

# Environmental Monitoring Report

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Semi-annual Environmental Monitoring Report  
Reporting period: July – December 2021  
Project Number: 44483-027  
Loan Number 3355  
January 2022

## Uzbekistan: Second Central Asia Regional Economic Cooperation Corridor 2 Road Investment Program (Tranche 3)

Prepared by the Republican Road Fund under Committee for Roads for the Republic of  
Uzbekistan and the Asian Development Bank

This environmental monitoring report is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature.

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"31" *January* 2022 y. № *AD/2022/004*

**Subject: Second CAREC Corridor 2 Road Investment Program, Project 3  
(Reconstruction of 87km of A380 Guzar-Bukhara-Nukus-Beyneu highway on  
section 228-315 km).**

**Submission of Semi-Annual Environmental Monitoring Report.**

Dear Mr. Pawan Karki,

Please see attached the revised Semi-Annual Environmental Monitoring Report  
for your consideration, approval and publishing on ADB web-site.

Sincerely,

A handwritten signature in blue ink, appearing to be 'A. Djumankulov'.

**A. Djumankulov  
Project Manager**

## Environmental Monitoring Report

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Semi-Annual Environmental Monitoring Report

Reporting period: July - December 2021  
January 2022

### **Uzbekistan: Second Central Asia regional Economic Cooperation Corridor 2 Road Investment Program (Tranche 3)**

**(Financed by the Asian Development Bank)**

Prepared by the Republican Road Fund (RRF) under Committee for Roads for the  
Republic of Uzbekistan and the Asian Development Bank

**CURRENCY EQUIVALENTS**

(As of 31/December/2021)

Currency unit	–	uzs (лв)
лв 1.00	=	\$ 0.0000938
<b>\$1.00</b>	<b>=</b>	<b>лв 10,712.00</b>

**NOTE{S}**

In this report, "\$" refers to United States dollars.

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### ABBREVIATIONS

ADB	Asian Development Bank
CAREC	Central Asia Regional Economic Cooperation
CSC	Construction Supervision Consultant
EHS	Environmental Health & Safety
EHSS	Environment, Health, Safety, and Security
EIA	Environmental Impact Assessment
EIP	Environmental Impact Permit
EMP	Environmental Management Plan
EMoP	Environmental Monitoring Plan
FFA	Framework Financing Agreement
GoU	Government of Uzbekistan
GRM	Grievance Redress Mechanism
HSE	Health, Safety, and Environment
IES	International Environment Specialist (under the CSC)
LARP	Land Acquisition and Resettlement Plan
MFF	Multitranchise Financing Facility
NESS	National Environmental Safeguard Specialist (under the CSC)
PMU	Program Management Unit (under the Road Fund)
RoW	Right of Way
RRF	The Republican Road Fund (the Road Fund)
RUz	Republic of Uzbekistan
SAEMR	Semi - Annual Environmental Monitoring Report
SCEEP	State Committee of the Republic of Uzbekistan of Ecology and Environment Protection
SCR	State Committee of the Republic of Uzbekistan for Roads
SPS	Safeguard Policy Statement
SSEMP	Site- specific Environmental Management Plan

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## **EXECUTIVE SUMMARY**

1. This is the 4<sup>th</sup> Semi - Annual Environmental Monitoring Report (SAEMR) for Loan 3355-UZB Second Central Asia Regional Economic Cooperation Corridor 2 Road Investment Program (Tranche 3) - Reconstruction of 87km A380 Gazar–Bukhara– Nukus–Beyneu highway on section km 228 - km 315. The report covers the monitoring period from July - December 2021.

2. The A380 project road is an 87 kms section from km. 228-315 passing through Bukhara, Romitan, Peshkun, and Zhandar regions. It has two lanes with asphalt-concrete surface that starts at the border of Bukhara and goes through developed lands of Bukhara and Romitan regions. The project road terminates at the approach to Gazli city.

3. The technical category of the existing road is II and III. All of the works undertaken within the existing ROW. The rehabilitation works have the following features:

- ❖ reconstruction of the road with transfer to the category I;
- ❖ earth bed - combined; separate;
- ❖ number of lanes - 2 in each direction;
- ❖ lane width - 3.75 m;
- ❖ carriageway width - 7.5 m x 2;
- ❖ roadside width - 3.75 m x 2;
- ❖ cross slope of the carriageway - 15 ‰ - one-way for the combined; 15 ‰- for separate;
- ❖ cross slope of the roadside - 40 ‰;
- ❖ steep of embankment slopes in sandy areas - 1:2;
- ❖ steep of fill slopes in irrigated areas - 1: 1.5;
- ❖ Junction and branch of intersections - transition-speed lanes with a width of 3.75 m.
- ❖ coating - cement concrete with thickness of 250 mm;
- ❖ arrangement - retaining side metal road fences of barrier type, guideposts, road signs, horizontal and vertical markings;
- ❖ drainage in irrigated areas - ditches;
- ❖ Artificial structures - widening/extension or replacement. Existing Engineering structures on the road is represented by culverts in form of culverts and bridges. An individual working design has been developed for each structure - culverts and bridges, etc.

4. The PIU, CSC and the Contractor have maintained a good working relationship for environmental management and monitoring. The Supervision Engineer and PMU have had regular inspections in construction work sites and instructed corrective actions to Contractor for the observed environmental shortcomings in verbal and written forms. The Contractor submitted Monthly Environmental Reports for the Supervision Engineer's review and further reporting to the PMU. Total Project Progress at the end of December 2021 is 26.2%.

5. Environmental audit for elimination of previously issued non-compliances was conducted (Refer to Table 11 in the main text). Observations of the construction process at project sites related to environmental protection and EMP implementation on the sites were also carried out. The Engineer also conducted an audit of internal documents and permits for borrow pits, special water use.

6. The Engineer's local Environmental Specialist visited all sites on a monthly basis, with additional ad hoc visits as required.
7. There are no outstanding issues from the previous monitoring periods which have been addressed. The methods applied by the CSC for correcting the environmental non-compliance were submission of the non-conformance notices and verbal discussions with the staff of the contractor. The status of implementation of the corrective action plan from the previous report has no complaints during the current monitoring period.
8. The Contractor has maintained satisfactory performance on the required environmental management measures provided in the EMP and SSEMP. The status of implementation of the CAP recommended for January-to June, 2021 is presented in the Table 19 which has performed satisfactory (Refer to Table-19).
9. Covid-19 Issues: The Contractor on the sites have developed appropriate COVID-19 prevention measures. The health and safety plans include measures recommended by the local health department: strict control of third-party visits to the camp, compliance with face mask requirement, provision of personal protective equipment: medical masks, gloves, antiseptics. Conducting thermometry tests at least twice a day, maintaining a physical distance at least 1.5 meters in the accommodations and canteen. Sending staff to work remotely. Control the cleaning of facilities and treatment of surfaces with disinfectant. Information work among company staff and develop the medical boards with visual updated information in languages used for communication between staff. Sanitary facilities (sinks, showers, laundries, toilets, etc.) are provided with soap and disinfectants in necessary and sufficient quantities. The canteens are equipped with disinfectants sufficiently to do treatment of instruments and tools.
10. Training, briefing and knowledge testing of the company's employees were carried out on a regular basis. Inspection circular trips were carried out on an ongoing basis. The revealed violations are eliminated on the place. Based on the inspection trips, recommendations are made to improve the safety of work at construction sections and sites. Introductory briefings are regularly held for newly hired employees. The contractor was advised to check the knowledge of occupational health and safety requirements of workers and, if necessary, to re-instruct on safety and health.
11. Flora and Fauna: No significant issue regarding flora and fauna during the monitoring period was observed. The wild fauna is very scarce but still exists nearby the project road. At the construction sites the workers were instructed to avoid damaging any wild species. During the reporting period no endangered or valuable species have been identified in the area of the Project influence.
12. Project quarries with auxiliary production and maintenance facilities are located on land unused in agriculture, far from residential buildings and structures. Sections of loess-shaped rocks are developed in an open pit.
13. The borrow areas are located so that the hauling routes mostly avoid residential areas. However, potential environmental impacts from the borrow areas and quarries may originate if the time limitations for carrying out work are not observed rigorously. Furthermore, watering for the control of dust emissions continuing.
14. Grievance redress system is established in July 2020, the grievance boxes are located at the entrance of the Company Office, batching plants and local Khokimyat (refer to pictures in the

main text). There was no complaint received from communities due to construction activities. Until the current report preparation (December 2021), there was no official filing of any grievance.

15. The present Project- is no exception. In terms of safeguards, it is governed under Asian Development Bank's Safeguard Policy Statement (2009) and Uzbekistan Environmental Law and Legislation, ABD's focus is centered on the safeguards and impacts projects would have on the life of people. Other National, Provincial and local policies and frameworks of Uzbekistan are integrated and will be applied during project implementation. The contractor is fully obliged to comply.

**Table 1: Status of Environmental Plans Required under this Contracts**

<b>No</b>	<b>Name of Plans</b>	<b>Status</b>	<b>Remarks</b>
1	Construction Environmental Management Plan (SSEMP)	Completed	Approved
2	Traffic Management Plan	Completed	Approved
3	Safety and Health Plans	Completed	Approved
4	Solid Waste Management Plan	Completed	Approved
5	Quarry Management Plan	Completed	Approved
6	HIV and AIDS Management Plan	Completed	Approved
7	Camp Site Development Plan	Complete	Approved

## 1. INTRODUCTION

### 1.1. Preface

1. This is the 4<sup>th</sup> Semi - Annual Environmental Monitoring Report (SAEMR) for Loan 3355-UZB Second Central Asia Regional Economic Cooperation Corridor 2 Road Investment Program (Tranche 3) - Reconstruction of 87km A380 Guzar–Bukhara– Nukus–Beyneu highway on section km 228 - km 315. The report covers the monitoring period from July - December 2021.

2. The project is classified as environment category 'B' under ADB's Safeguard Policy Statement (SPS, 2009) warranting the conduct of an initial environmental examination (IEE) and its documentation. An IEE report was prepared by the State Committee of the Republic of Uzbekistan for Roads (SCR) for the Asian Development Bank (ADB) and has been disclosed on ADB's website<sup>1</sup> since October 2018. The proposed rehabilitation and upgrading will comply with relevant nature protection and environmental laws including air, water, noise and waste standards and regulations, and international ground vibration values in addition to other regulations relating to road construction. The project scope involves the rehabilitation and upgrading from flexible to rigid pavement and widening of existing 2-lane to 4-lane configuration. All improvements can be accommodated within the existing right-of-way (RoW), hence it expected that impact on existing natural resource viz, land, water, soil, and aggregates is not significantly adverse. The project road does not pass through or located nearby any wildlife sanctuary, national park, protected area network, archeological monument/heritage sites or any other similar eco-sensitive areas.

3. SAEMR for May-December 2020 and SAEMR for January-June 2021<sup>2</sup> have been disclosed on ADB's website. Summary of The first and second SAEMRs have been disclosed on the Committee for Roads' website<sup>3</sup>.

4. The present report provides a review on how the environmental measures, needed to prevent and/or mitigate negative environmental effects associated with the development project, have been carried out by the contractor during the monitoring period. The report also provides a summary of the currently outstanding major and minor issues that need to be addressed, and suggestions for mitigation measures.

### 1.2. Headline Information

5. The Government of Uzbekistan (GoU) has applied for a loan from ADB for the rehabilitation of 87km A380 Guzar – Bukhara– Nukus – Beyneu highway on section km 228 - km 315. The loan was signed between the Republic of Uzbekistan and ADB on 2 May 2016 and Project Agreement on 16 September 2019 signed between ADB and the Committee for Roads of the Republic of Uzbekistan (the State Committee for Roads).

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<sup>1</sup> ADB. Second Central Asia Regional Economic Cooperation Corridor 2 Road Investment Program (Tranche 3): Initial Environmental Examination (October 2018). <https://www.adb.org/projects/documents/uzb-44483-027-iee>

<sup>2</sup> ADB. Second Central Asia Regional Economic Cooperation Corridor 2 Road Investment Program (Tranche 3): Reconstruction of 87km A380 Guzar–Bukhara–Nukus–Beyneu highway - Safeguard Documents <https://www.adb.org/projects/44483-027/main#tabs-0-2>

<sup>3</sup> <https://www.uzavtoyul.uz/cy/post/osiyo-taraqqiyot-banki-ishtirokidagi-a380-guzorbuxoronukusbeyneu-avtomobil-yolining-228315-km-qismini-rekonstruksiya-qilish-loyihasi-doirasida-ishlab-chiqilgan-atrofmuhit-monitoringi-hisoboti1.html>

6. The State Committee for Roads shall ensure that the Project is implemented in accordance with the detailed arrangements set forth in the Facility Administration Manual (FAM).<sup>4</sup> The State Committee for Roads shall ensure that the Program Management Unit under the Road Fund (PMU), the implementing agency of the Project, is adequately staffed and equipped in accordance with and as contemplated by the FAM and that the PMU is fully functioning, until the completion of the Project.

7. The State Committee for Roads shall keep ADB informed semiannually of the progress of the implementation of the Borrower's road policy framework as set out in the Framework Financing Agreement (FFA). The State Committee for Roads shall ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project comply with (a) all applicable laws and regulations of the Borrower relating to environment, health, and safety; (b) the Environmental Safeguards<sup>5</sup>; (c) the Environmental Assessment and Review Framework (EARF)<sup>6</sup>; and (d) all measures and requirements set forth in the IEE and Environmental Management Plan (EMP), and any corrective or preventative actions set forth in a Safeguards Monitoring Report.

8. As part of the Terms of Reference for the Construction Supervision for the Project, the Construction Supervision Consultant (CSC) should undertake environmental management, monitoring and training activities as detailed in the IEE and incorporate the findings and supporting data in the regular environmental reporting.

9. The major focus of the environmental monitoring in the construction supervision scope had been to make sure that the Contractor avoids or minimizes adverse environmental impacts from the construction. The Contractor is obliged to follow the IEE and would be paid for these works in accordance with Sub-clauses 4.18 between the State Committee for Roads and Contractor.

10. Due to the outbreak of CORONA VIRUS (COVID 19) all over the world, the Contractors were very much conscious and proactive about the pandemic of the COVID and took necessary precautionary and preventive measures. They organized special awareness meeting and training to the workers. They also adjusted work plan according to the situation and carried out appropriate precautionary and safeguard measures against spreading and infection of Coronavirus Pandemic during the reported period.

### **1.3. Methodology and Scope of the Environmental Monitoring**

11. This SAEMR has been prepared in the month of December 2021. This is the forth SAEMR under the Project covering all the project sites and activity. The report aims to provide information on the project status and to evaluate future implementation of EMP for necessary improvement if needed.

12. The environmental monitoring for the work period was done under the framework of the EMP formulated in the IEE Report prepared in 2018. The contents of the consultant's environmental reports and contractor's monthly monitoring report within the construction period formed the available secondary information, along with the field investigations.

13. The primary legislative basis for the environmental requirements for the Project is the Law on Ecological Expert Examination, which requires environmental examination for infrastructure developments.

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<sup>4</sup> ADB. Second Central Asia Regional Economic Cooperation Corridor 2 Road Investment Program: Facility Administration Manual (November 2020). <https://www.adb.org/projects/documents/uzb-44483-024-fam>

<sup>5</sup> "Environmental Safeguards" means the principles and requirements set forth in Chapter V, Appendix 1, and Appendix 4 (as applicable) of the SPS.

<sup>6</sup> ADB. Uzbekistan: MFF - Second Central Asia Regional Economic Cooperation Corridor 2 Road Investment Program. EARF (April 2011). <https://www.adb.org/projects/documents/mff-central-asia-regional-economic-cooperation-corridor-2-0>

The road rehabilitation project is not included in the type of projects requiring full state ecological expertise (SEE) or full environmental impact assessment (EIA). Hence, the Project did not require a full SEE or full EIA under Uzbek law. As basis for approval, the IEE served as a background document required for SCEEP to approve the Project.

14. As part of the Terms of Reference for the Construction Supervision for the Project, the CSC, Dohwa Engineering Co should undertake environmental management and monitoring as detailed in the EMP and incorporate the findings and supporting data in the environmental reporting.

15. Regular environmental monitoring was carried out by the inspectors of the CSC and the CSC's international environmental specialist (IES) and National Environmental Safeguard Specialist (NESS). The corresponding findings and results were incorporated in the reports. In times when environmental issues would emerge, the Team Leader or Resident Engineer of the CSC would, as necessary, confer with the IES and NESS for appropriate advice. Accordingly, an advisory would be communicated to the Contractor for prompt action to remedy the environmental issues.

16. The SAEMR for July to December 2021 aggregates the environmental performance of the Project in general and environmental control activities, the environmental mitigation measures are applied to the construction bid package. The report reviews the compliance of environmental activities with EMP and proposes activities in the future environment in order to control and minimize negative environmental impacts.

## **2. PROJECT DESCRIPTION AND CURRENT ACTIVITIES**

### **2.1. Project Background**

17. CAREC Corridor 2 connects the Caucasus and Mediterranean to East Asia. The route covers Azerbaijan, Kazakhstan, Turkmenistan, Uzbekistan, Tajikistan, the Kyrgyz Republic, and the People's Republic of China (PRC). With the rapid economic expansion of the PRC to the east, the Russian Federation and Kazakhstan to the north and Azerbaijan to the west, there is an unprecedented opportunity for Uzbekistan to emerge as a center for trade and commerce, to achieve higher levels of economic growth.

18. The entire A380 highway is about 1,204 km passing through Guzar, Bukhara, Nukus, and Beyneu. It primarily carries fuel, agricultural commodities, and industrial consumer goods. Another ongoing highway investment in Kazakhstan supported by ADB will connect Beyneu, a town on Uzbekistan's border, with Uzbekistan's A380 highway and the port of Aktau in the Caspian Sea. All these highways, when completed, will provide Uzbekistan and other Central Asian countries direct access to the Caspian Sea, and thereafter to South Asia and the Black Sea via road corridors being built in Armenia, Azerbaijan, and Georgia. The Project links with CAREC Corridor 6, which reaches the so-called Ring Road in Afghanistan and thereafter Pakistan's main ports.

19. The A380 project road is an 87 kms section from km. 228-315 passing through Bukhara, Romitan, Peshkun, and Zhandar regions. It has two lanes with asphalt-concrete surface that starts at the border of Bukhara and goes through developed lands of Bukhara and Romitan regions. The project road terminates at the approach to Gazli city.

20. The Project/Tranche 3 of the Second MFF CAREC Corridor 2 Road Investment Program involves upgrading from 2-lane road to 4-lane road, rehabilitation and improvement, and widening of some existing RoW of 87 km stretch of A-380 upgrading from km 228 to 315. The pavement of the project road will use concrete cement, not asphalt. This road section begins at a suburb of Bukhara city and end in km 315. The

existing two-lane asphalt pavement is in bad condition, riding is not smooth, and several sections have cracks and broken pavement surface. Most the shoulders along the road are covered with sand and no slopes or drainage system existed. In some road section, the gas pipeline, and power poles mark the boundary of the RoW. There is one bridge over the Zarafshan River that had been completely reconstructed, and therefore no reconstruction or construction of big bridge will be involved. Nonetheless, there are about 54 culverts and small bridges (less than 30 meter) that needs to be rehabilitated and reconstructed, the civil works for construction of culvert will be done, while the existing culvert and small bridge will continue to be used for traffic, the existing culverts and small bridges will be rehabilitated and upgraded after the new culverts and small bridges are ready for traffic.



**Figure 1 Google Earth Map of A380 Project Road**

21. The MFF expired on 23 August 2021 and the IA is unable to self-finance the remainder of this work. This may involve (i) delay a critical transport connectivity gap, (ii) an ongoing contract that would require additional payments for early contract termination, and (iii) partially completed works and the issues associated therewith. The proposed National Road Development Projects is well-suited to finance this work as it expected to commence in the near future and has a similar and compatible scope of work.

22. The government has requested a regular loan of \$ 97.7 million from ADB ordinary capital resources to help finance the project.

## **2.2. The Road Rehabilitation Scheme**

23. The technical category of the existing road is II and III. All of the works undertaken were within the existing ROW. The rehabilitation works have the following features:

- ❖ reconstruction of the road with transfer to the category I;
- ❖ earth bed - combined; separate;
- ❖ number of lanes - 2 in each direction;
- ❖ lane width - 3.75 m;



- ❖ carriageway width - 7.5 m x 2;
- ❖ roadside width - 3.75 m x 2;
- ❖ cross slope of the carriageway - 15 ‰ - one-way for the combined; 15 ‰- for separate;
- ❖ cross slope of the roadside - 40 ‰;
- ❖ steep of embankment slopes in sandy areas - 1:2;
- ❖ steep of fill slopes in irrigated areas - 1: 1.5;
- ❖ Junction and branch of intersections - transition-speed lanes with a width of 3.75 m.
- ❖ coating - cement concrete with thickness of 250 mm;
- ❖ arrangement - retaining side metal road fences of barrier type, guideposts, road signs, horizontal and vertical markings;
- ❖ drainage in irrigated areas - ditches;
- ❖ artificial structures - widening/extension or replacement. Existing Engineering structures on the road are represented by culverts in form of culverts and bridges. An individual working design has been developed for each structure - culverts and bridges, etc.

**Table 1. Scope of the Contractor's Work**

No.	Contractor's Work	Unit	Quantity
1	Earthworks	Removal of topsoil	10,000m <sup>3</sup>
		Excavation	10,000m <sup>3</sup>
		Embankment construction	10,000m <sup>3</sup>
		Sub-shoulder fill	10,000m <sup>3</sup>
		Subgrade levelling	10,000m <sup>2</sup>
		Placement of Geotextile Layer	10,000m <sup>2</sup>
2	Site Clearance	Removal of bitumen surface	10,000m <sup>2</sup>
		Demolish of bridges	No
3	Base, subbase	15cm thickness subbase	10,000m <sup>3</sup>
		25cm thickness subbase	10,000m <sup>3</sup>
		16cm thickness base	10,000m <sup>2</sup>
4	Cement concrete pavement	Construction of geotextile layer	10,000m <sup>2</sup>
		25cm thickness B30 pavement	10,000m <sup>2</sup>
		10cm thickness B15 pavement	10,000m <sup>2</sup>
5	Asphalt concrete pavement(Bridge deck and road intersection)	Surface course made of fine- grained hot asphalt concrete mixture	10,000m <sup>2</sup>
		Base course made of road pavement made of hot coarse- grained asphalt concrete mixture	10,000m <sup>2</sup>
		Reinforcement of shoulders using	10,000m <sup>2</sup>
6	Structure of bridge and culvert	Bridge quantity	No
		Precast concrete square pile	pcs
		Hollow slab beam	Pcs
		Concrete	m <sup>3</sup>
		Pipe culvert	m
		Rectangular culvert	m
7	Roadside facilities	Metal fences barrier	m
		Curbs	m
		Bus stop shelter	No
		Road line	m
		Installation of road sign	No
		Construction of sidewalk pavement of reinforced concrete slabs	m <sup>2</sup>

No.	Contractor's Work	Unit	Quantity
8	Landscaping	Topsoil placing	m <sup>3</sup>
		Planting trees	No
		Sowing saxaul's seeds	Ha
			20,351
			2514
			24

### 2.3. Project Contracts and Management

24. The project owner is the Committee for Roads of the Republic of Uzbekistan. The Project Management Unit (PMU) is responsible for overseeing the implementation on behalf of the Committee.

25. The Project is being administered by the PMU which is represented by the Project Director. PMU designate a full-time Environmental Safeguard Specialist to manage and coordinate the contractors from 10<sup>th</sup> of October 2021. He based in Tashkent with periodic field inspections and supervision of the Project Environment team. His tasks include but are not limited to supervision for overall compliance with ADB SPS (2009) requirements, preparation and submission of environmental monitoring reports and update of IEE during construction in case of technical design changes or unanticipated impacts.

26. PMU has hired the CSC - Dohwa Engineering Co., LTD, (Republic of Korea) in cooperation with Rhythm Plus LLC (Uzbekistan) and Texno Standard Test (Uzbekistan) for Project Management and the construction supervision. On 15 October 2019, the contract was signed with Dohwa Engineering, with Rhythm Plus LLC and Texno Standard Test ALC as sub-consultants for \$3.48 million. On 22 April 2020, the EA issued the notice of contract effectiveness to PMCS for services to be completed within 42 months. There have been extensive changes in staffing. The CSC will ensure safeguard compliance of civil works – with particular emphasis on the monitoring of implementation of Site-Specific EMP (SSEMP) and related aspects of the Project. The CSC team includes International and National Environment Specialists and International and National Social Specialist.

27. The procurement of civil works for the reconstruction of 87 km of the A380 Highway between km228 and km315 experienced substantial delays. The first set of delays occurred due to protracted discussions on the bidding documents. The bidding was subjected to a second set of challenges due to (i) government transition, (ii) drastic changes in the exchange rate and (iii) a review by the EA on the design, feasibility study, and cost estimates as per the directive of the Management Council of the Republican Road Fund and the Cabinet of Ministers. The first round of bidding was eventually cancelled in June 2017 and the procurement was temporarily suspended. ADB exercised patient policy dialogue with the government, and rebidding commenced in April 2018. The rebidding process was further protracted due to delays in submission, revisions, and clearance of bid evaluation reports (technical and financial) including fundamental disagreements between ADB and the government on the EA's recommendation of contract award. On 15 April 2020, after prolonged discussion, the EA consented to the recommendations of ADB. The contract with China Railway 20 Bureau Group Corporation (CR20BGC) was signed on 15 May 2020 for \$99.81 million.

28. The PIU, Supervision Engineer and Contractor have maintained a good working relationship for environmental management and monitoring. The Supervision Engineer and PMU have had regular inspections in construction work sites and instructed corrective actions to Contractor for the observed environmental shortcomings in verbal and written forms. The Contractor submitted Monthly Environmental Reports for the Supervision Engineer's review and further reporting to the PMU.

29. Under the Contract, the Contractor shall comply with all applicable national, provincial and local environmental laws and regulations as well as applicable respective standards under the Contract.

30. Summary of civil works contracts and works' progress is summarized in Table 2. All awarded contracts included EMPs cleared by ADB and any conditions of applicable national EIA/IEE clearance.

Table 2. Summary of Civil Works Contracts and works' progress

Package	Contractor	Scope	Signed	Approval Date			Environmental personnel		Civil Work		Progress Status	
				SSEMP	COVID-19 HSMP	ERP	Environmental officer	Health and Safety officer	Start	End	1 July 2021	31 Dec 2021
Main contractor	China Railway 20 Bureau Group Corporation	All the work	5/15/2020	Draft SSEMP has been approved by the Team Leader but final approval was done on March, 2021, 2021	Jul 2020 (updated in Sep 2021)	Jul 2020 (updated in Sep 2021)	- HSE Team Environmental Specialist: Mr. Zhang Taotao - Assistant HSE Team Environmental Specialist: Seytitev Qahramon Durdiboyevich		7/27/2020	-	13.66%	26.25%
CR20G-WZA380-[2020]GC001	ROMITAN ROAD MAINTENANCE UNITARY ENTERPRISE	Earth work and Sub base	10/7/2020	Approval date of SSEMP in March 2021	Jul 2020 (updated in Sep 2021)	Jul 2020 (updated in Sep 2021)	HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Gulliev Sherali -Assistant HSE Team Environmental Specialist: Norov Uchkun <a href="tel:933830730">Tel:933830730</a>		10/19/2020	-	10%	15%
CR20G-WZA380-[2020]GC002	AZIZBEK ASHURBEK LLC	Earth work	10/1/2020	-	-	-	HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Jalliev Beshim -Assistant HSE Team Environmental Specialist: Berdiev Umid Tel: 914049990		10/19/2020	3/18/2021	12%	30%
CR20G-WZA380-[2020]GC003	AVTOYUL SANOAT INVEST	Earth work	10/19/2020	-	-	-	HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Aripov Dilshod -Assistant HSE Team Environmental Specialist: Sharipov Sarvar Tel: 937400884		11/5/2020	3/5/2021	15%	40%
CR20G-WZA380-[2020]GC004	JURAT SHUKHRAT AVTOTRANS LLC	Earth work	10/17/2020	-	-	-	HSE TEAM ENVIRONMENTAL SPECIALIST: MR.Kutliev Jurabek -Assistant HSE Team Environmental Specialist: Berdiev Jamshid Tel: 914008622		10/24/2020	3/12/2021	8%	20%
CR20G-	PARVOZ HUMO	Earth work	10/5/2020	-	-	-	HSE TEAM ENVIRONMENTAL		10/11/2020	3/13/2021	13	35%

Package	Contractor	Scope	Signed	Approval Date			Environmental personnel		Civil Work		Progress Status	
				SSEMP	COVID-19 HSMP	ERP	Environmental officer	Health and Safety officer	Start	End	1 July 2021	31 Dec 2021
WZA380-[2020]GC005	RAVNAK TRANS LLC						SPECIALIST: MR. Rasulov Nasriddin -Assistant HSE Team Environmental Specialist: Koryogdiev Jurabek Tel: 934760072					
CR20G-WZA380-[2020]GC006	SIGMA GOLD	Earth work	10/4/2020	-	-	-	HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Adizov Nodir -Assistant HSE Team Environmental Specialist: Norkulov Tuymurot Tel: 987740500		10/12/2020	1/17/2021	8%	9%
CR20G-WZA380-[2020]GC007	HEARTS GLAD	Earth work	11/6/2020	-	-	-	HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Safarov Bobir -Assistant HSE Team Environmental Specialist: Nosirov Nodir Tel: 907123656		11/14/2020	-	16%	80%
CR20G-WZA380-[2021]GC016	OOO «AGRO EXPORT XOLDING»	Bridge	1/15/2021	-	-	-	HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Safarov Bobir -Assistant HSE Team Environmental Specialist: Nosirov Nodir Tel: 937555550		1/22/2021	-	0	5%
CR20G-WZA380-[2021]GC019	ROMITAN AVTOBAN TRANS	Earth work	2/15/2021	-	-	-	HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Sharopov Aslon -Assistant HSE Team Environmental Specialist: Norov Khusniddin Tel: 993507085		2/21/2021	-	0	65%
CR20G-WZA380-[2021]GC020	TORTKOL SHOXBOZ-TRANS MCHJ	Earth work	3/28/2021	-	-	-	SE TEAM ENVIRONMENTAL SPECIALIST: MR. Aslonov Doniyor -Assistant HSE Team Environmental Specialist: Udaev Zafar Tel: 935705000		4/3/2021	8/1/2021	0	20%
CR20G-WZA380-[2021]GC023	«ZARMITAN NOYOB TOSHLARI»MCHJ	Piling and bridge demolition	22/9/2021				HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Jobirov Halim Ibragimovich HSE Team Environmental Specialist: Quliyev Abror Guliyevich Tel: 982749519		30/9/2021	-	0	54%
CR20G-WZA380-[2021]GC026	ЧП "al-QODIR"	Bridge	05/12/2021				HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Pirnazarov O'ral Haqnazarovich -Assistant HSE Team Environmental Specialist: Ro'ziqulov G'ofur Tel: 982749519		08/12/2021		0	1%

Package	Contractor	Scope	Signed	Approval Date			Environmental personnel		Civil Work		Progress Status	
				SSEMP	COVID-19 HSMP	ERP	Environmental officer	Health and Safety officer	Start	End	1 July 2021	31 Dec 2021
CR20G-WZA380-[2020]CQ001	Buxorogazsanoatqurilish	Reinstallation/reconstruction of power line	9/30/2020	-	-	-	HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Taylokov Sherobod	-	10/1/2020	-	45%	60%
CR20G-WZA380-[2020]CQ002			10/29/2020	-	-	-	-Assistant HSE Team Environmental Specialist: Taylokov Sherobod Tel: 946897503	-	10/1/2020	-	-	-
CR20G-WZA380-[2020]CQ003	JV SPETSGAZELEKTROPROMMONTAJ LLC	Reinstallation/reconstruction of gas utility pipelines	10/12/2020	-	-	-	HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Alimov Shrbek	-	10/29/2020	-	40%	56%
CR20G-WZA380-[2021]CQ004	ЧП «Aloqa Servis PRIM»	Reinstallation/reconstruction of local communication cables	1/7/2021	-	-	-	HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Denisov Toyir	-	1/15/2021	3/15/2021	0	100%
CR20G-WZA380-[2020]CQ005	ENERGY POWER BUILDING	Reinstallation/reconstruction of power line(Engineer house)	12/25/2020	-	-	-	HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Nuraliev Bekzod	-	12/28/2020	3/20/2021	0	100%
CR20G-WZA380-[2021]CQ006	DIV	Reinstallation/reconstruction of international communication cables	1/12/2021	-	-	-	HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Saidov Mekhriddin	-	1/18/2021	2/16/2021	0	100%
CR20G-WZA380-[2021]CQ007	XONOBOD-GAZ-MONTAJ	Reinstallation/reconstruction of gas utility pipelines	3/23/2021	-	-	-	HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Samadov Akhror	-	3/26/2021	-	0	50%
CR20G-WZA380-[2021]CQ008	Best Ingineer Qurilish	Reinstallation/reconstruction of gas utility pipelines	3/26/2021	-	-	-	HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Salomov Sherali	-	4/1/2021	4/30/2021	0	10%
CR20G-WZA380-[2021]CQ009	RoMITAN SUVOQOVA MUKAMMAL QURILISH	Reinstallation/reconstruction of water pipes	4/1/2021	-	-	-	HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Samadov Beshim	-	4/6/2021	-	0	46%

Package	Contractor	Scope	Signed	Approval Date			Environmental personnel		Civil Work		Progress Status	
				SSEMP	COVID-19 HSMP	ERP	Environmental officer	Health and Safety officer	Start	End	1 July 2021	31 Dec 2021
							973051011					
CR20G-WZA380-[2021]CQ011	"Bukhara Regional Electric Networks" JSC	Reinstallation/reconstruction of power line	4/5/2021	-	-	-	HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Jushkinov Beshim -Assistant HSE Team Environmental Specialist: Norov Murod Tel: 993088856		4/6/2021	-	0	36%

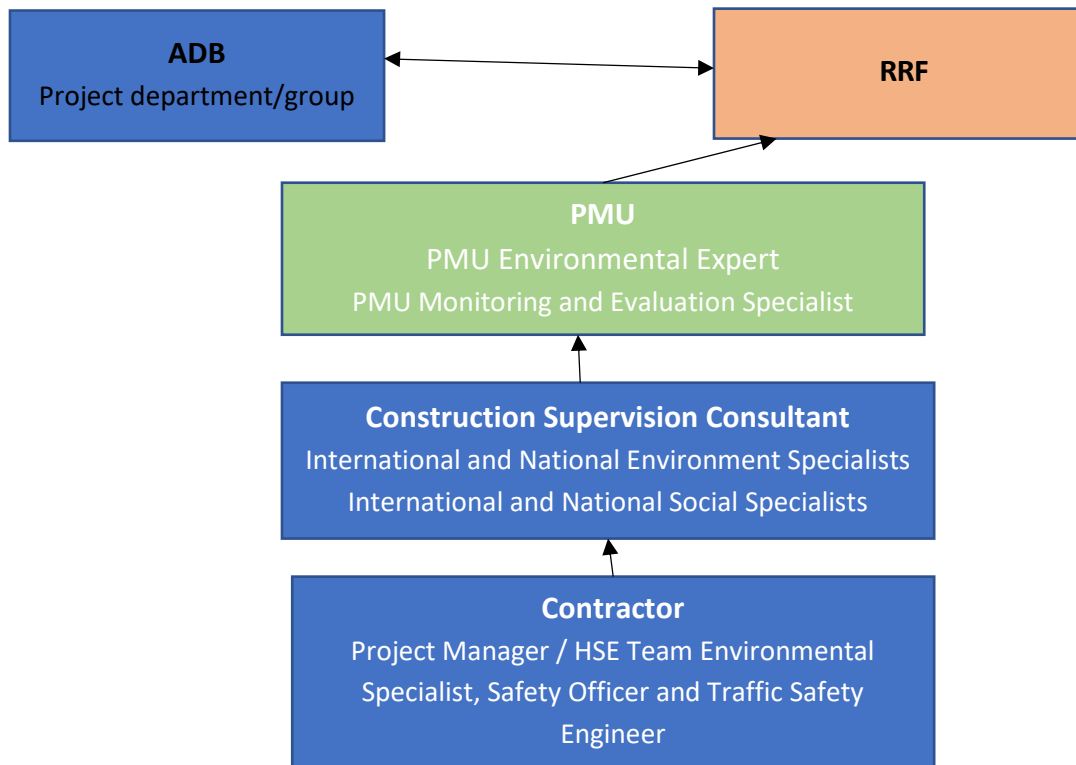
Note: The Month/Years in brackets are planned schedule.

COVID-19 HSMP = COVID-19 Health and Safety Management Plan, ERP = Emergency Response Plan, SSEMP = site-specific environmental management plan

31. Contact details of the main organizations involved in the Project relating to Environmental Safeguards, including borrower and Main Contractor/s are given in Table 3.

**Table 3. Staff involved in environmental management**

Type of project participant	Name of Agency / Company	Environmental Staff	Name	E-mail
<b>Implementing Agency</b>	Program Management Unit (PMU)	Environmental Specialist	Shodiyor Jurabekov	+998998905252 sjurabekov92@gmail.com
<b>Construction Contractor</b>	China Railway 20 Bureau Group Corporation	HSE Manager	Yue Zongxian	+9989999047329 Cr20g.a380@gmail.com
		HSE Team Environmental Specialist	Mr. Zhang Taotao	+998931436000 215702374@qq.com
		Assistant HSE Team Environmental Specialist	Seytitev Qahramon Durdiboyevich	936846484 oloteko2017@mail.ru
<b>Construction Supervision Consultant (CSC)</b>	«Dohwa Engineering Co., Ltd» (Republic of Korea) in cooperation with Rhythm Plus LLC (Uzbekistan) and Texno Standard Test (Uzbekistan)	International Environment Safeguard Specialist (IESS)	Mr. Mohsin Almaji	<a href="mailto:dralmaji@gmail.com">dralmaji@gmail.com</a>
		International Social Safeguard Specialist (ISSS)	Mr. Mizanur Rahman	<a href="mailto:armsrahman@yahoo.com">armsrahman@yahoo.com</a>
		National Environmental Safeguard Specialist (NESS)	Irina Teplyakova	<a href="mailto:teplyakova@almarconsulting.org">teplyakova@almarconsulting.org</a>
		National Social Safeguard Resettlement Specialist	Veronika Cherdikudi	<a href="mailto:cherdikudi@almarconsulting.org">cherdikudi@almarconsulting.org</a>

**Figure 2. Project Organization Structure**

### 2.3.1. Responsibilities for supervision of environmental matters

32. To ensure proper compliance of environmental safeguards, the Environmental Expert of PMU will monitor environmental matters and report to the Project Manager who shall advise the Project Director.

33. Environmental issues arising from the construction activities should immediately be brought to his attention to coordinate efforts in order to immediately mitigate impacts, protect the environment, and safeguard the health and welfare of the local communities. All these are to be conducted within the framework of the overall construction management and supervision.

34. The PMU are supported by the CSC including the IES and NESS, who are responsible for overseeing the construction and monitoring all works and activities undertaken by the Contractor(s) and ensuring compliance with the specification and contractual requirements. During construction, the contractors will ensure that mitigation measures are implemented and sustained throughout the construction period. The IES and NESS had been hired to join the CSC team and to oversee and monitor the implementation of all mitigating measures required by the EMP/SSEMP in accordance with ADB SPS (2009), and the Government of Uzbekistan Environmental Assessment Requirement.

35. The CSC is working closely with the PMU. Presently, the CSC Environmental Safeguard Unit consists of:

- ❖ International Chief Resident Engineer/Team leader/Highway Engineer
- ❖ International Environment Specialist (IES)
- ❖ National Deputy Team Leader/Resident Engineer/Highway Engineer
- ❖ National Environmental Safeguards Specialist (NESS)
- ❖ International Social Safeguards/Resettlement (ISS)



❖ National Social Safeguards/Resettlement Specialist

**2.3.2. Responsible for carrying out mitigation measure**

36. During construction stage, implementation of mitigation measures is the construction contractor's responsibility.

37. To ensure implementation of mitigation measures during the construction period, contract clauses for environmental provisions are part of the civil works contracts. Contractors' conformity with contract procedures and specifications during construction has been carefully monitored by PMU and the CSC.

38. The Contractor had appointed a full-time Health, Safety, and Environment (HSE) Specialist and a full-time Assistant HSE Team Environmental Specialist to be senior members of the construction management team based on site for the duration of the contract. The Contractor's Environmental Unit is staffed by three people:

- Mr. Yue Zongxian - Deputy Team Leader-HSE manager
- Mr. Zhang Taotao - International Environment Specialist
- Mr. Kakhramon Seytiyev - National Environmental Safeguard Specialist

**2.3.3. Responsible for carrying out monitoring measure**

39. The CSC includes Environment Specialists (International & National) as part of their team to oversee the overall implementation of environmental management plan (EMP & SEMP), environmental monitoring, and compliance to the environmental requirements of ADB. CSC Environmental Specialists prepare semestral environmental monitoring reports required by ADB, monitor the environmental compliance of the Construction Contractor.

40. The responsibilities of the IESS of the CSC include:

- a) ensure that the construction methods as proposed by the contractor for carrying out the works are satisfactory, with particular references to the technical requirements of sound environmental standards on the basis of ADB Environment Source Book and World Bank Group's Environment, Health and Safety Guidelines, as referenced in ADB Safeguards Policy Statement: inspection of contractors' construction equipment, safety of the works, property, personal and general public and the recommendations of the initial environmental examination (IEE) and summary IEE;
- b) Revise SEMP prepared and submitted by the Construction Contractor and endorse them;
- c) Supervise field work including collection of samples for environment assessment, assess environmental impacts directly caused by construction activities, and indirectly caused by the change in the traffic conditions;
- d) Prepare and run a standardized model for monitoring greenhouse gas emissions. Such a model will be prepared in consultation with the Employer and ADB;
- e) updating initial environmental examination (IEE) report, if necessary, of implementing this plan as part of project implementation project, and carry out environmental management seminars for contractors and RRF staff;
- f) After completion of construction activities CSC/PMU will conduct Post Construction Environmental Audit and prepare Post Construction Audit Report which will contribute to the preparation of the project completion report (PCR).

41. The responsibilities of the NESS of the CSC include:

- a) Assist the international consultant in ensuring that the construction methods as proposed by the contractor for carrying out the works are satisfactory, with particular references to the technical requirements of sound environmental standards on the basis of ADB environmental guidelines for selected infrastructure Development project (Highway & Roads) inspection of contractors' construction equipment, safety of the works, property, personal and general public and the recommendations of the initial environmental examination (IEE) and summary IEE;
- b) Carry out field work including collection of samples for environment assessment, assess environmental impacts directly caused by construction activities, and indirectly caused by the change in the traffic conditions;
- c) Collect data for monitoring the greenhouse gas emissions using a standardized model prepared in consultation with the Employer and ADB;
- d) Updating initial environmental examination (IEE) report, if necessary, of implementing this plan as part of project implementation project, and carry out environmental management seminars for contractors and RRF staff; and
- e) At the end of the project, the consultant will carry out a detailed impact assessment, which will contribute to the preparation of the project completion report.

#### **2.4. Project Activities during Current Reporting Period**

42. This is the forth Semi-Annual Environmental Monitoring report. This report provides a review on how the environmental measures, needed to prevent and/or mitigate negative environmental effects associated with the development project, have been carried out by the Contractor. The report also provides a summary of the currently outstanding major and minor issues that need to be addressed.

43. Total Project Progress at the end of December 2021 was 26.2% against planned progress of 33.53. Site HSE inspections for construction works have been carried out since very beginning of the project. Progress of the works is given in the Table 5 below.

44. Main reasons of delay:

- ❖ The MFF expired on 23 August 2021 and the IA is unable to self-finance the remainder of this work
- ❖ The Contractor had sharp deficiency in cash operation due to MFF expired.
- ❖ And Contractor's head office support dropped sharply and progress affected adversely and seriously: construction resources could not be mobilized on time.
- ❖ Borrow pit material extraction permit was delayed to obtained.

45. Currently, the main works include the reconstruction of the gas pipeline, repair of existing roads and installation of road signs to increase safety, filling of potholes with sand and gravel, installation of concrete barriers, reconstruction of old bridges and construction of new bridges, construction of bypass roads.



**Figure 1. Project construction activities**

Table 4. Project progress

			Work Progress up to 31 December 2021			
BoQ No.	Description		Plan Up to 31 December 2021	As of 30 June 2021	Progress in the past 6 months (31 December 2021)	Accumulated
	Earthwork	Clearing	89.07%	86.54%	3.02%	89.56%
		Excavation	83.74%	32.83%	12.03%	44.86%
		Filling	82.92%	43.88%	11.44%	55.32%
		Subgrade levelling	51.85%	21.22%	12.85%	34.07%
	Site Clearance	Removal of bitumen surface	55.12%	7.14%	5.05%	12.91%
		Removal of base and sub-base course	23.36%	1.52%	0	1.52%
		Demolish of bridge	30.76%	0.00%	23.08%	23.08%
	Base, subbase	15cm thickness subbase	55.12%	10.45%	14.24%	24.69%
		25cm thickness subbase	55.12%	17.61%	9.74%	27.35%
		16cm thickness subbase	15.78%	3.25%	12.67%	15.92%
	Cement concrete pavement	25cm thickness B30 pavement	16.95%	0.10%	13.32%	13.42%
		10cm thickness B15 pavement	0	0.00%	0.00%	0.00%
	Asphalt concrete pavement(Bridge deck and road intersection)	Surface course made of fine-grained hot asphalt concrete mixture	0	0.00%	0.00%	0.00%
		Base course made of road pavement made of hot coarse-grained asphalt concrete mixture	0	0.00%	0.00%	0.00%
	Structure of bridge and culvert	Bridge quantity	0	0.00%	0.00%	0.00%
		Precast concrete square pile	25.61%	0.00%	20.40%	20.40%
		Hollow slab beam	2.36%	0.00%	0.00%	0.00%
		Concrete	19.97%	0.00%	5.61%	5.61%
		Pipe culvert	100%	13.78%	0.00%	13.78%
		Rectangular culvert	100%	25.17%	53.40%	78.57%
	Roadside facilities	Metal fences barrier	0	0.00%	0.00%	0.00%
		Curbs	0	0.00%	0.00%	0.00%
		Bus stop shelter	0	0.00%	0.00%	0.00%
		Road line	0	0.00%	0.00%	0.00%
		Installation of road sign	0	0.00%	0.00%	0.00%
		Pavement	0	0.00%	0.00%	0.00%
	Landscaping	Topsoil placing	0	0.00%	0.00%	0.00%
		Sowing saxaul's seeds	0	0.00%	0.00%	0.00%
Total of Bills Sums			35.91%	13.66%	8.01%	26.25%

#### 2.4.1. Mobilization of Resources

46. The mobilization of heavy equipment and machineries has been done mainly through railway from the nearest railway station of Bukhara. Some part of equipment was transported by road from Tashkent. Tractors and some construction machinery were purchased locally. The equipment used in the mixing plant is sourced from China.

47. At the time of this report preparation, 495 workers were working on the site. Approximately 20% of them are experts from outside, and around 80% are local staff. Due to unavailability of specific skills of the local staff, this staff was engaged in site cleaning and other secondary works. Experts included as site managers, engineers, operators and etc.

**Table 5. Contractor's Chinese personnel mobilization on site**

No	Position	Proposed mobilization on site	Presence on site
1	Project manager	1	1
2	Administration manager	1	1
3	Chief engineer	1	1
4	Deputy manager	2	1
5	Structural engineer	5	6
6	Subgrade engineer	5	8
7	Laboratory engineer	2	2
8	Surveyor	3	5
9	Gas engineer	1	1
10	Electrician	1	1
11	HSE Engineer	1	2
12	Accountant	3	3
13	Cost and planning engineer	4	5
14	HR	2	3
15	Foreman	4	9
16	Cement sliding film paver operator	2	2
17	Translator	3	4
18	Materials and Equipment Engineer	5	6
19	Personnel of Accepting Materials	2	7
<b>Total</b>		<b>48</b>	<b>66</b>

**Table 6. Contractor's Uzbek personnel mobilization on site**

No	Position	Proposed mobilization on site	Presence on site
1	Engineer	10	10
2	General staff	16	33
3	Foreman	16	19
4	Driver	197	130
5	Operator	84	67
6	Experimenter	12	16
7	Surveyor	14	20
8	Mechanic	8	2
9	General workers	51	123
10	Security	12	12
	<b>Total</b>	<b>420</b>	<b>432</b>

### 2.4.2. Local contracts

48. The Contractor made some contracts with local companies to do earthworks, and those subcontractors are “Romitan road operational linear unitary enterprise” (PK228-PK260), “Highway Industry Invest” LLC (PK260-PK275), “Azizbek Ashurbek” LLC (PK275-PK280), “Jurat plus SHuxrat avtotrans” LLC (PK295-PK300), “Sigma Gold” LLC (PK300-PK305), “Parvoz Xumo Ravnaq trans” LLC (PK305- PK310), “Heart’s Glad” (PK 312-PK315).

49. The Contractor also made contracts with other companies to do other works such as electrical communication “Kogon Electrical Installation” and for relocation / reconstruction of gas pipeline “Spetsgazelektromontaj” LLC.

50. The Contractor has a contract with the State Unitary Enterprise "Clean Zone" of the Romitan district of the Bukhara region for the transportation of waste generated by employees.

51. The Contractor has three contracts with Yo-Inshoat Loyiha (№36/1, 37/21 and 38/21 dated 23 June 2021) for EIA preparation for the construction of an industrial base on the area of 3.7 hectares at 284 km, at 1.62 hectares for 249 km and 2.4 hectares at 269 km of A380 Guzar – Bukhara– Nukus – Beyneu highway.

52. For drinking water supply, there is a Contract No.66 between China Railways 20 and Gazli magistral gaz kuvurlari boshkarmasi dated 01 February 2021. For wastes removal, there is a contract No.51 between Bukhara regional Toza Khudud and China Railways 20 dated 1 December 2020. There is a Contract No.909 between China Railways 20 and Bukhara regional Sanitary and Epidemiological Department dated 18 March 2021 for performance of chemical analysis of water, dust control, noise measurement and vibration.

53. The Contractor is responsible for ensuring that all sub-contractors abide by the conditions of the SSEMP. All sub-contractors are informed by the Contractor about Environment, Health, Safety, and Security (EHSS) requirements during contract negotiations. The sub-contractors are required to comply with all relevant laws and regulations on environmental protection, and take precautionary measures to minimize any potential impact on the environment.

### 2.4.3. Environment Statutory Clearance

54. For the road project, an indicative list of the permit types which may be required for the Project is provided in Table below in which the Contractor needs to be considered those that apply to the works – road, bridges as well as ancillary facilities.

**Table 7 Indicative List of Permits and Licenses Applicable to the Project**

Description of Authorization Document	Date of Issue	Issuing Authority
<b>Design Stage: Project Feasibility Study and Environmental Impact Assessment</b>		
Conclusion of the State Ecological Expertise on the project	Approved by SCEEP on 27 March 2018	SCEEP
<b>At the Construction Stage: Permits and Licenses</b>		
Updated Environmental Impact Assessment for road	Permit №04-01/10-08-2157 was obtained on 24 December 2021	SCEEP
Environmental Impact Statement for batching plant 249	Permit obtained on 06 August 2021	SCEEP

<b>Description of Authorization Document</b>	<b>Date of Issue</b>	<b>Issuing Authority</b>
Environmental Impact Statement for batching plant 269	Permit obtained on 06 August 2021	SCEEP
Environmental Impact Statement for batching plant 284	Permit obtained on 06 August 2021	SCEEP
Environmental Impact Assessment for bathching plant 249	Permit obtained on 08 June 2021	SCEEP
Environmental Impact Assessment for bathching plant 269	Permit obtained on 08 June 2021	SCEEP
Environmental Impact Assessment for bathching plant 284	Permit obtained on 08 June 2021	SCEEP
Environmental Impact Statement and Assessment for DOHWA camp	Permit obtained on 23 August 2021	Bukhara region SCEEP
<b>Environmental impact statement for borrow pits</b>		
Quarry No1 270-km to the right (1km from the route)	Decree No. 92 dated 12 February 2021	Khokimiyat of Jondor district
Quarry No2 274-km to the right (1.5km from the route)	Decree No. 92 dated 12 February 2021	Khokimiyat of Jondor district
Quarry No3 304.5-km to the right(0.1km from the route)	Decree No. 92 dated 12 February 2021	Khokimiyat of Jondor district
Quarry No4 307-km to the right(0.4km from the route)	Decree No. 92 dated 12 February 2021	Khokimiyat of Jondor district
Quarry No5 288-km to the right(0.1km from the route)	Decree No. 92 dated 12 February 2021	Khokimiyat of Jondor district
Quarry No6 293.2-km to the right(0.05km from the route)	Decree No. 92 dated 12 February 2021	Khokimiyat of Jondor district
Quarry No7 287.8-km to the right (0.4km from the route)	Decree No. 92 dated 12 February 2021	Khokimiyat of Jondor district
Quarry No8 284-km to the right (0.1km from the route)	Decree No. 92 dated 12 February 2021	Khokimiyat of Jondor district
Quarry No9 285.5-km to the right (0.5km from the route)	Decree No. 92 dated 12 February 2021	Khokimiyat of Jondor district
Quarry No10 294.5-km to the right (0.1km from the route)	Decree No. 92 dated 12 February 2021	Khokimiyat of Jondor district
Quarry No11 294.6-km to the right (0.1km from the route)	Decree No. 92 dated 12 February 2021	Khokimiyat of Jondor district
Quarry No12 286.4-km to the right (0.5km from the route)	Decree No. 92 dated 12 February 2021	Khokimiyat of Jondor district
Quarry No13 287.2-km to the right (0.3km from the route)	Decree No.243 dated 5 April 2021	Khokimiyat of Romitan district
Quarry No14 286-km to the right (0.2km from the route)	Decree No. 92 dated 12 February 2021	Khokimiyat of Jondor district
Quarry 238 km to the left (4.5 km from the route)	Decree No. 92 dated 12 February 2021	Khokimiyat of Jondor district

55. For the quarry, a borrow pit was planned to be opened close to the Project Corridor. The Contractor coordinated the use of the quarries with the Engineer and obtained official permission from the relevant local

authorities. Based on the initial SEMP, the Contractor guarantees all disturbed lands will be restored to their original condition after completion of the design work.

56. Specifically, for Quarries and batching plants the following were established:

- To be established at a distance of at least 500 meters from settlements in order to prevent exposure of people to noise and dust.
- Be outside the farmland area.
- Be on state lands
- Necessary permission will be obtained from the local authorities.

## 2.5. Description of Any Changes to Project Design

57. There are 15 bridges which were designed and do not comply to the new design loading NK 100. Furthermore, there are no design calculations to check for stability. The DI has recalculated the foundation and it appears that more number of piles and the lengths have been increased. 2 bridges at km 237+600 and 296+000 are currently limited to repairs only. These bridges need to be tested and probably change to reconstruction or even to new construction if the destructive/non-destructive tests decide so.

58. **Culvert Design Issues.** There are 19 culverts which need to be designed as no extensions were envisaged in the design. The Engineer confirmed that this is being done.

59. **Road Design Issues.** There are issues with lines and levels that do not match the current conditions at site. Sudden and sharp falls in the shoulders are causing difficulties in constructing the road ways.

## 2.6. Description of any changes to Agreed Construction Methods

60. There are no any changes to agreed construction methods.



### 3. COMPLIANCE WITH ADB LOAN COVENANTS

61. The status of compliance with environmental safeguards related to covenants in the Project's Loan Agreement signed between the Republic of Uzbekistan and ADB on 16 September 2019 is summarized in Table 8 and shows the status of compliance with ADB's loan covenants<sup>7</sup> relating to environment, health and safety during the monitoring period: July to December 2021.

**Table 8. Status of compliance with ADB's Loan Covenants**

Schedule	Para	Description	Remarks/Issues (Status of Compliance)
Schedule 5	para.6	<u>Environment:</u> The Borrower, through Road Fund, shall ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project comply with (a) all applicable laws and regulations of the Borrower relating to environment, health, and safety; (b) the Environment Safeguards; (c) the EARF; and (d) all measures and requirements set forth in the IEE, the EMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	<b><u>Complied.</u></b> All applicable laws and regulations of the Republic of Uzbekistan are applied. The preparation, design, construction, implementation, operation and decommissioning of the Project and the Project Facilities comply with (i) all applicable laws and regulations of the Borrower relating to environment, health, and safety; (ii) the Environment Safeguards; and (iii) all measures and requirements set forth in the IEE, the EMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.
Schedule 5	para.10	<u>Human and Financial Resources to Implement Safeguards Requirements:</u> The Borrower, through Road Fund, shall make available the necessary budgetary and human resources to fully implement the EMP and the RP.	<b><u>Complied.</u></b> PMU has designated a full-time Environmental Safeguard Specialist to manage and coordinate the contractors on 10 <sup>th</sup> of October 2021. His tasks include but are not limited to supervision for overall compliance with ADB SPS (2009) requirements, preparation and submission of environmental monitoring reports and update of IEE during construction in case of technical design changes or unanticipated impacts. PMU has hired the Engineer who will ensure safeguard compliance of civil works – with particular emphasis on the monitoring of implementation of SSEMP and related aspects of the Project.
Schedule 5	para.11	<u>Safeguards-Related Provisions in Bidding Documents and Works Contracts</u>	<b><u>Complied.</u></b> EMP was included in the bidding documents. After conducting the

<sup>7</sup> ADB. Project Agreement for Loan 3355-UZB: Second Central Asia Regional Economic Cooperation Corridor 2 Road Investment Program - Project 3. <https://www.adb.org/projects/documents/uzb-44483-027-pra>

Schedule	Para	Description	Remarks/Issues (Status of Compliance)
		The Borrower shall ensure or cause the Road Fund to ensure that all bidding documents and contracts for Works contain provisions that require contractors to: (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 preventative actions set forth in a Safeguards Monitoring Report; (b) make available a budget for all such environmental and social measures; (c) provide 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; (d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and (e) reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.	procurement and selecting the Contractor and Engineer, EMP was included into the contract agreements between EA and Engineer, and EA and Contractor. Contract between the State Committee for Roads and Contractor includes detailed terms and conditions regarding the safeguard actions in accordance with the IEE and EMP, which were included in the bidding documents. SSEMP was developed by Contractor and was approved by the CSC in July 2020. Sub-clauses also include Contractor's schedule of submitting reports to the CSC and the State Committee for Roads.  Contract Sub-clauses between EA and Contractor includes detailed terms and conditions regarding the safeguard actions in accordance with IEE and EMP, which were included in the bidding documents.
Schedule 5	Para.12	<u>Safeguards Monitoring and Reporting</u> The Borrower, through Road Fund, shall do the following: (a) submit semi-annual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to effected persons promptly upon submission; (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 (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.	<b><u>Complied.</u></b> Project information is available in Uzbek, Russian and some key information on English as well. Semi-annual Environmental Monitoring Report has been prepared periodically and disclosed at ADBs website regularly and Road Fund site. ( <a href="https://www.uzavtoyul.uz/en/post/osiyo-taraqqiyot-banki-ishtirokidagi-a380-guzorbuxoronukusbeyneu-avtomobil-yolining-228315-km-qismini-rekonstruksiya-qilish-loyihasi-doirasida-ishlab-chiqilgan-atrofmuhit-monitoringi-hisoboti1.html">https://www.uzavtoyul.uz/en/post/osiyo-taraqqiyot-banki-ishtirokidagi-a380-guzorbuxoronukusbeyneu-avtomobil-yolining-228315-km-qismini-rekonstruksiya-qilish-loyihasi-doirasida-ishlab-chiqilgan-atrofmuhit-monitoringi-hisoboti1.html</a> ) COVID-19 health and safety management plans as well as Emergency Response Plan were prepared by the Contractor and approved by the PMU and the supervision consultant in August 2020 year.
Schedule 5	Para. 13	<u>Prohibited List of Investments</u> The Borrower shall ensure that no proceeds of the Loan	<b><u>Complied.</u></b> The Borrower as well as the Road Fund ensuring this covenant.

Schedule	Para	Description	Remarks/Issues (Status of Compliance)
		are used to finance any activity included in the list of prohibited investment activities provided in Appendix 5 of the SPS.	
Schedule 5	Para.15	<p><u>Labor Standard</u></p> <p>The Committee for Roads shall ensure that the core labor standards and the Borrower's applicable laws and regulations are complied with during implementation. The Committee for Roads shall include specific provisions in the bidding documents and contracts financed under the Project requiring that the contractors, other provider of goods and services and their subcontractors:</p> <p>(a) comply with the Borrower's applicable labor law and regulations and incorporate applicable workplace occupational safety norms;</p> <p>(b) do not use child labor;</p> <p>(c) do not discriminate workers in respect of employment and occupation by providing, inter alia, equal pay for men and women or people from different ethnic groups for work of equal value, and to the extent possible, employing women and local people, including disadvantaged people, living in the Project area, provided that the requirements for efficiency are adequately met;</p> <p>(d) do not use forced labor;</p> <p>(e) allow freedom of association and effectively recognize the right to collective bargaining; and</p> <p>(f) Disseminate, or engage appropriate service providers to disseminate, information on the risks of sexually transmitted diseases, including HIV/AIDS, to the employees of contractors engaged under the Project and to members of the local communities surrounding the Project area, particularly women.</p>	<p><b><u>Complied.</u></b></p> <p>Ongoing process.</p> <p>The Borrower as well as the Road Fund ensuring this covenant. The Committee for Roads and the Consultants employed under the Project will ensure and monitor fulfillment of the health and labor standards by contractors under contracts for Works.</p>

## 4. ENVIRONMENTAL SAFEGUARD ACTIVITIES

### 4.1. General Description of Environmental Safeguard Activities

62. During the reporting period, there were no any changes in the organizational structure of the project. The Construction Supervision Consultant (CSC) supervised and monitored the project construction process. The CSC includes Environment Specialists (Mr. Mohsin Almaji, International & Mrs. Teplyakova, National) as part of their team to oversee the overall implementation of environmental management plan (EMP & SSEMP), environmental monitoring, and compliance to the environmental requirements of ADB. CSC Environmental Specialists prepare semi-annual environmental monitoring reports required by ADB monitor the environmental issues.

63. In addition to the national environmental specialist, the international environmental specialist of the supervising consultant has provided support to the national specialist during the monitoring activities and been responsible for the reporting during the period, based on the monthly reports provided by the national specialist and other correspondence as issues have arisen.

64. The Engineer's environmental specialists prepare monthly and semi-annual reports which are submitted to PMU. These reports summarize the Engineer's monitoring of all construction activities and their environmental impact (if any).

65. Activities carried out by consultant during the monitoring period (international and national, respectively) is provided in Table 9 below.

**Table 9. Environmental Safeguards Activities Carried out During Reporting Period (July - December 2021)**

Environmental Safeguard Activities
<p><b>The International environmental expert (Mr. Mohsin Almaji) of Supervision Consultant (Dohwa Engineering Co. Ltd.) implemented:</b></p> <ul style="list-style-type: none"> <li>- Update initial environmental examination (IEE) report <sup>8</sup></li> <li>- Ensured the construction methods proposed by the contractor like SSEMP for carrying out the works are satisfactory,</li> <li>- Performed sound environmental standards of the construction works on the basis of the Asian Development Bank (ADB) Environment Source Book and World Bank Group's Environment, Health and Safety Guidelines 3,</li> <li>- Ensured inspection of contractor's construction equipment; safety of the works, property, personnel, and general public;</li> <li>- Prepared environmental monitoring plan,</li> <li>- Carried out environmental management trainings for contractors, RRF and State Committee for Natural Protection staff at project site;</li> </ul>

<sup>8</sup> The updated IEE was disclosed on ADB's website on 9 November 2021. <https://www.adb.org/projects/documents/uzb-53312-001-iec-1>

The EA disclosed the IEE in local language on 25 October 2021 at the Committee for Road's website.

<https://www.uzavtoyul.uz/cy/post/osiyo-taraqqiyot-banki-ishtirokidagi-a380-guzorbuxoronukusbeyneu-avtomobil-yolining-228315-km-qismini-rekonstruksiya-qilish-loyihasi-doirasida-ishlab-chiqilgan-dastlabki-ekologik-ekspertiza-iec-hisobotii.html>

**Environmental Safeguard Activities**

- Reviewed of Semi-Annual Environment Monitoring Report (SAEMR) and finalized,
- Ensured the corrective actions are implemented by the deadline.

**The national environmental expert (Ms. Irina Teplyakova) of Supervision Consultant (Dohwa Engineering Co. Ltd.) implemented:**

- Ensured the construction methods proposed by the contractor like SSEMP for carrying out the works are satisfactory,
- Performed sound environmental standards of the construction works on the basis of the Asian Development Bank (ADB) Environment Source Book and World Bank Group's Environment, Health and Safety Guidelines 3,
- Ensured inspection of contractor's construction equipment; safety of the works, property, personnel, and general public;
- Prepared environmental monitoring plan and annual report of implementing the plan,
- Carried out environmental management trainings for contractors, RRF and State Committee for Natural Protection staff at project site;
- Prepare the Semi Annual Environment Monitoring Report (SAEMR),
- Ensured the corrective actions are implemented by the deadline.

66. The undertaken environmental and Occupational Health and Safety (OHS) monitoring, includes supervision and inspection of construction work sites, verification of permits, monitoring of compliance performance of contractor, instrumental environmental monitoring for noise and vibration, and air pollution, construction waste management, review of documentations, implementation of EMP and SEMP, review of environmental management and monitoring reports, and so on, undertaken by Contractors' and monitored by the Supervision Engineer, such as:

- Identify of Environmental Sensitive receptors,
- Use of Personal Protective Equipment (PPE),
- Health and Safety issues,
- Use of child labor, firefighting equipment's,
- Extraction of stone/gravel from the quarry area,
- First Aid Facilities in the construction site area,
- To see the batching plant, etc.
- Daily site inspections by the Contractors' local Environmental Specialist and OHS Officer;
- HIV/AIDS Trainings
- Inspections of camps and worksites by Supervision Engineer's local Environmental Specialist

**4.1.1. Environmental Monitoring**

67. Contractor's compliance with the IEE/EMP are updated in their respective Environmental Monitoring and Mitigation Measure Reports which are submitted to PMU and CS Consultant on a monthly basis. On September 19-20, October 21-23 and November 12-13, National Environmental Safeguard Specialist (NESS) of CS Consultant had a walk-through of the site and documented own observations and to validate and update further the status of the contractor's compliance with environmental safeguards.

68. Findings from the environmental monitoring works performed during July - December 2021 reporting period are presented in Annex 1. The non-compliances detected during HSE inspections were recorded and photos taken.

69. Monitoring was performed by using indicators described in the EMP. The environmental quality should follow relevant norms of Republic of Uzbekistan.

70. The EMoP is an important component of environmental management aspects relevant to the proposed works. To ensure the effective implementation of the EMP, it is essential that an effective monitoring programme be designed and carried out. The broad objectives are:

- Verification of the estimated expected impacts based on selective parameters and determine the actual scale of impacts, as well as registration of unforeseen effects.
- To evaluates the performance of mitigation measures proposed in the EMP.
- To evaluates the adequacy of IEE.
- To suggests improvements in management plan, if required.
- To enhance environmental quality; and
- To satisfies the legal and community obligations.

71. The EMoP has been used for performance monitoring of the project. An EMoP defining all parameters to be monitored, with tentative location, project stages for measurements, implementation and institutional responsibility for different environmental components is prepared for all stages of project and the implementation status of EMoP during the reporting period is summarized in Table 10.

**Table 10. Status of Environmental Monitoring Plan Implementation as of 31 December 2021**

ITEM	Monitoring Details	Timing	Executing Unit	Reporting/ Responsibility	Status of Implementation
<b>PRE-CONSTRUCTION (DESIGN) PERIOD:</b> all written confirmation and reports submitted to RRF's PMU for the record and available to ADB for compliance check.					
Checking design for integration of environmental considerations, i.e. working within RoW, materials haul restrictions	Prior to the completion of the design work the PMU and their consultant will complete an audit to ensure that environmentally sound design and construction measures have been integrated in the detailed design and bid documentation	Prior to the end of the detailed design work	RRF, CSC or PMU	RRF	In accordance with technical documentation all work will be done within RoW
Mitigation and Monitoring Implementation Timetable	Sign-off by RRF that mitigation and monitoring timetable has been prepared and will become a part of contractual activities	Before ground breaking	RRF and PMU	RRF	Contractor developed SSEMP. SSEMP describes the required mitigation and monitoring, persons responsible.
Environmental specifications for contractors bid documents, Environmental clauses for contracts and Loan Covenant	RRF, with the help of the Supervision Consultant, is to provide draft environmental clauses and specifications based on the EMP, for inclusion in bid documents and the Loan Agreement; or Use the EMP as the reference document	Prior to bids and signing of Loan Agreement between ADB & RRF	RRF, PMU and CSC	RRF	Environmental specifications were included in bidding documents.
Mitigation Reporting	Prepare and submit to RRF and ADB (as required) pre-construction mitigation summary confirming that all items in part one of the EMP (Pre-Construction Mitigation items), have been completed.	Near end of Pre-construction period	RRF	RRF	Pre-construction mitigation summary is prepared and included into the SAEMR (this table).
Confirmation of Training program	Prepare a completion report on the training provided including copies of materials used duration, attendance and student evaluation results	Just prior to Contractor mobilization	PMU and CSC	RRF	CSC has conducted several trainings for Contractors and PMU.
<b>CONSTRUCTION PERIOD:</b> prepare and use a monitoring checklist					
Earthworks transport and storage monitoring	Undertake, as part of the construction inspection, regular confirmation that earthworks are handled in an environmentally acceptable	Every day, throughout the	Contractor and RRF or PMU	RRF	Some part of the excavation work was carried out during the

ITEM	Monitoring Details	Timing	Executing Unit	Reporting/ Responsibility	Status of Implementation
	manner and dust control is undertaken at all time, including the use of tarpaulins by trucks hauling fine materials.	construction period	inspectors		monitoring period. Contractor used the dust suppressants (regular watering).
Construction-related good housekeeping tasks monitoring such as wastewater and solids	Undertake regular good housekeeping tasks as defined in the EMP and provide monthly monitoring checklist to RRF's PMU. Use the EMiP as the basis for the checklist.	Every day throughout construction period	Contractor and RRF inspectors	RRF	The Contractor should enhance the housekeeping practices. Maintain cleanliness including campsites at all times. Spoils and other waste materials should be managed properly.
Monitoring of surface drainage works at potential flash flood sites	The PMU or its CSC will inspect and verify that adequate consideration and drainage works, and protection have been provided for locations where the road crosses flash flooding locations. These findings will be recorded in the monitoring report to the PMU and ADB	Twice during the construction period, once to confirm that sites have been identified and secondly to verify that work was done	Contractor and RRF inspectors	RRF	Water drainage pipes built in accordance with project. After the construction, drainage is carried out in the same existing channel.
Monitor Contractor water extraction	Special monitoring checklist will be prepared for each well used by the contractors for extraction of construction-water. The installation of meters and a recording system will be verified and a record of approval for extraction of a maximum volume will be recorded and record of extraction volumes/day will be checked. This documentation will be submitted to the PMU, the CSC and the Ministry of Water Resources	Record of extraction will be continuous by the contractor and monitoring will be monthly, during the time when water is being extracted	Contractor and RRF and PMU inspectors	RRF	Using of wells as a source of water supply aren't expected. Special septic tanks for storage of waste waters have been installed in the labor camps and Asphalt plant and Crushing plant.
Vibration	Based on field observations, define the operating guidelines for roller and excavator, with and without trenches and issue work orders.	Once near 30 representative sites when	Reporting to PMU	RRF	Contract No.909 for conducting vibration analysis between China



ITEM	Monitoring Details	Timing	Executing Unit	Reporting/ Responsibility	Status of Implementation
		these equipment are being used.			Railways 20 and Bukhara regional Sanitary and Epidemiological Department dated 18 March 2021
Monitoring of revegetation program	Inspectors will examine the revegetation program by providing an accounting of the number of trees/shrubs planted, the location and survival rate at each inspection cycle. Reports are to go to PMU, RRF and be available for inspection by Forest Department, SCEEP, and ADB.	Inspection is to take place every 4 months along all road sections recently worked on.	Contractor, with help from Oblast Forest Dept. and PMU inspectors	RRF	<b>Not started yet.</b> The Contractor will cooperate with local authorities on revegetation and tree-planting in critical areas of the Project. Reclamation project will be provided for revegetation of disturbed lands, as well as pre-fertilization of land in order to increase the biological capacity of land after disturbance. In the case of the death of the grass stand the project provides for repeated cycle of works onsite preparation. A list and quantity of works on creating of the grass stand and care of them during the reclamation period (3 years) will be submitted in the reclamation project.
Monitoring construction period air pollution	As part of the regular construction inspection the habits of contractors to leave vehicles idling unused for more than 2 minutes will be reported, as well failure to maintain vehicles leading to serious pollution as with diesel equipment. This reporting table must be kept separate for submission to the PMU, SCEEP and ADB.	Inspection as part of the weekly construction inspection	Contractor and PMU inspectors	RRF	Air quality monitoring was conducted in accordance with time program of control for compliance with standards related to maximum-permissible missions included in Industrial Ecological Control program. According

ITEM	Monitoring Details	Timing	Executing Unit	Reporting/ Responsibility	Status of Implementation
					to the results of air quality laboratory analysis, dust content did not exceed the norm and MPC in all samples.
Contractor's final Monitoring report submission	Contractor must list, in tabular form, all mitigative actions completed, their timing and location, and then indicate their status as % completed and the need for any future action(s).	At the end of construction	Contractor	RRF	<b>Not started yet.</b> The Contractor will submit at the end of construction.
<b>OPERATIONAL PERIOD</b> – Update and continue to use checklist					
Receipt of contractor's monitoring report	At the time of commissioning the contractor must confirm in writing that mitigative actions as defined in the EMP, At the time of commissioning the contractor must confirm and any other legally binding environment document, have been completed as recorded.	Before upgraded road opens	Contractor and Committee for Roads for the RUz	Committee for Roads for the RUz	<b>Not started yet.</b> The Contractor will submit at the end of construction.
Inspection of Construction Period Mitigation	Based in mitigation completion report prepared by the contractor, an inspection of how well the measures were implemented will be prepared. This summary will be in the form of a checklist	Within 3 months of the start of the operating period.	Committee for Roads for the RUz	RRF and Committee for Roads for the RUz	<b>Not started yet.</b>
Extraction well decommissioning	Shortly after the start of the operating period RRF will complete a verification survey to ensure that the wells used during construction have been secured such that groundwater will not be contaminated and/or withdrawn illegally.	Survey within 1 month of start of Operating period.	RRF or consultant	Committee for Roads for RUz	Using of wells as a source of water supply aren't expected
Inspection of revegetation work completed during the construction period	RRF or a contractor will complete an inspection of roadside revegetation sites, using the data collected during the construction period, and enumerate the survival rate and define a further planting program to replant those materials that have not survived	Annually for three operating years	RRF or consultant	Committee for Roads for the RUz	<b>Not started yet.</b>
HAZMAT spill contingency plan	During year five of the operating period, RRF will prepare a hazmat spill contingency plan, using Committee for Roads for the RUz as a model and using data on spills collected during the 1st	Inspection and reporting during the 5 <sup>th</sup> operating year	RRF or consultant	Committee for Roads for the RUz	<b>Not started yet.</b>

ITEM	Monitoring Details	Timing	Executing Unit	Reporting/ Responsibility	Status of Implementation
	five years of operations. The plan's distribution to the regional offices of RRF as well as Oblast Committee for Roads for the RUz will be undertaken.	of the upgraded. A380			

CSC = Construction Supervision Consultant, EMP = Environmental Management Plan, PMU = Program Management Unit, RRF = The Republican Road Fund (the Road Fund), RUz = Republic of Uzbekistan

## 4.2. Site Audits

72. Even though COVID-19 pandemic situation, since Contractors have been executing works, IES and NESS of the CSC inspections have been undertaken during the reporting period. The Environmental Safeguard Team of CS Consultant had a walk-through of the site and documented own observations and to validate and update further the status of the contractor's compliance with environmental safeguards On September 19-20, October 21-23, November 12-13, 2021 and December 10-11, 2021.

73. Environmental audit for elimination of previously issued non-compliances was conducted (see Table 11 below). Observations of the construction process at project sites related to environmental protection and EMP implementation on the sites were also carried out. The Engineer also conducted an audit of internal documents and permits for borrow pits, special water use.

74. The Engineer's local Environmental Specialist visited all sites on a monthly basis, with additional ad hoc visits as required.

**Table 11. Information and conclusion summary of site inspections conducted in Jul-Dec 2021 reporting period**

<b>Name and highlights</b>	<b>Summary of any significant findings</b>
1. Availability of Health and Safety Plan (HSP), including of corrective actions: measures for non-proliferation and prevention of Corona virus pandemic COVID-19.	A medical worker is assigned in September 2020 as responsible for the prevention of COVID 19. Disease prevention posters are hung on in the accommodations. There are warning pictograms in the base camps. Hand treatment places are arranged and there are schedules for cleaning and treatment of the office, canteens and accommodations in the base camps. Activities were included into HSP from COVID 19 guideline. Emergency response facilities for pandemic COVID 19 and other infectious diseases. Lectures were held for staff.
2. Availability of Emergency plans and including of corrective actions	There is the plan on the site from July 2021. Instructions were developed fully. Effective communication was arranged with the local health care department, the contact numbers to call in case of emergency situation are hung out on the visible and accessible places.
3. Sanitary and hygienic conditions of the base camps, canteens, accommodations, common areas and sanitary facilities, provision with soap and detergents	From July 2020 There is a sufficient supply of disinfectants in the dormitories. Service staff follow the frequency of cleaning facilities and treatment of tables and furniture. Remarks for the canteen about its failure to follow the order of cleaning and treatment of facilities and instruments / tools have been eliminated. Instructions how to wash and treat tools and dishes.
4. EMP and site-specific environmental plans	Under implementation on the site. No adjustments or changes. Industrial environmental monitoring was carried out by the environmental laboratory, instrumental measurements were carried out.
5. Recommendations, instructions, notes on non-conformities	From May 2021 The site for the placement of solid waste is brought to the required condition, the containers are marked; Control over the implementation of the waste management plan was ensured.
6. The presence of negative manifestations from the local	Not observed. According to the registration book of complaints and appeals, there were no appeals or complaints about non-

population	compliance on environmental safeguards during the reporting period.
7. Traffic management	From January 2021 the contractor has equipped with warning piles, signs, bands at some locations, some sections are under construction, deep excavation and high embankment.
8. Management of air pollution noise and vibration	From March 2021 Water spraying has been implemented.

75. Facilities ensuring protective and preventive measures, which arranged in the previous period, have continued their work on the sites. These facilities are responsible to monitor preventive measures and control the provision of personal protection equipment (masks, gloves, disinfectants, soap and detergent). They also monitor the quality of preventive and disinfection measures within the construction camps and construction sites. Safeguards specialists such as Health and Safety Engineers, medical staff on the site provided information to the workers with about importance of preventive measures and social distance. Boards and posters, Covid-19 guideline in languages that are applicable on the sites are hung out in accommodations and workplaces.



Figure 2. Installation of special road signs K-236+000, K-242+000 section

76. In order to ensure traffic safety at km K236-240-242, together with the Bukhara Department of Internal Affairs, artificial hills with asphalt concrete mixture were prepared on the roads. Asphalt products that were used to create artificial ones amounted to 8 tons and 8 slides were made.



**Figure 3. Artificial hills with asphalt concrete mixture were prepared on the roads**

77. No cultural affections have been detected; No flora and fauna have been disturbed and no animal mortality reported due to the construction works. No wildlife or bird sanctuary or protected area lies within the ROW.

78. The site inspections were focused on various environmental aspects of the project and are part of the Monthly Progress Report. During the inspections, a number of environmental and safety issues were observed and noted. These issues were subsequently brought to the attention of the personnel concerned on the Contractor's side.

79. Based on the environmental site inspections, review of monthly and quarterly reports of the Contractor and Supervision Engineer, and other documents and records, the following status and non-compliances are found for the reporting period.

80. In accordance with the inspection schedule of execution of the EMP, the road which is being constructed A-380 and adjoining facilities were checked.

**4.3. Issues Tracking (Based on Non-Conformance Notices)**

81. During the audit of the sites in June, September, October and November 2021 of the reporting period, work was noted to eliminate previously identified inconsistencies. Compared to the previous period (the first half of 2021), there is a positive trend in the number of non-conformities.

82. There are no outstanding issues from the previous monitoring periods which have been addressed. The methods applied by the CSC for correcting the environmental non-compliance were submission of the non-conformance notices and verbal discussions with the staff of the contractor. The status of implementation of the corrective action plan from the previous report has no complaints during the current monitoring period.

83. The Contractor has maintained satisfactory performance on the required environmental management measures provided in the EMP and SSEMP. The status of implementation of the CAP recommended for January-to June, 2021 is presented in the Table 12 below.

**Table 12. Issues Identified during the Previous Monitoring Period (before July 2021)**

<i>Sl. No</i>	<i>Issue</i>	<i>Cause</i>	<i>Required Action</i>	<i>Responsibility</i>	<i>Implementation Status</i>	<i>Further required action and timeframe</i>
1.	Although environmental monitoring (measurement of air quality, noise level and water quality, etc.) should be conducted during the construction stage (Table 21 of the IEE <sup>9</sup> ), the monitoring of environmental quality has not been conducted yet.	Parametric measurements of air, noise and water quality have not been carried out because of COVID-19 pandemic. Also, one of the reasons for not performing parametric measurements is that laboratory equipment will be installed at the beginning of 2021. At the moment, the equipment is undergoing a customs clearance procedure.	Begin parametric measurements as soon as the epidemiological situation allows.	Contractor	<b>DONE</b> (Started in March 2021)	Parametric measurements of air, noise and water quality should be continued carrying out during Q3 and Q4 2021 periods.
2.	Relevant		Relevant	PMU	<b>DONE</b> Date:	( <a href="https://www.uzavtoyul.uz/en/post/osiyo-">https://www.uzavtoyul.uz/en/post/osiyo-</a>

<sup>9</sup> See footnote 1.

Sl. No	Issue	Cause	Required Action	Responsibility	Implementation Status	Further required action and timeframe
	information of the SAEMR has not been disclosed to the local people.		information of the SAEMR should be disclosed to the local people		Sep,2021	taraqqiyot-banki-ishtirokidagi-a380-guzorbuxoronukusbeyneu-avtomobil-yolining-228315-km-qismini-rekonstruksiya-qilish-loyihasi-doirasida-ishlab-chiqilgan-atrofmuhit-monitoring-hisoboti1.html),
3.	PMU has not mobilized its environmental specialist (PMU-ES)		The environmental specialist should be mobilized	PMU	<b>DONE</b> Date: (in Sep, 2021)	PMU mobilized its environmental specialist in Sep. 2021.
4.	The construction supervision consultant (CSC) has not mobilized an international environmental specialist	COVID-19 related travel restriction	The international environmental specialist	CSC	<b>DONE</b> (in Mar, 2021)	
5.	The contractor has not identified sources of materials, state methods of transportation and provided a realistic breakdown of rates.	Contractor's inadvertence	Contractor's has received notification to identify sources of materials, state methods of transportation and provided a realistic breakdown of rates	Contractor	<b>DONE</b> – In Jul,2021	
6.	Fuel and	Contractor's	Contractor's	Contractor	<b>DONE</b>	



Sl. No	Issue	Cause	Required Action	Responsibility	Implementation Status	Further required action and timeframe
	chemical storage are not sited on an impervious base within a bund and secured by fencing. The base and bund walls should be impermeable and of sufficient capacity to contain 110 percent of the volume of tanks.	inadvertence	has received notification		In June,2021,	
7.	Oil spills were found in places on the ground on the territory of the subcontractor's temporary base. It is necessary to clear and remove contaminated ground.	Contractor's inadvertence	Contractor's has received notification. The contaminated ground should be removed and taken to a specially designated place	Contractor	<b>DONE</b> In June,2021,	
8.	Concrete debris/big	Contractor's inadvertence	Concrete debris/big rocks	Contractor	<b>DONE</b> In May,2021,	

Sl. No	Issue	Cause	Required Action	Responsibility	Implementation Status	Further required action and timeframe
	rocks were fixed alongside the road;		should be removed			
9.	Violation of Safety standards (Unsafe wiring, workers without helmets, rebar without capping, lack of safety warning signs);	Contractor's inadvertence	The Contractor should undertake to provide additional training for workers and timely issue PPE to workers.	Contractor	<b>DONE</b> , In June,21,	
10.	Fire safety is not organized at the construction site, where fuels and lubricants are stored, it should be provided in accordance with the requirements of fire safety rules during the road construction works.	Contractor's inadvertence	Fire safety should be organized at the construction site, where fuels and lubricants are stored.	Contractor	<b>DONE</b> In May,21,	
11.	In the	Contractor's	Signalmen and	Contractor	<b>DONE</b> ,	

<i>Sl. No</i>	<i>Issue</i>	<i>Cause</i>	<i>Required Action</i>	<i>Responsibility</i>	<i>Implementation Status</i>	<i>Further required action and timeframe</i>
	rehabilitated sections, where construction equipment is working, there are no signalmen and appropriate road signs are not installed.	inadvertence	appropriate road signs should be installed.		In Jan,21,	

#### 4.4. Trends

84. Compared to the last reporting period number of issued environmental non-conformance reports is significantly decreased.

85. During the reporting period in the process of monitoring and audit of construction sites, no complaints from the population regarding the non-compliance with environmental protection measures were recorded. No new issues emerged during the monitoring period and all issues that required corrections from the contractor were recurring ones. Non-conformances were eliminated by the Contractor at all sites promptly. Corrective actions were taken immediately and written reports with photographs of the results of the actions taken were provided. In general, there is a positive trend in timely response to the elimination of inconsistencies and violations.

86. Contractor's HSE performance is generally satisfactory, relevant trainings are provided to the site staff, required documents and reports submitted, waste segregation and disposal procedure acceptable. Grievance redress system is established, the grievance boxes are located at the entrance of the District Hokimiyats and entrance of the Contractor's office.

#### 4.5. Unanticipated Environmental Impacts or Risks

87. During the reporting period, COVID-19 is viewed as an unanticipated impact and risk to the community and workers. Contractor's personnel wear mask, gloves, helmets and working wear, but not all the time. CSC advised the Contractor to monitor its workers on wearing the full set of PPE.

88. The Contractor developed Occupational Health and Safety Plan as part of its SSEMP which includes, inter alia, corresponding measures on prevention of the spread of COVID-19. The Contractor's SSEMP also includes Emergency Management Plan. This plan includes activities according to the instructions of the district's sanitary and epidemiological services.



**Figure 4. Doctor's regular staff checkup**



**PCR testing**

89. A total of 16 people became infected with the coronavirus 19. Urgent measures were taken according to the recommendations of the Ministry of Health of Uzbekistan and the World Health Organization. None of the cases was lethal, all recovered and returned to work.

## **5. RESULTS OF ENVIRONMENTAL MONITORING**

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

90. Environmental monitoring started immediately after the commencement of civil works.

91. The CSC's national environmental specialist has visited the project site during the monitoring period. The visit was made to inspect the environmental management and monitoring of the project, including borrow areas, dumping areas, aggregate crusher, work camp, and the current progress of the works. In addition to this, the contractor's ES have visited the site on a weekly basis.

92. The undertaken environmental and Occupational Health and Safety (OHS) monitoring, includes supervision and inspection of construction work sites, verification of permits, monitoring of compliance performance of contractors, instrumental environmental monitoring for noise and vibration, water and air pollution, construction waste management, review of documentations, implementation of EMP and SSEMP, review of environmental management and monitoring reports, and so on, undertaken by Contractors' and monitored by the Supervision Engineer.

93. The following chapters present the progress regarding each of these areas of the project and describes how the recommendations made by the ES had been implemented.

### **5.2. Air Quality, Noise and Vibration Monitoring**

94. According to the project IEE, periodic parametric measurements of air, noise and water quality for both lots were carried out by the construction contractor according appropriate schedule. Locations of measurements are defined by the method statement for particular area.

95. The contractor is carrying out monthly monitoring for air quality with support of licensed analytical laboratory. The Contractor has a Contract No.909 between China Railways 20 and Bukhara regional Sanitary and Epidemiological Department dated 18 March 2021 for performance of these analysis. Monitoring results do not exceed the national norms for atmospheric pollution.

96. Certified laboratory has measured the parameters of atmospheric air at the Contractor's office/accommodation camp and several construction sites (air levels are permanently controlled at the sensitive locations such as schools, hospitals) according to the construction activities. Results of tests are enclosed in Table 13.

97. Analysis of test reports of industrial environmental monitoring of air quality conducted at the road reconstruction sites showed that instrumental measurements carried out in the second quarter of 2021 the highest maximum and average concentrations of pollutants for all analyzed substances do not exceed the sanitary and hygienic regulations for maximum allowable concentrations (maximum one time MAC) established for populated areas. Average concentrations of nitrogen dioxide, carbon oxide, sulfur dioxide on the surveyed territory are within the permissible limits of RUZ and IFC. Concentrations of inorganic dust 70-20% do not exceed the established limits in industrial and residential areas.

98. Maximum Permissible concentration of some pollutants in the work area, one-time permissible at the living area, average daily, average monthly (KMK 3.01.02-00), mg/m<sup>3</sup> are presented in the Table 13.

Table 13. Air Quality Measurement

Place of measurement № checkpoint	Parameters		MPC <sup>10</sup> , mg/m <sup>3</sup>	Monthly Readings (mg/m <sup>3</sup> )					
				July 2021	August 2021	Sept 2021	Oct 2021	Nov 2021	Dec 2021
Site №1 Control point №1 K239 + 700.	Nitrogen dioxide		0.085	0.083	0.075	0.065	0.062	0.065	0.062
	Sulfur dioxide		0.5	0.36	0.21	0.11	0.37	0.14	0.27
	Carbon Oxide		5.0	0.69	0.24	0.96	2.75	0.96	1.85
	Aldehydes		0.035	0.014	0.007	0.008	0.012	0.023	0.017
	Inorganic dust		0.3	0.083	0.29	0.19	0.33	0.24	0.28
Site №2 Control point №2 K238 + 600	Nitrogen dioxide		0.085	0.063	0.064	0.065	0.069	0.068	0.068
	Sulfur dioxide		0.5	0.26	0.31	0.11	0.1	0.23	0.12
	Carbon Oxide		5.0	1.8	0.24	0.96	0.3	1.7	1.54
	Aldehydes		0.035	0.024	0.007	0.008	0.002	0.005	0.007
	Inorganic dust		0.3	0.26	0.29	0.19	0.2	0.21	0.21
Control point №1 Concrete Plant	Nitrogen dioxide		0.085	0.054	0.069	0.044	0.083	0.042	0.063
	Sulfur dioxide		0.5	0.123	0.1	0.072	0.36	0.071	0.411
	Carbon Oxide		5.0	1.37	0.3	0.035	0.69	0.035	1.37
	Aldehydes		0.035	0.004	0.002	0.004	0.014	0.004	0.015
	Inorganic dust		0.3	0.12	0.2	0.22	0.04	0.2	0.15

99. The air quality was assessed through visual observation by Engineer's local Environmental Specialist during site visits. Dust formation has a major impact on the environment during earthworks. The increased air temperature has resulted in increased dust formation on the existing road, which is currently on the Contractor's balance. Dust control measures are carried out in the areas with ongoing road construction works. In this regard, the Contractor was instructed to increase the intensity of spraying of the road, including roadsides, at construction sites from 7 am to 7 pm. At present time four watering machines are allocated for this task, and each of them watering 4-5 times per day.

<sup>10</sup> Maximum Permissible Concentration

100. The specified data from the protocols of the laboratory for measuring the noise level show that the noise level from the working construction mechanisms does not exceed the MPL (80 dBA) of the state standard and IFC standard at all measurement points. Consequently, they do not have a negative impact on the health of working personnel.

101. The Uzbek national construction noise norms that are relevant to all stages of the construction phase are provided by law KMK 2.01.08-96 —Protection from noise and detailed in Table 14 below.

**Table 14. Noise Measurement**

Name of area	Average geometric frequency in dBA				Level of sound, (dBA) acc KMK 2.01.08-96	Levels (General IFC Guidelines
<b>K238 + 600</b>						
Total noise on the road	74	74	75	75	60	70
Total noise in the yard of the school	52	52	50	51	50	55
Total noise in the school hall	53	51	50	51	50	55
Total noise in the school class 1	50	48	48	49	50	55
Total noise in the school class 2	51	49	49	48	50	55
Total noise in the school class 3	53	50	50	49	50	55
<b>K239 + 700</b>						
Total noise on the road	76	75	75	75	60	70
Total noise in the yard of the kindergarten	52	50	51	50	50	55
Total noise inside the kindergarten	50	48	47	48	50	55
Total noise in the living premises of the kindergarten	48	47	47	47	50	55
Total noise in the premises for rest of the kindergarten	47	45	45	45	50	55

102. Vibration level measurements were carried out at construction sites along settlements. In terms of vibration acceleration, no excess of the permissible equivalent level of vibration acceleration of 95 dB recorded at the measurement points. All measurements at the indicated points were recorded by the measurement protocols in November within 37-50 dB. These values of the vibration acceleration level indicate that there is no negative impact both on the environment and on the health of the personnel on the site.





Figure 5. Dust analysis on the K-249 + 000



Figure 6. Dust analysis on the K-269 + 550



Figure 8. Vibration analysis on the K-239 + 70

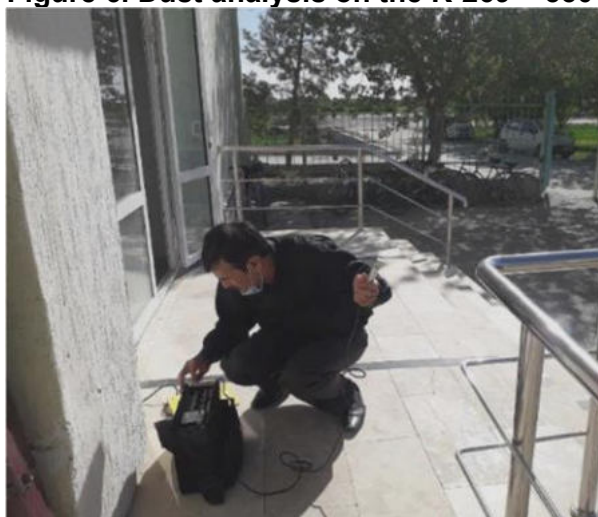


Figure 9. Vibration analysis on the K-238 + 600

103. Level of vibration is defined in accordance with SanR&N No 0122-01 Sanitarian norms of general and local vibration at the working places.

Table 15. Vibration Measurement

Vibration	Level of sound pressure, dB, octave bands with average geometric mean frequencies (Hz)										SanR&N No 0120-01)
	31.5	63	125	150	500	1000	2000	4000	8000		
K238 + 600											
Total vibration on the road	85	72	63	52	47	46	44	42	38	50	75
Total vibration in the yard of the school	54	56	53	50	46	45	36	32	34	43	65
Total vibration in the school hall	53	51	47	45	41	37	35	32	30	41	65

Vibration	Level of sound pressure, dB, octave bands with average geometric mean frequencies (Hz)										SanR&N No 0120-01)
Total vibration in the school class 1	52	50	46	43	40	37	35	32	30	43	65
Total vibration in the school class 2	51	49	48	48	43	40	37	34	35	42	65
Total vibration in the school class 3	52	48	46	43	41	38	36	33	31	44	65
Total vibration in the school class 4	50	47	45	43	41	39	36	33	30	40	65
K239 + 700											
Total noise on the road	88	70	63	54	50	46	42	40	38	50	75
Total noise in the yard of the kindergarten	58	53	50	48	46	40	38	35	33	44	65
Total noise inside the kindergarten	56	52	48	46	44	39	37	34	31	42	65
Total noise in the living premises of the kindergarten	54	50	47	44	42	38	35	32	30	41	65
Total noise in the premises for rest of the kindergarten	52	47	49	46	44	35	33	33	27	39	65

### 5.3. Water Quality Monitoring

104. Instrumental monitoring for water quality has been arranged by the Contractor. Bukhara regional Sanitary and Epidemiological Department took samples of surface water at the construction sites. Surface water quality monitoring is carried out in order to determine suspended solids and oil products in surface waters, irrigation canal and reservoirs where construction work is carried out at the time of sampling has carried out the sampling for these instrumental environmental monitoring. According to the results of laboratory analysis of water samples, the water at all points did not exceed the MPC for all determined ingredients. The drinking water quality meets sanitary and epidemiological requirements of RUZ and IFC.

**Table 16. Results of laboratory analysis of water pollution**

Pollutants	Limit according to the RD	Levels (General IFC Guidelines)	Sampling points			
			Drainage canal 249+165 km	Waterlogged land 254+280 km	Waterlogged land 242+346 km	Drainage canal 258+154
pH	6.5-8.5	6-9	7.3	7.2	7.0	6.8
Dry residue (mg/dm <sup>3</sup> )			2365.0	2361.0	2340.0	2271.0
General hardness, mg.eq/dm <sup>3</sup>	7,0-10	7-11	26.3	21.4	25.4	26.0
Nitrite nitrogen	1,0	1,0	0.16	0.16	0.18	0.15

(mg/dm <sup>3</sup> )						
Nitrate nitrogen (mg/dm <sup>3</sup> )	9,0	10	20.8	20.2	21.6	23.4
Chloride (mg/dm <sup>3</sup> )	350	350	325.0	341.5	327.0	368.0
Sulfate (mg/dm <sup>3</sup> )	450	500	425.0	458.0	521.0	523.0
Ammonia nitrogen (mg/dm <sup>3</sup> )	1,5	1,5	abs	abs	abs	abs
Muddiness (mg/L)	1,5	1,2	1.1	1.2	1.1	1,2

#### 5.4. Waste Management

105. Waste management is organized by Contractor according to the developed SSEMP.

106. Waste is stored on a specially organized site for temporary storage with subsequent export to disposal through the involvement of specialized companies. Removal of household waste from this base is carried out by Bukhara regional Toza Khudud on the basis of contract No.51 dated 01 December 2020. Monitoring shows that in these areas schedule for removal of solid waste and industrial waste is observed. Waste removal is being carried out on daily basis.

107. Waste segregation and disposal procedure established. Appropriate waste containers for hazardous and domestic waste are placed and labeled. Training of the personal was conducted. Measures were taken to ensure that no contaminated discharges enter any drain or watercourses.

108. Household waste is generated in camps for subcontractor's workers. Solid household waste consists of packaging materials made of paper and cardboard, dry waste, plastic, and food waste, which are pre-collected in plastic bags.



**Figure 10. Waste segregation and disposal procedure**



**Figure 11. Waste removal K-269**





**Figure 12. Waste removal K-249**



**Figure 13. Waste removal – K284**

109. Medical wastes from medical facilities of construction camps are managed in accordance with requirements of Sanitary Rules “Sanitary and Epidemiological Requirements to Healthcare Facilities” and “Sanitary and Epidemiological Requirements for Collection, Use, Transportation, Storage and Disposal of Waste of Production and Consumption”. Disposable, waterproof bags and pockets designed for safe collection and disposal of medical waste are used for waste collection.

110. There were no construction debris scattered in the area. The drains were properly covered and do not interfere with people's access to homes or shops. As observed, there were no piles of waste materials nor oil spills along the road alignment that may pose hazard to residents and commuters.



**Figure 14, Place the isolated layer under used oil cylinders**



**Figure 15. Concrete platform under the bottom of oil/fuel tank**

### **5.5. Material Resources Mobilization**

111. The Supervision Engineer's environmental Specialist has visited the borrow areas, provided instructions to the Contractor's staff about proper utilization of borrow areas and traffic management during materials transportation. All stockpiles are located at least 100 m from any water body.

112. As for December 2021 following materials were mobilized on site by the Contractor:

**Table 17. Material Mobilization**

N	Materials	Unit	Quantity
1	Gravel from Quarry Site	m <sup>3</sup>	252534
2	Reinforcement	T	331
3	Cement	T	24837
4	Sand	m <sup>3</sup>	33702
5	Additives	T	158
6	Rocks	m <sup>3</sup>	66920

113. For storing and utilization scrap material the Contractor is using its construction campsite. Periodically scrap material it is sold to different companies according to the market price of metal.

### 5.6. Health and Safety

114. Contractor has assigned H&S officer (Yue Zongxian) to oversee H&S performance at the construction sites and camp. During this reporting period no accidents have been identified and recorded in the H&S log book.

115. During this reporting period no accidents have been identified and recorded in the H&S log book. Log books for HSE accidents prepared and kept at the camp site. HSE inspection carried out and identified some H&S non - compliances, particularly, heavy equipment working without banksman, PPE issues, rebar without capping, deep excavations and cuts without hard barriers, no flash lights at the hazardous places for nighttime warning. During the reporting period, no incidents occurred that led or could lead to public health and safety problems.



**Figure 16. PPE distribution for site electrician**



**Figure 17. PPE distribution for site welder**

116. During the reporting period road safety and maintenance activities were carried out, namely, grading and rolling of critical sections. Permanent dust control is in progress on the sites. The number of signal man and traffic controllers is 4.

117. Traffic safety issues on the project are monitored in accordance with the approved Traffic Safety Plans (agreed with the CSC). During the audit periods, it was noted that the necessary activities are being

carried out by the Contractors such as safety signs installation, temporary roads widening, hole patching and preparation for road maintenance. Dangerous sections are marked with warning signs. All temporary road signs were installed in accordance with approved schemes. Temporary road signs have a reflective surface and they have been cleaning. During the reporting period there was not a road accident.

118. Daily trainings on safety and road safety have been conducting with all staff, including drivers, operators of special equipment before starting work. Explanation works are conducted with working staff on the workplaces regarding the compliance with the safety rules and safe working methods.

119. Safety compliance at construction sites is also checked in a timely manner by the respective responsible persons of the Contractor. The relevant incidents are investigated and additional briefings are provided to the workers.

120. The Contractor on the sites have developed appropriate COVID-19 prevention measures The health and safety plans include measures recommended by the local health department: strict control of third-party visits to the camp, compliance with face mask requirement, provision of personal protective equipment: medical masks, gloves, antiseptics. Conducting thermometry tests at least twice a day, maintaining a physical distance at least 1.5 metres in the accommodations and canteen. Sending staff to work remotely. Control the cleaning of facilities and treatment of surfaces with disinfectant. Information work among company staff and develop the medical boards with visual updated information in languages used for communication between staff. Sanitary facilities (sinks, showers, laundries, toilets, etc.) are provided with soap and disinfectants in necessary and sufficient quantities. The canteens are equipped with disinfectants sufficiently to do treatment of instruments and tools.



**Figure 18. Masks allocation for construction workers**

121. The site monitoring showed that measures for the non-proliferation of infectious and viral diseases were arranged. Medical staff has an irreducible supply of PPE and medicines for 3 months, there is a box for isolation of patients with signs of COVID 19. Medical staff and H&S specialists ensured compliance with COVID-19 protocol on the sites.

122. Generally, the measures taken allowed to the Contractors to keep their workers' health. There was not spread of seasonal disease or COVID 19 on the sites.

123. The contractor properly equipped the first aid room at the main work camp and hired a professional paramedic to coordinate the health issue and provide the first aid in cases of an emergency. The paramedic coordinates and conducts regular examinations of the staff and coordinates with external health facilities if necessary. In addition the first aid station. In accordance with registration book the first aid station provided the treatment to 154 visitors during the monitoring period. The main complaints included the headache, scratches and bruises.

124. In order to ensure safety for the public, the Contractor carried out activities on the sites in accordance with the instructions of the Chief Sanitary Doctor of the Republic of Uzbekistan. Medical staff together with health and safety specialist were involved in organizational work to form a resource (irreducible supply of personal protective equipment: medical masks, gloves, antiseptics, disinfectants) to implement preventive measures for COVID-19 non-proliferation.

125. To increase the public safety, the Contractors (i) fenced the construction areas close to the settlements and pedestrians not allow the entrance of unauthorized people to the construction area to avoid accidents and health and life risks; (ii) provided more training and awareness rising to its personnel and workers about safety at work sites.

126. Training, briefing and knowledge testing of the company's employees were carried out on a regular basis. Inspection circular trips were carried out on an ongoing basis. The revealed violations are eliminated on the place. Based on the inspection trips, recommendations are made to improve the safety of work at construction sections and sites. Introductory briefings are regularly held for newly hired employees. The contractor was advised to check the knowledge of occupational health and safety requirements of workers and, if necessary, to re-instruct on safety and health.

127. The studies on EMP implementation, site monitoring, regular health and safety instructions, AIDS / HIV and COVID 19 pandemic issues are conducted on the sites by H&S specialists and medical staff. During the audit, the CSC noted that the Contractors' environmental specialists should pay more attention to fixing indicators of environmental activities and consulted them how to identify potential risks of negative impacts on the environment and activity area of people, also to pay attention to the risks associated with COVID 19 spread.

## **5.7. Camp**

128. Currently two work camps operate within the Project: (1) camp of the Contractor, including accommodation, offices and construction facilities, and (2) camp of Engineer, including office and accommodations.

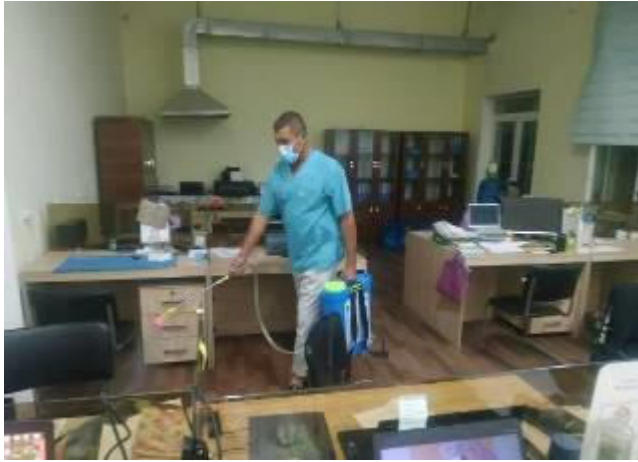
129. The National and expatriate staff live in different sections of the camp, however the living conditions between these areas do not differ significantly. The Contractor's camp looks organized and is in tidy condition. About 25 workers live currently in the camp (Uzbeks and Chinese). This is due to the fact that most of the local employees live fairly nearby and return home at the end of working days. All necessary sanitary facilities have been provided (water, toilets, showers). The kitchens and dining room are in good condition. Separate kitchens are available for expatriates and local workers. This is due to cultural difference in preferences for food.

130. Fire protection equipment, including water tanks, fire extinguishers and other instruments, are available at the camp.

131. During the CSC environmental specialist visits, no oil/lubricant spills were observed at the maintenance area of the camp and maintenance of vehicles was being done on the hard standings. The



storage of fuel is in compliance and meets the requirements (fenced, placed on impervious basis and has containment area).



**Figure 19. Disinfection of office and camp premises**



**Figure 20. Camp canteen**



**Figure 21. Storage of propane cylinder with protection against direct sunlight.**

132. Drinking waters to the construction workers are provided regularly. Water tanks & containers used as storage of water are properly cleaned on regular basis. Temporary warning boards such as (Danger, No smoking etc.) were not erected at the storage areas of fuel and dangerous material. The contractor improved their cleanliness in everywhere like waste disposal, use of PPE, Kitchen and bathing facilities, drainage facilities at the camp, etc.

133. Drinking is strictly prohibited in the campsites, if anyone breaks the rule, then a punishment is imposed to warn the other staffs.

## **5.8. Flora and Fauna**

134. No significant issue regarding flora and fauna during the monitoring period was observed during the monitoring period.

135. The wild fauna is very scarce but still exists nearby the project road. At the construction sites the workers were instructed to avoid damaging any wild species. During the reporting period no endangered or valuable species have been identified in the area of the Project influence.



## 5.9. Quarries, borrow pits and the spoil area

136. For the reporting period, according to the national legislation requirements the Contractor has developed three EIAs for industrial mining of loess-like rocks as raw materials for reconstruction of A-380 Guzar-Bukhara-Nukus-Beyneu on 228-315km in Romitan and Zhondor districts of the Bukhara region and received the following the SCEEP's positive decision:

- № 04-01/10-08-1914 dated November 19, 2021.
- № 04-01/10-08-1915 dated November 19, 2021
- № 04-01/10-08-1917 dated November 19, 2021

137. The raw material to be extracted will be used as bedding material. Administratively, quarries are located in the Romitan and Zhondor districts of the Bukhara region.

138. Environmental impact assessment showed that the project has chosen environmentally friendly options for placing an industrial quarries.

139. Project quarries with auxiliary production and maintenance facilities are located on land unused in agriculture, free from residential buildings and structures. Sections of loess-shaped rocks are developed in an open pit way. The development system is accepted transport, without preliminary loosening of rocks, with excavation loading into vehicles

140. The borrow areas are located so that the hauling routes mostly avoid traversing residential areas. However, potential environmental impacts from the borrow areas and quarries may originate if the time limitations for carrying out work are not observed rigorously. Furthermore, watering must be done regularly to control dust emissions.

141. All borrow pits used within the reporting period are located outside of agricultural lands and resettlements, with very scarce to obsolete vegetation cover. No significant environmental impacts related to the use of the quarries and borrow areas.



**Figure 22. Borrow pit in Romitan district**

## 5.10. Concrete plant status

### ***249 km concrete plant***

142. By the decision of the Khokim of the Romitan district No. 547 dated July 17, 2020, the Contractor was allocated 1.6 hectares for the industrial base (concrete plant). The Contractor has developed the EIA and received a positive SCEEP approval No. № 04-01/10-08—1311 dated August 06, 2021, which is included in the SEMP.

143. The nearby settlement, the village Taykulak, is located at a distance of 900m. This plant provides concrete mix with 228-260km section.

144. Water consumption for production and technical needs is irretrievable, no runoff is formed. Domestic wastewater (1.49 thousand m<sup>3</sup>/year) are supplied to hydroinsulated extraction, with subsequent export to nearby treatment facilities.

145. The site is fenced. The territory was watered at the moment of visit.

146. Piles with gravel, sand and earth are covered.

147. Evacuation plans have been developed for workers at concrete plants during emergencies



**Figure 23. Dust suppression on K-249 km Concrete plant**



**Figure 24. Covered pile with sand and earth**



**Figure 25. Medial point room at K249 Concrete plant**



**Figure 26. Covered pipe at the plant at K249 Concrete plant**

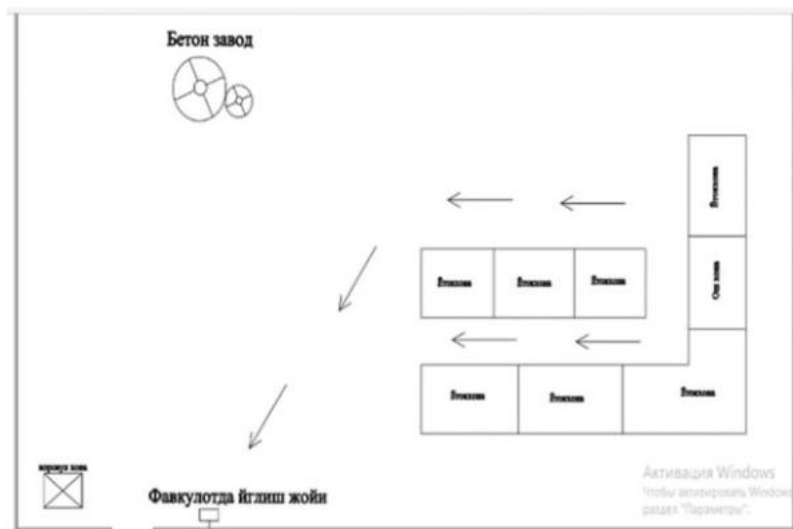


Figure 27. Evacuation plan for K-249 km Concrete plant



Figure 28. Warning sign at K249

### 269 km cement-concrete plant

148. By the decision of the Khokim of the Romitan district No. 514 dated July 17, 2020, the Contractor was allocated 2,5 hectares for the industrial base (concrete plant). The Contractor has developed the EIA and received a positive SCEEP approval No. № 04-01/10-08—1312 dated August 06, 2021, which was included in the SEMP.

149. The nearby settlement, the village Khojizapran, is located at a distance of 9,5km. This plant provides concrete mix with 225-315km section.

150. Water consumption for production and technical needs is irretrievable, no runoff is formed. Domestic wastewater (1.49 thousand m<sup>3</sup>/year) are supplied to hydroinsulated extraction, with subsequent export to nearby treatment facilities.

151. The camp for 269 km cement-concrete plant looks organized and is in tidy condition. All necessary documents / approval from local authorities have been received. Fire protection equipment, including water tanks, fire extinguishers and other instruments, are available at the camp. All necessary sanitary facilities have been provided (water, toilets, showers). The kitchens and dining room are in good condition. The Complaints logbook is available in the camp. No observations of poor environmental management at this camp were made by the ES of the CSC.

152. The territory is watered several times a day by 5-6 water trucks. Water for watering is taken from the canal, the details are indicated in the environmental documents. The territory is not fenced.



**Figure 29. Processes for spraying water on roads to prevent the release of dust into the atmosphere**



**Figure 30. Medial point room at K269 Concrete plant**



**Figure 31. Covering the sand and crushed stones at K269 Concrete plant**

#### **284 concrete plant**

153. By the decision of the Khokim of the Romitan district No. 514 dated July 17, 2020, the Contractor was allocated 3.7 hectares for the industrial base (concrete plant). The Contractor has developed the EIA and received a positive SCEEP approval No. 04-01/10-08 - 1344 dated August 11, 2021, which was included in the SEMP.

154. The nearby settlement, the village Khojizapran, is located at a distance of 25km. This plant provides concrete mix with 260-315km section.

155. The camp for 284 km cement-concrete plant looks organized and is in tidy condition. All necessary documents / approval from local authorities have been received. Fire protection equipment, including water tanks, fire extinguishers and other instruments, are available at the camp. All necessary sanitary facilities have been provided (water, toilets, showers). The kitchens and dining room are in good condition. The Complaints logbook is available in the camp. No observations of poor environmental management at this camp were made by the ES of the CSC





**Figure 32. Medial point room at K284 Concrete plant**



**Figure 33. Covering the sand and crushed stones at K284 Concrete plant**

#### **5.11. Contractor's Training**

156. The CSC conducted regular environmental compliance orientation to the Contractor's staff during the weekly meeting with the presence of the representatives of PIU.

157. The Environmental and H&S Specialist of the Contractors trained the personnel on site, on Work Site Safety and Environmental Policies and Procedures. New employees are trained as soon as they get involved with the project. The Contractors' personnel are also trained on protective measures against COVID-19.

158. The Health and safety engineer of Contractor has been conducting HSE trainings and the records with signatures of the participants are being kept. The photo below presents the HSE training being conducted from earlier monitoring period.



**Figure 34. Fire Safety training**



**Figure 35. Propaganda and implementation of HIV related knowledge to the workers**

Date	Time	Location	Content
2021/09/17	10:00	Site Office	Health and safety awareness training
2021/09/18	14:00	Site Office	Environmental protection training
2021/09/19	09:00	Site Office	First aid training
2021/09/20	10:00	Site Office	Standards for workers' accommodation
2021/09/21	14:00	Site Office	Waste management training
2021/09/22	09:00	Site Office	Water supply training
2021/09/23	10:00	Site Office	CEMP preparation training
2021/09/24	14:00	Site Office	Health and safety awareness training
2021/09/25	09:00	Site Office	Environmental protection training
2021/09/26	10:00	Site Office	First aid training
2021/09/27	14:00	Site Office	Standards for workers' accommodation
2021/09/28	09:00	Site Office	Waste management training
2021/09/29	10:00	Site Office	Water supply training
2021/09/30	14:00	Site Office	CEMP preparation training

Figure 36. Training Logbook



Figure 37. Training on environmental protection



159. According to requirements of SSEMP, toolbox meetings were carried out with all site workers and mixer drivers on health and safety awareness and on protection of environmental value and during the different construction process and milestones.

160. CSC's International environment specialist has given refreshment induction training to the safeguard team of the contractor. After discussion with Team Leader the refreshment training program finalized for the training which was held at CSC Office on 17th of September, 2021.

161. Topics of the training was the following:

- ❖ The greenhouse effect
- ❖ Function of Ozone Layer
- ❖ PPE for Construction Workers
- ❖ First Aid Box
- ❖ Standards for workers' accommodation
- ❖ Waste Management Issue
- ❖ Water Supply
- ❖ CEMP Preparation

- ❖ Health and Safety Issues
- ❖ Air, Noise, Vibration, Water Quality,
- ❖ Quarry and Borrow pit issues,
- ❖ Hazardous Materials Management
- ❖ Socio-economic Impacts to the Community
- ❖ Traffic Management, etc.

## 5.12. Public Awareness Activities

162. According to requirements of SSEMP, public liaison meetings were conducted on July, August and September 2021. The general discussion topic each liaison was mainly about the information and instruction of different stage of construction activities, noise, vibration, grievances etc.

163. Some public awareness activities among population who lived along project sites were carried out within the project during the period of July – December 2021.



**Figure 38. Some public awareness activities among population who lived along project sites**

164. An awareness raising program went on during the reporting period. An awareness raising orientation on environmental safeguards was held for PMU staff.

165. The consultation with affected people and other concerned stakeholders, including local persons, will be continued on an ongoing basis during the construction stage to provide timely disclosure of relevant and adequate information that is understandable and accessible to affected people and responsive to the needs

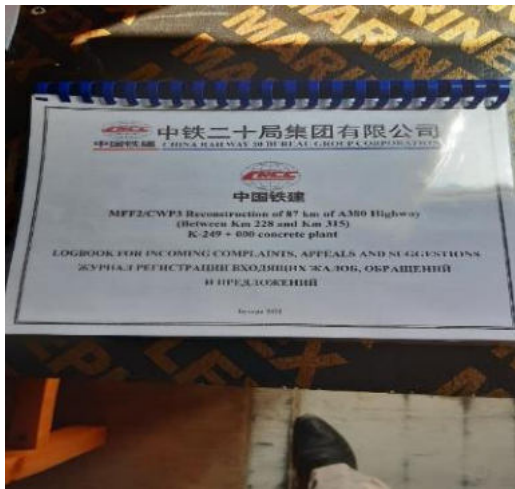


of disadvantaged and vulnerable groups; and should enable to incorporate all relevant views of affected people and other stakeholders into the mitigation measures and implementation issues. The consultation process and its results will be documented.

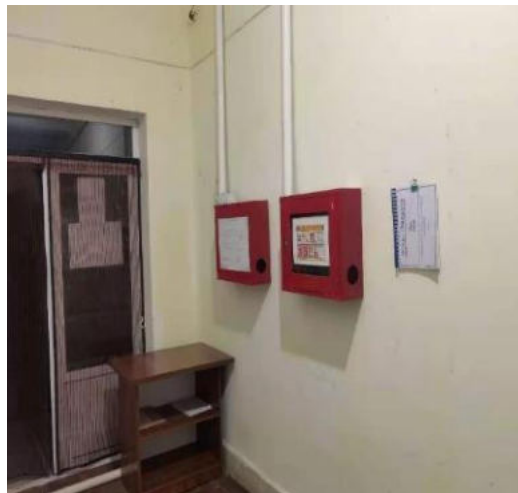
### 5.13. Complaints

166. Grievance redress system is established in July 2020, the grievance boxes are located at the entrance of the Company Office, batching plants and local Khokimyat. There was no complaint received from communities due to construction activities.

167. The individuals can visit, call or send a letter or e-mail or fax to the Khokimyat, the Contractor (Mr. Fang. Chief Engineer, E-mail: [cr20g.a380@gmail.com](mailto:cr20g.a380@gmail.com), Tel: +998 993891440), the Engineer (Ms. Cherdikudi, Social Safeguards Specialist, [cherdikudi@almarconsultin.org](mailto:cherdikudi@almarconsultin.org), Tel: +998 (78) 150 8887) or the PMU (Mr. Shokhrukh Salimov E-mail: [mff-pmu-uz1@mail.ru](mailto:mff-pmu-uz1@mail.ru) Tel: +998951459055). Receipt of grievances lodged in person, via phone, through a letter or e-mail or fax will be acknowledged. Grievances will be recorded in a standard format.



Complaint logbook at K249 batching plant



Complaint logbook at Project office

168. Until the current report preparation (December 2021), there was no official filing of any grievance.

169. Status of implementation of EMP is presented.



**Table 18. Status of Environmental Management Plan (EMP) Implementation (for construction stage) as of 31 December 2021**

<i>Impact/Issue</i>	<i>EMP Requirement<sup>11</sup></i>	<i>Compliance Attained</i>	<i>Comment on Reasons for Partial or Non-Compliance</i>	<i>Required Action and Target Dates to Achieve Compliance</i>
Impacts associated with all quarries.	• Ensure that all design parameters appropriate to the seismic risk inherent in the Project.	Yes		
	• Adopt contract provisions specifying that only licensed facilities in compliance with all applicable regulations and industry standards will be used as the sources of quarried materials.	Yes		
	• Licensed quarrying operations for material sources must be used and all uses sources require the prior approval of the CSC. The potential impact of transport of quarried materials must be considered in the approval process.	Yes		
	• Plans for quarry operations must be included in the required SSEMP submission.	Yes		
Fuelling Operations and Liquid and Toxic Material Storage Areas.	The site plans must specify the locations for the storage of liquid materials and toxic materials. The following conditions to avoid adverse impacts due to improper fuel and chemical storage.	Yes		
	• Fuelling operations shall occur only within containment areas.	Yes		
	• All fuel and chemical storage (if any) must be sited on an impervious base within a bund and secured by fencing. The storage area must be located away from any	Yes.		

<sup>11</sup> Mitigation measures during the pre-construction phase specified in the EMP (Table 20) of the IEE: <https://www.adb.org/sites/default/files/project-documents/44483/44483-027-ieee-en.pdf>

<i>Impact/Issue</i>	<i>EMP Requirement<sup>11</sup></i>	<i>Compliance Attained</i>	<i>Comment on Reasons for Partial or Non-Compliance</i>	<i>Required Action and Target Dates to Achieve Compliance</i>
	watercourse or wetlands. The base and bund walls must be impermeable and of sufficient capacity to contain 110 percent of the volume of tanks.			
	• Filling and refuelling must be strictly controlled and subject to formal procedures and will take place within areas surrounded by bunds to contain spills / leaks of potentially contaminating liquids.	Yes		
	• All valves and trigger guns must be resistant to unauthorized interference and vandalism and be turned off and securely locked when not in use.	Yes		
	• The contents of any tank or drum must be clearly marked. Measures shall be taken to ensure that no contaminated discharges enter any drain or watercourses.	Yes		
	• Disposal of lubricating oil and other potentially hazardous liquids onto the ground or water bodies must be prohibited.	Yes		
	• If accidental spills occur immediate clean up must be undertaken and all cleanup materials stored in a secure area for disposal to a site authorized to dispose of hazardous waste.	Yes		
	• Locations Relative to Watercourses. The site plans must be devised to ensure that, insofar as possible, all temporary construction facilities must be located at least 50 meters away from a water course, stream, or canal	Yes		

<i>Impact/Issue</i>	<i>EMP Requirement<sup>11</sup></i>	<i>Compliance Attained</i>	<i>Comment on Reasons for Partial or Non-Compliance</i>	<i>Required Action and Target Dates to Achieve Compliance</i>
Permanent loss of property and land, including agricultural and grazing land	Avoidance of resumption / demolition of land /property as far as possible; Development of Land Acquisition and Resettlement Plan; Highway fence to be located as close to the road embankment as possible, to minimise loss of agricultural and grazing land.	Yes		
Infrastructure	Avoid damage to existing infrastructure and interference with planned infrastructure, e.g. high voltage electricity lines, water pipelines, oil and gas pipelines	Yes		
Culvert design general	Designer to provide appropriate numbers of suitably sited and designed culverts and bridges;	Yes		
Need for proper drainage and revegetation.	Mitigation of potential adverse impacts due to earth-moving, cut and fill and similar requirements must include contract stipulations which require:			
	• Selection of less erodible material, placement of gibbons and riprap and good compaction, particularly around bridges and culverts.	Yes		
	• Specification that final forming and re-vegetation must be completed as soon as possible following fill placement to facilitate regeneration of a stabilizing ground cover.	Not yet applicable		
	• Trenching where necessary to ensure successful establishment of vegetation.	Not yet applicable		
	• Seeding with a fast-growing crop and potential native seed mix immediately after fill placement to prevent scour and to encourage stabilization.	Not yet applicable		
	• Placement of grass sods where applicable.	Not yet		

<i>Impact/Issue</i>	<i>EMP Requirement<sup>11</sup></i>	<i>Compliance Attained</i>	<i>Comment on Reasons for Partial or Non-Compliance</i>	<i>Required Action and Target Dates to Achieve Compliance</i>
		applicable		
	• Stabilization of embankment slopes and road cuts by revegetation with grazing resistant plant species, placement of fiber mats, riprap, rock gabbions, or other appropriate technologies.	Not yet applicable		
	• Completion of discharge zones from drainage structures with riprap to reduce erosion when required.	Not yet applicable		
	• Down drains/chutes lined with rip-rap/masonry or concrete to prevent erosion.	Not yet applicable		
	Side slopes adjusted in the range based on soil and other conditions as specified by the Project Specifications to reduce erosion potential. It is recommended that steep slopes be stabilized, covered with riprap or other material to prevent soil erosion	Not yet applicable		
Impacts to existing transport infrastructure	To mitigate potential impacts to the existing transport network, a Traffic Control Plan must be submitted to explain the means and methods to be taken for proper and adequate control of traffic during the Works. This Plan must include but not be limited to:	Yes		
	• The traffic control equipment the Contractor proposes to use for the Works;	Yes		
	• Traffic control signage including location and sign descriptions;	Yes		
	• How and when the Contractor proposes to use traffic control flag-men;	Yes		

<i>Impact/Issue</i>	<i>EMP Requirement<sup>11</sup></i>	<i>Compliance Attained</i>	<i>Comment on Reasons for Partial or Non-Compliance</i>	<i>Required Action and Target Dates to Achieve Compliance</i>
	• Traffic control means during no-working periods;	Yes		
	• Traffic control means and devices for night and off-hour periods.	Yes		
	To mitigate and ensure that potential impacts to the area transport network are avoided in the subsequent stages of the Project, the COPA stipulates a very specific and detailed set of requirements about general traffic management, traffic control, safety provisions that apply to temporary traffic ramps, vertical clearance, signage, temporary fencing, warning lights and other details.	Yes		
Potential impacts to irrigation systems	To mitigate potential impacts to irrigation systems bid and contract documents state that to avoid potential adverse impacts to irrigation systems, the Contractor must ensure irrigation channels diverted during the construction phase must be returned to their original status. Where this is not possible, or where channels are irrevocably altered, consultation must be held with landowners to ensure that an adequate redesign is undertaken to ensure that irrigation channels are returned as closely as possible to their former layout. The Contractor must undertake all necessary works to achieve this status, including provision of labor.	Yes		
Air quality impacts in later stages are largely determined by	Furnaces, boilers or equipment using any fuel that produce air pollutants must not be installed without prior written consent of the CSC. Burning of debris or other materials must not occur on the Site. Dust suppression measures including but not limited to the following must be			

<i>Impact/Issue</i>	<i>EMP Requirement<sup>11</sup></i>	<i>Compliance Attained</i>	<i>Comment on Reasons for Partial or Non-Compliance</i>	<i>Required Action and Target Dates to Achieve Compliance</i>
decisions taken (by design or default) in the Pre-Construction Stage, particularly the stipulations of the Project's bid and tender documents and contract specifications	implemented:			
	• Effective water sprays must be used during the delivery and handling of all raw sand and aggregate, and other similar materials, when dust is likely to be created and to dampen all stored materials during dry and windy weather.	Yes		
	• Areas within the Site where there is a regular movement of vehicles must have an acceptable hard surface and be kept clear of loose surface material. Locations must be indicated by the SEMP	Yes		
	• Conveyor belts must be fitted with wind-boards, and conveyor transfer points and hopper discharge areas must be enclosed to minimize dust emission. All conveyors carrying materials that have the potential to create dust must be totally enclosed and fitted with belt cleaners. Locations must be indicated by the SEMP	Not yet applicable		
	• Cement and other such fine-grained materials delivered in bulk must be stored in closed silos fitted with a highlevel alarm indicator. The high-level alarm indicators must be interlocked with the filling line such that in the event of the hopper approaching an overfull condition, an audible alarm must operate, and the pneumatic line to the filling tanker must close. Locations must be indicated by the SEMP Plan	Not yet applicable		
	• All vehicles, while parked on the Site, must have their engines turned off.	Yes		

<i>Impact/Issue</i>	<i>EMP Requirement<sup>11</sup></i>	<i>Compliance Attained</i>	<i>Comment on Reasons for Partial or Non-Compliance</i>	<i>Required Action and Target Dates to Achieve Compliance</i>
	• All equipment and machinery on the Site must be checked at least weekly and make all necessary corrections and or repairs to ensure compliance with safety and air pollution requirements.	Yes		
	• All vehicles must be properly cleaned (bodies and tires are free of sand and mud) prior to leaving the site areas. The necessary cleaning facilities must be provided on site to ensure that no water or debris from such cleaning operations is deposited offsite.	Yes		
	• Locations must be indicated by the SEMP Plans.	Yes		
	• All trucks used for transporting materials to and from the site must be covered with canvas tarpaulins, or other acceptable type cover (which must be properly secured) to prevent debris and/or materials from falling from or being blown off the vehicle(s).	Yes		
Impacts to water resources in later stages are largely determined by decisions taken (by design or default) in the Pre-Construction Stage,	To mitigate potential impacts to area waterways, the following conditions must apply to the Contractor's Construction Camps and work staging areas:			
	• Waste Disposal. All water and waste products arising on the site must be collected, removed from the site via a suitable and properly designed temporary drainage system and disposed of at a location and in a manner that causes neither pollution nor nuisance. The site plan required as part of the SEMP must indicate the system proposed and the locations of related facilities in the site, including latrines, holding areas, etc. There must be no	Yes		

<i>Impact/Issue</i>	<i>EMP Requirement<sup>11</sup></i>	<i>Compliance Attained</i>	<i>Comment on Reasons for Partial or Non-Compliance</i>	<i>Required Action and Target Dates to Achieve Compliance</i>
particularly stipulations the Project's bid and tender documents and contract specifications	direct discharge of sanitary or wash water to surface water. Disposal of materials such as, but not limited to, lubricating oil and onto the ground or water bodies must be prohibited. Liquid material storage containment areas must not drain directly to surface water. Liquid material storage containment areas equipped with drains must be valved, and the valve must be maintained locked in the closed position with supervisory control of the key. Lubricating and fuel oil spills must be cleaned up immediately and spill clean-up must be materials be maintained at the storage area.			
	<ul style="list-style-type: none"> <li>• Drainage. The site plan required as part of the SEMP must be devised to ensure that rain run-off from the construction sites is not deposited directly into any watercourse, stream, or canal and must indicate the system proposed, including the locations of retention ponds and other facilities. There must be no direct discharge of sanitary wastewater, wash water, chemicals, spoil, waste oil or solid waste to surface water bodies. Fuel, lubricating oil and chemical spills must be contained and cleaned-up immediately. Spill clean up equipment must be maintained onsite.</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>• Fueling Operations. Fueling operations must occur only within containment areas</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>• Relationship to Watercourses. The site plans required as part of the SEMP must be devised to ensure that, insofar as possible, all temporary construction facilities are locate at least 50 meters away from a water course,</li> </ul>	Yes		



<i>Impact/Issue</i>	<i>EMP Requirement<sup>11</sup></i>	<i>Compliance Attained</i>	<i>Comment on Reasons for Partial or Non-Compliance</i>	<i>Required Action and Target Dates to Achieve Compliance</i>
	stream, or canal.			
	<ul style="list-style-type: none"> <li>• Wheel Washing Facilities. If determined warranted by the CSC, the Contractor must provide a wash pit or a wheel washing and/or vehicle cleaning facility at the exits from the sites. If so requested, the Contractor must ensure that all vehicle are properly cleaned (bodies and tires are free of sand and mud) prior to leaving the site areas. The Contractor must provide necessary cleaning facilities on site and ensure that no water or debris from such cleaning operations is deposited off-site.</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>• Other Water-Related Facilities. The Contractor is required to construct, maintain, remove and reinstate as necessary temporary drainage works and take all other precautions necessary for the avoidance of damage by flooding and silt washed down from the Works. Site Plans must indicate adequate precautions to ensure that no spoil or debris of any kind can be pushed, washed down, fallen or be deposited on land or water bodies adjacent to the Site.</li> </ul>	Yes		
	Other water quality provisions applying to construction camps and work sites must include but must not be limited to the following:			
	<ul style="list-style-type: none"> <li>• All existing stream courses and drains within, and adjacent to, the Site must be kept safe and free from any debris and any excavated materials arising from the Works. Chemicals, sanitary wastewater, spoil, waste oil and concrete agitator washings must not be deposited in</li> </ul>	Yes		

<i>Impact/Issue</i>	<i>EMP Requirement<sup>11</sup></i>	<i>Compliance Attained</i>	<i>Comment on Reasons for Partial or Non-Compliance</i>	<i>Required Action and Target Dates to Achieve Compliance</i>
	the watercourses.			
	<ul style="list-style-type: none"> <li>• All water and waste products arising on the Site must be collected, removed from the Site via a suitable and properly designed temporary drainage system and disposed of at a location and in a manner, that must cause neither pollution nor nuisance.</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>• Drainage works must be reconstructed, maintained, removed and reinstated as necessary and all other precautions necessary for the avoidance of damage by flooding and silt washed down from the Works must be taken. Adequate precautions must be taken to ensure that no spoil or debris of any kind can be pushed, washed down, fallen or be deposited on land adjacent to the Site.</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>• In the event of any spoil or debris from reconstruction works being deposited on adjacent land or any silt washed down to any area, then all such spoil, debris or material and silt must be immediately removed and the affected land and areas restored to their natural state by the Contractor to the satisfaction of the Engineer.</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>• Downstream slopes must be stabilized with concrete, rock gabions or walls to avoid erosion where warranted.</li> </ul>	Yes		

<i>Impact/Issue</i>	<i>EMP Requirement<sup>11</sup></i>	<i>Compliance Attained</i>	<i>Comment on Reasons for Partial or Non-Compliance</i>	<i>Required Action and Target Dates to Achieve Compliance</i>
	• Contractor must ensure that construction camps and other potential sources of secondary impacts are properly sited and provided with drainage and wastewater facilities.	Yes		
	• Downstream slopes must be stabilized with concrete, rock gabions or walls to avoid erosion where warranted.	Yes		
	• Contractor must ensure that construction camps and other potential sources of secondary impacts are properly sited and provided with drainage and wastewater facilities.	Yes		
Borrow pits and quarries	• The selection and operation of borrow pits needs to be carried out with all due considerations to avoid any impact on the existing natural and human environment, and to make provisions that no secondary impacts such as soil and aquifer pollution will occur.	Yes		
	• Borrow pits should not be located within core or buffer zones of the existing or proposed specially protected areas.	Yes		
	• Irrespective of which borrow sites are used/developed, it remains the Contractor's responsibility to source the construction materials through obtaining and adhering to all necessary licenses and statutory environmental management requirements associated with the operation and rehabilitation of such sites.	Yes		
	• Contractor to avoid excavating borrow pits or quarries on agricultural land to the extent possible	Yes		

<i>Impact/Issue</i>	<i>EMP Requirement<sup>11</sup></i>	<i>Compliance Attained</i>	<i>Comment on Reasons for Partial or Non-Compliance</i>	<i>Required Action and Target Dates to Achieve Compliance</i>
Haul routes	• Select suitable haul routes away from sensitive sites, if possible	Yes		
	• Provide a length of haul road before the exit(s) from the site	Yes		
	• Reduce the width of haul roads (while still allowing two-way traffic movements) to minimize the surface area from which dust may be produced	Yes		
	• Sweep paved access roads (while still allowing two-way traffic movements) and public roads regularly	Yes		
	• Limit vehicle speeds – the slower the vehicles, the less the dust generated	Yes		
	• Spray unpaved work areas subject to traffic or wind with water regularly and frequently, particularly during warm and sunny weather			
Materials handling and storage	• Locate stockpiles out of the wind or provide wind breaks	Yes		
	• Keep stockpiles to the minimum practicable height and use gently slopes	Yes		
	• Compact and bind stockpile surfaces; re-vegetate longterm stockpiles	Yes		
	• Minimize the storage time of materials on site	Yes		
	• Store materials away from the site boundary and downwind of sensitive areas	Yes		
	• Ensure all dust-generating materials transported to/from	Yes		

<i>Impact/Issue</i>	<i>EMP Requirement<sup>11</sup></i>	<i>Compliance Attained</i>	<i>Comment on Reasons for Partial or Non-Compliance</i>	<i>Required Action and Target Dates to Achieve Compliance</i>
	the site are covered by tarpaulin			
	• Minimize the height of fall of materials	Yes		
	• Avoid spillage and clear up spills as soon as possible	Yes		
	• Damp down sand, spoil and aggregate stockpiles	Yes		
Fuel and chemical pollution control	Contractor to develop and implement a method statement on spillages including the use of lined spillage bunds for bitumen, oil and fuel storage tanks, and impermeable compounds for the storage of chemicals; Contractor to provide designated and confined sites for vehicle maintenance, refuelling and washing, and appropriate security procedures for refuelling vehicles. Location to be agreed with local executive and environmental authorities. Sites to be 500 m from the nearest water sources/irrigation and drainage channel; Contractor to submit a statement on showing the location of fuel storage, filling station and vehicle washing site to local executive and sanitary authorities; Contractor to treat maintenance workshop wastewater to national discharge standards; Contractor to be prohibited from washing of vehicles and equipment in rivers and/or wetland areas. No storage of oils and chemicals in the wetlands areas will be permitted and if unavoidable they shall be held within specifically constructed bunded areas	Yes		
Waste management	• Location for the disposal of waste should be agreed with the local executive and environmental authorities before the start of reconstruction	Yes		

<i>Impact/Issue</i>	<i>EMP Requirement<sup>11</sup></i>	<i>Compliance Attained</i>	<i>Comment on Reasons for Partial or Non-Compliance</i>	<i>Required Action and Target Dates to Achieve Compliance</i>
	• Contractor to store, handle and dispose of waste oil, tires, etc. at designated sites in accordance with SCEEP's requirements;	Not yet applicable		
	• Contractor to regularly remove litter and waste adjacent to the worker camps and contractor's yard even if not works-related.	Yes		
	• No waste storage areas shall be permitted in the wetlands areas	Not applicable		
	• Use covered containers for organic waste and remove frequently	Yes		
	• Remove organic waste before it starts to decompose Included	Yes		
Surface water and river	• all toxic and hazardous materials required for construction, fuel and caustic substances shall be stored at secure and managed sites, sited away from water bodies	Not yet applicable		
	• vehicles and equipment shall be maintained in good operable condition, ensuring no undue leakage of oil or fuel	Yes		
	• vehicles and equipment will be serviced at properly managed and equipped workshops, with suitable facilities to collect and dispose of waste oil,	Yes		
	• sanitation arrangements will be made at worksites and any accommodation facilities provided for workers' accommodation, ensuring that no raw sewage is	Yes		

<i>Impact/Issue</i>	<i>EMP Requirement<sup>11</sup></i>	<i>Compliance Attained</i>	<i>Comment on Reasons for Partial or Non-Compliance</i>	<i>Required Action and Target Dates to Achieve Compliance</i>
	released into drains or water bodies,			
	• where earthworks take place adjacent to water bodies, silt traps shall be installed prior to the commencement of earthwork activity and	Not yet applicable		
	• bridge and improvement works involving work in the river bed shall be confined to the dry season and where necessary, channels in the river bed will be diverted away from the work sites. For these measures, site specific plans shall be prepared by the Contractor and submitted for approval prior to commencement of the works.	Yes		
Topsoil preservation/soil management	Each construction site should have a spill contingency plan. Proper storage and management reduces the risk of vandalism and theft Contractor to remove, store and reuse of topsoil in accordance with best practice; long-term stockpiles to be protected to prevent erosion or loss of fertility; Contractor to construct and use appropriately sited haul roads to minimize soil compaction and loss of agricultural land.	Yes		
Worker camp management	Contractor to agree location and facilities of worker camps with local authorities including Ministry of Health's Central Disinfection Centre and District Disinfection Centre; Location for the disposal of waste should be agreed with the local executive and environmental authorities before the start of reconstruction. Contractor to provide:	Yes		
	• Statement on the source for the drinking water supply for	Yes		

<i>Impact/Issue</i>	<i>EMP Requirement<sup>11</sup></i>	<i>Compliance Attained</i>	<i>Comment on Reasons for Partial or Non-Compliance</i>	<i>Required Action and Target Dates to Achieve Compliance</i>
	workforce;			
	• Description of the living and eating areas for non-local workforce	Yes		
	• Before worksite operations start, the Contractor must seek approval on the source of drinking water from the local competent authority.	Yes		
Construction Noise Control	Good communication with affected communities is often the most effective way to manage potential construction noise impacts. Therefore, the Contractor should keep residents informed of the progress of the works, including when and where the noisiest activities will be taking place and how long they are expected to last. All noise complaints should be effectively recorded, investigated and addressed Account should be taken of the needs of residents in choice of working hours and where possible these should be chosen to			
	• Avoid night time and weekend working;	Yes		
	• Avoid working near mosques during prayer time; and to	Yes		
	• Carry out works near schools during holiday periods	Yes		
	In addition, the Contractor should consider general good working practices including the following which are particularly relevant to road construction:			
	• Modern, silenced and well-maintained plant and construction equipment should be used;	Yes		



<i>Impact/Issue</i>	<i>EMP Requirement<sup>11</sup></i>	<i>Compliance Attained</i>	<i>Comment on Reasons for Partial or Non-Compliance</i>	<i>Required Action and Target Dates to Achieve Compliance</i>
	• All vehicles and plant should be fitted with effective exhaust silencers which should be maintained in good and efficient working order.	Yes		
	• Fitted acoustic covers should be kept in a good state of repair and should be kept closed when plant is in use.	Yes		
	• vehicles should not wait or queue on the road with engines running and plant in intermittent use should be shut down when not in use or where this is impracticable, throttled down to a minimum.	Yes		
	• If a site compound, or materials storage area is to be used, both it and any static plant within it should be sited as far as is practicable from noise sensitive buildings.	Yes		
	• Where activities, including delivery of material to site, cannot take place during normal working hours they should be carried out as close to normal working hours as is reasonably practicable.	Yes		
	• Concrete mixers should not be cleaned by hammering the drums	Not yet applicable		
	• When handling materials, care should be taken not to drop materials from excessive heights	Yes		
Vibration Control	• Roller Vibration Setting. use of a lower or no vibration setting on the roller, though more passes of the roller may be required to achieve the same level of ground compaction. Roller start up and shut down is carried out away from vibration sensitive properties as transient	Yes		

<i>Impact/Issue</i>	<i>EMP Requirement<sup>11</sup></i>	<i>Compliance Attained</i>	<i>Comment on Reasons for Partial or Non-Compliance</i>	<i>Required Action and Target Dates to Achieve Compliance</i>
	vibration levels during start up and shut down will generally exceed levels for steady state operation. Use of vibratory rollers directly atop the underlying soil adjacent to dwellings should also be avoided if possible. If compaction of the soil is required this should be done using a sheep foot type roller in non-vibratory mode or a non-vibratory roller.			
	<ul style="list-style-type: none"> <li>• Use of Alternative Compaction Equipment. Alternative means of compaction of the sidewalk sub-base and the sides of embankment could be adopted such as using a non-vibratory rubber tyre roller. Selection of an alternative lower vibration roller by the contractor would also offer a means of providing additional mitigation.</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>• Trench. The design of the road will in some places incorporate a drainage channel proposed to run alongside the outer limits of the road. The depth of the channel could be temporarily increased during the construction of the road, which would enable it to function as a trench providing vibration isolation to properties alongside the road from operation of the roller. Should compaction of the road without vibration prove impracticable for any reason, this could form an alternative solution in limited areas and could be suggested to the Contractor carrying out the works. According to Uzbek State Agency of Anti-Seismic Construction and Engineering Design Institute. The degree of attenuation of vibration (acceleration) from a roller was measured at a distance of about 6m from the</li> </ul>	Yes		

<i>Impact/Issue</i>	<i>EMP Requirement<sup>11</sup></i>	<i>Compliance Attained</i>	<i>Comment on Reasons for Partial or Non-Compliance</i>	<i>Required Action and Target Dates to Achieve Compliance</i>
	trench using trench depths of 1.5m and 2.0m. With a depth of 1.5m they reported reduced levels of vibration of between 2-4 times the level without the trench.			
	<ul style="list-style-type: none"> <li>Human Response. Adverse human response to construction vibration can be mitigated by good communication between the contractor and local residents. If occupiers of dwellings are informed of their nature, duration and potential vibration effects prior to the works, then adverse response will be less. Generally, the main concern relating to construction vibration is of damage to property and if this is not likely to occur, then this point should be made clear to residents.</li> </ul>	Yes		
Air quality impacts	All contract stipulations established in the Pre-Construction Stage as outlined above must apply.	Yes		
	Additional mitigation measures warranted in the event of unanticipated conditions or in response to accidental spills or volatile materials or significant accidental air pollutant emissions must apply as determined warranted by the CSC.	Yes		
	Periodic unannounced site visits are required to verify air quality and all other environmental compliance.	Not yet applicable		
Dust control	Contractor to water down/clean haul routes in residential and other air quality sensitive areas during dry weather. Before worksite operations start, the Contractor must seek approval on the source of dust suppression water from the local competent authority; Contractor to pave areas in residential and other air quality sensitive areas as soon as	Yes		

<i>Impact/Issue</i>	<i>EMP Requirement<sup>11</sup></i>	<i>Compliance Attained</i>	<i>Comment on Reasons for Partial or Non-Compliance</i>	<i>Required Action and Target Dates to Achieve Compliance</i>
	possible; Contractor to control vehicle speed on unpaved haul routes; Contractor to cover trucks carrying dust-producing materials; Contractor to properly maintain vehicles and equipment to minimize air pollution on the construction site; Vehicle exhausts to be vented upwards;			
Public hindrances due to traffic diversions and hauling routes	Provision of a site-specific traffic diversion management plan, including precautionary measures such as signage, working hours, public awareness, preparation of emergency plans, and proper decommissioning of such temporary roads			
Traffic safety	Contractor to manage traffic disruption, inconvenience to the public, and road safety hazards through development and implementation of a traffic management plan in consultation with the traffic police and local authorities, including public information, temporary traffic diversions, one-way working, and all necessary temporary traffic signals, warning signs, lighting and watching (guards/signal men); Providing advance information to the public about planned reconstruction works, Planning reconstruction activities to minimize disruption and maintaining at least one open lane where there is no viable alternative route;	Yes		
	Signing of temporary traffic diversions in close coordination with local authorities; Use of flagmen and temporary traffic lights to control traffic flows at constricted sites, including safe crossing for pedestrians and limiting, to the extent practicable, the movement of large trucks to	Yes		

<i>Impact/Issue</i>	<i>EMP Requirement<sup>11</sup></i>	<i>Compliance Attained</i>	<i>Comment on Reasons for Partial or Non-Compliance</i>	<i>Required Action and Target Dates to Achieve Compliance</i>
	off-peak traffic times			
Site clearance	Contractor to carry out demolition works safely; Contractor to avoid damage to or loss of trees and other community structures like cemeteries outside the limits of site and to preserve trees within the limits of site where specifically designated in the Contract; Contractor to minimize vegetation losses in the construction corridor through appropriate safeguard measures (e.g. demarcation of critical sites prior to reconstruction; instruction of workforce).	Yes		
Minimization of impacts on flora and fauna and their habitats (General)	Contractor to avoid damage to or loss of trees outside the limits of site and to preserve trees within the limits of site where specifically designated in the Contract; Contractor to minimize vegetation losses in the construction corridor through appropriate safeguard measures (e.g. demarcation of critical sites prior to construction; instruction of workforce); To minimize the potential impact related to the clearance of vegetation the Contractor will be required not to carry out clearance operations (felling of trees and shrubs) during the sensitive breeding period between mid-April and mid-July Contractor to avoid vegetation clearance during the bird breeding season in areas with nests (May-July)	Yes		
Access to Information/ Public Relations	Design and supervision consultant /PMU to convene a public consultation meeting (including the Contractor) prior to contractor's mobilization to:	Yes		
	• provide basic project information and construction	Yes		

<i>Impact/Issue</i>	<i>EMP Requirement<sup>11</sup></i>	<i>Compliance Attained</i>	<i>Comment on Reasons for Partial or Non-Compliance</i>	<i>Required Action and Target Dates to Achieve Compliance</i>
	scheduling			
	• discuss and agree farm access arrangements during the construction period	Yes		
	• establish and explain the grievance redress mechanism including proactive arrangements for keeping the public informed of reconstruction activities	Yes		
	Contractor to implement obligations as per the Grievance Redress Mechanism	Yes		
Cultural heritage/ archaeological finds	Contractor to develop a cultural / archaeological find plan for the conservation/protection of cultural heritage/archaeology in case of unexpected finds; If an cultural/archaeological artefact is found, the Contractor is to stop work immediately in that location and notify the appropriate authorities; Contractor is to cooperate with the appropriate authorities during the excavation, examination, and recording of such finds, and to not restart works in that location until permission is given.	Yes No buried cultural relics were discovered.		
Health and Safety	Contractor to provide drinking water for workforce in accordance with national quality standards. Before worksite operations start, the Contractor must seek approval on the source of drinking water from the local competent authority. Septic tanks, mobile toilets and other sanitary facilities to be cleaned daily to prevent outbreaks of disease; Contractor to provide basic sanitation, general health and HIV/AIDS training (including provision of condoms) for the local and non-local workforce; Contractor to provide training in use of, first aid materials and	Yes		

<i>Impact/Issue</i>	<i>EMP Requirement<sup>11</sup></i>	<i>Compliance Attained</i>	<i>Comment on Reasons for Partial or Non-Compliance</i>	<i>Required Action and Target Dates to Achieve Compliance</i>
	equipment; Contractor to provide appropriate personal protective equipment (PPE) for workforce, e.g. safety boots, reflective vests (summer), reflective jackets (winter), helmets, ear protection, goggles, gloves, etc. and to replace it when damaged; Contractor to provide training in the safe construction techniques, including use of equipment; Contractor to provide details of security measures to prevent access to the site by the public/non-workforce personnel, e.g. children, and livestock.			

CSC = Construction Supervision Consultant, PMU = Program Management Unit, RRF = the Republican Road Fund (the Road Fund)

#### **5.14. Summary of Monitoring Outcomes**

170. Submitted Contractor's environmental reports, information in monthly reports on environmental protection for project sites, as well as observations and audits indicate absence of negative impact of construction work on the environment. The content of pollutants (water, air, health) noise and vibration do not exceed MAC. The measures taken by the contractor to reduce environmental impact are sufficient. The activities of the Contractor exert an acceptable load on the environment.

171. To regularly monitor and control the parameters for air quality, level of noise and vibration, the Contractor has concluded the agreement with the Independent Laboratory, based on which the Independent Laboratory provides such services as measuring noise level, air and water quality.

172. The results of the monitoring show that the existing mitigation measures are effective and Air, Noise and Water quality testing results meet the norms established by the legislation of Uzbekistan and IFC norms.

173. Monthly HSE inspections have been carried out to monitor HSE culture and performance at the construction sites.

174. CSC will monitor the improvements under the project and reflect findings in the next Semi- annual EMR as of January – June 2022 reporting period.









**Table 19. Issues Identified During the Monitoring Period and their corrective actions<sup>12</sup>**

	<b>Issue</b>	<b>Required Action</b>	<b>Responsibility</b>	<b>Timing (Target Dates)</b>
1	Information from the SAEMRs has never been disclosed to affected persons since the project became effective. (Pending since the last monitoring period),	DONE. Table 12, SI.no-2.  (ref: <a href="https://www.uzavtoyul.uz/en/post/osiyo-taraqiyot-banki-ishtirokidagi-a380-guzorbuxoronukusbeyneu-avtomobil-yolining-228315-km-qismini-rekonstruksiya-qilish-loyihasi-doirasida-ishlab-chiqilgan-atrofmuhit-monitoringi-hisoboti1.html">https://www.uzavtoyul.uz/en/post/osiyo-taraqiyot-banki-ishtirokidagi-a380-guzorbuxoronukusbeyneu-avtomobil-yolining-228315-km-qismini-rekonstruksiya-qilish-loyihasi-doirasida-ishlab-chiqilgan-atrofmuhit-monitoringi-hisoboti1.html</a> )	PMU	<b>DONE</b> , in Sep,2021
2	PMU has not hired full-time safeguard expert (para. 20). (Pending since the last monitoring period)	DONE. (pl. see link in Table 1212, SI no-3).	PMU	- Done: in Sep, 2021,
3	The contractor has not identified sources of materials, state methods of transportation and provided a realistic breakdown of rates. (Pending since the last monitoring period)	DONE. (See Table 12, SI no-5.)		<b>DONE</b> - In Jul,2021
4	Lack of environmental documentation in the office.	Ensure availability of all environmental documents in the field office, as well as monitoring reports, complaints logbook, permits etc. – in one place and one room and ensure their further availability and proper maintenance;	Contractor	<b>DONE</b> .  For Environment permits done in November, 2021 -- refer to annex-2
5	There is no grievance registration logs at each facility of the	Grievance log should be arranged at	Contractor	<b>Done</b> by June 2021

<sup>12</sup> This includes (a) the pending issues from the previous report(s); and (B) issues which were newly identified and resolved during this monitoring period.


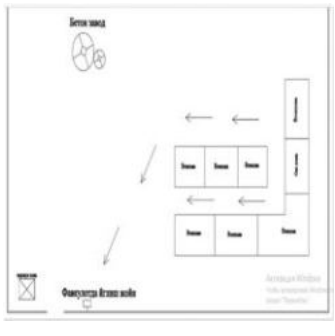





	Issue	Required Action	Responsibility	Timing (Target Dates)
	construction site.	each construction site. All complaints and appeals from employees must be registered in this log with the date of the appeal, the description of the appeal, the person responsible for resolving the issue and the result of the appeal. Logs should be at each construction site.		(See the photo below the Table)
6	Trainings for housekeeping improvement and pollution prevention at construction sites and at all camp sites are not undertaken properly.	Trainings for housekeeping improvement and pollution prevention at construction sites and at all camp sites should be undertaken properly.	Contractor	<b>Done</b> by June 2021. (See the photo below the Table)  continue on weekly basis and in case of new employees
7	Meetings and consultations with the project communities to inform about the project progress, the GRM, and issues related to public safety during construction works are not held. Women participation in the community meetings and consultations is not ensured.	Conduct meetings. (Continue upon request and occurrence of the problem.)	Contractor	<b>Done</b> by June 2021 (See the photo below the Table)



	Issue	Required Action	Responsibility	Timing (Target Dates)
	 <p>SI-5: Photo of grievance registration logs</p>	 <p>SI.-6: Photo of Training for house keeping</p>	 <p>SI-7: Photo of Consultation Meeting</p>	
8	Quarterly parametric measurements of the air/water quality and noise/vibration are not performed as scheduled.	Contractor should conduct parametric measurements during the construction stage according to the Table 21 of the IEE.	Contractor	<b>Done</b> (started from July 2021). The result will be reported in the next monitoring report.
9	Quarry production activity has not been approved by SCEEP.	The contractor shall get the approval certificate from SCEEP immediately	Contractor	<b>DONE</b> in July 2021. The Contractor used the quarries allowed by SCEEP in June 2021.
<b>Issues relevant to COVID-19 risk</b>				
10	There is no medical point at batching plants.	Arrange medical point with full set of first aid means, bed; arrange for daily medical	Contractor	<b>DONE</b> on 23 June 2021 (See the photo below the

	Issue	Required Action	Responsibility	Timing (Target Dates)
		examination of staff		Table)
11	There is no separate medical point room for patients at workers' camp.	Arrange for separate medical point room for patients in the camp	Contractor	<b>DONE</b> on 23 June 2021
12	COVID-19 prevention measures/Health and Safety Plan was implemented at times but not continuously.	Requires continuous implementation of the Health and Safety Plan and protocols to prevent the transmission of COVID-19	Contractor	<b>DONE (improved).</b> Work Plan of Department of Healthcare dated 04 January 2021 will be implemented continuously.
<div style="display: flex; justify-content: space-around; align-items: center;">    </div>				
13	<b>[At cement-concrete plant at Km 269]</b> There is no doctor or nurse in the territory of the plant. There is no first aid kit and pharmacy kit.	Organise a doctor or nurse in the territory of the plant and first aid kit and pharmacy kit.	Contractor	<b>DONE</b> on 23 June 2021

SI-10: Photo of Medical Facilities, Doctor and health check up by responsible person for Covid-19,,



	Issue	Required Action	Responsibility	Timing (Target Dates)
<b>Issues relevant to occupational health and safety</b>				
14	Batching plants are not equipped with safety instructions for welding and electric works	<p>Arrange posters with safety instructions when performing welding and electric works.</p> <p>Carry out regular trainings on occupational health and safety</p>	Contractor	<b>Done</b> on 23 June 2021 (See the photo below the Table)
15	There is no evacuation plan at batching plants.	Arrange for evacuation plan,	Contractor	<b>Done</b> on 23 June 2021
16	The Contractor does not provide the personnel at construction sites with the necessary personal protective equipment for the employees. The site workers are not properly equipped with the PPE.	<p>Provide PPE of the personnel of batching plants and other construction sites, namely, helmets, gloves, boots, special uniform for welding and electro technical works, etc.</p> <p>Workers are requested to wear reflecting clothes on certain construction fields.</p>	Contractor	<b>Done</b> on 23 June 2021 (See the photo below the Table)

	Issue	Required Action	Responsibility	Timing (Target Dates)
	  <p>SI-14 and 15: Picture for safety instructions for welding and electric works and Evacuation Plan at the Patching plant-249..</p>	  <p>SI-16: Photo of personal protective equipment for the employees.</p>		
17	Heavy equipment working are carried out without banksman, rebar without capping, deep excavations and cuts without hard barriers. No flashlights at the hazardous places for nighttime warning.	Assign or install banksman, hard barriers, and flashlights.	Contractor	<b>Done</b> in August 2021 (See the photo below the Table)
	   <p>SI-17: Photo of Banks Man, hard barrier and working under flashlight,</p>			





	Issue	Required Action	Responsibility	Timing (Target Dates)
18	Temporary warning boards such as ("Danger", "No smoking", etc.) were not erected at the storage areas of fuel and dangerous material.	To install warning boards such as ("Danger", "No smoking", etc.)	Contractor	<b>Done</b> by June 2021 (See the photo below the Table)
19	"No smoking" signs are missing along with special areas for smoking	Install "No smoking" signs and arrange special areas for smoking	Contractor	<b>Done</b> by June 2021. (See the photo below the Table)
 <p>SI-18: Photo of Danger zone sign</p>		 <p>SI-19: Photo of no smoking sign zone</p>		
20	<b>[At concrete plant at Km 249]</b> People are working from 7 to 10 hours, illegally. Workers are not provided with PPE and uniform.	Workers now using PPE and uniform. All workers have labour contracts with indication of working hours.	Contractor	<b>Done</b> by June 2021. (See the photo below the Table)




	Issue	Required Action	Responsibility	Timing (Target Dates)
Issues relevant to community safety				
21	No information board at the entrance of certain batching plants, no fencing of some batching plants, no warning signs within the plants observed.	At all batching plants;  - Install information board for project near the entrance to the batching plant.  - Install barriers around all piles and pond areas within the plant.  - Install proper fencing of the batching plant  - Install warning signs/instructions (in regard to occupational health and safety for construction works) within the camp	Contractor	<b>Done</b> on 23 June 2021 (See the photo below the Table)






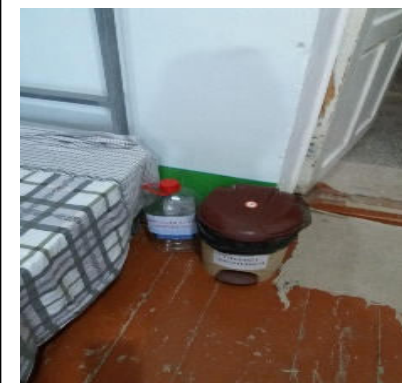

	Issue	Required Action	Responsibility	Timing (Target Dates)
	 <p>SI-20: Photo of batching plant-249: Workers with PPE</p>	 <p>SI-21: Photo of Information board on entrance of batching plants,</p>		
22	Switchyard areas are not properly arranged, secured and fenced.	Finalize proper arrangement, securing and fencing of switchyards at batching plants	Contractor	<b>Done</b> on 23 June 2021 (See the photo below the Table)
23	Barriers around the construction sites (to enhance safety of the workers and the public) are not visible.	Continue the provision of visible barriers to enhance safety of the workers and the public. Workers and employees should be provided with PPE	Contractor	<b>Done</b> on 23 June 2021 (See the photo below the Table)

	Issue	Required Action	Responsibility	Timing (Target Dates)
	 <p>SI-22: Photo of fencing of switchyards at batching</p>	 <p>SI-23: Photo of construction site barrier</p>		
24	Well-designed road safety signs and signalmen to monitor traffic are not provided all the time.	Now it is done by contractor,	Contractor	<b>Done</b> by June 2021 (See the photo below the Table)
	 <p>SI-24: Photo of road safety signs</p>			



	Issue	Required Action	Responsibility	Timing (Target Dates)
25	240 batching plant is fenced, though the main gates are always open. The territory was not watered at the moment of visit.	Strengthen the implementation of measures for public health and safety including on making temporary fences to not allow unauthorized entry to the project worksite and road construction sites, road traffic safety and occupational health and safety for the construction workers.	Contractor	<b>Done</b> by June 2021. (See the photo below the Table)
26	<b>[At cement concrete plant at Km 269]</b> During the visit, welding works were carried out in the yard in between the residential and kitchen vans.	Now ok. They are working at their designated place in the batching plant,	Contractor	<b>Done</b> by June 2021. (See the photo below the Table)
 		 		
SI-25: Photo of water spraying on the road		SI-26: Photo of welding workers.		

	Issue	Required Action	Responsibility	Timing (Target Dates)
<b>Issues relevant to hazardous waste</b>				
27	There are no containers for the oily rags and waste.	Install the containers and make labelling of containers (boxes) for the oily rags	Contractor	<b>Done</b> on 30 June 2021 (See the photo below the Table)
<div>    </div> <p>SI-27. Photo of concrete basin and containers for oily rags and waste</p>				
28	Oil and fuel are not properly stored at plants. Oil leaks were observed. Oil cylinders were left on the ground directly.  Placement of secondary containment under the fuel tank and used oil cylinders is needed.	<ul style="list-style-type: none"> <li>- Remove oil leaks.</li> <li>- Remove and dispose oil cylinders and wastes from batching plants</li> </ul> <p>Transport the removed oil cylinders and wastes to the designated landfill of toxic chemicals.</p> <p>Ensure storage of fuel tanks on concreted racks and platforms.</p>	Contractor	<b>Done</b> on 23 June 2021 (See the photo below the Table)

	Issue	Required Action	Responsibility	Timing (Target Dates)
	  <p>SI-28: Photo of Oil and fuel cylinder are not no more on the ground,</p>			
29	Lack of waste bins and their proper labelling, including the ones for medical wastes.	<ul style="list-style-type: none"> <li>- Provide waste bins</li> </ul> <p>make clear labelling of containers (boxes) for the different types of waste, including for the oily rags and waste;</p>	Contractor	<b>Done</b> on 30 June 2021 (See the photo below the Table)
30	On the production site territory, tanks for fuels and lubricants were not installed on a concrete base. Fuel and oil spill on the ground was detected during the walk-around. The fire shield was not completed. A non-compliance letter was sent to the Contractor and the problematic issues were resolved.	To concrete the place under Fuel and lubricant materials storage tank; To provide FLM storage with a firefighting panel, containers for oiled soil, means of containment (gloves, shovels) and appropriate safety signs and contact numbers in case of emergency	Contractor	<b>Done</b> by June 2021 (See the photo below the Table)

	Issue	Required Action	Responsibility	Timing (Target Dates)
	 			
	SI-29: Photo waste bins and their proper labelling and Photo Medical wastes			
				
		SI-30: Photo of Fuel and lubricant materials storage tank on the concrete base,		
31	Oil leaks from the equipment were found at the parking and some other sites. The Contractor received comments on the detected leaks.	The contaminated soil should be removed properly and taken to a specially designated place.	Contractor	<b>Done</b> by June 2021
32	Diesel power supply generators are installed on concrete foundation, however, there are spills of oil not removed and already carried on the shoes of workers along the site.	The contaminated soil should be removed properly and taken to a specially designated place.	Contractor	The contaminated soil was transferred to designated place at Romitan land fill.
33	<b>[At concrete plant at Km 249]</b> Oil barrels are not properly stored. There are oil spills on the territory of the plant.	Ensure proper storage of oil barrels. Remove all oil spills from the territory of batching plants.	Contractor	<b>Done</b> by June 2021  (See the photo below the Table)






	Issue	Required Action	Responsibility	Timing (Target Dates)
34	<b>[At cement concrete plant at Km 269]</b> Tank for fuel is installed on brick racks paved with concrete, but with no concrete foundation.	Already installed concrete foundation,	Contractor	<b>Done</b> by June 2021  (See the photo below the Table)
35	<b>[At concrete plant at Km 284]</b> Tank for fuel is installed on brick racks paved with concrete, but with no concrete foundation.	Already installed concrete foundation,	Contractor	<b>Done</b> by June 2021  (See the photo below the Table)
<div style="display: flex; justify-content: space-around; align-items: center;">   </div>				
<div style="display: flex; justify-content: space-between;"> <div>SI-34: Photo of Tank for fuel on a concrete foundation on Km 269</div> <div>SI-35: Photo of concrete plant at Km 284.</div> </div>				
<b>Issues relevant to other waste</b>				

	Issue	Required Action	Responsibility	Timing (Target Dates)
36	Waste is observed at batching plants	<p>Remove all plastic and other types of waste from batching plants and ensure their proper disposal;</p> <ul style="list-style-type: none"> <li>- install containers for wastes.</li> </ul> <p>(i) collect solid waste from the camp on the special places within the camping territory; and (ii) remove to the municipal waste's storage place in accordance with agreements with local hokimiyat.</p>	Contractor	<p><b>Done</b> on 30 June 2021</p> <p>(See the photo below the Table)</p> <p>The solid waste was transferred to Govt. Approved waste disposal company Toza Huzud, already all wastes disposed.</p>
37	Waste / excavated materials, including domestic and medical wastes, are not properly collected and disposed. This affects aesthetics and emits bad smell.	Requires the immediate removal and disposal of wastes materials to designated sites. To install additional separate containers for household and hazardous waste. Relevant agreements for wastes disposal should be concluded.	Contractor	<p><b>Done</b> by June 2021</p> <p>(See the photo below the Table)</p> <p>The waste materials were transferred Govt. Approved waste disposal company Toza Huzud, already all wastes disposed.</p>
38	Concrete waste was stored on the road shoulder nearby a resident's place	<ul style="list-style-type: none"> <li>- It has already removed</li> </ul>	Contractor	<p><b>Done</b> by June 2021</p> <p>(See the photo below the Table)</p>








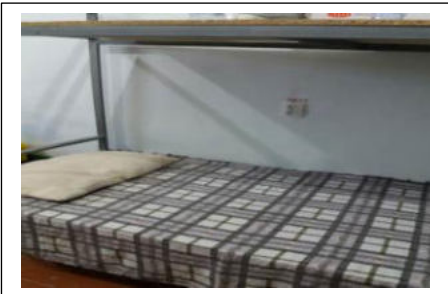


	Issue	Required Action	Responsibility	Timing (Target Dates)
				The concrete waste was transferred to Govt. Approved waste disposal company Toza Huzud, already all wastes disposed.
39	[At cement concrete plant at Km 269] Domestic and other wastes are disposed to the sandy-earthen pit. Waste waters, including from the kitchen, are also drained to the sandy-earthen pit outside the territory of the plant. There is no contract with Makhsustrans for removal of wastes from the plant. Kitchen is located in between the residential vans. Kitchen has no mesh over the windows. Propan gas is used for cooking. Products in the fridge are stored not separately. Meat is not covered inside the fridge. There is no canteen and workers eat in the residential vans. Chinese workers eat with multiple-use sticks	As per contract with Govt. Approved waste disposal company Toza Huzud, already all wastes disposed,	Contractor	<b>Done</b> by June 2021  (See the photo below the Table)

	Issue	Required Action	Responsibility	Timing (Target Dates)
	  <p>SI-39: Canteen and eating place of construction workers,</p>	 <p><b>SI-36, 37, 38 and 39:</b> Photo of Waste disposal bin installed in the batching plants, from here, the waste materials were transferred by Govt. Approved waste disposal company Toza Huzud, already all wastes disposed.</p>		
40	<b>[Camp at concrete plant at Km 284]</b> Some domestic waste is burned	As per contract with Govt. Approved waste disposal company Toza Huzud, already all wastes disposed,	Contractor	<b>Done</b> by June 2021, Confirmed.
41	<b>[At concrete plant at Km 249]</b> Waste management (used gloves, wires and other) are left all over the site of the plant. Additionally, the plant territory is full of animal excrements, namely, big dogs.	As per contract with Govt. Approved waste disposal company Toza Huzud, already all wastes disposed,	Contractor	<b>Done</b> by June 2021 (See the photo below the Table)
<b>Housekeeping Issues at construction site</b>				

	Issue	Required Action	Responsibility	Timing (Target Dates)
42	Equipment is not properly stored at concreted platforms at batching plants.	Arrange for proper storage of equipment	Contractor	<b>Done</b> on 23 June 2021  (See the photo below the Table)
43	The housekeeping practices are poor. Materials should be properly secured including wires and protruding steel bars.	Continue employing good housekeeping practices in work areas. Maintain cleanliness including campsites at all times. Spoils and other waste materials should be managed properly. Re-use as applicable. Construction materials should be properly secured including wires and protruding steel bars	Contractor	<b>Done</b> by June 2021.  (See the photo below the Table)  (The status will be monitored on daily basis, and fixed when necessary.)
<div>    </div> <div> <p><b>SI-41:</b> Photo of clear places without any animals, <b>SI-42:</b> Photo of Equipment which are properly stored at concrete platform at batching plant,</p> <p><b>SI-43:</b> Photo of Materials are properly secured place,</p> </div>				
44	Storage of propane cylinder does not comply with safety standards. Storage of such a cylinder should be in a non-	Storage of such cylinder should be in a non-combustible iron box with protection	Contractor	<b>Done</b> by June 2021

	Issue	Required Action	Responsibility	Timing (Target Dates)
	combustible iron box with protection against direct sunlight.	against direct sunlight.		(See the photo below the Table)
45	Piles with gravel, sand and earth are too big to be covered. Therefore, sand and earth along with gravel are blown away with strong wind.	Cover the piles with gravel, sand and earth	Contractor	<b>Done</b> by June 2021  (See the photo below the Table)
46	<b>[At cement-concrete plant at Km 269]</b> There is no special place for keeping vehicles. Machines and vehicles are kept on the territory of the plant.	Organize a special area for vehicles	Contractor	<b>Done</b> by June 2021  (See the photo below the Table)
47	<b>[At concrete plant at Km 249]</b> Oil barrels are not properly stored. There are oil spills on the territory of the plant.	Already Installed	Contractor	<b>Done</b> by June 2021  (See the photo below the Table)
48	<b>[At concrete plant at Km 249]</b> Piles with gravel, sand and earth are not covered. Therefore, sand and earth along with gravel are blown away with strong wind.	Now already covered by the contractor,	Contractor	<b>Done</b> by June 2021  (See the photo below the Table)

	Issue	Required Action	Responsibility	Timing (Target Dates)	
	<div></div> <p>SI-44: Storage of cylinder non-combustible iron box</p>	<div></div> <p>SI. 45-Photo of Cover the piles with gravel, sand and earth</p>	<div></div> <p>SI-46: Photo of special area for vehicles,</p>	<div></div> <p>SI. No-47: Photo of Oil Barrel</p>	<div></div> <p>SI-48: Photo Piles with gravel, sand and earth are now covered</p>
Housekeeping Issues at Workers' Camp					
49	The living quarters at construction camps and surrounding areas are not kept clean (wet cleaning of rooms is not carried out). The rooms are in a negligent state. More than six people live in one room that violates the requirements of the Ministry of Health for the standards of living space/manufacturers standards in the container for temporary accommodation at construction sites.	Now the living room is ok. Contractor reduced the people from the living room,	Contractor	<b>Done</b> by June 2021  (See the photo below the Table)	
50	The sanitary condition of cooking area is poor at some batching plants. Workers are eating in the residential cars at 269 batching plant, no tables are provided.	<ul style="list-style-type: none"><li>- Clean the area of kitchen</li><li>- install ventilation in the kitchen</li><li>- clean the premise where workers are eating,</li><li>- provide tables and ensure that</li></ul>	Contractor	<b>Done</b> on 23 June 2021  (See the photo below the Table)	

	Issue	Required Action	Responsibility	Timing (Target Dates)
		they are clean; provide separate canteen		
51	At the construction camp, living quarters, kitchen and surrounding areas are generally clean and in order. However, it was noted that wet cleaning of rooms is not carried out. The rooms are in a negligent state. More than six people live in one room that violates the requirements of the Ministry of Health for the standards of living space/manufacturers standards in the container for temporary accommodation at construction sites.	<ul style="list-style-type: none"> <li>- Clean the area of kitchen</li> <li>- install ventilation in the kitchen</li> <li>- clean the premise where workers are eating,</li> <li>- provide tables and ensure that they are clean;</li> </ul> provide separate canteen	Contractor	<b>Done</b> on 23 June 2021  (See the photo below the Table)
<div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>SI-49: Photo of living room</p> </div> <div style="text-align: center;">  <p>SI-50: Photo of sanitary condition of Kitchen of cooking area is good now,</p> </div> <div style="text-align: center;">  <p>SI-51: Photo of Clean kitchen area,</p> </div> </div>				
52	<b>[Camp at concrete plant at Km 284]</b> Kitchen and canteen are not arranged properly. Cooks are not provided with personal protective equipment. Food products are not	Install meshes on the windows in the kitchen and take additional measures to avoid insects in the food during cooking	Contractor	<b>Done</b> by June 2021  (See the photo below the Table)

	Issue	Required Action	Responsibility	Timing (Target Dates)
	stored according to the sanitary requirements.	and afterwards.  Provide cooks with special clothing (cap, mask, gloves, apron).  Storage of food should be separated. Meat should be kept in bags in the refrigerator.  Put the menu for the week.		
<b>Other Issues</b>				
53	Plant seedlings are not done upon completion of construction activities at each site.	The Contractor will take action upon completion the all construction works as convenient rather seedling of each site of completion of construction works,	Contractor	The contractor shall take action after completion of construction works like during 2023-2024. The Contractor also takes action every spring.
54	Operation of water trucks is not frequent enough to reduce dust pollution	Continue regular spraying of water over affected areas to prevent dust pollution using water trucks	Contractor	<b>Done</b> (improved) by June 2021.  (See the photo below the Table)  (The status will be monitored on daily

	Issue	Required Action	Responsibility	Timing (Target Dates)
				basis, and fixed when necessary.)
55	Not all residential vans are yet equipped and ready for residence of workers.	Equip the residential vans.	Contractor	<b>Done</b> by June 2021  (See the photo below the Table)



SI-52: Photo of cooks with special clothing (cap, mask, apron).area,



SI-54: Photo of Water sprinkler truck and barriers



SI-55: photo of Equipped the residential vans



**5.15. Unresolved issues from the previous Monitoring Report period:**

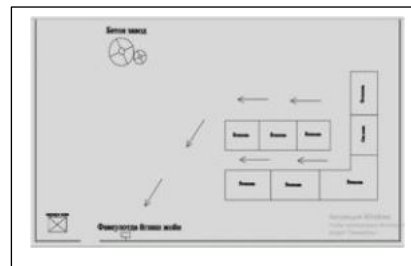
All the unresolved issues from last monitoring report: the Contractor done all the unresolved issues which are given below:

**Table 20. Issues Identified During the Monitoring Period and their corrective actions<sup>13</sup>**

	<b>Issue</b>	<b>Required Action</b>	<b>Responsibility</b>	<b>Remarks</b>
1	Information from the SAEMRs has never been disclosed to affected persons since the project became effective. (Pending since the last monitoring period)	DONE by PMU in Sep,2021	PMU	<b>Done</b> , See Table 12, S.no-2. ( <a href="https://www.uzavtoyul.uz/en/post/osiyo-taraqkiyot-banki-ishtirokidagi-a380-guzorbuxoronukusbeyneu-avtomobil-yolining-228315-km-qismini-rekonstruksiya-qilish-loyihasi-doirasida-ishlab-chiqilgan-atrofmuhit-monitoringi-hisoboti1.html">https://www.uzavtoyul.uz/en/post/osiyo-taraqkiyot-banki-ishtirokidagi-a380-guzorbuxoronukusbeyneu-avtomobil-yolining-228315-km-qismini-rekonstruksiya-qilish-loyihasi-doirasida-ishlab-chiqilgan-atrofmuhit-monitoringi-hisoboti1.html</a> ).
2	PMU has not hired full-time safeguard expert (para. 20). (Pending since the last monitoring period)	DONE by PMU, in Sep, 2021,	PMU	<b>Done</b> , See Table 1212, SI no-3
3	The contractor has not identified sources of materials, state methods of transportation and provided a realistic breakdown of rates. (Pending since the last monitoring period)	DONE. In Jul,2021	Contractor	<b>Done</b> , See Table 12
4	Lack of environmental documentation in the office.	Ensure availability of all environmental documents in the field office, as well as monitoring reports, complaints logbook, permits etc. – in one place and one room and ensure their further availability and proper maintenance;	Contractor	<b>DONE</b> : 30 July 2021, (monitoring reports, complaints logbook exists at the camp, for environmental permit (done on November, 2021)--refer to annex-2, with this report.
<b>Other Issues</b>				
5	Plant seedlings are not done upon completion of construction activities at each site.	The Contractor will take action upon completion the all construction works as	Contractor	Will be done during the year 2023-2024.

<sup>13</sup> This includes (a) the pending issues from the previous report(s).

	Issue	Required Action	Responsibility	Remarks
		convenient rather seedling of each site of completion of construction works,		
6	Operation of water trucks is not frequent enough to reduce dust pollution	Continue regular spraying of water over affected areas to prevent dust pollution using water trucks	Contractor	<b>Done</b> : Please see pictures below) :
7	Evacuation plan	Evacuation plan should be available at the plant	Contractor	<b>Done</b> : Please see picture below) :



Pictures shows water spraying continuously (minimum 5-6 times in a day) for prevention of dust.

Pictures shows evacuation plan at the batching plant.

## 6. FUNCTIONING OF THE SITE-SPECIFIC ENVIRONMENTAL MANAGEMENT PLAN (SSEMP)

175. Site-Specific Environmental Management Plan (SSEMP) for the project were prepared by Environmental Specialist of Construction Company in July 2020 before commencement of the civil works. SSEMP were approved by CSC and PMU in September 2020, after which Construction Company can start construction activities. SSEMP was prepared to ensure compliance with the ADB's environmental safeguard requirements and all applicable laws, regulations, and standards for environmental protection in Republic of Uzbekistan. The SSEMPs contains the measures to mitigate and prevent the unwanted effects that may arise during the Project implementation, as well as the monitoring actions to check the compliance of construction works implementation process to the planned mitigation measures.

176. The Contractor is responsible for implementation of SSEMP during construction works and Construction Supervision Consultant (CSC) is primarily responsible for supervision of monitoring of the implementation of the SSEMP.

177. SSEMP includes all aspects of project construction and construction sites. In particular:

- ❖ Emergency response plan
- ❖ Fire emergency drill plan
- ❖ Specific Waste Management Plan
- ❖ Sewage Management Plan
- ❖ Site Drainage Plan
- ❖ Specific Spill Contingency Plan,
- ❖ Plan for health and safety at work
- ❖ Traffic management/diversion plan
- ❖ Cultural Archaeological Find Plan
- ❖ Dust Control

178. The SSEMPs are comprehensive and has provisions for all of the construction activities that are being carried out in the project. The SSEMP also provides site-specific provisions for how the safeguards should be applied. The ES of CSC has no proposals for changing the SSEMP.

179. EMP in the reporting period was not changed. The activities announced in the EMP were carried out by the Contractor and in the proper order and quality. The analysis of the work of environmental specialists of contracting organizations shows that during the reporting period they performed a sufficient amount of work on the site to ensure the implementation of the EMP.

180. The activities stated in the EMP were implemented by the Contractor in the way and in the quality that the quarantine restrictions allowed. The Waste Management Plan was worked out properly during the reporting period. Additional agreements were made for SW and hazardous waste removal, temporary storage areas for used oil, tyres, oiled soil were cleaned and storage area of bitumen and powder in big-bags was cleaned up. The monitoring showed that the environmental specialist on Contractor's site had resolved all issues of concern with the project management. The Consultant gave consultation to the project management and explained the necessity and importance of complying with the EMP requirements, as the management was not sufficiently responsive to environmental issues previously. The Contractor's environmental specialist submits monthly reports on the implementation of activities under the SSEMP to the Engineer.

181. Site inspections were conducted on various environmental aspects of the project and these were audited to form part of the Monthly Progress Report. The NESS went to assess various sites along the Project Road as well as other locations that might pose some environmental concerns in the vicinity of the road. During the inspection, a number of environmental and safety issues were observed and noted. These issues were subsequently brought to the attention of the personnel concerned on the CSC side as well as discussed with the Contractor's side.

182. At this stage, presented mitigation measures are effective and there is no need for corrections or alternatives. So, no changes needed in the mitigation measures of the Environmental Management Plan at the moment.

## **7. GOOD PRACTICE AND OPPORTUNITY FOR IMPROVEMENT**

### **7.1. Good Practice**

The issues which are worth noting as follows

183. Contractor has organized its work camp in a good manner, and the locations for different activities have been chosen well so that they are in line with the SSEMP;

184. Contracted made significant efforts to control dust and could eliminate it by the end of reporting period

185. Contractor signed the agreement on the collection and disposal of the waste in official landfill and managed to improve the sanitary conditions at the camp and facilities; and

186. The Contractor pays good attention to improvement of personnels' hygienic conditions in accommodation campsite

187. During monitoring period, some minor issues were addressed directly on the site by the verbal order of CSC representative and did not require involvement of formal NCN procedure. In some cases, the residents approached the Contractor on the site with verbal request to reduce the level of vibration or spray water on the road. Mostly such issues have been solved immediately.

### **7.2. Opportunities for Improvement**

188. No opportunities outside the formal NCN process were identified during the reporting period. If any will be presented in the further reports.

## 8. SUMMARY AND RECOMMENDATIONS

### 8.1. Summary

189. The Semi-annual environmental monitoring report during the period of first half of 2021 relates to the progress of implementation of the SSEMP during the last six months (July to December) of 2021 in respect of various work components.

190. It should be highlighted that during the reporting time period the HSE performance of the Contractor was satisfactory. The actions of the Contractor didn't have any negative effect on biodiversity and no poaching actions were evident. No safety accident or near misses were identified.

191. During the reporting period construction activities were implemented. Contractor has intensified all activities to improve the progress of the works on sites. Individual and Joint on-site monitoring activities were conducted by Environmental Monitoring Specialist of Supervisor Consultant on a regular basis.

192. Day-to-day monitoring of the construction sites were carried out by the HSE Team Environmental Specialist of Contractor, relevant monitoring reports were developed and sent to Supervision Consultant.

193. Mitigation measures in order to reduce major environmental impacts have been instructed to Contractor during the monitoring visits as well.

194. Contractor took reasonable precautions to maintain the health and safety of the Contractor's Personnel and to provide a safe work environment. Contractor prepared necessary plans and executed the work so as to minimize the possibility of pollution of areas adjoining the construction work sites or any area utilized by the Contractor for the project, from contaminants such as petroleum products, trade waste, garbage and other noxious substances.

195. In general, the Contractor carried out construction works in accordance with EMP and national requirements of environmental management. The environmental monitoring report will be submitted to ADB in January, 2022. All the issues identified in the report are summarized with the corrective actions and their timeframe (target dates) in the Table-19.

### 8.2. Recommendations

196. Considering that the Contractor does not always eliminate the identified violations within the specified timeframe when carrying out construction work, and CSC is unable to take any measures other than the suspension of work, it is necessary to develop additional mechanisms to force the Contractor to carry out the necessary environmental protection measures without repeated warnings and in advance to prevent negative consequences. Some of those measures include: 1) weekly communication between the CSC and the Contractor on the issues and resolution; 2) Refreshment training for the Contractor by CSC on environmental management and occupational health and safety; 3) establishment of environmental management system.

197. Though the environmental management seems satisfactory, numbers of shortcomings are observed in performance of the Contractor. The observed shortcomings and areas for improvement are common. Below are summarized the observed shortcomings common to Contractor and should be improved:

- Full supply of the complete sets of PPEs to all workers and control;
- Safety in road traffic and construction works sites;
- Ensure reflective safety ribbons and safety signs and measures throughout the construction road;

- Improve dust management (loaded trucks should be covered)-7-8 times in a day;
- Conduct regular public consultations and informing communities about the project GRM.

198. Addressing the above-mentioned issues on-going and constant follow-ups and monitoring by the project environmental team of the Supervision Engineer and Contractors, and the Contractors' commitment and actions.

199. During the next period, Covid-19 safety precautions will be continued as before.

200. The Contractor is also required to conduct regular public education conversations with the local community on road safety issues during construction and regularly submit road safety reports to PMU for monitoring purposes.

201. Environmental education of staff, explanations on the EMP measures should be carried out by environmental specialists on-line.





[illegible]

The results of the analysis of noise and vibration at K238 + 600 km of the A-380 route.


[illegible][illegible]

### Results of noise and vibration analysis on K239 + 700 km A-380.

[illegible]

## ANNEX 2. ENVIRONMENTAL DOCUMENTS

## Environmental permit for 249 km batching plant



**O'ZBEKISTON RESPUBLIKASI EKOLOGIYA VA ATROF-MUHITNI  
MUHOFAZA QILISH DAVLAT QO'MITASI**

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2021- yil "30" 11 04.01.10-08-2122- son Toshkent sh.

## ЗАКЛЮЧЕНИЕ

Государственной экологической экспертизы

**По объекту:** Оценка воздействия на окружающую среду промышленной базы (цеха по производству бетонной смеси) на 249 км автомобильной дороги А380 «Гузар-Бухара-Нукус-Бейнеу» в Ромитанском районе Бухарской области (ЗЭП)

**Заказчик:** ПУ «CHINA RAILWAY 20 BUREAU GROUP CORPORATION MFF2/CWP3»

**ИНН:** 207 321 112

**Категория:** II, п.18, ПКМ РУз №541 от 07.09.2020 г.

**Разработчик:** ООО «YO'L-INSHOAT LOYIHA»

**Эксперт:** Турсунов М.Н.

Директору  
ПУ «CHINA RAILWAY 20 BUREAU GROUP  
CORPORATION MFF2/CWP3»  
WANG BAIREN

копия: Управлению по экологии и охране окружающей  
среды Бухарской области

На государственную экологическую экспертизу представлены материалы заключительного этапа оценки воздействия на окружающую среду промышленной базы (цеха по производству бетонной смеси) на 249 км автомобильной дороги А380 «Гузар-Бухара-Нукус-Бейнеу» ПУ «CHINA RAILWAY 20 BUREAU GROUP CORPORATION MFF2/CWP3» в Ромитанском районе Бухарской области.

Рассматриваемая промышленная база площадью 1,6 га ограничена: с севера, юга и запада – пустующими землями, с востока – посевными полями. Ближайшие жилые строения населенного пункта Тайлакун, расположены на расстоянии 900 м к юго-западу от промбазы. Автодорога А380 проходит юго-западнее в 1,08 км от

## Environmental permit for 269 km batching plant



**O'ZBEKISTON RESPUBLIKASI EKOLOGIYA VA ATROF-MUHITNI  
MUHOFAZA QILISH DAVLAT QO'MITASI**

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2021- yil "30" 11 04/10/28-3136 - son

Toshkent sh.

## ЗАКЛЮЧЕНИЕ

### Государственной экологической экспертизы

**По объекту:** Оценка воздействия на окружающую среду промышленной базы (цеха по производству бетонной смеси) на 269,5 км автомобильной дороги А380 «Гузар-Бухара-Нукус-Бейнеу» в Ромитанском районе Бухарской области (ЗЭП)

**Заказчик:** ПУ «CHINA RAILWAY 20 BUREAU GROUP CORPORATION MFF2/CWP3»

**ИНН:** 207 321 112

**Категория:** II, п.18, ПКМ РУз №541 от 07.09.2020 г.

**Разработчик:** ООО «YO'L-INSHOAT LOYIHA»

**Эксперт:** Турсунов М.Н.

Директору  
ПУ «CHINA RAILWAY 20 BUREAU GROUP  
CORPORATION MFF2/CWP3»  
WANG BAIREN

копия: Управлению по экологии и охране окружающей  
среды Бухарской области

На государственную экологическую экспертизу представлены материалы заключительного этапа оценки воздействия на окружающую среду промышленной базы (цеха по производству бетонной смеси) на 269,5 км автомобильной дороги А380 «Гузар-Бухара-Нукус-Бейнеу» ПУ «CHINA RAILWAY 20 BUREAU GROUP CORPORATION MFF2/CWP3» в Ромитанском районе Бухарской области.

## Environmental permit for 284 km batching plant



**O'ZBEKISTON RESPUBLIKASI EKOLOGIYA VA ATROF-MUHITNI  
MUHOFAZA QILISH DAVLAT QO'MITASI**

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2021- yil "30" 11 04.01/10.08.2133- son

Toshkent sh.

## ЗАКЛЮЧЕНИЕ

### Государственной экологической экспертизы

**По объекту:** Оценка воздействия на окружающую среду промышленной базы (цеха по производству бетонной смеси) на 284,8 км автомобильной дороги А380 «Гузар-Бухара-Нукус-Бейнеу» в Жондорском районе Бухарской области (ЗЭП)

**Заказчик:** ПУ «CHINA RAILWAY 20 BUREAU GROUP CORPORATION MFF2/CWP3»

**ИНН:** 207 321 112

**Категория:** II, п.18, ПКМ РУз №541 от 07.09.2020 г.

**Разработчик:** ООО «YO'L-INSHOAT LOYIHA»

**Эксперт:** Турсунов М.Н.

Директору  
ПУ «CHINA RAILWAY 20 BUREAU GROUP  
CORPORATION MFF2/CWP3»  
WANG BAIREN


копия: Управлению по экологии и охране окружающей  
среды Бухарской области

На государственную экологическую экспертизу представлены материалы заключительного этапа оценки воздействия на окружающую среду промышленной базы (цеха по производству бетонной смеси) на 269,5 км автомобильной дороги А380 «Гузар-Бухара-Нукус-Бейнеу» ПУ «CHINA RAILWAY 20 BUREAU GROUP CORPORATION MFF2/CWP3» в Жондорском районе Бухарской области.

Рассматриваемая промышленная база площадью 3,7 га со всех сторон



Environmental permit for borrow pits in Romitan district, 10 km from Bukhara city



**O'ZBEKISTON RESPUBLIKASI EKOLOGIYA VA ATROF-MUHITNI  
MUHOFAZA QILISH DAVLAT QO'MITASI**

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2021 yil " 19-11 " 04-01-2028-1964 Toshkent sh.

## ЗАКЛЮЧЕНИЕ

### Государственной экологической экспертизы

**По объекту:** Оценка воздействия на окружающую среду промышленной добычи лессовидных пород силами ПУ «CHINA RAILWAY 20 BUREAU GROUP CORPORATION MFF2/CWP3» в Ромитанском районе Бухарской области (Проект ЗВОС).

**Заказчик:** ПУ «CHINA RAILWAY 20 BUREAU GROUP CORPORATION MFF2/CWP3»

**ИНН:** 207321112

**Категория:** II, п.6, ПКМ РУЗ №541 от 07.09.2020г.

**Разработчик:** ООО «ЕКО PROM KONSALTING»

**Эксперт:** Холхужаев Б. Б.


Директору  
ПУ «CHINA RAILWAY 20 BUREAU GROUP  
CORPORATION MFF2/CWP3»  
WANG BAIREN

копия: Управлению по экологии и охране окружающей  
среды Бухарской области

На государственную экологическую экспертизу представлены материалы первого этапа оценки воздействия на окружающую среду промышленного освоения лессовидных пород силами ПУ «CHINA RAILWAY 20 BUREAU GROUP CORPORATION MFF2/CWP3» в Ромитанском районе Бухарской области.

Публикация сырья будет использоваться в качестве политического материала

Environmental permit for borrow pit in Romitan district, 40 km from Bukhara city



**O'ZBEKISTON RESPUBLIKASI EKOLOGIYA VA ATROF-MUHITNI  
MUHOFAZA QILISH DAVLAT QO'MITASI**

100047, Toshkent sh., Mirzo Ulug'bek t., Sayram ko'chasi, 15-uy. tel. 71 207-11-02, 71 207-11-03 veb-  
sahifa: <http://www.eco.gov.uz>, elektron pochta: [info@uznature.uz](mailto:info@uznature.uz)

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2021 yil "12" 11 04.01.2022-1916 son Toshkent sh.

## ЗАКЛЮЧЕНИЕ

### Государственной экологической экспертизы

**По объекту:** Оценка воздействия на окружающую среду промышленной добычи лессовидных пород силами ПУ «CHINA RAILWAY 20 BUREAU GROUP CORPORATION MFF2/CWP3» в Ромитанском районе Бухарской области (Проект ЗВОС).

**Заказчик:** ПУ «CHINA RAILWAY 20 BUREAU GROUP CORPORATION MFF2/CWP3»

**ИНН:** 207321112

**Категория:** II, п.6, ПКМ РУЗ №541 от 07.09.2020г.

**Разработчик:** ООО «ЕКО PROM KONSALTING»

**Эксперт:** Холхужаев Б. Б.

Директору  
ПУ «CHINA RAILWAY 20 BUREAU GROUP  
CORPORATION MFF2/CWP3»  
WANG BAIREN

копия: Управлению по экологии и охране окружающей  
среды Бухарской области

На государственную экологическую экспертизу представлены материалы первого этапа оценки воздействия на окружающую среду промышленного освоения лессовидных пород силами ПУ «CHINA RAILWAY 20 BUREAU GROUP CORPORATION MFF2/CWP3» в Ромитанском районе Бухарской области.

Добываемое сырьё будет использовано в качестве подстилочного материала при транспортировке 220-215мм щебенки А-200 «Город Бухара - Город Байрам»

Environmental permit for borrow pit in Jondor district, 70 km from Bukhara city



**O'ZBEKISTON RESPUBLIKASI EKOLOGIYA VA ATROF-MUHITNI  
MUHOFAZA QILISH DAVLAT QO'MITASI**

100047, Toshkent sh., Mirzo Ulug'bek t., Sayram ko'chasi, 15-uy, tel.: 71 207-11-02, 71 207-11-03 veb-sahifa: <http://www.eco.gov.uz>, elektron pochta: [info@uznature.uz](mailto:info@uznature.uz)

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Toshkent sh.

## ЗАКЛЮЧЕНИЕ

### Государственной экологической экспертизы

**По объекту:** Оценка воздействия на окружающую среду промышленной добычи лессовидных пород силами ПУ «CHINA RAILWAY 20 BUREAU GROUP CORPORATION MFF2/CWP3» в Жондорском районе Бухарской области (Проект ЗВОС).

**Заказчик:** ПУ «CHINA RAILWAY 20 BUREAU GROUP CORPORATION MFF2/CWP3»

**ИНН:** 207321112

**Категория:** II, п.6, ПКМ РУЗ №541 от 07.09.2020г.

**Разработчик:** ООО «ЕКО PROM KONSALTING»

**Эксперт:** Холхужаев Б. Б.

Директору

ПУ «CHINA RAILWAY 20 BUREAU GROUP  
CORPORATION MFF2/CWP3»  
WANG BAIREN

копия: Управлению по экологии и охране окружающей  
среды Бухарской области

На государственную экологическую экспертизу представлены материалы первого этапа оценки воздействия на окружающую среду промышленного освоения лессовидных пород силами ПУ «CHINA RAILWAY 20 BUREAU GROUP CORPORATION MFF2/CWP3» в Жондорском районе Бухарской области.

Добываемое сырьё будет использовано в качестве подстилочного материала при реконструкции 228-315км автодороги А-380 «Гузар-Бухара-Нукус-Бейнеу».

Environmental permit for road construction





**O'ZBEKISTON RESPUBLIKASI EKOLOGIYA VA ATROF-  
MUHITNIMUHOFAZA QILISH DAVLAT QO'MITASI**

100047, Toshkent sh., Mirzo Ulug'bek t., Sayram ko'chasi, 15-uy. tel.: 71 207-11-02, 71  
207-11-03 veb-sahifa: <http://www.eco.gov.uz>, elektron pochta: [info@uznature.uz](mailto:info@uznature.uz)

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№ 04-01/0-08-2157

Toshkent sh.

## ЗАКЛЮЧЕНИЕ

### Государственной экологической экспертизы

**По объекту:** Оценка воздействия на окружающую среду проведение реконструкции автодороги А-380 «Гузар-Бухара-Нукус-Бейнеу» на участке 228-315 км в Бухарской области (Проект ЗВОС).

**Заказчик:** ПУ «CHINA RAILWAY 20 BUREAU GROUP CORPORATION MFF2/CWP3»

**ИНН:** 207321112

**Категория:** I, п.1, ПКМ РУЗ №541 от 07.09.2020г.

**Разработчик:** ООО «ЕКО PROM KONSALTING»

**Эксперт:** Султанов С.Ш.

Директору  
ПУ «CHINA RAILWAY 20 BUREAU GROUP  
CORPORATION MFF2/CWP3»  
WANG BAIREN

копия: Управлению по экологии и охране окружающей  
среды Бухарской области

На государственную экологическую экспертизу представлены материалы первого этапа оценки воздействия на окружающую среду проведения реконструкции автодороги А-380 «Гузар-Бухара-Нукус-Бейнеу» на участке 228-315 км протяженностью 87 км силами ПУ «CHINA RAILWAY 20 BUREAU GROUP CORPORATION MFF2/CWP3» в Бухарской области.

Проектируемый участок дороги обеспечивает стабильное развития экономической состояний всех областей Республики с целью выхода к соседним