Ioan 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 2017–2021⁷; (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)⁸; 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 (PPP), water supply, SWM, 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**) as the pilot cases under different development scenarios and has an intention to replicate their experience nationwide.

⁷ Government of Uzbekistan. 2017. Presidential Decree No. 4947. On Strategy of Actions for Further Development of the Republic of Uzbekistan. Tashkent.

⁸ 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:

Output 1: Inclusive municipal and tourist infrastructure and services provided. 8. 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:⁹ (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) (Ittifog, 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,¹⁰ and a smart

⁹ The visitor center, located near the rail station, will complement the <u>ADB rail electrification project</u> between Bukhara and Khiva to boost tourist arrivals. Women-friendly travel services include information on safety and security.

¹⁰ 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;¹¹ (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.¹² 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;¹³ (iii) construct a shared transfer station for Havast and Yangiver 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.¹⁴

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) SWM in Djizzak, Khiva, Havast and Yangiyer.

12. For each subcomponent a separate IEE has been prepared. This IEE presents impact assessment results of the third subcomponent – SWM in Djizzak, Khiva, Havast and Yangiyer.

¹¹ 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 <u>ADB's Digital Innovation Sandbox Grant Program</u> (2020–2021) in Tashkent Province.

¹² ADB. 2020. <u>Technical Assistance for the COVID-19 Infection Prevention and Control through an Integrated Water, Sanitation, Hygiene, and Health Approach</u>. 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.

¹³ 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.

¹⁴ ADB. 2020. <u>Support to the Implementation of Strategy 2030 Operational Plans</u>. 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 locations of community WCPs.
- 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:** Provides 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). 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 4).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

18. 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.
- **Residual impact evaluation**: Evaluate the significance of impacts assuming effective implementation of mitigation and enhancement measures.

19. The details of the project activities required for the project implementation have been reviewed with assistance of the TRTA consultants, NFS and DED Consultant (footnote 4). Detail information on Impact Assessment is provided in **Chapter V**.

II. POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

20. 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.

21. 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.

22. 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

23. 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.

24. 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.

25. 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. Institutional Framework on Solid Waste Management (SWM)

26. In accordance with the Laws of the Republic of Uzbekistan "On Nature Protection" and "On Waste", state regulation in the field of SWM is carried out by the *Cabinet of Ministers of the Republic of Uzbekistan*, specially authorized state bodies in the field of SWM, as well as local governing authorities.

27. At the state level, the general authority to control compliance with legislation in the field of SWM, the organization of an effective system of collection, transportation, disposal, recycling and dumpsiteing of MSW are entrusted to the SCEEP, which, in close cooperation with local government bodies and self-governing bodies of citizens:

• Provides state control over the activities of state and economic management bodies, local executive authorities, specialized sanitation organizations in cities and district improvement offices, state unitary enterprises (SUEs) "Toza Hudud",

"Maxsustrans", as well as legal entities and individuals on compliance with legislation in the field of SWM;

- Organizes control over the creation of the collection points, the timely removal of waste, the prevention of the formation of unauthorized waste dumpsites, the management of dumpsites, and the utilization, recycling, disposal and selling of waste;
- Collects and analyzes information related to SWM, maintaining the state cadastre of their dumpsite and utilization sites;
- Assists self-governing citizen bodies and non-governmental non-profit organizations in the implementation of public environmental control;
- Organizes interaction with government bodies, local executive authorities, and citizens' self-government bodies on the development and implementation of measures to eliminate unauthorized dumpsites; and;
- Monitors the sources of soil pollution in the areas of storage of solid waste.

28. *The Ministry of Health of the Republic of Uzbekistan* in the field of SWM is assigned to:

- Implement state sanitary and epidemiological surveillance for compliance with established sanitary standards and rules of SWM;
- Determine measures to protect the life and health of citizens from the harmful effects of waste;
- Issue reports of the state sanitary and hygienic examination of SWM facilities;
- Establish sanitary and hygienic requirements for goods produced from waste, and issue hygienic certificates for them;
- Determine the degree of danger of waste to the life and health of citizens.

29. Toza Hudud is responsible for the collection, transfer, treatment and disposal of MSW generated in the city. City Khokimiyat primarily has an oversight and management function, assisted by the Sanitary Cleansing Center. The city's Public Prosecutor's Enforcement Office monitors SWM tariff collections. City cleanliness is also enhanced through (i) the city's landscaping department, which performs major street sweeping and landscaping operations throughout the city, (ii) housing associations that manage community SWM management within multi-story residential complexes, and (iii) mahalla (village) committees, that coordinate MSW collection services and tariff payments in their respective mahallas. **Table 1** lists the entities involved in the SWM sector in project cities.

Stakeholder Entity	Summary of Responsibilities				
Toza Hudud	 Collection, transfer, and removal of MSW from jurisdictional areas. Operation and maintenance of waste collection trucks and other equipment, container bins, community collection points, and disposal sites. Complaints resolution. 				
City Khokimiyat	 Day-to-day management, oversight and quality control of SWM systems. SWM contractor procurement. SWM tariff review and approval. Maintaining a bank account for SWM services. Complaints resolution. 				
City Board on Ecology and Environmental Protection (Sanitary Cleansing Center)	 Supervision and control of SWM service providers. Assistance to city Khokimiyat on SWM contractor procurement. Working with mahalla committees and others in the supervision and quality control of SWM services. Assisting the city Khokimiyat in the calculation, examination, and approval of SWM tariffs. Review and resolution of SWM complaints. Cooperation with the prosecutor's enforcement office and mahallas for SWM tariff collections. 				
Public Prosecutor's Enforcement Office of the City	 Maintaining a unified transit bank account for the accumulation of SWM residential tariff payments, for transfer to the Khokimiyat. Monitoring and control of residential SWM tariff payments. 				

Table 1	: Entities	Involved	in S	wм

Stakeholder Entity	Summary of Responsibilities
Landscaping Department of the City	 Sweeping and cleaning of streets, squares, and alleyways. Collection and removal of street sweeping waste and litter from litter bins. Collection of green waste from tree trimming and other agricultural activities.
Housing and Communal Services Department of the city (Associations of House Owners)	 Sweeping and cleaning of multi-story residential areas. Removal of sweeping waste from multi-story residential areas. Collection of green waste from tree trimming and other agricultural activities in multi-story residential areas.
Mahalla Committees of the City	 In cooperation with house owners, responsible for the following: Cleaning of mahalla residential areas. Assisting contractors to collect and remove MSW from mahallas. Monitoring and control of SWM tariff payments in the mahallas.

3. National Environmental Requirements

30. 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.

31. 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).

32. 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).

33. 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 5) shall be prepared during preparation of a proposed project prior to any fund allocation for development.
- **Stage II:** An Environmental Impact Statement (EIS or ZVOS¹⁵) 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.

34. 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);

¹⁵ ZVOS is Russian translation of Environmental Impact Statement (EIS) – 2st stage of national Environmental Impact Assessment Procedure

- 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).

35. 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.

36. 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.

4. Environmental Assessment required for the Subcomponent

37. The national Law "On Environmental Expertise" and Resolution of Cabinet Ministries (RCM) of Republic of Uzbekistan "On the further improvement of the environmental impact assessment mechanism" # 541 dated from 2020 requires preparation of the Environmental Assessment for all type of activities which may have environmental impact. The subcomponents were classified as Category IV. 25 PEISs for WCPS construction and 1 PEIS for construction of Havast transfer station have been prepared by the MIFT-PIU and submitted by the Khokimiyats of Havast and Yangiyer cities to the Syrdarya branch of the SCEEP in April 2022. It is anticipated that Environmental Appraisals will be received in June 2022.

38. **Table 2** presents permissions from national agencies needed to be received prior to commencement of civil works and prior the project operation:

#	Name of the document	······································		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, Havast and Yangiyer cities	Contractor
2	Non-objections to conduct construction works	Prior to commencement of the construction works	Relevant authorities (gas, water supply and other utilities)	Contractor
3	Permission on water use during construction phase	Prior to commencement of the construction works	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 to operation phase	Relevant provincial branch of SCEEP and State Committee on Geology and Mineral Resources	Havast, Djizzak and Khiva cities Khokimiyats

 Table 2: List of required approvals and permissions

SCEEP = State Committee of Ecology and Environment Protection

5. 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:
 - Decree of the Cabinet of Ministers of The Republic of Uzbekistan on Measures for Further Improvement of the Order of Construction Wastes Management (#40 of 28 January 2021);
 - Decree of the Cabinet of Ministers of The Republic of Uzbekistan on Measures for Further Improvement of the Efficiency of Works in the Field of Management of Domestic Wastes (#787 of 2 October 2018);
 - Decree of the Republic of the Republic Uzbekistan on the Approval of the Strategy on SWM in the Republic of Uzbekistan for the Period of 2019-2028 (#PP-4291 of 17 April 2019);
 - SanR&N No. 0329-16. Sanitary Rules and Regulations for the Maintenance and Improvement of the Territories of Populated Places in the Conditions of the Republic of Uzbekistan (May 6, 2016);
 - Resolutions of the President # 5863 "On Approval of Concept of Environmental Protection of the Republic of Uzbekistan till 2030";
 - Law on Protection and Use of Archeological Heritage (2009);
 - 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;
 - 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.

B. Environment Quality Standards

1. Noise and Vibration Standards

49. National and international noise standards are presented in

50.

51. **Table** 3. 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.

	international maximum anowable noise standards (ub)						
Receiver	National ¹⁶		General EHS Guidelines ¹⁷				
	Daytime Nighttime		Daytime	Nighttime			
	(7am – 11pm)	(11pm – 7am)	(7am – 10pm)	(10pm – 7am)			
Residential	55	45	55	45			
Offices, commercial	60	-	70	70			

Table 3: Maximum allowable noise standards (dB): comparison of national and international maximum allowable noise standards (dB)

52. There is some difference in defining a daytime and nighttime between General EHS Guidelines (footnote 17) 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.

53. 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 4**. 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 4: National vibration standards

	Permanent vibration, dB
Daytime	72
Nighttime	67

54. For non-residential areas, standards for buildings integrity were accepted in accordance with **Table 5**. Maximum continuous vibration levels for preventing damage (mm/s).

55. **Table 5** 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 5: 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 masonry	5.1-7.6	100-104	5.1	100
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

¹⁶ 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

¹⁷ World Bank Group, Environmental, Health, and Safety Guidelines, April 30, 2007, Washington, USA. <u>https://www.ifc.org/wps/wcm/connect/29f5137d-6e17-4660-b1f9-02bf561935e5/Final%2B-%2BGeneral%2BEHS%2BGuidelines.pdf?MOD=AJPERES&CVID=nPtguVM</u> in English. <u>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.</u>

Engineered structures without plaster /	25.4-38.1	114-118	12.7	108
Buildings in steel or reinforced concrete				

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)

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 6**).

Table 6: Summary of the relevant Ambient Air Quality Standards for Protection of Human Health (mg/m³)

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

58. The WHO standards¹⁸ for air quality are presented in **Table 7** below.

Table 7: WHO air quality standards

Air quality parameter	Period	Norm (mg/m ³)
SO ₂	24 hours	20
	10 minutes	500
NO ₂	1 year	40
	1 hour	200
PM ₁₀	1 hour	50
	24 hours	20
PM _{2.5}	1 hour	25
	24 hours	10

59. The air quality standards recommended for assessment of ambient air quality are presented in **Table 8.**

Table 8: Ambient air quality standards

Pollutant	Average Period	Norm in mg/m ³	Norm mg/m ³	Source of standards
SO ₂	10 min	500	0.5	EHS Guidelines ¹⁹
	30 min	500	0.5	Uzbekistan
	24 hours	20	0.02	EHS Guidelines/
	1 month	500	0.5	Uzbekistan

¹⁸ WHO Air Quality Guidelines for particulate matter, ozone, nitrogen dioxide and sulfur dioxide, Global Update 2005, Summary of Risk Assessment

¹⁹ footnote 17

Pollutant	Average Period	Norm in mg/m ³	Norm mg/m ³	Source of standards
	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 9** and **Table 10** present the national general effluent standards into the water bodies classified by type of use.

Table 9: General	water standards ²⁰
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Indicators	Purpose of water use				
			Fishe	ry needs	
	Domestic use	Recreation and service	Highest and first category	Second category	
Suspended solids		natural conditions, lischarge shall not		suspended solids	
	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 d	etected in the	There shall be	no adulterants	
	column of height				
	20 cm	10 cm			
Smell and test	Intensity of more than 1 point is not permitted			ot give extraneous ors to fish meat	

²⁰ 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".

Indicators	Purpose of water use				
	Fishery needs			ry needs	
	Domestic use	Recreation and service	Highest and first category	Second category	
Temperature	Temperature of water at the discharge point shall not exceed 3°C as compared with average monthly temperature of the hottest month		Temperature of water at the discharge point shall not exceed 5°C as compared with average monthly temperature of the hottest month. Increasing of temperature more than 28°C in summer and till 8°C in winter is not allowed		
Hydrogen exponent (pH)	Shall not be bey	yond 6.58.5	Shall not be be pH	eyond 6.58.5	
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 20°C shall no 3.0 mg/dm ³	ot exceed 6.0 mg/dm ³	At 20°C 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		
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 co	ntained in concen	trations exceeding	ng 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.

Maximum allowed concentrations of most spread chemical pollutants are presented in 61. Table 10. 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.

	Water use category (Handbook of environmentalist, Tashkent 2010)					
Pollutants	Fishery	Municipal	Potable water		Irrigation water for direct use without blending	
			Nat	WHO ²¹	Nat	FAO ²²
COD	15	30	30	-	40	-
BOD ₂₀ , mg _{O2} /L	3	3-6	3-6	-	10	-
рН	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	-	-

 ²¹ WHO, Guidelines for drinking water quality, Fourth Edition, 2017
 ²² FAO Guidelines for interpretations of water quality for irrigation, http://www.fao.org/3/t0234e/t0234e01.htm

	Water use category (Handbook of environmentalist, Tashkent 2010)						
Pollutants	Fishery	Municipal	Potable water for d		for dir wit	ion water rect use thout nding	
					Nat	FAO ²²	
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 of exogenous pollutants in the soil". The national standards have been compared with the international ones.

Parameter	Unit	Uzbek Standard	Dutch Intervention Values ⁽²⁾	EHS Guidelines ²³
Antimony	mg/kg	4.5	22	There are no
Arsenic	mg/kg	2.0	76	detailed
Cadmium	mg/kg		13	numerical
Chromium	mg/kg	6.0		requirements to
Chromium VI	mg/kg		78	soil quality
Cobalt	mg/kg	5.0	190	established by
Copper	mg/kg	3.0	190	EHS Guidelines
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)	
Benzene	ma/ka	0.3	50 (complex) 1.1	
	mg/kg mg/kg	0.3	110	
Ethylbenzene Toluene	<u> </u>	0.3	32	
	mg/kg	0.3	<u> </u>	
Xylenes (sum)	mg/kg	0.1	86	
Styrene (vinylbenzene) Phenol	mg/kg	0.1		
Vanadium	mg/kg	150.0	14	
	mg/kg	150.0	250	
Nitrates	mg/kg	130.0	-	
Sulphates (H ₂ SO 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	

Table 11: Maximum Allowable Concentration (MAC) of pollutants in the soil

²³ Footnote 17.

Parameter	Unit	Uzbek Standard	Dutch Intervention Values ⁽²⁾	EHS Guidelines ²³			
(2) SanN&R #0191-(Notes: (1) General EHS Guidelines (footnote 17), 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						

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 12: 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".
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 Measures for Further
Improvement of the Order of Construction Wastes Management (#40 of 28 January 2021)
Decree of the Republic of the Republic Uzbekistan on the Approval of the Strategy on Solid
Waste Management in the Republic of Uzbekistan for the Period of 2019-2028 (#PP-4291
17 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)
Regulations
Instructions for the design and operation of solid waste dumpsites (#3197 dated 19
November, 2019)
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 - Regulation Document on Production and consumption waste.
Waste inventory and waste disposal limits approval procedure (issued by the
Goskomecologiya of Uzbekistan, 2006)
RD Oz RH 84.3.8.2004 - Regulation Document on Methodology for integrated waste hazard
rating
Provisional waste norms for cities and regions of Uzbekistan approved by <i>khokimyats</i>
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 dumpsites

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

a) Municipal Solid Waste (MSW)

64. Related to **SanR&N RUz No. 0297-11**²⁴, The composition of MSW is usually divided into the following main groups: paper, food waste, wood, metal, textiles, leather, rubber, glass, stones, coal and ash, room and yard estimates, fallen leaves, other unclassified parts and screenings (particles smaller than 15 mm).

65. In the conditions of Uzbekistan, the average annual rate of accumulation of solid waste per person in different cities varies, their composition is characterized by an increased accumulation of garbage due to street estimates, fruit and vegetable waste, and packaging material (including plastic). The largest part of the waste is made up of such fractions as paper, kitchen waste, metal, textiles, glass and stones.

66. The volumetric weight of MSW must be specified for individual populated areas of a particular region of the Republic.

67. The norms of solid waste accumulation in settlements per 1 inhabitant should be taken on average at the level of 1.17 kg/day (0.003 cubic meters) or 437.7 kg per year (1.09 cubic meters per year).

68. MSW in terms of its physical and chemical parameters (humidity, calorific value, content of organic substances) is quite specific, contains a large amount of combustible material, nitrogen and carbon, which makes it possible to neutralize them in various ways (burning, use as fertilizer, neutralization by biofermentation on factory settings and special polygons).

b) National regulatory requirements for waste collection points

69. In accordance with **SanR&N RUz No. 0329-16**²⁵, special areas on the territory of households should be allocated for placing containers with convenient access for vehicles. The site should be open, with a waterproof coating and preferably fenced with green spaces.

70. Waste should be stored in specially designated places, determined jointly by partnerships of private homeowners, self-government bodies of citizens, professional management organizations. To determine the number of installed waste bins (containers), one should proceed from the population using waste bins, waste accumulation rates, and waste storage periods.

71. Solid household waste is removed by garbage trucks, and liquid waste from nonsewered households - by sewage vacuum transport. The export of solid and liquid household waste directly to the fields and gardens is not allowed.

²⁴ SanR&N RUz No. 0297-11 (27.08.2011) - Sanitary Rules and Regulations on cleaning the territories of populated areas from solid household waste in the conditions of the Republic of Uzbekistan

²⁵ SanR&N RUz No. 0329-16 (May 6, 2016) - Sanitary Rules and Regulations for the Maintenance and Improvement of the Territories of Populated Places in the Conditions of the Republic of Uzbekistan

72. Waste collection sites should be equipped with special containers for separate collection of MSW, with distinctive signs (with inscriptions). To collect MSW, standard metal containers should be used in a well-maintained housing stock. Sites for the installation of containers from residential buildings, children's institutions, sports grounds and from places of recreation for the population are arranged at a distance of at least 20 m, but not more than 100 m in accordance with BR&N 2.08.01-05. The size of the sites should be designed to accommodate the required number of containers. On the territory of private households, the locations of garbage bins, yard toilets and garbage pits are determined by the homeowners themselves, without prejudice to neighboring households, while the gap can be reduced to 8-10 m from the windows of the residential building itself.

73. The area of the waste collection site and the number of containers placed in them is determined in accordance with the number of residents served, the accumulation rate and the storage period for waste. The estimated volume of waste bins should correspond to the actual accumulation of waste during periods of their greatest generation.

74. They should be placed on asphalt or concrete sites. It is allowed to install garbage collectors on a densely compacted earthen platform. The distance from the edge of the site to the nearest garbage container should be at least 1 m. Guarded waste collection sites must have a supply of cold water and a drain to the sewer.

75. The WCPs should have well-maintained access and internal roads, an irrigation network, including a ditch for the removal of atmospheric water. The area is planted with trees and bushes. At protected waste collection sites, it is necessary to organize the disinfection of containers after they have been emptied.

76. According to Appendix No. 1, to the Resolution of the Cabinet of Ministers of 2 October 2018 No. 787²⁶, the construction of closed-type WCPs is carried out in accordance with a standard or individual design developed and agreed upon in the prescribed manner. Depending on the intensity of use of the territory, the construction of unguarded (modular) WCPs can be organized in the busiest places.

77. The demolition of existing WCPs is carried out after the construction of new WCPs installed in their place.

78. The territory of the WCP should be adjacent to the driveways, but not interfere with the entrance of a special vehicle. With a separate location of the site (away from driveways), it is possible to conveniently access a special vehicle for emptying containers and have turnaround areas (12 m x 12 m).

79. The placement of WCPs is designed out of sight from transit transport and pedestrian communications, away from the street facades of buildings. The area of the WCP and the number of containers placed in it are determined in accordance with sanitary rules, norms and hygiene standards.

80. The surface of the site for the installation of containers should be asphalt or concrete. In order to prevent stagnation of water and rolling of containers, a slope of the site cover is established, which is 5-10% towards the carriageway and is convenient for the entrance of a special vehicle.

C. ADB Safeguard Policy Statement (SPS, 2009)

81. The gap analysis between ADB environmental safeguard requirements and national legislation is provided in **Table 13**. The table also presents information on how the identified gap has been harmonized.

²⁶ Appendix No. 1, to the Resolution of the Cabinet of Ministers of October 2, 2018 No. 787, Rules for placement and operation of infrastructure facilities for sanitary cleaning and household waste management

Table 13: 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: Law on Nature Protection (1992); Law on Environmental Expertise (2000), and Resolution of Cabinet Ministries (RCM) "On the further improvement of the environmental impact assessment mechanism" No. 541 (2020) 	
Screening	categorization at the earliest stage of project preparation when sufficient information is available	Appendix provides a list of activities split for 4	(ADB classification) and as Categorie IV
Scoping	Avoid, minimize, mitigate and/or offset any adverse impacts and enhance positive impacts through environmental planning and management		potential environmental (including labor, health, and safety) risks and project
	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	project's potential impacts on physical, biological, socio-economic , and cultural	
Alternatives		For the EIS (national Environmental Impact Assessment), consideration of alternatives is required. Alternatives that may be assessed include alternatives of processing, technical	

Aspect	Asian Development Bank	National Regulations	Harmonized Framework
	Consider "without project" scenario.	design, location of a facility, architectural and planning options. Another mandatory requirement is consideration of the zero option .	
Environmental Assessment Report	Participation, (viii) Grievance Redress Mechanism,	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,	table of contents proposed in ADB SPS. PEIS will be prepared separately following the national regulation, but in line with the
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.		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.		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. ²⁷ 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	issues and corrective actions if any	under IEE is a responsibility of design consultant developed Feasibility Study (design	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.	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	in accordance with ADB and national requirements

SCEEP = State Committee on Ecology and Environmental Protection of Uzbekistan

²⁷ MIFT-PIU's website - https://cutt.ly/SD4zaae

D. International Legislation

82. 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 6 and footnote 17). 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

83. 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.

84. 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.

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

- <u>General EHS Guidelines (2007)</u> (footnote 17) (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;
- <u>A guidance Note by International Finance Corporation (IFC) and the EBRD</u>:²⁸ Workers' accommodation: processes and standards.

2. COVID-19

86. 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.

87. 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.

88. 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 website²⁹.

89. The Ministry of Health of the RUz, together with WHO, developed the National COVID-19 Guideline.³⁰

²⁸ <u>A guidance note by IFC and the EBRD Workers' Accommodation: Processes and Standards</u> (August 2009)

²⁹ https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance

³⁰ http://minzdrav.uz/openData/csv/nation_rukovodstvo_COVID-19.pdf

90. 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

91. The RUz has ratified the following international conventions relevant to this IEE. These are shown in **Table 14**. 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 14: Participation of Uzbekistan in international conventions relevant to the
project

International Conventions and Treaties	Date of Ratification	Date of coming into force for	Main objectives
United Nations Framework Convention on Climate Change	20 Jun 1993 (acceptance)	Uzbekistan 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,

International Conventions and Treaties	Date of Ratification	Date of coming into force for Uzbekistan	Main objectives				
			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. Existing Situation

92. All project cities have similar MSW management systems. All of them are under the jurisdiction of the city branches, corresponding to the SUE "Toza Hudud", and all the SUE "Toza Hudud" are directly subordinate to the State Committee for Ecology and act in accordance with a single national regulatory framework.

93. All SUE "Toza Hudud" were commissioned in 2017 and have similar institutional structures and reporting mechanisms, as well as similar tariff setting and collection methods. Functionally, their physical MSW management systems are also similar, they use the same infrastructure and methods of collection, recycling, transfer and disposal of MSW, and all SUE "Toza Hudud" are at the same level of development.

94. This section provides a brief description of the overall MSW management system used and then provides more detailed information on each MSW management system in the project cities.

95. A simplified schematic of the MSW management system in Uzbekistan is shown on **Figure 2**. As shown, MSW generated by households and institutional and commercial establishments is collected utilizing two separate collection methods.

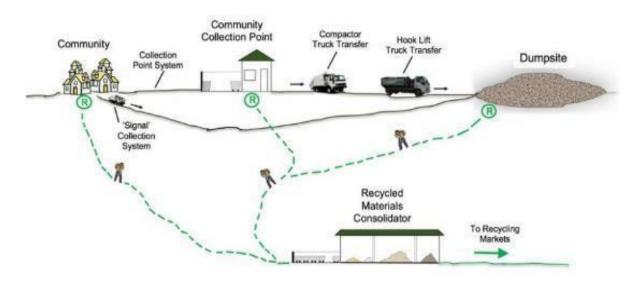


Figure 2: SWM System Schematic

96. One method is the 'signal' collection system method, where MSW is collected directly from the point of generation (household or institutional/commercial facility) for transfer to the disposal facility (dumpsite). This is often referred to as curbside collection. This method is generally practiced in areas with single-family detached homes and in less populated areas.

97. The second method is the collection point system, where small-scale collection points are located in higher density areas, and particularly in areas of multi-story apartments (**Figure 3**). For this collection method, MSW generators bring their MSW to a collection point, where it is sorted, recyclables segregated, and residual MSW collected by municipal collection trucks.



Figure 3: Example of Waste Collection Point (CDIA report, 2020)

98. In each project city, all solid waste is disposed of to a dumpsite located on the outskirts of the city. These disposal facilities range from 3 to 27 ha, and in Khiva, Djizzak, Havast and Yangiyer, they have been in operation for many years. Each dumpsite has one or more access roads. Dumpsites are partially or fully fenced.

99. Dumpsites usually comprise a thin layer (1 m to 5 m thick) of solid waste, which has been dumped directly onto the natural surface of the earth without the use of engineering systems for environmental protection.

100. According to the National Feasibility Study report (2021), 0.6–0.8 kg of waste is generated from each person per day, which is 18–20 thousand tons from the Uzbekistan entire population. During 2019, 7.3 million tons of MSW were generated, 219 waste treatment organizations in the regions processed 1.3 million tons (20%) of the total waste, and the remaining 80% were disposed of at the existing 235 dumpsites for solid household waste.

101. Over the years, these piles of waste have expanded, now covering large areas. Incoming garbage trucks enter these facilities, drive to the unloading areas, dump their loads and leave the site. Basic earthmoving equipment is used to push and spread the solid waste. With the exception of a few limited land cover applications, the dumped waste at these sites remains open without surface reclamation. These facilities can cause significant atmospheric, surface and subsurface pollution and threaten public safety.

102. Informal recyclers, acting individually or in small groups, separate and collect recyclable materials directly from households, public collection points and dumpsites and hand them over to recycling consolidators, where they are packaged and sent to industrial buyers.

103. The project will be implemented in four cities: Djizzak, Khiva, Yangiyer and Havast.



Figure 4: Project cities location

104. Specific information in the context of each city is presented in the next chapters.

1. Djizzak City Profile

105. Djizzak city, the capital city of Djizzak Province, is situated 180 km southwest of Tashkent city, the nation's capital, and 90 km northeast of Samarkand city (**Figure 5**). It is an important regional transport hub, with major road and rail arterials connecting western and central areas of the nation with eastern areas. The city supports the province's economy, which is based primarily on agriculture, mineral production, and livestock, and more recently, from the growth of its free economic zone.³¹

106. Geographically, the city lies on a gently sloping fertile plain at elevations between 340 m to 390 m and at the northern foot of the Nurata mountains, south of the Mirzachul steppe. Covering an area of 100 m², the city comprises of 34 mahallas and has a current population of 176,643 people (1 January 2021). It has 32,200 households, of which 71% are private houses.

³¹ Including the production of cars, pharmaceuticals, cement, household appliances and other goods.



Figure 5: Location of Djizzak landfill

107. **Existing Municipal Solid Waste Treatment and Disposal.** Djizzak city is projected to currently generate about 160 tons/day (58,000 tons/year), which by 2050 is estimated to reach over 440 tons/day (160,000 tons/year). Of this amount, it is likely that about 5,800 tons/year is currently being recycled, which with the adoption of effective recycling initiatives, could increase to over 48,000 tons/year by 2050. Over the period 2020-2050, it is inferred that Djizzak city will generate over 3.3 million tons of MSW, of which around 900,000 tons will be recycled, leaving about 2.4 million tons for treatment and disposal.

2. Khiva City Profile

108. Khiva city is the administrative and cultural center of Khiva district. It is located in the western region of Khorezm Province, in the lower reaches of the Amu Darya River (**Figure 6**). The climate is sharply continental, with moderately cold winters and dry-hot summers. Covering an area of about 34 km², the city has an existing population of 92,400 inhabitants. In addition to being a regional hub that supports its more traditional agricultural and industrial base, the city is currently experiencing significant growth in its tourism industry. This is due to the city's unique historical center, which includes an ancient walled city that comprises an inner walled area known as the Ichan Kala and an outer walled area known as the Dishan Kala. These areas are characterized by narrow streets and passages that substantially impact SWM collection.

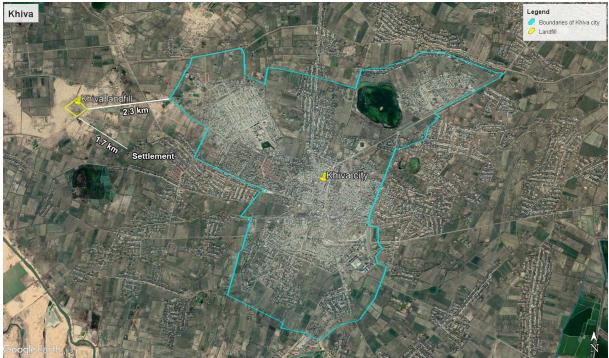


Figure 6: Khiva city and location of Khiva landfill

109. **Existing Municipal Solid Waste Treatment and Disposal.** Khiva city is estimated to currently generate approximately 85 tons/day or 30,000 tons/year of MSW, of which it is estimated that about 3,000 tons/year (10%) is currently recycled. This will likely accelerate to about 185 tons/day or 68,000 tons/year by 2050, by which time, assuming 30% recycling efficiency, about 20,000 tons/year will be recycled. The cumulative amount of MSW generated in the city between 2030 and 2050 will be of the order of 1.4 million tons, of which about 400,000 tons will have been recycled, leaving about 1 million tons for treatment and disposal.

3. Yangiyer City Profile

110. Yangiyer city, located in the south of Syrdarya province about 120 km south- southwest of Tashkent city, is a regional hub within the vast agricultural heartland of central Uzbekistan (**Figure 7**). With an urban area of approximate dimensions 6 km (north-south) and 6 km (eastwest), and extending over an area of about 30 km², it is centered around the intersection of two primary road arterials: the M34 (north-south) and the A376 (east-west). Situated only 8 km north of the Tajikistan international border. The city's current population is estimated to be 43,600 people, and it has eight mahallas. Established in 1957 as an industrial city, Yangiyer is closely connected with the adjoining urban village of Havast, located immediately to the south: until 2004, both urban areas were conjoined into one city. Yangiyer has a sharply continental climate, with hot summers and dry winters.



Figure 7: Yangiyer city

Existing Municipal Solid Waste Treatment and Disposal. According to data 111. provided by the SCEEP, the Yangiyer dumpsite stopped operation in May 2021. The dumpsite was closed in accordance with the National Strategy on Waste Management for 2019-2028. Currently all wastes from Yangiyer city are disposed to the Mirzaabad regional landfill located around 17 km to the north of the Yangiyer dumpsite. Mirzaabad is one of the regional landfills, which has been partially rehabilitated in 2018. As part of rehabilitation, the landfill was fenced, access road was constructed, weight for entering trucks with wastes have been installed. However, in accordance with Government Strategy, the landfill will be fully rehabilitated and will comply with requirements indicated in Decree of the President of the Republic of Uzbekistan dated 17 April 2019, No. PP-4291 RCM. It plans that the Mirzaabad regional landfill will be rehabilitated by 2026. With its existing population of 39,100 inhabitants, Yangiyer is conjectured to currently generate around 40 tons/day or 14,000 tons/year, of which it is estimated that about 1,400 tons/year is recycled. By 2050, the city's MSW generation is projected to increase to over 85 tons/day (32,000 tons/year), of which an estimated 9,500 tons/year would be recycled. Cumulatively, Yangiyer will generate about 700,000 tons of MSW between 2020 and 2050, of which about 190,000 tons would be recycled, with the balance being treated and disposed of at the Mirzaabad landfill.

4. Havast Urban Village Profile

112. The Havast urban village is located 6 km south of Yangiyer city in the southern extremity of Syrdarya province, about 125 km south-southwest of Tashkent city (**Figure 8**). It has a total area of about 28 km², and its urban area has approximate dimensions of 5 km (north-south) and 3 km (east-west). The Ursatievskaya railway station on the primary Tashkent to Samarkand railway line is located in Havast. The southern border of its urban area is less than 1 km from the Tajikistan international border and less than 2 km from the Tajikistan town of Zafarobod. The Havast urban center has an estimated population of 16,900 people, with the wider Havast district having a population of 95,700 people. As previously mentioned, historically, Havast and Yangiyer were one city, with Havast subsequently being established as a separate urban village in 2004.



Figure 8: Havast urban village

113. **Existing Municipal Solid Waste Treatment and Disposal.** Similar to the dumpsite in Yangiyer, the dumpsite in Havast was closed in May 2021 with all wastes subsequently being disposed of at the Mirzaabad regional landfill. Havast district currently generates an estimated 85 tons/day (31,000 tons/year) of MSW, of which an estimated 3,100 tons/year is recycled. Its MSW generation rate is estimated to increase to around 190 tons/day (70,000 tons/year) by 2050, of which around 21,000 tons/year would be recycled, leaving about 49,000 tons/year for residual treatment and disposal. Between 2020 and 2050, Havast district will cumulatively generate around 1.5 million tons of MSW, of which about 400,000 tons would be recycled and the balance of about 1.1 million tons being treated and disposed of.

B. Proposed Subproject Components

114. The definition and selection of sub-projects on SWM proposed for implementation within the framework of this project was made taking into account the following factors:

- The sub-projects directly correspond to the needs of the cities of Djizzak, Khiva, Yangiyer and Havast cities in terms of comprehensive improvements in waste reduction, waste processing, collection, removal and disposal of residual solid waste.
- Sub-projects support the national strategy³² on SWM and other sectoral tasks implemented by the SCEEP.
- Sub-projects are feasible in terms of technical and financial parameters.
- Sub-projects are suitable for replication in other similar urban environments of the Republic of Uzbekistan.

115. By the Decree of the President of the Republic of Uzbekistan No. PP-4291 dated 17 April 2019, the Strategy for the management of solid household waste in the Republic of Uzbekistan for the period 2019-2028 was approved, the goals of which are:

 development of sanitary cleaning infrastructure aimed at ensuring full coverage of the population with services for the collection and removal of solid household waste;

³² Resolution of the President of the Republic of Uzbekistan PP-4291 of April 17, 2019 "On approval of the Strategy for the management of solid household waste in the Republic of Uzbekistan for the period 2019-2028."

- creation of an effective and modern system for processing solid household waste;
- reducing the volume of solid household waste sent for disposal to landfills, creating modern solid waste landfills that meet the requirements of sanitary and environmental standards, as well as taking measures to close and reclaim existing landfills;
- improvement of pricing and optimization of tariffs in the field of sanitation;
- use of solid waste facilities as sources of alternative energy.

116. In the course of close cooperation with the SCEEP, with the participation of the regional SUE "Toza hudud", city khokimiyats, and other stakeholders, it was recommended to include the following three measures in the framework of SWM in the project:

- Subcomponent 3.1. Waste minimization and recycling pilot program.
- Subcomponent 3.2. Solid waste collection system upgrade.
- Subcomponent 3.3 Creation of a transfer station for Havast and Yangiyer.

117. As a result of the implementation of component 3, the following results are expected.

1. Subcomponent 3.1 Waste Minimization and Recycling Pilot

118. This subcomponent will support: (i) public awareness raising campaigns on waste minimization, reduction and reuse practices, waste segregation and storage, illicit waste dumping, environmental citizenship; (ii) an informal recycler program to formalize and integrate informal recyclers and recycled material consolidators in the formal SWM systems through the provision of occupational health and safety training and the provision of PPE, and (iii) waste minimization and community recycling initiatives in all four project cities, including mixed waste segregation, green waste composting, food waste recycling, fines and construction waste, improvement of community collection point operations, and MSW and recyclable containers.

2. Subcomponent 3.2. Solid waste collection system upgrade

119. This subcomponent will expand the coverage and improve the efficiency of existing systems for the collection and transfer of solid waste, serving the project cities.

120. This subproject will support three project cities with the following; (i) construction of new WCPs; (ii) purchase of waste containers varying from 250 liters to 1,100 liters in size, and others up to 6 m³; (iii) purchase of vacuum sweeper trucks and waste compactor trucks, and; (iv) waste vehicle routing efficiency upgrades, including Geographic Positioning System (GPS) initiatives for Havast and Yangiyer. Detailed information on the proposed equipment and civil works are presented in Table 15.

Construction work and equipment	Unit rev.	Djizzak ³⁴	Khiva	Yangiyer	Havast	Total					
Component A. Construction work											
Waste collection points	PC.	-	-	18	7	25					
Component B. Equipment	Component B. Equipment										
Waste containers (volume 770 liters)	PC.	180	20	206	239	645					
Waste containers (volume 250 liters)	PC.	250	-	300	300	850					

³³ The assessment is preliminary. A final assessment of the need for construction work and equipment will be prepared during the detailed design phase.

³⁴ According to the letter from Djizzak branch of SCEEP No. 03 / 1-3994 dated 19.10.2021 and the letter of the Ministry of Finance 07 / 38-03-03-35- / 3348 dated 11/29/2021, in connection with the proposed transfer of the function of collecting and moving solid waste in Djizzak to the private sector, exclude activities for this component from the project.

Construction work and equipment	Unit rev.	Djizzak ³⁴	Khiva	Yangiyer	Havast	Total			
Waste containers (volume 1100 liters)	PC.	192	18	150	250	610			
Waste containers (6 m ³ , open top)	PC.	40	-	25	15	80			
Waste containers (6 m ³)	PC.	17	-	15	10	42			
Vacuum sweeper	PC.	2	-	2	2	6			
Garbage trucks with waste compaction (volume 10 m ³)	PC.	20	15	5	17	57			
Component C. Improving the Routing Efficiency of Waste Vehicles									
GPS system update	PC.	-	-	1	1	2			

Source: National Feasibility Study, 2022

121. A schematic drawing of a WCP is presented in **Figure 9**.

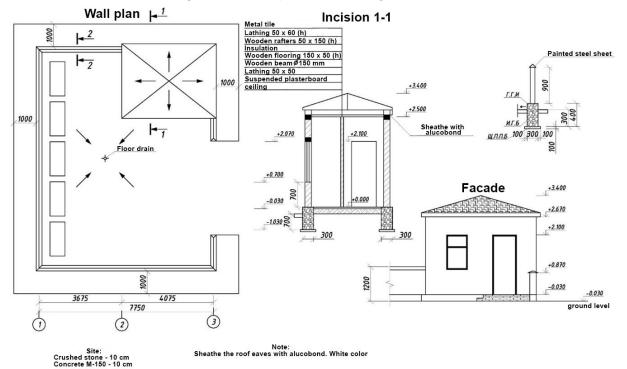


Figure 9: Schematic drawing of waste collection point

3. Sub-component 3.3: Creation of a transfer station for Havast and Yangiyer

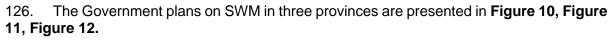
122. This subcomponent will directly contribute to the strategy³⁵ on the issue of reducing the number of landfills and helping the SCEEP and SUE "Toza Hudud" to carry out the modernization and subsequent closure of dumpsites.

123. The government's national SWM strategy has two parts.

124. Firstly, regional disposal systems will be developed in each province, each of which will consist of several large centralized regional sanitary landfills (RSL), which will serve the vast territories of the respective province. These RSLs will be supported, in some cases, by an integrated network of localized transfer stations located in cities and other areas where waste from small collection trucks (typically 3 to 5 tons) will be transferred to larger container trucks with trailers (from 20 to 25 tons) for long-distance transportation to an RSL. Regional systems can be significantly more efficient and cost effective than a network of many smaller disposal sites scattered throughout the region.

³⁵ Resolution of the President of the Republic of Uzbekistan PP-4291 of 17 April 2019 " On approval of Strategy according to the treatment of MSW in the Republic of Uzbekistan for 2019-2028"

125. According to the strategy, the existing 221 solid waste disposal facilities will be optimized, of which 167 landfills will be closed, 54 will be modernized into modern RSLs and 5 new landfills will be built. The below figures provide information on the current situation and plans for construction of RSLs and transfer stations in the project's provinces: Khorezm, Syrdarya and Djizzak.



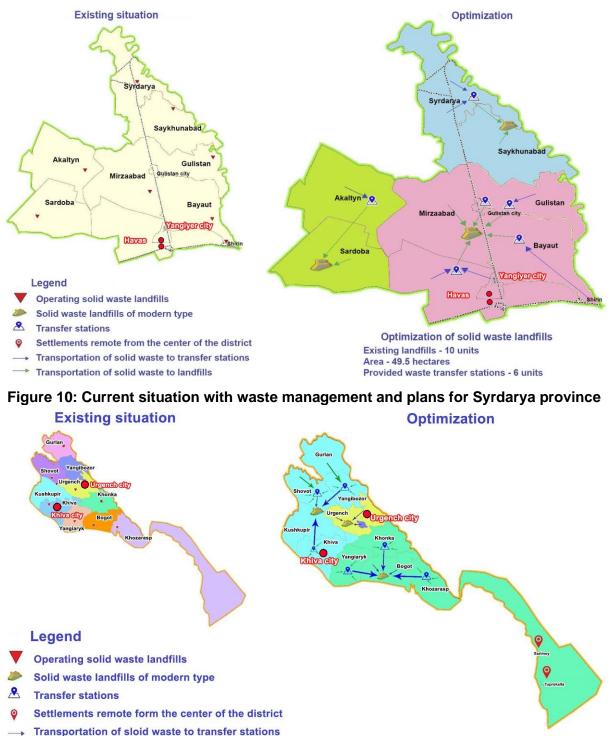


Figure 11: Current situation with waste management and plans for Khorezm province

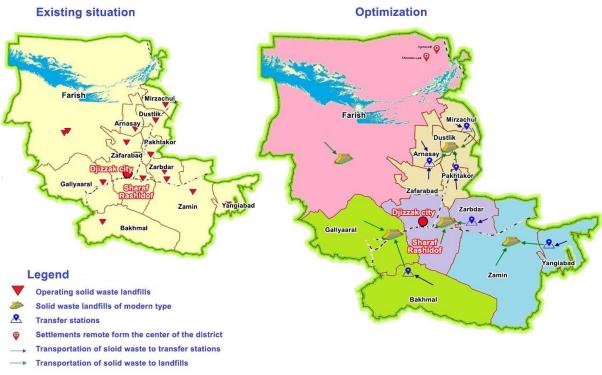


Figure 12: Current situation with waste management and plans for Djizzak province

127. The project envisaged the *creation of a new transfer station*, which will be located at the existing, but not operated dumpsite in Havast (**Figure 13**), and it will allow the transition of solid waste from small garbage trucks from the city of Yangiyer and Havast into large container garbage trucks for further transportation to the RSL located in Mirzaabad district.



Figure 13: Proposed place for transfer station

128. Transfer stations play an important role in the entire waste management system, being the link between the collection point for MSW and the final landfill. While the size and services of transfer stations vary greatly, they all serve the same primary purpose of transferring waste from small garbage trucks to larger garbage trucks with larger capacity for more cost-effective

shipment to remote processing or landfill sites. In this simple form, a transfer station is a structure with a separate reception area where waste trucks unload waste. Waste is often compacted, then loaded onto large garbage trucks (usually reloading trailers) and transported to an appropriate landfill site.

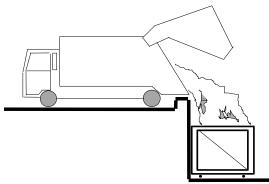
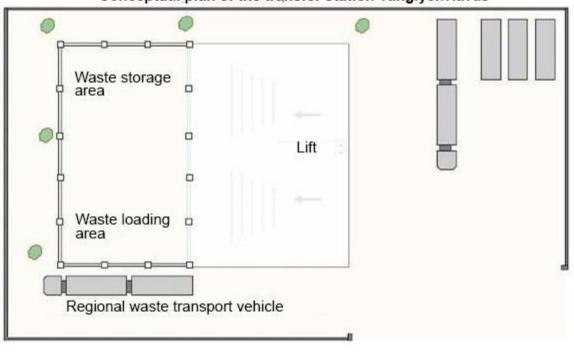


Figure 14: An example of a simple transfer station without compacting

129. The main reason for using a transfer station is to reduce the cost of transporting waste to landfills or processing them. Consolidating less waste from trucks to larger trucks reduces shipping costs, allowing the collection team to spend less time traveling to and from remote landfills and more time collecting waste.

130. It also helps reduce fuel consumption and operating costs of the garbage trucks, plus creates less traffic, emissions and wear and tear on the road surface. Also, transfer stations provide the possibility of sorting waste before it is removed.

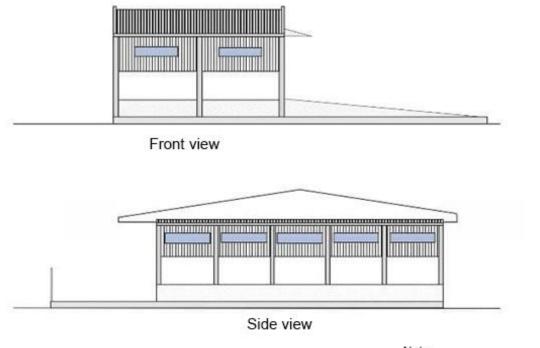
131. The transfer station will comprise of a large building with a high roof and an inclined ramp. This allows more compact compacted trucks to drive up the ramp and stack their loads into the loading bay of the transfer station. Then the dumped solid waste will be picked up by a front loader and placed in containers of garbage trucks. After filling, these trucks will go to the regional landfill in the Mirzaabad region.



Conceptual plan of the transfer station Yangiyer/Havas

Note: All sizes are approximate. Sketch concept design.

Yangiyer/Havas transfer station concept



Note: All sizes are approximate. Sketch concept design.

Figure 15: Conceptual plan of the Havast transfer station

132. Figure 16 shows the typical equipment included in the transfer station investment package. This includes a front-end loader, two regional waste transfer vehicles with trailers, and twelve waste containers.



Figure 16: Equipment for Havast transfer station

IV. DESCRIPTION OF THE ENVIRONMENT

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

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

134. 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).³⁶ 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.

A. Introduction

135. 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

136. The Location of subcomponent cities (Khiva in Khorezm province, Djizzak in Djizzak province, Yangiyer and Havast in Syrdarya province) is shown in **Figure 17**. 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 Yangiyer 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.

³⁶ Including climate data (temperature, wind and extreme weather conditions), and surface water flow and quality data for water courses in Djizzak, Khoresm and Syrdarya provinces.



Figure 17: Project cities location

B. <u>Djizzak province</u>

1. Physical Environment

a) Climate and Air Quality

137. 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%.

138. In the area of Djizzak city, northern and north-west winds coming from Tamerlan Gates³⁷ mountain pass. An average monthly wind speed is 1.4 - 26.7 m/sec.

139. 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)

140. Climate map of Djizzak province is presented in **Figure 18**.

³⁷ 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 18: Climatic map of Djizzak province

141. Data on climatic conditions for the period of 2018-2020 Gulistan meteostation on the project sites is presented in **Figure 19**.

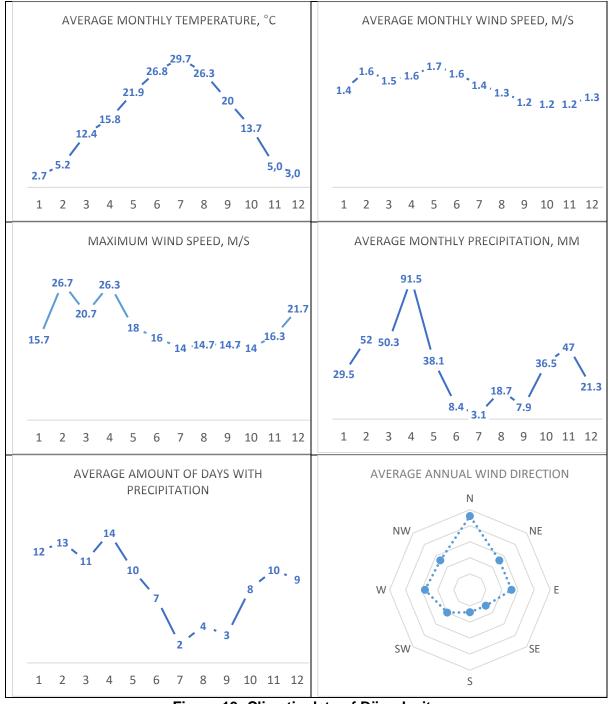


Figure 19: Climatic data of Djizzak city

142. The results of air quality monitoring for 2018-2020 are presented in **Figure 20**. According to the data the ambient air quality in Djizzak city complies with the standards - Maximum Allowed Concentrations (MAC).

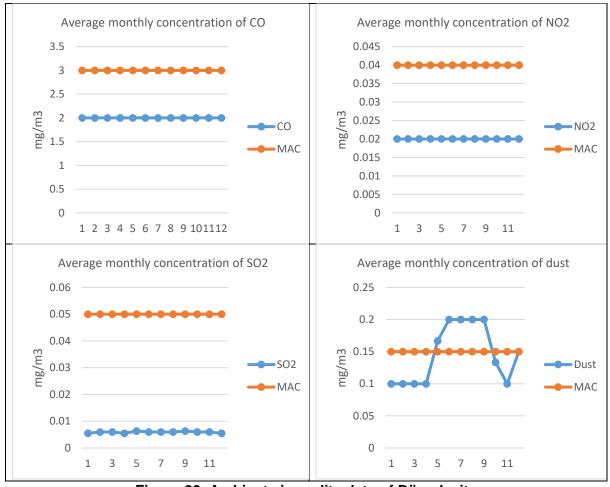


Figure 20: Ambient air quality data of Djizzak city

143. The number of days with atmospheric phenomena according to the Gulistan meteostation for the period of 2018-2020 is shown in **Table 16**.

Year	Month	Heavy rain	Rain	Drizzle	lce 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

Table 16: Average values of atmospheric phenomena for 2018-2020

Source: Centre of Hydrometeorological Service of Uzbekistan (Uzhydromet)

b) Geography and topography

144. 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 km². The central, northern and northwestern parts of the province are located in Golodnaya Steppe³⁸ 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.

145. The center of Djizzak province is Djizzak city (**Figure 21**). 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.

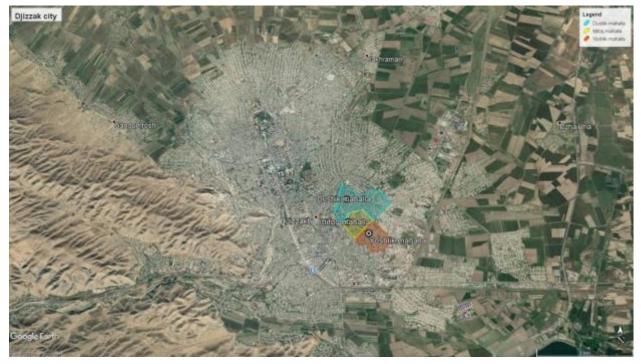


Figure 21: Djizzak city

c) Water Resources

146. 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 22**). 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.

147. 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.

148. 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

³⁸ 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 IKE, located along the northern border of the province.

1. The main waterways and their distance from the subprojects' sites are presented in Figure 22.

149. 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

150. 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.

In the extreme north of the flat territory, semi-stable sands with spots of desert sandy soils 151. 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 Diizzak 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.



Figure 22: Main waterways and its remoteness from subprojects' sites

152. 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%.

153. 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.



154. Soil map of Djizzak province is presented in Figure 23.

Figure 23: Soil map of Djizzak province

2. Biological Environment

a) Flora

In general, the natural vegetation of the Diizzak province occupies an area not suitable for 155. 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 gravely light grav 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 droughtresistant 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.

156. 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.

157. 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.

158. The vegetation map of Djizzak province is presented in **Figure 24**.

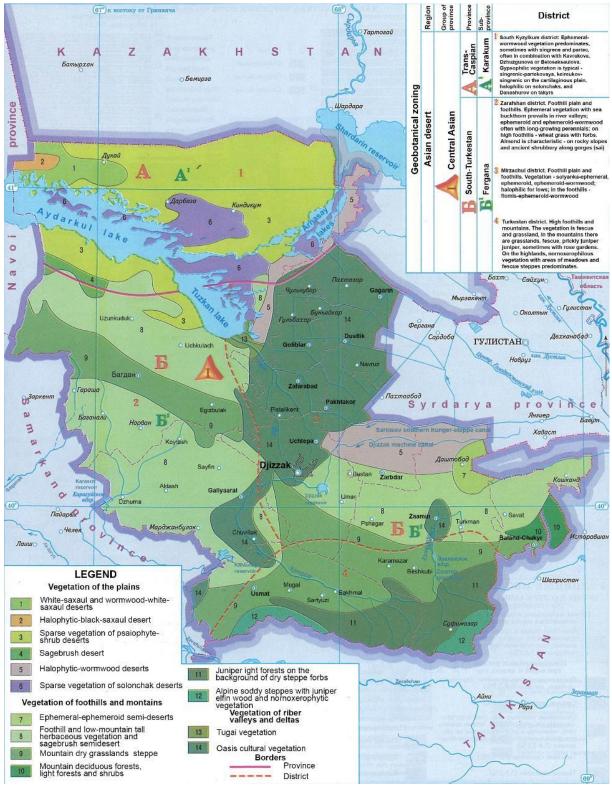


Figure 24: Vegetation map of Djizzak province

159. The fauna of Djizzak province is presented in Figure 25, MAMMALS (67⁰) к востоку от Гринвича Otter Striped field mouse Brock En Yellow ground squirrel Sel Brandt's hedgehog Great gerbil 2 Lynx Tolai hare Kyzylkum bighorn sheep K A Ζ A K н S T A N Porcupines Northern mole vole ырха 0 оБемирза Wild boar Mountatin goat Snow leopard Wolf Fox province KYS African wildcat Lesser horseshoe 1 Tien Shan brown bear reservol hat 4 Jackal Muskrat R Erre 5 Com. BIRDS Short-toed snake eagle (E обаза ST) Cormorant WHSTAN 50 Alectoris A Great white egret ling Vultur KAZA -0 White stork Red-breasted goose > 03 5 Golden eagle Mute swan z Oriental turtle dove Pelican Буньядкар Greylag goose Uzunkudul Himalayan snowcock eg: Ducks Ì Pigeons Uchkulac Phasianus Houbara bustard Багдан Eagle owl Skylark 2 q Зарке うない 0 Эгизби Syrdarya province Бага Нарван DETS Su Koumau Uchtepa Kavtas 610D Sayfin Кошканд Djizzak 😟 Zarbda E -Q W75 Gallyaarak No 40 3 Пайа Zaamin are a Челе Mand eg: nd-Chaky markand S p Шахристан LEGEND Type of landscapes Subnival Forest Dry steppe H m x D Semidesert Tugai Пенджикент S Т N Маргедар L A 1 Anthropogenic (690) Deserted: REPTILES FISH Sander --Loessial desert x pCommon de la common bream ски Barbel Snakes 100 H Зеравша 1-3 Pike Stony desert Desert monitor -Marinkas INSECTS Gravelly deserts Central asian Common carp 100 60 Scorpion Sandy desert tortoise Camel spider S. Кашкадарьинская область Saline desert FREE Sheatfich 🔅 Lizards

Figure 25: Fauna map of Djizzak province

a) Protected Areas & Habitats

a)

Fauna

160. There are also four specially protected natural areas, and five important bird areas (IBA) in Djizzak province (**Table 17**):

	Loca	ation			Distance from the Project site	
SPNA name, organization year	Administrative boundires	Geographical location	Area, km²	IUCN Category		
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 (I					•	
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	Around 60 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	

Table 17: Main protected natural areas and IBA zones in Djizzak province

161. The Remoteness of subcomponents from the main natural protected areas is shown in **Figure 26** 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.

3. Cultural Heritage

162. 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 27**.

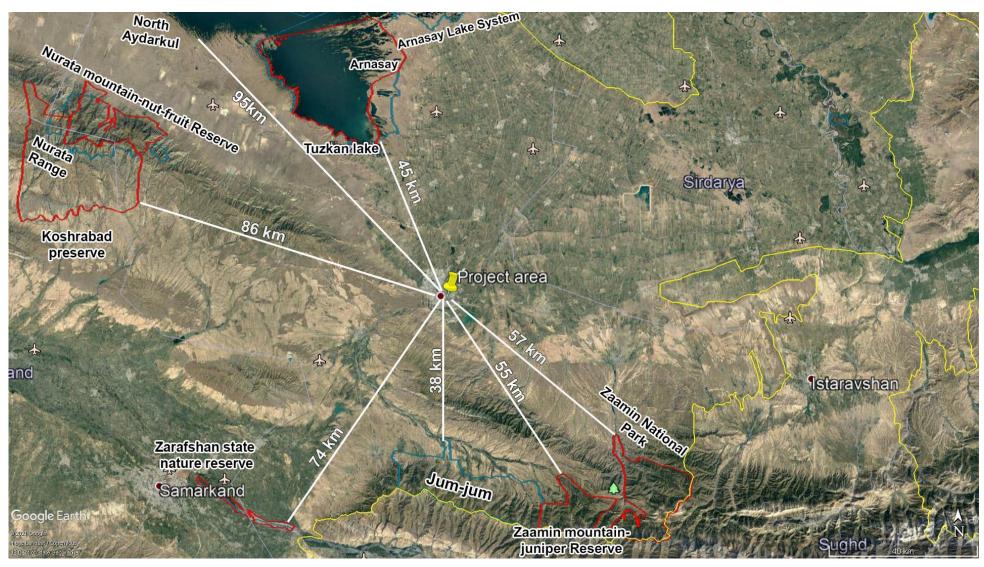


Figure 26: Main protected areas close to Djizzak subprojects

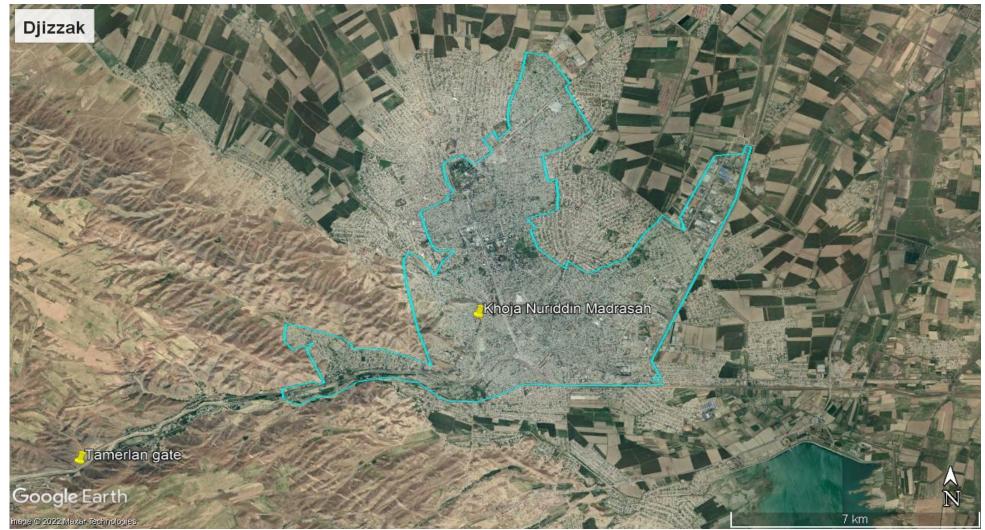


Figure 27: Some architectural monuments close to Djizzak

4. Socio-economic conditions

163. 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 28** below.



Figure 28: Administrative map of Djizzak province

164. 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.

165. 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.

166. 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.

167. 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.

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

169. 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.

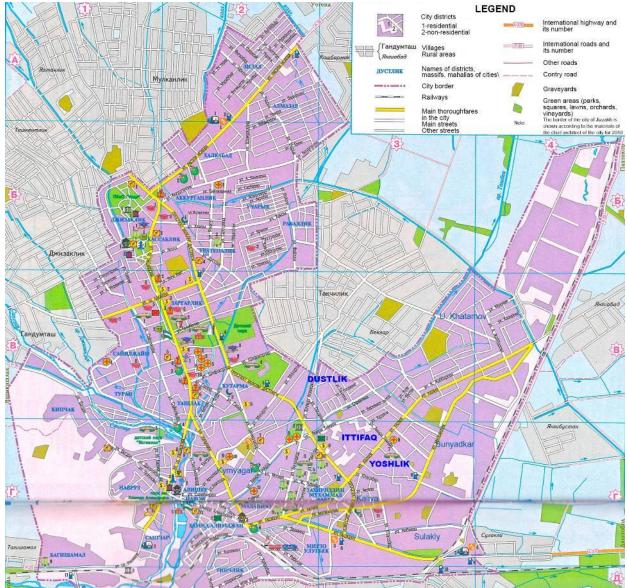


Figure 29: Administrative map of Djizzak city

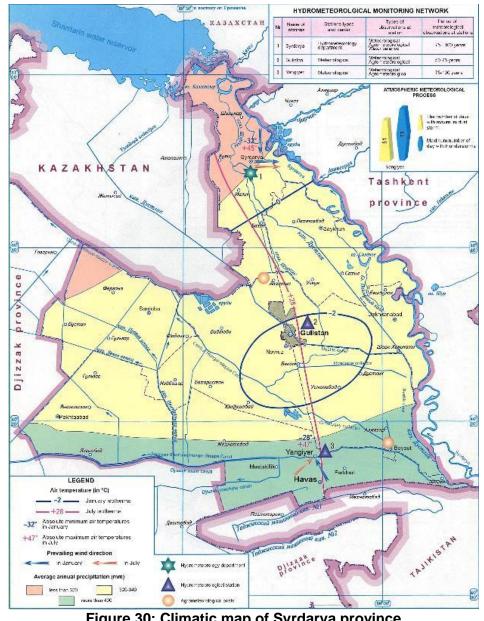
C. Syrdarya province

1. **Physical Environment**

a) **Climate and Air quality**

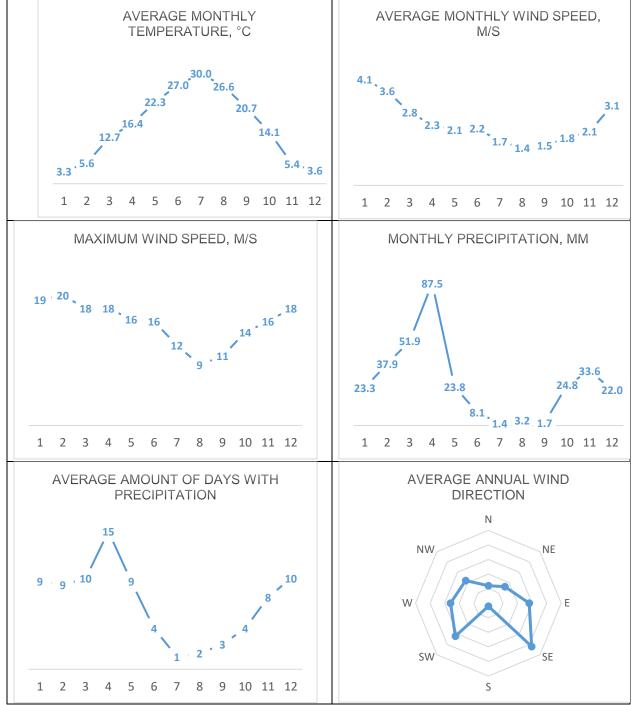
170. The climate of Syrdarya province is sharply continental, with relatively mild winters and long hot summers. According to observations over the past ten years, the average annual air temperature is + 15.8°C, the average maximum temperature of the hottest month of July is + 30°C, and the minimum is +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.

The average annual wind speed is 2.4 m/s. Most often, weak winds (0-1 m/s) and winds 171. 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.



172. Climatic map of Syrdarya province is presented in Figure 30.

Figure 30: Climatic map of Syrdarya province



173. Data on climatic conditions for the period 2018-2020 collected from Gulistan meteostation is presented in **Figure 31**.

Figure 31: Climatic data for 2018-2020

174. The results of air quality monitoring and average value of atmospheric phenomena for 2018-2020 are presented in **Figure 32** and **Table 18**.

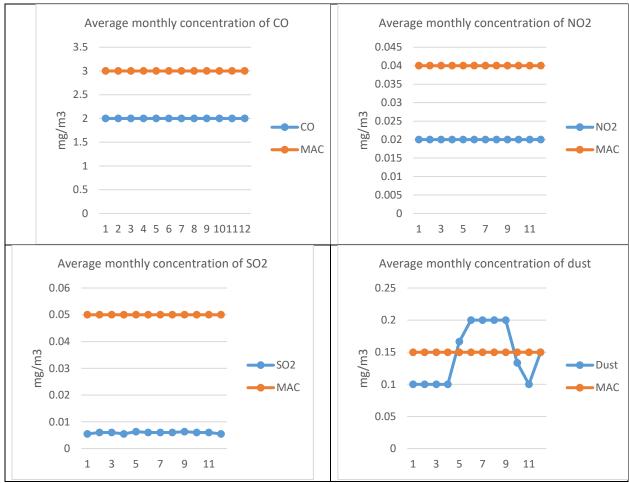


Figure 32: The results of air quality monitoring for 2018-2020

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

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

Table 18: Average value of atmospheric phenomena for 2018-2020

b) Geography and topography

176. 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.

177. There are 2 project cities in Syrdarya province – Yangiyer and Havast, where SWM subproject activities are proposed. Yangiver is a city in Syrdarya province, Eastern Uzbekistan. Havast is an urban-type settlement and the administrative center of Havast district (Figure 33).

Havast is located on the third left bank terrace of the Syrdarya river. To the south, the 178. 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.

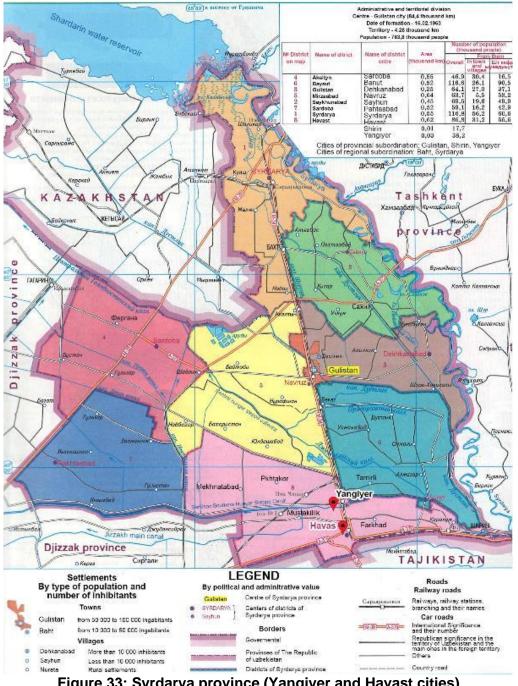


Figure 33: Syrdarya province (Yangiyer and Havast cities)

c) Water Resources

179. 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 m³/year.

180. 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 networks TM-1, TM-2, M-1, M-2 and etc. Small waterways end in the city area such as Sherbulaksay and others.

181. The main waterways in Havast district and remoteness of subprojects are presented in **Figure 34, Figure 35,** and **Figure 36** respectfully.

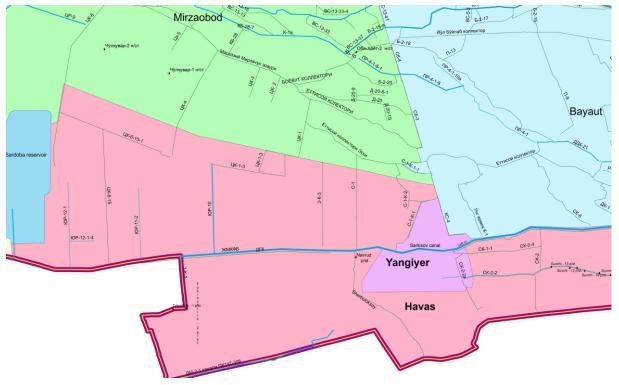


Figure 34: Main waterways in Havast district

182. 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 19**.

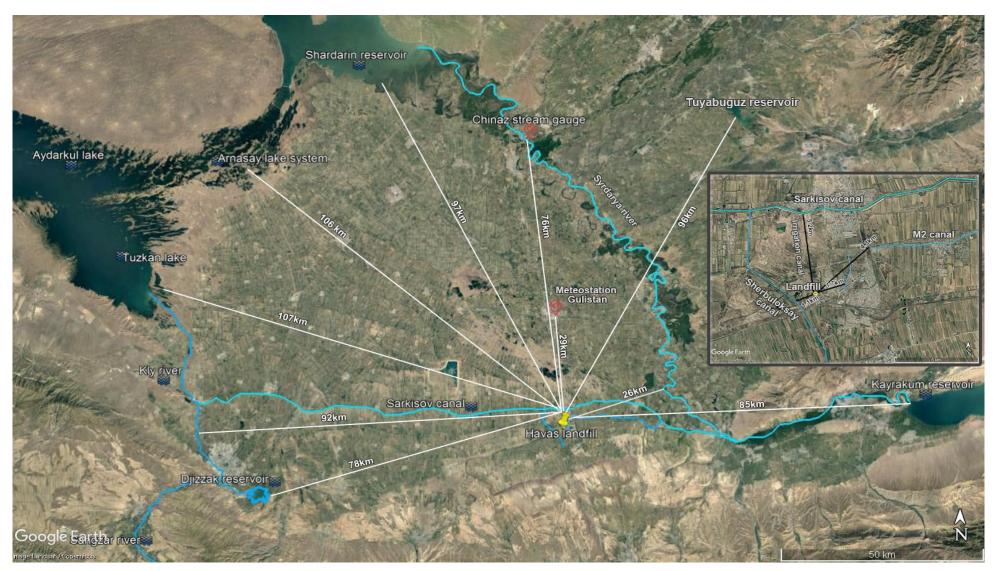


Figure 35: Main waterways in Havast city

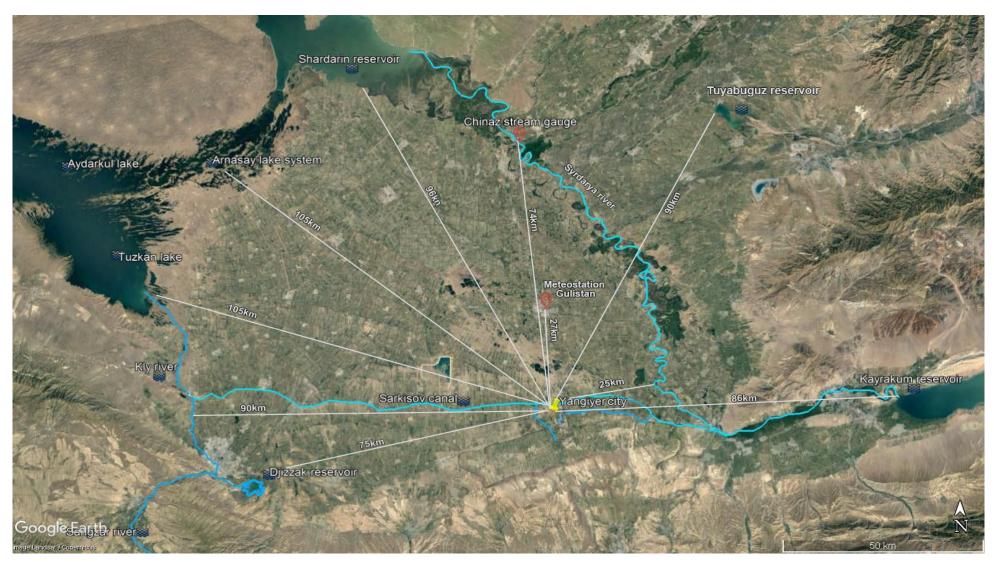


Figure 36: Main waterways in Yangiyer city

Table 19: The average annual water quality of the Syrdarya river at the Chinaz gauging station

Components	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	MAC ³⁹
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
pН	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

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

³⁹ Handbook of environmentalist, Tashkent 2010.

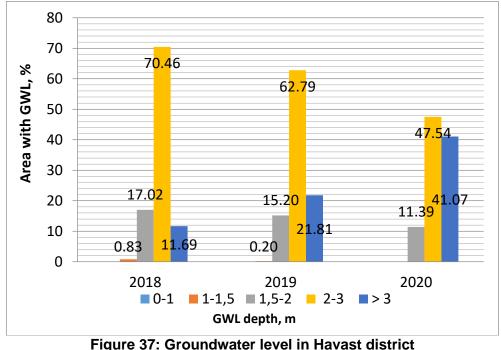
183. The main deposits of fresh groundwater are concentrated in the northern and eastern sites of the province in the Syrdarya river valley. The groundwater deposits are confined to quaternary and upper-pliocene sediments. Reserves of five deposits of fresh groundwater are proven in the province: Syrdarya,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

184. Data on the level, salinity and area distribution of groundwater in Havast district is presented below, in **Table 20**. 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.

Year	Groundwater level, m					Salinity, g/l					
rear	Area, ha	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

Table 20: Groundwater table and salinity in Havast district(as of October 1, 2018-2020)

Source: Syrdarya Regional Hydrogeological Land Reclamation Expedition



Source: Ministry of Water Resources, 2021

d) Soils

185. 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.

186. Soil map of Syrdarya province is presented in **Figure 38**.

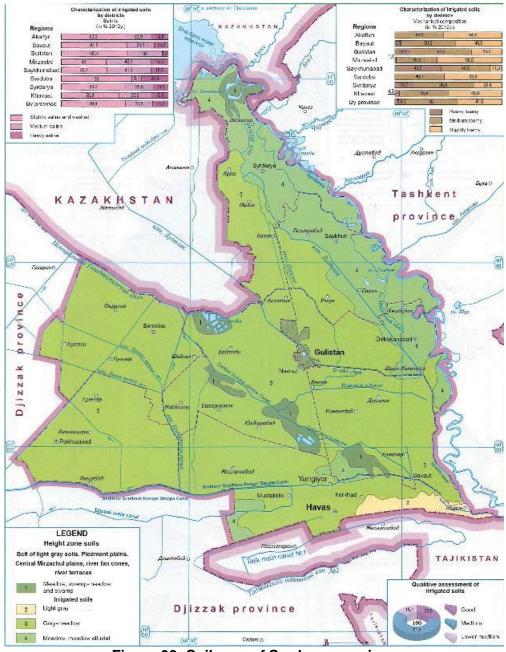


Figure 38: Soil map of Syrdarya province

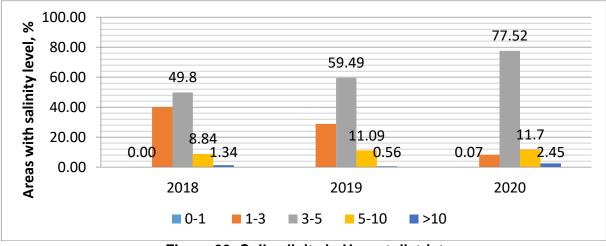


Figure 39: Soil salinity in Havast district

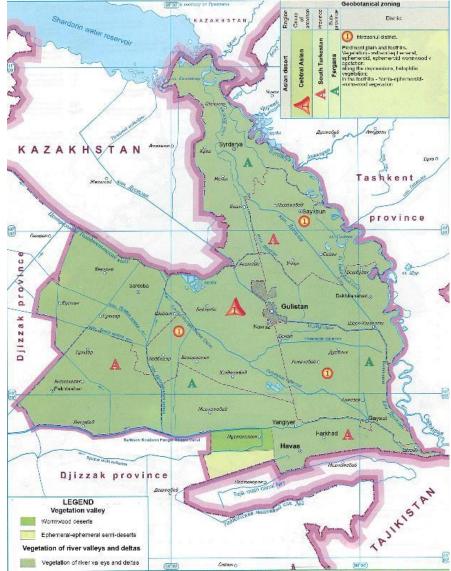
187. The dynamics of groundwater salinity on the irrigated lands of Havast district of the Syrdarya province is shown in **Figure 39**. The diagram shows that the areas of irrigated lands

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

b)Flora

188. 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.



189. The vegetation map of Syrdarya province is presented in Figure 40.

Figure 40: Map of vegetation of Syrdarya province

190. The Project area surrounding Yangiyer and Havast WCPs and proposed place for the Havast transfer station inside the populated area has a very scare vegetation cover represented

by grasses and small bushes and typical trees. Typical vegetation in the project area is presented in **Figure 41.**

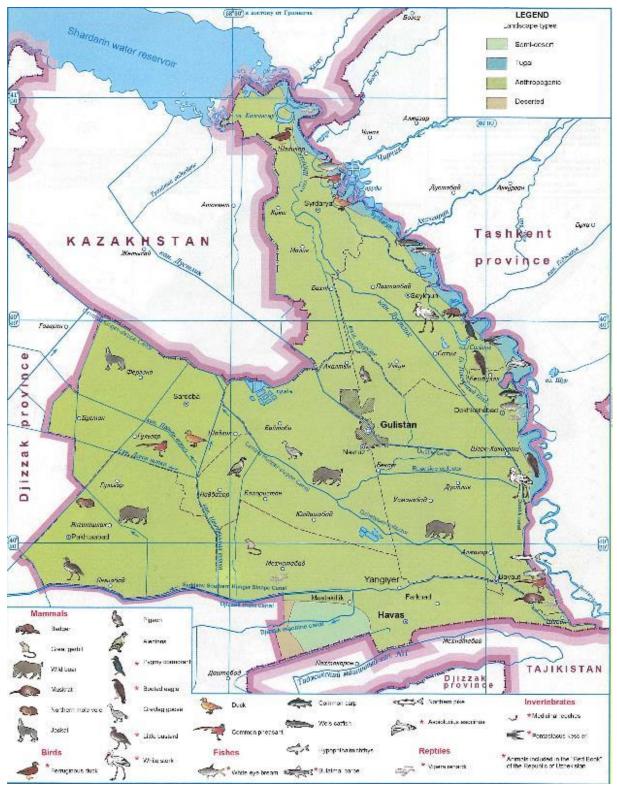






Figure 41: Vegetation in Project area (August 2020)

a) Fauna



191. The fauna map of Syrdarya province is presented in Figure 42.

Figure 42: Fauna map of Syrdarya province

a) Protected Areas & Habitats

192. 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 43**.

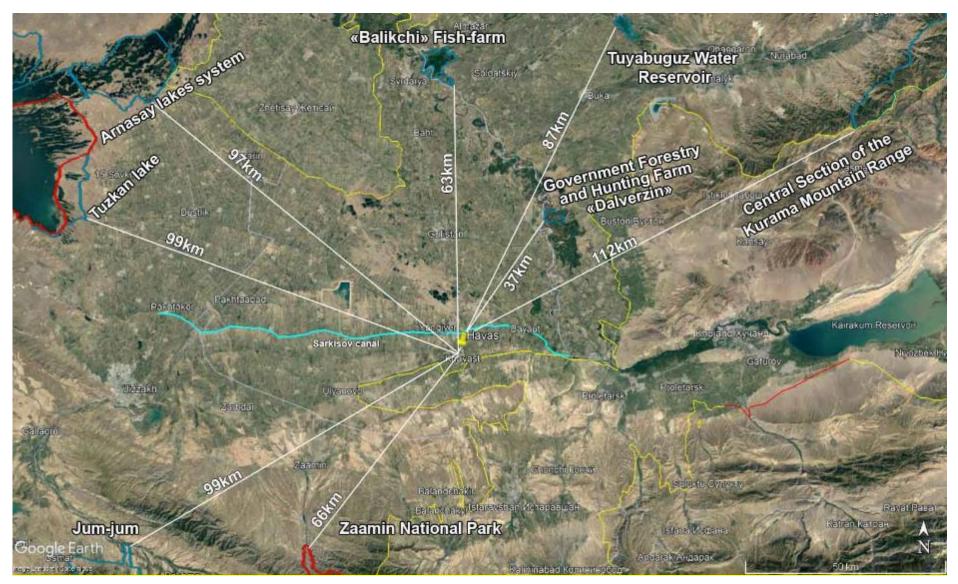


Figure 43: Location of the natural protected areas

3. Cultural Heritage

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

4. Socio-economic situation

194. 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 44**.



Figure 44: Administrative map of Syrdarya province

195. 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 21**.

Table 21: Socio-economic indicators	of Syrdarya province
-------------------------------------	----------------------

Name	Indicators
Area, km ²	4,280.0
Population	
Population density, per/km ²	197.7

Name		Indicators
Total number of people		846,300
Women, per		421,400
Men, per		424,900
Urban population, per		361,300
Rural population, per		485,000
Educational institution	ns	
Primary schools	312	
Secondary professiona	46	
Academic lyceums	2	
Higher education instit	utions	2
Medical institutions		
Hospitals		33
State clinics		144
Infrastructure, km		
	Roads	1,447.0
Transport	Railways	160.9
	Airport	
Social	Gas pipelines, km	0.9
(operated)	Water supply networks, km	67.7

196. 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. <u>Khorezm province</u>

1. Physical Environment

a) Climate and Air quality

197. Khiva's climate is classified as continental, with hot summers and cool winters. The average temperature in summer is $+30 - +32^{\circ}$ C; winter temperatures average about $-1 - +2^{\circ}$ 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.

198. Climatic map of Khorezm province is presented in **Figure 45**.

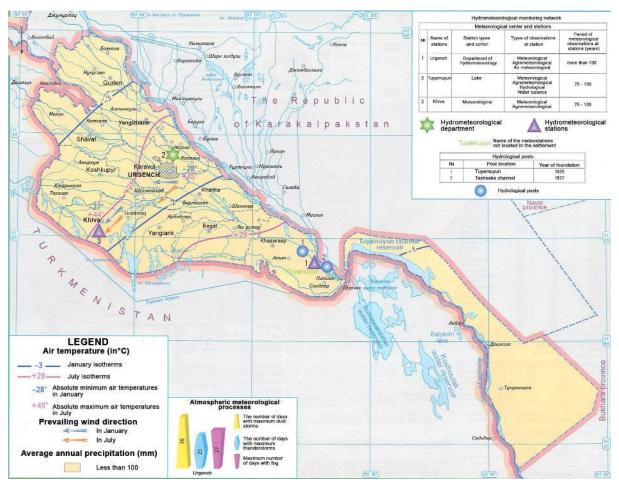
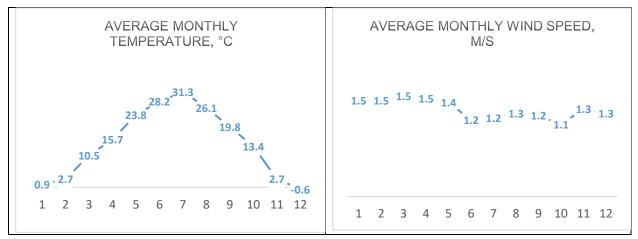


Figure 45: Climatic map of Khorezm province

199. 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 46** and **Figure 47**, respectfully.



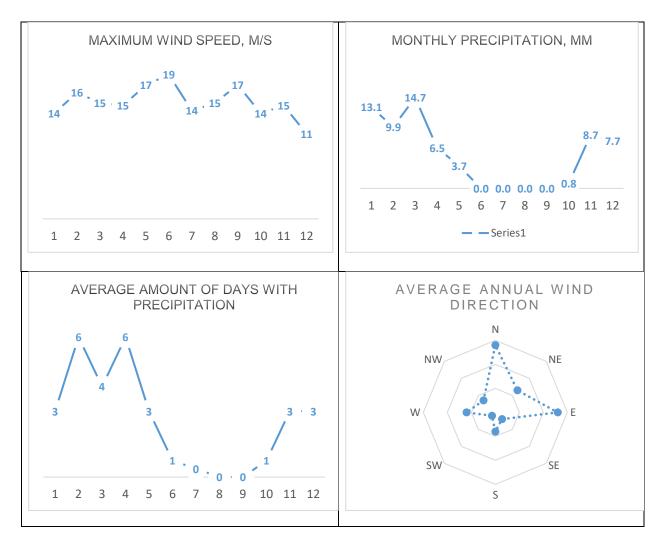
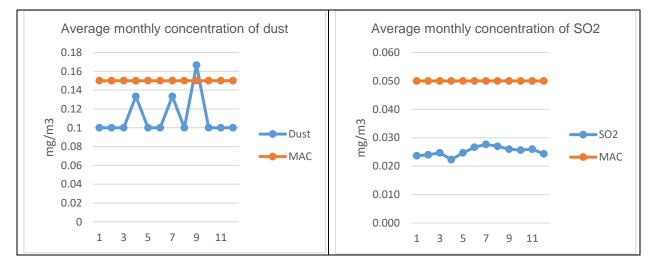


Figure 46: Climatic data from Urgench meteostation (2018-2020)



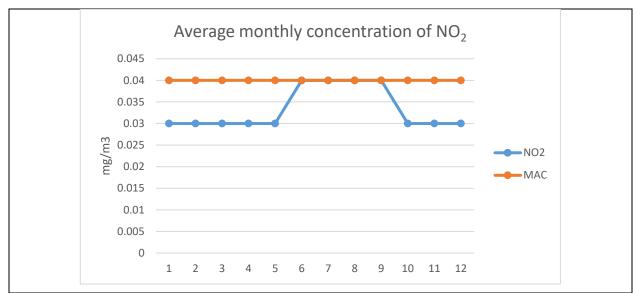


Figure 47: Air quality monitoring data for 2018-2020

b) Geography and topography

200. Khorezm province is located in the northwest of Uzbekistan in the lower reaches of the Amudarya river. The total area is 6,300 km², 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.

201. 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.

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

203. 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

204. 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 48**. provides information on distance between Khiva city's project sites and main water courses..

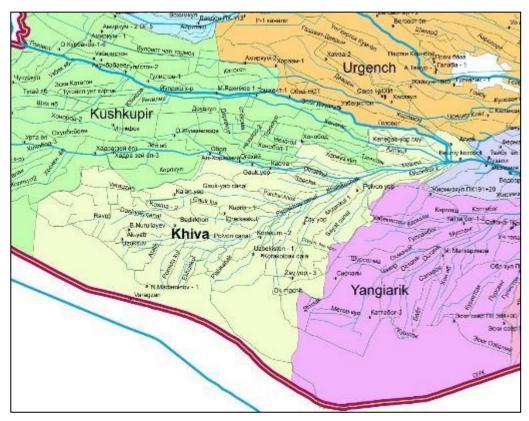


Figure 48: Main waterways in Khiva city Figure 49 provides information on distance between Khiva city's project sites and main 205. water courses.

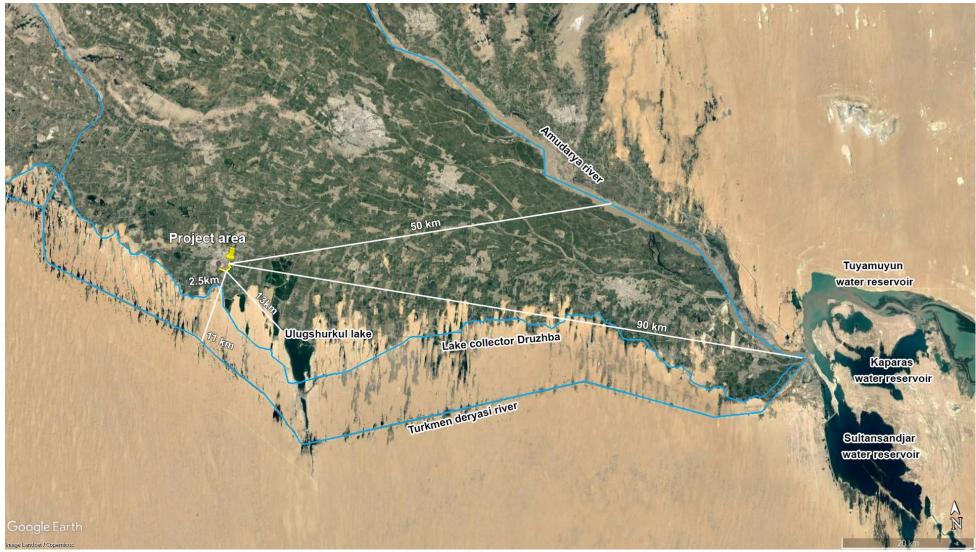


Figure 49: The remoteness of the main waterways from the Khiva city's project sites

206. 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 22**.

Ingredients	April	March	Мау	June	July	MAC ⁴⁰
Total Suspended						25
Solids, mg/dm3	198	333	965	784	90	20
рН	7.8	7.4	7.45	7.535	7.52	6.5-8.5
Chlorides, mg/dm3	294.5	151.2	163.45	97.85	63.9	350
Sulfates, mg/dm3	753	374	405	306	172	500
Fe, mg/dm3	0	0.05	0.01	0	0	0.5
COD, mg/dm3	20.1	11.6	13.95	11.87	9.9	30
BOD ₅ , mg/dm3	1.57	1.16	1.99	1.265	1.16	3-6
Ammonium nitrogen,						2
mg/dm3	0.07	0.02	0.19	0.02	0.02	
Nitrogen nitrite, g/dm3	0.002	0.015	0.0035	0.02	0	3.3
Nitrogen nitrate,						45
mg/dm3	0.26	0.04	0.41	0.795	0.08	
Amount of nitrogen,						-
mg/dm3	0.332	0.075	0.6035	0.835	0.1	
Phosphates, mg/dm3	0.01	0.023	0.009	0.0025	0.011	0.3

Table 22: The average annual quality of the Amudarya river at the Tuyamuyun streamgauge (2018-2020)

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

207. 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.

208. Data on the groundwater level, salinity and distribution area in Khiva city is presented in **Table 23**.

Table 23: Ground water level, salinity and area distribution of groundwater in Khivacity (2019-2020)

Veen	Are	Are Groundwater level, m							Salinity, g/I					
Year	(ha)	0-1	1-1	1.5-	2 .0-2	2 .5-3	3 .0-5	5	0-1	1.0-2	2 .0-3	3 .0-5	5	
		0-1	.5	2	.5	.0	.0	<	0-1	.0	.0	.0	<	
2019	1,42 5	I	100	220	384	311	410	-	10 0	600	626	99	-	
2020	1,41 4	-	-	299	220	283	612	-	20 4	605	506	99	-	

Source: Khorezm Regional Hydrogeological Land Reclamation Expedition

⁴⁰ Handbook of environmentalist, Tashkent 2010.

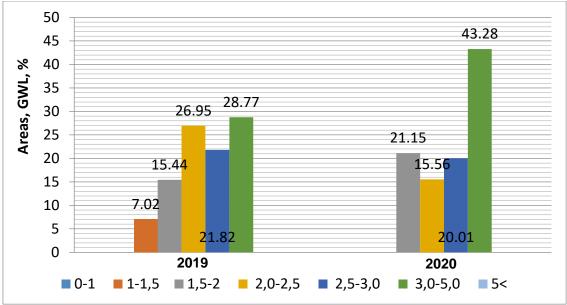


Figure 50: Groundwater level in Khiva city

209. The dynamics in the areas with different groundwater levels on the irrigated lands of Khiva district is shown in **Figure 50**, where it can be seen that the areas of lands with a 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.

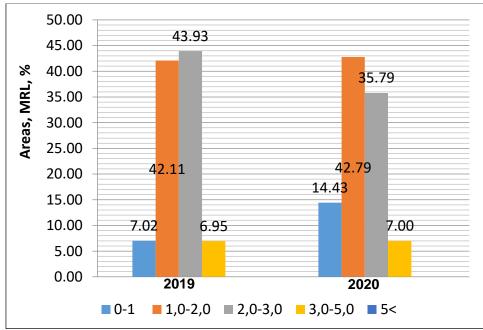


Figure 51: Salinity level of groundwater in Khiva city

d) Soils

210. 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. Soil map of Khorezm province is presented in **Figure 52**.

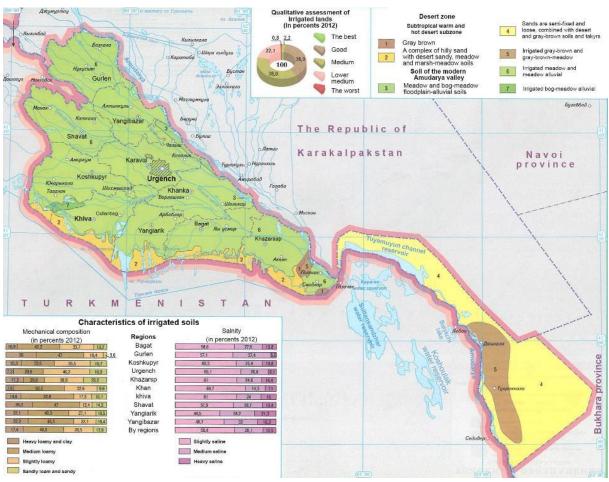


Figure 52: Soil map of Khorezm province

2. Biological Environment

b)Flora

211. 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*. 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.

212. The vegetation map of Khorezm province is presented in Figure 53.

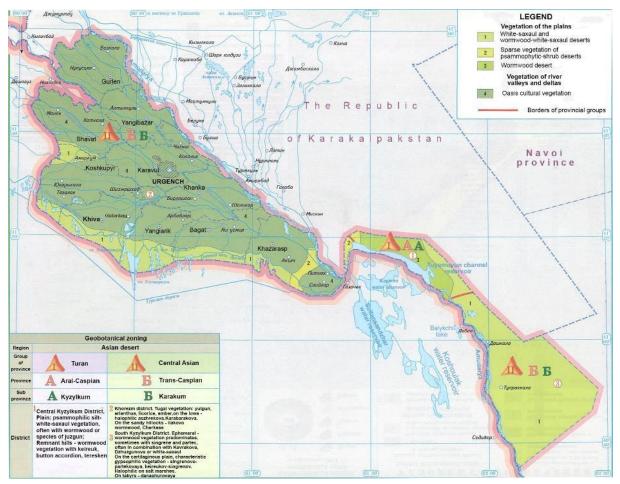


Figure 53: Vegetation map of Khorezm province

c) Fauna

213. The fauna map of Khorezm province is presented in **Figure 54**.

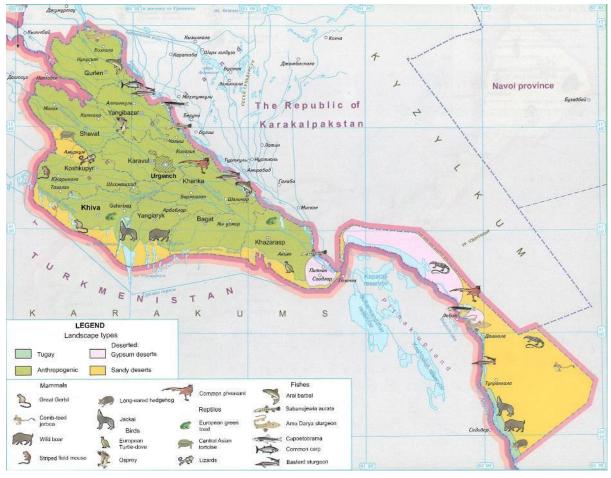


Figure 54: Fauna map of Khorezm province

a) Protected Areas & Habitats

214. The main protected natural areas and IBA zones of the province are presented in the **Table 24**.

Table 24: Main Protected Natu	ral Areas and IBA Zones in Khorezm province
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	Loca	ation			Distance
SPNA name, organization year	Administrative conformity	Geographical location	Area (km²)	IUCN Category	from the Project site
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	Ι	43 km
Natural Park					
Yangibazar (2003)	Khorezm province		4.9	N/A	44 km
Important Bird Area	s (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	221	N/A	5 km

	Loca	ation			Distance	
SPNA name, organization year	Administrative conformity	Geographical location	Area (km²)	IUCN Category	from the Project site	
		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				

215. A distance of the subprojects from the main natural protected areas is shown in **Figure 55.**



Figure 55: Main protected areas close in Khiva

3. Cultural Heritage

216. There are many cultural and archeological monuments in Khorezm province, such as: Ak, Bogbonla, Dzhuma, All-Kuli-khan Mosques; Amir Temur, Arab-khanai Mukhammad-Amininaka, 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 Khodja Madrassas; Seyid Allauddin, Uch-Ovliya Mausoleums; Palvan-Kari, Seyid-biya Minarets and many others.

217. Khiva city is split into two parts. The outer town, called Dishan Kala, was formerly protected by a wall with 11 gates. The inner town, or Ichan 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. Ichan Kala in Khiva was the first site in Uzbekistan included in the World Heritage List (1991).

218. 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.

219. 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.

220. 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.

221. Main historical monuments in Khiva city are shown in Figure 56.

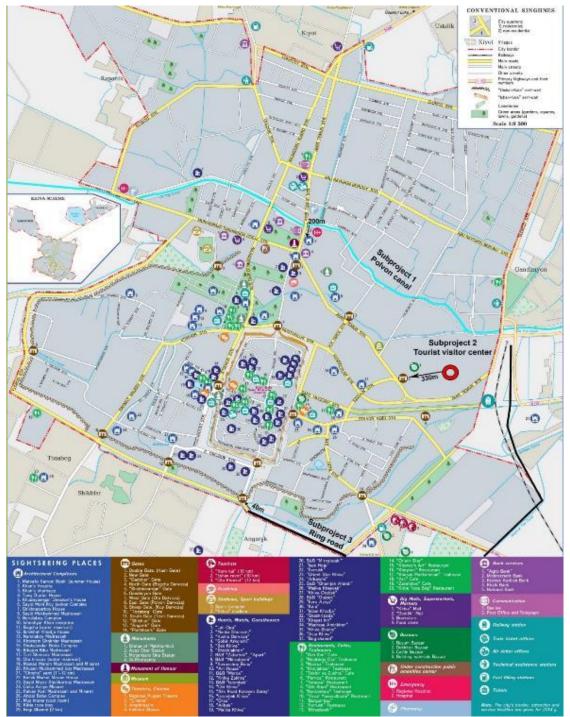


Figure 56: Main sightseeing places in Khiva close to subprojects

222. The distance of subprojects from the main historical places in Khiva is shown in **Figure 57.**



Figure 57: Main historical places close to Khiva subproject

4. Socio-economic situation

223. 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 58: Administrative map of Khorezm province

224. 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.

225. 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.

226. 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 northwest, and Gaukul district in the north-east (**Figure 59**).

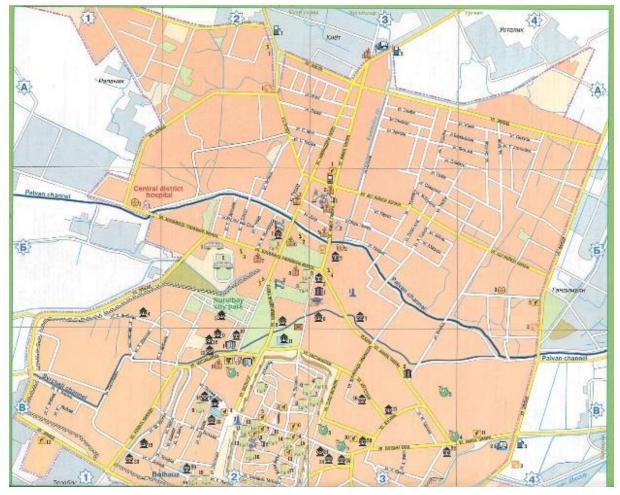


Figure 59: Administrative map of Khiva city

227. 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.

228. 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

229. 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.

230. 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.

231. 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.

232. 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.

233. 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.

234. 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.

235. This Climate Change assessment Report was prepared under TA-8556 REG: Supporting the Cities Development Initiative for Asia⁴¹ - Project Preparation Study for the ADB

⁴¹ <u>47285-001: Supporting the Cities Development Initiative for Asia | Asian Development Bank (adb.org)</u>

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

236. 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:

<u>For Djizzak:</u>

- 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.
- 237. 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

238. 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

239. 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

240. 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

241. 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

242. 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.

243. 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.

244. 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

245. 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

246. 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

247. 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.

248. 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:

249. <u>High:</u> 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.

250. <u>Medium</u>: 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.

251. <u>Low:</u> 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.

2. Assessing the significance of impacts

2. 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

3.

4. **Table** 25 below.

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

Table 25: Impact Significance Matrix

252. 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.

253. 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.

4. Residual Impacts

254. 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.

255. The approach taken to defining mitigation measures is based on a typical hierarchy of decisions and measures, as described in **Table 26**. 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).

256. 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 26: 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)

257. 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.

Cumulative Impacts

258. 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.

259. 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

260. The anticipated project environmental impacts were reviewed at the three stages – pre-construction, construction and operation stages for two sub-components: (i) construction of new WCPs in Havast and Yangiyer cities, and (ii) creation of a Havast transfer station. This approach considers the specifics of the location of the project areas, natural and climatic conditions and the proximity of the settlements.

1. **Pre-construction stage**

Impacts

261. During the pre-construction stage, the following aspects may have an impact on the effectiveness of environmental safeguards implementation during the entire project cycle and may lead to non-compliance with the requirements: (i) environmental requirements that are not included in bidding documents and contracts, (ii) non-compliance with requirements to obtain approvals and permissions as per national legislation, and (iii) non-compliance of goods, equipment and machinery procurement with the ADB Prohibited Investment Activities List set forth in Appendix 5 of ADB SPS (2009) and national standards on exhausted gases.

262. 25 new community WCPs will be constructed inside Havast and Yangiyer cities. The city has developed utility networks, most of which go underground. For the construction of the WCPs, approvals must therefore be obtained from the relevant agencies (gas, water supply and other utilities) prior to commissioning the civil works, and this will be included as a requirement for contract award.

263. Trees may need to be cleared to build new WCPs. The Contractor will be instructed to avoid cutting as much as possible. However, if tree felling is unavoidable, the Contractor will need to obtain a permit in accordance with national legislation.

264. Some changes in location of WCPs may take place. If there are any unanticipated impacts, the IEE/EMP will need to be updated accordingly to account for any additional or new environmental impacts and relevant corrective actions.

265. In accordance with the national environmental regulations, PEIS nees to be prepared.

266. Procurement of goods, equipment and machinery, which do not comply with the ADB Prohibited Investment Activities List set forth in Appendix 5 of ADB SPS (2009) and national standards on exhausted gases will be prohibited.

267. Prior to commissioning of the civil works, Contractors will be required to develop Site Specific Environmental Management Plans (SSEMP) and Topic Specific Environmental Management Plans (TSEMP) as it is defined in the following chapters.

268. The following activities are proposed to mitigate impacts identified at the preconstruction stage.

Mitigation measures

- PIU with the assistance of PMSC will ensure inclusion of environmental provisions along with EMP and conditions of PEIS approvals 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, and 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 the PIU for the following activities:
 - Traffic Management Plan (TMP);
 - Waste Management Plan;
 - Spoil Management Plan;
 - Spill Response Plan;
 - Construction Camp Management Plan (CCMP);
 - Code of Conduct of Workers;
 - Occupational Health and Safety Plan (OHSP);

- COVID-19 Health and Safety Management Plan and emergency response plan.
- Prior to civil works, the Contractor will get non-objections from all utility agencies such as gas supply, telecommunications etc.
- Prior to commencement of civil works, if cutting trees will be required, permission on cutting trees from SCEEP will be required as indicated in RCM #43 dated from 2021.
- 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 regulations⁴²;
- 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;
- The WCPs site will be designed: open, with a waterproof coating and preferably fenced with green spaces. The area of WCPs will be placed on asphalt or concrete sites. It is allowed to install garbage collectors on a densely compacted earthen platform. The distance from the edge of the site to the nearest garbage container will be at least 1 m. The WCPs will have a well-maintained access and internal roads, an irrigation network, including a ditch for the removal of atmospheric water.

2. Construction stage

a) Physical resources

(1) Impact on air quality

269. During construction of WCPs, exhausted gases will be generated mainly from movement of small trucks delivering construction materials.

270. Almost all construction works at WCPs will be conducted manually without usage of heavy techniques. Main impact is anticipated in form of dust generation during truck movement and demolishing works. The impact will be local and short term, since construction of one WCP may take around 7-10 days.

271. Almost all WCPs are located inside settlements and nearby to living houses, the impact from dust is considered as moderate. Implementation of mitigation measures will be required to minimize this impact.

⁴² 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 60: Location of new WCP (right in blue)

272. According to national regulations, the WCPs have to be located more than 500 m from school's buildings. Sensitive receptors will not be close to newly constructed WCPs.

273. Taking into account the proximity of the houses to the construction site, the impact on ambient air is considered as moderate. It will require implementation of mitigation measures.

274. During construction of transfer station, exhausted gases will be generated mainly from movement of trucks delivering construction materials and operation of construction equipment. Taking into account the remoteness of settlements from the landfill in Havast (more than 800 m), the impact of exhaust gases and dust will be minimal. Nevertheless, Contractor will implement the mitigation measures.

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 standards⁴³;Construction activities and traffic Frequency Likelihood Magnitude Туре Duration Extent Direct | Temporary (7-10 days) Local Daily Likely Low Receptor Sensitivity Residents in closest houses and workers Medium Significance of Impact Minor

Residual Impact

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

Negligible

⁴³ "O'z DSt 1057:2004 Vehicles. Safety requirements for technical conditions" and "O'z DSt 1058:2004 Vehicles. Technical inspection. Method of control".

Cumulative Impact

276. 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

(2) Noise Impact

277. Transfer station is 800 m away from residential area, therefore noise impact to the community is negligible.

278. As mentioned above, all WCP construction works will be conducted manually without specialized equipment. Main source of noise generation during the construction works will be movement of trucks. Considering very close location of houses to the construction site, the following measures are proposed:

Mitigation measures

- Conduct construction works generating noise during the period between 8am and 8pm;
- Inform residents of the closest settlement about the scheduled works in advance.

	Construction activities and traffic						
Туре	TypeDurationExtentFrequencyLikelihoodMagnitude						
Direct	Temporary (7-10 days)	Local	Daily	Likely		Low	
Recept	Receptor Sensitivity						
Resider	nts of the closest mahallas	S			Me	dium	
	Significance of Impact						
	Minor						

Residual Impact

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

			Neglig	jible			
-	 _						

Cumulative Impact

280. 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

281. Vibration impact during construction stage could be caused by use of machinery. Vibration level from different machinery was calculated in accordance with methodology provided in Transportation and Construction Vibration Guidance Manual (2013). The **Table 27** does not provide data on mobile and assembled cranes since their vibration level is not significant.

282. Values of vibration level calculated in accordance with this formula are presented in **Table 27**.

Distance,		nt,						
m	Roller	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		

Table 27: Vibration from machinery

20	0,3	75	0.05	66	0.04	59
30	0,2	71	0,028	64	0.03	55

283. 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 28**).

Table 28. National vibration standards

Period	Permanent vibration, dB
Day time	72
Nighttime	67

284. As shown above, vibration from roller may have a negative impact on people and old structures if a roller is used at the distance less than 30 m from the receptors.

285. For construction of WCPs and transfer station, a big roller will not be used. The works will be implemented by a manual roller.

	Earth works, construction activities and traffic							
Туре	TypeDurationExtentFrequencyLikelihoodMagnitude							
Direct	Temporary (7-10 days)	Local	Daily	Likely	Negligible			
Recept	Receptor Sensitivity							
Reside	nts of the closest houses				Medium			
	Significance of Impact							
	Negligible							

Cumulative Impact

286. 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

(4) Impact on surface and groundwater

287. Newly constructed WCPs and transfer station are located in the area remote from surface water courses. Construction wastewater and domestic wastewater may pollute surface and ground water. Therefore, implementation of the following mitigation measures are required;

- 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.
- Vehicle washing will be allowed only in the special workshop/stations equipped with wastewater treatment facilities and operating in accordance with national regulations. Such workshops/stations are located outside of WCPs and transfer stations and available for use by other vehicles as well. Their performance and compliance with national regulations are monitored by SCEEP.
- 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 sites						
Type Duration Extent Frequency Likelihood Magnitude							
Direct	Temporary (7-10 days)	Local	Daily	Likely	Negligible		
Recept	or				Sensitivity		
Ground	water				Medium		
Significance of Impact							
	Low						

Residual Impact

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

Negligible

Cumulative Impact

289. 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

290. Ground water could be polluted through soil contamination. This impact and proposed mitigations measures are provided in the next chapter.

(5) Impact on soil

291. The main impact on soil includes: (i) soil contamination due to spills or hazardous materials, (ii) compaction of soil/soil erosion, and (iii) usage of borrow pits without permission or opening new ones.

292. Soil contamination during construction of WCPs and transfer station may occur due to improper handling of hazardous materials such as oil and dissolvent if any. Therefore, the Contractor will implement the following mitigation measure:

Mitigation measures:

- 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).
- 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						
Туре	Duration	Extent	Frequency	Likelihoo	d	Magnitude	
Direct	Temporary (months)	Local	Daily	Possible		Minor	
Recept	Receptor Sensitivity						
Soil wit	hin the territory of WCP	s and surround	ed area		Me	edium	
Significance of Impact							
	Minor						

Residual Impact

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

Negligible

Cumulative Impact

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

Negligible

(6) Waste management

295. 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.

(a) Hazardous construction wastes

296. During construction works, it is not expected that the hazardous construction wastes will be used or occurred. However, it should be noted, that some mitigation measures should be provided.

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 branches⁴⁴ for further disposal.
- Conduct awareness program on safety precautions during the construction works.

	Construction machinery maintenance, demolishing of structures							
Туре	Magnitude							
Direct	Short-term	Local	Monthly	Likely	Low			
Recept	or				Sensitivity			
Contra	ctor's workers and r	esidents of ho	ouses living nex	kt to WCPs	High			
Significance of Impact								
			Moderate					

Residual Impact

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

Negligible

Cumulative Impact

298. 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) Non-hazardous wastes

299. Construction and municipal waste will be generated during construction. Among nonhazardous construction waste could be bricks and wood. These construction waste could be re-used, if not, waste will be disposed on the municipal landfill in Mirzaabad district.

Mitigation measures:

- Burning of waste on any construction site is forbidden.
- 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 (old bricks and wood) as much as possible;
- Provide bio toilets for workers at the construction sites and ensure timely disposal of wastewater to the municipal WWTP.

⁴⁴ Local entity responsible for collection and treatment non-ferrous metals

b) Biological resources

(1) Impact on Flora

300. Construction of WCPs will be implemented inside residential area. Locations of new WCPs were selected in a way not requiring of cutting trees. There is no vegetation on the territory of the transfer station. Therefore, the impact on biodiversity will be:

Negligible

(2) Impact on Fauna

301. The fauna of the project sites is represented by typical for urban areas species: cats, dogs and rodents. Therefore, the project impact on fauna is considered to be:

Negligible

c) Impacts on land use

302. New WCPs will be constructed on public state lands free of any private land user which currently are not used. Transfer station will be constructed on the territory of the closed dumpsite, which belongs to Toza Hudud. Therefore, impact on land use is not anticipated and classified as:

Negligible

d) Socio-economic resources

303. Construction of new WCPs will be implemented close to the residential houses. Improper construction wastes management, work in the evening or at night may disturb population. Although the construction of the transfer station will be carried out in an area remote from populated areas, the implementation of mitigation measures will also be necessary. For identified socio-economic impact, the following mitigation measures are proposed:

Mitigation measures

304. The following measures need to be undertaken to minimize or compensate this impact:

- Contractor to develop a Traffic Management Plan (TMP) with clear indication of the routes of vehicles' movements, placement special signs, and speed allowance in the settlements and schedule the transportation activities 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;
- Inform population about the scheduled works in advance;
- Contractor to hire local population with suitable skills to the extent possible.

	Construction camps							
Type Duration Extent Frequency Likelihood Magnitude								
Direct	Temporary (months)	Local	Daily	Likely	Moderate			
Recept	Receptor Sensitivity							
Local p	opulation, IWPs				Medium			
Significance of Impact								
		Ν	Noderate					

Residual Impact

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

Negligible

Cumulative Impact

306. 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

307. Besides impacts on air, water and soil quality, described above, certain risks may take place related to community health and safety, and to workers on construction sites and campsites.

(1) Community Health and Safety

308. Inadequate lighting and fencing of construction sites – inside the settlement areas can be dangerous for population especially during nighttime.

309. 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.

310. The traffic will have the potential impact on the local community safety, workforce safety and traffic flow on the project sites.

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

Mitigation measures

312. The following measures need to be undertaken to minimize these impacts:

- Contractors will inform population about the scheduled construction works in the settlements in advance. Prior to starting any construction works, Contractors will have to share their work plan with indicative timeline and places with the leaders of communities (mahallas);
- Contractors will develop a Code of Conduct of Workers and include it as part of contracts with each worker;
- 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;
- 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;
- Contractors will develop a Construction Camp Management Plan;
- 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; and
- After completion of the construction works, the Contractors will remove all equipment and structures, clean up and dispose all waste materials, provide a full reinstatement of the construction and camp sites by bringing them to their pre-construction condition.
- 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	Moderate						
Recept	Receptor Sensitivity						
Local p	opulation				Medium		
Significance of Impact							
	Moderate						

Residual Impact

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

Negligible

Cumulative Impact

314. 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) Occupational Health and Safety

315. One of the highest risks related to the civil works is related to Occupational health and Safety of workers.

316. During construction works, risks for workers include (i) moving equipment and operating mechanisms, (ii) working with flammable substances, and (iii) poor sanitary conditions on construction sites. To minimize such impacts, the Contractor will develop an Operational Health and Safety Management Plan (OHSP) which will cover all potential risks for workers. The developed OHSP has to comply with guidance provided in "WHO Health and safety practices for health-care and waste workers". The Guidance is provided in Appendix 2.

317. The construction/civil works 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.

318. Given the sensitive environment 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.

319. The Government of Uzbekistan 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 <u>Sanitary-EpidemiologicalWelfare</u> and Public Health Service (the 3rd edition), 11 May 2020. The SanN&R provides for general and specific requirements for different sectors: pharmacy, public transport, markets, construction sites, etc.

320. The rules require safe transportation of workers, arrangement of 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 a 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.

321. 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 where workers feel COVID-19 symptoms.

322. 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.

323. 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.

324. 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

- Contractor will comply with the requirements of the Labor Code of Uzbekistan (1998) and standards on health and safety⁴⁵;
- Contractors will develop OHSP and will ensure its proper implementation. The OHSP has also to consider WHO requirements for workers of waste (Appendix 2).;
- Contractors will hire a full-time OHSE to develop and supervise OHSP implementation;
- OHSE will 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 reports about any health and safety incidents;
- In conditions of the pandemic risk, the Contractors will arrange their works in accordance with the Temporary Sanitarian Norms and Rules (SanN&R) # 0372-20;
- Contractors will be required to: (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 as part of the SSEMP. 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

⁴⁵ Construction Norms and Rules # 3.01.01-03. Organization of Construction works. 2003

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						
Туре	Duration	Extent	Frequency	Likelihood	Magnitude		
Direct	Direct Temporary (months) Local Daily Possible						
Recept	Receptor Sensitivity						
Contrac	ctors' workers and local p	population			High		
Significance of Impact							
Major							

Residual Impact

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

Minor

Cumulative Impact

326. 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

327. 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.

328. The Contractors will build and maintain a camp/camps following IFC and the EBRD's guidance note on Workers' Accommodation: Processes and Standards (2009) (footnote 28 on page 29). The Contractor will provide living accommodation for its staff, including all services including water supply, sanitation and energy. The camp considerations will take into account all sanitary laws and other laws and regulations effective in the area. The Contractors will be responsible for and provide all necessary fencing and security to these areas. Camp construction will not involve use of any hazardous materials. The camp location will avoid densely populated areas and will consult appropriately with the local population. A location of the camp will not be closer than 50 m to any irrigation canals. The camps location will be agreed with PIU and local government authorities.

329. The Construction Camp Management Plan (CCMP) will be developed by Contractors as part of the SSEMP, endorsed by PMSC and approved by PIU prior to commencement of any civil works. 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.

Mitigation measures

 The Contractor will develop a Construction Camps Management Plan (CCMP) as part of the SSEMP following IFC and the EBRD's guidance note on Workers' Accommodation: Processes and Standards (2009) (footnote 28 on page 29), and implement the CCMP;

- Provide all necessary fencing and security to the camp.
- Camp construction will not involve use of any hazardous materials.
- The camp location will avoid densely populated areas and will take into account the opinion of local population;
- The location of the camp will not be closer than 50 m to irrigation canals;
- The camp location will be agreed with PIU and local government authorities.
- Washing equipment and vehicles will be prohibited in the construction camp area. The washing will be done at the dedicated equipped place.
- Camps will ensure safe and adequate living conditions for workers, such as dining rooms, toilets, shower rooms etc.
- Contractors will instruct all the workers to act in a responsible manner.

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

Residual Impact

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

Negligible

Cumulative Impact

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

Negligible

f) Cultural heritage

5. There are no any historical places located in the 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

- 6. The following measures will be undertaken in case of possibility to find any heritage:
 - Excavation and other works will be suspended immediately;
 - Area with possible heritage will be fenced with fencing tape;
 - Designated focal point from the local administration (khokimiyat) will be informed and invited for assessment of any potential heritage and undertaken necessary actions;
 - Civil works at the finding place can be recommenced after obtaining the appropriate permission from the focal point.

Cumulative Impact

332. The cumulative impact is considered to be:

Negligible

3. Operational stage

333. The operational stage of the project is characterized by the operations of distinct project component, summarized as follows:

334. During the operation stage, the WCPs will operate on a continuous basis, fulfilling their functions of accepting community MSW, segregating the waste to recover recyclable materials, and consolidating the residual waste for collection by the municipal collection vehicles. Havast transfer station will also operate continuously from its commissioning, providing for the transfer of MSW from the smaller collection trucks into the larger regional transfer vehicles in Havast, for transfer to the new regional landfill facility at Mirzaabad.

335. The anticipated impacts and proposed mitigation measures relating to the operations is presented below.

a) Physical resources

(1) Impact on air quality

336. Waste from Yangiyer and Havast cities will be delivered to and from Havast transfer station to be constructed. Although air quality could therefore be polluted by NO_x , SO_2 , and dust due to these truck movements, this will be partially mitigated due to the utilization of more efficient and less polluting trucks, and improvements to the access road which will improve truck transport efficiencies. There may be minor airborne emissions emanating from waste materials during the transfer of waste from the smaller trucks to the larger waste transfer vehicles, however these emissions are considered to be minor, and also located within the transfer station facility itself. The WCPs will also generate minor airborne emissions during the collection, segregation and sorting of waste.

Mitigation measures

337. Nevertheless, to mitigate potential adverse impact the following measures are required:

- All vehicles and equipment will comply with technical requirements and have to pass regular inspection according to the national standards⁴⁶;
- Drivers will control speed limits, especially inside settlements (50 km/h inside populated areas and 30 km/h for schools and kindergartens)
- The waste in all waste vehicles will be properly covered during transportation.
- The transfer station facility will include necessary dust suppression and air purification systems, where appropriate.
- Transfer station and WCPs workers will wear appropriate PPE to protect against airborne particulate emissions within these facilities.

Residual Impact

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

Negligible

Cumulative Impact

339. Impacts are not considered to be cumulative, therefore the impact is:

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".

(2) Noise impacts

340. Noise generated by WCPs and transfer station operations will include the movement of waste vehicles to and from these facilities, and noise generated through the manual sorting of waste and other related activities within these facilities, both of which are considered to be:

Negligible

Residual Impact

341. The residual impact is considered to be:

Negligible

Cumulative Impact

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

Negligible

(3) Vibration impacts

343. Vibrations generated by WCPs operations will include the movement of waste vehicles to and from these facilities, and vibrations generated through the manual sorting of waste and other related activities within these facilities. The waste vehicles visiting these facilities (that include municipal collection vehicles, and private vehicles delivering waste to these facilities) will therefore be standard vehicles that normally traverse the urban areas of the cities. In addition, vibrations generated as a result of transfer station operations will also primarily relate to the movement of similar waste vehicles that traverse the urban areas. As a result, the impacts from the vibrations generated are considered to be:

Negligible

Residual Impact

344. The residual impact is considered to be:

Negligible

Cumulative Impact

345. There are no other activities to be conducted on the sites which may lead to increasing vibration levels. Therefore, the cumulative impact is considered to be:

Negligible

(4) Odor impact

346. With improper maintenance of WCPs, unpleasant odor may impact on residents living close to the WCPs. Locations of all WCPs have been selected in full compliance with national regulation on buffer zone.

347. To avoid impact of odor on the population the following mitigation measures are proposed:

- Equip all WCPs with water supply system and sewage networks;
- Place contact information of relevant waste management organization responsible for waste disposal, at the territory of WCPs.
- Ensure propoer maintenance of WCPs by desisngated staff;
- Implement waste segregation practice in order to avoid generation of leachates;
- Ensure timely disposal of wastes from WCPs to the transfer station and further to the Mirzaabad landfill.

Odor							
Туре	Type Duration Extent Frequency Likelihood M						
Direct	Long term (year)	Local	Daily	Unlikely	Moderate		
Recept	Receptor Sensitivity						
Resider	Residenst of houses located close to WCPs High						
Significance of Impact							
Minor							

Residual Impact

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

Negligible

Cumulative Impact

349. Similar activities which may impact on odor are not anticipated from the WCP and transfer station operations, therefore the cumulative impact is considered to be:

Negligible

(5) Impact on water resources

350. The WCPs and transfer station are located in areas that are remote from surface water resources. It is also considered that the operations of these WCPs facilities, as well as the transfer station operations, are unlikely to cause groundwater contamination. As a result, the impacts to surface water and groundwater resources during the operational stage are considered to be:

Negligible

Residual Impact

351. The residual impact is considered to be:

Negligible

Cumulative Impact

352. There are no other activities to be conducted at the WCPs or the transfer station which may result in contamination of surface water and groundwater resources. Therefore, the cumulative impact is considered to be:

Negligible

(6) Impact on soil

353. Potential soils contamination from the WCP and transfer station operations could occur from the improper handling of hazardous materials such as paints, oils and dissolvent.

Mitigation measures

- Storage of all fuel and chemicals (if any) will be placed in impervious facilities within a bund and secured by fencing.
- Waste will be stored in specially designated places, determined jointly by partnerships of private homeowners, self-government bodies of citizens, professional management organizations.
- The frequency of removal of solid and liquid household waste is established based on local climatic conditions, taking into account the provision of the sanitary condition of the city, settlement and the conditions for preventing the development of pathogenic bacteria, and will not exceed the maximum storage

time household waste, in the warm season daily, in the cold season once every 3 days.

- Solid household waste will be removed by garbage trucks, and liquid waste from non-sewered households by sewage vacuum transport. The export of solid and liquid household waste directly to the fields and gardens is not allowed.
- Hazardous materials (such as battaries) will not be allowed to be placed on the territory of WCPs, it will be placed in specially designated places.
- Guarded waste collection sites will have a supply of cold water and a drain to the sewer.
- The WCPs area will be planted with trees and bushes. At protected waste collection sites, it is necessary to organize the disinfection of containers after they have been emptied. Metal waste containers in the summer period must be washed (with a "non-replaceable" system at least once every 10 days, "replaceable" after emptying), wooden containers disinfected (after each emptying).

Residual Impact

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

Negligible

Cumulative Impact

355. Similar activities which may impact on soil quality are not anticipated from the CCP and transfer station operations, therefore the cumulative impact is considered to be:

Negligible

b) Waste Management

(1) Hazardous Waste

356. Both the WCPs and Havast transfer station are exclusively designed to accept non-hazardous MSW, and not hazardous waste, which requires special handling.

Mitigation measures

357. Should any hazardous waste be suspected in the incoming waste stream, formally notify the appropriate Toza Hudud for their subsequent action.

Residual Impact

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

Negligible

Cumulative Impact

359. Similar activities which may impact on the identification and reporting of hazardous wastes are not anticipated in the WCPs or transfer station, therefore the cumulative impact is considered to be:

Negligible

(2) Non-Hazardous Waste

360. Residual non-hazardous solid waste generated during the operations of the WCPs and Havast transfer station will be included in their relevant MSW streams for municipal disposal. Impacts from the generation of non-hazardous solid waste are therefore not anticipated.

c) Biological Resources

(1) Impact on Flora

361. Impacts on flora due to the operations the operations of the WCPs and Havast transfer station are not anticipated, as all geographic areas of each of these facilities has been disturbed during the construction phase, from which the project impact was considered to be:

Negligible

(2) Impact on Fauna

362. Impacts on fauna due to the operations of the the operations of the WCPs and Havast transfer station are also not anticipated, as all geographic areas of each of these facilities has been disturbed during the construction phase, from which the project impact was considered to be:

Negligible

d) Land use

363. The new WCPs will be constructed on unused public state lands free of private land users, and in addition, rehabilitation works for existing WCPs are not expected to cause LAR impacts. As a result, impacts on land use are not anticipated, being therefore classified as:

Negligible

e) Socio-economic resources

364. Subsequent to the construction stage, further socio-economic impacts are not anticipated during the operational stage. The WCPs and Havast transfer station will require additional operational personnel, it is anticipated that any impacts accruing from the procurement of these personnel will be minimal, as they will most likely be hired locally. As a result, socio-economic impacts relating to the operational stage are considered to be:

Negligible

f) Community and Occupational Health and Safety

(1) Community Health and Safety

365. Community health and safety impacts are not anticipated from the operations of the WCPs and Havast transfer station. Impacts are therefore considered to be:

Negligible

(2) Occupational Health and Safety

366. Occupational health and safety risks for workers will continue during the operational stages of the WCPs and Havast transfer station. These include risks from (i) moving equipment and operating mechanisms, (ii) working with flammable substances, and (iii) poor sanitary conditions.

Mitigation measures

367. The following measures will be undertaken to minimize these impacts:

- Compliance with the requirements of the Labor Code of Uzbekistan (1998) and standards on health and safety⁴⁷;
- Development of Operational Health and Safety Management Plans (OHSPs) which will cover all potential risks for workers. The OHSP has also to consider WHO requirements for workers of waste (Appendix 2).

⁴⁷ Construction Norms and Rules # 3.01.01-03. Organization of Construction works. 2003

Residual Impact

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

Minor

Cumulative Impact

369. Similar activities which may impact on occupational health and safety are not anticipated in the project area, therefore the cumulative impact is considered to be:

Negligible

g) Cultural heritage

370. As discussed previously, historical places have not been located in the project areas, a finding that was reconfirmed during the meetings with local stakeholders, such as Khokimyats and mahallas. Therefore the impact is considered to be:

Negligible

4. Transboundary Impact

371. In accordance with IFC Guidance Note⁴⁸, transboundary impacts are impacts that extend to multiple counties, beyond the host country of the project, but are not global in nature.

372. 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.

373. 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.

374. All sub-components are located on remote from the borders from other countries. The anticipated impacts on air and water during 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.

5. Climate Change Impact

375. Project impact on Climate Change was reviewed under the Climate Risk and Vulnerability Assessment prepared for IUDP (March 2022). The main climate risks identified are:

- **Temperature increases and more frequent and intense heat waves.** Intense heat waves bring discomfort and health issues to building and other infrastructure users, especially the elderly; In addition, it necessitates higher capacity and technical requirement for waste and wastewater collection and treatment in avoiding the spread of pathogens. This risk of extreme heat is high in Djizzak and Khiva and moderate in Yangiyer and Havast, while the risk posed by increases in temperature resulting in an increase in the frequency and duration of heatwaves is moderate in all four cities.
- **Precipitation increases and particularly increases in extreme precipitation.** Increased precipitation extremes characterized by increased frequency of occurrence and severity pose flood risks to buildings and other critical

⁴⁸ International Finance Corporation's Guidance Notes: Performance Standards on Environmental and Social Sustainability, 2012

infrastructure such as roads. The risk of extreme precipitation is moderate in Djizzak, Yangiyer and Havast and low in Khiva. The risk of flooding is low in Khiva and moderate in the other cities.

• **Increases in water stress.** The climate risk profiles highlight this as a risk for Djizzak in particular. However, it should be noted that Uzbekistan's updated Nationally Determined Contribution (NDC)⁴⁹ highlights water scarcity as a problem for Uzbekistan in general, considering the balance of precipitation and evapotranspiration.

376. The climate change contributions of IUDP were assessed through IUDP document review, review of reports by the Government of Uzbekistan to the United Nations Framework Convention on Climate Change (UNFCCC), internal discussions on the various components and background studies including review of climate change trends and climate change projections. Subsequently the amount of climate finance incorporated into IUDP was estimated according to the principles agreed between multilateral development banks and international financial institutions⁵⁰ and reflected into ADB guidelines⁵¹

377. Due to the increased anaerobic conditions, emissions will actually increase, with the total increase in GHG emissions until 2039 (included) reaching 730,000 tCO2e approximately totaled over the 4 cities. UNFCCC CDM tool "Emissions from solid waste disposal sites Version 08.0" referenced in "CDM methodology ACM0001 Flaring or use of landfill gas ---- Version 19.0" and for waste composition, data from an ADB waste characterization study for Uzbekistan were used.

378. The impact of recycling is modeled using CDM Small-scale Methodology AMS-III.AJ: Recovery and recycling of materials from solid wastes Version 07.0. Recycling produces about 115,000 tCO2e in emission reductions up to 2039 (inclusive), but net increase emissions are a bit over 615,000 tCO2e. Will now look at the various options for GHG mitigation.

379. In order to reach this requirement, the following actions have been recommended for project SWM sub-component:

Pilot program for waste minimization and recycling

- Include in the awareness program waste minimization and recycling is a first step to "prevent the emergence and exacerbation of diseases caused by climate change".
- Introducing 3 R program
- Introducing waste composting practice

380. Construction of Havast transfer station will also contribute decrease of GHGs emissions from vehicles due to increasing of capacity of trucks transporting wastes from Havast and Yangiyer to Mirzaabad landfill.

⁴⁹ Government of Uzbekistan (2021), Updated Nationally Determined Contribution 2021.

⁵⁰ AfDB, ADB, EBRD, EIB, IDBG and WBG (2016), 2015 Joint Report on Multilateral Development Banks' Climate Finance.

⁵¹ ADB (2016), Guidance Note on Counting Climate Finance at ADB; and ADB (2016), Guidance Note on Counting Climate Finance in Urban and Water.

VI. ANALYSIS OF ALTERNATIVES

A. Construction of WCPs

1. Selection of locations

381. During selection the location of WCPs, several options were considered. DED consultant selected the location in order to meet sanitary standards and, at the same time the wishes of residents of nearby houses were taken into account. In two cases, initial location of the WCP have been revised and was moved to places agreed with the residents of nearby houses.

2. The situation "without the project"

382. The situation "without project" will lead to deterioration of the sanitarianepidemiological situation in the project cities, wellbeing of population and pollution of environment.

B. Construction of Transfer Station

1. Selection of locations

383. Two options on location of transfer station have been considered: (i) on the territory of closed Havast dumpsite and (ii) on the territory of the closed Yangiyer dumpsite.

384. In making the final decision, factors such as the location relative to the regional landill in Mirzaabad and the availability of access roads that do not pass through densely populated areas were taken into account. The distance from the landfill in Yangiyer to Mirzaabad is 26 km, and from Havast to Mirzaabad - 22 km, in addition, access roads to Yangiyer pass through populated areas, and in Khavast such roads pass through a sparsely populated area. Therefore, it was decided to build a transshipment station in Havast.

2. The situation "without the project"

385. The "no project" situation will contribute to a significant increase in the cost of waste management services, as well as an increase in fuel use, and, accordingly, carbon dioxide emissions into the atmosphere.

VII. INFORMATION DISCLOSURE, CONSULTATION, AND PARTICIPATION

A. Consultation

386. 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 period October 2019 - February 2022 to capture the stakeholders' opinions about the project and agree on the project activities.

387. Prior to the public consultations, several meetings were conducted with internal and external stakeholders, such as representatives of the SCEEP in Gulistan (Syrdarya province), Djizzak, and Khorezm branches of SCEEP, district khokimiyats and mahallas, Agency's for Sanitary and Epidemiological Well-being branches in the cities and others.

388. Current IEE preparation period (February 2021 – January 2022) covered COVID-19 quarantine period and some quarantine restrictions are still in effect on the territory of the Republic of Uzbekistan. 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.

35. In order to deliver information about the planning activities under the subcomponent, its environmental impacts, GRM, TRTA consultants prepared leaflets in Russian and Uzbek

languages with brief information on these topics (Appendix 3). The leaflets also provided information on type of mitigation measures and contacts for clarifications and complaints submission if any. At the stage of the IEE finalization, no feedback has been received. The information in the leaflet was reviewed by MIFT-PIU and printed versions were distributed in January 2022 in 3 mahallas in Havast city (Bunyodkor, Istiklol and Tinchlik mahallas) and 8 mahallas in Yangiyer city (Z. Bobur, A. Jamiy, Marifat, Temur Malik, Shodiyona, Shukrona, Navruzobod, and Obod yurt) where WCPs are located. The leaflets were also distributed in 1 mahalla close to Djizzak landfill in Djizzak city (Gozgontepa) and 1 mahalla in Khiva city (Buston). During consultation conducted in Bunyodkor makhalla, impacts related to the construction of transfer station in Havast have been discussed as well. Besides, the leaflets were also delivered to khokimiyats of Djizzak, Yangiyer, Havast and Khiva cities, regional SCEEP branches (in Djizzak, Syrdarya and Khorezm provinces).

36. Public Consultations were held on 13, 14 and 17 January 2022 in city (Z. Bobur, A. Jamiy, Marifat, Temur Malik, Shodiyona, and Shukrona) and on 6 and 14 January 2022 in Havast city (Bunyodkor, Istiklol and Tinchlik mahallas) by PIU-NES. Minutes of Public Consultations are in Appendix 4.

Issues raised	Response
Who is funding this project?	ADB
Residents of Istiklol mahalla, Havast city	
Who will act as a Contractor, local or some international company?	It will be open bids, but more likely that local contractors will implement this construction.
Residents of Tinchlik mahalla, Havast city	
If WCPs are built, then who will work there? We ask you to put a special person for keeping this and surrounding territory clean	WCPs will be operated by the person working in the Yangiyer city Toza Hudud (Answer was provided by representative from Toza Hudud)
Residents of Shukrona mahalla, Yangiyer city	
There is not enough space for construction of WCPs. It will be located too close to us. <i>Residents of T. Malik mahalla,</i> <i>Yangiyer city</i>	Proposed location of WCPs was examined by the working group consisted of the representative of Yangiyer city khokimiyat, Toza Hudud, NFS, DED and TRTA consultants. Due to close location of residential houses consisted mainly of one and two-story houses, it was decided not ro construct WCPs and use "signal system" of wastes collection (when households leave wastes in the bags outside of houses). Under the project, rolling bins will be provided to that households.
What distance should be from the house to the WCPs? <i>Residents of T. Malik mahalla, Yangiyer city</i>	In accordance with national legislation – Sanitarian Norms and Rules # 0329-16 dated from 2016 and Urban Construction Norms # 2.08.01-05, WCPs have to be installed on the distance not less than 20 m from the residential houses.
What if a trash can will be located near the road, not near the houses? Is it possible? Residents of Obod yurt mahalla, Yangiyer city (residents of 2-3 story houses)	The current practice of storage garbage on the road (close to houses) leads to the case when the garbage is sorted out by dogs, cats, worsening the sanitary situation. This approach named "signal system of waste collection" can be applied in the mahallas with one story houses. For your area

389. The main issues raised during the public consultations are presented in Table 29.

 Table 29: Questions and answers raised during the public consultation in January

 2022

Issues raised	Response
	construction of WCPs is more appropriate (Answer was provided by Toza Hudud representative)
We do not want WCPs to be built close to our houses due to possible negative sanitary and hygienic conditions of these places in the future in case of untimely removal of garbage from this area (flies, bad smell, etc.). We do	All proposed project WCPs will be modern and will be built in accordance with national sanitarian norms, selection of their location will be done in fully compliance with sanitary zone. Proper maintenance of wastes collection points will be implemented by Toza Hudud.
have alternative WCP in another yard farther away from here. <i>Residents of Obod yurt mahalla,</i> <i>Yangiyer city</i>	Capacity of the place where you leave wastes now is not designed to accumulate wastes from your living area due to its low capacity. That place is designed to collect wastes from limited number of residents living on certain surrounded area. Your wastes overload that WCPs and cause nuisances to residents of another mahalla.

DED = Detailed Engineering Design, NFS = National Feasibility Study, TRTA = Transaction Technical Assistance, WCP = waste collection point

B. Information Disclosure

390. The leaflets in both languages – Russian and Uzbek were published on MIFT-PIU's website (footnote 27).

391. 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 MIFT-PIU's website. Hard copies of the documents will also be delivered to the Djizzak, Syrdarya and Khorezm branches of SCEEP, and Havast (Istiklol, Bunyodkor, Tinchlik mahallas), Yangiyer (Marifat, Shodiyona, A. Jamiy, Shukrona, T. Malik, Navruzobod, Z. Bobur and Obod yurt) for further use during the construction and operation phases. For the interested parties, the IEE will be available at the offices of the PIU-MIFT.

C. Further communication with stakeholders

392. 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-NES 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

393. 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.

394. 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).

395. 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.

396. 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.

397. 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.

398. The project proposes three levels of the GRM:

- (i) **Level-1** PIU Field Coordinator together with the project beneficiary (cities khokimiyats, Toza Hududs) or contractor;
- (ii) Level-2 MIFT-PIU;
- (iii) **Level-3** Court of Law (Economic Court).

Table 30: 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	PIU Field Coordinator in Djizzak	To be defined before the first civil work contract is awarded.
city	Djizzak Toza Hudud	Djizzak city, Togishamol street, Bogishamol mahalla, 5 E-mail: jizzaxtozahudud@umail.uz Phone number: (0372) 2222924
Khivo	PIU Field Coordinator in Khiva	To be defined before the first civil work contract is awarded.
Khiva city	Khorezm Toza Hudud	Urgench city, E. Rakhim str., 118, E-mail: xorazmtozahudud@uznature.uz Phone number: +998622282231
Yangiyer	PIU Field Coordinator in Yangiyer	To be defined before the first civil work contract is awarded.
city	Yangiyer Toza Hudud	Yangiyer city, Navruzobod mahalla Phone number: +998994942444
	PIU Field Coordinator in Havast	To be defined before the first civil work contract is awarded.
Havast city	Havast Toza Hudud	Havast city, Bunyodkor mahalla, Hovos str. Phone number: +998993713179
	Syrdarya Toza Hudud	Gulistan city, Navbahor mahalla, Serquyosh str., 1A E-mail: <u>sirdaryotozahudud@uznature.uz</u> Phone number: +998672253715

PIU = Project Implementation Unit

A. Level 1: PIU Field Coordinator together with the project beneficiary (cities khokimiyats, Djizzak Suvtaminot LLC⁵²) or contractor

399. At this level, an applicant submits 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.).

400. 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.

401. 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 Toza Hudud, 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.).

402. 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 will register the grievance and make efforts to resolve the grievance at that level in a consultative manner.

403. At this level, the grievance will be redressed within 15 days from the date of receipt with the adoption of a relevant decision.

404. Grievance redress will comply with the requirements of the legislation of the RUz requirements.

405. 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.

B. Level 2: MIFT-PIU

406. 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.

407. 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.).

408. 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.

409. When receiving grievance, PIU will take the following actions:

⁵² 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, Yangiyer 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.

C. Level 3: Court of Law (Economic Court)

410. 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.

D. Overview

411. The GRM will equally apply to all stakeholders (including project affected persons, businesses and households).

412. 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.

413. 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.

414. 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.

415. 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.

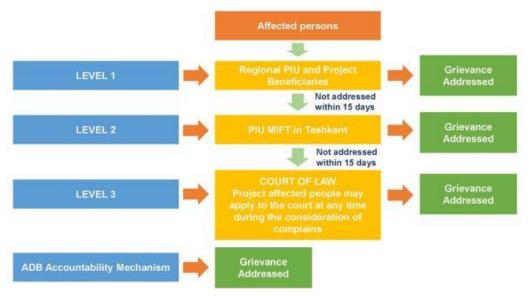


Figure 61: Procedure and stages of the Grievance Redress Mechanism

IX. ENVIRONMENTAL MANAGEMENT PLAN

416. 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.

417. 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.

418. 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.

419. 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

420. Mitigation measures required to address the impacts identified by this IEE have been consolidated in the following EMP (**Table 31**). 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.

421. 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. 268 on page 100) as required, which are prepared based on risk assessment following relevant government regulations and guidelines or international best practices.

Impact	Mitigation measures	Responsibility	Cost			
Pre-construction stage						
Lack of proper environmental requirements in the bidding documents		PIU procurement specialist, PIU- NES assisted by PMSC-NES	Included in PMSC and PIU budgets			
Improper assessment of bidders' environmental capacity	 Bids' evaluation needs to be done with consideration of capacity of bidders to meet EMP requirements, proposing adequate budget efficient for EMP implementation, and existence of good practice in environmental performance within other similar projects; 	Same as above	Same as above			
Improper development of SSEMP	 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; 	Contractor, PIU- NES assisted by PMSC-IES	Same as above			
Inadequate monitoring of EMP implementation	 TSEMPs mentioned above will be prepared by Contractors as part of the SSEMPs, endorsed by PMSC and approved by the PIU for the following activities: 	Contractor with assistance of PMSC-NES	Included in the Contractors and PMSC budgets			
Non-compliances with national procedure of works. Accidents due to damage of underground utilities	 Prior to civil works, the Contractor will get non-objections from all utility agencies such as gas supply, telecommunications etc. Prior to commencement of civil works, if cutting trees will be required, permission on cutting trees from SCEEP will be required as indicated in RCM #43 dated from 2021. 	Contractor with support of PIU	Included in Contractor's and PIU budgets			
Non-compliance with national and international requirements during bidding for procurement of machinery and mechanisms	 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 regulations53; 	PIU Procurement specialist and PIU-NES assisted by PMSC	Included in PMSC and PIU budgets			
Generation of different potential environmental impacts due to changes in design, layout	 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,	Same as above			

⁵³ 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.

Impact	Mitigation measures	Responsibility	Cost
		PMSC-IES and PMSC-NES	
Improper design of WCPs	10. The WCPs site will be designed: open, with a waterproof coating and preferably fenced with green spaces. The area of WCPs will be placed on asphalt or concrete sites. It is allowed to install garbage collectors on a densely compacted earthen platform. The distance from the edge of the site to the nearest garbage container will be at least 1 m. The WCPs will have a well-maintained access and internal roads, an irrigation network, including a ditch for the removal of atmospheric water.	DED Consultant	Same as above
Construction stage			
Impact on air quality	 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 	Contractors implement PIU-NES and PMSC monitor	Included in the Contractors budget
	regular inspection according to the national standards ⁵⁴ .	implementation	
Noise Impact	 Conduct construction works generating noise during the period between 8am and 8pm; Inform residents of the closest settlement about the scheduled works in advance. 	Same as above	Same as above
Impact on surface and ground water	7. 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	Same as above	Same as above
	 No vehicle/equipment washing is allowed with any surface water throughout the subproject implementation period. 		
	9. Vehicle washing will be allowed only in the special workshop/stations equipped with wastewater treatment facilities and operating in accordance with national regulations. Such workshops/stations are located outside of WCPs and transfer stations and available for use by other vehicles as well. Their performance and compliance with national regulations are monitored by SCEEP.		

⁵⁴ "O'z DSt 1057:2004 Vehicles. Safety requirements for technical conditions" and "O'z DSt 1058:2004 Vehicles. Technical inspection. Method of control".

Impact	Mitigation measures	Responsibility	Cost	
	10. 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.			
	11. Disposal of lubricating oil and other potentially hazardous liquids onto the ground or to the canals will be prohibited.			
	12. 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;			
	13. 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;			
	14. 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	15. 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).	Same as above	Same above	as
	16. 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			

Impact	Mitigation measures	Responsibility	Cost
	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.		
Waste management	 <u>Hazardous Construction Wastes</u> 17. 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; 18. 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; 	Same as above	Same as above
	 19. 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; 20. Used batteries will be collected separately and transferred to the local Cvetmet branches⁵⁵ for further disposal. 		
	21. Conduct awareness program on safety precautions during the construction works.		
	 <u>Non-hazardous wastes</u> 22. Burning of waste on any construction site is forbidden. 23. Conclude contract with waste disposal organization for the timely transportation and disposal of non-recyclable wastes, prior to the commencement of any civil works 24. 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; 25. Put proper waste bins at a related areas of construction sites and workers camps; 26. Segregation of wastes on recyclable and non-recyclable wastes; 27. Selling recyclable wastes to relevant organizations (paper, scraps, accumulators) and timely disposal of non-recyclable wastes to the municipal landfill. 	Same as above	Included in the Contractors budget Cost for one bio toilets is \$ 800
	28. Re-use construction wastes (old bricks and wood) as much as possible;		

⁵⁵ Local entity responsible for collection and treatment non-ferrous metals

Impact	Mitigation measures	Responsibility	Cost
	29. Provide bio toilets for workers at the construction sites and ensure timely disposal of wastewater to the municipal WWTP.		
Impact on Socio-economic Resources	30. Contractor to develop a TMP with clear indication of the routes of vehicles' movements, placement special signs, and speed allowance in the settlements and schedule the transportation activities 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;	Same as above	Included in the Contractors budget
	31. Inform population about the scheduled works in advance;		
	32. Contractor to hire local population with suitable skills to the extent possible.		
Community Health and Safety	33. Contractors will inform population about the scheduled construction works in the settlements in advance. Prior to starting any construction works, Contractors will have to share their work plan with indicative timeline and places with the leaders of communities (mahallas);	Same as above	Same as above
	34. Contractors will develop a Code of Conduct of Workers and include it as part of contracts with each worker;		
	35. 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;		
	36. All construction sites (especially in the settlements) will be properly lightened and fenced;		
	37. After completion of construction works, all roads will be rehabilitated at least up to the pre-construction condition;		
	38. Contractors will develop a Construction Camp Management Plan;		
	39. Remove all rubbish, or temporary structures (such as buildings, shelters, and latrines) which are no longer required;		
	40. All hardened surfaces within the construction camp area will be ripped, all imported materials removed; and		
	41. After completion of the construction works, the Contractors will remove all equipment and structures, clean up and dispose all waste materials, provide a full reinstatement of the construction and camp sites by bringing them to their pre-construction condition.		
	42. 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).	PMSC and PIU	Included in PMSC and PIU budget

Imj	oact		Mitigation measures	Responsibility	Cost
Occupational Safety	Health	n and	43. Contractor will comply with the requirements of the Labor Code of Uzbekistan (1998) and standards on health and safety ⁵⁶ ;	implement	Included in the Contractors budget
			44. Contractors will develop OHSP and will ensure its proper implementation. The OHSP has also to consider WHO requirements for workers of waste (Appendix 2);		
			45. Contractors will hire a full-time OHSE to develop and supervise OHSP implementation;		
			46. OHSE will 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 reports about any health and safety incidents;		
			47. In conditions of the pandemic risk, the Contractors will arrange their works in accordance with the Temporary Sanitarian Norms and Rules (SanN&R) # 0372-20;		
			48. Contractors will be required to: (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 as part of the SSEMP. 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.		
			49. 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.		
			50. Ensure proper recording and reporting of any cases of infection and undertaken actions.		
Operation camps	of wo	orker's	51. The Contractor will develop Construction Camps Management Plan (CCMP) as part of the SSEMP following IFC and the EBRD's guidance note on Workers' Accommodation: Processes and Standards (2009) (footnote 28 on page 29), and implement the CCMP;	Same as above	Same as above

⁵⁶ Construction Norms and Rules # 3.01.01-03. Organization of Construction works. 2003

Impact	Mitigation measures	Responsibility	Cost
	52. Provide all necessary fencing and security to the camp.		
	53. Camp construction will not involve use of any hazardous materials.		
	54. The camp location will avoid densely populated areas and will take into account the opinion of local population;		
	55. The location of the camp will not be closer than 50 m to irrigation canals;		
	56. The camp location will be agreed with PIU and local government authorities.		
	57. Washing equipment and vehicles will be prohibited in the construction camp area. The washing will be done at the dedicated equipped place.		
	58. Camps will ensure safe and adequate living conditions for workers, such as dining rooms, toilets, shower rooms etc.		
	59. Contractors will instruct all the workers to act in a responsible manner.		
Cultural heritage	60. The following measures will be undertaken in case of possibility to find any heritage:	Same as above	Same as above
	 Excavation and other works will be suspended immediately; 		
	 Area with possible heritage will be fenced with fencing tape; 		
	 Designated focal point from the local administration (khokimiyat) will be informed and invited for assessment of any potential heritage and undertaken necessary actions; 		
	• Civil works at the finding place can be recommenced after obtaining the appropriate permission from the focal point.		
Operation phase			
Impact on air quality	 All vehicles and equipment will comply with technical requirements and have to pass regular inspection according to the national standards57; 	Toza Hududs in project cities	Included in the
	2. Drivers will control speed limits, especially inside settlements (50 km/h inside populated areas and 30 km/h for schools and kindergartens)		operational cost of
	3. The waste in all waste vehicles will be properly covered during transportation.		Djizzak, Khiva, Yangiyer and Havast cities
	4. The transfer station facility will include necessary dust suppression and air purification systems, where appropriate.		
	5. Transfer station and WCPs workers will wear appropriate PPE to protect against airborne particulate emissions within these facilities.		

⁵⁷ "O'z DSt 1057:2004 Vehicles. Safety requirements for technical conditions" and "O'z DSt 1058:2004 Vehicles. Technical inspection. Method of control".

Impact	Mitigation measures	Responsibility	Cos	t
Odor impact	 Equip all WCPs with water supply system and sewage networks; Place contact information of relevant waste management organization responsible for waste disposal, at the territory of WCPs. Ensure propoer maintenance of WCPs by desisngated staff; Implement waste segregation practice in order to avoid generation of leachates; Ensure timely disposal of wastes from WCPs to the transfer station and further to the 	Same as above	Same above	as
Impact on soil	 Mirzaabad landfill. 11. Storage of all fuel and chemicals (if any) will be placed in impervious facilities within a bund and secured by fencing. 12. Waste will be stored in specially designated places, determined jointly by partnerships of private homeowners, self-government bodies of citizens, professional management organizations. 	Same as above	Same above	as
	 13. The frequency of removal of solid and liquid household waste is established based on local climatic conditions, taking into account the provision of the sanitary condition of the city, settlement and the conditions for preventing the development of pathogenic bacteria, and will not exceed the maximum storage time household waste, in the warm season daily, in the cold season once every 3 days. 			
	14. Solid household waste will be removed by garbage trucks, and liquid waste from non- sewered households - by sewage vacuum transport. The export of solid and liquid household waste directly to the fields and gardens is not allowed.			
	15. Hazardous materials (such as battaries) will not be allowed to be placed on the territory of WCPs, it will be placed in specially designated places.			
	16. Guarded waste collection sites will have a supply of cold water and a drain to the sewer.			
	17. The WCPs area will be planted with trees and bushes. At protected waste collection sites, it is necessary to organize the disinfection of containers after they have been emptied. Metal waste containers in the summer period must be washed (with a "non-replaceable" system at least once every 10 days, "replaceable" - after emptying), wooden containers - disinfected (after each emptying).			
Waste management	 <u>Hazardous Waste</u> 18. Should any hazardous waste be suspected in the incoming waste stream, formally notify the appropriate Toza Hudud for their subsequent action. 	Same as above	Same above	as

Impact	Mitigation measures	Responsibility	Cost
Community and Occupational Health and Safety	 Compliance with the requirements of the Labor Code of Uzbekistan (1998) and standards on health and safety⁵⁸; Development of Operational Health and Safety Management Plans (OHSPs) which will cover all potential risks for workers. The OHSP has also to consider WHO requirements for workers of waste (Appendix 2). 		Same as above

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

⁵⁸ Construction Norms and Rules # 3.01.01-03. Organization of Construction works. 2003

B. Environmental Monitoring

422. To ensure that mitigation actions are implemented in accordance with the requirements of the EMP, monitoring will be undertaken as follows:

- <u>Instrumental Monitoring</u> for environmental quality such as air quality and noise level in case of relevant complaints. Costs for this equipment and services are included in PMSC budget.⁵⁹ Schedules, parameters, locations are presented in **Table 32**.
- <u>Observational Monitoring</u> 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.

423. 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 32**.

424. Besides instrumental environmental monitoring indicated in **Table 32**, 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.

425. Results of environmental performance including monitoring activity will be properly documented and reported. Each Contractor will perform a 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.

426. 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.

⁵⁹ Noise level will be monitored both by PMSC and the contractor.

Impact	Parameter to be monitored	Location	Frequency	Responsibility	Standards	Cost ⁶⁰
Construction Stage						
A. Air quality	Dust		In case of complaints from population	PMSC will hire certified laboratory to conduct analysis	Table 8: Ambient air quality standards	Costs of hiring external laboratory is included in PMSC budget
B. Noise level	Noise level	WCPs construction sites – 2 meters in front of residential houses in Yangiyer and Havast	In case of complaints from population	PMSC	Table 3: 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 budget
C. Waste generation	Amount/kind of wastes generated and how they were disposed (how and when)	All construction sites	Monthly	Contractors	Compliance with the EMP and Waste Management Plan and Spoil Management Plan	Costs included in the Contractor's budget.
Operation Stage						
D. Management of WCPs and Transfer Station	Proper management of WCPs and transfer station in accordance with national regulation	All WCPs and Transfer station	In accordance with national regulation	Yangiyer and Havast cities Toza Hudud	Compliance with national regulation: Sanitarian Norms and Rules #0329-16 "Sanitary rules and regulations for the maintenance and improvement of the territories of populated	Cost is included in the Toza Hudud's operational budget

Table 32. Environmental Monitoring Plan

⁶⁰ See Chapter IX.F: Cost estimation for environmental management

Impact	Parameter to be monitored	Location	Frequency	Responsibility	Standards	Cost ⁶⁰
					places in the conditions of the republic of Uzbekistan"	

C. Reporting

427. 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) SWM in Djizzak, Khiva, Havast and Yangiyer.

428. <u>During pre-construction</u>, 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.

429. <u>During construction</u>, 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.

430. 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.

431. 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.

432. Within three months <u>after completion of all civil works</u>, 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.

433. <u>During operation phase</u>, 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 agency⁶¹ on (iii) SWM in Havast and Yangiyer, and then prepare the SAEMR and submit to ADB until ADB's Project Completion Report is issued.

434. 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 27). 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.

D. Implementation arrangements

1. Ministry of Investment and Foreign Trade (MIFT)

435. **MIFT** is the executing agency and responsible for overall Project coordination with government agencies, high-level decision making to ensure timely implementation, and

⁶¹ Toza Hudud –agencies responsible for waste management on the provincial level

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)

436. 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.

437. 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.

438. 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.

- 439. The PIU-NES's responsibilities include the following, but not limited to:
 - 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;
 - 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

440. 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

441. DED Consultant (footnote 4) 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;
- 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

442. 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.

443. <u>The PMSC-IES</u>, 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.

444. 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.

445. 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. 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.

- 446. The detail tasks for the PMSC-IES and PMSC-NES are provided below⁶²:
 - Observance of the Contractor's compliance with all contractual environmental safeguards and health and safety (ESHS) standards in accordance with ADB requirements;
 - 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;
 - 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;
 - (ii) 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;
 - (iii) 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;
 - (iv) 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.
 - (v) Follow up on the results of any inspections or audits by labour, health and safety or environmental regulatory authorities.
 - (vi) 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.
 - (vii) 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.
 - (iii) 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.
 - (viii) Follow-up on the resolution of any grievances in relation to ESHS.

⁶² As per TOR of PMDSC, section d. Environmental, Health and Safety, Gender, Social Resettlement and Participation.

- (ix) 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.
- (x) Prepare and submit monthly, quarterly, and semi-annual safeguards monitoring report.
- (xi) 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.
- (xii) Observance of the Contractor's compliance with all contractual ESHS.

6. Contractors

447. According to Procurement Plan, two Contractors will implement civil works under the SWM components:

- (i) <u>Package SWM01:</u> Construction of a transfer station in Havast (duration 12 months)⁶³
- (ii) **Package SWM03:** Construction of new WCPs in Yangiyer and Havast (duration 12 months).

448. 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.

449. 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.

7. Urban Governance & Institutional Strengthening Consultants (UGISC)

The objective of the UGISC is supporting MIFT, in achieving the project outputs of 450. 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 technologydriven 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.

⁶³ NFS, 2022

451. UGISC will assign one international and one national Waste Minimization and Recycling Expert whose inputs will include:

- (i) Lead development of PPP framework for SWM operations;
- (ii) Develop a performance benchmarking system for 3 Toza Hududs;
- (iii) Develop curriculum and support conduct of equipment maintenance and repair with 3 Toza Hududs;
- (iv) Develop asset management system and support training with 3 Toza Hududs;
- (v) Guide development of collection vehicle routing improvements;
- (vi) Support development of GRM for Toza Hududs;
- (vii) Develop international best practices guidelines and guide waste minimization and recycling piloting initiatives on waste segregation, green waste composting, food waste recycling, and use of construction waste as dumpsite cover.

8. Yangiyer and Havast cities Toza Hudud

452. During operation phase, Yangiyer and Havast cities Toza Hudud will be responsible for maintenance of WCPs and transfer station in accordance with national regulation.

453. During operation phase, Toza Hudud staff will be in charge for collection of monitoring results as indicated in Table 32 and submitting them to MIFT-PIU, for the preparation of the SAEMRs for further submission to ADB until ADB's Project Completion Report is issued.

9. SCEEP of Syrdarya (for Havast and Yangiyer) province

454. Provincial SCEEP will be also involved in the process of project implementation and further operation. SCEEP will review 26 PEISs (footnote 5). It is anticipated that Environmental Appraisals will be received in June 2022. Based on the results of PEISs, a list of mitigation measures and monitoring activities will be inlcuded 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.

455. The project institution structure is presented in **Figure 62** below.

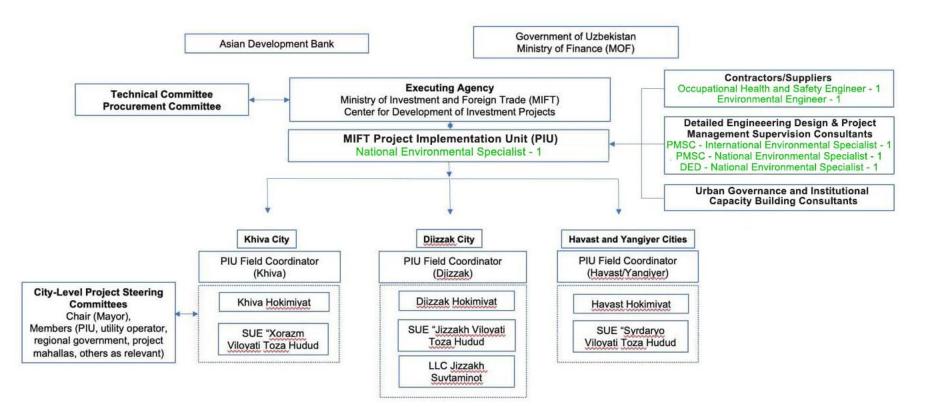


Figure 62: Project's institutional structure and environmental team

E. Capacity building activity

456. Capacity building for the project will be implemented with support of two Consulting firms (i) PMDSC (both DED Consultant and PMSC (footnote 4 and Chapter IX.D.4 and Chapter IX.D.5 on page 142), and (ii) UGISC (Chapter IX.D.7 on page 144). 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, <u>PMSC-IES</u> 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. 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) **Toza Hudud' capacity** on overall environmental performance during the project operation – <u>PMSC-IES</u>, <u>PMSC-NES</u> and <u>PIU-NES</u> 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) Toza Hududs are to progressively formalize and integrate existing informal recyclers and recycled material consolidators into the formal SWM systems in the project cities. This will include training on occupational health and safety practices, allocating; (ii) development of a grievance redress mechanism, and performance based corporate business plan for cities khokimiyats.

- Awareness program for population in four project cities Prepare and pilot test a community level waste minimization and recycling program in all four project cities. The program will include:
 - (i) Pilot testing household/generating points level mixed waste segregation and further segregation among components of recyclable wastes (paper/cardboard/glass/other recyclables, etc. collected separately). Different options will be tested at household and community level and most suited options will be recommended for replication. The pilot should include providing color coded bins to promote 3R approach and testing its efficacy in improving recycle and reuse against a tested baseline. The cost for procuring equipment (bins etc.) is included under the provisional sum indicated above.
 - (ii) Pilot test options for city-wide household green waste composting initiatives in each project city. Instead of green waste entering the municipal SW system, it will be diverted for household composting to be utilized locally as an organic soil conditioner. Different options will be tested and most suited options will be recommended for replication. The cost for procuring equipment is included under the provisional sum indicated above.
 - (iii) Pilot test food waste recycling initiatives in the urbanized central areas in each project city exploring fractions of food waste, in conjunction with green waste or otherwise community- composted to generate soil conditioner. Different initiatives will be tested and most suited options will be recommended for replication. The cost for procuring equipment is included under the provisional sum indicated above.
 - (iv) Check and report the potential of using fines and construction waste for providing soil cover in place of natural soil materials that need to be

excavated and transported to the active working face of the disposal site to cover the waste

- (v) Conduct campaigns on waste minimization, reduction and reuse practices, waste segregation and storage, illicit waste dumping reporting, being a good environmental citizen (effective community level SWM practices), etc, in all four project cities.
- 457. The tentative plan of required training is presented in **Table 33**.

Training Agenda	Timing	Recipients	Organizer				
For PIU and Contracto							
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)				
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 Toza Hududs (para	.456 i))						
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				
Development of emergency response plan for SWM during disasters and pandemics n, GRM	During construction and operation phases	Khiva, Havast, Yangiyer and Khiva Toza Hududs Occupation Health and Safety Engineer	UGISC with PMSC's support				
	project cities (para.456 iii	· ·					
Awareness program: Pilot tests programs	During the project operation period	Population of Khiva, Havast, Yangiyer and Khiva cities	UGISC				
Campaigns on waste minimization, reduction and reuse practices, waste segregation and storage	During the project operation period	Population of Khiva, Havast, Yangiyer and Khiva cities	UGISC				

Table 33: Tentative program of training

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

458. Costs required for environmental management will cover the following activities:

- i. Implementation of mitigation measures by all parties as indicated in the EMP;
- ii. Environmental monitoring; and
- iii. Implementation of capacity building program.

459. Although some of the measures included in EMP are an integral part of the civil works (watering, storage of topsoil etc.), some measures (bio toilets etc.) require additional funds. Cost estimation for environmental management is presented in the below tables. According to Procurement Plan, two Contractors will implement the SWM sub-components (para. 447 on page 144). **Table 34** present cost divided by Contractors.

Description	Unit	Quantity	Rate	Amount		
Package SWM01 (12 months construction period)						
Installation of bio toilets	unit	1	\$800	\$800		
Environmental Engineer	month	12	\$500	\$6,000		
Occupational Health and Safety Engineer (OHSE)	month	12	\$500	\$6,000		
	P	ackage SW	M01 Total	\$12,800		
Package SWM03 (12 months construction period)						
Installation of bio toilets	unit	2	\$800	\$1,600		
Environmental Engineer	month	12	\$500	\$6,000		
OHSE	month	12	\$500	\$6,000		
		Package U	R02 Total	13,600		

 Table 34: Indicative Cost Estimate for Contractor's Environmental Management

460. **Table 35** shows the cost estimate for the PMSC's environmental monitoring required for the Urban Development sub-components, while **Table 36** shows the cost for entire Project (WSS subcomponent, Urban Development Component and SWM). Aside from this, DED Consultant has 3 person-months of a National Environmental Specialist.

Table 35: Cost Estimate for the PMSC's Environmental Monitoring⁶⁴

Description	Unit	Quantity	Rate	Amount
Air Quality	Sample	20	\$60	\$1,200
Noise measurement	Device	1	\$400	\$400
	\$1,600			
	\$ 160			
Total				\$1,760

Table 36: Cost Estimate for PMSC's IUDP Environmental Management

Description	Unit	Quantity	Rate	Amount
	Onit	Quantity		
International Environmental Specialist	ine o in the	4	\$15,400	\$61,600
(IES)	month			
National Environmental Specialist (NES)	month	60	\$2,500	\$150,000
Environmental Monitoring				
WSS component				\$8,096
Urban Development Component				
Solid Waste Management Component				
Trainings ⁶⁵				\$0
			Sub-Total	\$245,976
		Conting	gencies (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 37: 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

⁶⁴ This is prepared in reference to Table 32. Environmental Monitoring Plan.

⁶⁵ No additional cost is needed for trainings.

X. CONCLUSIONS AND RECOMMENDATIONS

7. The IEE has confirmed that the project's SWM component will have environmental impacts limited within the project area, therefore, the project is Category B under ADB SPS.

461. The Project is expected to increase the intensity of the movement of equipment and machines during construction work. In this regard, the Contractor will develop TMP and ensure its strict adherence.

462. The construction of a transfer station and the use of large containers for transporting garbage will lead to a reduction in fuel combustion, and, accordingly, CO₂ emissions into the atmosphere.

463. During the construction of WCPs in Havast and Yangiyer, the impacts will be typical for small constructions: generation of noise, dust and waste. All impacts will be short term and will be mitigated.

464. The construction of WCPs will significantly improve the sanitary and epidemiological situation in the project cities. Wastes will be stored in closed containers, on specially equipped sites, supplied with water supply and connected to sewerage.

465. Awareness raising company, implementation of the 3R program, implementation of pilot programs will help reduce the amount of waste thrown into landfills through the widespread introduction of sorting waste into recyclable and non-recyclable, introducing wastes composting approach.

466. 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.

467. 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.

468. 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.

469. 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.

470. 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.

June 2022

Republic of Uzbekistan: Integrated Urban Development Project (Solid Waste Management Subcomponent)

Volume II

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

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LIST OF ATTACHMENTS

Attachment 1: Template of Traffic Management Plan	1
Attachment 2: WHO Health and safety practices for health-care and waste workers	s 3
Attachment 3: Leaflet distributed during the Public Consultation	6
Attachment 4: Minutes of Public Consultations	. 24
Attachment 5: Record of public consultations (Meeting List, Protocols with official	
agencies, List of the participants and photos from meetings)	. 50

Attachment 1: Template of Traffic Management Plan

GENERAL INFORMATION

- 1. Full postal address of the site
- 2. Contact details for the person responsible for submitting the Site-Specific Construction 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.
- 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

Attachment 2: WHO Health and safety practices for health-care and waste workers

Principles

Health-care waste management policies or plans should include provision for the continuous monitoring of workers' health and safety to ensure that correct handling, treatment, storage, and disposal procedures are being followed. Essential occupational health and safety measures include the following:

- Proper training of workers;
- Provision of equipment and clothing for personal protection;
- Establishment of an effective occupational health programme that includes immunization, post-exposure prophylactic treatment, and medical surveillance.

Training in health and safety should ensure that workers know of and understand the potential risks associated with health-care waste, the value of immunization against viral hepatitis B, and the importance of consistent use of personal protection equipment.

Workers at risk include health-care providers, hospital cleaners, maintenance workers, operators of waste treatment equipment, and all operators involved in waste handling and disposal within and outside health-care establishments.

Workers' protection

The production, segregation, transportation, treatment, and disposal of health-care waste involve the handling of potentially hazardous material. Protection against personal injury is therefore essential for all workers who are at risk. The individuals responsible for management of health-care waste should ensure that all risks are identified and that suitable protection from those risks is provided.

A comprehensive risk assessment of all activities involved in health-care waste management, carried out during preparation of the waste management plan, will allow the identification of necessary protection measures. These measures should be designed to prevent exposure to hazardous materials or other risks, or at least to keep exposure within safe limits. Once the assessment is completed, personnel should receive suitable training.

Protective clothing

The type of protective clothing used will depend to an extent upon the risk associated with the health-care waste, but the following should be made available to all personnel who collect or handle health-care waste:

- Helmets, with or without visors depending on the operation.
- Face masks depending on operation.
- Eye protectors (safety goggles) depending on operation.
- Overalls (coveralls) obligatory.
- Industrial aprons obligatory.
- Leg protectors and/or industrial boots obligatory.
- Disposable gloves (medical staff) or heavy-duty gloves (waste workers) obligatory.

Industrial boots and heavy-duty gloves are particularly important for waste workers. The thick soles of the boots offer protection in the storage area, as a precaution from spilled sharps, and where floors are slippery. If segregation is inadequate, needles or other sharp items may have been placed in plastic bags; such items may also pierce thin-walled or weak plastic containers. If it is likely that health-care waste bags will come into contact with workers' legs

during handling, leg protectors may also need to be worn. An example of the protective clothing is shown in **Figure 1**.

Operators of manually loaded incinerators should wear protective face visors and helmets. During ash and slag removal and other operations that create dust, dust masks should be provided for operators.



Figure 1: Recommended protective clothing for waste workers.

Source: WHO International

Personal hygiene

Basic personal hygiene is important for reducing the risks from handling health-care waste, and convenient washing facilities (with warm water and soap) should be available for personnel involved in the task. This is of particular importance at storage and incineration facilities.

Immunization

Viral hepatitis B infections have been reported among health-care personnel and waste handlers, and immunization against the disease is therefore recommended. Tetanus immunization is also recommended for all personnel handling waste.

Management practices

Many management practices help to reduce the risk to personnel handling medical waste; they are summarized as follows:

- Waste segregation: careful separation of different types of waste into different and distinct containers or bags defines the risk linked to each waste package.
- Appropriate packaging: prevents spillage of waste and protects workers from contact with waste.
- Waste identification (through distinct packaging and labelling): allows for easy recognition of the class of waste and of its source.
- Appropriate waste storage: limits the access to authorized individuals only, protects against infestation by insects and rodents, and prevents contamination of surrounding areas.
- Appropriate transportation: reduces risks of workers being exposed to waste.

Special precautions for clearing up spillages of potentially hazardous substances

For clearing up spillages of body fluids or other potentially hazardous substances, particularly if there is any risk of splashing, eye protectors and masks should be worn, in addition to gloves and overalls.

Respirators (gas masks) are also needed if an activity is particularly dangerous, for example if it involves toxic dusts, the clearance of incinerator residues, or the cleaning of contaminated equipment.

Residues should be recovered as completely as possible using hand tools (e.g. a shovel), and then packed safely. It is especially important to recover spilled droplets of metallic mercury. If a leakage or spillage involves infectious material, the floor should be cleaned and disinfected after most of the waste has been recovered.

Response to injury and exposure

A programme of response should be established that prescribes the actions to be taken in the event of injury or exposure to a hazardous substance. All staff who handle health-care waste should be trained to deal with injuries and exposures. The programme should include the following elements:

- Immediate first-aid measures, such as cleansing of wounds and skin, and irrigation (splashing) of eyes with clean water;
- An immediate report of the incident to a designated responsible person;
- Retention, if possible, of the item involved in the incident; details of its source for identification of possible infection;
- Additional medical attention in an accident and emergency or occupational health department, as soon as possible;
- Medical surveillance;
- Blood or other tests if indicated;
- Recording of the incident;
- Investigation of the incident, and identification and implementation of remedial action to prevent similar incidents in the future.

In case of a needle stick injury, bleeding of the wound should be encouraged and the area should be washed under clean running water. The remaining elements of the accident response plan should then be followed. The purpose of incident reporting should not be seen as punitive; active support by managers should encourage prompt and accurate reporting.

Attachment 3: Leaflet distributed during the Public Consultation

Djizzak city

Russian version

ПРОЕКТ КОМПЛЕКСНОГО РАЗВИТИЯ ГОРОДОВ ПРИ СОДЕЙСТВИИ АЗИАТСКОГО БАНКА РАЗВИТИЯ

О ПРОЕКТЕ



вывозом твердых бытовых отходов» Подкомпонент 3.1 «Управление сбором и нывозом твердых бытовых отходов города Джизак»

Подкомпонент 3.2 «Управление сбором и ывозом твердых бытовых отходов городов Янгиер и Хаваст»

Подкомпонент 3.3 «Управление сбором и зывозом твердых бытовых отходов города Хива» 2025

2022

ПЕРИОД РЕАЛИЗАЦИИ

Подкомпонент 3.1 «Управление сбором и вывозом твердых бытовых отходов города Джизак»

1. Минимизация отходов и пилотная переработка. Этот подпроект будет поддерживать: (i) кампании по повышению осведомленности общественности о методах минимизации отходов и их повторного использования, сортировки и хранения отходов, незаконного сброса отходов, экологического гражданства; (ii) программа проведения обучения по охране труда и технике безопасности и предоставления средств индивидуальной защиты (СИЗ), и (iii) инициативы по минимизации отходов и переработке отходов на уровне общин, включая сортировку смешанных отходов, компостирование зеленых отходов, переработку пищевых отходов, штрафов и строительных отходов, улучшение работы общественных пунктов сбора и др.

2. Улучшение систем сбора мусора. Этот подпроект будет поддерживать (i) приобретение 622 контейнеров для мусора объемом 250 литров, 770 литров и 1100 литров и 57 контейнеров для мусора объемом 6 куб. м; (ii) закупка 2 подметально-уборочных машин и 20 машин для уплотнения отходов.

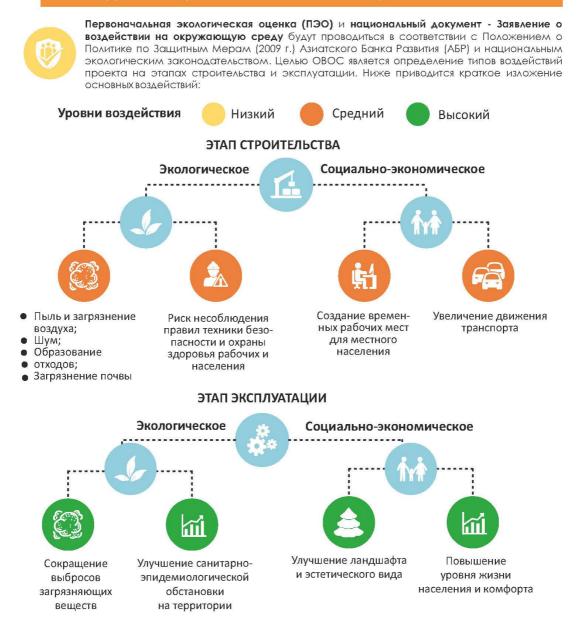


КОНТАКТНАЯ ИНФОРМАЦИЯ ДЛЯ СПРАВОК ГРП МИВТ Адрес: г. Ташкент, ул. Т.Шевченко, 34 Тел: (+998) 71 252 42 20 Email: iudpuzbekistan@gmail.com ДЖИЗАКСКОЕ ОБЛАСТНОЕ ГОСУДАРСТВЕННОЕ УНИТАРНОЕ ПРЕДПРИЯТИЕ «ТОЗА ХУДУД» Адрес: Джизакская обл., г. Джизак, махалля Богишамол, ул. Тогишамол, 5 Телефон: (+998) 72-222-29-24 Е-mail: Jizzaxtozahudud@umail.uz Web: jizzaxtozahudud@uznature.uz



ПРОЕКТ КОМПЛЕКСНОГО РАЗВИТИЯ ГОРОДОВ ПРИ СОДЕЙСТВИИ АЗИАТСКОГО БАНКА РАЗВИТИЯ

СОБЛЮДЕНИЕ ЗАЩИТНЫХ МЕР ПРИ РЕАЛИЗАЦИИ ПРОЕКТА



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).

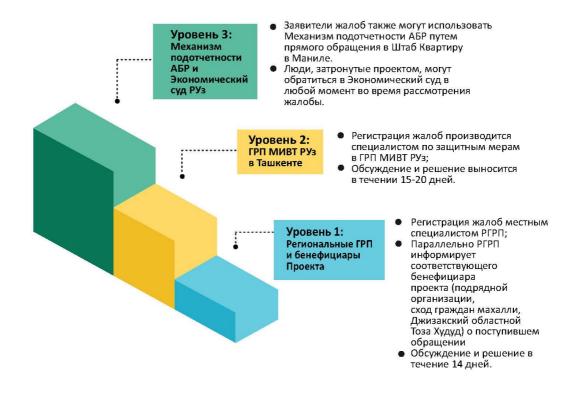


ПРОЕКТ КОМПЛЕКСНОГО РАЗВИТИЯ ГОРОДОВ ПРИ СОДЕЙСТВИИ АЗИАТСКОГО БАНКА РАЗВИТИЯ

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.



- ГРП Группа реализации проекта
- РГРП Региональная группа реализации Проекта
 МИВТ Министерство инвестиций и внешней торговли
 АБР Азиатский Банк Развития



ЛОЙИХАНИНГ НОМЛАНИШИ



3.1 кичик компоненти «Жиззах шаҳридаги ҚМЧ йиғиш ва олиб чиқишни бошқариш»

1. Чиқиндиларни минималлаштириш ва тажрибавий қайта ишлаш. Ушбу кичик лойиқа қуйидагиларни қўллаб-қувватлайди: (i) чиқиндиларни минималлаштириш ва қайта ишлатиш, чиқиндиларни саралаш ва сақлаш, чиқиндиларни ноқонуний ташлаш, атрофмухит фукаролиги бўйича ахолини хабардор килиш кампаниялари; (ii) мехнатни мухофаза қилиш ва хавфсизлик бўйича ўқув дастури ва шахсий химоя воситалари (ППЕ) билан таъминлаш ва (iii) жамиятда чиқиндиларни минималлаштириш ва қайта ишлаш ташаббуслари, жумладан аралаш чиқиндиларни саралаш, яшил чиқиндиларни компостлаш, озиқ-овқат чиқиндилари, жарималар ва қурилиш чиқиндиларини қайта ишлаш, жамоат йиғиш пунктларини яхшилаш ва бошқалар.

2. Ахлат йиғиш тизимларини такомиллаштириш. Бу кичик лойиҳа қуйидагиларни қўллабқувватлайди (i) 622 та 250-литр, 770-литр ва 1100-литр хажмдаги ахлат идишлари ва 57 та 6 куб метр хажмдаги ахлат идишларини сотиб олиш; (ii) 2 та тозалаш-йиғиш машинаси ва 20 та чиқиндиларни зичловчи машиналарини сотиболиш.





2022 АМАЛГА ОШИРИШ ДАВРИ

2025

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

ЖИЗЗАХ ВИЛОЯТ "ТОЗА ХУДУД" ДАВЛАТ УНИТАР КОРХОНАСИ Манзил: Жиззах вилояти, Жиззах шаҳар, Боғишамол МФЙ, Тоғишамол кўчаси, 5-үй Телефон: (+998) 72-222-29-24 E-mail: jizzaxtozahudud@umail.uz Web: jizzaxtozahudud@uznature.uz

ЛОЙИХАНИ АМАЛГА ОШИРИШДА ХИМОЯ ЧОРАЛАРИГА РИОЯ КИЛИШ



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.



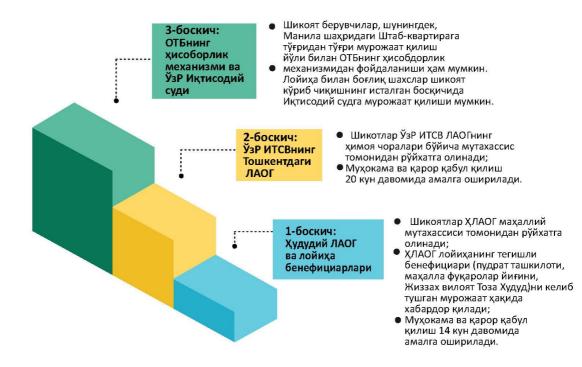
Лойиҳанинг салбий таъсирларини юмшатиш учун Атроф Муҳитни Бошқариш Режаси (АМБР) ҳамда Меҳнат муҳофазаси ва ҳавфсизлик теҳникасини бошқариш ва мониторинги режаси (ММХТБМР) ишлаб чиқилади.

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 ЖИЗЗАХ ВИЛОЯТ "ТОЗА ХУДУД" ДАВЛАТ УНИТАР КОРХОНАСИ Манзил: Жиззах вилояти, Жиззах шаҳар, Боғишамол МФЙ, Тоғишамол кўчаси, 5-үй Телефон: (+998) 72-222-29-24 E-mail: jizzaxtozahudud@umail.uz Web: jizzaxtozahudud@uznature.uz

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.



- ЛАОГ Лойихани амалга ошириш гурухи
- ХЛАОГ Худудий лойихани амалга ошириш гурухи
- ИТСВ Инвестициялар ва Ташки Савдо Вазирлиги
- ОТБ Осиё Тараккиёт Банки



Khiva city

Russian version

ПРОЕКТ КОМПЛЕКСНОГО РАЗВИТИЯ ГОРОДОВ ПРИ СОДЕЙСТВИИ АЗИАТСКОГО БАНКА РАЗВИТИЯ

О ПРОЕКТЕ



Подкомпонент 3.1 «Управление сбором и вывозом твердых бытовых отходов города Джизак»

Подкомпонент 3.2 «Управление сбором и вывозом твердых бытовых отходов городов Янгиер и Хаваст»

Подкомпонент 3.3 «Управление сбором и ывозом твердых бытовых отходов города Хива»

Подкомпонент 3.3 «Управление сбором и вывозом твердых бытовых отходов города Хива»

1. Минимизация отходов и пилотная переработка. Этот подпроект будет поддерживать: (i) кампании по повышению осведомленности общественности о методах минимизации отходов и их повторного использования, сортировки и хранения отходов, незаконного сброса отходов, экологического гражданства; (ii) программа проведения обучения по охране труда и технике безопасности и предоставления средств индивидуальной защиты (СИЗ), и (iii) инициативы по минимизации отходов и переработке отходов на уровне общин, включая сортировку смешанных отходов, компостирование зеленых отходов, переработку пищевых отходов, штрафов и строительных отходов, улучшение работы общественных пунктов сбора идр.

2. Улучшение систем сбора мусора. Этот подпроект будет поддерживать (i) приобретение 38 контейнеров для мусора объемом 250 литров и 1100 литров; (ii) 15 мусоровозов с уплотнением отходов (объёмом до 7 куб. м).



2025

период реализации

КОНТАКТНАЯ ИНФОРМАЦИЯ ДЛЯ СПРАВОК ГРП МИВТ Адрес: г. Ташкент, ул. Т.Шевченко, 34 Тел: (+998) 71 252 42 20 Email: iudpuzbekistan@gmail.com

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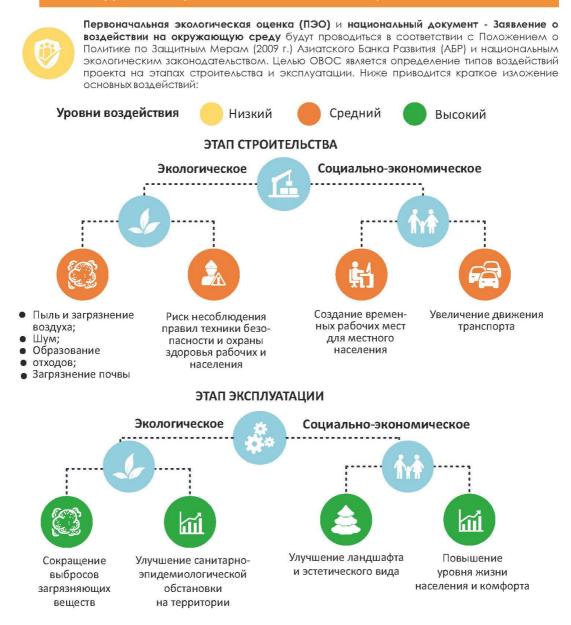
ХОРЕЗМСКОЕ ОБЛАСТНОЕ ГОСУДАРСТВЕННОЕ УНИТАРНОЕ ПРЕДПРИЯТИЕ «ТОЗА ХУДУД» Адрес: Хорезмская область, г. Ургенч, ул. Э.Рахима, 118 Телефон: (+998) 62-228-22-31 E-mail: xorazmtozahudud@uznature.uz



12

ПРОЕКТ КОМПЛЕКСНОГО РАЗВИТИЯ ГОРОДОВ ПРИ СОДЕЙСТВИИ АЗИАТСКОГО БАНКА РАЗВИТИЯ

СОБЛЮДЕНИЕ ЗАЩИТНЫХ МЕР ПРИ РЕАЛИЗАЦИИ ПРОЕКТА



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 ХОРЕЗМСКОЕ ОБЛАСТНОЕ ГОСУДАРСТВЕННОЕ УНИТАРНОЕ ПРЕДПРИЯТИЕ «ТОЗА ХУДУД» Адрес: Хорезмская область, г. Ургенч, ул. Э.Рахима, 118 Телефон: (+998) 62-228-22-31 E-mail: xorazmtozahudud@uznature.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.



- 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 ХОРЕЗМСКОЕ ОБЛАСТНОЕ ГОСУДАРСТВЕННОЕ УНИТАРНОЕ ПРЕДПРИЯТИЕ «ТОЗА ХУДУД» Адрес: Хорезмская область, г. Ургенч, үл. Э.Рахима, 118 Телефон: (1998) 62-228-22-31 E-mail: xorazmtozahudud@uznature.uz

ЛОЙИХАНИНГ НОМЛАНИШИ





3.3 кичик компоненти «хива шахридаги ҚМЧ йиғиш ва олиб чиқишни бошқариш».

3.3 кичик компоненти «Хива шаҳридаги ҚМЧ йиғиш ва олиб чиқишни бошқариш»

1. Чиқиндиларни минималлаштириш ва тажрибавий қайта ишлаш. Ушбу кичик лойиҳа қуйидагиларни қуллаб-қувватлайди: (i) чиқиндиларни минималлаштириш ва қайта ишлатиш, чиқиндиларни саралаш ва сақлаш, чиқиндиларни ноқонуний ташлаш, атроф-муҳит фуқаролиги буйича аҳолини ҳабардор қилиш кампаниялари; (ii) меҳнатни муҳофаза қилиш ва ҳавфсизлик буйича уқув дастури ва шаҳсий ҳимоя воситалари (ППЕ) билан таъминлаш ва (iii) жамиятда чиқиндиларни минималлаштириш ва қайта ишлаш, зициндиларни минималлаштириш ва қайта ишлаш ташаббуслари, жумладан аралаш чиқиндиларни саралаш, яшил чиқиндиларни компостлаш, озиқ-овқат чиқиндилари, жарималар ва қурилиш чиқиндиларини қайта ишлаш, жамоат йиғиш пунктларини яхшилаш ва бошқалар.

2. Ахлат йиғиш тизимларини такомиллаштириш. Ушбу кичик лойиҳа қуйидагиларни қўллабқувватлайди (i) 38 та 250 литр ва 1100 литр хажмдаги ахлат контейнерларини сотиб олишни; (ii) 15 та чиқиндиларни зичловчи ахлат юк машиналари (7 куб м.гача).



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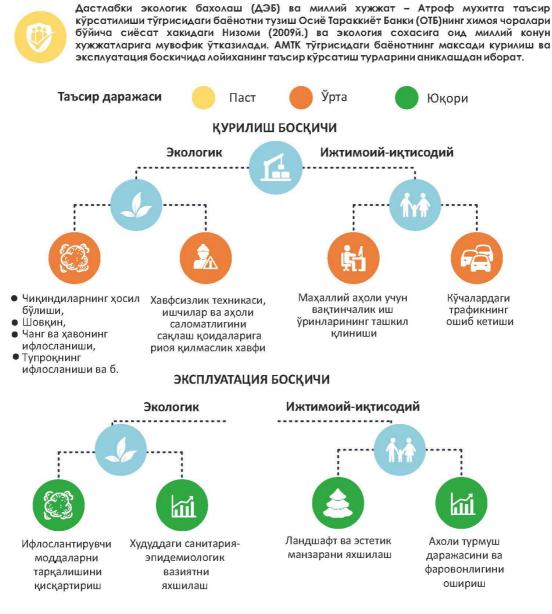


МАЪЛУМОТЛАР УЧУН КОНТАКТ АХБОРОТ ИТСВ ЛАОГ: Манзил: Тошкент ш., Т.Шевченко кўчаси, 34-уй Тел: (+998) 71 252 42 20 E-mail: iudpuzbekistan@gmail.com

ХОРАЗМ ВИЛОЯТ "ТОЗА ХУДУД" ДАВЛАТ УНИТАР КОРХОНАСИ Манзил: Хоразм вилояти, Урганч шахар, Э.Рахим кўчаси, 118 уй Телефон: (+998) 62-228-22-31 E-mail: xorazmtozahudud@uznature.uz

15

ЛОЙИХАНИ АМАЛГА ОШИРИШДА ХИМОЯ ЧОРАЛАРИГА РИОЯ КИЛИШ



Лойиханинг салбий таъсирларини юмшатиш учун Атроф Мухитни Бошқариш Режаси (АМБР) хамда Мехнат мухофазаси ва хавфсизлик техникасини бошқариш ва мониторинги режаси (ММХТБМР) ишлаб чиқилади.

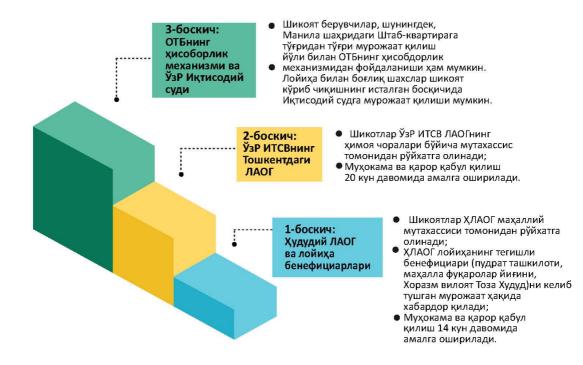
МАЪЛУМОТЛАР УЧУН КОНТАКТ АХБОРОТ ИТСВ ЛАОГ: Манзил: Тошкент ш., Т.Шевченко кўчаси, 34-үй Тел: (+998) 71 252 42 20 E-mail: iudpuzbekistan@gmail.com

ХОРАЗМ ВИЛОЯТ "ТОЗА ХУДУД" ДАВЛАТ УНИТАР КОРХОНАСИ Манзил: Хоразм вилояти, Урганч шахар, Э.Рахим кўчаси, 118 уй Телефон: (+998) 62-228-22-31 E-mail: xorazmtozahudud@uznature.uz

МАЪЛУМОТЛАРНИ ОШКОР КИЛИШ ВА ШИКОЯТЛАРНИ КЎРИБ ЧИКИШ МЕХАНИЗМИ



Экологик бахолаш натижаларининг босма вариантлари тегишли хужжатлар билан танишиб чикиб, ўз изохларини баён этиш учун махалла қўмиталарига, шахар хокимлиги ва Давлат экология қўмитасига тақдим этилади.



- 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

ХОРАЗМ ВИЛОЯТ "ТОЗА ХУДУД" ДАВЛАТ УНИТАР КОРХОНАСИ Манзил: Хоразм вилояти, Урганч шахар, Э.Рахим кўчаси, 118 уй Телефон: (+998) 62-228-22-31 E-mail: xorazmtozahudud@uznature.uz

Syrdarya province (Yangiyer, Havast cities)

Russian version

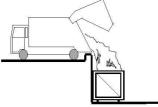
ПРОЕКТ КОМПЛЕКСНОГО РАЗВИТИЯ ГОРОДОВ ПРИ СОДЕЙСТВИИ АЗИАТСКОГО БАНКА РАЗВИТИЯ



Подкомпонент 3.2 «Управление сбором и вывозом твердых бытовых отходов городов Янгиер и Хаваст»

1. Минимизация отходов и пилотная переработка. Этот подпроект будет поддерживать: (i) кампании по повышению осведомленности общественности о методах минимизации отходов и их повторного использования, сортировки и хранения отходов, незаконного сброса отходов, экологического гражданства; (ii) программа проведения обучения по охране труда и технике безопасности и предоставления средств индивидуальной защиты (СИЗ), и (iii) инициативы по минимизации отходов и переработке отходов на уровне общин, включая сортировку смешанных отходов, компостирование зеленых отходов, переработку пищевых отходов, штрафов и строительных отходов, улучшение работы общественных пунктов сбора и др.





2. Улучшение систем сбора мусора. Этот подпроект будет поддерживать (i) строительство 7 новых пунктов сбора отходов в Хавасте и 18 в Янгиере; (ii) приобретение 1445 контейнеров для мусора объемом 250 литров, 770 литров и 1100 литров и контейнеров для мусора объемом 6 куб. м 25 для Хаваста и 40 для Янгиера; (iii) закупка 4 подметально-уборочных машин и машин для уплотнения отходов - 17 для Хаваста и 5 для Янгиера и (iv) повышение эффективности маршрутизации транспортных средств, включая систему географического позиционирования (GPS) для Хаваст и Янгиер.

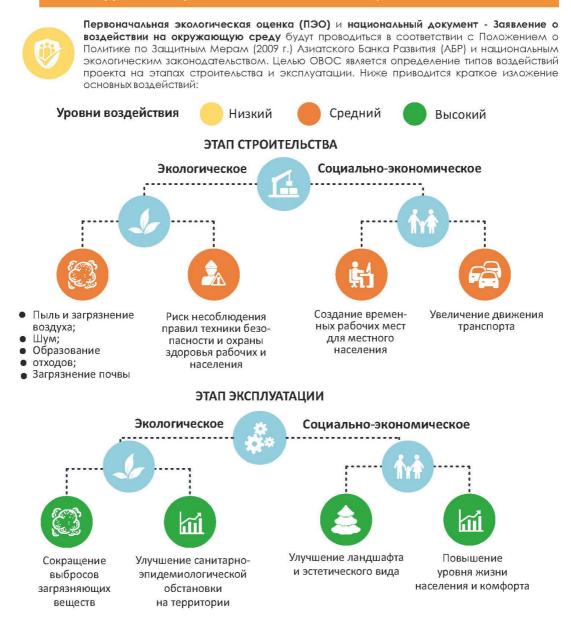
<u>3. Создание мусороперевалочной станции Янгиер/Хаваст.</u> В проекте предлагается создание новой перегрузочной станции, которая будет расположена на существующем, но уже не функционирующем мусорном полигоне пгт. Хаваст, что позволит перевозить ТБО на небольших мусоровозах из г. Янгиера и пгт. Хаваста в большие контейнерные мусоровозы

КОНТАКТНАЯ ИНФОРМАЦИЯ ДЛЯ СПРАВОК ГРП МИВТ Адрес: г. Ташкент, ул. Т.Шевченко, 34 Тел: (+998) 71 252 42 20 Email: iudpuzbekistan@gmail.com СЫРДАРЬИНСКОЕ ОБЛАСТНОЕ ГОСУДАРСТВЕННОЕ УНИТАРНОЕ ПРЕДПРИЯТИЕ «ТОЗА ХУДУД» Адрес: Сырдарьинская обл., г. Гулистан, Навбахор, ул. Серкуёш, 1А Тел: (+998) б7 225 37 15 Web: http//www.eco.gov.uz Email: sirdaryotozahudud@uznature.uz

2025

ПРОЕКТ КОМПЛЕКСНОГО РАЗВИТИЯ ГОРОДОВ ПРИ СОДЕЙСТВИИ АЗИАТСКОГО БАНКА РАЗВИТИЯ

СОБЛЮДЕНИЕ ЗАЩИТНЫХ МЕР ПРИ РЕАЛИЗАЦИИ ПРОЕКТА



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).



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.



- ГРП Группа реализации проекта
- РГРП Региональная группа реализации Проекта
- МИВТ Министерство инвестиций и внешней торговли
- АБР Азиатский Банк Развития



ОСИЁ ТАРАҚҚИЁТ БАНКИ ЁРДАМИДА «ШАХАРЛАРНИ КОМПЛЕКС РИВОЖЛАНТИРИШ» ЛОЙИХАСИ

ЛОЙИХАНИНГ НОМЛАНИШИ



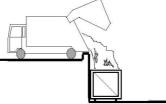
3 компонент «ҚМЧ йиғиш ва олиб чиқишни бошқариш» 3.1 кичик компоненти «Жиззах шаҳридаги ҚМЧ йиғиш ва олиб чиқишни бошқариш» 3.2 кичик компоненти «Янгиер ва Ховос шаҳарларида ҚМЧ йиғиш ва олиб чиқишни бошқариш»

3.3 кичик компоненти «Хива шаҳридаги КМЧ йиғиш ва олиб чикишни бошкариш»

3.2 кичик компоненти «Янгиер ва Ховос шаҳарларида ҚМЧ йиғиш ва олиб чиқишни бошқариш»

1. Чиқиндиларни минималлаштириш ва тажрибавий қайта ишлаш. Ушбу кичик лойиҳа қуйидагиларни қуллаб-қувватлайди: (i) чиқиндиларни минималлаштириш ва қайта ишлатиш, чиқиндиларни саралаш ва сақлаш, чиқиндиларни ноқонуний ташлаш, атроф-муҳит фуқаролиги буйича аҳолини ҳабардор қилиш кампаниялари; (ii) меҳнатни муҳофаза қилиш ва ҳавфсизлик буйича уқув дастури ва шаҳсий ҳимоя воситалари (ППЕ) билан таъминлаш ва (iii) жамиятда чиқиндиларни минималлаштириш ва қайта ишлаш, атиқиндиларни и иҳиңиндиларни кулиш кампаниялари; (ii) меҳнатни муҳофаза қилиш ва ҳавфсизлик буйича уқув дастури ва шаҳсий ҳимоя воситалари (ППЕ) билан таъминлаш ва (iii) жамиятда чиқиндиларни минималлаштириш ва қайта ишлаш ташаббуслари, жумладан аралаш чиқиндиларни саралаш, яшил чиқиндиларни компостлаш, озиқ-овқат чиқиндилари, жарималар ва қурилиш чиқиндиларини қайта ишлаш, жамоат йиғиш пунктларинияхшилаш ва бошқалар.





Ахлат йиғиш тизимларини 2 такомиллаштириш. Ушбу кичик лойиха қуйидагиларни қўллаб-қувватлайди (i) Хаваст учун 7 та ва Янгиер учун 18 та янги чиқиндиларни йиғиш пунктларини қуриш; (ii) 1445 та 250 литр, 770 литр ва 1100 литр хажмдаги ахлат контейнерлари ва Даваст учун 25 та ва Янгиер учун 40 та 6 куб.м хажмдаги ахлат контейнерларини сотиб олиш; (iii) 4 та тозалаш-йиғиш машиналари ва Хаваст учун 17 та ва Янгиер учун 5 та чиқиндиларни зичлаш машиналари ва (iv) транспорт воситаларини йўналтириш самарадорлигини ошириш, шу жумладан Хаваст ва Янгиер учун географик жойлашишни (ГПС) аниқлаш тизимини хам.

<u>3. Янгиер/Ҳаваст чиқиндиларини узатиш станциясини яратиш.</u> Лойиҳа мавжуд, аммо енди ишламайдиган Ҳаваст шттж. полигонида жойлашган янги юк ташиш станциясини яратишни таклиф қилади, бу қаттиқ маиший чиқиндиларни кичик ахлат юк машиналарида Янгиер шаҳри ва Ҳаваст шттж. катта контейнерли ахлат юк машиналарида кейинчалик Мирзаобод

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 СИРДАРЁ ВИЛОЯТ "ТОЗА ХУДУД" ДАВЛАТ УНИТАР КОРХОНАСИ Манзил: Сирдарё вилоят, Гүлистон шаҳар, Навбаҳор МФЙ, Серқүеш күчаси 1А үй Тел: (+998) 67-225-37-15 Web: http//www.eco.gov.uz Email: sirdaryotozahudud@uznature.uz

2025

ОСИЁ ТАРАҚҚИЁТ БАНКИ ЁРДАМИДА «ШАХАРЛАРНИ КОМПЛЕКС РИВОЖЛАНТИРИШ» ЛОЙИХАСИ

ЛОЙИХАНИ АМАЛГА ОШИРИШДА ХИМОЯ ЧОРАЛАРИГА РИОЯ КИЛИШ



Лойиханинг салбий таъсирларини юмшатиш учун Атроф Мухитни Бошқариш Режаси (АМБР) хамда Мехнат мухофазаси ва хавфсизлик техникасини бошқариш ва мониторинги режаси (ММХТБМР) ишлабчиқилади.

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 СИРДАРЁ ВИЛОЯТ "ТОЗА ХУДУД" ДАВЛАТ УНИТАР КОРХОНАСИ Манзил: Сирдарё вилоят, Гулистон шаҳар, Навбаҳор МФЙ, Серқүёш кү́часи 1А үй Тел: (+998) 67-225-37-15 Web: http//www.eco.gov.uz Email: sirdaryotozahudud@uznature.uz

ОСИЁ ТАРАҚҚИЁТ БАНКИ ЁРДАМИДА «ШАХАРЛАРНИ КОМПЛЕКС РИВОЖЛАНТИРИШ» ЛОЙИХАСИ

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.



• ЛАОГ – Лойихани амалга ошириш гурухи

- ХЛАОГ Худудий лойихани амалга ошириш гурухи
- ИТСВ Инвестициялар ва Ташки Савдо Вазирлиги
- ОТБ Осиё Тараккиёт Банки

MAЪЛУМОТЛАР
УЧУН КОНТАКТ
AXБОРОТИТСВ ЛАОГ:
Манзил: Тошкент ш., Т.Шевченко
кўчаси, 34-уй
Ten: (+998) 71 252 42 20
E-mail: iudpuzbekistan@gmail.comСИРДАРЁ ВИЛОЯТ "ТОЗА ХУДУД" ДАВЛАТ УНИТАР КОРХОНАСИ
Манзил: Сирдарё вилоят, Гулистон шахар, Навбахор МФЙ,
Серкуёш кўчаси 1А уй
Ten: (+998) 67-225-37-15
Web: http://www.eco.gov.uz
Email: sirdaryotozahudud@uznature.uz

Attachment 4: Minutes of Public Consultations

Yangiyer city, Z. Bobuh mahalla

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Янгиер шахри "З.М.Бобур" махалла фукаролар йиғинининг умумий мажлиси

БАЁНИ №_____

"<u>13" Якварь</u> 2022й. Йигилиш раиси: <u>И. Вохиедов</u>

"З.М.Бобур" МФЙ

Иштирок этган фукаролар _____ киши.

КУН ТАРТИБИ:

Янгиер шахри "З.М.Бобур" МФЙ худудида Осиё тараккиёт банки кредит маблағлари хисобидан куриладиган янги чикинди йиғиш пунктларининг курилишига ахолининг муносабати тўғрисидаги йиғилиш баёни

ЭШИТИЛДИ:

Йиғилишни Сирдарё вилояти "Тоза Худуд" давлат унитар корхонаси Янгиер шаҳар филиали директори <u>Бокрок Ууда бердиев</u>очиб бериб, йиғилишда иштирок этаётган манфаатдор томонлар вакилларини барчага таништирди.

Инвестициялар ва ташки савдо вазирлиги ташаббуси билан Янгиер шаҳри "З.М.Бобур" МФЙ ҳудудида Осиё тараккиёт банки кредит маблағлари ҳисобидан қуриладиган янги чиқинди йиғиш пункти қурилиши тўгрисида маълумот бериб, тайёрланган тақдимот материалларини сўзлаб берди ва лойиҳа тўгрисида тарқатма флаерларни йиғилиш иштирокчиларига тақдим этди ва қуйидагиларни билдирди:

Узбекистон Республикаси Вазирлар Маҳкамасининг 2020 йил 7 июлдаги "Осиё тараққиёт банки иштирокида "Узбекистон Республикасида шаҳарларни ривожлантириш лойиҳаларини тайёрлашни молиялаштириш» лойиҳасини амалга ошириш чоратадбирлари тўғрисида"ги қарори ижроси сифатида амалга оширалаётган ушбу "Чиқинди йиғиш пунктларини қуриш" 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, "З.М.Бобур" МФЙ раиси <u>Ш. во кира в</u>га сўз берилиб, куйидаги фикрлар эшитилди:

Хурматли маҳалладошлар "Инсон кадрини 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 кўллаб кувватлашимизни жоиз деб биламан. Бугунги сизларни йигишимиздан мақсад шуки, "З.М.Бобур" МФЙ ҳудудида "Чиқинди йигиш пунктларини куриш" лойиҳасига ўз муносабатингизни билдиришингиздир. Шу муносабат билан, маҳалламизда тозаликка бўлган эътиборнинг яҳшиланиши, атроф муҳит ҳолатининг яҳшилиниши учун ушбу лойиҳага ўз муносабатингизни билдиришингизни сураймиз.

Сўзга чикди: <u>Сатторова Ш.</u> (ФИО) махалла фаоли: президентимиз бежизга атроф мухитга, ахоли саломатлигига ва тадбиркорликни ривожлантиришга алоҳида эътибор қаратаяптилар, бунинг сабаби ҳаммамизга маълумки биз ҳалҳнинг фаравонлигини таъминлаш мақсадидадир, демакки мен эътироз билдирмайман.

Сўзга чикди: <u>Долиова Далеуд</u> (ФИО) махалла фукароси: мен ушбу чикинди йигиш пункти курилиши тушадиган якин хонадон эгаси сифатида ушбу лойихани амалга оширилишидан мамнунлигимни ва кўллабкувватлашимни хамда бу лойиханинг ташаббускорларидан миннатдорлигимни билдираман.

Сузга чикди: _______ (ФИО) мен, юқоридаги маҳалладошларимнинг сўзларига қўшиламан, чунки ҳозирги куннинг 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 кўйилди. Маҳалла фуқаролари томонидан "Чикинди йиғиш пунктларини куриш" лойиҳасига ташаббускорларга миннатдорчилик билдириб, лойиҳани давом эттириш бир овоздан маъкулланди.

Кун тартибдаги масала юзасидан йиғилиш

ҚАРОР ҚИЛАДИ:

- Янгиер шахри "З.М.Бобур" МФЙ худудида "Чикинди йиғиш пунктларини куриш" ва унинг фаолият юритишига маҳалламиз фукаролари қаршилик кўрсатмасликлари инобатга олинсин.
- Йиғилиш иштирокчилари ва ушбу қурилиши мўлжалланган чиқинди йиғиш пунктларини қуришга яқин жойлашган ҳудудларда истиқомат килувчи фуқаролар розиликлари рўйҳати иловага мувофиқ тасдиқлансин.
- Ушбу қарорни назорат қилиш Сирдарё вилояти "Тоза Ҳудуд" ДУК Янгиер шаҳар филиали, курилишга масъул буюртмачи ва жалб қилинадиган пудрат ташкилоти зиммасига юклатилсин.

U.Boxeego & "З.М.Бобур" МФЙ ранси йиғилиш Ранси: BOBUR MAHALLA "З.М.Бобур" МФЙ когнон-йыгилиш Котиби: Янгиер шахар хокимлиги мутахассиси Сирдарё вилояти "Тоза Худуд" ДУК Янгиер шахар филиали дире

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Йнғилиш иштирокчилари ва Янгиер шахри "З.М.Бобур" МФЙда қуриладиган чиқинди йиғиш пунктига энг яқин жойлашган уй эгаларининг РЎЙХАТИ:

1. (ФИО. ween (ФИО, паспорт серия раками) routo 6PC 3. (ФИО, паспорт серия раками ha 11l 4. (ФИО, паспорт ия раками) marc nova 5. a (ФИО, паспорт с ками Ģ 6. (ФИО, паспорт раками) 7. nec 1 (ФИО, паспорт серия раками) 8. (ФИО, паспорт серия раками) 9. (ФИО, паспорт серия раками) 10. (ФИО, паспорт серия раками) 11. (ФИО, паспорт серия раками) 12. (ФИО, паспорт серия раками)

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Yangiyer city, A. Jamiy mahalla

Янгиер шахри "А.Жомий" махалла фукаролар йиғинининг умумий мажлиси

БАЁНИ № 6

"А.Жомий" МФЙ

"(2, ")) 2022й. 15_____ Ингилиш раиси: <u>Э. Ю. Абдуроковере</u>

Иштирок этган фукаролар 3 киши.

КУН ТАРТИБИ:

Янгиер шахри "А.Жомий" МФЙ худудида Осиё тараққиёт банки кредит маблағлари хисобидан куриладиган янги чикинди йигиш пунктларининг курилишига ахолининг муносабати тўғрисидаги йиғилиш баёни

ЭШИТИЛДИ:

Йиғилишни Сирдарё вилояти "Тоза Ҳудуд" давлат унитар корхонаси Янгиер шаҳар филиали директори <u>Бохром удоб Seppueb</u> очиб бериб, йиғилишда иштирок этаётган манфаатдор томонлар вакилларини барчага таништирди.

Инвестициялар ва ташки савдо вазирлиги ташаббуси билан Янгиер шахри "А.Жомий" МФЙ худудида Осиё тараққиёт банки кредит маблағлари хисобидан куриладиган янги чикинди йигиш пункти курилиши тўгрисида маълумот бериб, тайёрланган такдимот материалларини сўзлаб берди ва лойиха тўғрисида таркатма флаерларни йиғилиш иштирокчиларига тақдим этди ва қуйидагиларни билдирди:

Узбекистон Республикаси Вазирлар Махкамасининг 2020 йил 7 июлдаги "Осиё тараккиёт банки иштирокида "Узбекистон Республикасида шахарларни ривожлантириш лойиҳаларини тайёрлашни молиялаштириш» лойиҳасини амалга ошириш чоратадбирлари тўғрисида"ги қарори ижроси сифатида амалга оширалаётган үшбү "Чикинди йиғиш пунктларини қуриш" лойиҳаси туман аҳолиси саломатлигига ва атроф муҳит тозалигига хамда атроф мухитга хам ижобий таъсири жихатидан мухимлиги сабабли, ушбу лойихани амалга оширишни давом эттиришни ва кўллаб кувватлаш таклифларини кўриб чикилишини кун тартибидаги мухим масала деб биламан.

Шундан сўнг, "А.Жомий" МФЙ раиси <u>*Я. Босуроклово*</u> га сўз берилиб, куйидаги фикрлар эшитилди:

Хурматли 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-харакатларини кўллаб кувватлашимизни жоиз деб биламан. Бугунги сизларни йиғишимиздан мақсад шуки, "А.Жомий" МФЙ худудида "Чиқинди йиғиш пунктларини куриш" лойихасига ўз муносабатингизни билдиришингиздир. Шу муносабат билан, махалламизда тозаликка бўлган эътиборнинг яхшиланиши, атроф мухит мухофазасининг яхшилинишига ушбу лойихага ўз муносабатингизни билдиришингизни сўраймиз.

Сўзга чикди: А- Нуртеочо (ФИО) махалла фаоли: президентимиз бежизга атроф мухитга, ахоли саломатлигига ва тадбиркорликни

ривожлантиришга алохида эътибор қаратаяптилар, бунинг сабаби ҳаммамизга маълумки биз ҳалқнинг фаравонлигини таъминлаш мақсадидадир, демакки мен эътироз билдирмайман.

Сўзга чикди: <u>2. Сосудель (Ф</u>ИО) махалла фукароси: мен ушбу чикинди йигилі пункти курилиши тушадиган якин хонадон эгаси сифатида ушбу лойихани амалга оширилишидан мамнунлигимни ва кўллабкувватлашимни хамда бу лойиханинг ташаббускорларидан миннатдорлигимни билдираман.

Сузга чикди: <u>2</u> Соребленнов Соребления (ФИО) мен, юкоридаги махалладошларимнинг сўзларига кушиламан, чунки хозирги куннинг хар томонлама тўгри йўли бу атроф-мухит тозалиги ва одамларнинг саломатлигини мустахкамлаш ва бунга шароит яратиш бўлиб, давр талабига айланди.

Юқоридаги маърузалар ва таклифлар овозга қўйилди. Маҳалла фукаролари томонидан "Чиқинди йиғиш пунктларини қуриш" лойиҳасига ташаббускорларга миннатдорчилик билдириб, лойиҳани давом эттириш бир овоздан маъкулланди.

Кун тартибдаги масала юзасидан йиғилиш

ҚАРОР ҚИЛАДИ:

- Янгиер шахри "А.Жомий" МФЙ худудида "Чикинди йиғиш пунктларини куриш" ва унинг фаолият юритишига маҳалламиз фукаролари қаршилик кўрсатмасликлари инобатга олинсин.
- Йиғилиш иштирокчилари ва ушбу қурилиши мўлжалланган чиқинди йиғиш пунктларини қуришга яқин жойлашган ҳудудларда истиқомат килувчи фуқаролар розиликлари рўйхати иловага мувофиқ тасдиқлансин.
- Ушбу қарорни назорат қилиш Сирдарё вилояти "Тоза Ҳудуд" ДУК Янгиер шаҳар филиали, курилишга масъул буюртмачи ва жалб қилинадиган пудрат ташкилоти зиммасига юклатилсин.

"А.Жомий" МФЙ раиси- йиғилиш Раиси

"А.Жомий" МФЙ котиби-йиғилиш Котиби;

Янгиер шахар хокимлиги мутахассиси

Сирдарё вилояти "Тоза Худуд" ДУК Янгиер шахар филиали директори

№ 6_-сон баённомасига илова

Йиғилиш иштирокчилари ва Янгиер шахри "А.Жомий" МФЙда қуриладиған чиқинди йиғиш пунктига энг яқин жойлашған уй эгаларининг РЎЙХАТИ:

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Yangiyer city, Marifat mahalla

Янгиер шахри "Маърифат" махалла фуқаролар йиғиг	нининг умумий маждисн
БАЁНИ №	SALLAF!
" <u>13</u> " <u>унвари</u> 2022й. Йигилиш раиси: Абругоось VI ВУЭ	Mapudar"
Иштирок этган фукаролар киши.	1050 * 88M

Янгиер шахри "Маърифат" МФЙ худудида Осиё тараккиёт банки кредит маблағлари хисобидан қуриладиган янги чикинди йиғиш пунктларининг қурилишига ахолининг

муносабати тўғрисидаги йиғилиш баёни

ЭШИТИЛДИ:

Йиғилишни Сирдарё вилояти "Тоза Худуд" давлат унитар корхонаси Янгиер шаҳар филиали директори <u>Б. Қудой Сердиев</u>очиб бериб, йиғилишда иштирок этаётган манфаатдор томонлар вакилларини барчага таништирди.

Инвестициялар ва ташки савдо вазирлиги ташаббуси билан Янгиер шахри "Маърифат" МФЙ худудида Осиё тараккиёт банки кредит маблағлари хисобидан куриладиган янги чикинди йиғиш пункти қурилиши тўғрисида маълумот бериб, тайёрланган тақдимот материалларини сўзлаб берди ва лойиха тўғрисида тарқатма флаерларни йиғилиш иштирокчиларига тақдим этди ва қуйидагиларни билдирди:

Узбекистон Республикаси Вазирлар Махкамасининг 2020 йил 7 июлдаги "Осиё тараккиёт банки иштирокида "Узбекистон Республикасида шаҳарларни ривожлантириш лойиҳаларини тайёрлашни молиялаштириш» лойиҳасини амалга ошириш чоратадбирлари тўғрисида"ги қарори ижроси сифатида амалга оширалаётган ушбу "Чиқинди йиғиш пунктларини қуриш" 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, "Маърифат" МФЙ раиси <u>Д. Иб дул коев</u> га сўз берилиб, куйидаги фикрлар эшитилди:

Хурматли 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 қуллаб кувватлашимизни жоиз деб биламан. Бугунги сизларни йиғишимиздан мақсад шуки, "Маърифат" МФЙ ҳудудида "Чиқинди йиғиш пунктларини қуриш" лойиҳасига ўз муносабатингизни билдиришингиздир. Шу муносабат билан, маҳалламизда тозаликка булган эътиборнинг яхшиланиши, атроф муҳит ҳолатининг яхшилиниши учун ушбу лойиҳага ўз муносабатингизни билдиришингизни сураймиз.

Сўзга чикди: <u>Г. Ассись Тругова</u> (ФИО) махалла фаоли: президентимиз бежизга атроф мухитга, ахоли саломатлигига ва тадбиркорликни ривожлантиришга алоҳида эътибор қаратаяптилар, бунинг сабаби ҳаммамизга маълумки биз халкнинг фаравонлигини таъминлаш мақсадидадир, демакки мен эътироз билдирмайман.

Сўзга чикди: <u>Морашева</u> (ФИО) махалла фукароси: мен ушбу чикинди йигиш пункти курилиши тушадиган якин хонадон эгаси сифатида ушбу лойихани амалга оширилишидан мамнунлигимни ва кўллабкувватлашимни хамда бу лойиханинг ташаббускорларидан миннатдорлигимни билдираман.

Сузга чикди: <u>Дбунковые Исзырд</u> (ФИО) мен, юкоридаги махалладошларимнинг сўзларига кўшиламан, чунки хозирги куннинг хар томонлама тўғри йўли бу атроф-мухит тозалиги ва одамларнинг саломатлигини мустахкамлаш ва бунга шароит яратиш бўлиб, давр талабига айланди.

Юқоридаги маърузалар ва таклифлар овозга қўйилди. Маҳалла фуқаролари томонидан "Чиқинди йиғиш пунктларини қуриш" лойиҳасига ташаббускорларга миннатдорчилик билдириб, лойиҳани давом эттириш бир овоздан маъқулланди.

Кун тартибдаги масала юзасидан йиғилиш

ҚАРОР ҚИЛАДИ:

- Янгиер шаҳри "Маърифат" МФЙ ҳудудида "Чиқинди йиғиш пунктларини қуриш" ва унинг фаолият юритишига маҳалламиз фуқаролари қаршилик кўрсатмасликлари инобатга олинсин.
- Йиғилиш иштирокчилари ва ушбу қурилиши мўлжалланган чиқинди йиғиш пунктларини қуришга яқин жойлашган ҳудудларда истиқомат килувчи фуқаролар розиликлари рўйхати иловага мувофиқ тасдиқлансин.
- Ушбу қарорни назорат қилиш Сирдарё вилояти "Тоза Ҳудуд" ДУК Янгиер шаҳар филиали, қурилишга масъул буюртмачи ва жалб қилинадиган пудрат ташкилоти зиммасига юклатилсин.

"Маърифат" МФЙ раиси- йиғилиш Раиси: "Маърифат" МФЙ котиби йигилиш Котиби: UMUMIY Янгиер шахар хокимлиги мутахассиси К Яничер шахар филиали директори Сирдарё вилояти "Тоза Худуд" Ду Mygest upon to

№ ____сон баённомасига илова

Йиғилиш иштирокчилари ва Янгиер шахри "Маърифат" МФЙда қуриладиган чиқинди йиғиш пунктига энг яқин жойлашган уй эгаларининг РЎЙХАТИ:

Корания и рогина (ФИО, паспорт серия раками) 0565 А. Ибрул коле Ианра (ФИО, паспорт серия раками) НА 2910 4 Г. Сисиот пулова (ФИО, паспорт серия раками) НА 3. Абуросниенова вериоодое (ФИО, паспорт серия раками) НА 24 424 50 4. 5. <u>Денир быво</u> <u>Дене о по</u> (ФИО, паспорт серия раками) ДА 125-32-72 6. Сситров недкрая (ФИО, паспорт серия раками) (13 2996398 7. Пакиолово Сериза (ФИО, паспорт серия раками) 48 03 84504 8. <u>Минията Морито</u> (ФИО, паспорт серия раками) #45910980 9. <u>Иобиева Јушо 29</u> (ФИО, паспорт серия раками) **ИН 3236826** 10. Пакионасова Заринор (ФИО, паспорт серия раками) АЗ 7455490 11. <u>Аселев Коесоесдру /44</u>5321448 (ФИО, паснорт серия раками)

12. <u>Усионов Молос</u> (ФИО, паспорт серия раками) ДА



Янгнер шахри "Темур Малик" махалла фукаролар йнгинининг умумий мажлиси

БАЁНИ № 4 . <u>17. 2ивар</u>, 2022и. Ингилини ранси: <u>Г. Энараниев</u>.

"Темур Малик" МФЙ

Иштирок этган фукаролар 14. RHHH

КУН ТАРТИБИ:

Янгиер шахри "Темур Малик" МФЙ худулида Осиё тараккиёт банки кредит маблаглари хисобидан куриладиган янги чикинди йнгиш пунктларишинг курилишига ахолишинг муносабати тўгрнендаги йнгилиш баённ

эшитилди:

Ингилишин Сирдарё вилояти "Тоза Худул" давлат унитар корхонаси Янгиер шахар филиали директори <u>Бох ром</u> <u>уудая дер 9иес</u> очиб бериб, йигилишда иштирок этаётган манфаатдор томонлар вакилларини барчага таништирди.

Инвестициялар ва ташки савдо вазирлиги ташаббуси билан Янгиер шахри "Темур Малик" МФЙ худудида Оснё тараккиёт банки кредит маблаглари хисобидан куриладиган янги чикинди йигиш пункти курилиши тўгрисида маълумот бериб, тайёрланган такдимот материалларини сўзлаб берди ва лойиха тўгрисида таркатма флаерларни йигилиш иштирокчиларига такдим этди ва куйидагиларни билдирди:

Узбекистон Республикаси Вазирлар Маҳкамасининг 2020 йил 7 июлдаги "Осиё тараккиёт банки иштирокида "Узбекистон Республикасида шаҳарларни ривожлантириш лойиҳаларини тайёрлашии молиялаштириш» лойиҳасини амалга ошириш чоратадбирлари ту́грисида"ги карори ижроси сифатида амалга оширалаёттан ушбу "Чикинди йигиш пунктларини куриш" лойиҳаси туман аҳолиси саломатлигига ва атроф муҳит тозалигига ҳамда атроф муҳитга ҳам ижобий таъсири жиҳатидан муҳимлиги сабабли, ушбу лойиҳани амалга оширишин давом эттиришини ва қуллаб қувватлаш таклифларини куриб чиқилишини кун тартибидаги муҳим масала деб биламан.

Шундан сўнг, "Темур Малик" МФЙ ранси <u>У. Даратов</u>га сўз берилиб, куйидаги фикрлар эшитилди:

Хурматли махалладошлар "Инсон кадрини улуглаш ва фаол махалла йили" муносабати билан катор истикболли лойихалар амалга оширилаянти, шунинг шарофати ўларок бизнинг махалламиз тозалиги ва ахолимиз саломатлигига юртбошимизнинг эътибори ва саъй-харакатларини қўллаб кувватлашимизни жонз деб биламан. Бугунгн сизларни йигишимиздан максад шуки, "Темур Малик" МФЙ худудида "Чикинли йигиш пунктларини куриш" лойихасига ўз муносабатнигизни билдиришингиздир. Шу муносабат билан, махалламизда тозаликка бўлган эътиборнинг яхшиланный, атроф мухит мухофазаеннинг яхшилинишига ушбу лойихага ўз муносабатнигизни билдиришингизни сураймиз.

Сўзга чикди: <u>С. Гасроророво</u> (ФИО) махалла фаоли: президентимиз бежизга атроф мухитга, ахоли саломатлигига ва тадбиркорликии ривожлантиришга алохида эътибор каратаяптилар, бунинг сабаби хаммамизга маълумки биз халкнинг фаравонлигини таъминлаш максалидалир, демакки мен эътироз билдирмайман.

Сўзга чикли: <u>Авууражиенов Е</u> (ФИО) махалла фукароси: мен ушбу чикинди йнгиш пункти курилиши тушадиган якин хонадон эгасн сифатида ушбу лойихани амалга оширилишидан мамнунлигимни ва кўллабкувватлашимни хамда бу лойиханинг ташаббускорларидан миннатдорлигимни билдираман.

Сузга чикди: <u>М. Санадова</u> (ФИО) мен, юкоридаги махалладошларимнинг сўзларига кушиламан, чунки хозирги куннинг хар томондама тўгри йўли бу атроф-мухит тозалиги ва одамларнинг саломатлигини мустахкамлані ва бунга шаронт яратиш бўлиб, давр талабига айланди.

Юкоридаги маърузалар ва таклифлар овозга кўйилди. Махалла фукаролари томонидан "Чикинди йнгиш пунктларини куриш" лойихасига ташаббускорларга миннатдорчилик билдириб, лойихани давом эттириш бир овоздан маъкулланди.

Кун тартибдаги масала юзасидан йигилиш

КАРОР КИЛАДИ:

- Янгиер шахри "Темур Малик" МФЙ худудида "Чикинди йигиш пунктларнин куриш" ва унинг фаолият юритишига махалламиз фукаролари каршилик курсатмасликлари инобатга олинсии.
- Йнғилиш иштирокчилари ва ушбу қурилиши мўлжалланган чиқинди йигиш пунктларини қуришга яқин жойлашган худудларда истикомат килувчи фукаролар розиликлари рўйхати иловага мувофик тасдиклансин.
- Ушбу карорни назорат килиш Сирдарё вилояти "Тоза Худуд" ДУК Янгиер шахар филиали, курилишга масъул буюртмачи ва жалб килинадиган пудрат ташкилоти зиммасига юклатилсии.

RDARYO Семур Малик" МФИ рансн- йнгилнш Ранси: **«TEMUF** MALIK» емур Малик" МФИ котиби-йигилиш Котиби: IG'INI Янгнер шахар хокимлиги мутахассиси Сирдарё вилояти "Тоза Худуд" ДУК Янгиер шахар филиал сдиректори

№ ___-сон баённомасига илова

Йненлиш иштирокчилари ва Янгиер шахри "Темур Малик" МФЙда куриладиган чикинди йненш пунктига энг якин жойлашган уй эгаларининг РЎЙХАТИ:

1. 2. раками) 3 (ФИО, паспорт серия раками) 4 т серия раками) #H04189 5. (0140) 201543.9 6. 7. 8. 2 A ORPIAN (ФИО, паспорт серия раками) 9.14 (ФИО, наспорт серня раками) 10. фию, наспорт серня раками, e 11 (ФИО, наспорт серня раками) 12.9 alogue

(ФИО, паспорт серня раками)

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Yangiyer city, Shodiyona mahalla

"ТАСДИКЛАЙМАН" "Шолиёна" МФЙ раиси Соруд Ж.Мусаев «<u>13</u> » <u>Энсвор</u> 2022 йил.

Янгиер "Шодиёна" махалла фукаролар йигининиш йшилиш

БАЁНИ № 04

13.01. 2022 йнл

"Шодиёна" МФЙ

Раислик килувчи:

Иштирок этганлар:

"Шолпёна" МФЙ ранен - Ж.Мусаев

ттанлар: "Шодиёна" МФЙ ходимлари, махалла фаодлари, кенгаш аъзолари - 37 киши

КУН ТАРТИБИ:

Янгиер шаҳар "Шодиёна" МФЙ ҳудудида Осиё тараққиёт банки кредит маблағлари ҳисобидан қуриладиган янги чикинди йигиш пунктдарининг қурилишига аҳолининг муносабати тўғрисида

(Ж.Мусаев, Ш.Мирзаев, Б.Худойбердиев, М.Рахмонкулов, Ж.Мусаев)

Куп тартибидаги масала юзасидан "Шодиёна" МФЙ райси Ж.Мусаев йнгилиший очиб сўзни Сирдарё вилояти "Тоза Ҳудуд" давлат унитар корхонаси Янгиер шахар филиали директори Б.Худойбердневга берди, йнгилишда иштирок этаётган манфаатдор томонлар вакилларший барчага таништирди.

Инвестициялар ва ташки савдо вазирлиги ташаббуси билан Янгиер шахри "Шодиёна" МФЙ худудида Осиё тараккиёт банки кредит маблаглари хисобидан куриладиган янги чикинди йигиш пункти курилиши тўгрисида маълумот бериб, тайёрлашан такдимот материалларини сўзлаб берди ва лойиха тўгрисида таркатма флаерларни йигилиш иштирокчиларига таклим этди ва куйидагиларни билдирди:

ўзбекистон Республикаен Вазирлар Махкамасниниг 2020 йнл 7 июлдаги "Оснё тараккиёт банки ингирокида "Узбекистон Республикасида шахарларни ривожлантириш лойихаларини тайёрлашни молиялаштириш" лойихаснии амалга оппирила тацбирлари тўгрисида "ги карори ижроси сифатида амалга оппирилаётган ушбу "Чикинди йнгиш пунктларини куриш" лойихаси шахар ахолиси саломаглигина ва атроф мухитга хам ижобий таъсири жихатидан мухимлиги сабабли. Ушбу лойихани амалга оппиринни давом эттиришни ва кўллаб-кувватлаш таклифларный кўриб чикилишини кун тартибидаги мухим масала деб биламан.

Шундан сўнг. "Шодиёна" МФЙ ранси Ж.Мусаевга сўзмнм давом эттириб, куйидаги фикрларни билдирди:

Хурматли махалладошлар "Инсон кадрини улуглаш ва фаол махалла йили" муносабати билан катор истикболли лойихалар амалга ошириляшти, шушишг шарофати ўларок бизнинг махалламиз тозалиги ва ахолимиз саломатлигига юртбошимизнишг эътибори ва саъй-харакатларнин кўллаб-кувватлашимизни жоиз деб биламан. Бугун Сизларни йигишимиздан максад шуки. "Шодиёна" МФЙ хулудида "Чикинди йигиш пунктларини куриш" лойихасига ўз муносабатингизни билдиришиштиздир. Шу муносабат билан, махалламизда тозаликка бўлган эътиборниш яхшиланиши, атроф мухит мухофазасинишг яхшиланишин билдиришингиздир.

Сўзга чикли: О.Арипов махалла фаоли: Президентимиз бежизга атроф мухитта, ахоли саломатлигига ва тадбиркорликий ривожлантирнига алохида эьтибор каратаянтилар, бунинг сабаби хаммамизга маълумки биз халкнинг фаравонлигини таъмиплаш максадидадир, демакки мен эътироз билдирмайман.

Сўзга чикди: М.Рахмонкулов мен ушбу чикинди йигиш пункти курилиши тушадиган якин хонадон эгаси сифатида ушбу лойихани амалга оширилишидан мампунлигимни ва кўллаб-кувватлашимни хамда бу лойиханишг ташаббускорларидан миннатдорлигимни билдираман.

Сўзга чикди: Ҳ.Абдуллаева мен. юкоридаги махалладошларимнинг сўзларига кўшиламан. чунки хозирги куншинг хар томонлама тўгри йўли бу атрофмухит тозалиги ва одамларинныг саломаглигшин мустахкамлані ва бунга шаронт яратиш бўлиб, давр талабига айланди.

Юкоридаги маърузалар ва таклифлар овозга кўйилди. Махалла фукаролари томонидан "Чикинди йигиш пунктларини куриш" лойихаен ташаббускорларша мишатдорчилик билдириб, лойихани давом эттирнін бир овоздан маъкулланди.

Кун тартибидаги масала юзасидан йигилишда билдирилган фикр ва мулохазалардан келиб чикиб йигилиш

ҚАРОР ҚИЛАДИ:

1.Янгиер шахри "Шодиёна" МФЙ худудида **"Чикинди йигиш пунктларини куриш"** ва упинг фаолият юритишига махалла фукаролари томопидан ушбу лойихани амалга оширишлари учун билдирилган розиликлари ипобатга одинеип.

2.Йнгилиш плитирокчилари ва ушбу курилинии мўлжалланган чикинди йштиш пунктларини куришга якин жойланнан худудларда истикомат килувчи фукаролар розиликлари рўйхати пловага мувофик тасдиклансин.

3.Ушбу баёний карорниш ижросний назорат килишни. Сирдарё вилояти "Тоза Худуд" ДУК Янгиер шахар филиали, курилишига масъул буюртмачи ва жалб килипадиган пудрат ташки доди зиммасига юклатилсии.

30	ANTO VILOVAN	
13/	ATTING OF	F
Янгиер шахар ховими	ўринбосари:	то При H1.Мирзаев
Сирдарё вилояти "Тоза	X AU THAT	and the second second
Янгиер шахар филия.		Б.Худойбердие
	ALANNA TANK	/ n_
Баённомани тузувчи:	AND TAND OF SUL	Деен , М.Урумбаева
	AND AN EKOLO	

Янгиер шахри "Шукрона" махалла фукаролар йиғинининг умумий мажлиси

БАЁНИ № 42

"<u>14</u>" <u>анваль</u> 2022й

Йиғилиш раиси в.в.б :

Иштирок этган фукаролар :

"Шукрона" МФЙ

Р.Қўшназарова

17 киши.

КУН ТАРТИБИ:

Янгиер шахри"Шукрона"МФЙ худудида Осиё тараккиёт банки кредит маблағлари хисобидан куриладиган янги чикинди йиғиш пунктларининг курилишига ахолининг муносабати тўғрисидаги йиғилиш баёни

ЭШИТИЛДИ:

Йиғилишни Сирдарё вилояти "Тоза Ҳудуд" давлат унитар корхонаси Янгиер шаҳар филиали директори Мансуров Фарҳод очиб бериб, йиғилишда иштирок этаётган манфаатдор томонлар вакилларини барчага таништирди.

Инвестициялар ва ташқи савдо вазирлиги ташаббуси билан Янгиер шахри "Шукрона" МФЙ худудида Осиё тараққиёт банки кредит маблағлари хисобидан қуриладиган янги чиқинди йиғиш пункти қурилиши тўғрисида маълумот бериб, тайёрланган тақдимот материалларини сўзлаб берди ва лойиха 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 чоратадбирлари тўғрисида"ги қарори ижроси сифатида амалга оширалаётган ушбу "Чиқинди йиғиш пунктларини қуриш" 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 куриб чиқилишини кун тартибидаги муҳим масала деб биламан.

Шундан сўнг, "Шукрона" МФЙ раиси в.в.б: Кўшназарова Рохилага сўз берилиб, куйидаги фикрлар эшитилди:

Хурматли маҳалладошлар "Инсон кадрини 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 кувватлашимизни жоиз деб биламан. Бугунги сизларни йиғишимиздан мақсад шуки, "Шукрона"МФЙ ҳудудида" Чиқинди йиғиш пунктларини қуриш" лойиҳасига ўз муносабатингизни билдиришингиздир.Шу муносабат билан, маҳалламизда тозаликка бўлган эътиборнинг яҳшиланиши, атроф муҳит муҳофазасининг яҳшилинишига ушбу лойиҳага ўз муносабатингизни билдиришингизни су́раймиз.

Сўзга чикди махалла фаоли: Бобоев Жўракул Хабибуллаевич: президентимиз бежизга атроф мухитга, ахоли саломатлигига ва тадбиркорликни ривожлантиришга

алохида эътибор қаратаяптилар, бунинг сабаби хаммамизга маълумки биз халкнинг фаравонлигини таъминлаш мақсадидадир, демакки мен эътироз билдирмайман.

Сўзга чикди: махалла фуқароси: **Жўраєв Ахмад Тожикулович:** мен ушбу чиқинди йиғиш пункти қурилиши тушадиган яқин хонадон эгаси сифатида ушбу лойихани амалга оширилишидан мамнунлигимни ва қўллаб-қувватлашимни ҳамда бу лойиҳанинг ташаббускорларидан миннатдорлигимни билдираман.

Сузга чиқди: Махкамов Бахтиёр Каримқулович: мен, юқоридаги маҳалладошларимнинг сўзларига қўшиламан, чунки ҳозирги куннинг 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 "Чиқинди йиғиш пунктларини қуриш" лойиҳасига ташаббускорларга миннатдорчилик билдириб, лойиҳани давом эттириш бир овоздан маъқулланди.

Кун тартибдаги масала юзасидан йиғилиш

ҚАРОР ҚИЛАДИ:

- Янгиер шахри "Шукрона" МФЙ худудида "Чикинди йигиш пунктларини куриш" ва унинг фаолият юритишига маҳалламиз фукаролари қаршилик кўрсатмасликлари инобатга олинсин.
- Йиғилиш иштирокчилари ва ушбу қурилиши мўлжалланган чиқинди йиғиш пунктларини қуришга яқин жойлашган ҳудудларда истиқомат килувчи фуқаролар розиликлари рўйхати иловага мувофик тасдиқлансин.
- 3. Ушбу қарорни назорат қилиш Сирдарё вилояти "Тоза Ҳудуд" ДУК Янгиер шаҳар филиали, курилишга масъул буюртмачи ва жалб қилинадиган пудрат ташкилоти зиммасига юклатилсин.

Р.Қўшназарова

Ф.Мансуров

AAHAR FILIA

"Шукрона" МФЙ ранси в.в.б: SHUKRONA "Шукрона" МФЙ котиби :

ARYO

Янгиер шахар хокимлиги мутахассиси

Сирдарё вилояти "Тоза Худуд" ДУК Янгиер шахар филиали директори

39

№42-сон баённомасига илова

Йиғилиш иштирокчилари ва Янгиер шахри "Шукрона" МФЙда қуриладиган чиқинди йиғиш пунктига энг яқин жойлашган уй эгаларининг РЎЙХАТИ:

8 P 1

Ховос тумани "Бунёдкор" махалла фукаролар йиғинининг умумий мажлиси

БАЁНИ № 🚺

"<u>06</u>" <u>сеевор</u> 2022й.

"Бунёдкор" МФЙ

Йигилиш раиси: <u>Mogefielee</u>hehe

Иштирок этган фукаролар 32 киши.

КУН ТАРТИБИ:

Ховос тумани "Бунёдкор" МФЙ худудида Осиё тараққиёт банки кредит маблағлари хисобидан қуриладиған янги чиқинди йиғиш пунктларининг қурилишиға ахолининг муносабати тўғрисидаги йиғилиш баёни

ЭШИТИЛДИ:

Йиғилишни Сирдарё вилояти "Тоза Ҳудуд" давлат унитар корхонаси Ховос тумани филиали директори <u>Лесоеров</u> очиб бериб, йиғилишда иштирок этаётган манфаатдор томонлар вакилларини барчага таништирди.

Инвестициялар ва ташки савдо вазирлиги ташаббуси билан Ховос тумани "Бунёдкор" МФЙ худудида Осиё тараккиёт банки кредит маблағлари хисобидан куриладиган янги чикинди йиғиш пункти курилиши тўғрисида маълумот бериб, тайёрланган такдимот материалларини сўзлаб берди ва лойиха тўғрисида таркатма флаерларни йиғилиш иштирокчиларига такдим этди ва куйидагиларни билдирди:

Ўзбекистон Республикаси Вазирлар Маҳкамасининг 2020 йил 7 июлдаги "Осиё тараккиёт банки иштирокида "Ўзбекистон Республикасида шаҳарларни ривожлантириш лойиҳаларини тайёрлашни молиялаштириш» лойиҳасини амалга ошириш чоратадбирлари тўғрисида"ги қарори ижроси сифатида амалга оширалаётган ушбу "Чиқинди йиғиш пунктларини қуриш" 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 қуриб чиқилишини қур тартибидаги муҳим масала деб биламан.

Шундан сўнг, "Бунёдкор" МФЙ раиси *Шундан сўнг, "Бунёдкор" МФЙ раиси <i>Шундан су́з* берилиб, куйидаги фикрлар эшитилди:

Хурматли 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 кувватлашимизни жоиз деб биламан. Бугунги сизларни йиғишимиздан мақсад шуки, "Бунёдкор" МФЙ ҳудудида "Чикинди йиғиш пунктларини қуриш" лойиҳасига ўз муносабатингизни билдиришингиздир. Шу муносабат билан, маҳалламизда тозаликка бўлган эътиборнинг яхшиланиши, атроф муҳит муҳофазасининг яхшилинишига ушбу лойиҳага ўз муносабатингизни билдиришингизни сураймиз.

Сўзга чикди: <u>Исессеев Бенеер</u> (ФИО) махалла фаоли: президентимиз бежизга атроф мухитга, ахоли саломатлигига ва тадбиркорликни ривожлантиришга алохида эътибор қаратаяптилар, бунинг сабаби хаммамизга маълумки биз халқнинг фаравонлигини таъминлаш мақсадидадир, демакки мен эътироз билдирмайман.

Сўзга чикди: <u>Самариудинова</u> (ФИО) махалла фукароси: мен ушбу чикинди йиниш пункти курилиши тушадиган якин хонадон эгаси сифатида ушбу лойихани амалга оширилишидан мамнунлигимни ва кўллабкувватлашимни хамда бу лойиханинг ташаббускорларидан миннатдорлигимни билдираман.

Сузга чикди: <u>*v. Куръвивь*</u> (ФИО) мен, юкоридаги маҳалладошларимнинг сўзларига кўшиламан, чунки ҳозирги куннинг ҳар томонлама тўғри йўли бу атроф-муҳит тозалиги ва одамларнинг саломатлигини мустаҳкамлаш ва бунга шароит яратиш бўлиб, давр талабига айланди.

Юкоридаги маърузалар ва таклифлар овозга кўйилди. Махалла фукаролари томонидан "Чикинди йиғиш пунктларини куриш" лойихасига ташаббускорларга миннатдорчилик билдириб, лойихани давом эттириш бир овоздан маъкулланди.

Кун тартибдаги масала юзасидан йиғилиш

ҚАРОР ҚИЛАДИ:

- Ховос тумани "Бунёдкор" МФЙ худудида "Чикинди йигиш пунктларини куриш" ва унинг фаолият юритишига махалламиз фукаролари каршилик курсатмасликлари инобатга олинсин.
- Йиғилиш иштирокчилари ва ушбу қурилиши мўлжалланган чиқинди йиғиш пунктларини қуришга яқин жойлашган ҳудудларда истиқомат килувчи фуқаролар розиликлари рўйхати иловага мувофик тасдиклансин.
- Ушбу қарорни назорат қилиш Сирдарё вилояти "Тоза Ҳудуд" ДУК Ховос тумани филиали, курилишга масъул буюртмачи ва жалб қилинадиган пудрат ташкилоти зиммасига юклатилсин.

мани фи

SOVOX

имали

laceee

"Бунёдкор" МФЙ раиси- йиғилиш Раиси:

"Бунёдкор" МФЙ котиби-йиғилиш Котиби:

Ховос туман хокимлиги мутахассиси

Сирдарё вилояти "Тоза Худуд" ДУК Хо

№____-сон баённомасига илова

Йиғилиш иштирокчилари ва Ховос тумани Бунёдкор МФЙда қуриладиган чиқинди йиғиш пунктига энг яқин жойлашган уй эгаларининг РЎЙХАТИ:

Сосесорессора 1. <u>Нодугоне</u> (ФИО, паспорт серия раками) 2. 3. (ФИ серия раками) 4. (ФИО паспорт серия раками) 1880 5. (ФИО, паспорт серия ками A. 6. (ФИО, паспо раками) 7. theel (ФИО, паспол ими 8. 110 (ФИО, паспорт серия раками) 9. (ФИО, паспорт серия раками) 10. (ФИО, паспорт серия раками) 11. (ФИО, паспорт серия раками) 12.

(ФИО, паспорт серия раками)

(HM30) Делу (ЙМ30) <u>Сесер</u> (ИМ30) <u>Рессер</u> (ИМ30) <u>ДИТА</u> (ИМ30) <u>ДИТА</u> (ИМ30) <u>ДИТА</u> (ИМ30) <u>Д</u>ИТА (ИМ30) <u>Д</u>ИТА (ИМ30) <u>Д</u>ИТА

(имзо)

(имзо)

(имзо)

Ховос тумани "Истиклол" махалла фукаролар йиғинининг умумий мажлиси

БАЁНИ №____

"14" Subapt Йиғилиш раиси: <u>Ш.</u> Носцен

"Истиклол" МФЙ

Иштирок этган фукаролар _____ киши

КУН ТАРТИБИ:

Ховос тумани "Истиклол" МФЙ худудида Осиё тараккиёт банки кредит маблағлари хисобидан қуриладиған янги чиқинди йиғиш пунктларининг қурилишиға ахолининг муносабати тўғрисидаги йиғилиш баёни

ЭШИТИЛДИ:

Йиғилишни Сирдарё вилояти "Тоза Худуд" давдат унитар корхонаси Ховос тумани филиали директори <u>Исосисо Шу уроги</u>очиб бериб, йиғилишда иштирок этаётган манфаатдор комонлар вакилларини барчага таништирди.

Инвестициялар ва ташқи савдо вазирлиги ташаббуси билан Ховос тумани "Истиклол" МФЙ худудида Осиё тараққиёт банки кредит маблағлари хисобидан куриладиган янги чикинди йиғиш пункти 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 тарақкиёт банки иштирокида "Ўзбекистон Республикасида шаҳарларни ривожлантириш лойиҳаларини тайёрлашни молиялаштириш» лойиҳасини амалга ошириш чоратадбирлари тўғрисида"ги қарори ижроси сифатида амалга оширалаётган ушбу "Чиқинди йиғиш пунктларини қуриш" 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, "Истиклол" МФЙ раиси <u>М. Юд Цево</u>га сўз берилиб, куйидаги фикрлар эшитилди:

Хурматли 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 кувватлашимизни жоиз деб биламан. Бугунги сизларни йиғишимиздан мақсад шуки, "Истиклол" МФЙ ҳудудида "Чиқинди йиғиш пунктларини қуриш" лойиҳасига ўз муносабатингизни билдиришингиздир. Шу муносабат билан, маҳалламизда тозаликка бўлган эътиборнинг яхшиланиши, атроф муҳит муҳофазасининг яхшилинишига ушбу лойиҳага ўз муносабатингизни билдиришингизни сураймиз.

Сўзга чикди: *Аленоров Нуруно* (ФИО) махалла фаоли: президентимиз бежизга атроф мухитга, ахоли саломатлигига ва тадбиркорликни

ривожлантиришга алохида эътибор каратаяптилар, бунинг сабаби хаммамизга маълумки биз халқнинг фаравонлигини таъминлаш максадидадир, демакки мен эътироз билдирмайман.

Сўзга чикди: $\mathcal{D}(\Phi M \Omega)$ махалла фукароси: мен ушбу чикинди йиғиш пункти қурилиши тушадиган яқин хонадон эгаси сифатида ушбу лойихани амалга оширилишидан мамнунлигимни ва куллабкувватлашимни хамда бу лойиханинг ташаббускорларидан миннатдорлигимни билдираман.

Hechmole Сузга чикди: _ Арево (ФИО) мен, юкоридаги махалладошларимнинг сўзларига қўшиламан, чунки хозирги куннинг хар томонлама тўғри йўли бу атроф-мухит тозалиги ва одамларнинг саломатлигини мустахкамлаш ва бунга шароит яратиш бўлиб, давр талабига айланди.

Юкоридаги маърузалар ва таклифлар овозга кўйилди. Махалла фукаролари томонидан "Чикинди йигиш пунктларини куриш" лойихасига ташаббускорларга миннатдорчилик билдириб, лойихани давом эттириш бир овоздан маъкулланди.

Кун тартибдаги масала юзасидан йиғилиш

КАРОР КИЛАДИ:

- 1. Ховос тумани "Истиклол" МФЙ худудида "Чикинди йиғиш пунктларини куриш" ва унинг фаолият юритишига маҳалламиз фуқаролари қаршилик кўрсатмасликлари инобатга олинсин.
- 2. Йиғилиш иштирокчилари ва ушбу қурилиши мўлжалланган чиқинди йиғиш пунктларини қуришга яқин жойлашган худудларда истиқомат килувчи фукаролар розиликлари рўйхати иловага мувофик тасдиклансин.
- 3. Ушбу карорни назорат килиш Сирдарё вилояти "Тоза Худуд" ДУК Ховос тумани филиали, курилишга масъул буюртмачи ва жалб килинадиган пудрат ташкилоти зиммасига юклатилсин.

"Истиклол" МФЙ раиси- йиғилиш Раиси: О. И. Кодеревер Ши "Истиклол" МФЙ котиби-йиғилиш Котиби: Сонналова Каз

UMUMI

alle

циректори

TUMAN FILIALI SOVO

Ховос туман хокимлиги мутахассиси

Сирдарё вилояти "Тоза Худуд" ДУК Ховос тумани фили

№____-сон баённомасига илова

Йиғилиш иштирокчилари ва Ховос тумани Истиклол МФЙда куриладиган чикинди йиғиш пунктига энг якин жойлашган уй эгаларининг РЎЙХАТИ:

1. (ФИО, паспо relle 2. (ФИО, паспорт серия раками Mall 3. ila (ФИО, паспорт серия раками) 4. (ФИО, паспорт оия раками) 5. 0 (ФИО, паспо серия раками) 6. (ФИО, паспорт серия раками) reebo. 7. (ФИО, паспорт серия раками) DI Cerp. 8. (ФИО, паспорт серия раками) 9. (ФИО, паспорт серия раками) 10. (ФИО. раками) 11. (ФИО, паспорт серия раками) 11 12 ell (ФИО, паспорт серия раками)

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Ховос тумани "Тинчлик" махалла фукаролар йиғинининг умумий мажлиси

БАЁНИ №_____

<u>"14" январь</u> 2022й.

"Тинчлик" МФЙ

Йигилиш ранси: D. Исланова

Иштирок этган фукаролар _____ киши

КУН ТАРТИБИ:

Ховос тумани "Типчлик" МФЙ худудида Осиё тараккиёт банки кредит маблағлари хисобидан қуриладиган янги чиқинди йиғиш пунктларининг қурилишига ахолининг муносабати тўғрисидаги йиғилиш баёни

ЭШИТИЛДИ:

Йиғилишни Сирдарё вилояти "Тоза Ҳудуд" давлат унитар корхонаси Ховос тумани филиали директори <u>Исанов Шухрат</u>очиб бериб, йиғилишда иштирок этаётган манфаатдор томонлар вакилларини барчага таништирди.

Инвестициялар ва ташки савдо вазирлиги ташаббуси билан Ховос тумани "Тинчлик" МФЙ худудида Осиё тараккиёт банки кредит маблағлари хисобидан куриладиган янги чикинди йигиш пункти курилиши тўғрисида маълумот бериб, тайёрланган такдимот материалларини сўзлаб берди ва лойиха тўғрисида тарқатма флаерларни йигилиш иштирокчиларига такдим этди ва куйидагиларни билдирди:

Узбекистон Республикаси Вазирлар Маҳкамасининг 2020 йил 7 июлдаги "Осиё тарақкиёт банки иштирокида "Узбекистон Республикасида шаҳарларни ривожлантириш лойиҳаларини тайёрлашни молиялаштириш» лойиҳасини амалга ошириш чоратадбирлари ту̀ғрисида"ги карори ижроси сифатида амалга оширалаётган ушбу "Чиқинди йиғиш пунктларини қуриш" лойиҳаси туман аҳолиси саломатлигига ва атроф муҳит тозалигига ҳамда атроф муҳитга ҳам ижобий таъсири жиҳатидан муҳимлиги сабабли, ушбу лойиҳани амалга оширишни давом эттиришни ва қуллаб қувватлаш таклифларини ку́риб чиқилишини қун тартибидаги муҳим масала деб биламан.

Шундан сўнг, "Тинчлик" МФЙ раиси <u>Целалово</u> <u>Дилорон</u> га сўз берилиб, куйидаги фикрлар эшитилди:

Хурматли маҳалладошлар "Инсон кадрини 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 кўллаб кувватлашимизни жоиз деб биламан. Бугунги сизларни йиғишимиздан мақсад шуки, "Тинчлик" МФЙ ҳудудида "Чиқинди йиғиш пунктларини куриш" лойиҳасига ўз муносабатингизни билдиришингиздир. Шу муносабат билан, маҳалламизда тозаликка бўлган эътиборнинг яҳшиланиши, атроф муҳит муҳофазасининг яҳшилинишига ушбу лойиҳага ўз муносабатингизни билдиришингизни сураймиз.

Сўзга чикди: <u>Шожкошово Дилбер</u> (ФИО) махалла фаоли: президентимиз бежизга атроф мухитга, ахоли саломатлигига ва тадбиркорликни

ривожлантиришга алоҳида эътибор қаратаяптилар, бунинг сабаби ҳаммамизга маълумки биз ҳалҡнинг фаравонлигини таъминлаш мақсадидадир, демакки мен эътироз билдирмайман.

Сўзга чикди: <u>Жуласво Шопоах</u> (ФИО) махалла фукароси: мен ушбу чикинди йигиш пункти курилиши тушадиган якин хонадон эгаси сифатида ушбу лойихани амалга оширилишидан мамнунлигимни ва кўллабкувватлашимни хамда бу лойиханинг ташаббускорларидан миннатдорлигимни билдираман.

Сузга чикди: <u>Jorunolo</u> <u>Horne</u> (ФИО) мен, юкоридаги махалладошларимнинг сўзларига кўшиламан, чунки хозирги куннинг хар томонлама тўғри йўли бу атроф-мухит тозалиги ва одамларнинг саломатлигини мустахкамлаш ва бунга шароит яратиш бўлиб, давр талабига айланди.

Юқоридаги маърузалар ва таклифлар овозга кўйилди. Маҳалла фуқаролари томонидан "Чикинди йиғиш пунктларини куриш" лойиҳасига ташаббускорларга миннатдорчилик билдириб, лойиҳани давом эттириш бир овоздан маъқулланди.

Кун тартибдаги масала юзасидан йиғилиш

ҚАРОР ҚИЛАДИ:

- Ховос тумани "Тинчлик" МФЙ худудида "Чикинди йигиш пунктларини куриш" ва унинг фаолият юритишига махалламиз фукаролари каршилик курсатмасликлари инобатга олинсин.
- Йиғилиш иштирокчилари ва ушбу қурилиши мўлжалланган чиқинди йиғиш пунктларини қуришга яқин жойлашган ҳудудларда истиқомат килувчи фукаролар розиликлари рўйхати иловага мувофик тасдиклансин.
- Ушбу қарорни назорат қилиш Сирдарё вилояти "Тоза Ҳудуд" ДУК Ховос тумани филиали, курилишга масъул буюртмачи ва жалб қилинадиган пудрат ташкилоти зиммасига юклатилсин.

"Тинчлик" МФЙ раиси- йигилиш Раиси: NCHLIK» "Тинчлик" МФЙ котиби-йигилиш Котиби: Ховос туман хокимлиги мутахассиси 10000 Сирдарё вилояти "Тоза Худуд" ДУК Ховос тумани филиали директори

№____-сон баённомасига илова

Йиғилиш иштирокчилари ва Ховос тумани Тинчлик МФЙда қуриладиган чиқинди йиғиш пунктига энг яқин жойлашган уй эгаларининг РЎЙХАТИ:

1. Aco 105 11119 (ФИО, г аками) аспорт серия р Соликоеронево (ФИО, паспорт серия раками) 2.

- 3. <u>Поршатова Сохиба</u> (ФИО, паспорт серия раками)
- 4. Косилово Надиса (ФИО, паспорт серия раками)
- 5. <u>Расулова Рогса</u> (ФИО, паспорт серия раками)
- 6. Косильва Лолида (ФИО, паспорт серия раками)
- 7. <u>Ахинорова Шопра</u> (ФИО, паспорт серия раками)
- 8. <u>Хабибулгава Ушида</u> (ФИО, паснорт серия раками)
- 9. Карилиява Санобар (ФИО, паспорт серия раками)
 - (ФИО, паспорт серия раками)
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 - (ФИО, паспорт серия раками)

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Attachment 5: Record of public consultations (Meeting List, Protocols with official agencies, List of the participants and photos from meetings)

Meeting List

Name/Surname of Specialists		Position / Place of work	Contacts		
	•	Khiva City			
1	Babaev Khamidjon Atabayevich				
2	Ilkhombek Bobozhonov	Environmental Inspector of Khiva			
3	Arslon Ernazarov	Chief Engineer, Toza Hudud Regional			
4	Mardon	Khiva Khokimiyat Head of Laboratory of Khoresm ASEWB			
5	Alisher				
		Yangiyer City			
6	Nurbek Kurbanov	Deputy Mayor on Investment issues			
7	Hayot Shodmonkulov	Head of City Department of Environmental Protection			
8	Bakhrom Hudayberdiyev	Head of Toza Hudud			
9	Olimjon	Accountant of Toza Hudud			
	· · · · ·	Havast City			
10	Uchkun Kamolov	the Mayor of Havast district			
11	Zokirjon Babayev				
12	Bekzod Berdiyev				
13	Khakim Mallayev	Deputy Mayor of Havast district on Investment issues, IUDP responsible			
14	Saydullo Khayrolloyev	Investment department			
		Gulistan city			
15	Feruza Tulkinovna	Head of Laboratory of Syrdarya ASEWB (former SES)			
		Djizzakh city			
16					
17					
18					
19	Djamshid Khasanov	Head of City Department of Environmental Protection			
20	Nosir Eshkobilov	Senior Specialist of City Department of Environmental Protection			
21	Bunyed	Deputy Director of Toza Hudud			
22	Ramzitdin	Chief accountant of Toza Hudud			
23	Ulugbek	Head of Sharof-Rashidov dumpsite			
24	Ulugbek	Head of Laboratory of Djizzak ASEWB (former SES)			
25	Sherzod	Laboratory Assistant Djizzak ASEWB			
26	Akhmad	Chief Physician of Djizzak ASEWB			

General Questions raised during the official meetings (Brief Protocols)

SCEEP (local branches in project cities)

- Discussion of environmental aspects and major issues related to landfills in project cities (Yangiyer/Havast, Khiva, Djizzak);
- Preparation of national environmental documentation (Draft EIS) and appropriate definition of categories of subprojects in accordance with the environmental legislation of the Republic of Uzbekistan.

Agency's for Sanitary and Epidemiological Well-being (ASEWB) branches in the project cities

- Discussion of conducting the environmental monitoring on noise level, air, water, soil, ground water pollution in the indicated monitoring points in all subprojects' locations;
- Joint site visits with the local representatives of ASEWB for conducting the environmental monitoring.

Subprojects cities Khokimiyats and Mahallas Committees

- Discussion of main aspects related to subprojects in project cities (Yangiyer/Havast, Khiva, Djizzak);
- Discussion of organizational moments in preparation of Public Consultations on subprojects.

Registration Lists

Djizzak

Общественные консультации по проекту «Проект комплексного развития городов при содействии Азиатского банка развития»

СПИСОК УЧАСТНИКОВ КОНСУЛЬТАЦИИ

Дата: 14 Января, 2022 год

Место проведения: Джизакская область, город Джизак

1

#	Ф.И.О. / To'liq ismi sharifi	Организация / Tashkilot	Название махалли / Mahalla nomi	Занимаемая должность / Lavozim	Подпись / Imzo
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2	Orenado Marorerggen	/	K	queuas Sourcerza	All
3	In weget Dy week	1020 KYRY (904)	×	Dupertop	July
4	Agagob Kauceugger	burnegs Sreno-	<i>y</i>	Byruse Ecenter 24	Ame
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6				\$5	
7					
8					

Khiva

Общественные консультации по проекту «Проект комплексного развития городов при содействии Азиатского банка развития»

СПИСОК УЧАСТНИКОВ КОНСУЛЬТАЦИИ

Дата: 10 Февраля, 2022 год

Место проведения: Хорезмская область, город Хива

#	Ф.И.О. / To'liq ismi sharifi	Организация / Tashkilot	Название махалли / Mahalla nomi	Занимаемая должность / Lavozim	Подпись / Imzo
1	Doursel Jourger	11032 × 1848	BURSOH	Jorges	Jand
2	Karlo unggun	Shela Tyrean Acore 20 2 5 genum	Breton upi	Dabilar Wilnikropy.	Hour
3	Jyzuerola Jysuoj	0	_1/_		Pille
4	Асупова Санобар		_ // _		JOBY
5	Роганива Ошиакон				Cele'
6	Jocepho ba Maesar		- 11 -	5.	Refer
7	Kazmonoso Mollojo	P	- 1/ -		
8	Rymoreba Huismon		- 11-		Hard

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#	Ф.И.О. / Toʻliq ismi sharifi	Организация / Tashkilot	Название махалли / Mahalla nomi	Занимаемая должность / Lavozim	Подпись / Imzo
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Photos Public Consultation and distribution of leaflets



February 2022



February 2022



Meeting with Djizzak SCEEP branch representatives (August 2021)



Meeting with Djizzak SES representatives (August 2021)



Meeting with Syrdarya SES representatives (August 2021)



Meeting with Khorezm SCEEP branch representatives (November 2021)