Environmental Monitoring Report

PUBLIC

Project Number: 54005-001
Semestral Report: July – December 2025
August 2026

Tajikistan: Road Network Sustainability Project (Additional Financing)

Prepared by the Project Implementation Unit of Roads Rehabilitation for the Ministry of Transport of the Republic of Tajikistan and the Asian Development Bank.

CURRENCY EQUIVALENTS

(as of 23 January 2026)

Currency unit	–	Somoni (TJ)
TJS1.00	=	$0.106964
$1.00	=	TJS9.34892

ACRONYMS AND ABBREVIATIONS

ADB	Asian Development Bank
BOD_5	5-day biochemical oxygen demand
CO_2	Carbon dioxide
COD_{cr}	Chemical oxygen demand
CSC	Construction supervision company
dB	decibels
DEIA	Draft environmental impact assessment
DO	Dissolved oxygen
EA	Executing Agency
EIA	Environmental impact assessment
EIR	Environmental impact report
EIT	Environmental impact table
EM	Environmental monitoring
EMA	Environmental monitoring agency
EMP	Environmental Management Plan
EMR	Environmental Management Report
EMS	Environmental monitoring station
EPB	Environmental protection bureau
FSR	Feasibility study report
FYP	Five Year Plan
GDP	Gross domestic product
GHG	Greenhouse gas
GRM	Grievance redress mechanism
IA	Implementing agency
IEE	Initial environmental examination
LAeq	Equivalent continuous A-weighted sound pressure level, in decibels
Leq	Equivalent continuous sound pressure level, in decibels
LIEC	Loan implementation environment consultant
LSMI	licensed soil erosion institute
MOE	Ministry of Environment
NH_3-N	Ammonia nitrogen
NO_2	Nitrate
O&M	Operation and maintenance
OPF	Operators of project facilities
pH	potential of hydrogen; used to specify the acidity or basicity of a solution
PIU	Project implementation unit
PM_{10}	Particulate matter with diameter <10 μ
$PM_{2.5}$	Particulate matter with diameter <2.5 μ
PMO	Project management office
PPMS	Project performance management system
PPTA	Project preparatory technical assistance
RP	Resettlement plan
SEE	State Ecological Expertise
SEMSP	Site Environmental Management and Supervision Plan
SO_2	Sulfate
SPS	Safeguard Policy Statement (of ADB)
SRT	Sludge retention time
SS	Suspended solids
SWM	Solid Waste Management facility
TN	Total Nitrogen
TP	Total Phosphorus
TSP	Total suspended particulates
WHO	World Health Organization
WRB	Water resources bureau
WTP	Water treatment plant
WWTP	Wastewater treatment plant

NOTES

(i) The fiscal year of the Government of Tajikistan ends on 31 December.

(ii) In this report, "$" refers to United States dollars.

SUMMARY PROJECT INFORMATION

GENERAL INFORMATION	
Project title:	Road Network Sustainability Project
Date of project effectiveness:	1st May 2023.
Executing agency:	The Ministry of Transport (MoT)
Implementing agency:	PIURR
PMO (name of agency):	N/A
PMO Environment Officer (name, email):	N/A
Loan implementation consultant / firm:	N/A
LIEC:	N/A
Construction supervision company(ies):	SMEC Intl. Pty. Ltd.
Contractor(s):	Nanjing Communication Engineering Company Limited (NJCE). CJSC Zavodi Asphalt Beton) (ZAB).
ADB web link to EMP:	
Domestic web link to EMP:	

ENVIRONMENTAL SAFEGUARD MONITORING	
ADB environment safeguard category:	B
Environmental report prepared as per ADB requirements for this category:	Initial Environmental Examination.
Domestic safeguard report:	N/A.
Period covered by this report:	01.01.2025 to 30.06.2025.
# EMRs to date including this report:	5
Agency/person responsible for internal* environmental monitoring:	PIU, CSC
Agency/person responsible for external* environment monitoring:	Nanjing Communication Engineering Company Limited (NJCE). CJSC Zavodi Asphalt Beton) (ZAB).
Agency/person responsible for compliance* environment monitoring:	PIU
Agency/person responsible for independent compliance* monitoring:	N/A.
Overall status of environmental safeguards:	On 4th Sep. 2025, ADB conducted a site visit in collaboration with PIU, the consultant, and the contractor. The mission resulted in the preparation of an Environmental Completion report for Lot 1 and Lot 2.

ADB = Asian Development Bank, EMP = environmental management plan, EMR = environment monitoring report, LIEC = loan implementation environment consultant, PMO = project management office.
*See Section III.3 for definitions of internal, external, compliance, and independent compliance monitoring.

TABLE OF CONTENTS

EXECUTIVE SUMMARY **6**

I. INTRODUCTION **9**

1. Purpose of report *9*
2. Project outcome, outputs and subcomponents *9*
3. Project implementation progress *14*

II. SUMMARY OF THE PROJECT ENVIRONMENTAL MANAGEMENT PLAN **17**

III. ENVIRONMENTAL SAFEGUARD ACTIVITIES **22**

1. General description of Environmental safeguard activities *22*
2. Site audits and issues *22*
3. Unanticipated Environmental impacts or risks *29*

IV. ENVIRONMENTAL MANAGEMENT DURING THE REPORTING PERIOD **29**

V. CONCLUSIONS AND RECOMENDATIONS **42**

APPENDIX 1. STATUS OF EMP IMPLEMENTATION **44**

APPENDIX 2. ENVIRONMENTAL MONITORING DATA **60**

APPENDIX 3. PHYSICAL PROGRESS **72**
APPENDIX 4. SITE PROGRESS.PHOTOS 73

EXECUTIVE SUMMARY

1. This report is the sixth submission of the Semi-Annual Environmental Monitoring Report, as well as the third Environmental Completion Report for the Sustainable Road Network Development Project implemented with additional financing. This report covers only the additional financing for the project (OCB/CW-01/2022) to rehabilitate existing Bokhtar- Okmazor road section, which involves two Lots, namely, Lot-1 the 9.72 km Bokhtar-Levakant road and Lot-2, the 30.28 km Levakant -Okmazor section. The objective of the project is to enhance road safety and maintenance in order to support the development of local communities by linking major economic centers. The Asian Development Bank (ADB) and the Government of Tajikistan finance the Project. The Ministry of Transport (MoT) is the Executive Agency (EA).

The initial environmental examination (IEE) report was submitted by the PIURR to the State Ecological Expertise (SEE) (Committee for environmental protection under the Government of Tajikistan). The "environmental appraisal/approval" was obtained from SEE on 16th November 2020 (Registration No. 1537-15) for Bokhtar - Okmazor Road section. Resolutions of SEE were shared with the local environmental protection authorities.

The Environmental Management Plan (EMP) recommended in the IEE report was based on monitoring compliance to the recommended environmental management requirements by the contractors. The status of compliance to the EMP is discussed in Table 18 of Appendix - 1 and no significant violation of the requirements specified in EMP was observed.

2. **Project Implementation Progress.**

1. The contract for the rehabilitation of the section of the Lot-1, Bokhtar - Levakant road section from km 0+000 to km 9+72 was awarded to Nanjing Communication Engineering Company Limited (NJCE) and by end of the contract period on 21st October 2024, they completed almost all works, except some finishing works of the underpass. However, by end December 2024 all work of the Lot-1 (Bokhtar to Levakant), was complete. The contract for the rehabilitation of Lot-2, the Levakant - Okmazor from 9.72 km to 40+00 km was awarded to Limited Liability Company- CJSC Zavodi Asphalt Beton (ZAB) and by end October 2024 they had completed only 82.4% of the work though they were scheduled to complete all work by 21st October 2024. Therefore, the Contractor of Lot -2 (Levakant – Okmazor) has requested an extension of time (197 days) to complete the balance work. Due to Rock fall on 31st March 2025 at Km 18+640 the contract period of Levakant–Okmazor was extended to September 2025. The physical progress of major civil works by both contractors is given in the Appendix-6.

2. The information in this SAEMR is based on monthly progress reports, which recorded the progress of work, and the quarterly environmental monitoring reports submitted by the Contractors Nanjing and ZAB As well, conclusions of Contractors' Environmental Specialists and Construction Supervision Consultant (CSC) were considered. In addition, the documentations of projects' environmental specialist supervised environmental monitoring carried out by the contractors were referred to. Also, the relevant documents related to design and social concerns were also analyzed. The Contractor's quarterly environmental report included monitoring data and laboratory analysis of selected parameters specified in the EMP

and IEE report, national requirements necessitated by SEE and covenants of grant agreement were used as recommended practices to judge the compliance during project implementation. Detail environmental monitoring data is shown in Appendix-2.

3. **Progress in Implementing the EMP / ESMS**. During this reporting period following activities were conducted:

Prevention of Possible destruction of bird nesting sites and their offspring, the surveys were conducted during the nesting and winter periods using the classical route method. According to the initial environmental assessment (IEA) prepared by ADB (2022) for the road corridor, 186 of the nearly 400 bird species found in Tajikistan are found in the project area. The study focused on all available species, but particular attention was paid to indicator bird species identified as valuable ornithological resources in the context of Lot 1 and Lot 2 studies during the early stages of the Bokhtar-Okmazor road section (km 0+000 - km 40+000) project. During the construction phase, physical impacts on habitats are limited to approximately 5m on either side of the road from the center line. Birds and other wildlife can often be found within a few meters of the disturbed areas. There are no long-term physical impacts on habitats outside the road corridor. Impacts are short-term and appear to be largely reversible, except for roadside features and adjacent drainage systems.

- Tree losses that cannot be prevented, Though 2 963 existing trees were relocated, yet 5 000 trees were planted at roadsides.
- Potential damage to local irrigation system, Following the grievance from the Agency of Land Reclamation and Irrigation under Government of Republic of Tajikistan in Bokhtar to the Ministry of Transport, the water supply was ensured for an area of 150 hectares harvest area beside the project road at Pk 7+64.3.
- Establishment of grievance redress mechanism (GRM) by Resettlement Specialist to ensure that PAPs have information on the procedure to submit a complaint, in case they have one. Several grievances were filed either in the Grievance Register or through a letter to the Ministry of Transport. Out of them one major complaint was to repair the approach road to the query in Navzameen village, Gulistan. The Contractor of Lot 1 has paved from the quarry to half of the distance from the approach road. Remaining half of the road is yet to be done by the Contractor ZAB of Lot 2. All the major and minor grievances have been considered.
- Implement the spoils management plan prepared as part of the SSEMP. Prevent dumping materials on slopes. Only approved disposal sites are suitable for excess spoil material. The CSC / PIU RR have closely monitored this issue and ensure that excess material is disposed of at approved waste disposal sites. CSC monitors this issue and no other cases of dumping of material on slopes have been identified.

  PK 76+50 on the left side of the road was one of the designated areas for Asphalt storage dump.

- Maintain construction equipment to good standards and avoid, as much as possible, idling engines. Idling heavy equipment was restricted.

- Implement a traffic management plan that will set idling access along the project road was maintained safely during construction. Traffic Management Plan was submitted by the Contractor which covers control of Idling Engines of Heavy or light equipment.

4. **Compliance with loan covenants**

The contract cost, including the variation of orders of the two lots in the additional financing has exceeded the project planned cost and payment has been arranged from the savings of Grant 0752.

5. **Public consultation and status of Grievance Redress Mechanism (GRM)**

A grievance redress commission (GRC) including representatives at central and local levels, nominated by local authority and “jamoats”, has been established for both road sections. Information boards and complaint boxes have been installed along both roads. There were no complaints, with respect to environmental issues, recorded from the local population in the reporting period.

6. **Training and capacity building activities**

Regular safety training courses were organized. Workers and engineers were issued with protective equipment and overalls in a timely manner. No workers were hospitalized in medical institutions, and no fatal injuries were recorded during the reporting period. Weekly safety and health briefings were conducted for workers.

I. INTRODUCTION

1. Purpose of report

7. The purpose of this environmental monitoring report (EMR) is to describe and assess progress for implementation of the environmental management plan (EMP) for the Road Network Sustainability project, for the reporting period 01.07.2025 to 25.12.2025. This EMR is submitted in compliance with the Safeguard Policy Statement (SPS)[1] of the Asian Development Bank (ADB) and the loan agreement between ADB and the project executing agency.

8. This is the sixth EMR as well as the third Environmental Completion Report for the project. It covers part of the construction phase of the project. The report describes: (i) implementation of mitigation measures; (ii) monitoring activities; (iii) public consultations (including grievance redress); (iv) training and capacity building; (v) expenditures for EMP implementation (including mitigation, monitoring, and training); (vi) reporting; and (vii) an overall assessment of key achievements, challenges, issues, corrective actions, and lessons learned, during the reporting period.

2. Project outcome, outputs and subcomponents

9. The Bokhtar - Okmazor road has regional importance in the south-eastern region of Tajikistan as it passes through mountainous terrain that experiences extreme weather conditions, e.g. heavy precipitation, mudflows, snowfalls. This road has progressively deteriorated in the past and at present it is in highly dilapidated condition. As such, the villages along the project road are disconnected from access to medical and educational facilities, state institutions, banks, and markets during winter and autumn months adverse weather conditions. Therefore, rehabilitation of the road was urgently needed.

10. The road passes through the territory of Bokhtar and Dangara districts of Khatlon region, where it serves a population of more than 283,000 people. The road provides transport links for the population of Dangara and Vose districts, supply of agricultural products and industrial raw materials to the cities of Dushanbe, Kulob, Bokhtar and Khorog. Moreover, in future, the project road will ensure the supply of goods to neighboring countries since it connects Dushanbe - Kulob - Khorog - Kulma with the national road Dangara - Vose - Kulob as the shortest route. The Project Road section is part of the Central Asia Regional Economic Cooperation (CAREC) transport corridor, as shown in Fig.1. Therefore, part of of a significant transport connection through the People's Republic of China, Afghanistan and further south to Pakistan. The project road is shown in Fig.2.

[1] ADB. 2009. Safeguard Policy Statement. Manila.

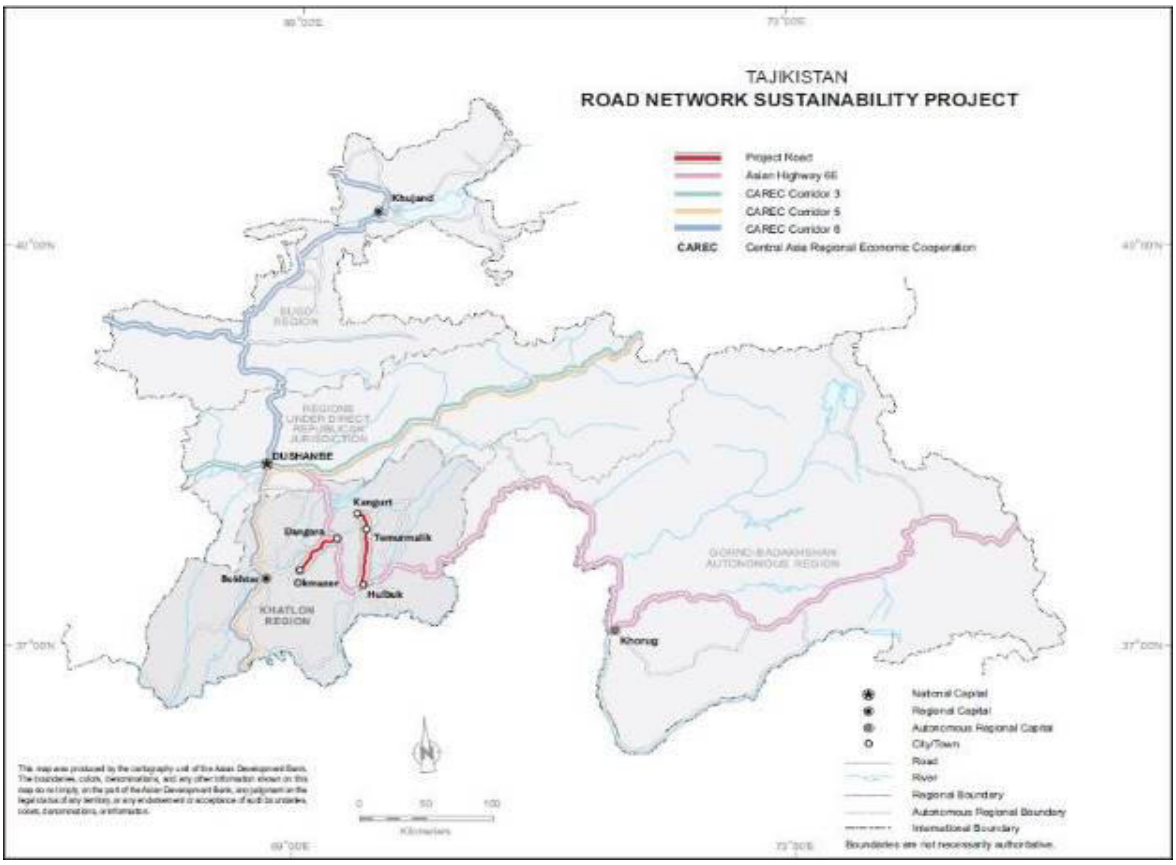


Figure 1: The Central Asia Regional Economic Cooperation Corridors.

Figure 2: Map of the location of the Bokhtar-Okmazor project road

The project road has been rehabilitated along the existing alignment. The existing road fall into technical road 'category- III' and consist of one carriageway with two traffic lanes width of 3.50 m, respectively 3.00 m, in each lane. Section 1 starts at km 0+000 in Hoji Sharif Market and ends at km 9.72 at the Levakant turn. This section 1 has been upgraded to 'category – I', a highway of citywide significance. Section 2 comprises the remaining 30.28 km until Okmazor village and this section 2 has been rehabilitated to 2 lanes and will remain 'category – II'.

11. Traffic volumes indicates that the existing road category is not adequate from km 0 to km 9.72 for the anticipated future traffic volumes and improvement/upgrading of the road category to category- I was therefore designed. From km 9.72 to km 40, the technical category- III is

adequate, and improvements of the alignment are envisaged where the geometrical parameters of the existing road deviate substantially from the minimum desired parameters for technical category III. The road sections from Bokhtar to Levakant and Levakant to Okmazor are shown in Fig. 3.

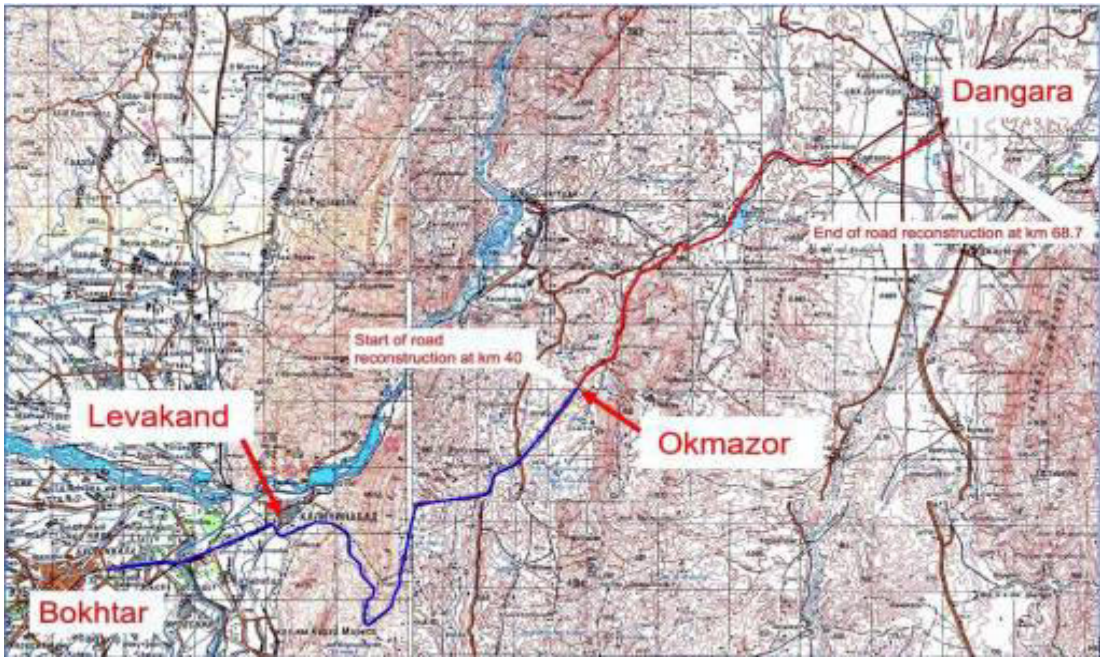


Figure 3: Map of the Project Road

12. The Bokhtar-Okmazor road section is running partly through hilly terrain and the road alignment consist of small curves and steep gradients in arid country with steppe like vegetation. The relief is characterized by smooth low-lying mountains. As already shown, the Bokhtar-Okmazor road is divided into two different design sections*, viz*. Section 1 (0 -9.72 km) will be upgraded to category - I, a highway of citywide significance; Section 2 (9.72 km to 40 Km) only needs to be rehabilitated as no upgrade is required based on the traffic forecast.

13. The typical cross section parameters are shown in the figures below. The fig. 4 and 5 shows the cross section of Lot -2 (9.72 km to 40 Km) whereas Fig. 6 shows that of Lot-1 (from 0 Km to 9.72km).

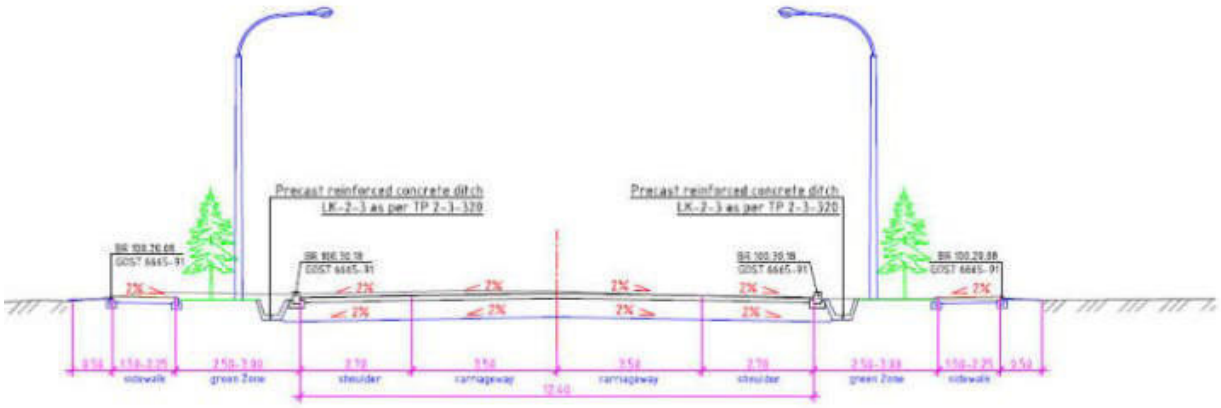
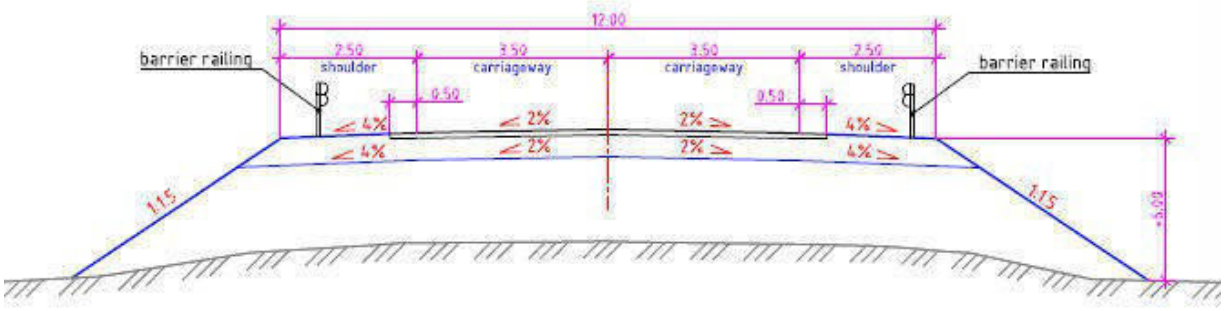
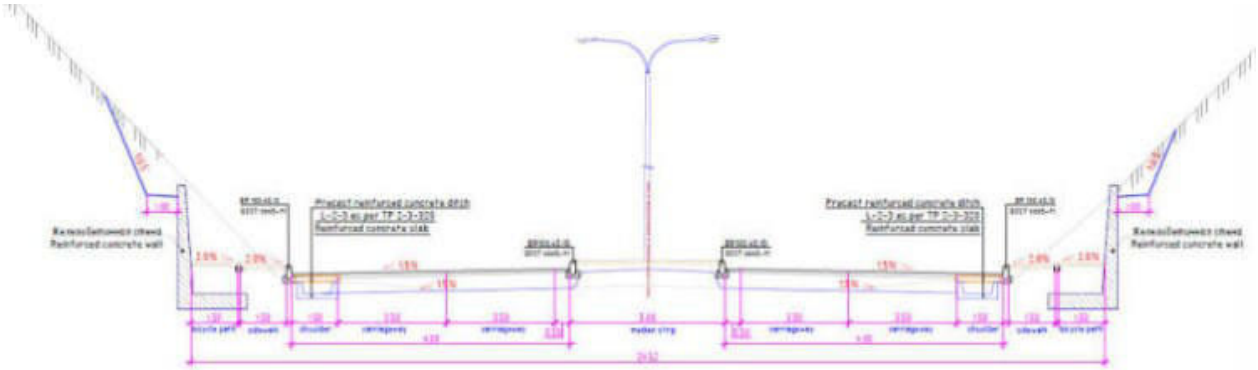


Figure 4: Typical Cross Section in settlement Area (2 Lane, category-III)



Typical Cross Section in Rural Area (2 Lane, category-III)



Typical cross section km 0 - km 9.72 urban area (4-lanes. Category I)

14. In settled areas, the implementation of sidewalks, street lightening and green strips for improvement of road safety are considered in the design.

15. Cross-section parameters are related to traffic flows and will vary with the requirements of vehicular traffic. The road cross-section incorporates all elements between the road boundaries including carriageways, shoulders, verges, including cutting or embankment slopes. The cross- section elements serve several purposes and have a significant impact on construction costs, road operation and safety. The cross section in combination with the alignment will determine the earthwork quantities. Lane and shoulder width greatly impact traffic operations and safety. Therefore, the road width would be kept to a minimum so as to reduce the costs of construction and maintenance whilst being sufficient to carry traffic loading efficiently and safely.

16. According to the intended classification of the road, the following design speeds are used for the Bokhtar-Okmazor Project

Road (see Table 1).

Table 1: Estimated speeds by terrain and road categories

Road section	Estimated speed in km/h		
	Level Terrain	Hilly terrain	Mountain landscape
km 0+000 - 40+00	100	80	50

Bridges and Culverts

17. The Bokhtar- Levakant project includes the construction of three bridges and two box culverts with a cross-section of 6.0x2.5 m to replace the existing bridge. The bridges most significant in terms of potential environmental impacts are the ones crossing natural watercourses. However, no natural water course is crossed by the Project Road. All surface waters crossed are irrigation canals.

Table 2: Bridges of the Bokhtar – Okmazor Road Section

Bridge №	Bridge location, km	Nearest settlement	Crossing obstacle	Bridge length, m	Span arrangement, m	Total Width, m	Bridge Area, m^2	Design Solution
Br-1	2+340	vilage Sadvinkhoz	existing channel	6.5	1x6	43.5	242	New Bridge
Br-2	4+000	vilage Sadvinkhoz	existing channel	33.5	1x33	34.9	1,048	New Bridge
Br-3	7+585	vilage Shpalzavod	existing channel	6.5	1x6	42.2	235	New Bridge
Br-4	8+195	vilage Kirpichzavod	existing channel	6.5	1x6	40.3	224	New Bridge
Br-5	10+147	vilage. Sarband	existing channel	16.59	1x15	14.4	216	New bridge
Total - 5 bridges				**69.59**			**1,965**	

18. The project road has been reconstructed in the year 2000 and the road surface has worn out seriously damaging the road. It has deteriorated over the years and is currently in bad condition with numerous shortcomings and damages. Due to the existing poor technical condition of the road, transport is getting unreliable and expensive. The asphalt concrete pavement has been destroyed. The base, consisting of coarse-grained soil, does not comply with GOST. In some places, the thickness of the base is 0.05 m only. There are no functioning drainage and numerous physical and geological processes are destroying the remaining intact roadbed. In

some places, during heavy rainfall, the road is flooded disconnecting the villages along the Project Road from access to medical and educational facilities, state institutions, banks, and markets.

19. This project road has major role in supply of agricultural products and industrial raw materials to the cities. Further, it connects the international road Dushanbe - Kulob - Khorog - Kulma with the national road Dangara - Vose - Kulob as the shortest route. Therefore, part of a significant transport connection through the People's Republic of China, Afghanistan and further south to Pakistan and it is part of the Central Asia Regional Economic Cooperation (CAREC) transport corridor. Therefore, rehabilitation of the Bokhtar – Okmazor road is a priority project.

20. According to the Project Administration Manual (Dec 2023), the proposed additional financing is aligned with the same impacts as the ongoing project, namely: (i) economic growth promoted (Tajikistan National Development Strategy), and (ii) safe and competitive connectivity established across the CAREC region (CAREC Transport Strategy 2030). Also, the project will have the same outcome: safety and reliability of the road networks enhanced in southern Tajikistan. Thus, the overall aggregate impact and outcome of the project remain unchanged from the those of the ongoing RNSP project.

3. Project implementation progress

21. The project became effective on 1st May 2023. As of 25th Dec,'25, physical progress by the project was estimated by the project management office (PMO) to be 100% for Lot 1 and 95.50% for Lot 2. Implementation progress for subcomponents is summarized in Table 1.

Table 1: Project implementation progress as of 25.12.2025.

Contract No.	Contract Name	Status	Civil work starting date	Name of contractor	Name of CSC	Implementation Description
I. on track						
1	Contract CW-01:Bokhtar-Levakant Road Rehabilitation (OCB/CW-01/2022)	*Completion*	1st May 2023	Nanjing Communication Engineering Company Limited (NJCE)	SMEC Intl. Pty. Ltd.	**100%**
2	Contract CW-01:Levakant-Okmazor Road Rehabilitation (OCB/CW-01/2022)	Construction	1st May 2023	CJSC Zavodi Asphalt Beton) (ZAB)	SMEC Intl. Pty. Ltd.	95.50%

22. The project is classified as Category-B for the environment in accordance with ADB's SPS (2009). The status of EMP implementation is discussed in Table 18 of Annex-2. All awarded contracts included EMPs cleared by ADB and conditions of applicable national IEE clearance.

23. In Lot 1, the construction of underground drainage pipes, dismantling of certain infrastructure within the construction areas, and reinstallation of water supply and sewage lines were completed in Lot 1. Work on the underpass and sidewalks, including the bicycle lane, was also completed. By the end of October 2024, all civil works, including road furniture and markings, were completed in Lot 1 (Bokhtar – Levakant section). In Lot 2, during the reporting period, major construction works were completed. These included earthworks (both soil and rock excavation), concrete paving, notching, embankment and slope development, road leveling and compaction, laying of the base course, crushed stone base, granular sub-base, pavement asphalt concreting (bottom and top layers, and binding course), sidewalks, installation of shoulders and side drains, and bridge construction, among other activities. Moreover, in Lot-2 earth work encountered with excavation of rock at a large scale, which was time consuming than anticipated all works as well were behind schedule. However, by end of December 2024, Road pavement was complete and remaining work involved shoulder formation, construction of curbs, road furniture, installation of the permanent barriers and road signs etc.

24. Regarding the tree planting, replacement of died seedlings was carried out with regular watering, establishing seedlings all along both sides within RoW of the Lot -1 or Bokhtar – Levakant section covering the entire stretch. Planted trees accounted for 6,246 in Lot – 1 road section and about 520 trees in Lot -2.

25. In Lot 1, the potential sources of pollution included the concrete mixing plant at km 9+200, the gravel crusher and screening plant at km 9+100 (with facilities for storing crushed gravel), and the asphalt plant within the same premises. Warehouses for storing materials and areas for storing bitumen were in the construction camp at Levakant. Several quarries for gravel were also operated in the Vakhsh River floodplain. All these facilities operated with the required permits from the relevant authorities and PIURR, and operations were terminated by the end of October 2024.

26. The contractor of Lot-2 has no asphalt plant because the contractor brought asphalt from his registered production plant outside. Within the base camp at km13+500, the concrete batching plant, gravel crusher and screening plant material storage, etc., were located. Though they extracted gravel material from authorized quarries, they largely purchased gravel material from a registered supplier operating in the Vakhsh river floodplain. A quarry was operated in the mountain area for granular material requirements of both Lot 1 and Lot -2.

27. During the reporting period, contractors have taken measures to reduce dust and emission in construction sites by use of proper equipment; timely repair and maintenance of construction machinery and equipment; dust suppression by watering, etc. Measures taken to minimize noise and vibration and associated protection from on-site health hazards to workers included use of soundproofing equipment by workers (headphones, earplugs); limitation of working hours; use of vibration-damping personal protective equipment (boots, seats, mats, mittens), etc. No adverse impacts of noise were reported by people in the surrounding areas. However, whenever violation of such requirements was likely, the monitoring team interfered to remedy the situation.

28. Neither excess emissions of harmful substances nor public nuisance due to noise, dust, etc., were recorded in association with such operations according to the monitoring results. As well, there has been no complaints from the communities or individuals about such public nuisances.

A. Changes in Project Design

29. The width of the median strip in Lot 1, Bokhtar- Levakant Road was reduced from 6 meters to 2 meters for road safety reasons. The Underpass was shifted further from the location of Km 0+050 to Km 0+180 to avoid the existing sewerage line. The width of the underpass was widened by 3 meters resulting to 9 meters.

    In Lot 2, changes in project design were made for rock excavations exceeding the original estimates. This was necessitated by the need to remove the rocks that were laying close to the road on excavated roadsides posing safety threats if not removed.

B. Changes in Agreed Construction Methods

30. No changes to agreed construction methods were required in the reporting period.

II. SUMMARY OF THE PROJECT ENVIRONMENTAL MANAGEMENT PLAN

31. The project environmental management plan (EMP) is the primary reference document for the government and ADB for all environment-related mitigation, monitoring, reporting, and training activities for the project. Timely and effective implementation of the EMP is a key condition of the loan agreement between the government and ADB. The EMP is being implemented over 4 years, comprising 2 years of construction and 2 years of operation. The content of the EMP includes institutional roles and responsibilities for EMP as prepared as part of the initial environmental examination in implementation; mitigation measures for environmental safeguard risks; environmental monitoring and reporting; training and capacity building; grievance redress mechanism (GRM); public consultation; cost estimates; and other information e.g. terms of reference for key positions.

32. **Project institutional arrangements (Section of the EMP).** This section of the EMP describes the roles and responsibilities of relevant agencies for EMP implementation. For this project, the principal person responsible for EMP coordination is the PMO Environment Officer (Ms. Munisa Salimova), acting on behalf of the PMO. On-site implementation of the EMP is by the implementing agencies, contractors, and construction supervision companies (CSCs). Guidance and supervision to the PMO Environment Officer is given by the Loan Implementation Environment Consultant (LIEC)

33. The conditions given by the SEE at the time of approval and the present status of implementation of such requirements are shown in Table 3.

Table 3: State Environmental Expertise conditions and implementation status

no	SEE Condition	Implementation status
Bokhtar- Levakant- Okmazor Project Road		
1	Requirements of construction rules and norms, strict observance of road construction, ecological norms and the legislation of the Republic of Tajikistan in the field of environment protection should be followed during the project implementation;	Done, implementation was monitored
2	The contractor should appoint the person responsible for carrying out control;	Done, Environmental Engineer and HS Engineers appointed by Contractors
3	The contractor develops an action plan for environmental protection, which is agreed with the local environmental authorities;	Done, SSEMP developed by Contractors and approved by the CSC and PIURR
4	To protect the atmosphere and prevent dust, the work area should be regularly sprayed;	Done, implementation monitored. The atmospheric air protection and dust suppression plan was developed and is being implemented by the Contractors.
5	During construction work, the requirements of construction rules and regulations should be followed and take the necessary measures;	Done, implementation monitored. There were no accidents reported during the monitoring period.
6	Trees that interfere with the construction process should be removed only in coordination with the authorized state body in the field of environment protection;	Done, permits for the felling of trees have been obtained from the local Department of Environmental Protection.
7	The planting of seedlings should be conducted in accordance with the design and agro-technical rules;	Done, implementation monitored.
8	Technical construction works to be carried out in accordance with the requirements of environmental norms and minimum impact on the environment;	Done, implementation monitored.

no	SEE Condition	Implementation status
9	In accordance with the established procedure to implement departmental control over compliance with the requirements of measures in the field of environmental protection;	Done, implementation monitored.
10	To dispose of solid household waste in the official landfill in accordance with the established procedure;	Done, the contractors have been granted permits for the disposal of the waste in local government landfill site. Waste management plans were developed by the contractors.
11	Construction waste generated during and after construction works should be sorted and disposed of in s official dump in coordination with the authorized state body in the field of environmental protection;	Done, the contractors have been granted permits for the temporary storage and disposal of the spoil in the official dump site. Waste management plan developed by the contractor.
12	In the event of departure from the territory of construction facilities, equipment and vehicles should be washed in accordance with the rules and their cleanliness should be ensured;	Done, implementation monitored
13	During locating an asphalt plant and processing of inert materials in accordance with the requirements of the legislation in the field of environmental protection and sanitation, it is necessary to prepare the report on environmental impact assessment should be submitted to the State Environmental Expertise of the Committee for Environmental Protection under the Government of the Republic of Tajikistan for obtaining of conclusion.	Done, the location of asphalt plant has been agreed upon with local authorities and environmental protection department. Conclusion of SEE obtained. At present the asphalt plant of Lot 1 has been dismantled and transported from the site of Lot 1. The Asphalt plant of Lot 2 is not located at the site.
14	To implement normative and legal acts, state standards, sanitary, safety and environmental standards during the construction of drainage system;	Done, implementation monitored.
15	To carry out technological work in accordance with the requirements of environmental impact;	Done, implementation monitored.
16	A copy of this report should be submitted to local environmental authorities.	Done, copy of the conclusion of SEE provided to local environmental protection authorities

34. The Project Implementation Unit for Road Rehabilitation (PIURR) set up by Resolution of the Government of Tajikistan for management of the contract implementation has mobilized Environmental Specialists respectively for Lot -1 and Lot -2 of the Bokhtar- Okmazor road, in January 2022.

35. The PIU is supported by the Construction Supervision Consultant (CSC) - SMEC Ltd. The contract with SMEC Intl. Pty ltd was concluded on 8 October 2021 for a period of 36 months

    and was further extended by 18 months in Amendment No.1 for the supervision of the projects belonging to additional financing i.e. Grant 0859, including DNP (Defects Notification Period) for all packages of Road Network Sustainability Project (RNSP).

36. The project activities with respect to the contract awards, summary of work progress, contract management, environmental staff, etc., are given in the following two tables (Table 4 and 5). The Project Organization Structure and environmental team are shown in Fig. 7.

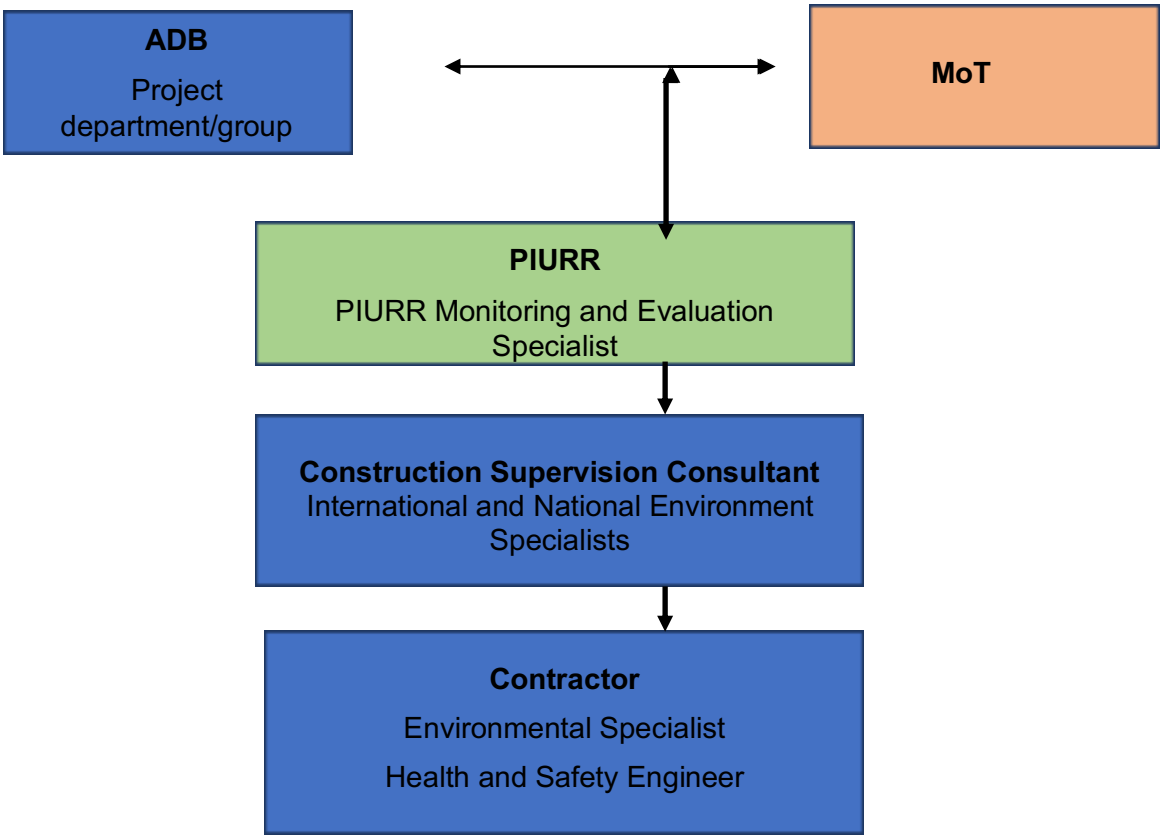


Figure 5: Project Environmental Organization Chart

Table 4: Summary of Civil Work Contracts and Works' Progress

Package Name	Scope	Contractor	Date of approval			Environmental staff		Civil works (terms of Contract)		Work Progress by End October 2025	
			SSEMP	COVID-19 HSMP	ERP	Senior Environmental Specialist	Occupational Health and Safety Officer	Start	End*	Time Period Elapsed	Work Progress
Lot 1	Bokhtar - Levakant road section (9.72 km.)	Nanjing Communications Engineering Co. Ltd.	March 2023	May 2023	March 2023	Mr Wipula Elkaduwa	Muhiddin Yusupov	1st May 2023	6th May 2025	100 %	100 %
Lot 2	Levakant - Okmazor road section (30.28 km.)	CJSC " Zavod Asfaltu Beton"	March 2023	May 2023	March 2023	Mr Wipula Elkaduwa	Muhiddin Yusupov	1st May 2023	30th Sep. 2025	100 %	95.5 %

COVID-19 HSMP = COVID-19 Health and Safety Management Plan, ERP = Emergency Response Plan, SSEMP = Site-Specific Environmental Management Plan

*Lot- 1 contractor completed all work by 6th May 2025.

*Lot-2 contractor has requested an extension of 344 days i.e. till 30th Sep. 2025 to complete balance work.

Table 5: Summary of Environmental Personnel

Environmental Personnel ((Lot - 1 Bokhtar -Levakant and LOT- 2 Levakant-Okmazor)	**Allocated p / m**	**Assignment date**	**Experts Full Name**
International Environmental Specialist (IES) of CSC	8 P/M	Feb. 2024	Mr Wipula Elkaduwa *
International Road Safety specialist of CSC	8 P/M	Feb. 2024	Stylianos Efstathidis**
National Environmental Specialist of CSC (both Sections)	Continuous till end of project	June 2023	Egamberdi Rustamov
Environmental Specialist under PIU RR (Lot-1)	5.17 P/M	Feb. 2025	Ms Munisa Salimova
Environmental Specialist under PIU RR (Lot-2)	5.17 P/M	Feb. 2025	Ms Munisa Salimova
Traffic/ Road Safety Specialist (Lot-1) CsC	21,95 P/M	2nd Sep 2022	Abdugaffor Jumabaev
Traffic/ Road Safety Specialist (Lot-1) PIU RR	6 P/M	28 August 2023	Muhiddin Yusupov
Environmental Specialist of the Contractor (Lot-1)	Continuous till end of project	May 2023	Ismoil Khudoyorov
Health and Safety engineer under the Contractor Lot-1	Continuous till end of project	28 August 2023	Jang Di Pia
Environmental Specialist of the Contractor (Lot-2)	Continuous till end of project	April 2022	Mr. Tabarov Qobil
Health and Safety engineer under the Contractor Lot -2)	Continuous till end of project	April 2022	Mr. Khalifaev Muboriz

* Replacement of Sr. Envl. Sp. by W. K.B. Elkaduwa in February 2024

** Replacement of Sr. Road Safety Auditor by Stylianos Efstathiadias in March 2024

37. **Project readiness assessment (Section 1.3 of the EMP).** This is the first key step prior to the start of project civil works, to ensure that preparations for EMP implementation have been completed.

Potential impacts and mitigation (Section 3 of the EMP). This section of the EMP summarizes the potential environmental impacts and mitigation measures for the different phases of the project: detailed design and pre-construction phase; construction phase; and operations phase. Table 18 in the EMP summarizes the environmental risks and mitigation measures, and agencies responsible for implementation and supervision of these measures. For this project, the key potential impacts and/or issues of concern are:

Prevention of possible destruction of bird nesting sites and their offspring, Tree losses that cannot be prevented, Potential damage to local irrigation system, Establishment of grievance redress mechanism (GRM) by Resettlement Specialist to ensure that PAPs have information on the procedure to submit a complaint, in case they have one. Implement the spoils management plan prepared as part of the SSEMP. Maintain construction equipment to good standards and avoid, as much as possible, idling engines. Implement a traffic management plan that will set out how access along the project road will be maintained safely during construction.

38. **Training (Section 2.3 of the EMP)**. This section of the EMP describes the training program for environmental safeguards, including the recipients and frequency of training.

39. **Consultation and participation plan (Section 2.5.3 of the EMP)**. This section of the EMP identifies the mechanisms by which consultations will be accomplished (e.g., through workshops, questionnaires, etc.), the frequency of consultations, topics, and target audiences.

40. **Costs (Section 10.9 of the EMP)**. This section of the EMP describes the estimated costs for EMP implementation over years. The cost estimates in the EMP include the costs for the mitigation measures, training, and monitoring.

41. **Reporting (Section 12 of the EMP)**. This section of the EMP describes the reporting requirements for the project, including the responsible agencies and reporting frequency.

III. ENVIRONMENTAL SAFEGUARD ACTIVITIES

A. General Description of Environmental Safeguard Activities

42. Activities carried out by the Environmental Specialists of CSC, PIURR and contractors. During the monitoring period, are briefed in Table 6 below.

Table 6: Environmental Safeguards Activities

Environmental Safeguard Activities
The international environmental expert of Supervision Consultant (SMEC)
- Site visit/ audits to the Bokhtar- Levakant - Okmazor Road Section
- Preparing SAEM reports and Environment Completion Reports
The national environmental Specialists of Supervision Consultant and PIURR
- Site visit to the roads to Bokhtar- Okmazor road section check on the progress of the works.
- Review the checklist for environmental monitoring. The checklist is attached at the end of the report.
- Development of a work plan for the consultant
- Meeting with a local resident on safety and issues relating to construction works
- Review of the Contractor's documentation including Environmental Monitoring Reports.
- Prepare Semi Annual Environment Monitoring Report (SAEMR),
The Environmental Specialists of the Contractors
- Obtaining relevant permits
- Conducting meetings with the public and informing them about the work
- Day-to-day involvement in resolving environmental issues during construction.
- Organization of instrumental monitoring of project sites and facilities with laboratory testing in accordance with SSEMP and supervision consultant's instructions.
- Preparation of monthly and quarterly environmental monitoring reports.

B. Site Audits and Issues

43. Site inspections were conducted frequently, both routine and random. The inspections generally addressed environmental, health and safety issues. The overall objective of the inspections was to ensure good environmental practice in project operations and enable to establish good governance and efficient environmental management of day-to-day activities.

Site inspections and audits in the reporting period, the issues identified, and action taken are given in Table 7.

44. During the monitoring period, in Lot -1, there was no physical works after completion of the project other than maintenance of the road. Therefore, not much environmental issues were identified. Issues identified during the monitoring period and remedial status as shown in tables 7 and 8.

Table 7: Site visits conducted during the Monitoring Period

Date of visit	Auditor	Purpose of Audit	Summary of Findings
9 Jul 2025	National Envl. Specialists of CSC`	Check the compliance to EMP Recommendations by the contractor of 2 (Levakant - Okmazor)	Protection of Embankment slope.
18 Jul 2025	National Envl. Specialists of CSC	Check the compliance to EMP Recommendations by the contractor of Lot-2 (Levakant - Okmazor)	Installation of RCC F-barriers where embankment height is more than 3 meters.
29 Jul 2025	National Envl. Specialists of CSC	Check the compliance to EMP Recommendations by the contractor of Lot-2 (Levakant - Okmazor)	Installation of Electric poles..
4 Aug 2025	National Envl. Specialists of CSC	Check the construction activities of Lot-2. (Levakant - Okmazor)	Construction of Shoulders at Km 30+000. Permanent Road signs were being installed at Km 35+000.
18 Aug 2025	National Envl. Specialists of CSC	Check the compliance to EMP Recommendations by the contractor of 2 (Levakant - Okmazor)	Uncontrolled dust; Illegal dumping of excess excavated material; illegal quarrying.
29 Aug 2025	National Envl. Specialists of CSC	Check the construction standards in Lot-2	Embankment protection of culvert at Km 33+400.
4 Sep 2025	National Envl. Specialists of CSC	Observe the completed civil work of Lot - 2	The trees planted on both sides of the road in project lot 2 have dried up without water.
15 Sep 2025	National Envl. Specialists of CSC	Visit to identify the defects in completed work	Widening of Road shoulders.
25 Sep 2025	National Envl. Specialists of CSC	Audit practices of on-going activities	Inadequate safety precautions by the construction staff

Table 8: Issues identified during the monitoring period

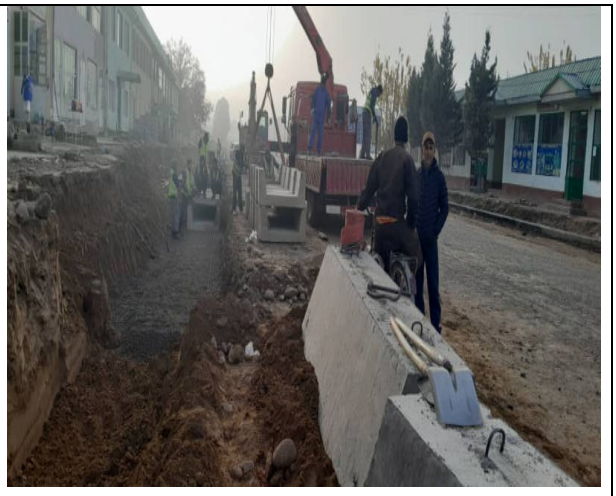
Issue	Action to be Taken	Responsibility	Action Taken
Lot - 1: Bokhtar –Levakant road section: The Contract period ended on 6th May 2025.			
Lot - 2: Levakant- Okmazor road section			
Localized contamination of soil by lubricants and bitumen	Prompt clearing of the sites of the concrete plant and the asphalt plant of soil contaminated with oil	Contractor	Attended to clearing the affected sites.

Issue	Action to be Taken	Responsibility	Action Taken
at the construction camp and plants			
Some Construction waste laying in the camp sites	Maintain the sanitary and hygienic state of the environment in the camp	Contractor	Agreed to follow in future.
Construction workers do not wear appropriate PPE/ Construction kits	The Contractor must conduct environmental H&S training for workers regularly on monthly and weekly covering safe construction practices, including the use of equipment	Contractor	Agreed to follow in future.
Uncontrolled dust in concrete plants, crushing plants, camp sites and in construction sites where retaining walls are being erected and road work ongoing	Priority dust control by spraying water in plant sites and areas near residential area of Levakant end while work is in progress.	Contractor	Followed the watering schedule but it was inadequate during sunny days.
Unauthorized dumping of excavated soil and rock material into side slopes in some locations (Localized in few cases)	Disposal of excess excavated earth and rock into authorized sites	Contractor	Agreed to adhere as far as possible now but to clear them on completion of work.
Small scale borrowing of material from unauthorized areas along the roadside	Use only legal/authorized borrow areas	Contractor	Agreed to purchase all material from licensed suppliers
Unstable deep cut slopes on roadsides which may collapse with rains	Trim the cut slopes to stable angles or bench out at least in identified critical locations to minimize fixture risk/hazards	Contractor/ PIU/ CSC	Action to be taken by PIU and CSC Engineers- Guidance given in the attached Addendum.
The removed old asphalt is still laying in some few roadside heaps	Collection of removed asphalt for reuse in local roads by Road Department	Road Department	Beyond the Contractor's responsibility as already handed over to the Road Department as per the contract condition.
Damage to the access Road from km10 to the quarry in the mountain used by both contractors	This access road runs through settlements of village Gulistan and needs repair on completion of project activities	Contractors of both Lot-1 and 2	Both contractors agreed to repair the access road on completion of operations. The Contractor of Lot 2 has not yet done their part.

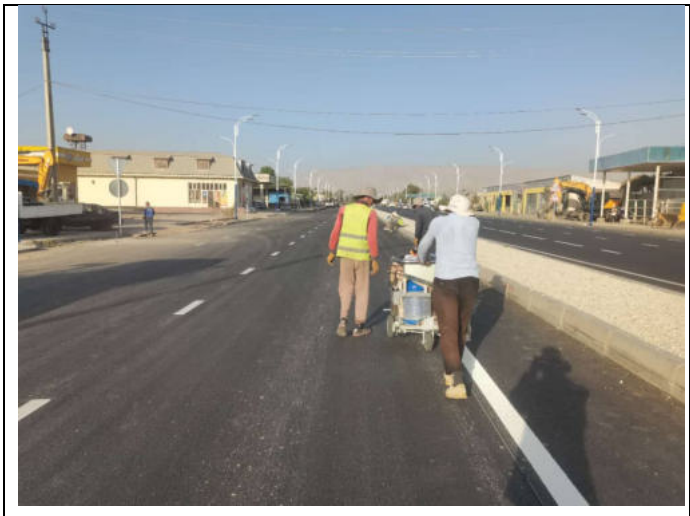
PK0+60 Demolition of existing buildings on the right side of the road 1 Excavator 2 Worker	PK 40+51 Bridge No. 2 Demolition of the existing old bridge.

	
PK 40+51 Bridge No. 2 Dismantling of the existing old bridge.	Khoja Sharif roundabout, removal of asphalt concrete pavement
	
PK 82+00 Reinforcement of pipe head wall, section 6:0x3:0, on the right side of road	PK 75+85 Preparation of formwork and concreting of bridge wall/3 on the left side of the road

	
PK 82+00 Backfill and compaction 4th layer pipe cavity section 6:0x3:0 on the left side of the road	PK 96+60 Installation of LK1-3 trays on the left side of the road



Installation of L2-1 trays and PP-1 slabs



Road Marking works

Laying a polyethylene pipe for draining water into the canal and concreting the pipe cavities on the right side of the road

In September 2025, ADB conducted a site visit in collaboration with PIU, the consultant, and the contractor. The mission resulted in the preparation of an Environmental Completion report for Lot 1 and Lot 2.

C. Unanticipated Environmental Impacts or Risks

45. During the reporting period, unanticipated environmental impacts or risks were identified at Km 18+760. Rock-fall at Km 18+760- 18+960 closed the road. An Inspection report has been submitted along with the SAEMR Jan-Jun'25.

iv. ENVIRONMENTAL MANAGEMENT DURING THE REPORTING PERIOD.

A. Summary of Monitoring Outcomes

46. The monitoring of the project implementation activities is progressing well and follows the requirements of EMP. The PIURR and CSC have made efforts based on the findings of the monitoring to guide the Contractor's environmental staff and ensured that the project is implemented in a manner that is compliant with the environmental requirements of the project.

47. Based on the results of monitoring, the status of compliance with related covenants on environmental safeguards in the Project's Grant Agreement signed between Republic of Tajikistan and ADB on 25 December 2020[2] is summarized in Table 15 below.

Table 9: Grant Agreement and Compliance Status

Schedule	Paragraph	Covenant	Compliance Status
3	3	**Environment** The Recipient though MoT, shall not award any Works contract which involves environmental impacts until; (a) the relevant environmental authority of the Recipient has granted the final approval of the IEE; (b) the Recipient through MoT, has incorporated the relevant provisions from the EMP into the Works contract.	Complied (a) IEE approved by Environmental authorities of Tajikistan. The "environmental appraisal /approval" was obtained from SEE on 16 November 2020 (Registration No. 1537-15) for Bokhtar -Okmazor Road section. Resolutions of SEE were shared with the Regional environmental protection departments. (b) provisions of EMPs were included to the works contract.
3	5	The Recipient, through MoT shall ensure that the preparation, design, construction, implementation. operation and decommissioning of the Project and all Project facilities comply with (a) all applicable laws and regulations of the Recipient relating to environment, health and safety, (b) the Environmental Safeguards; and (c) all measures and requirements set forth in the IEE, the EMP and any corrective or preventative actions set	Complied MoT ensures that preparation and design comply with Environmental Safeguards and H&S requirements and applicable laws and regulations of Tajikistan. MoT/PIURR has appointed Environmental Safeguards Specialists to ensure compliance during implementation. EMP/EIA implementation is monitored and reported in SAEMR

[2] ADB. Grant Agreement (Special operations) for Road Network Sustainability Project (December 25, 2020): https://www.adb.org/sites/default/files/project-documents/54005/54005-001-grj-en.pdf

Schedule	Paragraph	Covenant	Compliance Status
		forth In the Safeguards Monitoring Report.	
3	9	**Human and Financial Resources Io Implement Safeguards Requirements** The Recipient, through MoT. shall make available necessary budgetary and human resources to fully implement the EMP and the LARP	Complied a National Environmental Specialist hired by PIURR; national and International Environment Specialists by CSC;a Also, Social specialists hired for preparation and implementation of EARP
3	10	**Safeguards - Related Provisions in Bidding Documents and Works Contracts** The Recipient, through MoT, shall 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 LARP (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set out in a Safeguards Monitoring Report: (b) make available a budget for all such environmental and social measures, (c) provide the Recipient, through MOT, with *a* written notice on 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 or the LARP (d) adequately record the condition of roads agricultural land and other infrastructure prior to starting to transport materials and construction (e) reinstate pathways, other local infrastructure and agricultural land to at least their pre-project condition upon the completion of construction (f) prepare and finalize a site-specific environmental management plan which shall be submitted to and approved by the Recipient prior to the commencement of any Works.	Complied IEE and EMPs are included to the works bidding documents. SSEMP developed by Contractor and approved by the CSC / PIURR. Implementation of EMP/IEE and LARP are being monitored and adequate compensation is ensured through GRM resolutions to the satisfaction of affected parties. Impacts on existing infrastructure (agricultural lands and roads) is minimized and any damages are attended to bring back to original condition
3	11(a)	**Safeguards Monitoring and Reporting** The Recipient, through MoT, shall (a) submit semi-annual Safeguards Monitoring Reports to ADB, and disclose relevant information from such reports to	Complied (a) SAEMRs from previous reporting periods have been disclosed on ADB website in English. [3] Information from SAEMRs is

[3] https://www.adb.org/projects/54005-001/main

Schedule	Paragraph	Covenant	Compliance Status
		affected 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. or the LARP. promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed time-bound corrective action plan (c) report any actual or potential breach of compliance with the measures and requirements set forth in the EMP or the LARP promptly after becoming aware of the breach.	translated into Russian [4] and disclosed on project website.[5] (b) During the project implementation period, no actual or potential breach of compliance with the measures and requirements set forth in the EMP or the LARP has been observed.
3	12	**Prohibited List of Investment** The Recipient shall ensure that no proceeds of the Grant are used to finance any activity included in the list of prohibited investment activities provided in Appendix 5 of the SPS	Complied MoT ensures that no proceeds of the Grant are used to finance any activity included in the list of prohibited investment
3	13	**Illegal trafficking** The Recipient shall undertake adequate measures to detect and prevent trafficking of humans, wildlife, endangered species, and illegal substances on the Project roads	Complied Public security authorities and MoT/PIURR with support of CSC, continuously monitor and prevent illegal trafficking.
3	14	**Labor Standards, Health and Safety** The Recipient shall ensure that the core labor standards and the Recipient's applicable laws and regulations are complied with during Project implementation The Recipient, through MoT, shall include specific provisions in the bidding documents and contracts financed by ADB under the Project requiring that the contractors, among other things (a) comply with the Recipient s applicable labor law and regulations and incorporate applicable workplace occupational safety norms, (b) do not use child labor, (c) do not discriminate against workers in respect of employment and occupation, (d) do not use forced labor.	Complied Bidding documents included labor codes and applicable national laws and regulations to be complied by the contractors. MoT ensures and monitors during project implementation compliance with Labor Standards, Health and Safety requirements and applicable laws and regulations of Tajikistan. MoT/PIURR has appointed the Environmental and Social Safeguards Specialist and d with CSC ensure compliance. Contractors hired medical staff which conduct training for workers.

[4] The report will be disclosed in Russian language because all affected people understand Russian.
[5]https://mintrans.tj/storage/tender/files/iw1INwfvhyQOBgvqp0scsJxyq3JyTRgMqfg4nLm5.pdf

Schedule	Paragraph	Covenant	Compliance Status
		(e) allow freedom of association and effectively recognize the right to collective bargaining. (f) disseminate, or engage appropriate service providers to disseminate, information on the risks of sexually transmitted diseases, including HIV/AIDS, to the employees of contractors engaged under the Project and to members of the local communities surrounding the Project area, particularly women.	
3	15	The recipient shall strictly monitor compliance with the requirements set forth in paragraph 14 above and provide ADB with regular reports.	Complied SAEMRs include Health and Safety monitoring results, which are provided to ADB and disclosed in Russian on the project's website [6] . Social safeguards monitoring reports are also being prepared and disclosed.

MoT – Ministry of Transport; IEE – Initial Environmental Examination Report; EMP = Environmental Management Plan; LARP = Land Aquation and Resettlement Plan; SAEMR= Semiannual Environmental Monitoring Report; IES = International Environmental Specialist; NES= National Environment Specialist

[6] https://mintrans.tj/storage/tender/files/npiHJMRl5CRcUujkU5QHPtU4c9w2sK8WbBTSa1Eu.pdf

B. Overview of Monitoring of Environmental Monitoring Plan

Environmental monitoring is governed by the approved Environmental Monitoring Plan (EMoP) of the IEE Report, environmental standards and other environmental commitments. During the period from July to December 2024, the analytical laboratory of the Committee for Environmental Protection conducted analyses on water samples, air quality, and noise for the Bokhtar – Levakant (Lot 1) and Levakant – Okmazor (Lot 2) road sections. The results are described in the following sections.

1. Water quality monitoring

48. Contractor for Lot-2, ZAB also carried out quarterly water quality monitoring in 1 location. Lot-2 has only one perennial water course of an irrigation canal as well very limited settlements along the remote road to be sensitive to short-term impacts of construction. As such, the number of water quality measurement locations were also limited. The results of water quality monitoring of Lot -2 are given in Table 10.

49. In lot-2, Levakant - Okmazor section, the water quality measurements together with the National standards values have been presented in the 3rd quarterly reports submitted by the Contractor. According to Contractor's reports, the results revealed that during the 3rd quarter of 2025, monitored water samples did not exceed the levels of any of the monitored parameters.

50. Even in the canal, Coliform index has shown above drinking standards but within the fishery standards. This may be due to livestock and poultry farms in the settlements discharging effluents into the canal. Therefore, the monitoring results indicate that there are no discernable adverse impacts of construction activities on the water quality.

2. Air quality monitoring

51. The results of the quarterly ambient air quality monitoring carried out in the Lot-2 (Levakant – Okmazor Road Section) for 7 locations are shown, with comparison to tolerance limits established in Tajikistan as Maximum Permissible Concentration (MPC), in Table 12.

Lot-2 air quality monitoring results show the non-exceedance of national standards of PMC, indicating no adverse impacts of project activities on the atmosphere.

3. Noise monitoring

52. The noise level was measured using a Testo 815 noise meter, owned by the Centre for Analytical Control and Analysis of the Committee for Environmental Protection under the Government of the Republic of Tajikistan. The meter was calibrated in accordance with the manufacturer's specifications.

53. Regarding noise, standards of Tajikistan in accordance with sanitary standards SN 2.2.4/2.1.8.562-96 (provided by the sanitary and epidemiological surveillance service of the Ministry of Health of the Republic of Tajikistan) is as follows were used as the threshold limits

- 55-45 dB(A) (max) - Residential area
- 75-75 dB(A) (max) – Commercial zone
- 80-80 dB(A) (max) – Industrial zone
- 40-50 dB(A) (max) – Hospitals
- 55-45 d B(A) (max) – Schools, library

54. The noise monitoring results of third quarter of 2025, in the Lot-2, Levakant – Okmazor section, is shown in the Table 14.

The noise level around influence of the Levakant – Okmazor project (Lot-2) during the reporting period has not exceeded permissible standards for respective category of sensitive receptors, as indicated by actual monitoring results given above Table 14. Further, during the reporting period, no complaints were received regarding the noise impacts of noise from residents of nearby settlements.

4. Flora and fauna monitoring

55. The Bokhtar - Okmazor road is in arid country with steppe like vegetation. Land use alongside the project road is rural and the terrain is mountainous, except for the first section of the road *(viz* Lot- 1 from Bokhtar to Levakant), which is an urban area in a level terrain (see Fig.8).

56. Although a wide variety of animals and birds are represented in the country, in general, the biodiversity of fauna around the planned project is quite low. Relatively few species and numbers are present. The surrounding area of road from Levakant to Okmazor is predominantly grazing fields with steppe type vegetation with an annual rainfall of about 100 – 150mm and the temperature varying from minus 20^0C to +50^0C. A Major part of the steppe type vegetation has no trees but some patched were with scattered trees of pistachio as shown in the photos given below.

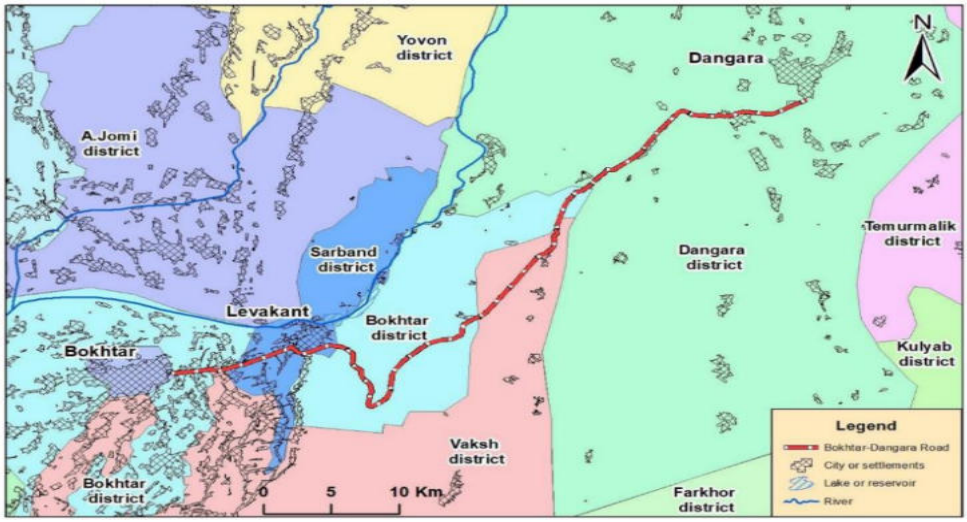


Figure 6: Urban and settlement areas Alongside the Project Road

57. Before commencement of civil works, a survey conducted in the project influential area revealed that there were no bird nesting sites in traversing cliffs that would be impacted by excavation of slopes for road widening. Further, the Contractors monitored and prevented poaching around influence of the Project. Therefore, throughout the construction period, no significant negative impact on the state of flora and fauna in influence of the project has been recorded as well poaching and illegal hunting of wild animals and birds has not been recorded. However, for the expansion of the road carriage, trees have been removed with the authorization of the relevant department. Also, some highly localized impacts on small scale have occurred due to dumping of excessive excavated material into side slopes of the road damaging the existing vegetation in Lo t-2.

58. According to BOQ, in Lot-1, number of existing trees relocated is 1,258 and number of trees felled/removed is 1,705. Therefore, required new planting is 3,410 at the ratio of 1:2 compensatory planting for removed trees. According to BOQ, in Lot - 2, number trees felled/removed is 115. Therefore, required new planting is 230 at the ratio of 1:2 compensatory planting for removed trees.

59. In lot-1 about 6,246 seedlings have already been planted whereas 400 seedlings have been established in Lot-2. Tree planting was mainly in Lot-1 (Bokhtar – Levakant section) because

In Lot-2 (Levakant – Okmazor section) there were a very limited number of trees removed, and tree planting has been unable in many parts of the road so far as shoulder development works are still in progress. However, there is scope for more tree planting during the one-year defects liability period (DLP).

60. In Lot-1 during the summer of 2024 quarter, out of the planted seedlings, those trees died during the summer have been replaced and watering of them has been continued. The planted seedlings cover the entire stretch of the lot-1 on both roadsides in-between the road and sidewalk.

61. In the surrounding area of the Lot-1 Road section, abundant water supply from river diversions (for agriculture and domestic use) and established trees, etc., have enhanced the groundwater availability and micro-climate conducive for establishment and survival of trees inhabited by people. In the case of Lot-2, except for the road section close to the Levakant, where already trees have been planted, the suitability of the rest of the road section in remote arid areas (with harsh weather) for tree growth and survival is questionable unless meticulous care is ensured. Except for some scattered pistachio trees in very limited patches in the landscape, no trees are visible in the rest of the area around the road covered only by steppe type vegetation. However, at least in the few settlement areas, it is worth establishing some suitable species of trees.

Watering trees and green lines

5. Waste management

62. The Contractors have liaised with Local Administration for disposal of domestic and construction waste. The solid waste management meets the requirements on collection point for household waste. Municipal solid waste generated at the site, in areas where work camps are located, is temporarily collected in specially designated storage areas and removed on a regular basis. Municipal and household waste are sent once a week to the official landfill of the city of Levakant. Transportation is carried out by a truck equipped with folding sides.

63. Excavated earth for road expansion was reused for embankment filling but the material of unsuitable quality and other spoil material were temporarily stored in areas recommended by local authorities and finally disposed at the dumping areas authorized by the municipalities.

In Lot-1 all such temporary started spoil material has already been disposed of to authorized landfill sites. However, in Lot-2 temporary storage of excess material is being disposed of at the authorized dumping sites located along the roadside.

64. Basic sanitary and environmental standards were observed in construction camps. Wastewater mainly coming from toilets, kitchens, baths, laundries and dormitories were directed into a sewer pipe in the camp and eventually collected into a wastewater treatment system, which have filtration and sedimentation functions. The wastewater treatment system was disinfected daily to ensure that water flowing out of the camp does not pollute the environment.

65. Solid waste management involved storage in a specially designated place with a hard, impermeable coating; and timely removal of that stored solid waste by responsible services (local authorities). Hazardous waste management involved storage of hazardous waste in a specially designated place with a hard, impermeable coating and also, all such containers were kept away from water sources and clearly marked until disposal or reuse.

66. The camp has washrooms, showers, and toilets. Daily cleaning is carried out in the premises and the territory of the camps by maintenance personnel. The camp is staffed with security personnel who prevent unauthorized persons from entering the camp territory and keep records of visitors. There have been no comments from environmental authorities or the sanitary-epidemiological service about any shortfalls in operation and maintenance of the facilities.

6. Public consultations and grievance redress mechanism

67. This section describes the public consultations undertaken during the reporting period and implementation of the project grievance redress mechanism (GRM). Documentation for the consultations and/or GRM (e.g. lists of participants in stakeholder workshops) is in Appendix 4.

7. Grievance Redress Mechanism and Complaints

68. A grievance redress commission (GRC) including representatives at central and local levels, nominated by local authority and jamoats, has been established for both road sections. Information boards and complaint boxes have been installed along both roads. There were no complaints, with respect to environmental issues, recorded from the local population in the reporting period. Both contractors have relevant complaint forms in place for workers to apply. HSE specialists of both contractors also have complaints logbooks. Employee representatives have been selected who register employee complaints and bring them to the attention of management and monitor the causes of complaints. However, no complaints have been received from workers or other stakeholders in the reporting period.

8. Training, Health and Safety

69. During the reporting period, the Contractors carried out activities in accordance with the approved Road Safety Management Plans of the SSEMP and adequate health and safety measures were in place.

70. To ensure health protection at the site, both Lot 1 and Lot 2, had operational medical centres at the Contractors' base camps with certified medical workers. The two medical stations were equipped with all necessary medicines and also with medical supplies to organize and provide first aid. Further, the health centres provided contraceptives free of charge for those who requested. Also, close contact had been established with the government health authorities of Levakant town.

71. The Contractors took all measures to protect health, including protection from sexually transmitted diseases (STDs) and HIV/AIDS, as well as COVID-19. Also, during the reporting period, regular safety and health training was conducted for workers.

72. The Contractors have taken reasonable measures to reduce dust during construction works by spraying water. Warning signs have been installed since the start of construction works. Road signs were updated where it was necessary. All vehicles and machinery were always maintained in satisfactory working condition. Pollutant emission levels were following applicable environmental control laws. Maintenance and re-fuelling of vehicles were carried out in such a way that no fuel and lubricant leaks were detected.

73. Refilling of fuels and lubricants was strictly controlled and regulated by formal procedures. Pallets are used at refuelling sites. The areas under the fuel tanks are concreted, and fences and covers have been installed. Since the work is not carried out at one specific site, fuel was delivered to sites by truck delivery. Appropriate fire safety measures have been taken.

Regular safety training courses were organized. Workers and engineers were issued with protective equipment and overalls in a timely manner. No workers were hospitalized in medical institutions, and no fatal injuries were recorded during the reporting period. Weekly safety and health briefings were conducted for workers.

C. Rehabilitation of sites affected by construction.

1. Contractor's Camps, Buildings and Service Areas

74. The contractor has constructed an accommodation camp/office at Levakant, which constitutes sufficient accommodation rooms with a residential labor camp. There are two dining rooms, a medical center, a laundry room, showers and toilets within these premises. This Contractor's base, located at km 9+200, was made of lightweight collapsible sandwich panels. The camp/office is not dismantled yet and will be demobilized before completion of the Defect Notification Period (DNP) i,e. 6th May'26.

75. The laboratory was operated at the location of the Contractor's camp. The laboratory equipment were purchased as per contract Bill of Quantity Item No. 1.11..

76. There were an aggregate crusher and an asphalt plant within these premises. The Asphalt plant has already been dismantled and demobilized. The aggregate crusher has not been dismantled yet for some work during the DNP.

2. Borrow/Quarry Areas

77. **For** the construction works, particularly for the embankment works, the production of asphalt concrete and concrete mixtures, construction aggregates were required, and which was extracted from suitable borrow areas. The borrow area **for Sub-base and Base material** is **from Baksh river and** for the embankment works **was** located 3 km away from the location of Bridge No. 5 i.e. in Navzameen, Guliston. There was an existing private crusher in the area.

3. Spoil and Construction Waste

78. Following the Local Government order, the Contractors have handed over all the removed asphalt of Lot 1, 17 420 (main road) +1 342 m^3 (from exit, entrance, sidewalks and lay-bys) and Lot 2, 31 004 m^3 to the local Road Exploitation Department for reusing them in the local roads. Also, removed old concrete structures e.g. beams from the existing bridges, have been handed over to Road Exploitation Unit.

79. Removal and relocation of utilities:

Item No.	Description	Lot 1 meters	Lot 2 meters
10.23	Dismantling of AC-150/19 wire	1 362	
10.25	Removal of telephone line	6 830	
10.27	Removal of Water supply line	7 128	
10.28	Removal of Sewerage supply line	5 534	
10.29	Removal of Gas supply line	6 714	
10.9	Removal of Electric power lines 10 KV		1 253
10.10	Relocation of 0.4 KV overhead power lines		244
10.11	Removal of telephone lines		21 846
10.12	Removal of Water supply line		1 789

was handed over to the Road Exploitation Unit and Water Supply Department.

80. Most of the excavated material resulting from road widening/upgrading were reused for filling the embankments, except for those of unsuitable quality. Those unsuitable surplus earth materials were transported for disposal at dumping yards operated by local authorities with their permission. Such material included: (a) Common excavation of unsuitable and surplus material to any depth, load, transport, storage and spread as directed (cut to waste); (b) Excavation into the dump Grade II soil cut to waste ; (c) Excavation of hard (rocky) material as specified to any depth, load, transport, storage and spread as (cut to waste).

81. On completion of the construction activities, all disturbed sites were rehabilitated to their original or improved condition upon to the satisfaction of the Engineer.

4. Remaining tasks and Deliverables.

82. The remaining tasks to be attended include the removal of aggregate crusher in the camp and clearing the area to bring back to original landscape aesthetics. The contractor should attend to it before end of the Defects Notification Period and PIU should ensure rehabilitation of the site to its previous aesthetic appearance.

83. In Lot 2, only 520 trees have been planted out of 6,000 trees. Remaining number of trees need to be planted as per specification.

84. In Lot 2, Landscaping/Greenery: Topsoil spreading on green strips and sowing perennial grass seeds yet to be done.

V. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

82. Scheduled date of project completion for both Lot -1 (i.e. Bokhtar – Levakant Project Road) and Lot -2 (i.e. Levakant – Okmazor Project Road) was 21st October 2024. During the reporting period the construction contracts for the Bokhtar- Levakant Road was completed, and this section was ceremonially declared open by the Hon President of Tajikistan. Nevertheless, the Levakant- Okmazor Project Road was still in progress and by the end of October only 92.25% of the work was complete and therefore a time extension of 197 days was requested by the contractor.

83. The contractors of both projects had their approved Site-Specific Environmental Management Plans (SSEMPs), which allowed them to follow good practices of construction work. In order to ensure compliance with environmental safeguards, all parties involved in the projects (Staff of Contractors, PIURR and CSC) established an environmental management team. This team was responsible for overseeing and managing the environmental aspects of the construction projects. They worked together to ensure that all necessary measures were taken to protect the environment and minimize any negative impacts.

84. As part of the monitoring process, various issues were identified during this reporting period in the two road sections. The Bokhtar- Levakant Road experienced few issues that needed attention as the project activities were nearing completion. The Levakant - Okmazor

Road had issues mainly related to excavation and disposal of excess material of earth and rocks. These issues were documented providing a comprehensive overview of the problems encountered during this period and action was taken by the parties responsible to resolve them. Further, safety issues which were identified during the ADB mission and site visit and documented for implementation.

85. The environmental management team worked diligently to address the issues and take appropriate actions to mitigate any adverse effects. They collaborated with the contractors and other stakeholders to find suitable solutions and ensure that the construction activities remained in line with environmental regulations.

Recommendations

86. The general objectives of planting trees along roadsides are to stabilize soils and reduce air quality impacts of vehicle emissions, dust and to attenuate noise while providing shade. However, to have an effective impact from trees, a multi canopy structure by admixture of trees which develop canopies at different levels from the ground are needed. Nevertheless, roadside planting by this project in a line within the RoW could meet some of the above objectives but that would play an important role in the city and settlement areas. Multi-canopy plantings are common in-home gardens adjoining the road section in Bokhtar city and some settlements.

87. Only the cypresses and pines species have been planted by contractors despite recommendation of different species for compensatory planting within the RoW. Contractors prefer this species of cypresses and pines because they are native hardy plants, their seedlings are readily available and need little aftercare and not damaged by grazing or browsing animals. According to IEE recommendations, species to be planted are species that require more moisture such as poplar (Populus alba), willow (Salix alba), maple (Acer spec.) and ash (Fraxinus spec.) where irrigation canals run parallel to the road in Lot-1. Only native species to be planted from local genetic stocks pines.

88. Different species have a vast potential in Lot-1 due to manmade environment, particularly with availability of groundwater. In fact, in the road along Bokhtar-Levakant all types of fruit trees have been established by residents along their boundaries and within the home-gardens. Whereas in Levakant -Okmazor road section, in the steppe type grasslands only small settlements or scattered houses are found at a substantial distance from the RoW of the road, except in the road reach close to Levakant city. In the steppe grasslands, Pistachio is a widely found tree in the landscape and its potential to survive is obvious if establish and maintained carefully at early stages. Also, in the Levakant- Okmazor section various trees have been established in some locations where shops are operated close to the road and in some home-gardens.

89. Despite the large number of tree planting in Lot-1, many planted seedlings started to die during the summer 2024 though the contractor claims that watering was carried out in every night. As a result, the contractor replanted to fill the vacant dead plants and started to water regularly from September. Now the seedlings cover both sides of the Bokhtar - Levakant road section and attention will be required till they are fully established. Therefore, after the contractor's responsible period of DLP, responsibility of maintaining trees should be vested in the Roped Exploration Department or other responsible authority to ensure the sustainability of trees in this urban section of the road.

90. In the Levakant – Okmazor road section, tree planting and their maintenance must be attended at least along the settlement areas such as that in Levakant end. The contractor is still busy with road work, and he must be convinced to attend to this requirement on completion of work and during the Defect Notification Period.

APPENDIX NO.1

STATUS OF EMP IMPLEMENTATION

Table 10: Status of EMP Implementation

Activity / Location	Potential Impact	Mitigation measures	Status of Compliance
DETAILED DESIGN PHASE – PRE-CONSTRUCTION PHASE			
Pre-works documentation and establishment of more recent baseline environmental conditions	Possible obsolete information not capturing site-specific baseline and pre- works conditions	1. As part of preparation of SSEMP, undertake documentation, photographs (with GPS coordinates), environmental sampling and analyses (through in-house or third party authorized laboratory).	Complied by Contractor through a hired laboratory with CSC and PIURR Supervision
Road alignment within ecologically sensitive areas	Possible destruction of bird nesting sites and their offspring. Possibly affected bird species are the bee eater (Merops piaster), the European roller (Coracias garrulous), starlings (lane or Indian starling) and birds of the weaver family, e.g., the Indian sparrow.	2. At sections where the Project Road rehabilitation is traversing alongside cliffs, mainly formed by loess sediments which are suitable nesting sites for various birds such as the European roller (Coracias Garrulus), the bee-eater (Merops piaster) or the Indian starling (Common Myna Acridotheres tristis) the design investigated the possibility of widening the cross section to the opposite site and by doing this avoiding any impacts. 3. In addition, prior to construction, a fast-track ecological survey will be conducted for purpose of (i) identification of nesting sites at cliffs in the construction corridor, and (ii) identification of additional mitigation and monitoring measures to minimize impacts on less mobile bird species. 4. In case nesting sites are identified, then construction schedule will consider nesting season in order to avoid bird losses.	Complied: A survey was conducted before commencing construction work but no bird nets were identified within the project influential area
		5. Required tree felling and site clearance activities which involve the remove of vegetation will be outside nesting season (preferably between October and February).	No necessity arose as there were no any discernable bird nesting sites
Road alignment in areas of tree plantations.	Tree losses that cannot be prevented. Main species are poplars, willows, birch trees, pistachio trees, walnut trees buckthorn, and saxaul.	6. Any tree losses are to be compensated for by new plantations at a ratio of 1:2. This means that 1,820 x 2 (3,640) trees are to be newly planted for compensation. 7. Species to be planted are pines, cypresses, mulberries, pistachio, walnuts and planes. 8. From the bridge at km 2+340 to km 2+900 an irrigation channel is running alongside the road allowing the planting of species that require more moisture such as poplar (Populus alba), willow	Complied: Tree planting by the Contractor is in progress and by now in Lot-1, about 1,500 trees and in Lot-2. About 400 trees have been newly planted. See Annex-2 table 20 & 21 for actual number of trees removed.

Activity / Location	Potential Impact	Mitigation measures	Status of Compliance
	Based on the survey conducted 1820 trees need to be felled.	(Salix alba), maple (Acer spec.) and ash (Fraxinus spec.). Only native species will be planted from local genetic stocks. 9. Planting will be conducted after technical work has been completed. Planting time will be restricted to spring (March till April) and/or autumn (September till October). Trees to be planted will have the following parameters: 1.5 – 2 m height, age 5 – 6 years. 10. Locations for tree plantings are within the existing RoW at the locations where tree losses occur. 11. Distance in between individual trees will be 6 – 8 m. 12. In addition, 1,202 trees in section 1 (Bokhtar-Levakant) will be relocated.	Lot-1 entire road stretch within the RoW has been planted
Embankment filling of the tree stem area	Tree losses due to embankment fill.	13.A maximum fill up of the tree stem area of 30 cm can be accepted. Fill up material in the tree stem area has to be organic soil. 14.A filling up of more than 30 cm will damage the tree. In this case cutting can't be prevented and a new tree is to be planted as a compensation measure at the respective location within the existing RoW.	Complied by Contractor with PIURR and CSC supervision
	Potential damaging of trees lying very close to the road (less than 2m).	15.Implementation of a temporary vegetation protection fence during construction activities.	Complied by Contractor
Road alignment traversing towns and villages	Potential loss of building structures and assets. (Tree losses, masonry retaining walls, private yards,building structures).	16. The chosen alignment and cross section will aim on reducing the loss of building structures as far as technically feasible. 17. Loss of structures that cannot be prevented will be compensated according to the LARP. 18. Crossing facilities within settlements consisting of zebra- crossings, traffic lights and ramps for disabled people will be provided.	Complied during the detailed design by contractor in collaboration with PIURR
Bridge/Culvert Rehabilitation	Potential damage to local irrigation system if new culverts should not be sufficiently dimensioned or in case not all existing culverts should be rehabilitated during rehabilitations.	19.During road rehabilitation, all existing culverts will be replaced. All culverts are sufficiently dimensioned to prevent any damage or blockages to the existing local irrigation systems.	Complied during detailed design with collaboration of PIURR

Activity / Location	Potential Impact	Mitigation measures	Status of Compliance
	Potential water erosion processes at bridge and river embankments.	20.Design of erosion protection measures at lower parts of bridge embankments. Erosion protection is achieved by using natural stones which can in addition be embedded in concrete. Prefabricated concrete protection plates prevent erosion processes at the lower and lateral parts of bridge and river embankments. Detailed design of the respective protection measures is drafted in the technical design documentation for the respective bridges.	Complied by incorporating concrete plated to prevent erosion
	Compensation claims	21. Access to Information/ Public Relations 22. Convene a public consultation meeting (including the Contractor) prior to the contractor's mobilization to provide basic project information and construction scheduling, establish and explain the grievance redress mechanism including proactive arrangements for keeping the public informed of road reconstruction activities.	Complied by PIURR with support of CSC's team for creation of public awareness
Complaints/grievances	Compensation claims	23.Establishment of grievance redress mechanism (GRM) by Resettlement Specialist to ensure that PAPs have information on the procedure to submit a complaint, in case they have one.	Complied by establishing GRM and complaints regarding LARP are being resolved through this GRM
Within settlements disproportionate encroachment on poor people's assets.	Loss of wealth and property of poor people. Poor and vulnerable households might be affected.	24.Resettlement Specialist will issue LARP covering assessment of loss and compensation procedure.	LARP is implemented and. If actual loss exceeds the estimated, additional payments are paid through GRM resolutions
CONSTRUCTION PHASE			
Impacts due to site clearance activities	Loss of topsoil.	25. Implement the spoils management plan prepared as part of the SSEMP. 26. Removing of topsoil occurring within site clearing corridor. Topsoil will be removed and stored for reuse. 27. Long-term stockpiles of topsoil will immediately be protected to prevent erosion or loss of fertility. 28. For erosion protection it will be sawn with a fast-growing vegetation, e. g. grass	Compiled by Contractor but as the widening is within the existing RoW, not much topsoil is encountered; any excavated topsoil is used for landscaping and tree planting; any heaps of topsoil watered to prevent wind erosion until they are used.

Activity / Location	Potential Impact	Mitigation measures	Status of Compliance
Break up of old pavement layers and asphalt	A significant amount of spoil will be generated which will be reused as much as possible for the subbase for the new pavement	29. Document the condition of houses close to the road. Photographs of all residential houses near the road will be taken as protection for possible complaints regarding damaged house walls etc. This is part of the contract. 30. Special construction techniques will be applied in areas where buildings and structures are located directly near the road. Such actions may include alternative construction methods such as: (i) decrease of vibration emission from the particular equipment item; (ii) substitution of the equipment item at such location by other equipment capable of variable vibration control. (iii) use of smaller equipment; (iv) compaction without vibration rollers; (v) decreasing the thickness of material layers below the maximum thickness permissible under the specification; (vi) building wave barriers (trench or ditch) where appropriate; (vii) change the pavement type for example from flexible to rigid pavement, (viii) any other method of Contractor's choice that may be used while ensuring compliance with the specification for the material that is being compacted. 31. Recycled material will be used to the largest extent feasible to reduce the volume of spoils that needs to be disposed of. 32. Special recycling techniques will be used in the rehabilitation of the new pavement layers. 33. Implement the waste management plan prepared as part of the SSEMP.	Complied as all removed asphalt concrete is handed over to the Road Exploration Department for reuse in Local roads according to the Government order. excavated earth is reused for embankment filling except for low quality material. approved waste management plan by contractor through SSEMP is implemented with the permission of local authorities
Impacts due to Earthworks	Selected disposal sites for cut material. Potential disfigurement of landscape. Potential wind and water erosion.	34. Compact and evenly distribute the surplus material by layers where possible, to minimize piling and impacts to landscape. 35. The stockpiles will be sawn with fast growing grass to avoid erosion by the root system. 36.During dry and windy periods, water will be spread on the disposed material to avoid dusting.	Complied: Any material of low quality and spoil are temporarily stored in locations approved by local authorities and spray water to prevent wind erosion; finally, disposed into local governments' authorized dumping areas with permits from CEP and evenly distributed as layers

Activity / Location	Potential Impact	Mitigation measures	Status of Compliance
	Loss of topsoil Water erosion	37. Implement the spoils management plan which provides detailing measures to be undertaken to minimize effects of wind and water erosion on stockpiles, measures to minimize loss of fertility of topsoil, timeframes, haul routes and disposal sites. 38. Topsoil will be removed and reused to cover areas where excess materials will be dumped and on road embankments. 39. As erosion protection measure at riverbanks, natural stone fillings will be used as additional measures if required.	Complied but limited topsoil results from RoW excavation and they are used for landscaping and tree planting
	Siltation of surface waters and/or impact on soils due to improper disposal of excess materials	40. Excavated material will be reused as far as technically feasible. In addition, the reclaimed asphalt pavement will be recycled for the construction of new pavement as far as technically feasible. Thus, potential impacts due to the need for disposal of excess material will be kept to a minimum. 41. Extracted soil material that cannot be reused is approximately 1,136,312 m³.and needs to be disposed at the areas shown in Annex 6.	Complied as removed asphalt is reused on local roads; excavated soil is recused in embankment filling and spoil is taken to local authorities authorized dumping areas
	Competition for water resources	42.Conduct consultation with local authorities to identify sources of water (for spraying and other construction requirements) that will not compete with the local population.	Complied by conducting an analysis before selecting sources in consultation with environmental specialists of CEP
	Air pollution due to exhaust emission from the operation of construction machinery	43. Maintain construction equipment to good standard and avoid, as much as possible, idling engines. 44. Banning the use of machinery or equipment that cause excessive pollution (e.g., visible smoke).	Complied and no air pollution or noise pollution due to construction was discernable in monitoring
	Disturbance of adjacent settlements due to elevated noise levels	45. Restrict work between 7:00 am and 6:00 pm within 500m of the settlements. 46. A limit of 70 dBA will be set in the vicinity of the construction site and strictly followed. 47. Noise control at source (using less noisier equipment, mufflers, dampeners, enclosures, proper maintenance of equipment, providing training to operators, etc.), noise control at path (using natural structures with screening properties and acoustic barriers).	Complied: No violation of national standards by noise levels was detected in construction sites
	Soil compaction due to operation of heavy equipment	48. Confine operation of heavy equipment within the corridor that is absolutely necessary for the road construction to avoid soil compaction and encroachment into agricultural used land close to the road.	complied by the contractor

Activity / Location	Potential Impact	Mitigation measures	Status of Compliance
Reconstruction of pavement inclusive widening of existing road	Dislocation In consultation with environmental specialists of CEP conducted an analysis before selecting sources or involuntary resettlement of of people (Within settlements, encroachment into private and residential land).	49.ImplementLARP covering assessment of loss and compensation procedure	Complied: LARP is in place and compensation payments for actual loss and resolution of issues through GRM is in progress with PIURR supervision
	Loss of businesses and income of people operating their business within the existing RoW	50. Implement LARP covering assessment of loss and compensation procedure. 51. Inform all residents and businesses about the nature and duration of work well in advance so that they can make necessary preparations. 52. Limit dust by removing waste and soil quickly; by covering and watering stockpiles, and covering soil with tarpaulins when carried on trucks 53. Increase the workforce and use appropriate equipment to complete the work in minimum time in the important areas. 54. Avoid construction work in sensitive times like festivals near religious places. 55. Contractors (and sub-contractors) need to be informed that they are not allowed to hunt/poach in the project area of influence.	Complied: Awareness was created about LARP by PIURR and CSC Social Specialists prior to commencement of civil work; additional payments for actual loss through GRM resolution was done; monitoring results show no violation of national standards of water quality, air quality and noise level in critical area and near sensitive receptors; no complaints by communities about public nuisance due to construction activities we reported;
	Damage to infrastructure, supply cuts of infrastructure services such as water supply pipes and other facilities, wastewater discharge facilities, electricity lines etc.	56. Measures will be ensured in engineering design to avoid any disturbance to the existing infrastructure. 57. Prior to construction start the respective service agencies will be informed about the construction work. 58. Coordinate with respective agencies and provide prior information to the public in case of any required disruption in services during construction 59. Consult with the affected people using project implementation. 60. Make the project contractors aware of any significant issues resulting from loss of electricity. 61. Inform people in advance of any power cuts and the duration of the cut will be made clear in order that they can plan around the lack of power.	Complied by Contractor with supervision of PIURR with support of CSC; also, prior awareness among public about work activities were created; contractors coordinated with relevant service provided before any replacement and replaced damaged facilities; access roads will be rehabilitated on completion of work
	Possible damage to properties and community facilities. Construction sites.	62. Immediately repair and/or compensate for any damage caused by construction works and activities to existing communities and their property and facilities 63. Maintain access roads used for transport of construction materials and other construction related activities are maintained to ensure that they remain at least in their pre- project condition for the duration of the project.	

Activity / Location	Potential Impact	Mitigation measures	Status of Compliance
	Noise exceeding applicable noise standards. Vibrations may result in damage to local infrastructure, including private property and local (haulage) roads.	64. Limit the use of heavy machinery to the existing RoW especially in the vicinity of agricultural land. 65. maintenance of construction equipment in good condition and avoiding, as much as possible, idling of engines. 66. banning the use of machinery or equipment that cause excessive pollution (e.g., visible smoke). 67. Utilize construction machinery with low emission levels. 68. limiting construction work to 7:00 am – 6:00 pm within 500 m of settlements, and by limiting hauling traffic through settlements. 69. Within the traversed 13 villages applicable noise standards will be complied with as far as technically feasible by means of noise measurements as indicated in the EMoP and in case of exceed of standards, ascribe of time restrictions for construction activities between 7:00 am and 6:00 pm. 70. Noise control at source (using less noisy equipment, mufflers, dampeners, enclosures, proper maintenance of equipment, providing training to operators, etc), noise control at path (using natural structures with screening properties and acoustic barriers). 71. For potential damages to local infrastructure, including private property and local (haulage) roads, compensation procedures will have to be established prior to the beginning of construction and approved by the CSC. 72.Put in place grievance redress procedures to facilitate communication between the contractor and potentially affected people. In addition, haul routes and construction site access roads should be discussed and jointly approved between the contractor and local officials to minimize the risk of conflicts.	Complied by Contractor and noise levels were within national standards during construction according to monitoring results; no complaints regarding noise were reported; compensation was paid through GRM resolutions for few cases of unavoidable damage caused by vibration in buildings adjacent to RoW.

Activity / Location	Potential Impact	Mitigation measures	Status of Compliance
	Construction activities close to building structures, particularly within villages. Aggregate extraction. Haulage of aggregates and construction equipment.	73. Advise the community members on road safety with the key messages reinforced with communities throughout construction. 74. Place clear signs at construction sites including borrow pits, in view of the public, warning people of potential dangers such as moving vehicles, hazardous materials and excavation and raising awareness on safety issues. 75. Heavy machinery will not be used after day light and all such equipment will be returned to its overnight storage area/position before night. 76. All sites including storage areas will be made secure, prohibiting access by members of the public by fencing when appropriate. 77. Install barriers to keep pedestrians away from hazardous areas such as constructions sites and excavation sites. 78. Install signage at the periphery of the construction site advising road users that construction is in progress. 79. Strictly imposing speed limits on construction vehicles along residential areas and where other sensitive receptors such as schools, medical places and other populated areas located. 80. Provide security personnel in hazardous areas to restrict public access. 81. If necessary, provide safe passageways for pedestrians crossing the construction site and for people whose access has been disrupted due to construction woks.	Complied by Contractors according to traffic management plan and health and safety plan of the SSEMP; No incidences of casualties among community members due to construction activities were reported
Operation of borrow areas and quarries	Potential disfigurement of landscape, vegetation losses and damage to access roads Increased dust emission	91. Refrain from storing material near surface waters to prevent siltation or obstruction of water ways. This refers particularly to the floodplains of Vakhsh river, Surkhob river (реки Сурхоб) and Tairsu river. 92. Wet the unpaved routes which go next to settlements to suppress dust pollution when hauling material from borrow pits and provide covers for the load of all hauling vehicles to prevent	Complied by Contractor; SSEMP prepared and approved by PIURR; Contractor obtained license for quarry operation; required quarrying was limited as excavated material from road expansion were re-used; quarry siters were in already quarrying areas.

Activity / Location	Potential Impact	Mitigation measures	Status of Compliance
	Siltation and obstruction of surface waters	dust pollution. Also wetting the aggregate load reduces potential dust emissions. 84. Implement air quality management plan, including transportation and post-closure rehabilitation of borrow sites. 85. The hauling traffic should be carried out only between 7:00 am and 6:00 pm. 86. Used machinery needs to be in good technical condition and properly maintained, so that no leakages of oil or any other pollutants occur. 87. Before starting material extraction, the contractor will obtain the environmental permit from the CEP which may also include provisions for landscaping measures after finalization of the extraction activities. 88. Before starting extraction activities, it needs to be confirmed that there is a valid license for the quarrying activities issued by the responsible authorities/agencies. 89. Implement material management plan which indicates the location of the proposed extraction site as well as rehabilitation measures and implementation schedule for the borrow areas and access roads. The plan needs to address the sensitive issues of avoidance of transportation through residential areas as far as technically feasible and closure rehabilitation.	
	Loss of valuable ecological structures if the selected disposal sites are not carefully selected.	90. No agricultural area or river floodplain will be selected as disposal site. Minimum distance to any water courses must be at least 100 m. 91. Disposal sites will be preferably on barren land without any wooden vegetation.	Complied by disposal only at areas (dumping sites) authorized by the local authorities far away from water courses
Operation of Asphalt Plant and Aggregate Crushers	Increased dust emission and noise emission	92.Careful site selection of aggregate crusher in order not to interfere with any sensitive receptor. Distance to next settlement and residential houses at least 1,000 m downwind. Site selection for aggregate crusher has to be approved by PIURR.	Com plied: Aggregate crusher and Asphalt plant installed outside settlements with permission from relevant authorities; fire protection equipment and PPE provided in sufficient quantity and equipment to handle spill were kept in place. No pollution indicated in the EMoP monitoring results for these industrial sites No asphalt plant in Lot-2 as they obtain apparat from a registered supplier
	Odor emission and safety risks	93. Asphalt plants will be 1,000 m downwind from any settlements and residential houses. 94. Provide spill and fire protection equipment and submit an emergency response plan (in case of spills, accidents, fires and the like) to the authority in responsibility prior to operation of the plant. 95.Secure official approval for installation and operation of asphalt plants from MoT.	

Activity / Location	Potential Impact	Mitigation measures	Status of Compliance
	Water pollution due to spilled bitumen	96. Receive all relevant permissions prior to commencing operation of the asphalt plant. 97. Obtain the CSC's approval on the site selection for the asphalt plant and aggregate crusher. 98. Bitumen will not be allowed to enter either running or dry streambeds, nor will it be disposed of in ditches or small waste disposal sites prepared by the contractor. 99. Storage areas should be lined with impermeable layer to mitigate impacts of potential spills. As a minimum, these areas must be designed so that any spills can be immediately contained and cleaned up. 100. Bitumen storage and mixing areas must be protected against spills and all contaminated soil must be properly handled according to legal environmental requirements. Such storage areas must be contained so that any spills can be immediately contained and cleaned up. 101. Provide spill and fire protection equipment. 102. Implement an emergency response plan (in case of spills, accidents, fires and the like) prepared as part of the SSEMP prior to operation of the plant. 103. Asphalt plants will not be located close to plantations and productive land. 104. Bitumen storage and mixing areas will be protected against spills. 105. All contaminated soil will be properly handled according to legal environmental requirements. Such storage areas will be contained so that any spills can be immediately contained and cleaned up. 106. Contaminated storm water and wastewater processing should be captured and recycled by a system with the following specifications:	complied to all required conditions of SSEMP by the Contractor with the supervision and support of PIURR and CSC; no pollution of waterbodies or by emissions were discernable ion water quality / air quality monitoring

Activity / Location	Potential Impact	Mitigation measures	Status of Compliance
		a. The system's storage capacity must be sufficient to store the runoff from the bunded areas generated by 20 mm of rain. b. Water captured by the bunds should be diverted to a collection pit and then pumped to a storage tank for recycling. c. An outlet (overflow drain) in the bund, 1 m upstream of the collection pit, should divert excess rainwater from the bunded area when the pit fills due to heavy rain (more than 20 mm of rain over 24 hours). d. Collection pits should contain a sloping sludge interceptor, to separate water and sediments. The sloping surface enables easy removal of sludge and sediments. e. Wastewater should be pumped from the collection pit to a recycling tank. The pit should have a primary pump triggered by a float switch and a backup pump which automatically activates if the primary fails. f. Wastewater stored in the recycling tank needs to be reused at the earliest possible opportunity. This will restore the system's storage capacity, ready to deal with wastewater generated by the next rainfall event. Uses for recycling tank water include concrete batching, spraying over stockpiles for dust control and washing out agitators.	
Bridge and Culvert Reconstruction Works	Possible alteration of surface water hydrology resulting in increased sediment by increased soil erosion at construction site	107. Store the material at a safe distance from nearby surface waters. 108. Provide long-term stockpiles with a grass cover. 109. Implementation of settlement ponds at locations where construction sites come close to natural water courses to retain sediments and mitigate possible impacts on water hydrology. 110. Implement the waste management plan which considers sensitive receptors (rivers and their floodplains). 111. Conduct regular maintenance of the construction equipment to prevent oil leaks. 112. Chemicals and oil will be stored in secure locations, impermeable, and bound area far away from surface waters.	Complied by Contractor and monitored by PIURR; waste management plan of the SSEMP was implemented; settlement ponds were installed and all other relevant activities of the SSEMP were adhered to; water quality monitoring indicated no impacts on water bodies.

Activity / Location	Potential Impact	Mitigation measures	Status of Compliance
		113. When carrying out corrosion treatment, the contractor needs to present a method statement on this. 114. The bridge reconstruction debris will be removed in an environmentally safe manner. 115. Prepare a method statement or plan for the execution of bridge construction works including measures that will be undertaken to address adverse environmental impacts such as erosion of river embankment and siltation of watercourses that may result from such activities. 116. Storage of any hazardous construction material will be on sealed surfaces only to prevent leakages into the groundwater.	
Establishment and operation of contractor's yard	Potentials oil and water pollution	117. Implement the Construction camp management plan prepared as part of the SSEMP in reference to World Bank Group's Workers' Accommodation: Processes and Standards. The plan will indicate: • Site location, surface area required and layout of the work camp. The layout plan will also contain details of the proposed measures to address adverse environmental impacts resulting from its installation. • Sewage management plan for provision of sanitary latrines and proper sewage collection and disposal system to prevent pollution of watercourses. • Waste management plan covering provision of garbage tons, regular collection and disposal in a hygienic manner, as well as proposed disposal sites for various types of waste (e.g., domestic waste, used tires, etc.) consistent with appropriate regulations. • Description and layout of equipment maintenance areas and lubricant and fuel storage facilities including distance from water sources and irrigation facilities. Storage facilities for fuels and chemicals will be located away from watercourses. Such facilities will be bounded and provided with impermeable linings to contain spillage and prevent soil and water contamination. 118. Prior to the commencement of work the site installations will be inspected for approval. 119. The selected site will not be on top of ground water area or near surface waters.	Complied: SSEMP and sub-plans (worker's camp management plan, waste and material management plan, etc.) prepared and approved by PIURR Prior to commencement of mobilization; the location of camps has been inspected, and necessary permits were obtained.; Water disposal was in agreement with local authorities for domestic waste disposal. all facilities were managed according to the approved SSEMP with emergency plans. During operations, all the EHS conditioned were monitored and any deficiencies were attended immediately
	Competition for water resources	Prior to establishment of the work camps. 120. Indicate proper sources of drinking and construction water which won't compete with local needs. 121. Conduct consultations with local authorities to identify sources of water that will not compete with the local population.	Complied by conducting an analysis before selecting sources in consultation with environmental specialists of CEP

Activity / Location	Potential Impact	Mitigation measures	Status of Compliance
	Health and safety risks to workers and adjacent communities	122. Implement the waste management plan prepared as part of the SSEMP. 123. Provide sanitary latrines and garbage bins at construction sites. 124. Periodically clear the sanitary latrines and garbage bins. 125. Do not allow open burning of waste i. For health and safety protection of workers and adjacent communities, the following will be provided: ii. adequate health care facilities (including first aid facilities) within construction sites; iii. training of all construction workers in basic sanitation and health care issues, general health and safety matters, and on the specific hazards of their work. iv. personal protective equipment for workers, such as safety boots, helmets, gloves, protective clothing, goggles, and ear protection in accordance with legal legislation. v. clean drinking water to all workers. vi. adequate protection to the public, including safety barriers and marking of hazardous areas. vii. safe access across the construction site to people whose settlements and access are temporarily severed by road construction. viii. adequate drainage throughout the camps so that stagnant water bodies and puddles do not form. ix. sanitary latrines and garbage bins in construction site, which will be periodically cleared by the contractors to prevent outbreak of diseases. Where feasible the contractor will arrange the temporary integration of waste collection work sites into existing waste collection systems and disposal facilities of nearby communities	Complied: Medical point established with professionals. Training on health and safety conducted regularly. All workers were provided with PPE. Trainings on use of PPE conducted regularly. Clean drinking water provided. The contractor put up warning signs at each excavation site and at sites where work was in progress. The contractor checked the installed signs and replaced /reinstalled them in critical locations; Waste management plan of the SEMP was implemented with collaboration of local authorities

Activity / Location	Potential Impact	Mitigation measures	Status of Compliance
	Worker's health and soil / water pollution in and around equipment maintenance and fuel storage areas	126. The contractor will hire a qualified HSO who will provide safety training to the staff according to the requirements of the individual workplace. Prior to the commencement of works, the work site personnel will be instructed about safety rules for the handling and storage of hazardous substances (fuel, oil, lubricants, bitumen, paint etc.) and also the cleaning of the equipment. In preparation of this the contractor will establish a short list of materials to be used (by quality and quantity) and provide a rough concept explaining the training / briefing that will be provided for the construction personnel. 127. Locate storage facilities for fuels and chemicals away from watercourses. 128. Management and storage of fuel, waste oil, hazardous waste will be planned in accordance with the IFC EHS General Guidelines on Hazardous Materials Management. This includes the use of appropriate secondary containment structures capable of containing the larger of 110 percent of the largest tank or 25% percent of the combined tank volumes in areas with above-ground tanks with a total storage volume equal or greater than 1,000 litres. 129. Store and dispose waste/used oil consistent with environmental legal requirements.	Complied: A Health and safety officer was hired; training on health and safety were conducted for all workers before commencing the project every working day before starting works in toolbox talk format; and also, regular training; awareness creation on communicable diseases in collaboration with health relevant health authorities. The storage facilities for fuel and chemicals were in safe designated area of the camp away from water courses. There were no any watercourses near the construction camp
	Road construction projects bear a high potential risk to affect local communities and the health and well-being of those that live in or near to the temporary work camps by supporting the spread of STD and HIV/AIDS. In addition, the transport	130. Providing information to workers, encouraging changes in individual's personal behavior and encouraging the use of preventive measures. The goal of the information is to reduce the risk of HIV / STD transmission among construction workers, camp support staff and local communities. 131. To avoid risk of spread of the corona virus the FIDIC guidance memorandum "FIDIC COVID-19: On-site working and project team organization" will be adhered to construction site. 132. Implement the COVID-19 Health and Safety Management Plan and emergency response plan prepared in accordance with the relevant government regulations and guidelines on	Complied by Contractor with awareness creation and training with the support of local health authorities
	sector itself actually helps the epidemic, as infrastructure and associated transport services give people and infections mobility. Possible risks on construction sites also arise regarding the possible spread of the corona virus.	COVID-19 prevention and control or, where relevant, with international good practice guidelines20 133. If a suspected incidence of COVID-19 is reported of any member of the project team during implementation of the project-related activity (including consultation and public participation), the activity will stop immediately for a review of the adequacy of the safety system of work and a corrective action will be implemented to address any identified gaps in the safety system of work prior to recommencement of the activities. All such incidence will be reported to ADB immediately for review.	Complied by the Contractor

Activity / Location	Potential Impact	Mitigation measures	Status of Compliance
	Social conflict between the workers and local people	134. Arrange the facilities, services, and water supply of the work camp so that it will not compete on the same resources as nearby communities. 135. Employ, to the largest extent feasible, people from the local communities to the workforce. Local communities will also be preferred, to largest extent feasible, when employing people for the tree planting works, drainage cleaning, and other suitable tasks.	Complied by the contractor
Traffic impairment	Traffic impairment	136. Submit the traffic management plan to local traffic authorities prior to mobilization. The plan will include action plan to mitigate impacts from transport of hazardous and toxic materials to the traffic emergency response plan for the operation phase of the road. 137. Provide information to the public about the scope and schedule of construction activities and expected disruptions and access restrictions 138. Allow for adequate traffic flow around construction areas. 139. Provide adequate signalization, appropriate lighting, well-designed traffic safety signs, barriers and flag people for traffic control.	Complied: Traffic management plan was agreed with Department of the State Automobile Inspection of the Ministry of Internal Affairs of the Republic of Tajikistan and implemented. Awareness creation among communities and required action to prevent inconvenience to public were attended.
	Potential Impact on Community Health and Safety	140. Implement a traffic management plan that will set out how access along the project road will be maintained safely during construction. 141. Provide clear signs to guide road users and advise them on changes to road priorities in order to make their journey as smooth as possible and to ensure road safety as unanticipated changes e.g., change of lane will be avoided. 142. Ensure access in areas to be closed temporarily by providing temporary/alternative access. 143. Provide adequate training to the workers on traffic control prior to commencing operations.	Complied by Contractor adhering to the approved Traffic Management Plan, and public consultation prior to construction
Archaeological chance finds	Potential damage to archaeological artefacts due to construction activities, particularly earthworks	144. In the event of the unexpected discovery of archaeological objects during construction operations, the contractor will immediately inform the CSC who will notify the Institute of Archaeology / Ministry of Culture and PIURR for further instructions. In this case the construction works at the localized site would be stopped until Institute of Archaeology give clearance for the continuation of the operations. 145. Works will resume only after appropriate measures have been taken as requested by the Institute of Ministry of Culture and confirmation has been received that works may continue.	Complied: No unexpected discovery of archaeological objects during construction was reported

Activity / Location	Potential Impact	Mitigation measures	Status of Compliance
Closure of construction sites	Potential impacts to landscape aesthetics occur if the camp site construction associated facilities such as borrow areas are not properly cleaned and restored during construction closure. Possible impacts which may arise are the disfigurement of landscape due to improper disposal of surplus material. Spoil of waste (construction debris, metallic scrap, etc.) if not properly disposed of	146. After completion of construction works the contractor will execute all works necessary to restore the sites to their original state (removal and proper disposal of all materials, wastes, installations, surface modelling if necessary, spreading and levelling of stored topsoil). 147. After completion of construction and rehabilitation works, and after the use of borrow pits, the landscape will be restored to a standard that is of equal quality to its original condition. Rehabilitation measures may not be necessary for borrow areas still in operation after road works have finished.	Civil Work is still in progress in Lot-2 but disposal of excess of earth material and spoil is carried out according to SSEMP

APPENDIX No.2 Environmental Monitoring Data

Table 11: Results of Water Quality Monitoring for Lot-2 in 3rd quarter, 2025.

Parameter			Suspended solids, mg/l	PH	Mineralization, mg/l	BOD_5, mg/l	COD mg/l	Dissolved oxygen, mg/l	Petroleum products, mg/l	Coli-index, pcs/l
Tajikistan standard	**Fishery standard**		75	6,5-8,8	1000	3		at least 4,0	0,05	1000
	Drinking water		25	6,5-8,8	1000	3	30	at least 4,0	0,05	3
Location										
	WQ1 (Camp Water **supply)**	3rd Quarter 2025	1.1	6.9	110	0.4	1.1	7.2	0	>3
	WQ2 Diversion channel km 10+060 500 m above									
		3rd Quarter 2025	5.1	7.1	135	0.9	3.2	6.3	0	24
	WQ3 Diversion channel km 10+060 500 m below	3rd Quarter 2025	5.0	7.1	135	1.0	3.2	6.3	0	24

Table 12: Results of Air Quality Monitoring for Lot -2 in 3rd quarter, 2025.

Parameter		CO	CO_2	NO	NO_2	SO_2	TSP	PM_{10}	$PM_{2.5}$
MPC (mg/m^3)		5	3900	0.4	0.085	0.5	0.15	0.16	0.3
AQ1 Contractor's camp.	3rd quarter 2025	0.467	491	0.0044	0.0036	0.0017	0.0126	0.0132	0.0139
AQ2 km 9+722.	3rd Quarter 2025	0.676	731	0.0049	0.0038	0.0022	0.0129	0.038	0.0144
AQ3 **km11+600**.	3rd Quarter 2025	0.552	594	0.0041	0.0032	0.0020	0,0124	0.0131	0.0137
AQ4 km12+400.	3rd Quarter 2025	0.603	642	0.0039	0.0035	0.0018	0.0121	0.0128	0.0135
AQ5 Village Ergash	3rd Quarter 2025	0.441	528	0.0037	0.0029	0.0018	0.0124	0.0127	0.0134
AQ6 km39+400.	3rd Quarter 2025	0.485	554	0.0035	0.0027	0.0018	0.0120	0.0127	0.0133
AQ7 Crushing plant	3rd Quarter 2025	0.491	573	0.0038	0.0032	0.0019	0.0121	0.0129	0.0136

Table 137: Results of Noise Monitoring 3rd quarter, 2025 of Lot -2

No.	Location	National standards (residential and industrial).		Monitoring Data 3rd Quarter 2024	
				Max	min
AN1	Contractor's camp	55	45	45.3	41.0
AN2	Km 9+722	75	75	63.4	55.9
AN3	Km 11+600	75	75	59.7	52.5
AN4	Km 12+400.	75	75	57.4	50.1
AN5	Village Ergash near school	75	75	54.7	49.9
AN6	Km 39+400	75	75	58.9	51.2
AN7	Crushing plant.	80	80	56.4	47.8

APPENDIX NO.3

PHYSICAL PROGRESS OF CONSTRUCTION ACTIVITIES

Table 14: Civil Works' Progress of Lot- 1

Bokhtar – Levakant km0+000 to 9.72

No.	Item Description	Unit	Project Quantity	Performed Quantity during September 30, 2024	Total Performed Quantity	Performed percentage
1	Culverts	pcs	2	0	2	100%
2	Bridges	pcs	3	0.2	3	100%
3	Retaining walls	pcs \m	5/550	0	550	100%
4	**Earthworks on the main road**					
5	Embankment cut to fill	m3	75 896	0	75 896	100%
6	Excavation in the cut to waste	m3	39 290	0	39 290	100%
7	**Earthworks on exits and junctions**					
8	Embankment cut to fill, Grade II soil	m3	158	0	158	100%
9	Excavation in the dump cut to waste, Grade II soil	m3	6 623	0	6 623	100%
10	**Pavement on the main road**					
11	The bottom layer of the base	m3	65 862	446	65 862	100%
12	Crushed stone base	m3	56 242	1283	56 242	100%
13	Asphalt base course 100 mm thick	m2	234 898	82773	234 898	100%
14	Bottom layer of asphalt concrete pavement 70mm thick	m2	240 059	1 232	240 059	100%
15	Top layer of asphalt concrete pavement 50mm thick	m2	240 059	1 240	240 059	100%
16	**Pavement on the intersections and exits**					
17	Granular sub-base	m3	5 889	0	5 889	100%
23	Bottom layer of asphalt concrete pavement 60mm thick	m2	15 783	0	15 783	100%
24	Top layer of asphalt concrete pavement 60mm thick	m2	5 771	0	5 771	100%
25	Top layer of asphalt concrete pavement 40mm thick	m2	15 783	0	15 783	100%

No.	Item Description	Unit	Project Quantity	Performed Quantity during September 30, 2024	Total Performed Quantity	Performed percentage
26	**Sidewalks**					
27	Granular sub-base layer 200 mm thick	m3	3 333.84	0	3 334	100%
28	120mm thick base of SGM (Sand Granular Mixture)	m3	49 977.12	0	49 977	100%
29	Asphalt concrete pavement 40 mm thick	m2	63 646	0	63 646	100%
30	Curb stonesBR100.20.8	m	32,750.00	0	32,750.00	100%
31	Curb stonesBR100.30.15	m	7,158.00	0	7,158.00	100%
32	Curb stonesBR100.30.18	m	17,227.00	1086	17,227.00	100%
33	Curb stonesBR100.45.18	m	19,102.00	252	19,102.00	100%
34	Curb stonesBR100.60.20	m	619.00	0	619	100%
35	Open Drainage Channel/Chutes on Main Road LK-1-3	each	3932	136	3932	100%
36	Open Drainage Channel/Chutes on Main Road LK-2-3	each	1004	31	1004	100%
37	Removal and installation of sewerage lines, including all incidental works and materials as shown on the drawings	m	5,534.00	0	5,534.00	100%
38	Removal of telephone lines, including all incidental works and materials as shown on the drawings	m	6830	0	6830	100%
39	Installation of fibre optic cable, including all incidental works and materials as shown on the drawings	m	8487	0	8487	100%
40	Removal and installation of water supply lines, including all incidental works and materials as shown on the drawings	m	7,128.00	0	7,128.00	100%
41	Removal and installation of gas supply lines, including all incidental works and materials as shown on the drawings	m	6,714.00	0	6714	100%
42	Relocation of gas supply lines at road crossings, including all incidental works and materials as shown on the drawings	each	11.00	0	11	100%

No.	Item Description	Unit	Project Quantity	Performed Quantity during September 30, 2024	Total Performed Quantity	Performed percentage
Note: Approximate percentage of physical progress is determined by using varied weightage. Considering the above-mentioned major items, the physical progress is **100 %.**						

Table 15: Civil Works' Progress of Lot- 2

Levakant - Okmazor km 9.72-40+000

No. item BOQ	**Name of the works**	**Unit of measurement**	**Scope of work (according to the design)**	**Execution of works**		
				For the month of September 2024	**From the very beginning of construction**	**Percentage of completion (%)**
1	**2**	**3**	**4**	**5**	**6**	**7**
1	Preparatory work (mobilization)	lump sum	1		1	100%
2	Removing trees adjacent to the road	pcs	115		115	100%
3	Removing the old asphalt	м^3	30 808		30 808	100%
4	Embankment	м^3	148 648	3036	148 648	100%
5	Excavation works (cut to waste)	м^3	1 135 214	1050	1 135 214	100%
6	Rock works	м^3	616 441	52396	616 441	100%
7	leveling work	м2	196 247	9298	1196 247	100%
8	Subbase C3 80мм	м^3	128 785,18	6456	128 785,18	100%
9	Base C5 40мм	м^4	137488,54	12712	137488,54	100%
10	Binder course h=7cv	м2	284 766	7000	284 766	100%
11	Curb stones 100x30x18	м	4 855	1000	4 855	100%
Construction of new rectangular culverts						
12	*Cross channel 1.0 x 1.0*	м	125,17		125,17	100%

No. item BOQ	Name of the works	Unit of measurement	Scope of work (according to the design)	Execution of works		
				For the month of September 2024	From the very beginning of construction	Percentage of completion (%)
Construction of new rectangular culverts 6,00 X 2,50 дар ПК334+32						
13	Casting of concrete 10 cm	м^3	31,2		31,2	100%
14	Casting of concrete slab	м^3	138,6		138,6	100%
15	Casting of concrete walls	м^3	105		105	100%
16	Concrete laying of the top plate	м^3	150,15		150,15	100%
17	Casting of inlet and outlet	м^3	71,6		71,6	100%
Construction of round culverts						
18	*culvert* Ø1000	м^3	7,43		7,43	100%
19	*culvert* Ø1500	м^3	6,48		6,48	100%
Reinforcement concrete trays						
20	type L 2-3	pcs	42		42	100%
	Type LK 2-3	pcs	929		929	100%
21	Cast in site ditch (0,2м3 concrete thickness 0,08м) 14553м3	м	57 000		57 000	100%
Reinforcement concrete slabs					0	
22	type PP 2	pcs	49		49	100%
	Type PP 2a	pcs	4		4	100%
bridge №5			pcs			
23	*pile*	pcs	8		8	100%

No. item BOQ	Name of the works	Unit of measurement	Scope of work (according to the design)	Execution of works		
				For the month of September 2024	From the very beginning of construction	Percentage of completion (%)
24	*Foundation, pile cap*	м^3	37		37	100%
25	*Cabinet wall*	м^3	14,38		14,38	100%
26	*Installation of the beams 33 метр*	pcs	7		7	100%
Green zone						
27	Planting trees	pcs	6000		520	8.67%
Relocation of utility lines:						
28	Overhead power lines 10кв ва 04кв	м	1 253		626.50	50%
29	Overhead power lines 10кв ва 04кв	м	244		240	98.3%
30	Overhead communication lines	м	21 846		26 020	119%
31	Water supply line, diameter -160мм	м	1 789		1 400	78.25%

Note: Approximate percentage of physical progress is determined by using varied weightage. Considering the above-mentioned major items, the physical progress is **95.50%.**

APPENDIX NO.4 PHOTOS OF PROJECT ACTIVITIES FROM JULY TO DECEMBER 2025

	
Water sampling, diversion channel km 10+060, 100 m above.	Water sampling, diversion channel km 10+060, 100 m below.

	
Instrumental measurements.	Instrumental measurements.

	
During noise level measurements.	During noise level measurements.
	
Photo. Medical center at the contractor's camp.	Photo. Fire shields.

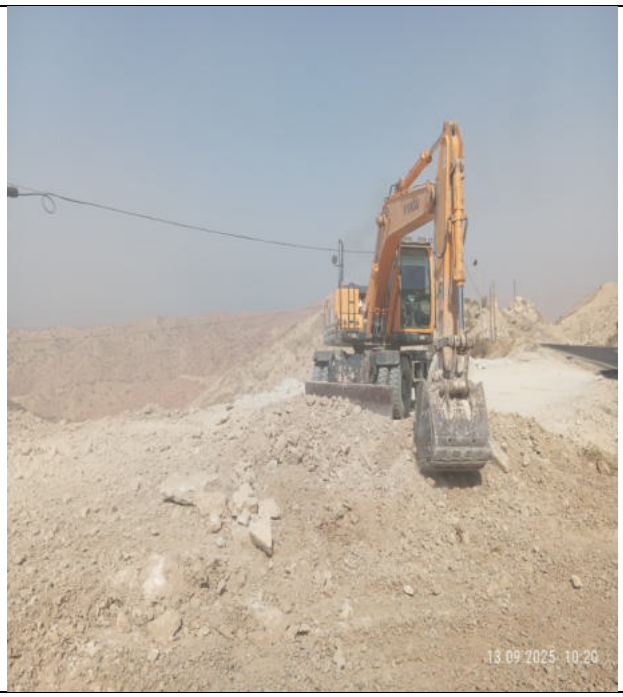
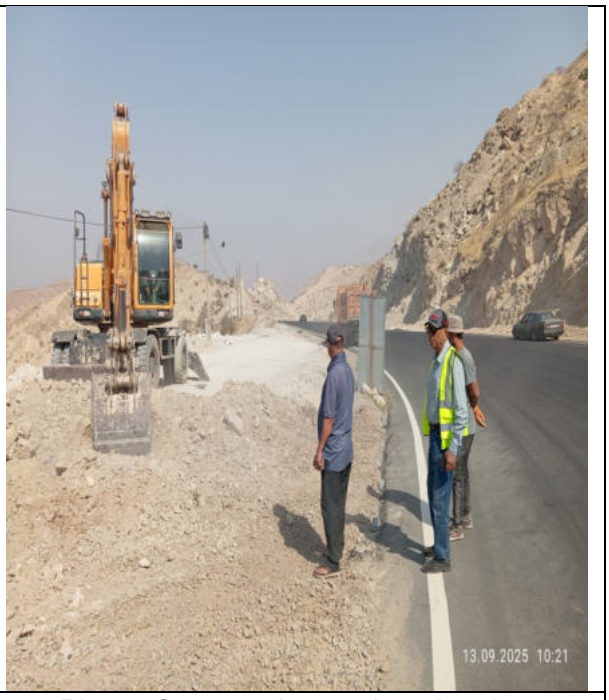
	

Photo. Construction work at the site.	Photo. Construction work at the site.