

# Environmental Monitoring Report

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#16 Semestral Report  
Reporting period: July – December 2023  
Project Number: 45366-004

First draft: 01 February 2024  
Second draft: 01 April 2024  
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## UZB: Solid Waste Management Improvement Project (SWMIP)

Loan No. 3067-UZB  
(Financed by the Asian Development Bank)

Prepared by the State Unitary Enterprise “Maxsustrans” for Tashkent Municipality, State Committee of the Republic of Uzbekistan of Ecology and Environment Protection (SCEEP)<sup>1</sup>, and the Asian Development Bank (ADB)

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<sup>1</sup> According to Decree of the President of Uzbekistan No. UP-81 from 31.05.2023 SCEEP was reorganized into the Ministry of Ecology, Environmental Protection and Climate Change of the Republic of Uzbekistan (the Ministry), <https://lex.uz/ru/docs/6479185>



# **Solid Waste Management Improvement Project**

**ADB Loan No.: 3067-UZB**

**PROJECT MANAGEMENT, IMPLEMENTATION AND SUPERVISION  
CONSULTANCY SERVICES**

**Contract No.: SUE/Maxsustrans/QCBS-Cons\_1-2016-01**



## **Semi-Annual Environmental Monitoring Report**

**Reporting Period: July – December 2023**

**CLIENT – IMPLEMENTING AGENCY**

**State Unitary Enterprise (SUE) “MAXSUSTRANS” (Uzbekistan)**

**PIU SUPPORT CONSULTANT**

**Infratech Consulting SDN Ltd. (Uzbekistan)**

## CURRENCY EQUIVALENTS

(As of 31 January 2024)<sup>2</sup>

Currency unit	-	Sum (SUM)
SUM1.00	=	\$0.0000805
\$1.00	=	SUM 12,430.05

## ABBREVIATIONS

ADB	Asian Development Bank
AP	Affected people
BER	Bid Evaluation Report
CDP	Corporate Development Program
CSC	Construction Supervision Consultant
EHS	Environmental Health & Safety
EIA	Environmental Impact Assessment
EIP	Environmental Impact Permit
EMP	Environmental Management Plan
GoU	Government of Uzbekistan
GRM	Grievance Redress Mechanism
IEE	Initial Environmental Examination
LARP	Land Acquisition and Resettlement Plan
Maxsustrans	State Unitary Enterprise “Maxsustrans”
Ministry	Ministry of Ecology, Environmental Protection and Climate Change of the Republic of Uzbekistan
MSW	Municipal Solid Waste
PIU	Project Implementation Unit
SCEEP	State Committee of Ecology and Environment Protection of the Republic of Uzbekistan
SLF	Sanitary Landfill Facility
SPS	Safeguard Policy Statement
SEMP	Site-specific Environmental Management Plan
SWM	Solid Waste Management
SWMIP	Solid Waste Management Improvement Project

## NOTE{S}

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<sup>2</sup> [Foreign Exchange \(www.cbu.uz\)](http://www.cbu.uz)

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## **1 INTRODUCTION**

### **1.1 Preamble**

1. As per the Loan and Project Agreements for the L3067-UZB: Solid Waste Management Improvement Project (SWMIP), State Unitary Enterprise (SUE) “Maxsustrans” and Project Implementation Unit (PIU) are bound to ensure that: (i) the project is constructed and operated in accordance with the national and local environmental regulations and guidelines, ADB's Safeguard Policy Statement (2009) and the Initial Environmental Examination (IEE) report; (ii) any adverse environmental impacts arising from the construction and operation of the project facilities are minimized by implementing the mitigation measures as per the environmental monitoring program and other recommendations presented in the IEE report; and (iii) the implementation of the Environmental Management Plan (EMP) and violations of safety or environmental standards, if any, be regularly reported to Asian Development Bank (ADB).

2. This is the 16<sup>th</sup> Semi-Annual Environmental Monitoring Report (SAEMR) for the Solid Waste Management Improvement Project and covers July – December 2023 reporting period. This SAEMR describes the implementation of the environmental monitoring and mitigation measures recommended in the IEE, analyzes environmental data collected from the projects during the period of July - December 2023, and provides recommendations for resolving identified issues.

3. To be more specific, this SAEMR covers the following areas: (i) documentation review and compliance assessment with the applicable environmental regulations, (ii) environmental management institutional structure and responsibilities, (iii) mitigation measures undertaken to minimize adverse environmental impacts arising from the construction, (iv) environmental monitoring results and analyses, and (v) conclusions and recommendations.

4. The Government of Uzbekistan (GoU) took tough measures against COVID-19 and has taken all necessary preventive measures to prevent the spread of coronavirus infection since March 2020. In particular, all transport communication and public activities have been limited or prohibited. Tashkent city and other regions went into quarantine mode, and most companies, organizations, and institutions were transferred to remote work. In the reporting period, the restriction measures due to COVID-19 have been cancelled in Uzbekistan. However, it is recommended to use masks in public places.

### **1.2 Headline Information**

5. An overall progress of construction works on SLF about 88% under the contract CW1 for Sanitary Landfill Establishment by the end of the reporting period. Construction work began on April 8, 2022 and should be completed on September 30, 2023. Due to objective reasons (weather conditions, high groundwater level, etc.) of delay in the construction of a Sanitary landfill, it was decided to extend the completion of the contract until June 2024.

6. Construction works has been finalized and commissioned under the contract CW2 for Transfer Station Rehabilitation by the end of the August 2022. The transfer stations have been put into operation since September 2022 and operated by SUE “Maxsustrans”.

## 2 PROJECT DESCRIPTION AND CURRENT ACTIVITIES

### 2.1 Project Description

7. The GoU has applied for a loan from the ADB for the development and improvement of the Solid Waste Management (SWM) system of the capital city Tashkent. ADB approved the project on 27 November 2013 with a loan amount of \$69.0 million from its ordinary capital resources. The loan reference number is L3067-UZB: Solid Waste Management Improvement Project (SWMIP). The Loan Agreement was signed between the Republic of Uzbekistan and ADB on 27 February 2014, and the Project Agreement was signed between ADB, Tashkent City Municipality and the SUE “Maxsustrans” on 12 March 2014. The Loan Agreement became effective on 29 December 2014 and comprises **Part A** – National Municipal Solid Waste Strategy and **Part B** – Solid Waste Management in Tashkent city.

8. The overall objective of SWMIP is to provide an improved SWM system in Tashkent, the capital city, to upgrade urban infrastructure and services. The project’s impact is improved urban environment and quality of life for the residents of Tashkent. The expected outcome is improved SWM services and management in Tashkent. The project has three outputs: **output 1** - rehabilitated and expanded SWM system in Tashkent; **output 2** - strengthened operational capacity; and **output 3** - national SWM strategy. Tashkent City Municipality is the Executing Agency for the outputs 1 and 2, with the State Committee of Uzbekistan of Ecology and Environment Protection (SCEEP)<sup>3</sup> being the Executing Agency for output 3. Maxsustrans is the Implementing Agency responsible for the day-to-day project implementation.

9. The total project cost is \$76.3 million equivalent (of which ADB loan amount is \$69.0 million and GOU contribution - \$7.30 million), inclusive of tax and customs duty exemptions, and financial charges during implementation covered by the GOU. The project finances:

- ❖ procurement of waste collection trucks and transportation of municipal solid waste;
- ❖ procurement of equipment and machinery for the sanitary landfill;
- ❖ procurement of waste bins for waste collection points and containers for transportation of solid waste;
- ❖ construction and rehabilitation of waste collection points;
- ❖ rehabilitation of two transfer stations in the city of Tashkent;
- ❖ rehabilitation of two garages of Maxsustrans;
- ❖ closure of an existing landfill solid waste dumpsite;
- ❖ construction of a new sanitary landfill;
- ❖ preparation of a draft national strategy for the management of solid waste, including a draft sector investment program;
- ❖ capacity development support for Maxsustrans, including in the areas of operation and management and Project implementation; and
- ❖ development and implementation of a waste minimization and recycling program and a parallel media and public awareness campaign about waste minimization and recycling.

10. However, the “Construction and rehabilitation of waste collection points” was financed by Maxsustrans own funds and the “Closure of existing dumpsite” is financed by Sejin G&E Co. Ltd. Company (Republic of Korea), for details please refer to the next chapter below. Therefore, these components are no longer part of the Project.

11. Originally, the project was designed for five years of implementation with a loan closing date of 30 June 2019. On 17 December 2018, ADB approved a two-year loan extension with the revised

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<sup>3</sup> According to Decree of the President of Uzbekistan No. UP-81 from 31.05.2023 SCEEP was reorganized into the Ministry of Ecology, Environmental Protection and Climate Change of the Republic of Uzbekistan (the Ministry).

Loan Closing Date of 30 June 2021 to complete all ongoing contracts and planned civil works, delayed due to start-up delays (including ten months' delay in effectiveness) and procurement delays (the first contract was awarded in 2016 only) because of the Executing Agency's insufficient capacity and GoU's prolonged contract registration process.

12. Based on the letters of the Ministry of Finance of Uzbekistan (MoF) dated 26 March 2021 and 17 July 2021, on 23 July 2021, ADB approved a 30-months loan extension with the revised Loan Closing Date from 30 June 2021 to 31 December 2023 to ensure successful and timely completion of the project. This approval was provided by ADB on a post-facto-basis considering the GoU's commitment to strictly adhering to the time-bound action plan and mitigation measures submitted to ADB and to be implemented by Tashkent City Municipality, Maxsustrans, and PIU.

13. The project includes a new Sanitary Landfill Facility (SLF) development concept approach. This utilizes the planned SLF as an immediate and effective solution for Tashkent's waste disposal challenges, with the potential to progressively expand the facility to become a disposal solution that can serve a part of the Tashkent region over the long term. The proposed SLF concept is based on the Best Environmental Practices (BEP) resulting to a *state-of-the-art* design consistent with internationally acceptable standards.

14. The volume of the existing dumpsite is exhausted, and the original plan of the Tashkent City Municipality was to extend its dumpsite operations to an adjacent lot of additional 30 hectares (ha) of area. Being fully aware of the inevitable environmental impacts through the extension of this practice, the city asked the national government for assistance in this matter. Based on these activities, the Cabinet of Ministers of Uzbekistan approved in summer 2012 the location of a new landfill on 30 ha of agricultural area for waste disposal.

15. The GoU has allocated a 30-ha land plot immediately to the south of the existing Akhangaran dumpsite of which 25 ha for new sanitary landfill and 5 ha for auxiliary facilities. The new landfill has been designed in accordance with the internationally recognized environmental standards and considering the national construction and environmental norms and requirements. In the second half of 2019 the engineering design of the sanitary landfill and auxiliary facilities has been completed and a positive expert conclusion on the design documentation has been received from the local authority. According to local regulation any design for construction or reconstruction of a facility shall first be reviewed and confirmed by the responsive authority and after the Employer is entitled to conclude the works contract with the Contractor.

16. The GoU, through its Implementing Agency, the SUE "Maxsustrans" utilizes part of this loan proceeds towards the cost of the contract for Consulting Services related to Project Management, Implementation and Supervision, supporting the PIU.

## 2.2 Project Contracts and Management

17. Summary information on work contracts and the progress of physical work is presented in Table 1. All awarded contracts (CW2, CW4 and CW5) included EMP approved by ADB (For construction work on awarded contracts, environmental assessment was not required in accordance with national/local regulations. Since the quantity of work consists in the rehabilitation of existing structures/buildings, and construction work is carried out on the same territory without any expansion of the territory and negative impact on the environment, and since the original purpose of using rehabilitated structures/buildings has not been changed, the preparation of a local EIA was not required. For the CW1 contract (Establishment of a sanitary landfill), the contract includes a PIC approved by the ADB and the conditions for national approval of the EIA (paragraph 30 on page 12).



**Table 1: Summary of the Works contracts and their progress as per 31 December 2023**

Contractor	Scope	Signed Date	Approval Date			Name of personnel		Civil Works		Progress as of		Defect Liability Period	
			SSEMP	COVID-19 HSMP	ERP	Environmental Officer	Health and Safety Officer	Start Date	End Date	1 Jun 2023	31 Dec 2023	Start Date	End Date
CW1: JV «STECOL-POWERCHINA GUIYANG» (China)	Sanitary landfill establishment	31 Jan 2022	7 Jul 2022	7 Jul 2022	7 Jul 2022	Ms. Yuliya Gnedina	Ms. Aytbike Yusupova	8 Apr 2022	(30 June 2024)	75.0%	88.0%	(1 Sept 2024)	(31 Aug 2025)
CW2: JV of Future Growth Ltd., VBN Engineering Ltd and Eastern construction Ltd. (Uzbekistan)	Transfer station rehabilitation	12 Apr 2021	Apr 2021	Apr 2021	Apr 2021	Mr. Nozimhon Saydullayev	Mr. Xasan Bashirov	1 May 2021	31 Aug 2022 <sup>4</sup>	100%	100%	1 Sept 2022	31 Aug 2023
CW3: <i>Cancelled</i>	Dumpsite closure												
CW4: Indigo Baraka Servis LLC (Uzbekistan)	Garage rehabilitation	7 Dec 2020	21 Dec 2020	21 Dec 2020	Jan 2021	Mr. Khabibulla Mukhtarov	Mr. Rakhmatilla Normatov	16 Dec 2020	31 Dec 2021 <sup>5</sup>	100%	100% <sup>6</sup>	1 Jan 2022	30 Jun 2023
CW5: Various local contractors	Construction and rehabilitation of waste collection points	Various contracts				n/a	n/a	Various dates	Various dates	100%	100%	N/A	N/A

*Notes:**The Month/Years in brackets are planned schedule.**COVID-19 HSMP = COVID-19 Health and Safety Management Plan, ERP = Emergency Response Plan, SSEMP = Site-Specific Environmental Management Plan*<sup>4</sup> Photos before and after rehabilitation of two Transfer Stations of Maxsustrans are provided in Appendix 8 of the report<sup>5</sup> Photos before and after rehabilitation of two District Garages of Maxsustrans are provided in Appendix 8 of the report<sup>6</sup> Post Construction Environmental Audit Reports (PCAER) after completion of civil works have been note submitted, because the scope of works was rehabilitation of existing facilities. However, a summarized PCEAR is scheduled for preparation and submission after completion of all works of the Project (approx. in Q4 2024)

18. The project is being administered by the PIU, which is currently represented by the Acting Head of PIU (Mr. Jamol Irbutayev appointed from 01.12.2023). Since March 1, 2023, an environmental specialist Mr. Akmal Begimkulov has been involved in the staff of the PIU (previously, the responsibilities of environmental specialist were assigned to the head of the PIU).

19. PIU has received an official letter from H.P. Gauff Ingenieure GmbH & Co. KG. dated 24 July 2020 about an order of the local court of Nuremberg on opening of insolvency proceedings according to German Law regarding H.P. Gauff Ingenieure GmbH & Co. KG. PIU has also received an official letter from H.P. Gauff Ingenieure GmbH & Co. KG. dated 17 September 2020 about a declaration of non-entry of the company in the contract No. SUE/Maxsustrans/QCBS-Cons1-2016-01.

20. Considering the necessity to continue the PIU Consultant services to ensure uninterrupted implementation of the Project, the obligations under the Contract No. SUE/Maxsustrans/QCBS-Cons 1-2016-01 were assigned to the local partner of the Joint Venture - Infratech Consulting SDN Ltd. (Uzbekistan). Maxsustrans has signed Amendment No. 5 to the contract on 9 December 2020 with extension of the Consultant's service until 30 June 2021.

21. As the Loan Closing Date was extended until 31 December 2023, by Amendment No. 6 dated 9 December 2021, the PIU Consultant services have been prolonged from 30 June 2021 until 31 December 2023. To strengthen the financial management and contract administration capacities of the Project, the Consultant's team was extended by two additional non-key national experts: Financial Management Specialist/Accountant and Contract Administration Specialist.

22. A full responsibility of the Consultant to perform this Contract against the Client is handed over to Infratech Consulting SDN Ltd. Mr. Dilshod Mavlyan-Kariev, national SWM Specialist/Deputy Team Leader is in charge in the overall project administration and reporting for the Project.

23. PIU Support Consultant has mobilized National Environmental Expert, Mr. Sergey Karandayev with input 14.00 per/mon on 01.07.2018 and to support him with field monitoring missions Assistant Mr. Akmal Begimkulov with input 3.88 per/mon has been mobilized on 18.04.2022. They both have total input 17.88 per/mon in the Project and are in charge of environmental safeguards monitoring and reporting, supervision over mitigation measures are implemented and reported properly.

On 31 January, 2023 the Assistant Mr. Begimkulov has resigned PIU Consultant team and since March 1, 2023 he working as the National Environmental Specialist of PIU for continuing the environmental safeguards monitoring and reporting of the Project. He will work until the end of December 2023, however, in case of the Project extension for the next year and availability of ADB loan funds Mr. Begimkulov will continue his tasks.

As per June 30, 2023, the remaining input of Mr. Karandaev is 0.34 per/mon. During the reporting period he performed overall monitoring and contributed in the semiannual monitoring reports. Considering work employment of Mr. Begimkulov by PIU and his experience in monitoring and reporting, the small remaining input of Mr. Karandaev for his tasks shall be sufficient until the end of civil works in SLF (December 2023). In case of the Project prolongation for the next year and availability of ADB loan funds the input of Mr. Karandaev will be respectively extended as well. At the time of December 30, 2023, Mr. Karandaev had spent the remaining input of 0.34 person/month. Due to the extension of the contract, it was decided to add 1 person/month, which will be enough to complete the contract.

24. Maxsustrans has recruited China Urban Construction Design & Research Institute Co., Ltd. (CUCD) as Lead Consultant for SLF Design and Construction Supervision Services (Contract Cons\_2). The design services of CUCD commenced in December 2018 and completed in September 2019. Based on the detailed design of the sanitary landfill and dumpsite closure works, prepared by CUCD, Maxsustrans has launched the bid under the package CW1 – Establishment of Sanitary Landfill and Dump Site Closure in October 2019. The package was retendered in October 2021 due to excluding the

dumpsite closure works upon decision of the Government. The civil works under the contract CW1-R commenced on 8 April 2022, the supervision services of CUCD under the contract Cons\_2 were effective since 5 May 2022 and continue for 18 months. On 25 April 2022, Maxsustrans signed with CUCD the Amendment No. 3 to the Contract Cons\_2 extending the service period until 31 October 2023 covering the procurement support and works/design supervision services during SLF construction (contract CW1-R). CUCD acting as the “Engineer” under the contract CW1-R and also monitoring of compliance with the safeguard issues. Mr. Mingtao Nie is an international environmental specialist of CUCD with the total input of 3.0 per/mon for the supervision phase, who was re-mobilized in May 2022. He is available until the end of the supervision phase (October 2023 as per Contract)<sup>7</sup>.

25. According to the revised Terms of Reference (TOR), CUCD will monitor the implementation of Site-Specific Environmental Management Plan (SSEMP) prepared by the Contractor according to the requirements of the national Environmental Impact Assessment (EIA = the Russian abbreviation “ZVOS”) and the Environmental Management Plan (EMP) cleared by ADB as part of the Project’s Initial Environmental Examination (IEE) dated May 2013<sup>8</sup> <https://maxsustrans.uz/project/dokumenty-po-proektu>.

26. After finishing the SLF design by CUCD, the EIA according to local format and requirements has been ordered by Maxsustrans and a positive conclusion of the State Ecological Expertise to the updated EIA has been obtained on 9 March 2022. The local EIA is available on the website of Maxsustrans <https://maxsustrans.uz/uz/project/regulyarnye-otchety>.

27. The main stakeholders of the Project related to environmental safeguards are presented in Table 2.

**Table 2: Environmental Safeguards Personnel**

Stakeholder	Organization / Firm	Title	Name	Email address
<b>Executing Agency</b>	Tashkent City Municipality (EA-TCM)	First Deputy Mayor	Mr. Bakhtiyor Rakhmanov	<a href="mailto:b.raxmonov@tashkent.uz">b.raxmonov@tashkent.uz</a>
<b>Implementing Agency</b>	State Unitary Enterprise “Maxsustrans” (IA-Maxsustrans)	Director	Mr. Komoliddin Nabiev	<a href="mailto:maxsustrans@inbox.ru">maxsustrans@inbox.ru</a>
		Deputy Director	Mr. Mirjamol Soatov	<a href="mailto:maxsustrans@inbox.ru">maxsustrans@inbox.ru</a>
<b>IA’s PIU</b>	State Enterprise “Solid Waste Management Improvement Project Implementing Unit” (PIU)	Acting Head	Mr. Jamoliddin Irbutaev	<a href="mailto:piu3067@gmail.com">piu3067@gmail.com</a>
		Environmental Specialist	Mr. Akmal Begimkulov	<a href="mailto:akmal-begimkulov@mail.ru">akmal-begimkulov@mail.ru</a>
<b>PIU Support Consultant</b>	Infratech Consulting SDN Ltd. (ITC)	Deputy Team Leader	Mr. Dilshod Mavlyan-Kariev,	<a href="mailto:dilshod75@mail.ru">dilshod75@mail.ru</a> <a href="mailto:infratech_consulting@asia.com">infratech_consulting@asia.com</a>
		Environmental Specialist	Mr. Sergey Karandaev	<a href="mailto:infratech_consulting@asia.com">infratech_consulting@asia.com</a>
<b>Landfill Design and Supervision Consultant</b>	China Urban Construction Design & Research Institute Co. Ltd. (CUCD) with sub-consultants Uzagrosanoatloyiha Ltd. and Mail Engineering Ltd.	Project Director	Mrs. Yuwei Xue	<a href="http://icc@cucd.cn">icc@cucd.cn</a> <a href="mailto:cucdconsulting@163.com">cucdconsulting@163.com</a>
		Environmental Specialist	Mr. Mingtao Nie	<a href="mailto:hjpmo@163.com">hjpmo@163.com</a>

28. The role of each agency in the project is presented in Table 3.

<sup>7</sup> Environmental monitoring and reporting and the required PCAERs after the completion of civil works will be continued by environmental experts of PIU & PIU Consultant that would avoid overlapping the tasks among environmental experts of the Project.

<sup>8</sup> IEE link: <https://maxsustrans.uz/project/dokumenty-po-proektu>

**Table 3: Role of Agencies towards EMP Implementation**

Agency	Role
<b>Project Implementation Unit (PIU)</b>	<ul style="list-style-type: none"> <li>• Holds overall responsibility with regards to EMP Implementation</li> <li>• Report to various stakeholders (ADB, Regulatory bodies) on status of EMP Implementation</li> <li>• Coordinate with Environmental Experts (PIU Consultant, Contractors and External Monitors)</li> <li>• Responsible for obtaining Regulatory Clearances</li> <li>• Review of the progress made by Contractors</li> <li>• Ensure the BoQ items mentioned in EMP are executed as per contract provisions</li> </ul>
<b>PIU Support Consultant</b>	<ul style="list-style-type: none"> <li>• Assist PIU in monitoring of overall implementation of EMP</li> <li>• Review of periodic reports on EMP implementation and advising PIU in taking corrective measures</li> <li>• Conduct periodic field inspection of EMP implementation</li> <li>• Assist PIU and reporting to various stakeholders (ADB, Regulatory bodies) on status of EMP implementation</li> <li>• Conduct environmental training for field officers and engineers of contractor</li> </ul>
<b>Design and Supervision Consultant – Engineer</b>	<ul style="list-style-type: none"> <li>• Supervise the implementation of the environmental protection and impact mitigating measures by the contractors</li> <li>• Supervise construction activities to ensure minimum impact on the natural and socioeconomic environment</li> <li>• Regularly monitor and report on performance of the Contractor(s) environment staff, verifying monitoring methodologies and results</li> <li>• Review of the construction design to ensure compliance with project engineering design and the EMP with regards to environmental protection and impact mitigation</li> <li>• Prepare the necessary remedial actions for any unforeseen impacts</li> <li>• Instruct the Contractor(s) to take corrective actions within timeframe as determined by the Environmental Specialist</li> <li>• Address complaints related with environmental aspect of the project through GRM</li> <li>• Provide trainings to the Contractor regarding the implementation of the safeguard activities and plans on the construction site</li> <li>• Contribute to the final report on safeguard aspects upon completion of construction</li> </ul>
<b>Contractor</b>	<ul style="list-style-type: none"> <li>• Responsible for development of Site-specific Environmental Management Plan (SSEMP)</li> <li>• Responsible for ensuring the implementation of SSEMP as per provisions in the document</li> <li>• Discuss various environmental / social issues and environmental / social mitigation, enhancement and monitoring actions with all concerned directly or indirectly</li> <li>• Ensure environmentally sound and safe construction practices</li> <li>• Conduct periodic environmental and safety training for contractor’s engineer, supervisors and workers</li> <li>• Sensitize on social issues that may be arising during the construction stage of the project</li> <li>• Conduct environmental monitoring and control activities including pollution monitoring, safety</li> <li>• Prepare and submit monthly reports on status of implementation of safeguard measures</li> <li>• During the COVID-19 pandemic, ensure necessary protection to the deployed workforce and minimize the risk of spread of infection.</li> </ul>

29. During the civil works under the contract CW1-R, the Design and Supervision Consultant is responsible for approval and monitoring of implementation of SSEMP by the Contractor and regularly report to PIU/Employer on compliance with the safeguard requirements of the Project. The PIU Support Consultant is responsible for overall monitoring of all Supervision Consultants and Contractors involved under the Project at implementation of their safeguard compliance tasks and responsibilities and reporting based on monitoring results.

### 2.3 Project Activities During the Reporting Period

30. The status of the Works contracts of the Project is as follows:

- (i) Contract CW1 – Sanitary Landfill Establishment: The Contractor – JV «STECOL-POWERCHINA GUIYANG» (China). The contract’s value is \$15.69 million, and the Contract signing date was 31 January 2022. The contract CW1 experienced significant delay compared to the original implementation schedule of the Project due to the delayed selection of the Contractor during

2019 and 2020. Civil works commenced on 8 April 2022 and construction completion as per current Contract is scheduled by 30 September 2023. The construction period extended by 9 months, until 30 June 2024.

- The number of workers and drivers of earthmoving equipment and trucks involved in the reporting period was at least 8 people and no more than 20 people. This number of workers and drivers will be increased depending on the progress of physical work in the next period.
- Implementation of protective measures plans (SSEMP, SAP/GAP and SSHSMP [SSHSMP – Occupational Health and Safety Management Plan for specific facilities; HS-C19 Plan – COVID-19 Health and Safety Plan], including HS-C19 plan);
- Before the start of construction work, provide working personnel with a workroom, etc.;
- Installation of the Project scoreboard, protective fencing and warning signs on the site;
- Earthworks, moving of soil inside the new landfill, removal of surface soil with a thickness of 50 cm;
- Brickwork of the walls of the administrative building;
- Purchase of construction materials and fuel;
- Filling of the concrete patch of the upper part of the landfill from the administrative building.
- Laying of geotextile
- Installation of a mesh fence around a Sanitary Landfill

Below are photographs on the main construction activities of the Contractor CW1 within the reporting period:



Pic. 1 Safety fence and warning sign (10.09.2023)



Pic. 2 Protective tapes (05.11.2023)



Pic. 3 Passport of the facility, a box for complaints and recommendations for the public (27.06.2023)



Pic. 4 Earthworks in the administrative area (28.07.2023)



Pic. 5 Earthworks in the lower part of the facility (23.07.2023)



Pic. 6 Brickwork of the walls of the administrative building (14.08.2023)



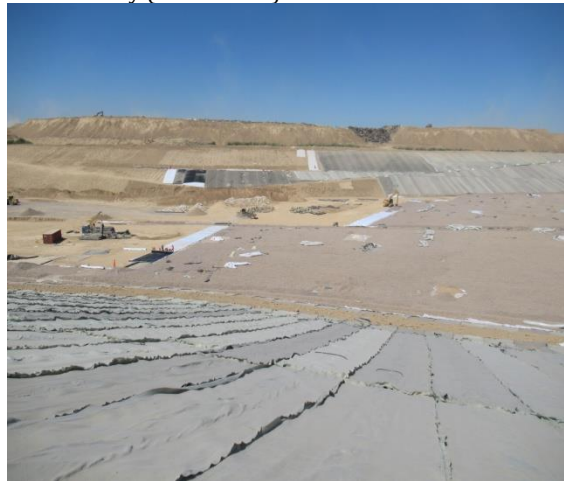
Pic. 7 Installation of a mesh fence (27.06.2023)



Pic. 8 Pouring a concrete pallet in the administrative part of the facility (09.06.2023)



Pic. 9 Filling foundation of administrative building (09.06.2023)



Pic. 10 Laying geotextiles (09.06.2023)

**Table 4: Ongoing Contracts of the Project No. L3067-UZB**

No. and Name of Contract	Category (works, goods or services)	Contract amount (US\$)	Contract completion
C1: PIU Support Consultant	Services	2,410,000.00	31-Dec-23*
C2: Sanitary Landfill Design & Supervision Consultant	Services	2,332,650.00	31-Oct-23*
C7: Transfer Station Design and Supervision Consultant	Services	81,600.00	31-Aug-22
CW1: Sanitary Landfill Establishment	Works	15,691,566.66	30-Jun-24
CW2: Transfer Station Rehabilitation	Works	6,982,746.00	31-Aug-22

\* - Also the extension planned for the C1: PIU Support Consultant by 12 months - until 31 December 2024, and for the C2: Sanitary Landfill Design & Supervision Consultant by 13 months - until 30 November 2024

## 2.4 Description of Any Changes to Project Design

31. No changes to the project design during the reporting period. According to the GoU decision No. 895 dated 01.11.2018 on realization of investment project for producing biogas from waste, the closure of the existing dumpsite located in Akhangaran district of Tashkent region will be implemented by the Korean company Sejin G&E Co. Ltd. Thus, the dump site closure component upon the official request of the Ministry of Finance of Uzbekistan sent to ADB in 2021 was excluded from the Project. The dumpsite closure works and installation of new equipment is scheduled by the Korean company for 2023.

## 2.5 Description of Any Changes to Agreed Construction Methods

32. No further changes to agreed construction methods took place within the reporting period.

33. The works package “Construction and rehabilitation of municipal solid waste collection points” was financed by Maxsustrans own funds and all works have been completed within 2015-2019.

### 3 ENVIRONMENTAL SAFEGUARD ACTIVITIES

#### 3.1 General Description of Environmental Safeguard Activities

34. During the reporting period, there were no changes in the organizational structure of the project. The PIU Support Consultant has supervised and monitored the overall project implementation process. However, the safeguard monitoring and reporting task related to the SLF site (contract CW1-R) will be performed by the SLF Supervision Consultant (CUCD). PIU Consultant will use data of the safeguard monitoring reports from SLF Supervision Consultant for the preparation of the SAEMRs covering the safeguard issues of the whole project.

35. Most of the environmental monitoring requirements are for the construction period of project site. At the construction stage, the Contractor's site engineer is responsible for the preparation and submission of monthly environmental supervision reports. Meanwhile, the PIU is responsible for the monitoring of environmental parameters and preparing environmental results reports. The National Environmental Specialist of PIU Support Consultant is responsible for assistance to PIU in compiling the environmental monitoring reports.

36. Monitoring and reporting of the project will be conducted prior to construction, during construction and operation. The PIU shall monitor the performance and implementation of the EMPs. Monitoring reports on the performance and in implementing the EMPs, shall be prepared prior to construction (detailed engineering design and procurement stages), during construction and during project operation, as follows: (i) monthly progress reports; and (ii) quarterly monitoring reports to be submitted to ADB. The monitoring report/s shall also document the relevant environmental aspect and its respective mitigation measure, as well as grievances received and resolved, if any.

37. Prior to commencement of any construction work, Contractor(s) have to submit SSEMPs and compliance report to PIU ensuring that all identified impacts detailed in the environmental assessment have been undertaken. The PIU will review and approve the SSEMPs submitted by Contractor(s).

38. During the current reporting period (July - December 2023), the activities undertaken by the Project's environmental personnel include:

- (i) National Environmental Specialist of PIU Support Consultants (Mr. Sergey Karandaev):
  - monitor and report on environmental safeguard issues since August 2017 up to date,
  - liaise with the Client (Maxsustrans), the Contractor (CW1-R) and the Supervision Consultant (CUCD),
  - cooperation work with PIU environmental specialist Mr. Akmal Begimkulov,
  - conduct the site inspections on project sites where construction works are ongoing (new sanitary landfill in Akhangaran district of Tashkent region),
  - propose corrective measures when issues identified on the site.
- (ii) Environmental Specialist of PIU (Mr. Akmal Begimkulov):
  - perform monitoring and reporting on environmental issues,
  - organize and conduct on-site inspections at project sites where construction work is underway (a new landfill located in the Akhangaran district of Tashkent region)
  - prepare notification letters and inspection visit reports to Contractors,
  - tracking mitigation and corrective measures on site by Contractors,
  - liaise with the Client (Maxsustrans), the Contractor (CW1-R) and the Supervision Consultant (CUCD).



- (iii) International Environmental Specialist of SLF Supervision Consultant (Mr. Mingtao Nie):
- Update the EMP for the construction of the sanitary landfill,
  - Review the Contractor’s site-specific environmental management plan (SSEMP) and propose suggestions for improvement;
  - Monitor the implementation of SSEMP by the Contractor CW1-R and report to Maxsustrans/PIU,
  - Review the Contractor’s monthly EMRs,
  - Prepare quarterly EMPs based on the Contractors’ monthly EMRs and submit to Maxsustrans / PIU,
  - Coordinate with other environmental specialists who participate in the project.

The following chart presents the task distribution agreed by the environmental specialists of PIU Consultant, Supervision Consultant and Contractor after the training for environmental safeguard issues on 10 June 2022, which is still in use today:

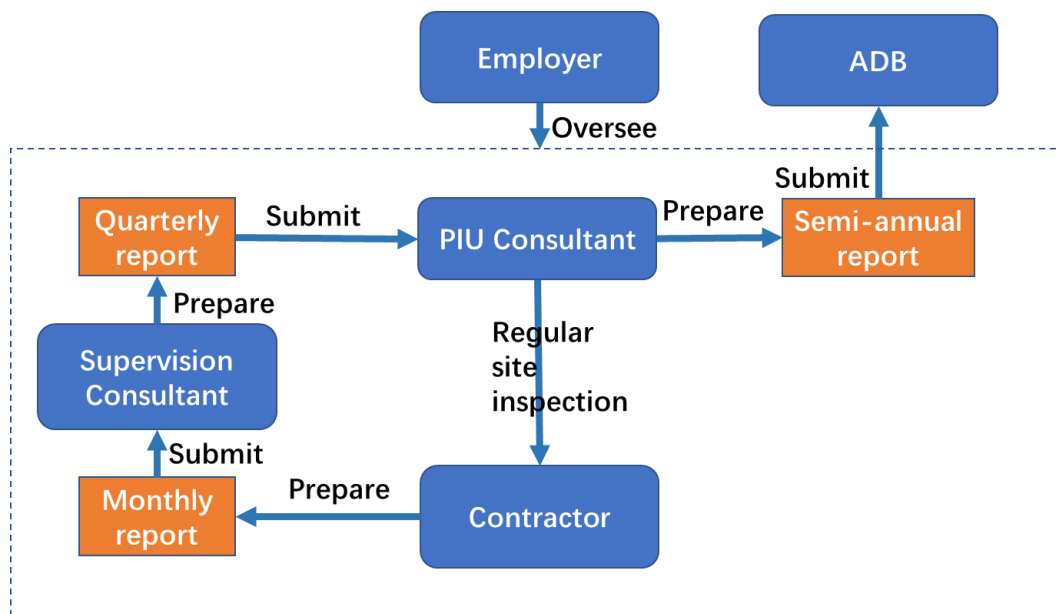


Figure 1: Task Distribution Scheme

39. During the reporting period (July - December 2023), the activities undertaken by the Contractors’ environmental personnel include:

- Compliance with the SSEMP and Site Specific Health and Safety Management Plan (SSHSM) including the Health and Safety COVID-19 Plan (HS-C19 Plan),
- Prepare monthly EMRs,
- Keep the records and maintain the statistics on environmental safeguard issues,
- Weekly visits to the construction site for monitoring the compliance with the requirements of the SSEMP,
- Conduct trainings for staff on environmental safeguard issues,
- Propose corrective measures when problems identified on the site, removal of identified comments issues by the environmental specialists of the Project, construction and design supervision engineers,
- Liaise with the Employer (Maxsustrans) and the Supervision Consultant (CUCD).

### 3.2 Site Audits

40. During the monitoring period, Mr. Akmal Begimkulov - Environmental specialist of PIU conducted the following site audits for monitoring the compliance with environmental, health and safety (EHS) on project sites where construction works are ongoing:

**Table 5: Site inspections**

Date of visit	Name of Expert	Purpose of inspection	Contractor	Reference to the inspection report
09.06.2023	Akmal Begimkulov	Compliance review on occupational health, safety and environmental protection	CW1R, Joint venture "STECOL-POWERCHINA GUIYANG" (China)	Site visit report with inconsistencies and recommendations
27.06.2023	Akmal Begimkulov			
14.08.2023	Akmal Begimkulov			
27.09.2023	Akmal Begimkulov			
28.11.2023	Akmal Begimkulov			
22.12.2023	Akmal Begimkulov			

At the landfill site, the Contractor laid a temporary road for the removal of excavated soil from the landfill site, installed protective fences and warning signs along the access road and the excavation site. The Contractor and his Subcontractor organized a temporary camp with the necessary support and security facilities for the staff, including meals and meeting places.

According to the construction schedule, the construction of an administrative building has begun, and excavation works with the transportation of soil are continuing with the involvement of construction equipment, trucks and personnel of a local subcontractor. The contractor has implemented measures to protect personnel during construction work. A safety specialist is constantly present at the contractor's facility.

#### Contract CW1(R) – Sanitary Landfill Establishment (construction ongoing):

Earth works and laying the liner system were the main activities of the Contractor CW1 for the reporting period, the Contractor continued to implement the EHS measures according to SSEMP and employed the EHS officers.

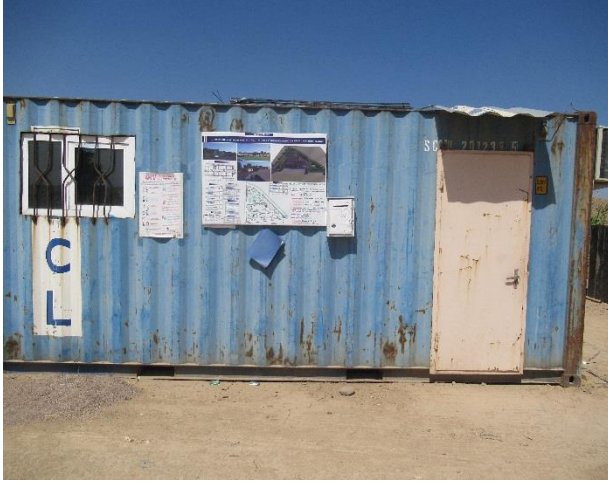
The following photo documentation was made during the site audits for the reporting period:



Pic. 1 Entrance to the new landfill (06.06.2023)



Pic. 2 Installed barriers, road signs and warning signs around the Site (06.06.2023)



Pic. 3 Engineer's office (27.06.2023)



Pic. 4 Construction of administrative building (27.09.2023)



Pic. 5 Earth works (27.08.2023)



Pic. 6 Construction of administrative building (23.08.2023)



Pic. 7 liner system installation (15.09.2023)



Pic. 8 Liner system installation works (02.10.2023)



Pic. 9 Construction works on management area facilities (01.11.2023)

### 3.3 ADB Missions

#### Action Plan for Observations made during the Site Visit (17 May 2023)

o.	Issue	Action to be Taken	Responsibility	Timing (Target Dates)	Description of Resolution and Timing (Actual)	If not yet resolved, indicate the reason why and specify further required action and timeframe.
1	Complaint box is established. But its located in a not so visible area.	As agreed with PIU and Contractor, the Contractor should put the Grievance box near the project site's entrance where the Contractor's work office is located. In addition to that, the Contractor, in consultation with the PIU will put an information board on SWMIP with contact person's name and complete contact details.	Contractor, PIU	25 May 2023	The Contractor has installed a complaint box next to the project site, where the Contractor's office is located	
2	The site has some holes where the water well is being constructed. There are no signs and hard protective barricades around the holes.	Put protective hard type barricades around the holes and put warning signs.	Contractor, PIU	25 May 2023	Warning signs and protective tapes are installed in front of each pit and well	
3	Door of the makeshift resting area for workers is broken..	In order to provide safe resting area for the workers, the door needs to be fixed immediately.	Contractor, PIU	23 May 2023	The next day, 18 May 2023, the door was repaired in working condition (photo 1).	
4	Refilling period of the fire extinguisher has lapsed.	Fire extinguishers have to be refilled and expiration dates checked regularly. Avoid putting them under the heat of the sun. Provide proper storage area for fire extinguishers making them visible and readily accessible.	Contractor, PIU	25 May 2023	On 19 May 2023, the fire extinguisher installed at the entrance to the living room was replaced with a new one (photo 2)	
5	The day of site visit was the start of rainy day. Electricity cable and	Cover the surface of interconnecting socket during the rainy weather	Contractor, PIU	23 May 2023	On May 20, 2023, the Contractor conducted an extraordinary training	

o.	Issue	Action to be Taken	Responsibility	Timing (Target Dates)	Description of Resolution and Timing (Actual)	If not yet resolved, indicate the reason why and specify further required action and timeframe.
	interconnecting socket are directly on the ground with open surface where rainwater can easily get into the socket and create safety hazard <b>(Photo 5)</b> .	and put all electrical cables above ground.			(training) on safety when working with electricity and appliances (photo 3, 3-1)	
6	The existing dumpsite which is located just beside the project site is generating a very strong odour that can damage the health of workers around the project. Workers are working without protective mask.	Workers should be supplied with special mask which can protect the workers' health from pungent smell coming from existing dumpsite.	Contractor, PIU	23 May 2023	Since the beginning of construction work, the Contractor has provided workers with personal protective equipment, as well as general access to personal protective equipment and medical preparations (photo 4, 4-1)	

**Completed inconsistencies that were identified in July 2023 during the ADB mission**



Pic. 1: Complaint box at the engineer's office entrance



Pic. 2: Installed warning sign and protective tape



Pic. 3 Fixed trailer door for temporary rest of staff



Pic. 4 Faulty fire extinguisher replaced with a new copy



Pic. 5. The use of construction tools above ground level.



Pic. 6. General access to personal protective equipment



Pic. 7. Conducting training (training) on workplace safety

41. Following the results of the mission dated 17 May 2023, the ADB staff found inconsistencies at the construction site of the project, the PIU team with the participation of the Project Consultant submitted to the ADB a report on the implementation of the identified comments. During the ADB mission on December 4-11, 2023, no comments on environmental issues were received from ADB staff.

The following photo documentation was made during the site visits of ADB missions for the reporting period:



Pic.1. Meeting with ADB representatives on site  
(31.08.2023)



Pic.2. Meeting with ADB representatives on site  
(23.10.2023)

### 3.4 Unanticipated Environmental Impacts or Risks

42. The COVID-19 pandemic is an unforeseen impact. The detailed instructions to be followed as a precautionary measure against COVID-19 should be reflected in the SPUOS, which should be submitted by construction contractors prior to the start of construction work.

43. According to the ADB letter dated 01.09.2020 on the need to conduct a COVID-19 risk assessment at the project level and update relevant plans, such as the Health and Safety Plan (HSP) and the Emergency Response Plan (ERP), as well as the Environmental Management Plan (EMP), the PIU Support Consultant gave advice on updating the plans, specified above.

44. All health and safety procedures related to the COVID-19 pandemic and recommended by WHO and the Government of Uzbekistan are taken into account and followed. The HSP has been updated as requested by ADB. A special ERP for COVID-19 was developed as part of the CW2 and CW4 work contracts. The CW1 Contractor prepared a Facility-specific Occupational Health and Safety Management Plan (SSHSM), including a COVID-19 Occupational Health and Safety Plan (HS-C19 Plan), which was submitted to the Employer in accordance with the CW1-R Contract. The plan includes measures for the prevention and control of COVID-19, including disinfection/cleaning of offices, construction sites and labor camps, temperature checks at facilities, social distancing measures, mandatory use of personal protective equipment such as face masks, provision of places for hand washing and hand sanitizers, etc., as well as procedures that should be taken in case any employee is infected with COVID-19. The CW1-R contractor reports on the status of the implementation of the SSHSM and the HS-C19 plan in monthly EMR and monthly construction progress reports.

#### 4 STATUS OF COMPLIANCE WITH COVENANTS

45. The Environmental Loan Covenants under SWMIP require that the design, construction, operation and implementation of all sub-project facilities are carried out in accordance with the requirements set forth in the IEE for core sub-components agreed upon between the Government and ADB, and the Government's environmental laws and regulations and ADB's Safeguard Policy Statement (2009). Any adverse environmental impacts arising from the construction, operation and implementation of sub-component facilities will be minimized by implementing the environmental mitigation and management measures, and other recommendations specified in environmental assessment reports (e.g., IEE). The Government will ensure environmental requirements will be incorporated in bidding documents and civil works contracts. Issuance of bid documents will be made after review and clearance of IEE/EIA by ADB and SCEEP. PIU will prepare and submit SAEMRs to ADB that describe progress in implementation of the EMP and issues encountered and measures adopted; and compliance with the relevant assurances and loan covenants.

46. **Table 6** shows the status of compliance with ADB's loan covenants<sup>9</sup> relating to environment, health and safety during the monitoring period (January – June 2023).

**Table 6: Status of Compliance with Covenants**

Covenants	Reference to Loan and Project Agreement	Status of Compliance (as of 30 June 2023)
<b>Conditions for Award of Contract</b>		
The borrower must guarantee that Maxsustrans will not enter into any contract for the performance of works related to environmental impact until: (a) The State Committee for Environmental Protection (SCEP) has issued an environmental assessment report; and (b) The Borrower has included the relevant provisions of the EMP in the work contract.	LA Appendix 3, paragraph 6	<b>Observed.</b> a) In November 2021, an updated EIA of the construction of a new landfill was prepared, required by national legislation, and on March 9, 2022, a positive conclusion of the State Environmental Expertise of the State Committee for Ecology was issued. b) All work contracts (CW1, CW2 and CW4) are procured on the basis of tender documents, including the relevant provisions of the project's EMP.
<b>Consulting services</b>		
The borrower must hire individual consultants to develop capacity in the areas of project management, procurement, guarantees, financial management, monitoring and evaluation in accordance with procedures acceptable to ADB for hiring individual consultants.	LA Appendix 3, paragraph 10	<b>Observed.</b> The borrower has hired four individual consultants in accordance with the ADB procurement guidelines, in particular: an international project management/procurement specialist, an international environmental specialist, a national financial management specialist and a national monitoring and evaluation specialist. These specialists provided services for the development of the STVA and PIU capacities in the field of project management, procurement, guarantees, financial management, as well as monitoring and

<sup>9</sup> ADB. Loan Agreement for L3067-UZB: Solid Waste Management Improvement Project (SWMIP): <https://www.adb.org/projects/documents/loan-agreement-solid-waste-management-improvement-project>



Covenants	Reference to Loan and Project Agreement	Status of Compliance (as of 30 June 2023)
		evaluation in accordance with ADB procedures. Contracts for the provision of services with all specialists were completed in early 2017, when a PIU Support Consultant was selected, and in January 2017 a Cons_1 Contract was signed.
<b>Implementation Arrangements</b>		
<p>☑ No later than 6 months after the Effective Date {December 29, 2014}, the Borrower must instruct Maxsustrans to create a website for the Project where key information about the Project will be available. The Project website will be accessible to the public and will contain the following information about the Project:</p> <p>a. Project scope, structure, responsible institutions, impact, outcomes and results;</p> <p>b. Status of project objectives;</p> <p>c. Information on procurement and advisory services, including the announcement of the bidding, bidding procedures, list of participating bidders, names of the winners of the bidding, the amount of contracts awarded and a description of the goods or services purchased; and</p> <p>d. All key documentation related to security measures, including EMP and RP.</p> <p>The project's website will be updated regularly, and its content will be presented in English, Russian and Uzbek.</p>	LA Appendix 5, paragraph 2	<p><b>Partially complied with. Ongoing.</b></p> <p>Maxsustrans has a company website <a href="http://www.maxsustrans.uz">www.maxsustrans.uz</a> where information related to the project can be disclosed. During the reporting period, the Project website was supplemented with the following documents (as of December 30, 2022):</p> <p>a) General information about the Project, including EA and IA (in English and Russian)</p> <p>b) No, the status of the project objectives is under preparation and will be published by January 2024 – after preparation of the Annual Progress Report for 2023</p> <p>c) Information about the award of the contract for the package of works CW1R – Sanitary dump. No other new elections.</p> <p>d) During the reporting period as of December 30, 2023, the following documentation on security measures is disclosed on the Project website:  SAEMR for January-June 2023 (in English, Russian and Uzbek)  SAEMR for July-December 2022 (in English, Russian and Uzbek)  SAEMR for January-June 2022 (in English, Russian and Uzbek)  <a href="https://maxsustrans.uz/en/project/regulyarnye-otchety">https://maxsustrans.uz/en/project/regulyarnye-otchety</a>;  <a href="https://maxsustrans.uz/project/regulyarnye-otchety">https://maxsustrans.uz/project/regulyarnye-otchety</a>;  <a href="https://maxsustrans.uz/uz/project/regulyarnye-otchety">https://maxsustrans.uz/uz/project/regulyarnye-otchety</a>;  GOAEMR for July-December 2021 (English, Russian and Uzbek)  EIA (updated in 2021) of the sanitary landfill (in Russian and Uzbek) [<a href="https://www.maxsustrans.uz/uploads/document/40rus.pdf">https://www.maxsustrans.uz/uploads/document/40rus.pdf</a>];  <a href="https://www.maxsustrans.uz/uploads/document/9uzb.doc">https://www.maxsustrans.uz/uploads/document/9uzb.doc</a> ]</p>
<ul style="list-style-type: none"> <li>The Borrower obliges the Tashkent Municipality and Maxsustrans to: (i) make every effort to ensure that critical Project employees remain in their positions on a permanent basis for a reasonable period of time to ensure continuity of Project implementation; and (ii) ensure that all executive and implementing agencies are properly staffed and provided with the necessary financial, technical and other resources to perform their functions within the framework of the project.</li> </ul>	LA Appendix 5, paragraph 3	<p><b>Observed.</b></p> <p>On 1 November 2021, Mr. Rakhmatilla Karshiev has retired from the position of Director of Maxsustrans. Mr. Sanjar Umatov was appointed as Director of Maxsustrans according to the order of the Tashkent City Mayor No. 501-14-0-Q/21 dated 29 November 2021.</p> <p>On 26 November 2021, Mr. Sherzod Kattakhodjaev has retired from the position of Deputy Director of Maxsustrans. Mr. Botir Mamataxunov was appointed as Deputy Director of Maxsustrans according to the order of the Maxsustrans director.</p> <p>On 17 October 2022, Mr. Sanjar Umatov has left the position of Director of</p>

Covenants	Reference to Loan and Project Agreement	Status of Compliance (as of 30 June 2023)
		<p>Maxsustrans. Mr. Abdujamil Abduvakhobov was appointed as acting Director of Maxsustrans according to the order of the Tashkent City Mayor No. 1052-14-0-Q/22 dated 17 October 2022.</p> <p>On 13 February 2023, Mr. Abdujamil Abduvakhobov has left the position of Director of Maxsustrans. Mr. Kamoliddin Nabiev was appointed as Director of Maxsustrans according to the order of the Tashkent City Mayor dated from 14 February 2023.</p> <p>On 30 August 2022, Mr. Jasur Khamidov has left the position of PIU Head. Mr. Sherzod Mukhtarov was appointed as PIU Head according to the order of the Maxsustrans director.</p> <p>Mr. Sherzod Mukhtarov has left the position of PIU Head. Mr. Akmal Khikmatullaev was appointed as acting PIU Head according to the order of the Maxsustrans director.</p> <p>Up to date, the duties of the director of SUE "Maxsustrans" are assigned to Mr. Komoliddin Nabiev (appointment from 01.03.2023) according to the order of the Tashkent city Mayor.</p> <p>Mr. Akmal Khikmatullaev has left the position of PIU Head from 30.11.2023. Mr. Jamoliddin Irbutaev was appointed as acting PIU Head according to the order of the Maxsustrans director from 01.12.2023.</p>
<b>Environment</b>		
<ul style="list-style-type: none"> <li>The Borrower shall cause Maxsustrans to ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project and the Project Facilities comply with (a) applicable laws and regulations of the Borrower relating to environment, health, and safety; (b) the Environment Safeguards; and (c) all measures, and requirements set forth in the IEE, the EMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.</li> </ul>	LA Schedule 5, para 5	<p><b>Complied.</b></p> <p>Currently three consultants are engaged by Maxsustrans, in particular:</p> <ol style="list-style-type: none"> <li>PIU Support Consultant (Infratech Consulting SDN Ltd., Uzbekistan)</li> <li>Sanitary Landfill Design and Supervision Consultant (China Urban Construction Design &amp; Research Institute Co., Ltd., China)</li> <li>Transfer Stations Rehabilitation Design and Supervision Consultant (Quality Planning Ltd., Uzbekistan)</li> </ol> <p>The design and supervision consultants have prepared the design documentation in compliance with applicable laws and regulations of Uzbekistan relating to environment, health, and safety and also the Environment Safeguards of ADB and measures/requirements set forth in the IEE. The corrective or preventative actions, if any, are provided in Safeguard Monitoring Reports submitted by PIU Support Consultant to PIU and Maxsustrans.</p>

Covenants	Reference to Loan and Project Agreement	Status of Compliance (as of 30 June 2023)
		However, the Contractors CW1-R and CW-4 (excl. CW2) started the civil works before the SSEMP was prepared referring to the Table 1 <sup>10</sup> .
<b>Human and Financial Resources to Implement Safeguards Requirements</b>		
<ul style="list-style-type: none"> <li>The Borrower shall make available or cause Maxsustrans to make available necessary budgetary and human resources to fully implement the EMP and the RP.</li> </ul>	LA Schedule 5, para 9	<p><b>Complied with (ongoing).</b></p> <p>To implement the EMP and the RP Maxsustrans has recruited:</p> <ul style="list-style-type: none"> <li>i) <b>Mr. Irakli Kaviladze</b> (Georgia) as International Safeguard Specialist (contract signing date: 19-Aug-2015; contract completion date: 23-Jan-2017)</li> <li>ii) <b>Infratech Consulting SDN Ltd (Uzbekistan)</b> as PIU Support Consultant (contract signing date: 11-Jan-2017; contract completion date: 31-Dec-2023 (ongoing). Due to the extension of the project, the contract extended by 12 months - until 31 December 2024). The Consultant's team includes the National Environmental Specialist Mr. Sergey Karandaev and National Social Safeguard and Development Specialist Ms. Maria Malinovskaya.</li> <li>iii) <b>China Urban Construction Design &amp; Research Institute Co., Ltd.</b> as Sanitary Landfill Design and Supervision Consultant (contract signing date: 16-Nov-2018; contract completion date: ongoing). The Consultant employed the international key specialists: Mr. Mingtao Nie, Environmental Specialist and Ms. Dajiang Sun, Social Safeguard Specialist. According to TOR of the Consultant, the Consultant's safeguard specialists have to ensure that the construction works are carried out by the Contractor in accordance with environmental and social norms and regulations of Uzbekistan and ADB.</li> </ul>
<b>Safeguards-Related Provisions in Bidding Documents and Works Contracts</b>		
<ul style="list-style-type: none"> <li>The Borrower shall ensure or cause Maxsustrans to ensure that all bidding documents and contracts for Works contain provisions that require contractors to: <ul style="list-style-type: none"> <li>(a) comply with the measures relevant to the contractor set forth in the IEE, the EMP and the RP (to the extent they concern impacts on affected people during construction), and any corrective or</li> </ul> </li> </ul>	LA Schedule 5, para 10	<p><b>Complied with (ongoing).</b></p> <p>The provisions listed in this covenant have been considered and included in the bidding documents and contracts for Works, which are at implementation or completion stage:</p> <ul style="list-style-type: none"> <li>- CW1R: Sanitary Landfill Establishment (in construction phase)</li> </ul>

<sup>10</sup> Contract CW1-R: The first draft SSEMP has been submitted by the Contractor in April 2022. The time period from April till July 2022 was needed for review and revision of SSEMP. As construction of SLF is a critical last and most important component of the Project and the remaining time for the construction is quite tight due to Loan Closing Date on 31.12.2023, it was decided to give the site access without having approved the SSEMP on exceptional basis.

Contract CW4: From 16 to 21 December 2020 the Contractor CW4 carried out mobilization activities and site preparation, the civil works have been actually started in January 2021, i.e. after approval of SSEMP.

Covenants	Reference to Loan and Project Agreement	Status of Compliance (as of 30 June 2023)
<p>preventative actions set forth in a Safeguards Monitoring Report;</p> <p>(b) make available a budget for all such environmental and social measures;</p> <p>(c) provide Maxsustrans and the Borrower with a written notice of any unanticipated environmental, resettlement or indigenous peoples risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP and the RP;</p> <p>(d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and</p> <p>(e) reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.</p>		<ul style="list-style-type: none"> <li>- CW2: Transfer Station Rehabilitation (completed)</li> <li>- CW4: Garage Rehabilitation (completed)</li> </ul>
<b>Safeguards Monitoring and Reporting</b>		
<ul style="list-style-type: none"> <li>• The Borrower shall do the following or cause Maxsustrans to do the following: <ul style="list-style-type: none"> <li>(a) submit semi-annual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to effected persons promptly upon submission;</li> <li>(b) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP and the RP, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and</li> <li>(c) report any actual or potential breach of compliance with the measures and requirements set forth in the EMP or the RP promptly after becoming aware of the breach.</li> </ul> </li> </ul>	LA Schedule 5, para 11	<p><b>Complied with (ongoing).</b></p> <p>(a) Complied. Ongoing. Maxsustrans submitted to ADB the following Safeguards Monitoring Reports, which have been disclosed on the Project's website<sup>11</sup> on Uzbek, Russian and English languages:</p> <ul style="list-style-type: none"> <li>•SAEMR for January – June 2023</li> <li>•SAEMR for July – December 2022</li> <li>•SAEMR for January – June 2022</li> <li>•EIA for New SLF, updated 2021</li> <li>•SAEMR for July – December 2021</li> <li>•SAEMR for January – June 2021</li> <li>•SAEMR for July – December 2020</li> <li>•SAEMR for January – June 2020</li> <li>•SAEMR for July - December 2019</li> <li>•SAEMR for January – June 2019</li> <li>•SAEMR for July - December 2018</li> <li>•EIA for New SLF, 2013</li> </ul>

<sup>11</sup> <https://maxsustrans.uz/uz/project/dokumenty-po-proektu>

Covenants	Reference to Loan and Project Agreement	Status of Compliance (as of 30 June 2023)
		<p>Since the IEE of the Project (May 2013) includes 156 pages in total, the Sub-Borrower decided to translate the EMP only (Annex 6 of IEE) into Uzbek language (understandable to affected people and other stakeholders) The Uzbek EMP has been disclosed on the Project website.</p> <p>(b) Complied. Ongoing; (c) Complied. Ongoing.</p>
<b>Prohibited List of Investments</b>		
<ul style="list-style-type: none"> <li>The Borrower shall ensure that no proceeds of the Loan are used to finance any activity included in the list of prohibited investment activities provided in Appendix 5 of the SPS.</li> </ul>	LA Schedule 5, para 12	<b>Complied with.</b>
<b>Health and Labor Standards</b>		
<ul style="list-style-type: none"> <li>The Borrower shall cause Maxsustrans to ensure that contractors engaged under contracts for Works:                             <ol style="list-style-type: none"> <li>comply with all applicable labor laws;</li> <li>use their best efforts to employ women and local people, including disadvantaged people, living in the vicinity of the Works;</li> <li>provide equal pay to men and women for work of equal type;</li> <li>provide and adequately equip first-aid, health and sanitation, and personal hygiene facilities for male and female workers at the Works sites;</li> <li>maximize female training and employment;</li> <li>conduct an information and education campaign on sexually transmitted diseases and HIV/AIDS for construction workers as part of the health and safety program at campsites and adjacent communities during Works implementation; and</li> <li>abstain from child labor.</li> </ol> <p>Relevant Works contracts must include specific clauses on these undertakings.</p> </li> </ul>	LA Schedule 5, para 13	<p><b>Complied with (ongoing)</b></p> <ul style="list-style-type: none"> <li>The Works Contract No. SUE/Maxsustrans/NCB-W4 “Garage Rehabilitation” dated 07.12.2020, clause 81 stipulates to:                             <ol style="list-style-type: none"> <li>comply with all applicable labor laws;</li> <li>make every effort to recruit women and local residents, including the poor living in the immediate vicinity of the Works;</li> <li>ensure equal pay for men and women for work of the same type;</li> <li>provide and adequately equip first aid, health and sanitation and personal hygiene facilities for men and women at work sites;</li> <li>maximizing the qualifications and employment of women;</li> <li>conduct an information and education campaign on sexually transmitted diseases and HIV/AIDS for construction workers as part of the health and safety program in campsites and surrounding communities during work; and</li> <li>refrain from child labor.</li> </ol> </li> <li>The Works Contract No. SUE/Maxsustrans/ICB-W2 “Transfer Station Rehabilitation” dated 12.04.2021 (GCC 4.18, the Employers requirements para 1.9.4)</li> <li>The Works Contract No. SUE/Maxsustrans/ICB-W1R “Sanitary Landfill Establishment” dated 31.01.2022 (GCC 4.8, 6.7, 6.25)</li> </ul>

## **5 RESULTS OF ENVIRONMENTAL MONITORING**

### **5.1 Overview of Monitoring Conducted during Current Period**

47. The IEE was prepared in 2013 for all phases (design, construction, and operation) of the SLF and its on-site associated facilities. The Contractor CW1 (JV Stecol-PowerChina Guiyang) has submitted the first draft SSEMP related to construction of the SLF in April 2022 and the SSEMP was approved in July 2022.

48. During the reporting period, the construction works continued under the contract CW1-R, the works under the contract CW2 have been completed and commissioned in August 2022. The Consultant's environmental specialist conducted a number of site audits (refer to item 3.2 above) to ensure the environmental safeguard compliance of the construction works.

49. During the current reporting period, the following indicators were monitored:

- Air quality (measured)
- Noise and vibration (measured)
- Water contamination (measured)
- Waste management (monitored)
- Health and safety incl. activities against COVID-19 (monitored)

### **5.2 Air Quality**

50. The contractor of the joint venture Stecol-Power China Guiyang, in order to measure noise and vibration, signed a contract with the certified Environmental Pollution Monitoring Department of Uzhydromet. The contractor takes measures to suppress dust by regularly watering the sites and access roads. The air quality analysis was carried out in December 2023 according to a contract concluded with a certified air and water pollution monitoring laboratory.

51. Measurements carried out during the previous reporting period (September and December 2023) show that the level of dust around the construction sites of laying networks complies with the standards (Appendix 3).

### **5.3 Noise and Vibration**

52. The landfill site is located at a distance of about 1000-1700 m from residential and commercial buildings. On the access road to the Landfill, the Contractor set a speed limit. The contractor has signed a contract with the Environmental Pollution Monitoring Department of Uzhydromet for water and air measurements (Annex 4). The contractor imposed restrictions on the time of work from 8:00 to 19:00. During the reporting period, there were no complaints from residents of nearby houses.

53. It is noted that the contractor used only SanPiN No. 0325-16 (requirements for noise level in workplaces). SanPiN No. 0267-09 (noise level standards for the adjacent territory of residential buildings) will also be used in the following tests. Despite the use of SanPiN No. 0325-16, the test result of 46-48 DB is not higher than the maximum permissible norm of 55 dB. Based on SanPiN No. 0267-09, the maximum permissible norm in the territories adjacent to residential buildings is 55.

### **5.4 Waste disposal**

54. The contractor has concluded a waste disposal contract with a local specialized company "Maxsustrans". The contractor placed several garbage containers for various types of waste on the site, equipped special places on the site for several types of construction waste in order to separate the waste using special signs. The contractor also placed garbage containers with lids all over the site in places where work is actively underway, near the kitchen and work settlements. The contractor keeps a log of the generated and exported waste, which summary data is provided in Appendix 6 of the report - Waste Management on Site in the second half-year 2023.

55. Next to the temporary town of builders there is a ditch with surface watercourses in the valley where a new landfill is being built. There are no signs of surface erosion at the bottom of the valley. Since there is very little precipitation in this area, an attempt to control the runoff of surface water (and possible leakage of filtrate through the slopes) from a temporary construction settlement is considered impractical.

## 5.5 Health and Safety

56. To avoid spreading the COVID-19 infection, the Contractors have implemented the necessary protection actions to the deployed workforce in line with the national and international requirements and rules.

57. During the reporting period, the workforce and representatives of the Contractors on site have been informed by the Employer about the situation with COVID-19 infection and diseases in the country. Masks for all staff on site were mandatory and the body temperature of staff has been checked regularly.

58. The health and safety requirements on all construction sites have been implemented by the contractors, which are arranged and monitored by the qualified personnel responsible for compliance with the health and safety requirements.

59. The Contractor CW1's SSEMP includes the Health and Safety COVID-19 Plan (HS-C19 Plan), which is in implementation stage. The workforce is aware about these plans and clarification works took place on site.

60. Contractor's health and safety performance is generally satisfactory. Relevant trainings are provided to the staff onsite, required documents and reports submitted, and waste segregation and disposal procedure are established.

## 5.6 Use of Material Resources

61. **Water.** The Contractor arranged on site a clean water reservoir filled regularly by the water tanks, the delivered water used for domestic and drinking purposes. The water volume is not recorded.

62. **Electricity.** There is no connection to local electricity supply networks on site.

63. **Gas.** The Contractor does not use the natural gas.

64. As of December 2023, Contractor CW1-R has mobilized the following materials at the site:

**Table 6. Mobilization of materials CW1 Contractor**

N	Materials	Unit	Quantity (aggregated sum)
1	Concrete	t	300
2	Sand	t	750
3	Details of the steel strip	t	234
4	Reinforced concrete	t	5,000

## 5.7 Summary of Monitoring Outcomes

65. Table 8 includes the status of nonconformity notifications identified during the previous monitoring period.

66. Table 9 summarizes the status of the implementation of the EMP (construction phase) during the monitoring period under the CW1 work contract, as required in Annex 6 to the PEO (the EMP table is also included in Annex 1 to this MSEMR). By the letter of the Ministry of Finance of the Republic of Uzbekistan (Borrower) dated March 26, 2021, all works related to the closure of the landfill in the

amount of 5.7 million US dollars are excluded from the CW1 package and the Project as a whole. The ADB consent letter was provided on July 23, 2021. The reason is that the government of Uzbekistan decided to close the landfill in the Akhangaran district with the financing of the Korean company Sejin G&E Co. Ltd.]. Work on the CW4 contract was completed in December 2021. The EMP does not provide mitigation measures/requirements for the operation phase for CW4, as it was a simple reconstruction of the existing garage facilities "Maxsustrans" without any changes to the initial operational characteristics common to the local area. There are no potential risks as such that pose a danger to health or the environment during the operation of garage facilities.



**Table 8. Status of implementation of corrective actions proposed in the previous monitoring Report(s) [Based on Table 7 of the previous MSEMR Report: Solid Waste Management Improvement Project: Environmental Monitoring Report (July –December 2021) | Asian Development Bank (adb.org )]**

Issue	Required Action	Responsibility	Timing (Target Dates)	Description of Resolution and Timing (Actual)	If not yet resolved, indicate the reason why and specify further required action and timeframe.
1. Preparation of the relevant documents required for the official submission of the updated EIA for the new SLF to the CCEP (compiled in the GOEMR for July-December 2020).	An updated EIA for the construction of a new landfill should be prepared for further approval by the State Committee for Ecology and Environmental Protection (SCEP) before the start of construction work on CW1-R.	Maxsustrans together with a hired local firm and with the support of a CUCD consultant	A set of relevant documents required for official submission to the SCEP will be prepared by February 20, 2022.	COMMITTED before February 18, 2022. The updated EIA of the construction of the new landfill was submitted to the State Environmental Expertise (SEE) on February 18, 2022.	
2. Approval of the updated EIA for the new SLF by the CEP has not been received (raised in the CMP for January-June 2021) (raised in the ICEMR for July-December 2020).	Approval (positive conclusion of the State Expertise) of the updated EIA for the construction of a new landfill must be obtained from the State Committee of Ecology.	Maxsustrans with a local specialized firm	The reason for the delay in the state examination is the longtime of coordination with local residents/communities and the district administration, which delayed the submission of the EIA for consideration and examination of the State Committee of Ecology. The full set of documents will be submitted to the CCEP by February 20, 2022. Approval of the CEP is expected by March 20, 2022.	DONE on March 9, 2022. The positive conclusion of the SEE on the updated EIA of the construction of a new landfill was issued on March 9, 2022 (ex. No. 03-01/11-08-398) – see the attached copy in Russian in Appendix 2 of the SAEMR.	
3. PAM (Solid Waste Management Improvement Project: Project Administration Guide, Asian Development Bank (adb.org )) requires an "international safety specialist" to monitor and report on environmental protection measures within the Project (raised in SAEMR for January-	PAM (Global Solid Waste Hazard Project: Project Administration Guide, Asian Development Bank (adb.org )) requires an "international safety specialist" to monitor and report on environmental protection measures within the Project (raised in SAEMR). for January-June 2021), (raised in the SAEMR for July - December 2020).	PIU, PIU Consultants, SLF Design and Supervision Consultant	An amendment to the contract with the SLF supervision consultant for the hiring of an international security specialist will be signed, and an international specialist will be on board until the start of construction work on CW1R (expected in March 2022).	DONE. On April 25, 2022, an Addendum to Contract No. 3 was signed between Maxsustrans and SLF Supervision Consultant. The start date for the provision of Work Supervision Services is May 5, 2022. The start date of work is April 8, 2022 + 540 days (construction period). The International Environmental Specialist of	

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Issue	Required Action	Responsibility	Timing (Target Dates)	Description of Resolution and Timing (Actual)	If not yet resolved, indicate the reason why and specify further required action and timeframe.
June 2021), (raised in SAEMR for July - December 2020).				the SLF Consultant (Mingtao NIE) has been mobilized and is working with the Contractor with the assistance of the National Environmental Specialist (Akmal Begimkulov). On June 10, 2022, the SLF Consultant conducted a training on environmental protection (monitoring and reporting) with the participation of environmental protection specialists of the Contractor and the PIU Consultant.	
4. The borrower is obliged to disclose the PEO (including the EMP) in an accessible place, in a form and in a language(s) understandable to the affected persons and other interested parties. But this has not been done as of December 31, 2021 (pending from the previous monitoring period).	Due to the large size of the PEO, the Borrower intends to translate the EMP only into Uzbek (Annex 6 of the PO). The EMP should be translated into Uzbek, understandable to the affected population and other interested parties. The EMP should be disclosed on the Maxsustrans website.	Maxsustrans together with PIU and PIU consultants	Due to the workload of Maxsustrans, PIU and the PIU Consultant related to the Uzbek translation of previous SHIFTS, the translation of the EMP into Uzbek was not possible during the reporting monitoring period. The Uzbek translation of EMP will be made public in April 2022.	done. Published in April 2022 ( <a href="https://maxsustrans.uz/uz/project/regulyarnye-otchety">https://maxsustrans.uz/uz/project/regulyarnye-otchety</a> )	

**Table 9. Status of the implementation of the EMP during the construction period (Contracts for the execution of works CW1)**

Impacts	Type / Degree of Effect	Mitigation / Enhancement Measures	Compliance Attained (CW1)	Comment on Reasons for Partial or Non-Compliance	Required Action and Target Dates to Achieve Compliance
Formation of flying dust	Temporarily, but for a long time	• Open only one area for development on a phased basis, as planned.	Yes		
		• Minimize the movement of vehicles inside the construction site	Yes		
		• Cover the exposed areas with tarpaulin or similar materials / apply materials to stabilize the slope.	Yes		
		• Install buffer zones and fences	Yes		
Noise generation	Temporary and short-term	• Notify the affected communities in advance of the expected troubles.	Yes		
		• If possible, reduce the routing of project traffic through community zones.	Yes		
		• Installation of silencers and silencers on machinery and equipment	Yes		
		• Avoid working during rest periods/at night	Yes		
		• Regularly service the equipment	Yes		
		• Install fences around the work area as a barrier	Yes		
		• Introduce minimum speed limits on the project territory	Yes		
Soil erosion is possible	Short-term and temporary	• Include excavation and other similar work within the project boundaries.	Yes		
		• Immediately stabilize the areas after completion of excavation and backfilling.	Yes		
		• Introduce vegetation cover in areas that will remain permanently open.	Yes		
		• Cover areas with pebbles or gravel that should remain open for a long period of time.	Yes		
		• The values of peak ground acceleration (PGA) for the site should be determined and included in the project.	Yes		
Wastes	Temporary and short-term	• Ensure that all hazardous waste from the temporary storage located at the landfill is sent to the appropriate final disposal point.	Yes		
Flora	Temporary and short-term	• Restore local vegetation cover in those areas within the SLF where it would be most appropriate. Finely rooted vegetation is recommended	Yes		
Traffic	Temporary and short-term	• Regulate the entry and exit of vehicles and equipment to the construction site.	Yes		

Impacts	Type / Degree of Effect	Mitigation / Enhancement Measures	Compliance Attained (CW1)	Comment on Reasons for Partial or Non-Compliance	Required Action and Target Dates to Achieve Compliance
		<ul style="list-style-type: none"> <li>Competently regulate the delivery of materials to the project site.</li> </ul>	Yes		
		<ul style="list-style-type: none"> <li>Set the minimum speed within the project site.</li> </ul>	Yes		
		<ul style="list-style-type: none"> <li>Do not allow the vehicle to remain on the project site for an extended period of time.</li> </ul>	Yes		
		<ul style="list-style-type: none"> <li>Regular monitoring to make sure that the traffic flow remains optimal and any garbage collection can be undertaken immediately.</li> </ul>	Yes		
		<ul style="list-style-type: none"> <li>Regular maintenance of the equipment.</li> </ul>	Yes		
Occupational health and safety	Temporary and short-term	<ul style="list-style-type: none"> <li>Introductory and installation meetings will be held by all employees. It is also recommended to talk about a set of tools.</li> </ul>	Yes		
		<ul style="list-style-type: none"> <li>Only qualified workers will be hired.</li> </ul>	Yes		
		<ul style="list-style-type: none"> <li>Strictly impose and control the use of PPE by employees. Regular inspections will be carried out.</li> </ul>	Yes		
		<ul style="list-style-type: none"> <li>Provide a guide to the HSE and require the placement of safety signs and signs.</li> </ul>	Yes		
		<ul style="list-style-type: none"> <li>Restrict the movement of personnel in hazardous areas.</li> </ul>	Yes		
		<ul style="list-style-type: none"> <li>An insurance policy must be provided for workers' compensation.</li> </ul>	Yes		
		<ul style="list-style-type: none"> <li>Conduct awareness-raising and training programs on occupational safety and health issues, which will be handled by a designated HSE officer.</li> </ul>	Yes		
Public health and safety	Temporary and short-term	<ul style="list-style-type: none"> <li>Develop and implement procedures to protect public health and safety (e.g. traffic management plan, fencing, driver training program, pedestrian access and intrusion plan, road design, slope stability, spill cleanup, well-visible signs, awareness raising)</li> </ul>	Yes		
Loss of income by informal garbage collectors	Temporary and short-term	<ul style="list-style-type: none"> <li>Identify alternative livelihood options for garbage collectors in accordance with the principles of the livelihood system prepared as above and in consultation with affected people.</li> </ul>	Yes		

## 5.8 Training

67. In order to increase public safety, the Contractor CW1 conducted training and awareness-raising of their staff and workers about safety at work sites prior to the start of construction works. The photos below show occupational health and safety training, including COVID-19 prevention measures, conducted by the Contractor's OHS specialist:



Fig. 1 Occupational safety awareness trainings on SLF site (03.11.2023)



Fig. 2 Occupational safety awareness trainings on SLF site (03.11.2023)



Fig. 3 Environmental measures training on SLF site (25.09.2023)



Fig. 4 Environmental measures training on SLF site (25.09.2023)

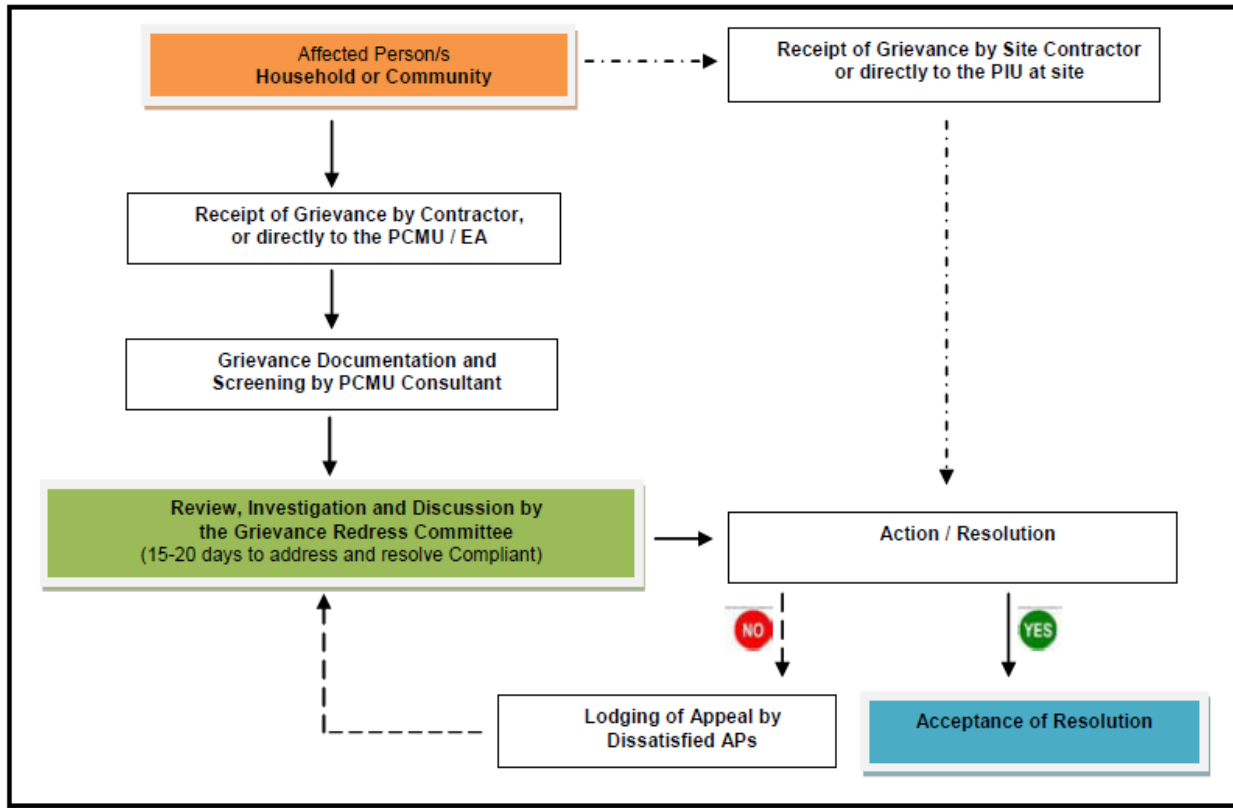
The list of participants of the above-mentioned trainings arranged by the Contractor is provided in Appendix 7 of the report.

## 5.9 Complaints

68. SUE "Maxsustrans" (IA) has created a complaints mechanism (GRM) for a specific project to provide a transparent mechanism for voicing and solving environmental problems related to the project. According to the Decree of the President of the Republic of Uzbekistan SUE "Maxsustrans" in each of its district branches in Tashkent, including the head office of SUE "Maxsustrans", a "People's reception" has been created for requests related to PIU. The UI ensures timely and satisfactory handling of complaints and complaints in order to avoid any potential delays in the creation of the project.

69. Figure 2 below gives the details of the grievance redress mechanism.

Figure 2 Grievance Redress Mechanism



PIU – Responsible person for GRM is Head of PIU, Mr. Jamoliddin Irbutaev, tel: +998 712473816, email: [piu3067@gmail.com](mailto:piu3067@gmail.com)  
 PIU Consultant’s Deputy Team Leader, Mr. Dilshod Mavlyan-Kariev, tel: +998 712477923, email: [dilshod75@mail.ru](mailto:dilshod75@mail.ru)

70. The PIU has established Grievance Redress Committee (GRC). GRC provides any affected person (AP) a venue to file complaints and queries on any environmental (or social) aspect related to the project. Grievances can be submitted in writing or orally to the contractor or directly to the PIU / IA contact person. These are properly documented (i.e., indicating the date it was received, details of the complaint and complainant/s) and screened by the designated PIU safeguard consultant for its veracity and validity. The committee has 15 to 20 days to address and come up with a resolution. Under this GRM, unsatisfied grievances may be able to appeal for a final resolution. This mechanism also does not prevent any AP to approach regulatory agencies to assist and resolve complaints at any stage of the process. In occasions wherein grievances are perceived by the AP to be immediate and urgent; the contractor, EHS officer and PIU onsite supervisor will provide the most accessible and practical solution for a quick resolution of grievances. Such grievances and respective resolutions submitted to the PIU for proper documentation. The PIU contact person is responsible for recording the complaint, the step taken to address grievance, minute of the meetings and preparation of a report for each complaint. Records is kept by the PIU of all grievances received including contact details of AP, date the complaint received, nature of grievance, agreed remedial / corrective action and the date this was implemented, and the final outcome in Complaints logbook kept at the PIU office.

71. The complaint handling process will be reported to ADB through monitoring reports. The safeguard specialists of PIU Consultant will periodically review and record the efficiency and effectiveness of the GRM highlighting the project's ability to prevent and address grievances.

72. During July-December 2023, the National Environmental Specialist of the PIU Consultant contacted representatives of the Administration of the Tashkent region and Akhangaran district (Administrations) to receive information about complaints related to the KA site.

73. No complaints were received during the monitoring period (table 10). The Consultants will continue to monitor complaints about the Project at the further stage of the project and construction work to ensure proper and timely consideration of any complaints about the project.

**Table 10. Summary of complaints received during the monitoring period  
(and those expected after the previous monitoring period(s))**

Details of Complaint	Complainant*	Received			Actions (to be) taken with the target date	Resolution Status***
		Through*	by whom**	date		
No	No	No	No	No	No	No

\* Resident, NGO (non-governmental organization), etc.

\*\* Verbally, letter, complaint box, email, etc.

\*\*\* Contractor, supervision consultant or implementing/executing agency

\*\*\*\* Open or closed (if closed include date)

74. The stakeholder consultations with the concerned stakeholders during the construction activities to inform about the project progress and safeguard measures were not planned for the reporting period.

## 6 SUMMARY AND RECOMMENDATIONS

### 6.1 Summary

75. During reporting period no significant environmental issues were flagged, no complaints received from the local residents and no adverse impacts occurred as a result of the construction activities of the Project.

76. The issues identified during this monitoring period is summarized in the table below:

**Table 11. Issues Identified During the Monitoring Period**  
(including the pending issues from the previous report(s))

Pending Issues from the previous periods	Required Action	Responsibility	Timing (Target Dates)
1. Development, technical examination EIA of the access road (1.2 ha) *	<ul style="list-style-type: none"> <li>Development and preparation of all necessary documents and preparation for submission to the state examination</li> <li>Conducting state expertise, obtaining the necessary conclusion</li> </ul>	<ul style="list-style-type: none"> <li>Maxsustrans</li> <li>PIU</li> </ul>	<ul style="list-style-type: none"> <li>10 Dec 2023</li> <li>30 Dec 2023</li> </ul>

\* - The new technical examination EIA of the access road (1.2 ha) was taken on 15 December 2023 (see the attached file with new EIA).

77. As the civil works under the contract CW1-R commenced on 8 April 2022, environmental monitoring onsite has started.

78. Action plan for the reporting period from January – June 2024 includes:

#	Action	Time interval	Responsibility
1.	Semi-annual Safeguard Monitoring Report	January 2024	National Environmental Specialist of PIU Support Consultant with assistance and information support of the PIU Support Consultant (Infratech Consulting SDN)
2.	Collect and provide the relevant information on environmental indicators to PIU	Permanent ongoing	National Environmental Specialist of PIU and PIU Support Consultant
3.	Other routine issues like unscheduled site visits, follow up of the detected defects, environmental assessment of designs	Upon demand	National Environmental Specialist of PIU and PIU Support Consultant
4.	Monitoring for air quality, noise, odour, groundwater/leachate contamination and residual wastes as per the EMoP	Quarterly	Environmental Officer of the Contractor CW1-R with supervision of the environmental specialists of PIU Support Consultants
5.	Sanitary Landfill Establishment. Reporting on environmental safeguards, Other routine issues like unscheduled site visits, follow up of the detected defects, environmental assessment etc.	Monthly	Environmental Officer of the Contractor CW1-R with supervision of the environmental specialists of PIU Support Consultants



79. This SAEMR upon review and approval by ADB specialists will be disclosed on the websites of Maxsustrans and ADB as before. The next SAEMR for January - June 2024 will be submitted in July 2024.

## **6.2 Recommendations**

80. The monitoring and reporting scheme on environmental safeguarding, which has been used until end of 2023, was complicated in this Project. There is overlapping of tasks between the environmental specialists of PIU, PIU Support Consultant and Supervision Consultants who all involved in this Project. In the future, for Projects which implementation has to be managed by PIU Support Consultants, but the civil works have to be supervised by other Consultants, the distribution of tasks between the different Consultant teams in terms of environmental safeguard monitoring and reporting shall be clearly defined and distributed to avoid overlapping of these tasks during the different implementation phases of Projects.

## 7 APPENDIX

### Appendix 1: Environmental Management Plan (Annex 6 of IEE)

Sources of Impact	Impacts	Type / Degree of Effect	Mitigation / Enhancement Measures	Institutional Responsibilities	Cost
<b>I. Pre-Construction Phase</b>					
<b>Land acquisition</b>	Loss of agricultural land	Significant and long-term	<ul style="list-style-type: none"> <li>• Not required</li> <li>• The landlord returns it without IR exposure.</li> <li>• Lack of measures to mitigate the forced withdrawal of land.</li> <li>• Necessary land for construction allocated from the reserve lands of the district.</li> <li>• There is no possibility of any impact in terms of loss of income and livelihood.</li> <li>• There were no complaints or complaints about the project activity.</li> <li>• Ensure a clear delineation and fencing of the landfill territory.</li> </ul>	PIU for Implementation and Monitoring	Included in the cost of the project
<b>Environmental and social monitoring and assessment</b>	Organizational capacity and commitment	Temporary and short-term	<ul style="list-style-type: none"> <li>• Create and maintain an Environmental, Social, Occupational Safety and Industrial Safety (ESHS) Management System. Hire EHS management staff in the Company.</li> </ul>	CUCD	Own resources, Consultant's Remuneration
<b>Occupational health and safety</b>	Provision of PPE	Temporary and short-term	<ul style="list-style-type: none"> <li>• Conduct and update the workplace health and safety risk assessment prepared by an authorized consultant.</li> <li>• Provide PPE for the Company's personnel and include in the tender documentation a requirement for all contractors, including the household waste disposal company, to provide appropriate PPE in accordance with the assessment of occupational safety workplaces and local regulations.</li> </ul>	PIU, CUCD	Own resources, Consultant's Remuneration
<b>II. Construction Phase</b>					
<b>Land clearing</b>	Formation of flying dust	Образование летучей пыли	<ul style="list-style-type: none"> <li>• Open only one area for development on a phased basis, as planned.</li> <li>• Minimize the movement of vehicles inside the construction site</li> <li>• Cover the exposed areas with a tarpaulin or similar materials / apply materials to stabilize the slope.</li> <li>• Install buffer zones and fences</li> </ul>	Contractor/CUCD for compliance monitoring and reporting to IA/SCEEP (Ministry)	Include such a measure in the Contractor's TOR
	Noise generation	Temporary and short-term	<ul style="list-style-type: none"> <li>• Notify affected communities in advance of expected inconveniences.</li> <li>• If possible, reduce the routing of project traffic through community areas.</li> <li>• Installation of silencers and silencers on machinery and equipment</li> <li>• Avoid working during rest periods/at night.</li> </ul>	Contractor/CUCD monitor compliance and report to IA/SCEEP (Ministry)	Include such expenses in the Contractor's contract

Solid Waste Management Improvement Project - ADB Loan No.: 3067-UZB

Sources of Impact	Impacts	Type / Degree of Effect	Mitigation / Enhancement Measures	Institutional Responsibilities	Cost
			<ul style="list-style-type: none"> <li>• Regular maintenance of equipment</li> <li>• Install fences around the work area as a barrier</li> <li>• Introduce minimum speed limits on the project territory</li> </ul>		
	Soil erosion is possible	Short-term and temporary	<ul style="list-style-type: none"> <li>• Include excavation and other similar work within the project boundaries.</li> <li>• Immediately stabilize the sites after completion of excavation and backfilling.</li> <li>• Introduce vegetation cover in areas that will remain permanently open.</li> <li>• Cover with pebbles or gravel areas that should remain open for a long period of time.</li> <li>• The values of peak ground acceleration (PGA) for the site should be determined and included in the project.</li> </ul>	Contractor/CUCD monitor compliance and report to IA/SCEEP (Ministry)	Include such a measure in the Contractor's TOR
	Waste	Temporary and short-term	<ul style="list-style-type: none"> <li>• Ensure that all hazardous waste from the temporary storage located at the landfill is sent to the appropriate final disposal point.</li> </ul>	Contractor / PIU	Management time according to the contract
	Flora	Temporary and short-term	<ul style="list-style-type: none"> <li>• Restore local vegetation cover in those areas within the SLF where it would be most appropriate. Finely rooted vegetation is recommended</li> </ul>	Contractor/CUCD monitor compliance and report to IA/SCEEP (Ministry)	Include such a measure in the Contractor's TOR
	Traffic	Temporary and short-term	<ul style="list-style-type: none"> <li>• Regulation of entry and exit of vehicles and equipment to the construction site.</li> <li>• Properly regulate the delivery of materials to the project site</li> <li>• Enter the minimum speed on the project website</li> <li>• Do not allow vehicles to remain on the project site for an extended period of time.</li> <li>• Regular monitoring to ensure optimal traffic flow and immediate cleaning of debris.</li> <li>• Regular maintenance of the equipment.</li> </ul>	Contractor/CUCD must monitor compliance and report to IA	Include such a measure in the Contractor's TOR
	Occupational health and safety	Temporary and short-term	<ul style="list-style-type: none"> <li>• Introductory and installation meetings will be held by all employees. It is also recommended to talk about a set of tools.</li> <li>• Only qualified workers will be hired</li> <li>• Strictly impose and control the use of PPE by employees. Regular inspections will be carried out.</li> <li>• Provide guidance on the HSE and require the placement of safety signs and posters</li> <li>• Restrict the movement of personnel in hazardous areas</li> <li>• An insurance policy for workers' compensation must be provided.</li> <li>• Conduct awareness-raising and training programs on occupational safety and health issues, which will be handled by a</li> </ul>	The contractor/CUCD must monitor compliance and report to IA	Include such costs/measures in the Contractor's contract

Sources of Impact	Impacts	Type / Degree of Effect	Mitigation / Enhancement Measures	Institutional Responsibilities	Cost
			designated HSE officer.		
<b>Community impact</b>	Public health and safety	Temporary and short-term	<ul style="list-style-type: none"> <li>Develop and implement procedures to protect public health and safety (e.g. traffic management plan, fencing, driver training program, pedestrian access and intrusion plan, road design, slope stability, spill cleanup, well-visible signs, awareness raising)</li> </ul>	Contractor / CUCD Control	Include such costs/measures in the Contractor's contract
	Loss of income by informal garbage collectors		<ul style="list-style-type: none"> <li>Identify alternative livelihood options for garbage collectors in accordance with the principles of the livelihood system prepared as above and in consultation with affected people.</li> </ul>	Local administration	Consultant's remuneration
<b>Closure of an existing landfill</b> (this component has been cancelled in this project)		Temporary and long-term	<ul style="list-style-type: none"> <li>Conduct a detailed assessment of the site covering all 59 hectares</li> <li>Development of a "safe closure plan"</li> <li>Adequate and timely coating and sealing to prevent exposure to waste</li> <li>All workers will hold introductory and installation meetings with a special emphasis on the use of PPE.</li> <li>Require the placement of safety signs and signs</li> <li>Conducting environmental monitoring after closing. Maintenance of installed facilities.</li> <li>Precautions should be taken to prevent the occurrence of uncontrolled fires as a result of closure measures.</li> </ul>	IA shall implement the mitigation and strengthening measures after closure the existing dumpsite	Include such costs/measures in the IA's annual budget for 2024
<b>III. Operation Phase</b>					
<b>Land clearing</b>	Formation of flying dust	Образование летучей пыли	<ul style="list-style-type: none"> <li>Open only one area for development on a phased basis, as planned.</li> <li>Minimize the movement of vehicles inside the construction site</li> <li>Cover the exposed areas with a tarpaulin or similar materials / apply materials to stabilize the slope.</li> <li>Install buffer zones and fences</li> </ul>	Contractor/CUCD for compliance monitoring and reporting to IA/SCEEP (Ministry)	Include such a measure in the Contractor's TOR
	Noise generation	Temporary and short-term	<ul style="list-style-type: none"> <li>Notify affected communities in advance of expected inconveniences.</li> <li>If possible, reduce the routing of project traffic through community areas.</li> <li>Installation of silencers and silencers on machinery and equipment</li> <li>Avoid working during rest periods/at night.</li> <li>Regular maintenance of equipment</li> <li>Install fences around the work area as a barrier</li> <li>Introduce minimum speed limits on the project territory</li> </ul>	Contractor/CUCD monitor compliance and report to IA/SCEEP (Ministry)	Include such expenses in the Contractor's contract
	Soil erosion is possible	Short-term and temporary	<ul style="list-style-type: none"> <li>Include excavation and other similar work within the project boundaries.</li> <li>Immediately stabilize the sites after completion of excavation and</li> </ul>	Contractor/CUCD monitor compliance and report to IA/	Include such a measure in the Contractor's TOR

Solid Waste Management Improvement Project - ADB Loan No.: 3067-UZB

Sources of Impact	Impacts	Type / Degree of Effect	Mitigation / Enhancement Measures	Institutional Responsibilities	Cost
			backfilling. • Introduce vegetation cover in areas that will remain permanently open. • Cover with pebbles or gravel areas that should remain open for a long period of time. • The values of peak ground acceleration (PGA) for the site should be determined and included in the project.	SCEEP (Ministry)	
	Waste	Temporary and short-term	• Ensure that all hazardous waste from the temporary storage located at the landfill is sent to the appropriate final disposal point.	Contractor / PIU	Management time according to the contract
	Flora	Temporary and short-term	• Restore local vegetation cover in those areas within the SLF where it would be most appropriate. Finely rooted vegetation is recommended	Contractor/CUCD monitor compliance and report to IA/SCEEP (Ministry)	Include such a measure in the Contractor's TOR
	Traffic	Temporary and short-term	• Regulation of entry and exit of vehicles and equipment to the construction site. • Properly regulate the delivery of materials to the project site • Enter the minimum speed on the project website • Do not allow vehicles to remain on the project site for an extended period of time. • Regular monitoring to ensure optimal traffic flow and immediate cleaning of debris. • Regular maintenance of the equipment.	The contractor/CUCD must monitor compliance and report to IA	Include such a measure in the Contractor's TOR
	Occupational health and safety	Temporary and short-term	• Introductory and installation meetings will be held by all employees. It is also recommended to talk about a set of tools. • Only qualified workers will be hired • Strictly impose and control the use of PPE by employees. Regular inspections will be carried out. • Provide guidance on the HSE and require the placement of safety signs and posters • Restrict the movement of personnel in hazardous areas • An insurance policy for workers' compensation must be provided. • Conduct awareness-raising and training programs on occupational safety and health issues, which will be handled by a designated HSE officer.	The contractor/CUCD must monitor compliance and report to IA	Include such costs/measures in the Contractor's contract
<b>Community impact</b>	Public health and safety	Temporary and short-term	• Develop and implement procedures to protect public health and safety (e.g. traffic management plan, fencing, driver training program, pedestrian access and intrusion plan, road design, slope stability, spill cleanup, well-visible signs, awareness raising)	Contractor / CUCD Control	Include such costs/measures in the Contractor's contract

Sources of Impact	Impacts	Type / Degree of Effect	Mitigation / Enhancement Measures	Institutional Responsibilities	Cost
	Loss of income by informal garbage collectors		<ul style="list-style-type: none"> <li>Identify alternative livelihood options for garbage collectors in accordance with the principles of the livelihood system prepared as above and in consultation with affected people.</li> </ul>	Local administration	Consultant's remuneration
<b>Closure of an existing landfill</b> (this component has been cancelled in this project)		Temporary and long-term	<ul style="list-style-type: none"> <li>Conduct a detailed assessment of the site covering all 59 hectares</li> <li>Development of a "safe closure plan"</li> <li>Adequate and timely coating and sealing to prevent exposure to waste</li> <li>All workers will hold introductory and installation meetings with a special emphasis on the use of PPE.</li> <li>Require the placement of safety signs and signs</li> <li>Conducting environmental monitoring after closing. Maintenance of installed facilities.</li> <li>Precautions should be taken to prevent the occurrence of uncontrolled fires as a result of closure measures.</li> </ul>	IA shall implement the mitigation and strengthening measures after closure the existing dumpsite	Include such costs/measures in the IA's annual budget for 2024
<b>Land clearing</b>	Formation of flying dust	Temporary and long-term	<ul style="list-style-type: none"> <li>Open only one area for development on a phased basis, as planned.</li> <li>Minimize the movement of vehicles inside the construction site</li> <li>Cover the exposed areas with a tarpaulin or similar materials / apply materials to stabilize the slope.</li> <li>Install buffer zones and fences</li> </ul>	Contractor/CUCD for compliance monitoring and reporting to IA/SCEEP (Ministry)	Include such a measure in the Contractor's TOR

IA = Implementing Agency

EMP = Environmental Management Plan [especially for the construction phase] does not claim to be complete and can be expanded at any time according to the need and necessity

**Appendix 2: Environmental Monitoring Plan (Annex 7 of IEE)**

<b>Environmental Components</b>	<b>Parameters</b>	<b>Frequency</b>	<b>Responsible Party</b>	<b>Station/ Location</b>
Air Quality	<ul style="list-style-type: none"> <li>▪ Nitrogen Dioxide (NO<sub>2</sub>), VOCs</li> <li>▪ Particulates - PM<sub>10</sub> and PM<sub>2.5</sub>, Nitrogen Dioxide (NO<sub>2</sub>), Sulfur Oxides (SO<sub>x</sub>),</li> <li>▪ Noise / Objectionable Odour</li> </ul>	<ul style="list-style-type: none"> <li>▪ Quarterly</li> <li>▪ Bi -annually</li> <li>▪ Quarterly / Monthly</li> </ul>	PIU Environmental Specialist	<ul style="list-style-type: none"> <li>• On the identified point sources within the premises of the SLF and the old dumpsite</li> <li>• Within the project site including areas at old dumpsite</li> <li>• Within and outside the SLF (1-2 Km North-west and West-North-West end)</li> </ul>
Occupational Health and Safety	<ul style="list-style-type: none"> <li>▪ No of accidents per day/month/ year</li> <li>▪ Top Ten causes of illness</li> <li>▪ Worker's housing and sanitation facilities</li> </ul>	<ul style="list-style-type: none"> <li>▪ Bi- Annually</li> </ul>	EHS Officer	<ul style="list-style-type: none"> <li>• Within the premises</li> </ul>
Groundwater / Leachate Contamination	<ul style="list-style-type: none"> <li>▪ pH</li> <li>▪ Conductivity</li> <li>▪ DO</li> <li>▪ BOD<sub>5</sub></li> <li>▪ TDS</li> <li>▪ Salinity</li> <li>▪ Total Hardness</li> <li>▪ Alkalinity</li> <li>▪ Carbonates</li> <li>▪ Oil and Grease</li> <li>▪ Trace Metals</li> <li>▪ Coli form</li> </ul>	<ul style="list-style-type: none"> <li>▪ Quarterly</li> </ul>	PIU Environmental Specialist	<ul style="list-style-type: none"> <li>• Ground Water Monitoring Wells (whenever installed – see discussion)</li> <li>• Leachate Collection and Pump shafts</li> </ul>
Residual Wastes	<ul style="list-style-type: none"> <li>▪ Volume / quality</li> <li>▪ Characterization of wastes / Type</li> <li>▪ Efficiency of storage</li> </ul>	<ul style="list-style-type: none"> <li>▪ Annually</li> <li>▪ Quarterly</li> <li>▪ Quarterly</li> </ul>	PIU Environmental Specialist / EHS Officer	<ul style="list-style-type: none"> <li>• Within the SLF</li> </ul>

**Appendix 3: State Environmental Expertise on the updated EIA of landfill (09.03.2022)**

*Please see the attached file – State Environmental Expertise’s conclusion No.03-01/11-08-398 issued on 09.03.2022*



## Appendix 4: Groundwater Monitoring Analyses (08.01.2024)

АО «Узбекгеологоразведка» Центральная лаборатория  
Ташкентская область, п. Эшонгузар, ул. Мустакиллик, 21  
тел. 702027149, 702027142



## ПРОТОКОЛ ИСПЫТАНИЙ № 4 - ХАЛ

на исследование согласно письма № 8/1 от 08/01/2024г о проведении испытаний двух проб воды.

**Заказчик:** JV « STECOL- POWER CHINA GUIYANG ».

Обозначение и данные маркировки объекта испытания:

№1- вода (низ №1), с полигона ТБО в Ахангаранском районе Ташкентской области;

№2- вода (бак №2), с полигона ТБО в Ахангаранском районе Ташкентской области;

дата получения: 08-01-2024г в количестве двух проб по 1,50 dm<sup>3</sup>;

Цель, задачи испытаний – текущий анализ воды;

Условия проведения испытаний: температура окружающей среды 21,0°, влажность 37%.

Средства измерений: весы AS 220/C Radwag, иономер И-160МИ, пламенный фотометр М-3,

электронный гигрометр НТС-2, спектрофотокориметр «Шимадзу UV-1800».

Испытательное оборудование: электрическая плитка, муфельная печь.

Испытания проведены: 08-01-2024г -- 15-01-2024г.

Результаты испытаний.

Заказ № 16 от 08-01-2024г.

№	Наименование показателей	Размерность	НД на методы испытаний	ФАКТ	
				№1	№2
1	Привкус	Баллы	3351-74	Без вкуса	Без вкуса
2	Запах	Баллы	3351-74	Без запаха	Без запаха
3	Мутность	mg/dm <sup>3</sup>	3351-74	0,025	0,025
4	Цветность	градус	3351-74	5	5
5	Водородный показатель	pH	Измеряется pH- метром	7,10	6,84
6	Общая минерализация (сухой остаток)	mg/dm <sup>3</sup>	18164-89	1520	2882
7	Железо	mg/dm <sup>3</sup>	4011-72	<0,05	<0,05
8	Жесткость общая	Mg-Экв/dm <sup>3</sup>	4151-72	12,30	29,00
9	Сульфаты	mg/dm <sup>3</sup>	4389-72	753	1666
10	Хлориды	mg/dm <sup>3</sup>	4245-72	83	120
11	Окисляемость	mg/dm <sup>3</sup>	23268.12-78	0,50	0,50
12	Нитраты	mg/dm <sup>3</sup>	18826-73	5	4,32
13	Нитриты	mg/dm <sup>3</sup>	26268.8-78	<0,10	<0,10
14	Гидрокарбонат-ион	mg/dm <sup>3</sup>	23268.3-78	296	256
15	Кальций	mg/dm <sup>3</sup>	23268.5-78	136	316
16	Магний	mg/dm <sup>3</sup>	23268.5-78	67	161
17	Натрий	mg/dm <sup>3</sup>	23268.6-78	245	301
18	Калий	mg/dm <sup>3</sup>	23268.7-78	1	3
19	Аммоний	mg/dm <sup>3</sup>	23268.10-78	<0,05	<0,05
20	Карбонат-ион	mg/dm <sup>3</sup>	23268.3-78	<0,05	<0,05


Данные результаты анализа относятся только к предоставленным заказчиком образцам.  
Право тиражирования и копирования без разрешения «ЦЛ» не допускается.

Начальник ХАЛ

Гусанова И.Е.

**Appendix 5: Air Quality Monitoring Analyses (06.12.2023)**

Управление мониторинга качества окружающей среды (УМКОС) Узгидромета  
 Отдел-лаборатория мониторинга загрязнения атмосферного воздуха (ОЛМЗАВ)  
 г.Ташкент, ул. 1-й проезд Бодомзор йули, 72, тел 237-15-47, 150-85-02

«Утверждаю»  
 Начальник ОЛМЗАВ  
 Т. Гранкина  
 6 декабря 2023 г.

**ПРОТОКОЛ ИСПЫТАНИЙ № 22**

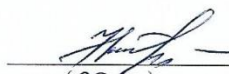
Лабораторные испытания объекта: Ташкентская область, Ахангаранский р-он, полигон ТБО  
 Полное наименование Заказчика его адрес: «JV STECOL – POWERCHINA GUIYANG» DM  
 Цель, задачи испытаний (измерений): Подтверждение соответствия НД  
 НД на объекты испытаний (измерений): СанПиН 0293-11  
 НД на методы испытаний (измерений): Аспиратор АВА-3, аспиратор АПВ-4  
 Описание и идентификация образцов: Диоксид азота, диоксид серы, оксид углерода, пыль  
 Замеры метеопараметров: Давление, температура, влажность, скорость и направление ветра

Дата отбора образцов: 6 декабря 2023 г.


Проведение испытаний (измерений)

№	Место отбора	Наименование ингредиентов	Кол-во замеров	Примечание
1	Точка №1	Диоксид азота, диоксид серы, оксид углерода, пыль Метеопараметры	4 4	Разовые замеры! (1 раз в день)
2	Точка №2	Диоксид азота, диоксид серы, оксид углерода, пыль Метеопараметры	4 4	
3	Точка №3	Диоксид азота, диоксид серы, оксид углерода, пыль Метеопараметры	4 4	
4	Точка №4	Диоксид азота, диоксид серы, оксид углерода, пыль Метеопараметры	4 4	

Измерения проводил:  
 Инженер 1 категории ОЛМЗАВ Теряева Н.  
 Инженер 2 кат. производ. отдела Жумабоев Э.

  
 (подпись)

Управление мониторинга качества окружающей среды (УМКОС) Узгидромета  
Отдел-лаборатория мониторинга загрязнения атмосферного воздуха (ОЛМЗАВ)  
г.Ташкент, ул. 1-й проезд Бодомзор йули, 72, тел (71)237-15-47, (78)150-85-02

«Утверждаю»  
Начальник ОЛМЗАВ  
 Г. Гранкина  
7 декабря 2023 г.

**Акт отбора проб атмосферного воздуха № 23**

Дата отбора: 6.12.2023 г.

Замеры метеопараметров:

- атмосферное давление
- температура и влажность воздуха
- скорость ветра
- направление ветра

Использованное оборудование:

- Барометр-анероид М-67
- Психрометр ВМ-4м
- Анемометр

**Метеопараметры**

№	Место отбора	Время отбора	Тем-ра, °С	Влажность, %	Давление, мм.рт.ст	Скорость ветра, м/сек	Направление ветра
1	Точка №1	10:45	+14	28	727	0,3	СЗ
2	Точка №2	11:20	+15	28	724	0,5	СЗ
3	Точка №3	11:50	+18	26	723	1,2	СВ
4	Точка №4	12:30	+18	25	725	штиль	-

Измерения проводил:

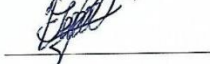
Инженер 1 категории ОЛМЗАВ

Теряева Н.

  
(подпись)

Инженер 2 кат. производ. отдела

Жумабоев Э.



Узгидромет УМКОС  
ОЛМЗАВ  
100052, г.Ташкент,  
ул. 1-й проезд Бодомзор йули,72  
тел (+71) 237-15-47, (+78) 150-85-02

НАРЯД-ЗАКАЗ № \_\_\_\_\_ от « \_\_\_\_\_ » \_\_\_\_\_ 2023г.  
ЗАКАЗЧИК «JV STECOL – POWERCHINA  
GUIYANG» DM  
ЗАЯВКА № \_\_\_\_\_ от « \_\_\_\_\_ » \_\_\_\_\_ 2023г.

**АКТ № 24**

от 7.12.23 г.

**лабораторного анализа проб атмосферного воздуха**

Дата отбора	№	Место отбора	Время отбора	NO <sub>2</sub> мг/м <sup>3</sup>	SO <sub>2</sub> мг/м <sup>3</sup>	CO мг/м <sup>3</sup>	Пыль мг/м <sup>3</sup>
6.12.23	1	<b>Точка №1</b> 500-700 м до полигона, поля подсолнуха	10:45	0,03	0,023	1,0	0,06
	2	<b>Точка №2</b> полигон, офис	11:20	0,02	0,026	1,0	0,17
	3	<b>Точка №3</b> старая свалка	11:50	0,01	0,043	1,5	0,06
	4	<b>Точка №4</b> офис работников, стенд проекта, въезд на свалку	12:30	0,04	0,102	1,2	0,22
<b>ПДКм.р. мг/м<sup>3</sup></b>				<b>0,085</b>	<b>0,5</b>	<b>5,0</b>	<b>0,5</b>

Исполнитель  
Инженер 1 категории ОЛМЗАВ

 Н. Теряева

**Noise level measurements****Date 28.07.2023**

	Measurement time	Measurement results, 30 min LAeq in dB
Point 1 Inside the new landfill (management area)	10-10 <sup>30</sup>	62,0
	23-23 <sup>30</sup>	49,1
Point 2 1 km from the northwest	11-11 <sup>30</sup>	56,4
	00-00 <sup>30</sup>	38,4

**Date 28.08.2023**

	Measurement time	Measurement results, 30 min LAeq in dB
Point 1 Inside the new landfill (management area)	10-10 <sup>30</sup>	60,0
	23-23 <sup>30</sup>	45,1
Point 2 1 km from the northwest	11-11 <sup>30</sup>	57,0
	00-00 <sup>30</sup>	36,2

**Date 27.09.2023**

	Measurement time	Measurement results, 30 min LAeq in dB
Point 1 Inside the new landfill (management area)	10-10 <sup>30</sup>	59,0
	23-23 <sup>30</sup>	43,9
Point 2 1 km from the northwest	11-11 <sup>30</sup>	58,0
	00-00 <sup>30</sup>	38,1

**Date 19.10.2023**

	Measurement time	Measurement results, 30 min LAeq in dB
Point 1 Inside the new landfill (management area)	10-10 <sup>30</sup>	60,0
	23-23 <sup>30</sup>	40,9
Point 2 1 km from the northwest	11-11 <sup>30</sup>	57,0
	00-00 <sup>30</sup>	35,1

**Date 05.12.2023**

	Measurement time	Measurement results, 30 min LAeq in dB
Point 1 Inside the new landfill (management area)	10-10 <sup>30</sup>	61,0
	23-23 <sup>30</sup>	42,9
Point 2 1 km from the northwest	11-11 <sup>30</sup>	56,4
	00-00 <sup>30</sup>	32,4

## Appendix 6: Waste Management on Site in the second half-year 2023

Type of waste	Description of waste	Quantity		Conditioning method	Disposal method	Final disposal	Waste transportation	
		3Q 2023	4Q 2023					
Non-hazardous waste	Leftovers of homemade food		22+22+20+15+18+90=187kg	Storage in a closed container on an isolated site in a closed area	Delete it once a week	Export by local residents for pet food		
	Paper		10+10+1+10=31 kg	Storage in a closed container on an isolated site in a closed area	Delete it once a week	Removal to landfill		
	Fabric and workwear		5+5+8+3+5+10=36 kg	Storage in a closed container on an isolated site in a closed area	Delete it once a week	Removal to landfill		
	Concrete							
	Wood							
	Iron				Storage in a closed container on an isolated site in a closed area	Delete it once a week	Export to places of processing	
	Municipal solid waste		40+40+15+11+83+150=339 kg	Storage in a closed container on an isolated site in a closed area	Delete it once a week	Removal to a local waste disposal site		
	Glass and light bulbs							
	Empty barrels/plastic							
	Electrodes and grinding wheels							
	All kinds of packing boxes							
	Thermal insulation materials (mineral wool, foam, etc.)							
	Waste water		1,5+1,5+1,5+1,5+1,5+3=10,5 m3	Storage in a closed container on an isolated site in a closed area	Delete it once a week	Removal to the sewage treatment plants of the district		
Drains from the toilet								
Hazardous waste	Clinical/medical waste							
	Used/used oils and lubricants							
	Polluted soil							
	Dangerous chemicals							
	Used tires							
	Acid batteries							
	Oil filters							

**Appendix 7: List of participants of the Contractor's training (03.11.2023)**

No.	Name of participant	Topic
1	Mr. Atamirzaev Zhaloliddin	1. Organization of the construction site, work sites and workplaces
2	Mr. Agabekov Donier	
3	Mr. Saidov Nurbek	2. The main factors, causes of accidents during construction work
4	Mr. Baizakov Zhasur	
5	Mr. Salizhonov Numon	3. Methods of first aid in case of accidents
6	Mr. Karimkulov Akram	
7	Mr. Abdullayev Ikrom	4. Labor protection before the start and end of work
8	Mr. Hasan Israilov	
9	Mr. Alizhonov Ogabek	5. Actions of employees in case of fire
10	Mr. Baizhigitov Zhakhongir	

Список работников по обучению методам безопасности при строительных работ.

№	Ф.И.О	Дата	Тема	Подпись
1	Атамирзаев Жалолiddин	03.11.2023	1. Организация строительной площадки, участков работ и рабочих мест.	
2	Агабеков Донир	03.11.2023		
3	Саидов Нурбек	03.11.2023	2. Основные факторы причины несчастных случаев во время строительных работ.	
4	Баизаков Жасур	03.11.2023		
5	Сализхонов Нумон	03.11.2023	3. Способы оказания первой помощи при несчастных случаях.	
6	Каримкулов Акрам	03.11.2023		
7	Абдуллаев Икром	03.11.2023	4. Охрана труда перед началом и окончанием работ.	
8	Хасан Исраилов	03.11.2023		
9	Ализонов Огабек	03.11.2023	5. Действия работников в случае возникновения пожара.	
10	Баизхигитов Жахонгир	03.11.2023		
11		03.11.2023		
12		03.11.2023		
13		03.11.2023		
14		03.11.2023		
15		03.11.2023		
16		03.11.2023		
17		03.11.2023		

**Appendix 8: Photos from rehabilitation completed sites (garage and transfer stations)**

Mirabad District Garage (before and after rehabilitation)



Bektemir District Garage (before and after rehabilitation)





Yakkasaray Transfer Station (before and after rehabilitation)



Yunusabad Transfer Station (before and after rehabilitation)

