

# Environmental Monitoring Report

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Semi-annual Environmental Monitoring Report  
Reporting period: January - June 2021  
Project Number: 44483-027  
Loan Number 3355  
August 2021

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



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"15" october 2021 y. № 003

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 Biannual Environmental Monitoring Report.(Reporting period: January-June, 2021).

Dear Mr. Pawan Karki,

We would like to submit the updated Biannual Environmental Monitoring Report for your consideration, approval and publication on ADB web-site.

Please find attached letter.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Abdukhakim'.

**Abdukhakim Djumankulov**

## CURRENCY EQUIVALENTS

(as of 1 August 2021)

Currency unit	–	uzs (лв)
лв 1.00	=	\$ 0.0000938
\$1.00	=	лв 10,657.35

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	Environnemental 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

#### **NOTE{S}**

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

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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## EXECUTIVE SUMMARY

- i. The first SAEMR for Jan-June 2021 the para.12 (a) of the loan agreement signed on 16 September 2019.<sup>1</sup> They are being translated into Russian and Uzbek languages and will be disclosed on Road Fund's website by September- October, 2021 at the latest.
- ii. 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.
- iii. 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.
- iv. 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. 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. 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

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<sup>1</sup> ADB. Project Agreement for Loan 3355-UZB: Second Central Asia Regional Economic Cooperation Corridor 2 Road Investment Program - Project 3 (September 2019). <https://www.adb.org/projects/documents/uzb-44483-027-pra>



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.

- v. 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.
- vi. Currently, the construction is being carried out constructively. The overall growth of construction is 13.31%. 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, equipping medical rooms to ensure the safety of all workers, special clothing and helmets, gloves, goggles used in welding and television interviews with the media on the work carried out by the company. Labor protection and other works are underway.
- vii. The Supervision Consultant (SC) has supervised and monitored the project construction process. The SC includes Environment Specialist (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. SC Environmental Specialists prepare environmental monitoring report required by ADB, monitor the environmental compliance of the Construction Contractor.
- viii. 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 ( Refer to Table-9 of the Main report),
- ix. The contractors have developed appropriate COVID-19 virus prevention measures. The health and safety plans include measures recommended by the local health department: strict control of outside visits to the town, observance of the mask regime, provision of personal protective equipment: medical masks, gloves, antiseptics. The thermometry procedures are performed several times during the day, observance of a physical distance of at least 1.5 meters in living quarters, in the canteen, sending personnel to remote work format. There were no any cases of COVID 19 infections among Contractors' personnel during the reporting period.
- x. Checking and Corrective Actions: An environmental baseline has been developed inclusive of the air quality, stream water quality and noise level in selected locations. Monitoring Stations have been presented to the Engineer have been approved and samples will be taken only from approved sites for analysis. Regular monitoring will be undertaken and project's environmental performance and its associated activities including quarry operations will be monitored, against the baseline. Environmental monitoring results will be documented and data collected will be checked by relevant environmental representatives of PMU and ADB against relevant criteria. Approved by ADB's Board of Directors in July 2009, the Safeguard Policy Statement (SPS) builds upon the three previous safeguard policies on the environment, involuntary resettlement, and indigenous peoples, and bring

them into a consolidated policy framework that enhances effectiveness and relevance. The SPS applies to all ADB-supported projects reviewed by ADB's management after 20 January 2010. ADB works with borrowers to put policy principles and requirements into practice through project review and supervision, and capacity development support. The SPS also provides a platform for participation by affected people and other stakeholders in project design and implementation.

xi. 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

No	Name of Plans	Status	Remarks
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. Preamble

1. This is the 3<sup>rd</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.

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>2</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 is 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. The first SAEMR for May-June 2020 and the second SAEMR for June-December 2021<sup>3</sup> have been disclosed on ADB's website<sup>4</sup> since December 2020 and March 2021 accordingly. Summary of the first and second SAEMRs has not been disclosed on RRF website and this is not compliance with para.12 (a) of the loan agreement signed on 16 September 2019.<sup>5</sup> They are being translated into Russian and Uzbek languages and will be disclosed on Road Fund's website by 23 July 2021 at the latest.

4. This SAEMR describes the implementation of the environmental monitoring and mitigation measures recommended in the IEE report, analyzes environmental data collected during the period of July - December 2020, and provides recommendations for the resolution of identified issues.

### 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

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<sup>2</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>3</sup> <https://www.adb.org/projects/documents/uzb-44483-027-emr-0>

<sup>4</sup> ADB. Second Central Asia Regional Economic Cooperation Corridor 2 Road Investment Program (Tranche 3): Reconstruction of 87km A380 Guzar–Bukhara–Nukus–Beyneu highway Environmental Monitoring Report (May-June 2020). <https://www.adb.org/projects/documents/uzb-44483-027-emr>

<sup>5</sup> ADB. Project Agreement for Loan 3355-UZB: Second Central Asia Regional Economic Cooperation Corridor 2 Road Investment Program - Project 3 (September 2019). <https://www.adb.org/projects/documents/uzb-44483-027-pra>

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).

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>6</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>7</sup>; (c) the Environmental Assessment and Review Framework (EARF)<sup>8</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.

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

10. This SAEMR has been prepared in the month of June 2021. This is the third 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.

11. 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.

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<sup>6</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>7</sup> "Environmental Safeguards" means the principles and requirements set forth in Chapter V, Appendix 1, and Appendix 4 (as applicable) of the SPS.

<sup>8</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>

12. 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. 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.

13. 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.

14. 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.

15. The SAEMR for January to June 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**

16. 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.

17. 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.

18. 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.

## 2.2. The Road Rehabilitation Scheme

19. 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.	The project		Unit	Quantity
<b>1</b>	Earthworks	Clearing	10,000m <sub>3</sub>	<b>22.5</b>
		Excavation	10,000m <sub>3</sub>	<b>16.73</b>
		Filling	10,000m <sub>3</sub>	<b>217.05</b>
		Disposal	10,000m <sub>3</sub>	<b>12.48</b>
<b>2</b>	Site Clearance	Removal of bitumen surface	10,000m <sub>3</sub>	<b>8.53</b>
		Removal of base and subbase course	10,000m <sub>3</sub>	<b>12.7</b>
		Demolish of bridges	No	<b>13</b>
<b>3</b>	Base, subbase	15cm thickness subbase	10,000m <sub>3</sub>	<b>31.56</b>
		25cm thickness subbase	10,000m <sub>3</sub>	<b>97.91</b>
		16cm thickness base	10,000m <sub>3</sub>	<b>30.92</b>

No.	The project		Unit	Quantity
4	Cement concrete pavement	25cm thickness B30 pavement	10,000m <sup>3</sup>	43.09
		10cm thickness B15 pavement	10,000m <sup>3</sup>	0.49
5	Asphalt concrete pavement(Bridge deck and road intersection)	Surface course made of fine- grained hot asphalt concrete mixture	10,000m <sup>3</sup>	0.18
		Base course made of road pavement made of hot coarse- grained asphalt concrete mixture	10,000m <sup>3</sup>	0.06
		Reinforcement of shoulders using hot fine-grained asphalt concrete mixture	10,000m <sup>3</sup>	0.016
6	Structure of bridge and culvert	Bridge quantity	m/No	327.77/15
		Precast concrete square pile	pcs	1,054
		Hollow slab beam	Pcs	592
		Concrete	m <sup>3</sup>	5,779.7
		Pipe culvert	M	15/1
		Rectangular culvert	M	14/1
7	Roadside facilities	Metal fences barrier	M	56,723
		Curbs	M	1,812
		Bus stop shelter	No	27
		Road line	M	574,014
		Installation of road sign	No	1,746
		Pavement	m <sup>2</sup>	52,821
8	Landscaping	Topsoil placing	m <sup>3</sup>	20,351
		Planting trees	No	13,410
		Sowing saxaul's seeds,	Ha	108.65

### 2.3. Project Contracts and Management

20. The Project is being administered by the PMU which is represented by the Project Director. It is required that PMU designate a full-time safeguard position to manage and coordinate the contractors and the CSC in reporting to the State Committee for Roads and ADB on safeguard performance of the project, who should be responsible for overall EMP implementation and will be assisted by the Engineer. Their 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. But at this moment, PMU doesn't have such person in its staff because lack of budget. Some part of the functions was assigned to the PMU Monitoring and Evaluation specialist. The CSC repeatedly reminded PMU that according to the project documentation, they should hire full-time safeguard expert. But to date, this project requirement has not been met by PMU. The CSC Consultant does not have the authority to oblige PMU to comply with this requirement. PMU provided all necessary documents to ADB to obtain funding for the position of ecologist. ADB is ready to review budget after approval of new loan. PMU is working to solve this issue.

21. PMU has already 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.

22. 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. As of 7 June 2021, the total disbursements under the civil works category is \$21.10 including advance payment to CR20BGC paid on 9 July 2020. Commencement date for the works was notified to the Contractor on 27 July 2020.

23. 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 Jan 2021	30 Jun 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	-	3.43%	13.31%
CR20G-WZA380-[2020]GC 001	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 Tel:933830730		10/19/2020	-	10%	15%
CR20G-WZA380-[2020]GC 002	AZIZBEK ASHURBEK LLC	Earth work	10/1/2020	-	-	-	HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Jalliev Beshim -Assistant HSE Team Environmental		10/19/2020	3/18/2021	12%	30%

Package	Contractor	Scope	Signed	Approval Date			Environmental personnel		Civil Work		Progress Status	
				SSEMP	COVI D-19 HSMP	ERP	Environmental officer	Health and Safety officer	Start	End	1 Jan 2021	30 Jun 2021
							Specialist: Berdiev Umid Tel: 914049990					
CR20G-WZA380-[2020]GC 003	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]GC 004	JURAT PLUS 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-WZA380-[2020]GC 005	PARVOZ HUMO RAVNAK TRANS LLC	Earth work	10/5/2020	-	-	-	HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Rasulov Nasriddin -Assistant HSE Team Environmental Specialist: Koryogdiev Jurabek Tel: 934760072		10/11/2020	3/13/2021	13	35%
CR20G-WZA380-[2020]GC 006	SIGMA GOLD	Earth work	10/4/2020	-	-	-	HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Adizov Nodir -Assistant HSE Team		10/12/2020	1/17/2021	8%	9%

Package	Contractor	Scope	Signed	Approval Date			Environmental personnel		Civil Work		Progress Status	
				SSEMP	COVI D-19 HSMP	ERP	Environmental officer	Health and Safety officer	Start	End	1 Jan 2021	30 Jun 2021
							Environmental Specialist: Norkulov Tuymurot Tel: 987740500					
CR20G-WZA380-[2020]GC 007	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]GC 016	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]GC 019	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]GC 020	TORTKOL SHOXBOZ-TRANS MCHJ	Earth work	3/28/2021	-	-	-	SE TEAM ENVIRONMENTAL SPECIALIST: MR. Aslonov Doniyor		4/3/2021	8/1/2021	0	20%

Package	Contractor	Scope	Signed	Approval Date			Environmental personnel		Civil Work		Progress Status	
				SSEMP	COVI D-19 HSMP	ERP	Environmental officer	Health and Safety officer	Start	End	1 Jan 2021	30 Jun 2021
							-Assistant HSE Team Environmental Specialist: Udaev Zafar Tel: 935705000					
CR20G-WZA380-[2020]CQ 001	Buxorogazsanoatq urilish	Reinstallation/reconstruction of power line	9/30/2020	-	-	-	HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Taylokov Sherobod		10/1/2020			
CR20G-WZA380-[2020]CQ 002			10/29/2020	-	-	-	-Assistant HSE Team Environmental Specialist: Taylokov Sherobod Tel: 946897503		10/1/2020	-	45%	60%
CR20G-WZA380-[2020]CQ 003	JV SPETSGAZELEKTROPROMMONTAJ LLC	Reinstallation/reconstruction of gas utility pipelines	10/12/2020	-	-	-	HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Alimov Shrbek -Assistant HSE Team Environmental Specialist: Mardonov Jamshid Tel: 982749519		10/29/2020	-	40%	56%
CR20G-WZA380-[2021]CQ 004	ЧП «Aloqa Servis PRIM»	Reinstallation/reconstruction of local communication cables	1/7/2021	-	-	-	HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Denisov Toyir -Assistant HSE Team Environmental Specialist: Pirimov Ibrokhim Tel: 997057578		1/15/2021	3/15/2021	0	100%
CR20G-WZA380-	ENERGY POWER BUILDING	Reinstallation/reconstruction of	12/25/2020	-	-	-	HSE TEAM ENVIRONMENTAL		12/28/2020	3/20/2021	0	100%

Package	Contractor	Scope	Signed	Approval Date			Environmental personnel		Civil Work		Progress Status	
				SSEMP	COVI D-19 HSMP	ERP	Environmental officer	Health and Safety officer	Start	End	1 Jan 2021	30 Jun 2021
[2020]CQ 005		power line(Engineer house)					SPECIALIST: MR. Nuraliev Bekzod -Assistant HSE Team Environmental Specialist: Kuchchiev Bekzod Tel: 907171741					
CR20G-WZA380-[2021]CQ 006	DIV	Reinstallation/reconstruction of international communication cables	1/12/2021	-	-	-	HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Saidov Mekhriddin -Assistant HSE Team Environmental Specialist: Vakhidov Temur Tel: 906144195		1/18/2021	2/16/2021	0	100%
CR20G-WZA380-[2021]CQ 007	XONOBOD-GAZ-MONTAJ	Reinstallation/reconstruction of gas utility pipelines	3/23/2021	-	-	-	HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Samadov Akhror -Assistant HSE Team Environmental Specialist: Soliev Sherali Tel: 943394444		3/26/2021	-	0	50%
CR20G-WZA380-[2021]CQ 008	Best Engineer Qurilish	Reinstallation/reconstruction of gas utility pipelines	3/26/2021	-	-	-	HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Salomov Sherali -Assistant HSE Team Environmental Specialist: Durdiev Sherdil Tel: 914029931		4/1/2021	4/30/2021	0	10%

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 Jan 2021	30 Jun 2021
CR20G-WZA380-[2021]CQ 009	RoMITAN SUVOQOVA MUKAMMAL QURILISH	Reinstallation/reconstruction of water pipes	4/1/2021	-	-	-	HSE TEAM ENVIRONMENTAL SPECIALIST: MR. Samadov Beshim -Assistant HSE Team Environmental Specialist: Kutliev Nurali Tel : 973051011		4/6/2021	-	0	46%
CR20G-WZA380-[2021]CQ 011	"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.

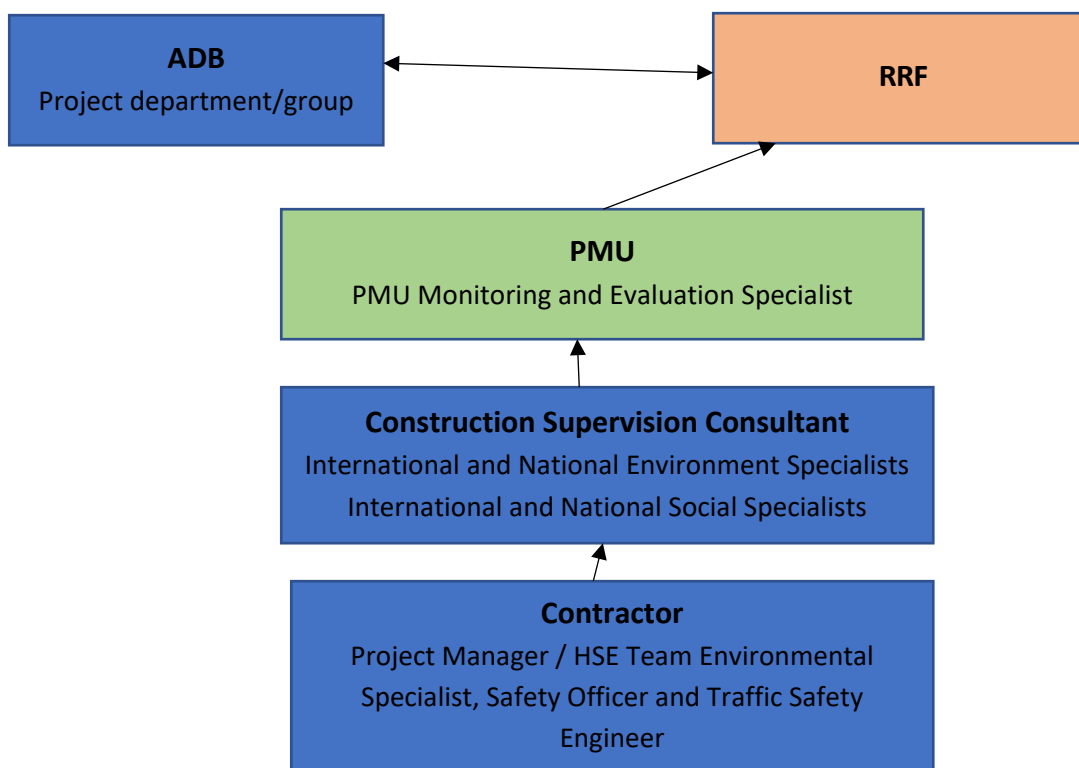
COVID-19 HSMP = COVID-19 Health and Safety Management Plan, ERP = Emergency Response Plan, SSEMP = site-specific environmental management plan

24. Table 3 lists up the staff involved in environmental management of the Project.

**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	<b>+998998905252</b> <b>sjurabekov92@gmail.com</b>
<b>Construction Contractor</b>	China Railway 20 Bureau Group Corporation	HSE Manager	Yue Zongxian	<b>+9989999047329</b> <b>Cr20g.a380@gmail.com</b>
		HSE Team Environmental Specialist	Mr. Zhang Taotao	<b>+998931436000</b> <b>215702374@qq.com</b>
		Assistant HSE Team Environmental Specialist	Seytitev Qahramon Durdiboyevich	<b>936846484</b> <b>oloteko2017@mail.ru</b>
<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 Specialist (IES)	Mr. Mohsin Almaji	<b><u>dralmaji@gmail.com</u></b>
		International Social Specialist (ISS)	Mr. Mizanur Rahman	<b><u>armsrahman@yahoo.com</u></b>
		National Environmental Safeguard Specialist (NESS)	Irina Teplyakova	<b><u>teplyakova@almarconsulting.org</u></b>
		National Social Safeguard Resettlement Specialist	Veronika Cherdikudi	<b><u>cherdikudi@almarconsulting.org</u></b>

HSE = Health, Safety, and Environment



**Figure 1. Project Organization Structure**

### **2.3.1. Responsibilities for supervision of environmental matters**

25. 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.

26. 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.

27. 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.

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

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



29. 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.

30. 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. Relationships with Contractors, Owner, Lender, etc.**

31. 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)
- ❖ National Social Safeguards/Resettlement Specialist

#### **2.3.4. Responsible for carrying out monitoring measure**

32. 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.

33. The responsibilities of the IES 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).

34. 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.

35. Activities carried out by consultant during the monitoring period (international and national, respectively) is provided in Table 4 below.

**Table 4. Environmental Safeguards Activities Carried out During Reporting Period (Jan - June 2021)**

Environmental Safeguard Activities	
<b>The International environmental expert (Md. Mohsin Almaji) of Supervision Consultant (Dohwa Engineering Co. Ltd.) implemented:</b>	
-	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,

Environmental Safeguard Activities	
<ul style="list-style-type: none"> <li>✚ Ensured inspection of contractor’s construction equipment; safety of the works, property, personnel, and general public;</li> <li>✚ Prepared environmental monitoring plan and annual report of implementing the plan,</li> <li>✚ Carried out environmental management seminars for contractors, RRF and State Committee for Natural Protection staff at project site;</li> <li>✚ Reviewed of Semi-Annual Environment Monitoring Report (SAEMR) and finalized,</li> <li>✚ Ensured the corrective actions are implemented by the deadline.</li> </ul>	
<p><b>The national environmental expert (Ms. Irina Teplayakova) of Supervision Consultant (Dohwa Engineering Co. Ltd.) implemented:</b></p> <ul style="list-style-type: none"> <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 and annual report of implementing the plan,</li> <li>✚ Carried out environmental management seminars for contractors, RRF and State Committee for Natural Protection staff at project site;</li> <li>✚ Reviewed of Semi Annual Environment Monitoring Report (SAEMR) and finalized,</li> <li>✚ Ensured the corrective actions are implemented by the deadline.</li> </ul>	

## 2.4. Project Activities during Current Reporting Period

36. 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 2 Google Earth Map of A380 Project Road**

#### **2.4.1. Project Progress**

37. Currently, the construction is being carried out constructively. The overall growth of construction is 13.31%. 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, equipping medical rooms to ensure the safety of all workers, special clothing and helmets, gloves, goggles used in welding and television interviews with the media on the work carried out by the company. Labor protection and other works are underway.

38. Contractor selected plots for sand and gravel backfilling of the first part of the road and planned to complete the construction of concrete plants at 249, 269 and 284 km of the A-380 highway, as well as the decisions of the district hakim on the selected land plots. Approved lease agreements with the owners. At the first stage, the selection and construction of temporary bypass roads for the reconstruction of potholes, road safety signs, traffic safety signs, warning posters and banners, concrete barriers, bridges are carried out.

**Table 5. Project progress**

Bo Q No.	Description		Plan Up to 30 June 2021	Work Progress up to 30 June 2021		
				As of 31 Dec 2020	Progre ss in the past 6 months	Accumulat ed
	Earthwork	Clearing	74.34 %	64.97 %	21.57%	86.54%
		Excavation	57.87 %	12.98 %	19.85%	32.83%
		Filling	57.05 %	10.53 %	46.51%	57.04%
		Disposal	24.37 %	20.17 %	1.05%	21.22%
	Sit Clearance	Removal of bitumen surface	23.70 %	0.00%	7.14%	7.14%
		Removal of base and sub- base course	23.36 %	0.00%	1.52%	1.52%
		Demolish of bridge	13.33 %	0.00%	0.00%	0.00%
	Base, subbase	15cm thickness subbase	18.56 %	0.12%	10.33%	10.45%
		25cm thickness subbase	20.14 %	0.27%	22.62%	22.89%
		16cm thickness subbase	3.52%	0.00%	3.25%	3.25%
	Cement concrete pavement	25cm thickness B30 pavement	2.79%	0.00%	0.10%	0.10%
		10cm thickness B15 pavement	0	0.00%	0.00%	0.00%
	Asphalt concrete pavement(Bri dge 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 mixtre	0	0.00%	0.00%	0.00%
	Structure of bridge and culvert	Bridge quantity	13.33 %	0.00%	0.00%	0.00%
		Precast concrete square pile	63.57	0.00%	0.00%	0.00%
		Hollow slab beam	22.63 %	0.00%	0.00%	0.00%
		Concrete	60.00 %	0.00%	0.00%	0.00%
		Pipe culvert	34.02 %	13.78 %	0.00%	13.78%
		Rectangular culvert	50%	0.00%	25.17%	25.17%

	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 Bils Sums			17.96 %	4.13%	9.53%	13.66%

#### 2.4.2. Mobilization of Resources

39. 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.

40. At the time of this report preparation, 350 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 6. 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	2
5	Structural engineer	5	5
6	Subgrade engineer	5	5
7	Laboratory engineer	2	2
8	Surveyor	3	4
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	2
15	Foreman	4	8
16	Cement sliding film paver operator	2	2
17	Translator	3	4
18	Materials and Equipment Engineer	5	5
19	Personnel of Accepting	2	7



	Materials		
<b>Total</b>		<b>48</b>	<b>59</b>

**Table 7. Contractor's Uzbek personnel mobilization on site**

<b>№</b>	<b>Position</b>	<b>Proposed mobilization on site</b>	<b>Presence on site</b>
<b>1</b>	Engineer	10	10
<b>2</b>	General staff	16	29
<b>3</b>	Foreman	22	19
<b>4</b>	Driver	108	134
<b>5</b>	Operator	61	129
<b>6</b>	Experimenter	12	11
<b>7</b>	Surveyor	14	17
<b>8</b>	Mechanic	8	2
<b>9</b>	General workers	51	126
<b>10</b>	Security	12	11
	<b>Total</b>	<b>314</b>	<b>488</b>

#### **2.4.3. Local contracts**

41. 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.

42. 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.

43. 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.

44. 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.

#### **2.5. Description of Any Changes to Project Design**

45. 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.

46. **Culvert Design Issues.** There are 15 culverts which need to be designed as no extensions were envisaged in the design. The Engineer confirmed that this is being done.

47. **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**

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



### 3. COMPLIANCE WITH ADB LOAN COVENANTS

49. 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>9</sup> relating to environment, health and safety during the monitoring period: January to June 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> 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>Partly complied.</u></b> At this moment, the Road Fund has not mobilized PMU Environmental Specialist. Some part of the functions was assigned to the PMU Monitoring and Evaluation specialist. The PMU Consultant is responsible for overall EMP implementation and will be assisted by the Engineer. Their tasks include but are not limited to supervision for overall compliance with SPS 2009 requirements, preparation and

<sup>9</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)
			<p>submission of environmental monitoring reports and update of IEE during construction in case of technical design changes or unanticipated impacts.</p> <p>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.</p>
Schedule 5	para.11	<p><u>Safeguards-Related Provisions in Bidding Documents and Works Contracts</u></p> <p>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</p>	<p><b>Complied.</b></p> <p>EMP was included in the bidding documents. After conducting the 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.</p> <p>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</p>

Schedule	Para	Description	Remarks/Issues (Status of Compliance)
		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.	in the bidding documents.
Schedule 5	Para.12	<p><u>Safeguards Monitoring and Reporting</u></p> <p>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.</p>	<p><b><u>Partly complied.</u></b></p> <p>The semi-annual Environmental Monitoring Reports are submitted periodically. Disclosure of the reports on the website in RUS for affected people of the Road Fund is in progress and will be done by the end of Sep 2021.</p> <p>. 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.</p>
Schedule 5	Para. 13	<p><u>Prohibited List of Investments</u></p> <p>The Borrower shall ensure that no proceeds of the Loan are used to finance any activity included in the</p>	<p><b><u>Complied.</u></b></p> <p>The Borrower as well as the Road Fund ensuring this covenant.</p>

Schedule	Para	Description	Remarks/Issues (Status of Compliance)
		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</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>

Schedule	Para	Description	Remarks/Issues (Status of Compliance)
		HIV/AIDS, to the employees of contractors engaged under the Project and to members of the local communities surrounding the Project area, particularly women.	

## 4. ENVIRONMENTAL SAFEGUARD ACTIVITIES

### 4.1. General Description of Environmental Safeguard Activities

50. During the reporting period, there were no any changes in the organizational structure of the project. The Supervision Consultant (SC) has supervised and monitored the project construction process. The SC includes Environment Specialist (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. SC Environmental Specialists prepare environmental monitoring report required by ADB, monitor the environmental compliance of the Construction Contractor.

51. 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 labour, 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: May, 2020
- Inspections of camps and worksites by Supervision Engineer's local Environmental Specialist

#### 4.1.1. Environmental Monitoring

52. 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 22 and 23 June 2021, 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.

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

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

55. 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.

56. 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 9.

**Table 9. Status of Environmental Monitoring Plan Implementation as of 30 June 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 if 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 groundbreaking	RRF and PMU	RRF	Contractor developed SSEMP. SSEMP describes the required mitigation and monitoring, persons responsible.

ITEM	Monitoring Details	Timing	Executing Unit	Reporting/ Responsibility	Status of Implement ation
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	Not done yet.
<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 manner and dust control is undertaken at all time, including the use of tarpaulins by trucks hauling fine materials.	Every day, throughout the construction period	Contractor and RRF or PMU inspectors	RRF	Some part of the excavation work was carried out during the 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

ITEM	Monitoring Details	Timing	Executing Unit	Reporting/ Responsibility	Status of Implement ation
					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 these equipment are being used.	Reporting to PMU	RRF	Contract No.909 for conducting vibration analysis between China Railways 20 and Bukhara regional Sanitary and Epidemiologic al Department dated 18 March 2021
Monitoring of revegetation program	Inspectors will examine the revegetation program	Inspection is to take place every 4 months	Contractor, with help from Oblast Forest	RRF	Not started yet. The Contractor will



ITEM	Monitoring Details	Timing	Executing Unit	Reporting/ Responsibility	Status of Implement ation
	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.	along all road sections recently worked on.	Dept. and PMU inspectors		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.	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-

ITEM	Monitoring Details	Timing	Executing Unit	Reporting/ Responsibility	Status of Implementation
	This reporting table must be kept separate for submission to the PMU, SCEEP and ADB.				permissible missions included in Industrial Ecological Control program. According 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	Not started yet. 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	Not started yet
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	Not started yet
Extraction well decommissioning	Shortly after the start of the operating period RRF will complete a verification survey to ensure that the wells	Survey within 1 month of start of Operating period.	RRF consultant or	Committee for Roads for RUz	Using of wells as a source of water supply aren't expected

ITEM	Monitoring Details	Timing	Executing Unit	Reporting/ Responsibility	Status of Implementation
	used during construction have been secured such that groundwater will not be contaminated and/or withdrawn illegally.				
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	Not started yet
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 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.	Inspection and reporting during the 5 <sup>th</sup> operating year of the upgraded. A380	RRF or consultant	Committee for Roads for the RUz	Not started yet

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

57. Even though COVID-19 pandemic situation, since Contractors have been executing works, IES and NESS of the CSC inspections have been undertaken during reporting.

58. During the period of January - June 2021, IES and NESS of the CSC - DOHWA under EMP schedule inspected the performance of the EMP by the Contractor in the course of the project road A-380 between km 228-315.

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

60. 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.

61. 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.

62. 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.

63. 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)**

64. The Contractor has maintained satisfactory performance on the required environmental management measures provided in the EMP and SSEMP. However, some non-compliance practices and shortcomings have been also observed which the Supervision Engineer has communicated with the Contractor regularly both in formal and written forms. The issued instructions and corrective actions in written form are presented in Table 10 and Table11.

**Table 10. Issues Identified during the Previous Monitoring Period (before June 2020)**

<i>Issue</i>	<i>Cause</i>	<i>Required Action</i>	<i>Responsibility</i>	<i>Implementation Status</i>	<i>Further required action and timeframe</i>
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>10</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) There is a Contract No.909 between China Railways 20 and Bukhara regional Sanitary and Epidemiological Department dated 18 March 2021 for performance of monthly chemical analysis of water, dust control, noise measurement and vibration. Together with the Bukhara Regional Department of Sanitary and Epidemiological Surveillance and Health Care, the following analyses, namely Dust analysis and Noise and vibration analysis, were carried out in March-June 2021.	Parametric measurements of air, noise and water quality should be carried out during Q3 and Q4 periods.
Relevant information of the SAEMR has not been disclosed to the local people.		Relevant information of the SAEMR should be disclosed to the local people	PMU	<b>DONE</b> Relevant information from SAEMR has been translated into Russian and disclosed on official web page of Committee for Roads of Republic of Uzbekistan. ( <a href="http://www.uzavtoyul.uz/en/post/osiyo-">www.uzavtoyul.uz/en/post/osiyo-</a>	

<sup>10</sup> See footnote 2.

<i>Issue</i>	<i>Cause</i>	<i>Required Action</i>	<i>Responsibility</i>	<i>Implementation Status</i>	<i>Further required action and timeframe</i>
				<a href="#">taragqiyot-banki-ishtirokidagi-a380-guzorbuxoronukusbeyne-avtomobil-yolining-228315-km-qismini-rekonstruksiya-qilish-loyihasi-doirasida-ishlab-chiqilgan-atrofmuhit-monitoringi-hisoboti1.html</a>	
PMU has not mobilized its environmental specialist (PMU-ES)		The environmental specialist should be mobilized	PMU	<b>DONE</b> PMU hired a full time qualified National Environmental Specialist who began his duty on 10 <sup>th</sup> of October 2021. The NES has been mobilized as part of the PMU and will work throughout the project implementation period.	
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 March 2021)	
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 on 30 July 2021.</b> The sources were identified at the quarry area at km 285 and 295, Jondor district.	
Fuel and 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	Contractor's inadvertence	Contractor's has received notification	Contractor	<b>DONE</b> (in June 2021) The Contractor improved the fuel and chemical storage. Namely, the Contractor installed the fuel tanks on concrete basement and racks. Additionally, the	

<i>Issue</i>	<i>Cause</i>	<i>Required Action</i>	<i>Responsibility</i>	<i>Implementation Status</i>	<i>Further required action and timeframe</i>
110 percent of the volume of tanks.				Contractor built concreted basins for storage of fuel and chemicals, as well as for oil wastes.	
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> The Contractor removed the contaminated soil properly and brought to a specially designated place.	<b>DONE</b> The Contractor removed the contaminated soil properly and brought to a specially designated place. The Contractor has made concrete pools for these needs on the territory of cement-concrete plants. Afterwards the Government approved waste disposal company removed from these concrete plant. The Contractor (CR2) has made an agreement with the company Toza Hudut who disposed the wastes from all the batching plants and camps.
Concrete debris/big rocks were fixed alongside the road;	Contractor's inadvertence	Concrete debris/big rocks should be removed	Contractor	<b>DONE</b> (in March 2021)	
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	Contractor	<b>DONE</b> (in June 2021)	

<i>Issue</i>	<i>Cause</i>	<i>Required Action</i>	<i>Responsibility</i>	<i>Implementation Status</i>	<i>Further required action and timeframe</i>
		for workers and timely issue PPE to workers.			
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 2021)	
In the rehabilitated sections, where construction equipment is working, there are no signalmen and appropriate road signs are not installed.	Contractor's inadvertence	Signalmen and appropriate road signs should be installed.	Contractor	<b>DONE</b> (in January 2021)	



#### **4.4. Trends**

65. 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. During the further construction period, it is planned to monitor the quality of air, noise and vibration in the areas where construction work will take place. And also, work will be carried out on periodic monitoring of the construction site for compliance with the SSEMP requirements by the Contractor. During the monitoring, special attention will be paid to the organization of timely waste removal, dust suppression, old asphalt, tree felling and planting of seedlings, dump storage, health safety of workers and the local population.

66. The violations are gradually fixed and after the CSC's observations, the Contractor takes mitigation measures to resolve the issues.

#### **4.5. Unanticipated Environmental Impacts or Risks**

67. During the reporting period, an outbreak of the COVID-19 pandemic spread around the world. The potential for the spread of infectious diseases on the project was high. In addition, the project could have a large number of workers ill at any time and would need to consider how they would receive treatment and whether this would affect local health services, especially when the project was located in an area where local health facilities can be easily overloaded. The presence of foreign workers, especially if they come from countries with high infection rates, could also cause social tensions between foreign workers and the local population. As a result of this project, steps were to be taken to minimize the chances and contain the spread of the virus from the movement of workers, to ensure that their facilities are prepared for an outbreak, and to develop and implement contingency plans so that staff know what to do if an outbreak occurs and how the treatment will be provided.

68. The contractors have developed appropriate COVID-19 virus prevention measures. The health and safety plans include measures recommended by the local health department: strict control of outside visits to the town, observance of the mask regime, provision of personal protective equipment: medical masks, gloves, antiseptics. The thermometry procedures are performed several times during the day, observance of a physical distance of at least 1.5 meters in living quarters, in the canteen, sending personnel to remote work format. There were no any cases of COVID 19 infections among Contractors' personnel during the reporting period.

## 5. RESULTS OF ENVIRONMENTAL MONITORING

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

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

70. The monitoring program will include regular monitoring of construction activities for the compliance with the environmental requirements as per relevant standards, specifications and EMP. The purpose of such monitoring is to assess the performance of the undertaken mitigation measures and to immediately formulate additional mitigation measures and/or modify the existing ones aimed at meeting the environmental compliance as appropriate during construction.

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

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

72. During the reporting period the Contractor engaged an independent laboratory of Bukhara regional Sanitary and Epidemiological Department to conduct chemical analysis of water, dust control, noise measurement and vibration (Annex 1). There is a Contract No.909 between China Railways 20 and Bukhara regional Sanitary and Epidemiological Department dated 18 March 2021 for performance of these analysis. Together with the Bukhara Regional Department of Sanitary and Epidemiological Surveillance and Health Care, the following analyses were carried out: dust analysis as well as noise and vibration analysis in May 2021. Monitoring results do not exceed the national norms for atmospheric pollution.

73. 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 as Annex 1 to the report. The result of air quality tests is acceptable considering Uzbek Standards for Ambient Air Quality and do not exceed the national and IFC standards and norms for atmospheric pollution.

74. 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 11.

**Table 11. Air Quality Measurement**

Place of measurement № checkpoint	Parameters	Maximum Permissible Concentration (MPC) on ND, mg/m <sup>3</sup>	Monthly Readings (mg/m <sup>3</sup> )		
			March	April	June
Site№1	Nitrogen	0.085	0.022	0.028	0.028

Place of measurement № checkpoint	Parameters	Maximum Permissible Concentration (MPC) on ND, mg/m3	Monthly Readings (mg/m3)		
			March	April	June
Control point №1 K239 + 700.	dioxide				
	Sulfur dioxide	0.5	0.47	0.44	0.47
	Carbon Oxide	5.0	3.75	3.71	3.71
	Aldehydes	0.035	0.014	0.008	0.007
	Inorganic dust	0.3	0.33	0.29	0.31
Site№2 Control point №2 K238 + 600	Nitrogen dioxide	0.085	0.083	0.075	0.065
	Sulfur dioxide	0.5	0.36	0.21	0.11
	Carbon Oxide	5.0	0.69	0.24	0.96
	Aldehydes	0.035	0.014	0.007	0.008
	Inorganic dust	0.3	0.26	0.29	0.19
Control point №1 Concrete Plant	Nitrogen dioxide	0.085	0.014	0.079	0.034
	Sulfur dioxide	0.5	0.013	0.1	0.061
	Carbon Oxide	5.0	0.48	0.3	0.032
	Aldehydes	0.035	0.006	0.002	0.006
	Inorganic dust	0.3	0.23	0.16	0.12

75. Air quality and noise levels tested at various locations along the project area and test results revealed that the air quality is good, dust levels, gaseous pollutant levels and noise levels are within the national standards of Uzbekistan. Measurements of air pollution level on site were carried out in accordance with the approved sampling scheme.

76. The obtained laboratory data for the reporting period in all samples show the absence of atmospheric air pollution level excess for all indicators at all points. Do not exceed the values obtained before the start of construction work and with the MPC.

77. 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. However, dust control measures are still inadequate, increased dust leads to road safety problems, and elevated temperatures lead to water lack in the region. In some sections of road dust were not still suppressed enough. It was not also observed that trucks hauling materials are covered by watered tarpaulin cover and this condition of EMP and SSEMP still was not fulfilled.



**Dust suppression in separate sections of the road**



**Spraying of water to prevent dust pollution using water trucks**



**Certificate of the special laboratory of the Bukhara Regional Department of Sanitary Epidemiology and Health Care.**



**Dust analysis on K-284 + 860 A-380.**



**Analysis of the process of obtaining dust on K-269 + 550 on A-380.**



**Analysis of the process of obtaining dust on K-249 + 000 A-380.**

78. 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 at all measurement points. Consequently, they do not have a negative impact on the health of working personnel.

79. 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 12 below.

**Table 12. 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	76	75	75	75	60	70
Total noise in the yard of the school	54	51	51	51	50	55
Total noise in the school hall	52	50	50	50	50	55
Total noise in the school class 1	50	49	49	49	50	55
Total noise in the school class 2	51	48	48	48	50	55
Total noise in the school class 3	52	50	50	50	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	54	52	52	52	50	55
Total noise inside the kindergarten	50	49	49	49	50	55
Total noise in the living premises of the kindergarten	48	47	47	47	50	55

Name of area	Average geometric frequency in dBA				Level of sound, (dBA) acc KMK 2.01.08-96	Levels (General IFC Guidelines)
Total noise in the premises for rest of the kindergarten	46	45	45	45	50	55

80. 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 May 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.

81. 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 13. 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		
<b>K238 + 600</b>											
Total vibration on the road	86	71	61	54	49	45	42	40	38	50	75
Total vibration in the yard of the school	56	54	50	48	44	40	38	33	31	43	65
Total vibration in the school hall	53	51	47	45	41	37	35	32	30	41	65
Total vibration in the school class 1	51	48	46	42	40	37	33	30	28	42	65
Total vibration in the school class 2	52	50	48	45	42	40	37	34	32	42	65
Total vibration in the school class 3	50	47	45	43	41	39	36	33	30	40	65
Total vibration in the school class 4	52	48	46	44	42	40	38	35	31	41	65
<b>K239 + 700</b>											
Total noise on the road	86	71	61	54	49	45	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	40	65



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		
Total noise in the premises for rest of the kindergarten	52	48	46	44	42	36	33	30	28	40	65

Vibration analysis on K-239+700 on A-380.

The process of obtaining vibration analysis on K-239+700 on A-380.



Water quality measurements

82. 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.



**The process of obtaining water analysis  
at K258 + 154 of the A-380 road**

**The process of obtaining water analysis  
at K254 + 280 of the A-380 road**

**Table 14. 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	7.1	7.0	7.1	6.8
Dry residue (mg/dm <sup>3</sup> )			2765.0	1086.0	2340.0	2371.0
General hardness, mg.eq/dm <sup>3</sup>	7,0-10	7-11	30.3	11.4	27.4	28.0
Nitrite nitrogen (mg/dm <sup>3</sup> )	1,0	1,0	0.18	0.16	0.23	0.15
Nitrate nitrogen (mg/dm <sup>3</sup> )	9,0	10	22.8	18.2	20.6	22.4
Chloride (mg/dm <sup>3</sup> )	350	350	405.0	301.5	337.0	378.0
Sulfate (mg/dm <sup>3</sup> )	450	500	818.0	438.0	621.0	623.0
Ammonia nitrogen (mg/dm <sup>3</sup> )	1,5	1,5	abs	abs	0.17	abs
Muddiness (mg/L)	1,5	1,2	1.3	1.3	1.1	1,2

### **5.3. Waste Management**

83. According to EMP and SSEMP, all wastes from the construction sites should be disposed of in accordance with national environmental regulation approved by the environmental authority. In the course of construction work, waste sometimes accumulates, including both construction and domestic waste. Waste management is organized by Contractors according to the developed Site-specific EMP. Waste segregation and disposal



procedure established. For wastes removal, there is a contract No.51 between Bukhara regional Toza Khudud and China Railways 20 dated 01 December 2020.

84. 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.

85. The contents of any tank or drum must be clearly marked. Measures were taken to ensure that no contaminated discharges enter any drain or watercourses.

86. NESS found that the concrete waste was stored on the road shoulder nearby a resident's place. The non-compliance letter was sent to Contractor where it was suggested in the Contractor non-compliance report (NCR) that this waste be removed and dumped to a designated site with no disturbance to local livelihoods, water bodies, and environment. Contractor should coordinate with the local authority and/or Department of Environment.

87. 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.

88. Medical waste should be included in the subsequent reports. Medical wastes from medical facilities of construction camps shall be 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" by Order of the Minister of Health of the Republic of Uzbekistan. Disposable, waterproof bags, pockets, metal and plastic containers, yellow-coloured or yellow-marked containers designed for safe collection and disposal of medical waste may be used for waste collection.



**At three concrete plants owned by the company, special temporary waste disposal area has been built and contracts for garbage disposal have been signed**









#### Fixed inconsistencies

89. Following remarks and written notification from the local environmental specialist, these discrepancies were corrected by the contractor:

- fire shields were completed;
- containers were organized and marked;
- household and construction waste were removed;
- bottom of tanks for fuels and lubricants was concreted;
- the territory of the construction base was cleared of oil spills and removed;

#### 5.4. Material Resources Mobilization

90. 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.

91. As for January 2021 following materials were mobilized on site by the Contractor:

**Table 15. Material Mobilization**

N	Materials	Unit	Quantity
1	Gravel from Quarry Site	m <sup>3</sup>	162034
2	Reinforcement	T	141
3	Cement	T	2274
4	Sand	m <sup>3</sup>	27713
5	Additives	T	2

6	Rocks	m <sup>3</sup>	54646
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**On K-249, 269, 284 km, the device was covered with special black coatings for powdering sand and gravel, used for road construction in concrete plants**

### **5.5. Health and Safety**

92. 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.

93. 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.



**Outside, the concrete plant, located at km K-269 of the A-380 highway, was completely surrounded by steel wire mesh**



94. 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.

95. 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.



**The Contractor's daily trainings**



**The Contractor has installed many photographs and posters on the themes of Occupational Safety, Fire Safety and Health**



**Special signs were installed for the concrete plants owned by the enterprise, as well as posters forbidding workers to enter without helmets**

96. The Contractor has installed required signs and speed limit signboard in road construction sites to guide the road traffic. Any driver who violates the speed limit is subject to fines and other disciplinary actions according to the national regulations. Reportedly, the flagmen received training on traffic management provided by the Engineer and Contractor's OHS team. The Supervision Engineers monitor the traffic management regularly and instruct the Contractors to address any identified traffic safety issues.

97. NESS observed that the road marking works along the whole route was provided with sufficient traffic signs. The Contractor has not provided and complied with the safe procedure on-site properly. For instance, covering barriers and equipped the safety signs around the operation site. The site workers are also not properly equipped with the PPE. Workers are requested to wear reflecting clothes on certain construction fields. The Contractor does not provide the personnel at construction sites with the necessary personal protective equipment for the employees. In particular, it is necessary to provide seasonal working uniforms (winter kit/summer kit), special protective equipment when working with welding machines and other equipment according to the safety precautions (shoes, glasses, gloves, helmets and other). For the workers who are engaged in special job, they should be also equipped with special protection, like safety gloves, eyeglasses, safety shoes, ear protection for workers in stone crusher, eyeshade for welders. After instruction, the Workers using PPE as required which is appreciable.

98. Flagmen were deployed on site to keep smooth traffic flow and ensure the safety of the commuters. Workers wore safety jackets that complied the EMP requirements. Moreover, the heavy equipment and machinery parked at a permitted site that did not disturb the local traveling and harm to the public. So there was no major issue found for the execution of the work.



**Flagmen is on site to keep smooth traffic flow**



**Heavy equipment and machinery parked at a permitted site**



**The installation of road signs**



99. During the reporting period, Contractors conducted activities in accordance with approved road safety management plans. Timely supervision and accompanying advice from the CSC Road Safety Engineer made it possible to ensure safety of road users and Contractor's personnel. During periods of the audit, relevant work was done by the Contractors for the installation of safety signs, widening of temporary roads, patching.

100. Briefings on safety and road safety are conducted daily with all working personnel, including driver's staff, operators of special equipment before departure to the site. Explanatory conversations are held with the workforce, directly at workplaces, on the rules and observance of safety and safe working methods.



## 5.6. Camp

101. 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 as well as ADB requirements.



### Living rooms

102. There was some litter scattered in the area of plant KM-249, as for other two plants the garbage was disposed in the pits outside the campsite. There are no disinfectants in the dormitories. Technical staff follow the frequency of cleaning facilities and treatment of tables and furniture. There are remarks for the canteen where the order of cleaning and treatment of facilities and instruments / tools is not followed. Storage of propane cylinder does not comply with the safety standards. Storage of such cylinder should be in a non-combustible iron box with protection against direct sunlight. Containers for household and construction waste were not installed on the territory of the production site. A written comment was made to install separate containers for household and hazardous waste in accordance with the Waste Management Plan of the SSEMP and draw up an agreement with local waste collection organizations.

103. 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.



**Uncollected garbage in one corner of the campsite**



**Dining room**



**Kitchen**



**Product Storage**



**Drinking water tanks**



**Water facility at construction work camp**



**Toilet facility at construction work camp**



**Bare wires**

104. The Contractor was given notifications about the need to remove all construction waste from the shoulders. The Contractor gave explanations, after that an agreement was reached that the removal of construction waste from the project site will be carried out as it accumulates.

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

106. Fire extinguishers are provided to the campsites, office buildings and the vehicles.





**Fire extinguishing means**



**Fire extinguishers**

#### **5.7. Quarries, borrow pits and the spoil area**

107. On the project road, 14 sites were allocated for quarries. Later, the Contractor received all the necessary permits/approval from local authorities for the development of 12 quarries listed in Table 16 which shows the main characteristics of the quarries. Excavation, screening and storage of material in the dump areas was carried out. During the reporting period, no violations were revealed in the work on the development of the borrow pits. Material collection comply with legislation of the Republic of Uzbekistan on environmental protection.

**Table 16. Potential sources of construction materials**

<b>No</b>	<b>Name</b>	<b>Location</b>	<b>Territorial location</b>	<b>Status of Contractor's application</b>	<b>Permits issued</b>
<b>1</b>	Quarry No1	270-km to the right(1km from the route)	Romitan district	Letter No.24 dated 06.08.2020	Permission has not yet received
<b>2</b>	Quarry No2	274-km to the right (1.5km from the route)	Romitan district	Letter No.24 dated 06.08.2020	Permission has not yet received
<b>3</b>	Quarry No3	304-km to the right(0.1km from the route)	Jondor district	Letter No.121 dated 04.01.2021	Permission has received
<b>4</b>	Quarry No4	307-km to the right(0.4km from the route)	Jondor district	Letter No.121 dated 04.01.2021	Permission has received
<b>5</b>	Quarry No5	288-km to the right(0.1km from the	Jondor district	Letter No.121	Permission has received

No	Name	Location	Territorial location	Status of Contractor's application	Permits issued
		route)		dated 04.01.2021	
6	Quarry No6	293.2-km to the right(0.05km from the route)	Jondor district	Letter No.121 dated 04.01.2021	Permission has received
7	Quarry No7	287-km to the right(0.4km from the route)	Jondor district	Letter No.121 dated 04.01.2021	Permission has received
8	Quarry No8	284-km to the right(0.1km from the route)	Jondor district	Letter No.121 dated 04.01.2021	Permission has received
9	Quarry No9	285.5-km to the right(0.5km from the route)	Jondor district	Letter No.121 dated 04.01.2021	Permission has received
10	Quarry No10	294.5-km to the right(0.1km from the route)	Jondor district	Letter No.121 dated 04.01.2021	Permission has received
11	Quarry No11	294.5-km to the right(0.1km from the route)	Jondor district	Letter No.121 dated 04.01.2021	Permission has received
12	Quarry No12	286.4-km to the right(0.5km from the route)	Jondor district	Letter No.121 dated 04.01.2021	Permission has received
13	Quarry No13	287.2-km to the right(0.3km from the route)	Jondor district	Letter No.121 dated 04.01.2021	Permission has received
14	Quarry No14	286-km to the right(0.2km from the route)	Jondor district	Letter No.121 dated 04.01.2021	Permission has received
15	Construction base and concrete plant	284 + 860 to the right from the road	Jondor district	Letter No.003 dated 10.07.2020	Decisions of the Hokim of Jondor district No. 442 of 15.07.2020,4 ha of land for temporary use for the construction of base and concrete plant

No.	Name	Location	Territorial location	Status of Contractor's application	Permits issued
16	Construction base and concrete plant	269 + 500 to the right from the road	Romitan district	Letter No.005 dated 13.07.2020	Decisions of the Hokim of Romitan district No. 514 of 17.07.2020, 2.5 ha of land for temporary use for the construction of a base and a concrete plant
17	Construction base and concrete plant	249 + 000 to the right from the road	Romitan district	Letter No.411 dated 22.07.2020	Decisions of the Hokim of Romitan district No. 547 of 13.08.2020, 1.6 ha of land for temporary use for the construction of a base and a concrete plant
18	Construction dormitory office and laboratories for engineer	262 + 000 to the left from the road	Romitan district	Letter from the Roads Committee No. 02-3273 dated 14.10.2020	The license was obtained for 269+500, 249+000

108. At present, there are two borrow pits for Subgrade base, which are located at Km285 + 000 and Km295 + 000 separately. Special permission was issued by district hokimiyat and activities of this borrow pits are limited in time of operation – 8 hours.

## 5.8. Concrete plant status

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

109. Currently, work is underway to mobilize the batching plant and assemble the elements. The plant is not yet in operation and is subject for commissioning by the end of June 2021.

110. The site is fenced, though the main gates are always open. The territory was not watered at the moment of visit. About 8 people work at site.

111. Not all residential vans are yet equipped and ready for residence of workers. Oil barrels are not properly stored. There are oil spills on the territory of the plant.

112. 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.

113. Workers are not provided with PPE. There was only one safety instruction for workers since their hiring at the end of April 2021. Drinking water is available and properly drained to septic tanks buried in the territory of the plant.

114. Wastes, such as used gloves, wires and other, are all over the site of the plant. Additionally, the plant territory is full of animal excrements, namely, big dogs.

115. 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.



**Work is underway to mobilize the batching plant and assemble the elements**

#### ***269 km cement-concrete plant***

116. The plant is operating and was commissioned on 18 May 2021. The territory is watered several times a day by 5-6 water trucks. Water for watering is taken from the canal. The territory is not fenced. Health and safety training was provided twice

117. 26 people are working on the site. People are working from 7 to 10 hours, illegally. Workers are not provided with PPE and uniform. Some workers wear pool shoes.

118. 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 Makhstrans 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.

119. There are both Uzbek and Chinese workers on the territory of the plant. Residential vans are equipped with air conditioners.

120. Drinking water is brought in bottles. Water for shower and washing is supplied from the well installed on the territory of the plant. Water from the well is saline. People take shower in shifts.

121. Septic for toilet is installed separately. Waste waters from kitchen and shower are disposed to the sandy pit outside the territory of the plant. Domestic wastes are also disposed into the sandy pit outside the territory of the plant near the pit for waste waters. Some domestic wastes are burned.

122. There is no doctor or nurse in the territory of the plant. There is no first aid kit and pharmacy kit.

123. 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.

124. There is no special place for keeping vehicles. Machines and vehicles are kept on the territory of the plant.

125. Tank for fuel is installed on brick racks paved with concrete, but with no concrete foundation.

126. During the visit, welding works were carried out in the yard in between the residential and kitchen vans.

### ***284 km concrete plant***

127. Plant is not yet operating, subject for commissioning in June 2021. Plant is fenced. The territory of the plant is watered several times a day. Health and safety instructions were provided several times.

128. 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.

129. 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 covered inside the fridge. There is separate canteen for Chinese workers and for Uzbek workers. Canteen for Chinese workers is equipped with van and hand washing sinks. There are some fridges with products on the territory of canteen. Canteen for Uzbek workers is very small and not equipped with air conditioner. Kitchen for Uzbek workers is very small. Cook in the kitchen for Chinese workers wears cap brought from home. Cook assistant wears no cap. Cook in the kitchen for Uzbek workers wears no cap.

130. There are both Uzbek and Chinese workers on the territory of the plant. Residential vans are equipped with air conditioners.

131. Drinking water is brought in the bottles. Water for shower and washing is supplied from the well installed on the territory of the plant. Water from the well is saline. People take shower in shifts.

132. Septic for toilet is installed separately. Waste waters from kitchen and shower are disposed to the sandy pit outside the territory of the plant. Domestic wastes are also disposed into the sandy pit outside the territory of the plant near the pit for waste waters. Some domestic wastes are burned.



133. There is no doctor or nurse in the territory of the plant. There is no first aid kit and pharmacy kit. Now Doctor is available in the batching plant and Camps and daily checking the health of the workers and staff.

134. 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.

135. There is a special place for keeping vehicles. Machines and vehicles are kept on the territory of the plant.

136. Tank for fuel is installed on brick racks paved with concrete, but with no concrete foundation.

137. Water to be used for concrete production is saline. Therefore, the system of desalination is installed in the territory of the plant.

### **5.9. Covid-19 pandemic**

138. These are exceptional circumstances, and the Contractor must always remain abreast of and comply with the latest Government advice on COVID-19.

139. The health and safety requirements of any construction activity must also not be compromised at this time. If an activity cannot be undertaken safely due to a lack of suitably qualified personnel being available or social distancing being implemented, it should not take place.

140. Due to the emergency (COVID-19 pandemic), the Contractor has taken additional protective measures against its employees, office and homes. Thus, all Contractor's employees were provided with protective/medical masks, medical gloves, and antiseptics. Every day, before the start of the working day, as well as at the end of the working day, the employee's body temperature was measured. Various information posters on measures to prevent and combat coronavirus were placarded on the doors of the Contractor's offices. Additional wet cleaning was carried out in the office and houses.





**All accommodation, office and canteens of the enterprise are carried out once a week disinfection,**

141. Due to COVID-19 the Engineer has taken the following measures to avoid the spread among its employees:

1. HSE has conducted the informational meeting with Staff to inform them about the virus and its threats, as well as preventive measures to be taken to avoid contracting COVID-19;
2. All necessary materials including Thermometers, Hand Sanitizers, Anti-Bacterial hand wash and face masks were acquired;
3. Hand sanitizer was installed at the entrance for all the visitors entering the Office;
4. Thermo screening is ensured for the visitors as well as Questionnaire is filled in;
5. Temperature Registry was created for all the Employees;
6. Number of personnel working from Office has been reduced by way of working in shifts;
7. Weekly Progress and HSE meetings were conducted fortnightly with minimum number of participants to ensure physical distance of 2 meters;

142. These changes have not affected the supervision of the works on site.

143. Measures taken by the Contractor against COVID-19:

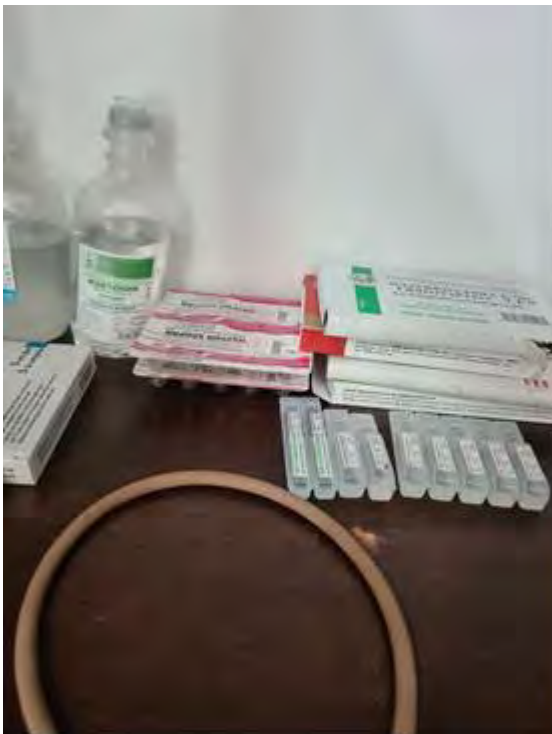
1. General campsite, offices, dining rooms and kitchen entrances has been provided with related notice boards and posters;
2. All welfare facilities such as hand wash stations, toilets, dining rooms, kitchen etc. has been provided with necessary liquid soap and medical alcohol;
3. All kitchen staff has been supplied with necessary protective equipment;
4. All contractor and sub-contractor workers were continuously instructed about COVID-19;
5. Drivers and workers have been instructed to use protective mask;
6. Infrared thermometer has been provided at entrance of Contractor's camp.

144. Medical staff /contractor management conducted information training and arranged the placement of appropriate posters, signs and advisory notices in the field to advise workers on how to minimize the spread of disease, including:

- Self-isolate if they feel or think they might be in contact with the virus and alert medical personnel;
- Wash hands regularly and thoroughly with soap and water - many times a day;
- How to avoid spreading the disease by coughing /sneezing (coughing and sneezing into the elbow or tissue);



**Medical worker**



**First Aid provided in the construction camp**



**COVID-19 poster**

145. Fortunately, during the reporting period, there were no cases of infection of workers with COVID-19, and there were no health and safety problems of the local population associated with the implementation of the project.

#### 5.10. Contractor's Training

146. 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.

147. HSE induction training was provided to the contractor's relevant staff. Daily tool boxes were carried out. Relevant training given to the personnel involved in the hazardous waste handling. Specific training regarding flora and fauna protection have been provided to the site staff.

148. CSC's International environment specialist started works on induction training to the safeguard team of the contractor. After discussion with Team Leader the training program finalized for the training which was held at CSC Office on 15th of April, 2021.

149. The opening speech of the training is given by Mr. Pawan Karki, ADB Uzbekistan, on the importance of the training and its implication in the ADB assisted road project. The Team Leader Mr. Ko Ypung Hwan, given a brief speech on the training. Afterwards IES Md. Mohsin Almaji, starts training on the topics mentioned in the training program. Details of training program given as bellows.

**Table 17. Agenda of CSC's training to the safeguard team of the Contractor**

Sl.No	Topic	Time	Facilitator
1.	Opening Remarks	09:00 - 09:15	Team Leader
2.	Introduction	09:15 - 09:30	Participants
3.	Importance of environment, & social concerns in project implementation,	09:30 – 9:45	Mr. Pawan Karki, ADB./Team Leader
4.	<b>Important Environmental &amp; Social Issues During Construction</b>		
5.	Green House Gas and Ozone Layer and Its effect,  <ul style="list-style-type: none"> <li>• Health and Safety Issues:</li> <li>• Personal protection equipment</li> <li>• First Aid Facilities</li> <li>• Fire Fighting Equipment's</li> <li>• Pure Drinking water</li> <li>• Environmental Standard Equipment</li> </ul>	10:00 - 12:30	Team Leader/Dr. Mohsin Almaji
6.	<b>Break (Lunch)</b>	<b>12:30 - 01:00</b>	<b>DOWHA/China Railway 20 Bureau Group Corporation (CR20G)</b>



Sl.No	Topic	Time	Facilitator
7.	<ul style="list-style-type: none"> <li>• Contractor's Camp and Yard,</li> <li>• Earth Works,</li> <li>• Water Quality Testing,</li> <li>• Air Quality,</li> <li>• Noise Level Measurement</li> </ul>	01:00 - 02:00	Team Leader/Dr. Mohsin Almajj
8.	<ul style="list-style-type: none"> <li>• Waste Management,</li> <li>• Afforestation,</li> </ul>	2-15 – 2:45	Team Leader/Dr. Mohsin Almajj
	<ul style="list-style-type: none"> <li>• Public Safety ,</li> <li>• Traffic Management,</li> <li>• Covid-19 Issues</li> </ul>	3:00 - 03:30	Team Leader/ Dr. Mohsin Almajj

### 5.11. Complaints

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

151. 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. Shokhruxh 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.



Logbook for incoming complaints, appeals and suggestions on construction sites

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

153. Status of implementation of EMP is presented.

**Table 18. Status of Environmental Management Plan (EMP) Implementation (for construction stage) as of 30 June 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 watercourse or wetlands. The base and bund walls must be impermeable and of sufficient capacity to contain 110 percent of the volume of tanks.	Not complied.		
	• 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	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-iee-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>
	liquids.			
	• 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 locate at least 50 meters away from a water course, stream, or canal	Yes		
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:			



<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>
	• 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 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	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			

<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>
infrastructure	during the Works. This Plan must include but not be limited to:			
	• The traffic control equipment the Contractor proposes to use for the Works;	Yes		
	• Traffic control signage including location and sign descriptions;	Not complied.		
	• How and when the Contractor proposes to use traffic control flag-men;	Yes		
	• 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	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			

<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>
largely determined by 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	the Site. Dust suppression measures including but not limited to the following must be 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		
	• 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	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>
	cleaning facilities must be provided on site to ensure that no water or debris from such cleaning operations is deposited offsite.			
	• 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, particularly stipulations the Project's bid and tender documents and contract specifications	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 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.	Yes		
	• Drainage. The site plan required as part of the SEMP must be devised to ensure that rain run-off from the construction sites 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>
	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.			
	• Fueling Operations. Fueling operations must occur only within containment areas	Yes		
	• 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 located at least 50 meters away from a water course, stream, or canal.	Yes		
	• 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 vehicles 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.	Yes		
	• 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.	Yes		
	Other water quality provisions applying to construction camps			

<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>
	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 the watercourses.</li> </ul>	Yes		
	<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		
	<ul style="list-style-type: none"> <li>• Contractor must ensure that construction camps and other potential sources of secondary impacts are properly sited and provided with drainage and wastewater facilities.</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>
	<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		
	<ul style="list-style-type: none"> <li>Contractor must ensure that construction camps and other potential sources of secondary impacts are properly sited and provided with drainage and wastewater facilities.</li> </ul>	Yes		
Borrow pits and quarries	<ul style="list-style-type: none"> <li>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.</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>Borrow pits should not be located within core or buffer zones of the existing or proposed specially protected areas.</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>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.</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>Contractor to avoid excavating borrow pits or quarries on agricultural land to the extent possible</li> </ul>	Yes		
Haul routes	<ul style="list-style-type: none"> <li>Select suitable haul routes away from sensitive sites, if possible</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>Provide a length of haul road before the exit(s) from the site</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>Reduce the width of haul roads (while still allowing two-way traffic movements) to minimize the surface area from which dust may be produced</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>Sweep paved access roads (while still allowing two-way traffic movements) and public roads regularly</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>
	<ul style="list-style-type: none"> <li>Limit vehicle speeds – the slower the vehicles, the less the dust generated</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>Spray unpaved work areas subject to traffic or wind with water regularly and frequently, particularly during warm and sunny weather</li> </ul>			
Materials handling and storage	<ul style="list-style-type: none"> <li>Locate stockpiles out of the wind or provide wind breaks</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>Keep stockpiles to the minimum practicable height and use gently slopes</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>Compact and bind stockpile surfaces; re-vegetate longterm stockpiles</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>Minimize the storage time of materials on site</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>Store materials away from the site boundary and downwind of sensitive areas</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>Ensure all dust-generating materials transported to/from the site are covered by tarpaulin</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>Minimize the height of fall of materials</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>Avoid spillage and clear up spills as soon as possible</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>Damp down sand, spoil and aggregate stockpiles</li> </ul>	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	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>
	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			
Waste management	• Location for the disposal of waste should be agreed with the local executive and environmental authorities before the start of reconstruction	Yes		
	• Contractor to store, handle and dispose of waste oil, tires, etc. at designated sites in accordance with SCEEP's requirements;	Not applicable yet		
	• 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 applicable yet		
	• 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,	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>
	ensuring that no raw sewage is released into drains or water bodies,			
	<ul style="list-style-type: none"> <li>• where earthworks take place adjacent to water bodies, silt traps shall be installed prior to the commencement of earthwork activity and</li> </ul>	Not yet applicable		
	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	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:			
	<ul style="list-style-type: none"> <li>• Statement on the source for the drinking water supply for workforce;</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>• Description of the living and eating areas for non-local workforce</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>• Before worksite operations start, the Contractor must seek approval on the source of drinking water from the local</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>
	competent authority.			
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		
	• 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	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>
	practicable from noise sensitive buildings.			
	<ul style="list-style-type: none"> <li>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.</li> </ul>	Yes		
	<ul style="list-style-type: none"> <li>Concrete mixers should not be cleaned by hammering the drums</li> </ul>	Not yet applicable		
	<ul style="list-style-type: none"> <li>When handling materials, care should be taken not to drop materials from excessive heights</li> </ul>	Yes		
Vibration Control	<ul style="list-style-type: none"> <li>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 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.</li> </ul>	Yes		
	<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.</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>
	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 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	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>
	quality sensitive areas as soon as 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 off-peak traffic times	Yes		
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	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>
	(e.g. demarcation of critical sites prior to reconstruction; instruction of workforce).			
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:			
	• provide basic project information and construction scheduling	Yes		
	• 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 development 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,	Yes  No buried cultural relics were discovered.		



<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>
	examination, and recording of such finds, and to not restart works in that location until permission is given.			
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 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.	Yes		

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




#### **5.12. Summary of Monitoring Outcomes**



The issues/non-compliances identified during the monitoring period (2021 January-June) including the pending issues from the previous report are summarized in with their corrective actions and their target dates.



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





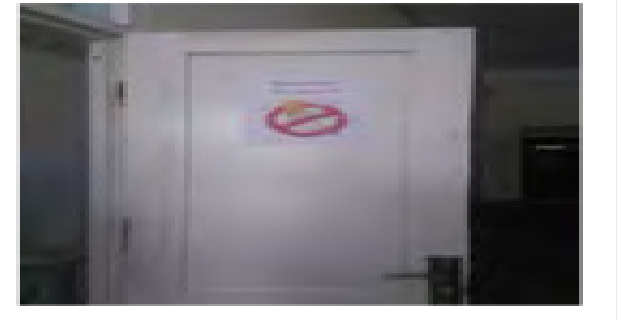
	Issue	Required Action	Responsibility	Timing (Target Dates)
1	Information from the SAEMRs has never been disclosed to affected persons since the project became effective. (Pending since the last monitoring period)	DONE. See Table 10.		
2	PMU has not hired full-time safeguard expert (para. 20). (Pending since the last monitoring period)	DONE. See Table 10.		
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 10.		
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> on 30 July 2021
5	There is no grievance registration logs at each facility of the construction site.	Grievance log should be arranged at 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.	Contractor	<b>Done</b> by June 2021 (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	Conduct meetings. (Continue upon	Contractor	<b>Done</b> by June

<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)
	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.	request and occurrence of the problem.)		2021 (See the photo below the Table)
<div>    </div> <div> <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> </div>				
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 examination of staff	Contractor	<b>DONE</b> on 23 June 2021 (See the photo below



	Issue	Required Action	Responsibility	Timing (Target Dates)
				the 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> <p style="text-align: center;">SI-10: Photo of Medical Facilities, Doctor and health check up by responsible person for Covid-19,,</p>				
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
<b>Issues relevant to occupational health and safety</b>				
14	Batching plants are not equipped with safety instructions for welding and electric works	Arrange posters with safety instructions when performing welding and electric works. Carry out regular trainings on occupational health and safety	Contractor	<b>Done</b> on 23 June 2021 (See the photo below the Table)

	Issue	Required Action	Responsibility	Timing (Target Dates)
15	There is no evacuation plan at batching plants.	Arrange for evacuation plan, including for kitchen;	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.	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. Workers are requested to wear reflecting clothes on certain construction fields.	Contractor	<b>Done</b> on 23 June 2021 (See the photo below the Table)
				
SI-14: Picture for safety instructions for welding and electric		SI-16: Photo of personal protective equipment for the		
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)

	Issue	Required Action	Responsibility	Timing (Target Dates)
				<p>SI-17: Photo of Banks Man, hard barrier and working under flashlight,</p>
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>





	Issue	Required Action	Responsibility	Timing (Target Dates)
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	Contractor	<b>Done</b> by June 2021. (See the photo below the Table)
<b>Issues relevant to community safety</b>				
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; <ul style="list-style-type: none"> <li>- Install information board for project near the entrance to the batching plant.</li> <li>- Install barriers around all piles and pond areas within the plant.</li> <li>- Install proper fencing of the batching plant</li> <li>- Install warning signs/instructions (in regard to occupational health and safety for construction works) within the camp</li> </ul>	Contractor	<b>Done</b> on 23 June 2021 (See the photo below the Table)
				
SI-20: Photo of batching plant-249: Workers with PPE		SI-21: Photo of Information board on entrance of batching plants,		

	Issue	Required Action	Responsibility	Timing (Target Dates)
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)
 <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)



	Issue	Required Action	Responsibility	Timing (Target Dates)
				
	SI-24: Photo of road safety signs			
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)

	Issue	Required Action	Responsibility	Timing (Target Dates)
	  <p>SI-25: Photo of water spraying on the road</p>	  <p>SI-26: Photo of welding workers.</p>		
<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)
	   <p>SI-27. Photo of concrete basin and containers for oily rags and waste</p>			

	Issue	Required Action	Responsibility	Timing (Target Dates)
28	Oil and fuel are not properly stored at plants. Oil leaks were observed. Oil cylinders were left on the ground directly.	<ul style="list-style-type: none"> <li>- Remove oil leaks.</li> <li>- Remove and dispose oil cylinders and wastes from batching plants</li> </ul> Transport the removed oil cylinders and wastes to the designated landfill of toxic chemicals. Ensure storage of fuel tanks on concreted racks and platforms.	Contractor	<b>Done</b> on 23 June 2021 (See the photo below the Table)
<div style="display: flex; justify-content: space-around; align-items: center;">   </div> <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 make clear labelling of containers (boxes) for the different types of waste, including for the oily rags and waste;</li> </ul>	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)
	  <p>SI-29: Photo waste bins and their proper labelling and Photo Medical wastes</p>	 <p>SI-30: Photo of Fuel and lubricant materials storage tank on the concrete base,</p>		
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 The contaminated soil was transferred to designated place at Romitan land fill.
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	
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)
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











	Issue	Required Action	Responsibility	Timing (Target Dates)
				below the Table)
	 <p>SI-34: Photo of Tank for fuel on a concrete foundation on Km 269</p>	 <p>SI-35: Photo of concrete plant at Km 284.</p>		
<b>Issues relevant to other waste</b>				
36	Waste is observed at batching plants	Remove all plastic and other types of waste from batching plants and ensure their proper disposal; - install containers for wastes. (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.	Contractor	<b>Done</b> on 30 June 2021 (See the photo below the Table) The solid waste was transferred to Govt. Approved waste disposal company Toza Huzud, already all wastes disposed.
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	<b>Done</b> by June 2021 (See the photo below the Table) The waste materials were transferred Govt. Approved waste disposal company Toza Huzud, already all wastes






	Issue	Required Action	Responsibility	Timing (Target Dates)
				disposed.
38	Concrete waste was stored on the road shoulder nearby a resident's place	- It has already removed	Contractor	<b>Done</b> by June 2021 (See the photo below the Table) The concrete waste was transferred to Govt. Approved waste disposal company Toza Huzud, already all wastes disposed.
39	<b>[At cement concrete plant at Km 269]</b> 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>				
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	Contractor	<b>Done</b> by June 2021. (See the photo

	Issue	Required Action	Responsibility	Timing (Target Dates)
		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		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-combustible iron box with protection against direct sunlight.	Storage of such cylinder should be in a non-combustible iron box with protection against direct sunlight.	Contractor	<b>Done</b> by June 2021 (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	Now already covered by the contractor,	Contractor	<b>Done</b> by June

	Issue	Required Action	Responsibility	Timing (Target Dates)
	earth are not covered. Therefore, sand and earth along with gravel are blown away with strong wind.			2021 (See the photo below the Table)
<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></div></div>				
<b>Housekeeping Issues at Workers' Camp</b>				
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 they are clean;</li><li>- provide separate canteen</li></ul>	Contractor	<b>Done</b> on 23 June 2021 (See the photo below the Table)

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> <li>provide separate canteen</li> </ul>	Contractor	<b>Done</b> on 23 June 2021 (See the photo below the Table)
<div>    </div> <div> <p>SI-49: Photo of living room</p> <p>SI-50: Photo of sanitary condition of Kitchen of cooking area is good now.</p> <p>SI-51: Photo of Clean kitchen area,</p> </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 stored according to the sanitary requirements.	Install meshes on the windows in the kitchen and take additional measures to avoid insects in the food during cooking 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.	Contractor	<b>Done</b> by June 2021 (See the photo below the Table)
<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 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

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

154. Site-Specific Environmental Management Plan (SSEMP) is 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.

155. Beside environmental management actions, SSEMP defined what kind of mitigation measures must be implemented by Contractor/Sub-contractor and how to conduct environmental monitoring during the road reconstruction work. SSEMP defined place, time, parameters, and responsibility of environmental monitoring. Sub-clauses of SSEMP also included Contractor's schedule of submitting reports to the CSC and Employer (the State Committee for Roads).

156. 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.

157. The Health, Safety and Environment Control Plan was prepared by the Contractor and approved by the CSC, prepared by taking into consideration the EMP. Contractor has prepared the following plans:

- ❖ 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

158. These plans are detailed and set out how the project will address potential issues identified in the impact assessment process and ensure that specific mitigation and monitoring measures are fully implemented.

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. Following CSC' direction and advice, the Contractors should implement the corrective actions (see 19) and follow up on these actions to ensure their effectiveness.

159. 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.

160. 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**

161. Any activity assessed as a good practice do not recorded. The mitigation measures outlined in the SSEMP are sufficient, effective and acceptable.

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

162. The Contractor should be more responsible for environmental issues, without constant reminding to remove construction waste in a timely manner, carry out work on dust suppression on construction work sites, as well as in quarries, be more responsible for safety and health protection of workers.

## **8. SUMMARY AND RECOMMENDATIONS**

### **7.3. Summary**

163. 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 (January to July) of 2021 in respect of various work components.

164. 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.

165. During the reported 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.

166. 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.

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

168. 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.

169. In general, the Contractor carried out construction works in accordance with EMP and national requirements of environmental management. The next 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 19.

### **8.1. Recommendations**

170. 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.

171. Though the environmental management had been 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:

- Waste management in work sites, workshops, accommodations camps yards;
- Full supply of the complete sets of PPEs to all workers and control they wear it;
- 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);
- Conduct regular public consultations and informing communities about the project GRM.

172. Addressing the above-said require 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.

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

174. The pending corrective actions listed in Table 19 should be implemented by the target dates.

175. 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.

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

## ANNEX 1. MAIN TEST RESULTS

**The results of the analysis of the dust content of the atmospheric air at km K-284 + 860 of the A-380 highway.**

[illegible]

**The results of the analysis of the dust content of the atmospheric air at km K-269 + 860 of the A-380 highway.**

Задание 1. Составить отчет о работе за период.

Формы: Форма № 1 (с. 1-2), Форма № 2 (с. 3-4), Форма № 3 (с. 5-6), Форма № 4 (с. 7-8), Форма № 5 (с. 9-10), Форма № 6 (с. 11-12), Форма № 7 (с. 13-14), Форма № 8 (с. 15-16), Форма № 9 (с. 17-18), Форма № 10 (с. 19-20), Форма № 11 (с. 21-22), Форма № 12 (с. 23-24), Форма № 13 (с. 25-26), Форма № 14 (с. 27-28), Форма № 15 (с. 29-30), Форма № 16 (с. 31-32), Форма № 17 (с. 33-34), Форма № 18 (с. 35-36), Форма № 19 (с. 37-38), Форма № 20 (с. 39-40), Форма № 21 (с. 41-42), Форма № 22 (с. 43-44), Форма № 23 (с. 45-46), Форма № 24 (с. 47-48), Форма № 25 (с. 49-50), Форма № 26 (с. 51-52), Форма № 27 (с. 53-54), Форма № 28 (с. 55-56), Форма № 29 (с. 57-58), Форма № 30 (с. 59-60), Форма № 31 (с. 61-62), Форма № 32 (с. 63-64), Форма № 33 (с. 65-66), Форма № 34 (с. 67-68), Форма № 35 (с. 69-70), Форма № 36 (с. 71-72), Форма № 37 (с. 73-74), Форма № 38 (с. 75-76), Форма № 39 (с. 77-78), Форма № 40 (с. 79-80), Форма № 41 (с. 81-82), Форма № 42 (с. 83-84), Форма № 43 (с. 85-86), Форма № 44 (с. 87-88), Форма № 45 (с. 89-90), Форма № 46 (с. 91-92), Форма № 47 (с. 93-94), Форма № 48 (с. 95-96), Форма № 49 (с. 97-98), Форма № 50 (с. 99-100), Форма № 51 (с. 101-102), Форма № 52 (с. 103-104), Форма № 53 (с. 105-106), Форма № 54 (с. 107-108), Форма № 55 (с. 109-110), Форма № 56 (с. 111-112), Форма № 57 (с. 113-114), Форма № 58 (с. 115-116), Форма № 59 (с. 117-118), Форма № 60 (с. 119-120), Форма № 61 (с. 121-122), Форма № 62 (с. 123-124), Форма № 63 (с. 125-126), Форма № 64 (с. 127-128), Форма № 65 (с. 129-130), Форма № 66 (с. 131-132), Форма № 67 (с. 133-134), Форма № 68 (с. 135-136), Форма № 69 (с. 137-138), Форма № 70 (с. 139-140), Форма № 71 (с. 141-142), Форма № 72 (с. 143-144), Форма № 73 (с. 145-146), Форма № 74 (с. 147-148), Форма № 75 (с. 149-150), Форма № 76 (с. 151-152), Форма № 77 (с. 153-154), Форма № 78 (с. 155-156), Форма № 79 (с. 157-158), Форма № 80 (с. 159-160), Форма № 81 (с. 161-162), Форма № 82 (с. 163-164), Форма № 83 (с. 165-166), Форма № 84 (с. 167-168), Форма № 85 (с. 169-170), Форма № 86 (с. 171-172), Форма № 87 (с. 173-174), Форма № 88 (с. 175-176), Форма № 89 (с. 177-178), Форма № 90 (с. 179-180), Форма № 91 (с. 181-182), Форма № 92 (с. 183-184), Форма № 93 (с. 185-186), Форма № 94 (с. 187-188), Форма № 95 (с. 189-190), Форма № 96 (с. 191-192), Форма № 97 (с. 193-194), Форма № 98 (с. 195-196), Форма № 99 (с. 197-198), Форма № 100 (с. 199-200), Форма № 101 (с. 201-202), Форма № 102 (с. 203-204), Форма № 103 (с. 205-206), Форма № 104 (с. 207-208), Форма № 105 (с. 209-210), Форма № 106 (с. 211-212), Форма № 107 (с. 213-214), Форма № 108 (с. 215-216), Форма № 109 (с. 217-218), Форма № 110 (с. 219-220), Форма № 111 (с. 221-222), Форма № 112 (с. 223-224), Форма № 113 (с. 225-226), Форма № 114 (с. 227-228), Форма № 115 (с. 229-230), Форма № 116 (с. 231-232), Форма № 117 (с. 233-234), Форма № 118 (с. 235-236), Форма № 119 (с. 237-238), Форма № 120 (с. 239-240), Форма № 121 (с. 241-242), Форма № 122 (с. 243-244), Форма № 123 (с. 245-246), Форма № 124 (с. 247-248), Форма № 125 (с. 249-250), Форма № 126 (с. 251-252), Форма № 127 (с. 253-254), Форма № 128 (с. 255-256), Форма № 129 (с. 257-258), Форма № 130 (с. 259-260), Форма № 131 (с. 261-262), Форма № 132 (с. 263-264), Форма № 133 (с. 265-266), Форма № 134 (с. 267-268), Форма № 135 (с. 269-270), Форма № 136 (с. 271-272), Форма № 137 (с. 273-274), Форма № 138 (с. 275-276), Форма № 139 (с. 277-278), Форма № 140 (с. 279-280), Форма № 141 (с. 281-282), Форма № 142 (с. 283-284), Форма № 143 (с. 285-286), Форма № 144 (с. 287-288), Форма № 145 (с. 289-290), Форма № 146 (с. 291-292), Форма № 147 (с. 293-294), Форма № 148 (с. 295-296), Форма № 149 (с. 297-298), Форма № 150 (с. 299-300), Форма № 151 (с. 301-302), Форма № 152 (с. 303-304), Форма № 153 (с. 305-306), Форма № 154 (с. 307-308), Форма № 155 (с. 309-310), Форма № 156 (с. 311-312), Форма № 157 (с. 313-314), Форма № 158 (с. 315-316), Форма № 159 (с. 317-318), Форма № 160 (с. 319-320), Форма № 161 (с. 321-322), Форма № 162 (с. 323-324), Форма № 163 (с. 325-326), Форма № 164 (с. 327-328), Форма № 165 (с. 329-330), Форма № 166 (с. 331-332), Форма № 167 (с. 333-334), Форма № 168 (с. 335-336), Форма № 169 (с. 337-338), Форма № 170 (с. 339-340), Форма № 171 (с. 341-342), Форма № 172 (с. 343-344), Форма № 173 (с. 345-346), Форма № 174 (с. 347-348), Форма № 175 (с. 349-350), Форма № 176 (с. 351-352), Форма № 177 (с. 353-354), Форма № 178 (с. 355-356), Форма № 179 (с. 357-358), Форма № 180 (с. 359-360), Форма № 181 (с. 361-362), Форма № 182 (с. 363-364), Форма № 183 (с. 365-366), Форма № 184 (с. 367-368), Форма № 185 (с. 369-370), Форма № 186 (с. 371-372), Форма № 187 (с. 373-374), Форма № 188 (с. 375-376), Форма № 189 (с. 377-378), Форма № 190 (с. 379-380), Форма № 191 (с. 381-382), Форма № 192 (с. 383-384), Форма № 193 (с. 385-386), Форма № 194 (с. 387-388), Форма № 195 (с. 389-390), Форма № 196 (с. 391-392), Форма № 197 (с. 393-394), Форма № 198 (с. 395-396), Форма № 199 (с. 397-398), Форма № 200 (с. 399-400), Форма № 201 (с. 401-402), Форма № 202 (с. 403-404), Форма № 203 (с. 405-406), Форма № 204 (с. 407-408), Форма № 205 (с. 409-410), Форма № 206 (с. 411-412), Форма № 207 (с. 413-414), Форма № 208 (с. 415-416), Форма № 209 (с. 417-418), Форма № 210 (с. 419-420), Форма № 211 (с. 421-422), Форма № 212 (с. 423-424), Форма № 213 (с. 425-426), Форма № 214 (с. 427-428), Форма № 215 (с. 429-430), Форма № 216 (с. 431-432), Форма № 217 (с. 433-434), Форма № 218 (с. 435-436), Форма № 219 (с. 437-438), Форма № 220 (с. 439-440), Форма № 221 (с. 441-442), Форма № 222 (с. 443-444), Форма № 223 (с. 445-446), Форма № 224 (с. 447-448), Форма № 225 (с. 449-450), Форма № 226 (с. 451-452), Форма № 227 (с. 453-454), Форма № 228 (с. 455-456), Форма № 229 (с. 457-458), Форма № 230 (с. 459-460), Форма № 231 (с. 461-462), Форма № 232 (с. 463-464), Форма № 233 (с. 465-466), Форма № 234 (с. 467-468), Форма № 235 (с. 469-470), Форма № 236 (с. 471-472), Форма № 237 (с. 47

**The results of the analysis of the dust content of the atmospheric air at km K249 + 000 of the A-380 highway.**

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1. General info		2. General info		3. General info		4. General info		5. General info		6. General info		7. General info		8. General info		9. General info		10. General info		11. General info		12. General info		13. General info		14. General info		15. General info		16. General info		17. General info		18. General info		19. General info		20. General info		21. General info		22. General info		23. General info		24. General info		25. General info		26. General info		27. General info		28. General info		29. General info		30. General info		31. General info		32. General info		33. General info		34. General info		35. General info		36. General info		37. General info		38. General info		39. General info		40. General info		41. General info		42. General info		43. General info		44. General info		45. General info		46. General info		47. General info		48. General info		49. General info		50. General info		51. General info		52. General info		53. General info		54. General info		55. General info		56. General info		57. General info		58. General info		59. General info		60. General info		61. General info		62. General info		63. General info		64. General info		65. General info		66. General info		67. General info		68. General info		69. General info		70. General info		71. General info		72. General info		73. General info		74. General info		75. General info		76. General info		77. General info		78. General info		79. General info		80. General info		81. General info		82. General info		83. General info		84. General info		85. General info		86. General info		87. General info		88. General info		89. General info		90. General info		91. General info		92. General info		93. General info		94. General info		95. General info		96. General info		97. General info		98. General info		99. General info		100. General info	
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Project name		Project location		Project status		Project description		Project budget		Project timeline		Project impact	
Project ID	Project Name	Project Location	Project Status	Project Description	Project Budget	Project Timeline	Project Impact	Project Budget	Project Timeline	Project Impact	Project Budget	Project Timeline	Project Impact
1	Project A	Location A	Completed	Project A description	1000000	12 months	Project A impact	1000000	12 months	Project A impact	1000000	12 months	Project A impact
2	Project B	Location B	In Progress	Project B description	2000000	18 months	Project B impact	2000000	18 months	Project B impact	2000000	18 months	Project B impact
3	Project C	Location C	Planned	Project C description	3000000	24 months	Project C impact	3000000	24 months	Project C impact	3000000	24 months	Project C impact
4	Project D	Location D	Completed	Project D description	4000000	30 months	Project D impact	4000000	30 months	Project D impact	4000000	30 months	Project D impact
5	Project E	Location E	In Progress	Project E description	5000000	36 months	Project E impact	5000000	36 months	Project E impact	5000000	36 months	Project E impact
6	Project F	Location F	Planned	Project F description	6000000	42 months	Project F impact	6000000	42 months	Project F impact	6000000	42 months	Project F impact
7	Project G	Location G	Completed	Project G description	7000000	48 months	Project G impact	7000000	48 months	Project G impact	7000000	48 months	Project G impact
8	Project H	Location H	In Progress	Project H description	8000000	54 months	Project H impact	8000000	54 months	Project H impact	8000000	54 months	Project H impact
9	Project I	Location I	Planned	Project I description	9000000	60 months	Project I impact	9000000	60 months	Project I impact	9000000	60 months	Project I impact
10	Project J	Location J	Completed	Project J description	10000000	66 months	Project J impact	10000000	66 months	Project J impact	10000000	66 months	Project J impact

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[illegible]

Name (Surname): \_\_\_\_\_ Name: J. J.

Информация об организации				Средства связи		Средства связи		Средства связи																Средства связи																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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Date written: \_\_\_\_\_ Received: \_\_\_\_\_  
 Printed: \_\_\_\_\_ Trans: \_\_\_\_\_



	Dust	
	Actual	Norm
<b>K284+860</b>	<b>0.26</b>	<b>0.5</b>
	<b>0.26</b>	<b>0.5</b>
	<b>0.25</b>	<b>0.5</b>
	<b>0.25</b>	<b>0.5</b>
	<b>0.26</b>	<b>0.5</b>
	<b>0.26</b>	<b>0.5</b>
	<b>0.25</b>	<b>0.5</b>
	<b>0.25</b>	<b>0.5</b>
<b>K269+860</b>	<b>0.23</b>	<b>0.5</b>
	<b>0.23</b>	<b>0.5</b>
	<b>0.23</b>	<b>0.5</b>
	<b>0.23</b>	<b>0.5</b>
	<b>0.24</b>	<b>0.5</b>
	<b>0.24</b>	<b>0.5</b>
	<b>0.24</b>	<b>0.5</b>
	<b>0.24</b>	<b>0.5</b>
<b>K249+000</b>	<b>0.21</b>	<b>0.5</b>
	<b>0.21</b>	<b>0.5</b>
	<b>0.21</b>	<b>0.5</b>
	<b>0.21</b>	<b>0.5</b>
	<b>0.22</b>	<b>0.5</b>
	<b>0.22</b>	<b>0.5</b>
	<b>0.22</b>	<b>0.5</b>
	<b>0.22</b>	<b>0.5</b>