

Environmental Monitoring Report

January – June 2021
October 2021

Kyrgyz Republic: Central Asia Regional Economic Cooperation Corridors 1 and 3 Connector Road Project

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Abbreviations

ADB	- Asian Development Bank
ACP	- Asphalt Concrete Plant
CAREC	- Central Asia Regional Economic Cooperation
CSC	- Construction Supervision Consultant
EMP	- Environmental Management Plan
SSEMP	- Site Specific Environmental Management Plan
IPIG	- Investment Projects Implementation Group
m	- meter
km	- kilometer
KR	- Kyrgyz Republic
MPC	- Maximum permissible concentration
MAL	- Maximum Acceptable Level
MoTC KR	- Ministry of Transport and Communication of KR
MF KR	- Ministry of Finance of the Kyrgyz Republic
MoCISYP KR	- Ministry of Culture, Information, Sports and Youth Policy of the Kyrgyz Republic
SCEC	- State Committee on Ecology and Climate
NTDEP	- Naryn Territorial Department of Environmental Protection
SIETS	- State Inspection for Environmental and Technical Safety under the Government of the Kyrgyz Republic
DPSSSED	- Disease Prevention and State Sanitary and Epidemiological Surveillance Department of the Ministry of Health of the Kyrgyz Republic
TR	- Terms of Reference
SR	- Safety Rules
FS	- Feasibility Study
CSP	- Crushing and Screening Plant
RME	- Road Maintenance Enterprise
HCHS	- Historical and Cultural Heritage Site;
EIA	- Environmental Impact Assessment
LP	- Labor Protection
HS	- Health Safety
LLC	- Limited Liability Company
HCHSPP	- Historical and Cultural Heritage Site Protection Project
PPE	- Personal Protective Equipment

1. INTRODUCTION.

1.1 Preamble.

1. This Report is a semi-annual environmental monitoring review of the CAREC Corridors 1 and 3 Connector Road Section 2B Epkin (Km : 89+500) - Dyikan (Bashkugandy) (Km: 159+200) Project and is the fourth semi-annual report covering the period from January to July 2021.

2. In connection with termination of the contract on December 1, 2020, concluded between the MoTC KR and the contracting company Todini Costruzioni Generali SPA, the MoTC KR is currently conducting procedures to organize a new tender for the selection of a contractor to carry out construction work on the project section. Based on this, since December 2020, construction work on the project site has not been carried out.

3. This Report contains reports on the progress of work and changes related to the prevention of negative impacts on the environment. Results are based on site visits by a local environmental specialist in the first half of 2021.

1.2 Headline Information.

4. The project road Epkin (89 + 500 km) - Dyikan (Bashkugandy) (159 + 200 km)) is a 70-kilometer highway from east to west. As a rule, this section follows the existing road to Bashkugandy (km 159). This entire section is located within the Naryn region and crosses the small western part of the Kochkor district (Kochkor is as an administrative center); while most of them are located in Jumgal (Chaek is as an administrative center).

5. The road is 70 km long from Epkin village (89 + 500 km) to Bashkugandy village (159 + 200 km) runs through the Kochkor valley through the Kyzart Pass (2664 m) to the Jumgal depression. The section runs west to Bashkugandy village, passes through a series of settlements interspersed with agricultural fields with a two-lane roadway configuration. These western parts of the Kochkor district represent vast sections of agricultural land intended for agriculture and livestock husbandry. The road ascends to about 2600 m, which highest point is on the Kyzart Pass, after which it descends to the Jumgal district. The high-mountainous part is the border between the Kochkor and Jumgal districts, as well as the border of the water-parting lines of the Chui and Jumgal rivers. This high point of the road appears to be a pass point between mountain ranges running parallel east to west of Naryn Region. The area is characterized as hilly and mountainous and covered with grasses suitable for grazing.

6. The CAREC Corridors 1 and 3 (Epkin Road Section (km 89 + 500) - Dyikan (Bashkugandy) (km 159 + 200) Project aims to improve transport communication and market access in the Kyrgyz Republic. The Project will result in efficient movement of freight and passenger traffic along the CAREC corridors 1 and 3, improving the safety of both road users and pedestrians, and minimizing the road's environmental impact in terms of noise from passing traffic by reconstructing the asphalt pavement.

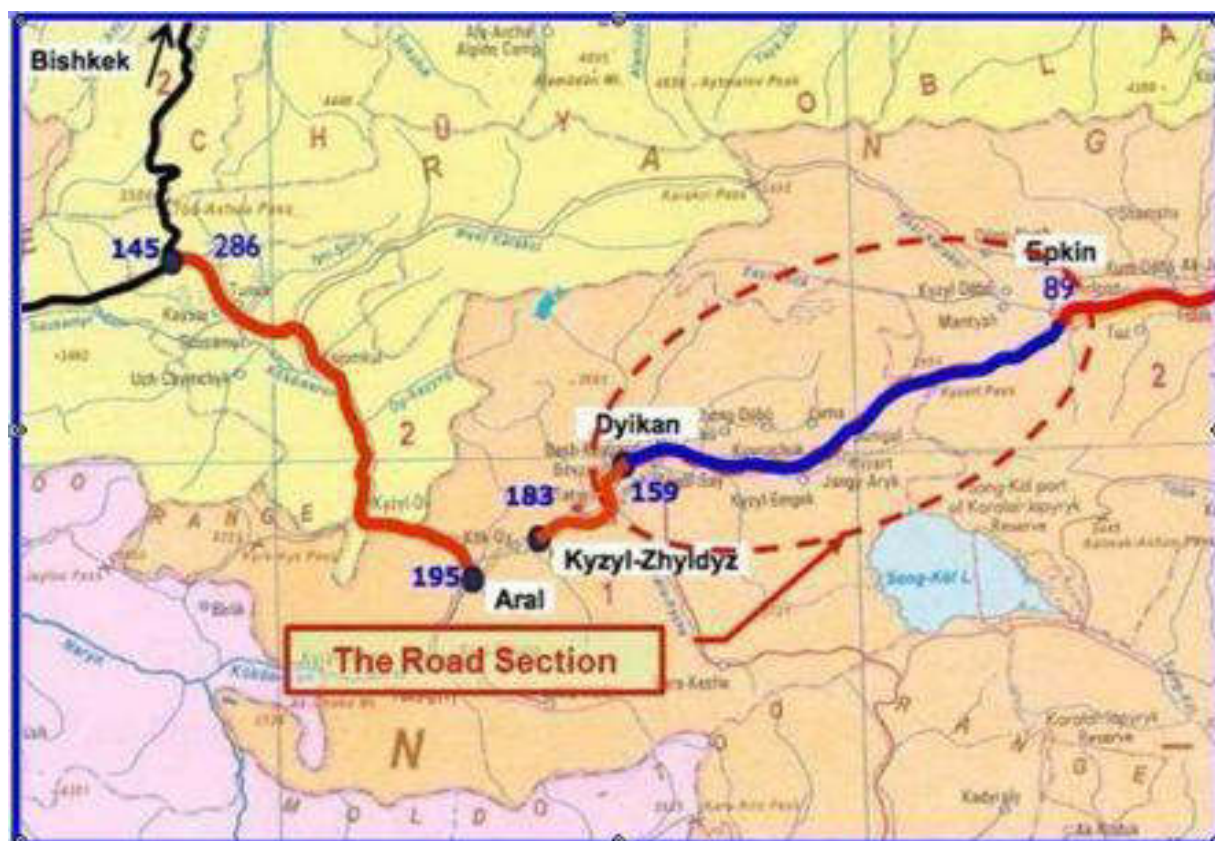
7. The Project will improve the following socio-economic indicators of the regions of the Kyrgyz Republic:

- Reduction of the passenger and freight transport cost between the southern and Issyk-Kul and Naryn regions by providing direct access.
- Reduction of transport costs due to reduced route and improved road conditions.
- Increased local and international traffic.

- Additional income opportunities for local residents.
- Creation of new jobs.
- Good condition of vehicles /Reduced operating costs

8. CAREC Corridor 1 connects the Russian Federation and Europe with the PRC; it is the only north-south highway that provides access from the central part of the Kyrgyz Republic to the rest of the country and beyond. Likewise, CAREC Corridor 3 connects the Russian Federation and Europe with Central East and South Asia. This is the only direct link between the southern and northern parts of the country, linking two large economic and agricultural centers - Bishkek capital and the country's second largest Osh town. Joining of these two CAREC corridors will link the southern regions (Batken, Jalal-Abad and Osh) with the northern regions (Chui, Issyk-Kul, Naryn, and Talas) via a faster and safer alternative route and facilitate further access to international markets.

Figure 1. Map of Epkin-Dyikan (Bashkugandy) Location



2. PROJECT DESCRIPTION AND CURRENT ACTIVITIES.

2.1 Project Description.

Project Section Location and Basic Design.

9. The ongoing project will improve north-south connectivity in the Kyrgyz Republic. The project will result in the efficient movement of freight and passenger traffic on the alternative North-South road. The project is classified as category B under ADB's Safeguard Policy Statement classification.

10. The project road Epkin (89 + 500 km) - Dyikan (Bashkugandy) (159 + 200 km) is a 70-kilometer highway from east to west. This section follows the existing road to Bashkugandy (km 159). The road is in poor condition; the surface is uneven with numerous potholes covered with frequent transverse and longitudinal cracks, often with a network of cracks. The road follows the Jumgal River and crosses the Tugol-Sai River, as well as many other feeding and irrigation ditches and lowlands.

Table 1. Names of Villages along the Project Road Section.

Region	District	Village	Section/km
Naryn	Kochkor (western part)	Epkin	Km 89+500 – Km 159+200
	Jumgal	Jumgal	
		Kuiruchuk	
		Tugol-Sai	
		Bashkugandy	

11. Geotechnical conditions for subgrade construction in the north-south. An alternative road between Epkin and Bashkuugandy is favorable. The basic direction of the 70 km long road is laid mainly on the existing roadbed with gravel fill, in some places with asphalt pavement. The pavement is asphalt, mainly of 5–6 cm thick, rarely 9–10 cm. The pavement base is constructed of gravel, pebble and crushed stone soil with sandy loam and sandy aggregate.

12. Construction work is carried out mainly within the existing road's right-of-way, thus minimizing environmental impact.

13. In accordance with the Terms of Reference, the road pavement is designed for an initial design life of 10 years with options for structural overlay for an design life of 15 and 20 years.

2.1.1 Work Scope under Contract.

14. Details of the designed project road section:

- To restore and lay the project road to Technical Category II from Epkin (km 89) to Bashkuugandy (km 159) in accordance with the National Standard of Kyrgyzstan with geometric and structural requirements with an estimated speed of 90 km/h outside settlements and 60 km/h in villages.
- Reconstruction, repair and/or replacement of bridges and culverts.
- Construction of side drains and other drainage structures.
- Provision of retaining walls and riverbed protection measures, if necessary.
- Provision of proper road signs and markings.
- Provision of protective guard-rails.

15. The road was designed in accordance with the Kyrgyz geometric design standard for Category II, and, accordingly, it must be sufficient to effectively withstand the load of transport during the projected service life. In fact, it will be a two-lane road consisting of the width of the roadway (the sum of the width of the lanes) and the width of the shoulder. The design elements for the project road's cross section are as follows:

- Number of lanes: 2
- Lane width: 3.5-3.75 m
- Carriageway width: 7.00-7.50 m
- Shoulder width: 3.25–3.75 m (of which 0.50–0.75 m asphalted)
- Total road width: 15.00 m

16. Detailed engineering designs have been prepared based on topographic surveys and geotechnical studies, as well as road surface, drainage structure and bridge conditions. International standards were applied to compensate for any deficiencies in national standards. The ADB-financed road section (Epkin-Bashkuugandy) is a two-lane road with a pavement width of 6-8 meters (m), and mostly asphalt pavement in poor condition. About 70% of asphalt areas are in poor condition with potholes, cracks and broken edges, and some areas are already deteriorated down to gravel. The average roughness index is 8.33 m/km.

17. The contract for the provision of construction supervision services was concluded between Gentek International Engineering and Consulting Limited and the Ministry of Transport and Communications of the Kyrgyz Republic on August 1, 2018.

18. The project provides for the construction and repair of the following engineering structures and communications, as well as the parameters of the scope of work.

- Asphalt pavement 103 963 m³;
- Binder with 9 cm thickness - 62225 m³;
- Wearing layer with 6 cm thickness – 41738 m³;
- Base, with 20 cm thickness – 148 771 m³;
- Lower shoulder with 20 cm thickness – 70 648 m³;
- Upper shoulder with 15 cm thickness – 61301 m³
- Subbase with 25 cm thickness – 361 612 m³;

Table 2. Project Details are as following;

from	to	Total Road Length	
Km 89+500	Km 159+200	69.7 Km	
Excavation to dump	406 818 m ³	Unsuitable material from cuts	269 291 m ³
		Rock material from cuts	136 860 m ³
		Unsuitable demolition material	667 m ³
Embankment	533 250 m ³	Common material from cuts	174 697 m ³
		Rock embankment from cuts	9 100 m ³
		Common material from the quarry	186 663 m ³
		Selected material from the quarry	157 290 m ³
		Common material for road signs and backfill	5 500 m ³
Subbase C		Thickness on main road = 25 cm	361 612 m ³

grade, 0/40 fraction	364 667 m ³		Thickness on ramps = 25 cm		3 055 m ³	
Lower shoulder C4 grade, 0/70 fraction	71 063 m ³		Thickness on main road = 20 cm		70 648 m ³	
			Thickness on ramps = 15 cm		415 m ³	
Upper shoulder C10 grade, 0/40 fraction	62 131 m ³		Thickness on main road = 15 cm		61 301 m ³	
			Thickness on ramps = 5 cm		830 m ³	
Base I grade, 0/30 fraction	149 681 m ³		Thickness on main road = 20 cm		148 771 m ³	
			Thickness on ramps = 15 cm		910 m ³	
Asphalt pavement	103 963 m ³		Binder Thickness = 9 cm		62 225 m ³	
			Wearing layer Thickness = 6cm		41 738 m ³	
Drainage	Open drain		Closed PVC drain		Closed drain, non-PVC	
	Excavation for 20 258 m ³		1 363 m		3 000 m	
Sulphate-resistant culverts, B30	D = 1.0 m	D = 1.5 m	D = 2.0x1.5 m	D = 2.0x2.0 m	D = 1.0 m	D = 1.0 m
	1 130 m	898 m	25 mm	27 m	10 m	11 m
Reinforcement	42.91 t		Bridge		28.87 m	

2.2 Project Contracts and Management.

19. Relevant institutions working with the project include:

- Ministry of Finance of the Kyrgyz Republic (MF),
- Ministry of Transport and Communication of the Kyrgyz Republic (MoTC)
- Investment Projects Implementation Group (IPIG) under MoTC,
- State Committee on Ecology and Climate (SCEC)
- State Inspection for Environmental and Technical Safety under the Government of the Kyrgyz Republic (SIETS)
- Department of Disease Prevention and State Sanitary and Epidemiological Surveillance of the Ministry of Health of the Kyrgyz Republic (DDPSSSES).

20. MoTC is responsible for the development of the transport sector and is the Executing Agency (EA) for the project. MoTC has overall responsibility for planning, design, implementation and monitoring of the project. IPIG works under MoTR and performs tasks assigned by the MoTR.

21. MF KR is the authorized government body responsible for coordinating with ADB and other donors regarding foreign aid issues.

22. SCEC is the leading environmental state agency responsible for state policy in this area and coordinating the actions of other government agencies in these matters. Its functions include:

- development of environmental policy and its implementation;
- carrying out state ecological expertise;
- issuance of environmental licenses;
- environmental monitoring;

- provision of environmental information services.
23. SIETS is carried out in accordance with the Law "On the procedure for conducting inspections of business entities". SIETS monitors compliance with:
- environmental legislation, established rules, limits and norms for the use of natural resources, standards for emissions and discharges of pollutants and disposal of waste in the environment;
 - industrial safety requirements for construction, expansion, reconstruction, technical re-equipment, operation, conservation and liquidation of hazardous production facilities;
 - requirements of land legislation;
 - safety requirements for equipment and facilities for storing and dispensing oil products and gases, lifting cranes;
 - requirements for the rules of safe operation during construction, installation and adjustment of electrical networks and electrical equipment.
24. DDPSSSES supervises the sanitary and epidemiological welfare of the population, safety of goods, products, environmental objects and conditions, prevention of the harmful effects of environmental factors on human health.

Table 3. Main organizations involved in the project.

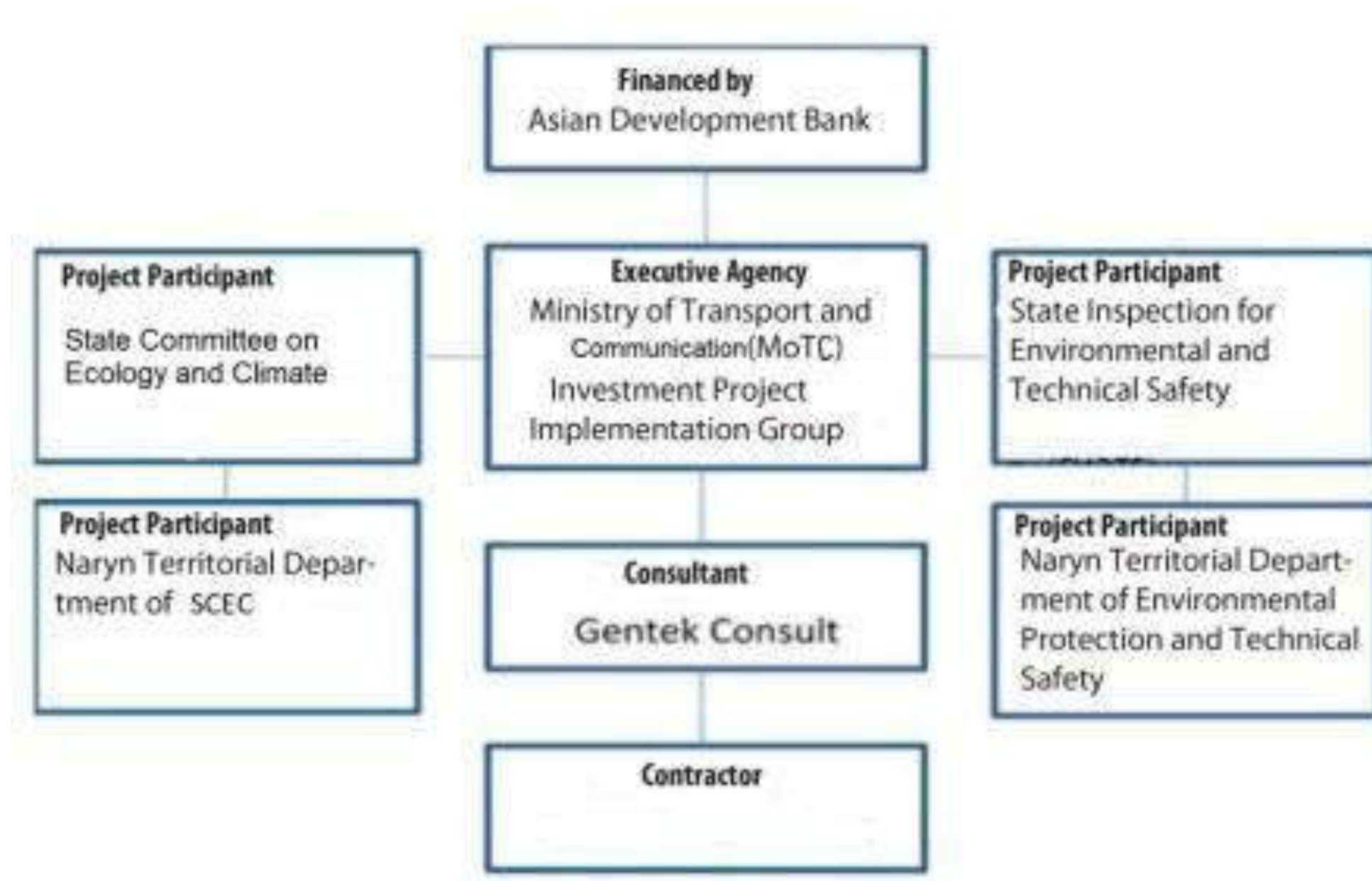
№	Name of company	Activities in the project	Responsible persons for environmental protection	Contact details
1	ADB Country Environmental Focal		Ninette R. Pajarillaga	npajarillaga@adb.org
2	ADB National Environmental Consultant	Consultant	Sultan Bakirov	Sbakirov.consultant@adb.org
3	IPIG MoTC KR	Environmental Specialist	Abdygulov Asylbek	asylbeka@piumotc.kg
4	Gentek Consulting Company	International Environmental Specialist	Garajayeva Nargiz	nargiz.garajayeva@gmail.com
5	Gentek Consulting Company	National Environmental Specialist	Zhumaliev Talantbek	take0978@mail.ru

In April 2021, "Gentec Consulting Ltd." Company replaced the International Environmental Specialist. On April 15, 2021, ADB approved the candidacy of Ms. Nargiz Garajayeva for the position - International Environmental Specialist. The consultant plans to mobilize his international specialist for the site, after signing the contract and mobilizing a new contractor at the site.

Table 4. List of Consultant's Employees

<i>International Employees</i>	
Experts	
Senior Highway Engineer / Team Leader	Selcuk Mutlu
Pavement and Materials Engineer	Ersoz Yamak
Structural Engineer	Sadi Numan
Road Safety Engineer	Ercan Duymaz
Social development and Resettlement Specialist	Saim Tuzlu
Contract Specialist	Rufat Mammadov
Environment Specialist	Garajayeva Nargiz
<i>National Employees</i>	
Experts	
Highway Engineer/Deputy Team Leader	Zheksheev Mirislan Sarychalovich
Pavement and Materials Engineer	Omorov Mirbek Boobekovich
Structural Engineer	Moldogaziev Nasyr Takishevich
Quality Assurance Engineer	Orozbekov Nurlan Munderovich
Quantity Engineer	Kaparov Saadalbek Abdyldaevich
Road Safety Engineer	Toktomushev Bolotbek
Social and Resettlement Specialist	Omorbekov Azamat
Environment Specialist	Zhumaliev Talantbek Nurgazievich
Hydrological/Drainage Specialist	Ashymbekov Taalaibek

Figure 2. Project Organizational Structure and Management



2.3 Project Activities during Current Reporting Period.

2.3.1 Road Construction Works.

25. No construction work was carried out on the project road section within the period January-July 2021.

Table 5. Scope of the main work performed for 2019-2020.

Description	Unit	Quantity			%	
		By BoQ	Actual	Remaining	Actual	Remaining
Grubbing and Clearing	ha	80	36.81	43.19	46%	54%
Existing asphalt pavement break up and removal	m ³	18 877.00	8 044,00	10 833.00	42%	58%
Cut Excavation	m ³	406 818.00	371 400.00	35 418.00	91%	9%
Embankment	m ³	533 250.00	288 250,00	245000,00	44%	56%
Subgrade	m ³	364 350.00	90 000.00	274 350.00	25%	75%
Subbase	m ³	361 612.00	77 000.00	284 612.00	21%	79%

26. Since December 2020, the project road section has been transferred to Road maintenance DEU-24 for winter maintenance. Since April 2021, this organization has been carrying out maintenance work on the road (cleaning the road and backfilling in the winter, carrying out current repairs of the road and structures, installing temporary road signs), watering the site (dust suppression) in hot and dry weather, as well as monitoring the presence and condition of road signs.

Figure 3. Road Maintenance and Dust Suppression Work.





Quarries.

27. On the project road (Epkín-Dyikan section, km 89-159), 13 sites were allocated for quarries. The former Contractor received all the necessary permits/approval from local authorities, and the State Agency of Environmental Protection and Forestry (SAEPF). The MoTC KR received an entrusted permit for all quarry sites from the State Committee for Industry, Energy, and Subsoil Use under the Government of the Kyrgyz Republic (SCIESU under GKR). Table 11 shows the main characteristics of the quarries.

28. In 2020 at the beginning of the development of quarry No. 11 (km. 145 + 800, Kuyruchuk village), the Consultant Engineer determined the inadequate quality of the contained inert material (high content of clay substances), therefore it was decided not to carry out a full-scale development of this quarry. The Contractor carried out leveling of this section. MoTC KR sent a notification to SCIESU under GKR with a request to exclude this quarry from the previously issued temporary permit.

29. Considering the refusal to develop the quarry at km 145 + 800, to replenish the required volume of construction material, after carrying out survey work and obtaining all the necessary permits from local authorities, the SCIESU under GKR, the border of the quarry was widened by km 135 + 280. Permission was obtained to develop a quarry located at km 112 + 870 with an area of 5.08 hectares. This quarry has not yet been utilized.


30. During the reporting period from January to June 2021 due to the termination of the contract with the contractor Todini, the contractor handed over all the spoil areas to the local authorities (ayil okmotu) at the request of the Engineer. The leveling works were carried out by the contracting company "Todini", transfer and acceptance certificate was drawn up. It is planned to resume the use of these spoil areas after the mobilization of a new contractor.





31. The Engineer's team carried out a visual inspection of the areas allocated for the quarries. The results of visual inspection of the quarries showed its satisfactory condition. Except for the quarry km. 145 + 800, which was closed due to the content of inappropriate material. Construction contractor Todini carried out reclamation work, November 26, 2019 (The act of completed work on the reclamation of the quarry 145 + 800, was drawn up and signed by the district commission), the quarry was handed over to the ayil okmotu. The remaining 12 quarries will be re-used following the mobilization of a new contractor.





Table 6. Characteristics of Quarries.




No.	Quarry	Up to Km by the road	About the road axis (m)	Object characteristics		Location of quarries	Note
				Production volume (m³)	Area (ha)		
1	Quarry №1	91+680	RHS 71m	100 000	11.2	Cholpon v.	being developed
2	Quarry №2	92+630	RHS 525m	200 000	15.6	Cholpon v.	Not being developed
3	Quarry №3	94+080	RHS 39m	60 000	1.04	Cholpon v.	Not being developed
4	Quarry №4	100+790	RHS 54m	150 000	1.8	Cholpon v.	being developed
5	Quarry №5	106+350	LHS 78m	80 000	2.5	Cholpon v.	being developed
6	Quarry №6	106+420	RHS 250m	150 000	3.3	Cholpon v.	Not being developed
7	Quarry №7	110+900	RHS 94m	100 000	2.1	Cholpon v.	being developed
8	Quarry №8	112+870	RHS 27 m	56 000	5.08	Semiz-Bel v.	Not being developed
9	Quarry №9	133+000	RHS 320m	150 000	0.93	Jany-Aryk v.	being developed
10	Quarry №10	135+280	LHS 25m	200 000	0.64	Jany-Aryk v.	being developed
11	Quarry №11	140+990	LHS 212m	97164.92	6.5	Kuiruchuk v.	being developed
12	Quarry №12	145+800	RHS 150m	30 000	0.63	Kuiruchuk v.	Closed and handed over due to unsuitable material
13	Quarry №13	148+630	RHS 1800m	800 534.9	18360	Tugol-Sai v.	being developed

Figure 4. Quarries Condition Handed Over by the Contractor.

№	On the road picket line	Relative to the road		Quarries
		Distance	Side of the road	
1	km. 91+680	222	Right	

2	km. 92+630	550	Right	
3	km. 94+080	25	Right	
4	km. 100+850	85	Right	
5	km. 106+340	25	Left	

6	km. 106+400	25	Right	
7	km. 110+900	25	Right	
8	km. 133+000	320	Right	
9	km. 135+280	25	Left	

10	km. 140+990	212	Left	
11	km. 145+800	150	Right	
12	km. 148+630	1800	Right	

Production Site Territory

32. The production site is defined on the territory of the Kuyruchuk ayil okmotu, not far from Tugol-Sai village at km 148 + 630 and is located at a distance of at least 500 m from the settlement. The following buildings and structures were located on the site: asphalt plant, crushing and screening plant (Crusher), car parking; parking lot for trucks; vehicle repair building, storage area for bulk materials - crushed stone and sand; transformer substation, checkpoint, office, warehouses, platform for garbage containers. The Contractor received all permits from all relevant government agencies to arrange the site.

33. In connection with the termination of the Contract, all equipment, machinery and structures were removed by the Contractor. The territory of the production site was rented by the

Contractor from the Kuyruchuk ayil okmotu until the end of 2021. To date the Contractor has not handed over the site yet.

Camp.

34. The site for the Contractor's camp location was determined in August-September 2019. The camp is located on a private territory in Kuyruchuk village, which was rented by the Contractor. The Contractor's camp constructed several buildings of light construction which contain: office premise for the Contractor and the Supervision Consultant, laboratory for the Contractor and the Consultant. In connection with the termination of the Contract with Todini, the Contractor has handed over all the buildings and equipment to MoTC KR.

Tree Management.

35. During the reporting period, no tree-felling work was carried out. The trees will still have to be felled at the sections located in the areas of widening, alignment of the road, and in the areas of new culvert construction. The planting of new seedlings in a ratio of 1: 2 is envisaged as compensation measure.

36. Following the mobilization of a new Contractor, tree-marking work will be carried out with the participation of local authorities to minimize the number of felled trees. The Consultant will make every effort to be able to preserve the existing green space.

2.4 Description of Any Changes to Project Design.

No changes have been made to the project design.

2.5 Description of Any Changes to Agreed Construction Methods.

No changes have been made to agreed construction methods.

3. ENVIRONMENTAL SAFEGUARD ACTIVITIES.

3.1 General Description of Environmental Safeguard Activities.

37. During the reporting period, a National Environmental Specialist and a Safety Engineer of the Consultant conducted three visits to the Project site to monitor the state of the environment and ensure road safety carried out by DEU-24.

38. In dry weather, there is increased dust formation on the roads, in some places with heavy traffic (especially heavy vehicles), visibility becomes almost zero. During the reporting period, Road Maintenance Company-24 performed road watering.

Historical And Cultural Heritage Sites (HCHS).

39. The approved Project of HCHS protection zones for section 2B Epkin - Dyikan (Bash-Kuugandy) is included in the tender documents. Archaeological excavations at sites of historical and cultural heritage will be carried out after the mobilization of a new Contractor. Visual monitoring carried out during the reporting period confirms that the objects of historical and cultural heritage located along the project site are not damaged.

Storage Areas (Spoil Areas).

40. By the order of the Engineer, the Contractor handed over all the spoil areas to the local authorities (ayil okmotu). The Contractor has completed leveling works in these areas. The District Commission carried out the acceptance of these plots and issued transfer and

acceptance certificate (attached). Once a new Contractor identified and mobilized for the project site, the previously handed over spoil areas will be used again. Table 7 shows the approved areas for storing unusable material.

Table 7. Storage Areas.

№	Object location		Village area	Remarks
	Km	Distance from the road		
1	158+400	317 m RHS	Bash-Kuugandy	
2	158+540	108 m RHS	Bash-Kuugandy	
3	158+550	5 m LHS	Bash-Kuugandy	
4	157+300	150 m LHS	Bash-Kuugandy	
5	155+800	320 m RHS	Bash-Kuugandy	
6	154+800	186 m LHS	Tugol-Sai	
7	152+760	940 m LHS	Tugol-Sai	Denied
8	152+760	87 m LHS	Tugol-Sai	
9	151+140	11 m RHS	Tugol-Sai	
10	150+960	66 m LHS	Tugol-Sai	
11	150+840	104 m RHS	Tugol-Sai	
12	149+000	RHS	Tugol-Sai	Private land
13	147+540	LHS	Kuyruchuk	
14	143+610	421 m – 694 m RHS	Kuyruchuk	
15	140+990	122 m LHS	Kuyruchuk	
16	136+940	435 m RHS	Dzhany-Aryk	
17	132+860	315 m RHS	Dzhany-Aryk	
18	130+840	31 m RHS	Dzhany-Aryk	
19	121+620	49 m LHS	Dzhany-Aryk	
20	120+310	37 m LHS	Dzhany-Aryk	
21	117+520	78 m LHS	Dzhany-Aryk	
22	110+660	85 m RHS	Cholpon	
23	100+940	91 m LHS	Cholpon	
24	106+720	55 m LHS	Cholpon	
25	106+540	49 m RHS	Cholpon	
26	93+980	66 m RHS	Cholpon	
27	91+360	45 m RHS	Cholpon	
28	98+190	21 m LHS	Cholpon	
29	103+060	16 m RHS	Cholpon	

30	112+600	45 m LHS	Semiz-Bel	
31	113+970	33 m LHS	Semiz-Bel	
32	115+850	60 m LHS	Semiz-Bel	

3.2 Site Audits.

41. During the reporting period, due to the termination of the Contract, no inspection work was carried out on the project section together with the Contractor however, following work was carried out:

- Monitoring the condition of production sites;
- Visual monitoring of dust suppression implementation by DEU-24;
- Road safety control at the Project section;
- The quarries state - visual monitoring of quarry sites, during the transfer and acceptance period;
- The condition of the spoil areas - visual monitoring of the areas allotted under the dumps during the acceptance and handing-over period;

№	Date	Name of Auditors	Audit Aim	Summary of any Important Audit Notes
1	19.03.21	Zhumaliev T.N. Toktomushev B.	Environmental and road safety monitoring carried out by RMC-24.	Some sections lacked road signs, later RMC-24 installed signs
2	25.05.21	Zhumaliev T.N. Toktomushev B.	Environmental and road safety monitoring carried out by RMC-24.	Some road sections were not watered in dry weather
3	30.06.21	Zhumaliev T.N. Toktomushev B.	Environmental and road safety monitoring carried out by RMC-24.	Some road sections were not watered in dry weather

3.3 Issues Tracking (Based on Non-Compliance Notices).

42. During the reporting period, no construction work was carried out on the project section.

3.4 Trends.

43. During the reporting period, no construction work was carried out on the project section.

3.5 Unanticipated Environmental Impacts or Risks.

44. During the reporting period, no construction work was carried out on the project section, no unanticipated environmental impacts or risks were identified.

4 RESULTS OF ENVIRONMENTAL MONITORING.

4.1 Overview of Monitoring Conducted during Current Period.

45. Due to the termination of the Contract with the Todini Contractor, no construction work was carried out on the project sections during the reporting period. Instrumental analysis (monitoring of noise, vibration, atmospheric air, and water) was not carried out.

4.2 Trends.

46. Due to the termination of the Contract with the Todini Contractor, no construction work was carried out on the project section during the reporting period.

4.3 Summary of Monitoring Outcomes.

47. Instrumental analysis (monitoring of noise, vibration, atmospheric air, and water) was not carried out.

4.4 Material Resources Utilisation.

48. Water tank trucks of RMC-24 took water from previously agreed and approved water sources in order to perform dust suppression.

4.5 Waste Management.

49. Due to the termination of the Contract with Contractor, no construction work was carried out on the project section. As a result, no waste was generated. The contractor's camp (the place where the laboratory and office are located) is temporarily mothballed.

4.6 Health and Safety.

Community Health and Safety.

50. During the reporting period, the Environmental Engineer and the Safety Engineer conducted training for DEU-24 employees on Health, Safety, and Environment.

Traffic Safety.

51. No traffic incidents were reported during the reporting period.

4.7 Training.

52. During the reporting period, the specialists of Gentek Consulting Muhendislik Consulting Company, T.N. Zhumaliev - National Environmental Engineer and B. Toktomushev - National Safety Engineer, based on the letter from IPIG MoTC KRMoTC KR (No. 14-6/123 dated 09.03.2021) conducted training for DEU-24 employees on Health, Safety, and Environment on

March 19, 2021. During the reporting period, DEU-24 was engaged in the temporary maintenance of the road on the project section.

53. The aim of the training was to raise the awareness of DEU-24 employees with environmental safety measures and road safety. The training included consideration of topical issues of environmental protection and safety rules during the temporary maintenance of the road of the Epkin-Dyikan (Bashkugandy) Project, section 2B, km 89 + 500 - km 159 + 200 and was interesting to the employees of this organization.

54. When choosing the topic of the presentations, the National Environmental Specialist and Safety Engineer decided to present the most relevant issues for training and try to convey to the DEU-24 employees their relevance and the need for application in work, since understanding environmental requirements, compliance with health and safety rules will allow to prevent possible risks. The results of the training will help the successful and safe implementation of the project while fulfilling obligations in the field of environmental protection, road safety, and labor protection.

55. The training was attended by:

- Monoshev Z.S., Manager of RMC-24 of Jumgal district;
- Sadykov T.S., Chief engineer of RMC-24 of Jumgal district;
- Saparbekov A., Chief specialist of RMC-24 of Jumgal district;
- Kudaibergenov K., machine operator of RMC-24 of Jumgal district;
- Alybaev A., Road worker of RMC-24 of Jumgal district;
- Zhobaev M., Road worker of RMC-24 of Jumgal district and etc.

Figure 5. Training in Road Maintenance Company-24 Office



5 SEMP FUNCTIONING.

5.1 SEMP Review.

56. During the reporting period, no construction work was carried out on the Project road section. Once a new Contractor has been identified and mobilized to the Project road section, the SEMP will be updated/developed.

6 GOOD PRACTICE AND OPPORTUNITY FOR IMPROVEMENT.

57. Due to the termination of the Contract with the Todini Contractor, no construction work was carried out on the project section during the reporting period.

7 SUMMARY AND RECOMMENDATIONS.

7.1 Summary.

58. In connection with the termination of the Contract, Todini construction contractor carried out leveling work on the spoil areas territory. All plots allocated for the dump have been temporarily returned/handed over to local authorities. Considering that after the identification of a new Contractor and the mobilization of his team for the project road section, after the resumption of construction work, these sites will be used again. The new Contractor will have to conduct and obtain the appropriate permits from the local authority.

59. Reclamation has not been carried out at the 12 designated quarries, as these quarries will continue to be used until the completion of all construction work on the project road section. Obtaining additional permits for these quarry areas will not be required, since a temporary permit for the development of quarries was issued by the Ministry of Transport and Roads of the Kyrgyz Republic.

60. DEU-24 must carry out dust suppression of the area handed over to it to ensure road safety, before mobilization of a new Contractor.

TODINI COSTRUZIONI GENERALI

FILIALI

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AZ1025 - Baku City
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Tel. +994 504522440

GEORGIA
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Georgia
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030019 - Aktobe City
Aktobe Region
Kazakhstan
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Business Center Green Hill Estate,
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Almaty Region
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Eastern Kazakhstan Region
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KYRGYZSTAN
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ROMANIA - Bucharest
18 Bulevardul Ion Mihalache,
1st floor
Sector 1 - Bucharest
Fax +40 356 401 321

To: Gentek Consult Ltd.

Attn: Mr. Selcuk Mutlu
Team Leader

**Copy: Ministry of Transport,
Architecture, Construction
and Communications of the
Kyrgyz Republic
Investment Projects
Implementation Group**

Mr. S. Ibraimov
Director

Copy: Mrs. G. Abdralieva
Minister

From: Mr. S. Abbasi
Contractor's Representative
Todini Costruzioni Generali
S.p.A.

Date: 03.06.2021

REF.#: KR1/1261/2021

**Re.: "CAREC Corridors 1 and 3 Connector
Road Project, Section 2B Epkin-Dyikan
Road [km 89+500-km 159+200]"**

Subj.: Quarry and dump areas

Dear Mr. Mutlu,

We refer to your letter #2021/803 dated 25
May 2021 and inform the following.

All dump areas used by the Contractor were
put into order and accepted by related state
authorities upon inspection and by signing a
Hand over/Acceptance Acts copies of which
have been provided to the Engineer earlier
through our letter #KR1/1249/2021 dated
27.04.2021.

In addition, we forward to you the Act of
reclamation works in the quarry at km.
145+800 (RHS, 150 meters from the road)
which were accepted by a special commission
set up with the participation of related state
authorities.

Yours Faithfully,

Soheil Abbasi

Attachment: as stated above

Кому: Gentek Consult Ltd.

Вним: г-н Сельчук Мутлу
Руководитель Группы

**Копия: Министерство транспорта,
архитектуры, строительства и
коммуникаций Кыргызской
Республики**
Группа по реализации
инвестиционных проектов

г-н Ибраимов С.
Директор

Копия: г-жа Абдралиева Г.
Министр

От: г-н Аббаси С.
Представитель Подрядчика
«Тодини КоструZIONI Дженерали
С.п.А.»

Дата: 03.06.2021 г.

ИСХ.№: KR1/1261/2021

**Кас: "Пути соединения коридоров ЦАРЭС 1
и 3, Участок 2Б Эпкин - Дыйкан,
км 89+500 - км 159+200"**

Тема: Карьеры и отвалы

Уважаемый г-н Мутлу,

Со ссылкой на ваше письмо №2021/803 от 25
мая 2021 года сообщаем следующее.

Все отвалы, использованные Подрядчиком,
были приведены в порядок и приняты
соответствующими органами власти после
осмотра подписанием Актов приема-передачи,
копии которых были предоставлены Инженеру
ранее через наше письмо №KR1/ 1249/2021 от
27.04.2021.

В дополнение, настоящим направляем вам Акт
рекультивационных работ на карьере на км.
145+800 (правая сторона, 150 метров от
дороги), которые были приняты специально
созданной комиссией с участием
соответствующих органов власти.

С уважением,

Сохейл Аббаси

Приложение: как указано выше

AKT

Куйручук айылы

2-июнь 2021-жыл

Жумгал районунун аймагынан өтүүчү Түндүк-Түштүк альтернативдик автожолунун 3-фазасындагы Эпкин-Дыйкан жолунун 89Ө500 км 159Ө200 чакырымынын аралыгындагы карьерди рекультивациялоо иштерин кабыл алуу максатында түзүлгөн Жумгал райондук администрациясынын 1-июнь 2021жылдагы №84-Б буйругу менен түзүлгөн комиссия курамында:

И.Садыбакасов- Жумгал райондук мамлекеттик администрациясынын архитектура курулуш боюнча жетектөөчү адиси комиссиянын төрагасы;
А.Касымова - Куйручук айыл өкмөтүнүн башчысынын милдетин аткаруучусу комиссиянын орун басары.

мүчөлөрү: Р.Курманалиев — Жумгал-Кочкор райондор аралык мамтехинспекциясынын улук инспектору, З.Моношов- Жумгал райондук №24 жол тейлөө ишканасынын башчысы, К.Чокоев -Куйручук айыл өкмөтүнүн жайыт боюнча башчысы, Сохейл Аббаси - АО «Тодини Коструциони Джөнерали» (подрядчы)

Себеби Куйручук айыл өкмөтүнө караштуу Эпкин-Дыйкан жолунун 89Ө500 км 159+200 чакырымынын аралыгындагы 145+800м оң тарап 150 метр алыстыкта жайгашкан карьерди жеринен көргөндө төмөндөгүлөр аныкталды: Аталган карьерден чыккан инерттик материал жол курууга жарабай калган, ошол себептен карьер иштетилген эмес карьердин ичи түздөлүп оз ордуна келтирилген. Бул боюнча айыл өкмөттүн кызматкерлери тастыктап берди. Аталган карьердин аймагы Куйручук айыл өкмөтүнө өткөрүп берилди.

Биз төмөндө акт жазып кол коюучулар:

Актыга кол коюучулар:

И. Садыбакасов

А. Касымова

Р.Курманалиев

К.Чокоев

Н.Нурдинов (Эколог Тодини)

Act

Kuiruchuk village

June 2, 2021

In order to accept recultivation works of the quarry located at km. 89+500 – 159+200 in 3rd phase of the North-South alternative road Epkin-Dyikan, the commission was set up by the order 84-b and its composition is as follows:

I. Sadybakasov – Head specialist on architectural construction of State Administration of Jumgal Region is appointed as a Head of the commission;

A. Kasymova – Acting head of the Kuiruchuk Rural Government appointed as Deputy of the commission;

Members: R. Kurmanaliev – Senior inspector of State technical inspection of Kochkor-Jumgal; Z. Monoshov – Head of No.24 Road maintenance institution of Jumgal region; K. Chokoev – Head of Rural Government on pasture; Soheil Abbasi – JSC “Todini Costruzioni Generali S.p.A.” (Contractor)

After visiting the quarry located at km 145+800 RHS 150 m. in Epkin-Dyikan road at km. 89+500 – 159+200 related to Kuiruchuk Rural Government, it was determined that: the inert material from this section was unsuitable for road construction, that’s why, this quarry was not used and the territory of the quarry was levelled and put in order. This fact was confirmed by the officials of the Rural Government. The territory of abovementioned section was handed-over to the Rural Governement of Kuiruchuk.

We are responsible for drawing and signing this act:

Signatories:

I. Sadybakasov
A. Kasymova
R. Kurmanaliev
K. Chokoev
N. Nurdinov (Ecologist of Todini)

АКТ

Биз томондо кол коюп акт тузуучулор: «Тодини Коструциони Дженерали С.п.А» акционердик коомунун Нарындагы филиалынын Эпкин-Башкууганды авто жолун реконструкциялоо проектисинин проект менеджери Заби Зароуни, инженер эколог Нурдинов Н жана Жумгал районунун Тугол-Сай айыл аймагынын айыл окмоту Р. Кудайбергенев, жер адис А.Иманалиев, Эпкин айылынын айыл башчысы А. Сатыбалдиев.

Биздин акт тузуубуздун себеби: Жумгал районунун Тугол-Сай айыл аймагынын айыл окмотунон Эпкин-Башкууганды авто жолун реконструкциялоо проектисинен чыккан отвалдарды тогууго Эпкин-Башкууганды авто жолунун **149+000 он тарап, 150+840 он тарап 104м, 150+960 сол тарап 66м, 151+140 он тарап 11м, 152+760 сол тарап 940м, 152+760 сол тарап 87м, 154+800 сол тарап 186м**, чакырымындагы алынган жерди «Тодини Коструциони Дженерали С.п.А» акционердик коомунун Нарындагы филиалы Эпкин-Башкууганды авто жолун реконструкциялоо проектисинен чыккан отвалдар тогулгон жерлерди тоздоп жана карьер катары пайдаланылган **148+630 он тарап 1800м** чакырымында жайгашкан жерди (сайдын ичи) Жумгал районунун Тугол-Сай айыл аймагынын айыл окмотуно откорулуп берилди.

Жумгал районунун Тугол-Сай айыл аймагынын айыл окмотуно караштуу Эпкин-Башкууганды авто жолунун **149+000 он тарап, 150+840 он тарап 104м, 150+960 сол тарап 66м, 151+140 он тарап 11м, 152+760 сол тарап 940м, 152+760 сол тарап 87м, 154+800 сол тарап 186м**, чакырымындагы отвал тогулгон жерлерди «Тодини Коструциони Дженерали С.п.А» акционердик коомунун Нарындагы филиалына туздотуп жана **148+630 он тарап 1800м** карьер жайгашкан жерди (сайдын ичи) Жумгал районунун Тугол-Сай айыл аймагынын айыл окмоту тарабынан откорулуп алынды.



Заби Зароуни

Н. Нурдинов

Р. Кудайбергенев

А. Иманалиев

А. Сатыбалдиев

АКТ.

Биз томондо кол коюп акт тузуучулор: «Тодини Коструциони Дженерали С.п.А» Акционердик коомунун Нарындагы филиалынын Эпкин-Башкууганды авто жолун реконструкциялоо проектисинин проект менеджери Заби Зароуни, инженер эколог Н.Нурдинов жана Жумгал районунун Баш-Кууганды айыл аймагынын айыл окмоту Р. Жумуков, жер адис М. Кожомкулов, иш кагаздарды алып баруучу адис Табарбек уулу Бекболсун.

Ак тузуубуздун себеби: Жумгал районунун Баш-Кууганды айыл аймагынын айыл окмотунон Эпкин-Башкууганды авто жолун реконструкциялоо проектисинен чыккан отвалдарды тогууго Эпкин-Башкууганды авто жолунун **158+400 он тарап 317м, 158+540 он тарап 108м, 158+550 сол тарап 5м, 157+300 сол тарап 150м, 155+800 он тарап 320м**, чакырымындагы алынган жерлерди «Тодини Коструциони Дженерали С.п.А» Акционердик коомунун Нарындагы филиалы Эпкин-Башкууганды авто жолун реконструкциялоо проектисинен чыккан отвалдар тогулгон жерлерди туздуп Жумгал районунун Баш-Кууганды айыл аймагынын айыл окмотуно откоруп берди.

Баш-Кууганды айыл аймагынын айыл окмотунон караштуу Эпкин-Башкууганды авто жолунун **158+400 он тарап 317м, 158+540 он тарап 108м, 158+550 сол тарап 5м, 157+300 сол тарап 150м, 155+800 он тарап 320м**, чакырымындагы отвал тогулгон жерлерди «Тодини Коструциони Дженерали С.п.А» Акционердик коомунун Нарындагы филиалына туздотуп Жумгал районунун Баш-Кууганды айыл аймагынын айыл окмоту тарабынын откоруп алды.



Заби Зароуни

Н.Нурдинов

Р.Жумуков

М.Кожомкулов

Табарбек уулу Бекболсун

30.03.2021

Zhumgal Region

Act

We are responsible for signing and drawing an act: Project Manager of Epkin-Dyikan reconstruction project Zabi Zarouni, Environmental Engineer Nurdinov N. (Naryn Branch of JSC "Todini Costruzioni Generali S.p.A.") and the Head of Bash-Kuugandy aiyl aimak in Zhumgal Region R. Zhumukov, Land Specialist M. Kozhomkulov, record keeping specialist Tabarbek uulu Bekbolsun.

The reason of our drawing this act is that Naryn Branch of "Todini Costruzioni Generali S.p.A." during the reconstruction of Epkin-Bashkuugandy road used as dump areas places in the following coordinates: **158+400 RHS 317 m., 158+540 RHS 108 m., 158+550 LHS 5 m., 157+300 LHS 150 m., 155+800 RHS 320 m.**, so up to this day they are transferred to the balance of Bash-Kuugandy aiyl okmotu in Zhumgal region.

The areas located in Epkin-Bashkuugandy road in Bash-Kuugandy aiyl aimak, Zhumgal region: **158+400 RHS 317 m., 158+540 RHS 108 m., 158+550 LHS 5 m., 157+300 LHS 150 m., 155+800 RHS 320 m.**, which were used by Naryn Branch of "Todini Costruzioni Generali S.p.A." as dump areas during the reconstruction of Epkin-Bashkuugandy road were received by Bash-Kuugandy aiyl okmotu of Zhumgal region.

_____ Zabi Zarouni

_____ N.Nurdinov

_____ R. Zhumukov

_____ M. Kozhomkulov

_____ Tabarbek uulu Bekbolsun

АКТ

Биз томондо кол коюп акт тузуучулор: «Тодини Коструциони Дженерали С.п.А» акционердик коомунун Нарындагы филиалынын Эпкин-Башкууганды авто жолун реконструкциялоо проектисинин проект менеджери Заби Зароуни, инженер эколог Нурдинов Н жана Жумгал районунун Куйручук айыл аймагынын айыл окмотунун милдетин аткаруучу А. Касымова, жер адисинин милдетин аткаруучу Э.Садыбакасов, айылдык кенештин торагасы З.Баисов, жайыт пайдалануучулар бирикмесинин торагасы К.Чокоев.

Биздин акт тузуубуздун себеби: Жумгал районунун Куйручук айыл аймагынын айыл окмотунон Эпкин-Башкууганды авто жолун реконструкциялоо проектисинен чыккан отвалдарды тогууго Эпкин-Башкууганды авто жолунун **147+540 сол тарап, 143+610 он тарап 420м-690м, 140+990 сол тарап 122м**, чакырымындагы алынган жерди «Тодини Коструциони Дженерали С.п.А» акционердик коомунун Нарындагы филиалы Эпкин-Башкууганды авто жолун реконструкциялоо проектисинен чыккан отвалдар тогулгон жерлерди тоздотуп жана карьер катары пайдаланылган **145+800 он тарап 150м, 140+990 сол тарап 212м** чакырымында жайгашкан жерди Жумгал районунун Куйручук айыл аймагынын айыл окмотуно откорулуп берилди.

Жумгал районунун Куйручук айыл аймагынын айыл окмотуно караштуу Эпкин-Башкууганды авто жолунун **147+540 сол тарап, 143+610 он тарап 420м-690м, 140+990 сол тарап 122м**, чакырымындагы отвал тогулгон жерлерди «Тодини Коструциони Дженерали С.п.А» акционердик коомунун Нарындагы филиалына туздотуп жана карьер **145+800 он тарап 150м, 140+990 сол тарап 212м** чакырымда жайгашкан жерди Жумгал районунун Куйручук айыл аймагынын айыл окмоту тарабынан откорулуп алынды.



Заби Зароуни

Н. Нурдинов



А. Касымова



Э.Садыбакасов

З.Баисов

К.Чокоев



Act

We are responsible for signing and drawing an act: Project Manager of Epkin-Dyikan reconstruction project Zabi Zarouni, Environmental Engineer Nurdinov N. (Naryn Branch of JSC "Todini Costruzioni Generali S.p.A.") and the Acting Head of Kuiruchuk aiyl aimak in Zhungal Region A. Kasymov, Land Specialist E. Sadybakasov, Head of village board Z. Baisov, Head of Association of Land Users K. Chokoev.

The reason of our drawing this act is that Naryn Branch of "Todini Costruzioni Generali S.p.A." during the reconstruction of Epkin-Bashkuugandy road used places as dump areas in the following coordinates: **147+540 LHS, 143+610 RHS 420-690 m., 140+990 LHS 122 m.**, and areas used as quarries in the following coordinates: **145+800 RHS 150 m., 140+990 LHS 212 m.** were leveled and transferred to the balance of the rural government of Kuiruchuk aiyl aimak in Zhungal region.

The areas located within Epkin-Bashkuugandy in Kuiruchuk aiyl aimak, Zhungal region: **147+540 LHS, 143+610 RHS 420-690 m., 140+990 LHS 122 m.** which were used by Naryn Branch of "Todini Costruzioni Generali S.p.A." as dump areas during the reconstruction of Epkin-Bashkuugandy road were leveled and territories used as the quarries **145+800 RHS 150 m., 140+990 LHS 212 m.** together with the dump sections were received by the Rural government of Kuiruchuk aiyl aimak in Zhungal region.

_____ Zabi Zarouni

_____ N. Nurdinov

_____ A. Kasymov

_____ E. Sadybakasov

_____ Z. Baisov

_____ K. Chokoev

09.04.2021г.

Жумгал району

АКТ

Биз томондо кол коюп акт тузуучулор: «Тодини Коструциони Дженерали С.п.А» акционердик коомунун Нарындагы филиалынын Эпкин-Башкууганды авто жолун реконструкциялоо проектисинин проект менеджери Заби Зароуни, инженер эколог Нурдинов Н жана Жумгал районунун Жаны-Арык айыл аймагынын айыл окмоту Р.Молдобазаров, жер адис К.Коктаев, озгочо кырдаалдар боюнча башкы адис А.Абдрахманов, Кызарт айлынын айыл башчысы Н.Тажиев.

Биздин акт тузуубуздун себеби: Жумгал районунун Жаны-Арык айыл аймагынын айыл окмотунун Эпкин-Башкууганды авто жолун реконструкциялоо проектисинен чыккан отвалдарды тогууго Эпкин-Башкууганды авто жолунун **136+940 он тарап 435м, 132+860 он тарап 315м, 130+840 он тарап 31м, 121+620 сол тарап 49м, 120+310 сол тарап 37м, 117+520 сол тарап 78м**, чакырымындагы алынган жерди «Тодини Коструциони Дженерали С.п.А» акционердик коомунун Нарындагы филиалы Эпкин-Башкууганды авто жолун реконструкциялоо проектисинен чыккан отвалдар тогулгон жерлерди тоздоп жана карьер катары пайдаланылган **133+000 он тарап 320м, 135+280 сол тарап 25м** чакырымында жайгашкан жерди Жумгал районунун Жаны-Арык айыл аймагынын айыл окмотуно откорулуп берилди.

Жумгал районунун Жаны-Арык айыл аймагынын айыл окмотуно караштуу Эпкин-Башкууганды авто жолунун **136+940 он тарап 435м, 132+860 он тарап 315м, 130+840 он тарап 31м, 121+620 сол тарап 49м, 120+310 сол тарап 37м, 117+520 сол тарап 78м**. чакырымындагы отвал тогулгон жерлерди «Тодини Коструциони Дженерали С.п.А» акционердик коомунун Нарындагы филиалына туздотуп жана карьер **133+000 он тарап 320м, 135+280 сол тарап 25м**. жайгашкан жерди Жумгал районунун Жаны-Арык айыл аймагынын айыл окмоту тарабынан откорулуп алынды.




Заби Зароуни


Н. Нурдинов


Р.Молдобазаров


К.Коктаев


А.Абдрахманов


Н.Тажиев

Act

We are responsible for signing and drawing an act: Project Manager of Epkin-Dyikan reconstruction project Zabi Zarouni, Environmental Engineer Nurdinov N. (Naryn Branch of JSC "Todini Costruzioni Generali S.p.A.") and the Head of Rural government of Zhany-Aryk aiyl aimak in Zhungal Region R. Moldobazarov, Land Specialist K. Koktaev, Chief Specialist of Emergency Management A. Abdrahmanov, Head of Kuiruchluk village N. Tazhiev.

The reason of our drawing this act is that Naryn Branch of "Todini Costruzioni Generali S.p.A." during the reconstruction of Epkin-Bashkuugandy road used sections as dump areas in the following coordinates: 136+940 RHS 435 m., 132+860 RHS 315 m., 130+840 RHS 31 m., 121+620 LHS 49 m., 120+310 LHS 37 m., 117+520 LHS 78 m. and also sections used as quarries in the following coordinates: 133+000 RHS 320 m., 135+280 LHS 25 m. were leveled and transferred to the balance of the rural government of Zhany-Aryk aiyl aimak in Zhungal region.

The areas located within Epkin-Bashkuugandy road in Zhany-Aryk aiyl aimak, Zhungal region: 136+940 RHS 435 m., 132+860 RHS 315 m., 130+840 RHS 31 m., 121+620 LHS 49 m., 120+310 LHS 37 m., 117+520 LHS 78 m. which were used by Naryn Branch of "Todini Costruzioni Generali S.p.A." as dump areas during the reconstruction of Epkin-Bashkuugandy road were leveled and territories used as the quarries 133+000 RHS 320 m., 135+280 LHS 25 m. together with the dump sections were received by the Rural government of Zhany-Aryk aiyl aimak in Zhungal region.

_____ Zabi Zarouni

_____ N. Nurdinov

_____ R. Moldobazarov

_____ K. Koktaev

_____ A. Abdrahmanov

_____ N. Tazhiev

АКТ

21.04.2021

Кочкор району Чолпон айылы

Биз төмөндө кол коюп акт түзүүчүлөр: «Тодини Коструциони Дженерали С.п.А» акционердик коомунун Нарындагы филиалынын Эпкин-Башкууганды авто жолун реконструкциялоо проектисинин проект менеджери Заби Зароуни, инженер эколог Нурдинов.Н жана Кочкор районунун Чолпон айыл аймагынын айыл өкмөтү А. Карбозов, жер адис А. Исаков, Узун-Булак айлынын айыл башчысы А. Байдавлетов болуп акт түздүк.

Биздин акт түзүүбүздүн себеби: Кочкор районунун Чолпон айыл аймагынын айыл өкмөтүнөн Эпкин-Башкууганды авто жолун реконструкциялоо проектисинен чыккан отвалдарды төгүүгө Эпкин-Башкууганды авто жолунун 91+360 оң тарап 45м, 93+980 оң тарап 66м, 98+190 сол тарап 21м, 106+540 сол тарап 49м, 103+060 оң тарап 16м, 106+720 сол тарап 55м, 100+940 сол тарап 91м, 110+660 оң тарап 85м, чакырымындагы алынган жерди «Тодини Коструциони Дженерали С.п.А» акционердик коомунун Нарындагы филиалы Эпкин-Башкууганды авто жолун реконструкциялоо проектисинен чыккан отвалдар төгүлгөн жерлерди түздөп жана карьер катары пайдаланылган 91+680 оң тарап 71, 92+630 оң тарап 525м, 94+080 оң тарап 39м, 100+790 оң тарап 54м, 106+350 сол тарап 78м, 106+420 оң тарап 250м, 110+900 оң тарап 94м. чакырымында жайгашкан жерди Кочкор районунун Чолпон айыл аймагынын айыл өкмөтүнө өткөрүлүп берилди.

Кочкор районунун Чолпон айыл аймагынын айыл өкмөтүнө караштуу Эпкин-Башкууганды авто жолунун 91+360 оң тарап 45м, 93+980 оң тарап 66м, 98+190 сол тарап 21м, 106+540 сол тарап 49м, 103+060 оң тарап 16м, 106+720 сол тарап 55м, 100+940 сол тарап 91м, 110+660 оң тарап 85м, чакырымындагы отвал төгүлгөн жерлерди «Тодини Коструциони Дженерали С.п.А» акционердик коомунун Нарындагы филиалына түздөтүп жана карьер 91+680 оң тарап 71, 92+630 оң тарап 525м, 94+080 оң тарап 39м, 100+790 оң тарап 54м, 106+350 сол тарап 78м, 106+420 оң тарап 250м, 110+900 оң тарап 94м. жайгашкан жерди Кочкор районунун Чолпон айыл аймагынын айыл өкмөтү тарабынан өткөрүлүп алынды.


Заби Зароуни


Н. Нурдинов


А. Карбозов


А. Исаков


А. Байдавлетов


Н. Тажиев

Act

We are responsible for signing and drawing an act: Project Manager of Epkin-Dyikan reconstruction project Zabi Zarouni, Environmental Engineer Nurdinov N. (Naryn Branch of JSC "Todini Costruzioni Generali S.p.A.") and the Head of Rural government of Cholpon aiyl aimak in Kochkor Region A. Karbozov, Land Specialist A. Isakov, Head of Uzun-Bulak village A. Baidavletov.

The reason of our drawing this act is that Naryn Branch of "Todini Costruzioni Generali S.p.A." during the reconstruction of Epkin-Bashkuugandy road used sections as dump areas in the following coordinates: 91+360 RHS 45 m., 93+980 RHS 66 m., 98+190 LHS 21 m., 106+540 LHS 49 m., 103+060 RHS 16 m., 106+720 LHS 55 m., 100+940 LHS 91 m., 110+660 RHS 85 m., and also sections used as quarries in the following coordinates: 91+680 RHS 71 m., 92+630 RHS 525 m., 94+080 RHS 39 m., 100+790 RHS 54 m., 106+350 LHS 78 m., 106+420 RHS 250 m., 110+900 RHS 94 m. were leveled and transferred to the balance of the rural government of Cholpon aiyl aimak in Kochkor region.

The areas located within Epkin-Bashkuugandy road in Cholpon aiyl aimak, Kochkor region: 91+360 RHS 45 m., 93+980 RHS 66 m., 98+190 LHS 21 m., 106+540 LHS 49 m., 103+060 RHS 16 m., 106+720 LHS 55 m., 100+940 LHS 91 m., 110+660 RHS 85 m., which were used by Naryn Branch of "Todini Costruzioni Generali S.p.A." as dump areas during the reconstruction of Epkin-Bashkuugandy road were leveled and territories used as the quarries: 91+680 RHS 71 m., 92+630 RHS 525 m., 94+080 RHS 39 m., 100+790 RHS 54 m., 106+350 LHS 78 m., 106+420 RHS 250 m., 110+900 RHS 94 m. together with the dump sections were received by the Rural government of Cholpon aiyl aimak in Kochkor region.

_____ Zabi Zarouni

_____ N. Nurdinov

_____ A. Karbozov

_____ A. Isakov

_____ A. Baidavletov

АКТ

26.04.2021

Кочкор району Кара-Тоо айылы

Биз төмөндө кол коюп акт түзүүчүлөр: «Тодини Коструциони Дженерали С.п.А» акционердик коомунун Нарындагы филиалынын Эпкин-Башкууганды авто жолун реконструкциялоо проектисинин проект менеджери Заби Зароуни, инженер эколог Нурдинов Н. жана Кочкор районунун Семиз-Бел айыл аймагынын айыл өкмөтү Акишов Б.К., жер адис Сыдыгалиев С., Жайыт пайдалануучулар бирикмесинин төрагасы Дыйканов Т.Т., жайыт пайдалануучу Акунов Т. болуп акт түздүк.

Биздин акт түзүүбүздүн себеби: Кочкор районунун Семиз-Бел айыл аймагынын айыл өкмөтүнөн Эпкин-Башкууганды авто жолун реконструкциялоо проектисинен чыккан отвалдарды төгүүгө Эпкин-Башкууганды авто жолунун **112+600 сол тарап 45 м. 113+970 сол тарап 33 м. 115+350 сол тарап 60 м.** чакырымындагы алынган жерди «Тодини Конструциони Дженерали С.п.А» акционердик коомунун Нарындагы филиалы Эпкин-Башкууганды авто жолун реконструкциялоо проектисинен чыккан отвалдар төгүлгөн жерлерди түздөп жана карьер катары пайдаланылган **112+870 оң тарап 27 м.** чакырымында жайгашкан жерди Кочкор районунун Семиз-Бел айыл аймагынын айыл өкмөтүнө өткөрүлүп берилди.

Кочкор районунун Семиз-Бел айыл аймагынын айыл өкмөтүнө караштуу Эпкин-Башкууганды авто жолунун **112+600 сол тарап 45 м. 113+970 сол тарап 33 м. 115+350 сол тарап 60 м.** чакырымындагы отвал төгүлгөн жерлерди «Тодини Конструциони Дженерали С.п.А» акционердик коомунун Нарындагы филиалына түздөтүп жана карьер **112+870 оң тарап 27 м.** жайгашкан жерди Кочкор районунун Семиз-Бел айыл аймагынын айыл өкмөтү тарабынан өткөрүлүп алынды.



Заби Зароуни



Н.Нурдинов



Б.К.Акишов



С.Сыдыгалиев



Дыйканов Т.Т.



Акунов Т.

Act

We are responsible for signing and drawing an act: Project Manager of Epkin-Dyikan reconstruction project Zabi Zarouni, Environmental Engineer Nurdinov N. (Naryn Branch of JSC "Todini Costruzioni Generali S.p.A.") and the Head of Rural government of Semiz-Bel aiyl aimak in Kochkor Region Akishov B.K., Land Specialist Sydygaliev S., Head of Land Users Association Dyikanov T. T., Land User Akunov T.

The reason of our drawing this act is that Naryn Branch of "Todini Costruzioni Generali S.p.A." during the reconstruction of Epkin-Bashkuugandy road used sections of Semiz-Bel in Kochkor region as dump areas in the following coordinates: **112+600 LHS 45 m., 113+970 LHS 33 m., 115+350 LHS 60 m.** and also sections used as quarries in the following coordinates: **112+870 RHS 27 m.** were leveled and transferred to the balance of the rural government of Semiz-Bel aiyl aimak of Kochkor region.

The areas located within Epkin-Bashkuugandy road in Semiz-Bel aiyl aimak, Kochkor region: **112+600 LHS 45 m., 113+970 LHS 33 m., 115+350 LHS 60 m.** which were used by Naryn Branch of "Todini Costruzioni Generali S.p.A." as dump areas during the reconstruction of Epkin-Bashkuugandy road were leveled and territories used as the quarries: **112+870 RHS 27 m.** together with the dump sections were received by the Rural government of Semiz-Bel aiyl aimak in Kochkor region.

_____ Zabi Zarouni

_____ N. Nurdinov

_____ B. K. Akishov

_____ S. Sydygaliev

_____ T. T. Dyikanov

_____ T. Akunov

Environmental Monitoring Report

January–June 2021
October 2021

Kyrgyz Republic: Central Asia Regional Economic Cooperation Corridors 1 and 3 Connector Road Project - Additional Financing

Prepared by Roughton International Ltd and sub-consultant RAM Engineering Associates LLC for the Ministry of Transport and Communications of the Kyrgyz Republic and the Asian Development Bank.

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ABBREVIATIONS

ADB	-	Asian Development Bank
CAREC	-	Organization of the Central Asian Regional Economic Cooperation
CSC	-	Construction Supervision Consultant
EMP	-	Environmental Management Plan
IPIG	-	Investment Projects Implementation Group
km	-	kilometer
KR	-	Kyrgyz Republic
MPC	-	Maximum Permissible Concentration
MPL	-	Maximum Permissible Level
MTOC	-	Ministry of Transport and Communication of KR
MEoF KR	-	Ministry of Economy and Finance of KR
SCEC	-	State Committee on Ecology and Climate
DDPSSES	-	Department of Disease Prevention and State Sanitary and Epidemiological Surveillance of the Ministry of Health of the Kyrgyz Republic
TOR	-	Terms of Reference
SSEMP	-	Site Specific Environment Management Plan
ACP	-	Asphalt Concrete Plant
SCP	-	Stone Crushing Plant
SCU	-	Solution Concrete Unit
MoCIT KR	-	Ministry of Culture, Information and Tourism of Kyrgyz Republic
OHCH	-	Objects of Historical and Cultural Heritage
IBAT	-	Integrated Biodiversity Assessment Tool
BCoR	-	Building Codes and Regulations of KR
MPC	-	Maximum permissible concentration

1 INTRODUCTION

1.1 Preamble

1. The Government of the Kyrgyz Republic (GoKRG) requested the Asian Development Bank (ADB) to identify, design and prepare a follow-on loan and/or grant for the CAREC Corridors 1 and 3 Connectivity Improvement Project under Lot 1 "Balykchy km. 0 -km. 43" and Lot 2 "Kochkor – Epkin (km. 64 - km. 89)". The project will improve socio-economic indicators of the Kyrgyz Republic regions: (i) shortened travel time for movement of people and goods from the southern regions to Naryn and Issyk-Kul Oblasts; (ii) reduced transport costs due to reduced route and better road conditions; (iii) increased local and international traffic and movements; (iv) additional income generating opportunities for local residents; (v) creation of new jobs; (vi) good condition of vehicles and (vii) reduced transportation costs.

Figure 1. Schematic layout of Lot 1 (Balykchy km. 0 –43) and Lot 2 (Kochkor – Epkin, km. 64 - 89)



2. The Consultancy Company "Roughton International Ltd., and sub-consultants RAM Engineering Associates LLC" is Construction Supervision Consultant. Company "Sinohydro-Powerchina Roadbridge JV" is General Contractor performing repair and construction works at project sections.

3. This is the **third** "semi-annual" environmental monitoring report covering period January - June 2021 under ongoing CAREC project connecting Corridors 1 and 3, Additional financing, Lot 1 "Balykchy km. 0 -km. 43", Lot 2 "Kochkor - Epkin (km. 64 - km. 89)". It presents environmental aspects, mitigation and monitoring activities undertaken by the Contractor and reviewed by the CSC Roughton International Ltd. and sub-consultant RAM Engineering Associates LLC.

4. This report contains the performed by contractor and CSC. The results are based on the information received from the Contractor for six months report period, as physically observed by the National Environmental Specialist. International Environment Specialist has not contributed to this report.

5. CAREC Corridors 1 and 3 Connecting Road Project. Additional Financing *Balykchy km Lot 1. 0 -km. 43*", Lot 2 "*Kochkor - Epkin* (km 64 - km 89)" with a total length of 68 km. More detailed information on the sections is provided below.

6. Section – 1 "*Balykchy km.0 – km.43*" of the road is a 43 km, traversing from east to west. It begins at a traffic circle located at the entrance to the city of Balykchy. Five roads converge at this point, one of which is a section of the project road heading south – east. As a rule, this section follows the existing highway, right up to post km 43. A major part of this section, about 29 km, is located within Issyk-Kul Oblast. While the remaining 14 km are in Kochkor Rayon of Naryn Oblast.

7. According to zoning of "Issyk-Kul" biosphere territory, this section of the corridor "*Balykchy km.0 - km.43*" is located in the zone of "Rehabilitation Zone", i.e. in the zone that includes anthropogenic disturbed territories that require regeneration and re-cultivation measures (Regulation on the "Issyk-Kul" biosphere territory, approved by the Decree of the Government dated January 24, 2000 N 40). The territory of the project section of the road, since its construction in the 1970s, has been under anthropogenic impact for a long time. Separate cordons or observation stations in this section are not installed due to the lack of such necessity. Rare and endangered species included in the Integrated Biodiversity Assessment Tool (IBAT) system and occurring in the biosphere area¹. In this area of the Balykchy section they do not occur, because they live in high mountainous areas. In this regard, rehabilitation work in this project section of the road will not have a potential negative impact on the existing biological resources of the biosphere area, including red-listed species, on species included in the IBAT system.

Figure 2. Layout of project Lot 1 "*Balykchy km.0 - km.43*"



8. Lot 2 "*Kochkor – Epkin*", project road is 25 km long, running from east to west. It begins at the junction of three roads. It crosses Village Kochkor, where the highway Bishkek-Naryn-Torugart serves as a detour for Kochkor Village and this road section. This section follows the existing highway to Epkin village (89 km). The entire Section is located in Naryn Oblast and crosses only one district, namely Kochkor District, Kochkor village being the center.

Figure 3. Layout of project Lot 2 "Kochkor - Epkin (km. 64 - km. 89)"



1.2 Headline Information

9. The important results of the reporting period are as follows:

- Completion of installation and commissioning of crushing and screening plants at LOT 1 and LOT 2.
- Completion of the installation of the asphalt plant and concrete mixing plant at LOT 1. Testing of the asphalt plant with the production of test asphalt.

10. Archaeological excavations at LOT 1 have been completed. During archaeological work, group of archaeologists led by archaeologist Kunbolot Akmatov, conducted excavations of 9 burial structures (mounds) located near Orto-Tokoi Reservoir on Balkchy-Kochkor road section between 32 and 36 km according to "OHCH Protection Zone Project". Human bones, horse bones, separate fragments of an earthen vessel were found. All finds were recorded, an inventory was made and sent to Laboratory of Archaeology and Ethnography of State Kyrgyz-Turkish University "Manas" to determine the age of excavated burials and restoration of ceramic.

11. In July 2021, archaeologist (K. Akmatov) will complete scientific report on archaeological investigations and excavations, which will be sent to the Ministry of Culture, Information, Sports and Youth Policy of KR (MCISYP KR) for review. After consideration and approval of archaeologist's report, a written permission from the KR MCISYP and a copy of scientific report will be submitted first half of August 2021 to KR MOTC and the Contractor. In the course of field work, the boundaries of archaeological monuments were drawn in situ and their fencing with the installation of information panels.

12. To conduct instrumental monitoring, Contractor engaged two laboratories:

- State laboratory of Chui-Bishkek Territorial Office, State Agency for Environmental Protection and Forestry under Government of Kyrgyz Republic to conduct laboratory

research on quality of environmental components (water, atmospheric air);

- ProfiLab LLC laboratory to conduct instrumental measurements of vibration and noise levels in areas of high environmental sensitivity and socially sensitive recipients of impact, located along Project Road, as well as at quarries.

13. There was a problem with untimely instrumental monitoring, namely in the reporting period it was planned to conduct instrumental monitoring 2 times (March and June), but unfortunately it was conducted once in June. The reasons for not performing planned monitoring were COVID-19 epidemiological situation in country, reorganization and restructuring of state environmental authorities, as well as COVID-19 patients were identified among laboratory staff, which was notified to Contractor in writing (more details are described in section 4.1).

2 PROJECT DESCRIPTION AND CURRENT ACTIVITIES

2.1 Project Description

14. According to the classification of ADB Safeguard Policy Statement 2009 (SPS-2009), the project is classified as category B. Kyrgyzstan is a mountainous and landlocked country, where regional trade is heavily dependent on roads, which dominates Kyrgyzstan's transport system. There is no rail or water transport network, while air transport is not possible for mass transport and becomes expensive for any freight.

15. Implementation of this project will help to connect the southern districts of Osh, Batken and Jalalabad with the northern districts of Naryn, Issyk-Kul, Chui and Talas, which in-turn will be connecting all with regional road corridors that allows: (i) reduce cost of passenger and freight traffic between southern and northern regions by providing direct access; (ii) provide a more direct route between Republic of Kazakhstan and Republic of Tajikistan; (iii) promote trade.

16. The project envisages rehabilitation of the road with the total length of 68 km, of which 43 km are in the Lot 1 "Balykchy km.0 - km. 43" and 25 km on Lot 2 "Kochkor - Epkin (km. 64 - km. 89) ».

17. The entire road corridor lies within the Northern and Inner Tien Shan mountain ranges. The route passes through mountain and plain parts of the Issyk-Kul, Naryn regions at an altitude of 700 – 3,500 m above mean sea level, crossing Chu River valley. The entire road corridor belongs to the local steppe climate, which is described as continental with cold winters and hot summers.

18. According to the general characteristics of districts, in accordance with geo-botanical zoning, Tonsky District of Issyk-Kul Oblast (Lot 1) shall be referred to desert steppe with fragments of forests and spruce woods. The flora of Issyk-Kul BR includes about 1,500 plant species, including about 30 species of very important wild medicinal plants. The road section "Balykchy km.0 - km.43" is located in the sanitation zone (i.e. the zone in the anthropogenic disturbed areas) and is characterized by absence of growth of forests, spruce trees and medicinal plants in this area. Project road section is located at 1,632 m (beginning of section) to 1,756 m (end of section) above sea level. Throughout the section elevating difference ranges from 1,610 to 1,820 meters.

19. The territory of Kochkor Rayon, Naryn Oblast (Lot 2) is a vast area of agricultural land occupied by crop and livestock production. The Kochkor Valley is bounded by the Kyzart mountain ridges in the north and Karagatty Kyzart in the south. The mountainous region has a very dissected relief with high slopes. The height difference in the valley varies from 1,700 – 2,400 meters, and the tract from 2,400 – 4,502 meters. The area is characterized as wavy and mountainous terrain, which is covered with highly palatable grasses, suitable for grazing. Project road section is located at 1845 m (beginning of section) to 2080 m (end of section) meters above sea level.

20. Reconstruction of road will be carried out in accordance with the Kyrgyz State Standard (SNIP 32-01:2004), with geometrical and structural requirements up to Technical Category II (strip width 3.5 – 3.75 m; width of carriageway 7.00 – 7.50 m; width of shoulder 3.25 – 3.75 m (of which 0.50 m - 0.75 m will be paved). In this way the total road width of 15 m will be achieved. Existing small bridges and culverts will be repaired and/or replaced, side drains and other drainage facilities will be constructed, retaining walls and, if necessary, measures to protect the river will be provided, proper road signs, markings will be provided, bus stops will be built, and one underground crosswalk will be constructed.

21. It is expected that majority of environmental impacts from the rehabilitation project will be directly from construction work and some impacts will occur during operation. These impacts are attributable to increased traffic and high vehicle speeds due to good road surface. In turn, it gives rise to increased gas emissions and noise generation, as well as potentially increased traffic accidents involving pedestrians and vehicles. In addition, there is an increased risk of accidents associated with possible spills of harmful substances. During the feasibility study of the project, following impacts were identified in the IEE study of 2018:

22. Noise, airborne pollutant emissions, as well as vibration, are of particular importance within communities near the project road and in places where sensitive receptors such as schools, hospitals, mosques, etc. are located;

- Impacts on watercourses/ rivers.
- Impacts resulting from quarrying.
- Impacts on soil and vegetation, including forced removal of trees near the project road due to site clearance activities.
- Impacts resulting from rehabilitation of bridges and drainage structures.
- Impacts from asphalt mixing, concrete batching plants and aggregates crushing plants.
- Impacts from contractor work camps.
- Impacts on historical and archaeological sites.

2.2 Project Contracts and Management

23. Key features of this contract and its management descriptions are being presented in the following matrix tables:

Table 1. Project contracts and management

Project	Improvement of connecting road for Corridors 1 and 3 under CAREC. Additional funding.
----------------	--

Construction Supervision Consultant (CSC)	Roughton International Ltd., and sub-consultants RAM Engineering Associates LLC
Notification for CSC's commencement of work:	20/05/2020
Contractor	Sinohydro-Powerchina Roadbridge JV
Road Sections:	Total length of two road sections - 68 km
Lot 1	«Balykchy km. 0 –km. 43» - 43 km
Lot 2	«Kochkor – Epkin» - 25 km
Donor:	Asian Development Bank
Date of contract	14/02/2017
Executing Agency	Ministry of Transport and Roads Kyrgyz Republic
Issuance of Work Order	22/06/2020
Date of completion	22 June 2022
Time to finish - days	730 days
Extension - days	-
Warranty period - days	36 months
Contract Amount	
Lot 1 «Balykchy km.0-km.43»	USD 22,671,896.26
Lot 2 «Kochkor-Epkin»	US\$ 17,537,958.57

Figure 4. Project organizational structure and management

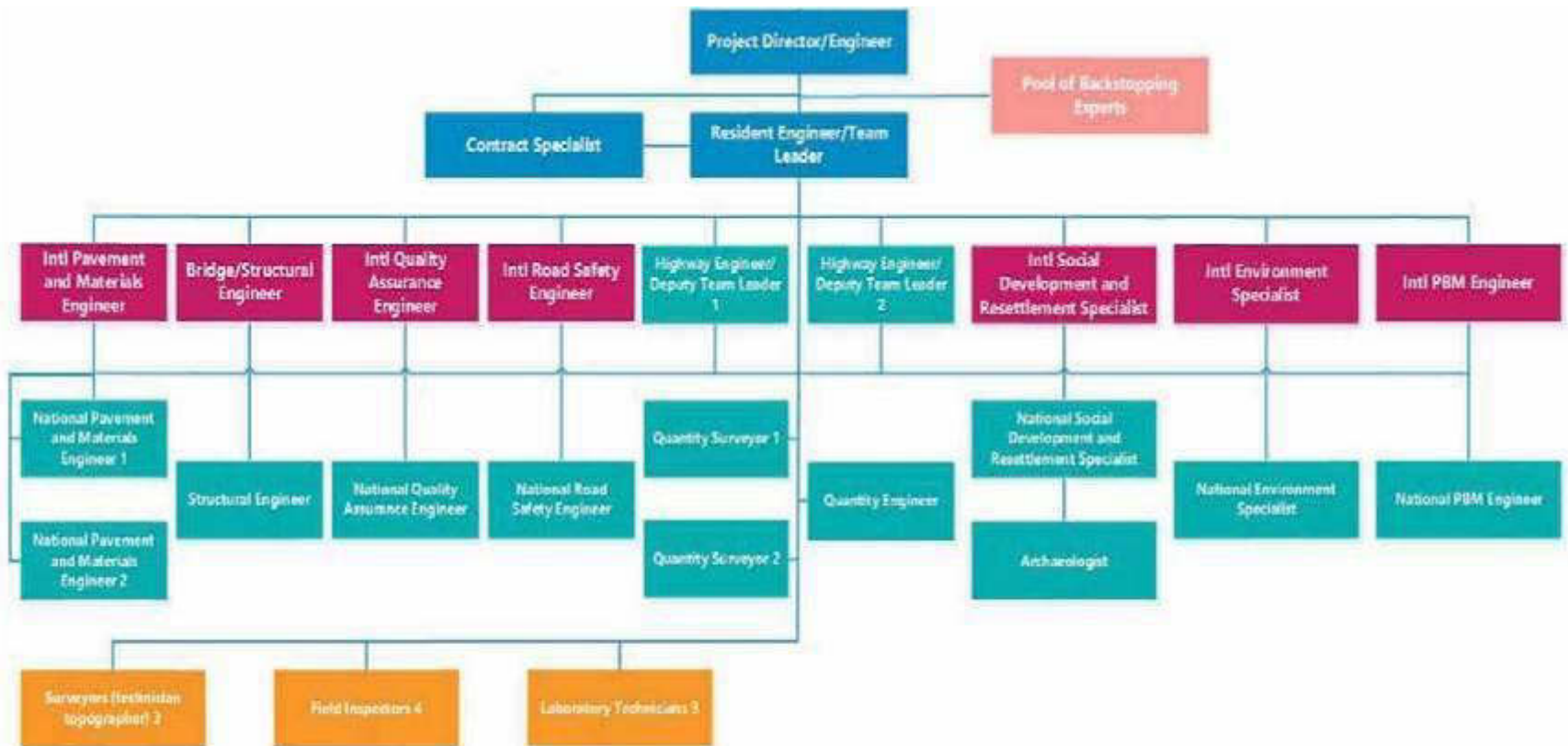


Table 2. Consultant's staff list

International staff	
Resident Engineer-Team Leader	Mike Neilan
Contract Specialist	Ed Vowles
Social Development and Resettlement Specialist	Nurul Hogue
Environment Specialist	Ayaz Khan
PBM Engineer	Alexandra Spornol
Quality Assurance Engineer	Donald Gater
Road Safety Engineer	Francisco Javier Lopez Delgado
Bridge/Structural Engineer	Andrzej Kozuch
Local staff	
Assistant Engineer -1	Mamatbek Mambetaliev
Assistant Engineer -2	Izat Toktomambetov
Coating and Materials Engineer - 1	Torobek Osmonov*
Coating and Materials Engineer - 2	Taalai Ermatov
Quality Engineer	Eldar Samarkulov*
Bridge Engineer	Victor Urlapov
Road Safety Engineer	Shyloobek Sadyraliev
Volume Engineer	Edil Shabdanov
Tracer by volume - 1	Emil Bayseitov
Tracer by volume - 2	Dastan Tashtanov
Translator - 1	Kanat Abaskanov
Translator - 2	Bakytbek uulu Bakai
Office manager - 1	Ruslan Boronov
Office manager - 2	Nursultan Ishenaliev
BCD Engineer	Nurbek Zhumaliyev
Archaeologist	Kubatbek Tabaldiev
Topographer -1	Rinat Zhumabekov
Topographer - 2	Mayrambek Sabyrallyev
Topographer - 3	Dilshat Tajibayev
Site Inspector - 1	Nurbek Omorov
Site Inspector - 2	Emilbek Atambekov
Site Inspector - 3	Ravshan Seyitov
Site Inspector - 4	Erlan Berdibaev
Laboratory Technician - 1	Kanybek Korkombayev
Laboratory Technician - 2	Melis Ayazbekov
Laboratory Technician - 3	Kenzhebek Andakeev
Environmental Protection Specialist	Nasiba Akhmatova
Resettlement Specialist	Yuri Dolgov

Volume of work under contract

24. This road section was designed in accordance with the building codes and regulations of the Kyrgyz Republic BCoR KR 32-01:2004 "Highway design" according to standards of II-Technical Category (main streets of city importance). The general carriageway specification of the road is displayed as below:

- number of traffic lanes - 2;
- traffic lane width -3.5 - 3.75 m;
- width of the carriageway - 2x7,5;
- shoulder width - 3,25 m-3,75 m (of which 0,50 m-0,75 m with covering);
- total width of the carriageway - 15 m;
- design axle load - 11,5 tons.

25. A two-layer asphalt-concrete pavement with thickness of 14 cm, top layer - 5 cm, bottom layer - 9 cm will be laid throughout the project area.

26. The width of the road right-of-way is 30-60 meters. The project envisages construction and repair of the following engineering structures and communications, as well as parameters of the scope of work.

27. Scopes of work on the laying of roadway are:

- Top pavement layer 6cm - 42505 m³;
- Coarse-grained asphalt at junctions 5cm - 682 m³;
- Leveling layer 9cm - 63633 m³;
- Base thickness 20cm – 152829 m³;
- Underlay 25cm - 345850 m³ thickness;
- Asphalt concrete mixture on sidewalks 4cm – 434 m³;

In addition, the project provides:

- Bridge repair with widening - 5 pcs;
- Small artificial structures - 113 pcs;
- Underground crosswalk - 1 pc;
- There are 1726 trays for water drainage;
- Parking near markets - 4 pcs;
- Automobile pavilions - 15 pcs;

Elements of road safety:

- Parapet fencing (boots) - 2285 pcs;

Reconstruction of engineering communications

- HV-10kV - 30 poles;
- HV 0.4 kV - 7 poles;
- Communication line -14 poles;
- Lighting poles - 530 pcs;
- PVC pipes - 23114 r/m.

28. Tree Planting. The IEE study has reported standing live green trees on both sides of the road throughout the project sections. Prior to commencement of construction work, number of

trees has been determined to be forced cutting and removal is 68 pcs. (including 38 trees on Lot 1 and 30 trees on Lot 2), but in practice, exact number of trees can be determined after completing road "alignment" works, ie after completion of topographical work. In 2020 identified as forced cutting 1,909 trees (160 pieces Lot 1- and 1,749-pieces Lot 2). Tree cutting at Lot 1 in 2020 completed with actual number 122, on Lot 2 cut 1268 trees. As of June 30, 2021, there were 481 trees to be cut. As a compensatory measure, new tree seedlings will be planted at a ratio of 1:2 (two trees instead of one).

29. Land acquisition and resettlement plan. The project section is in close proximity to residential areas. At Lot 2 a bypass is under active consideration. If it gets finalized, the road will be traversing through agricultural lands and demolition of fences and the construction of new sidewalks. A Land Acquisition and Resettlement Plan (LARP) was developed, identifying 40 affected persons, who will be compensated by the project, including land owners and users.

Main organizations involved in the project

30. Relevant agencies working with project include:
- Ministry of Economy and Finance of KR (MEoF)
 - Ministry of Transport and Communication of KR (MOTC)
 - Investment Project Implementation Group (IPIG) under MOTC,
 - State Committee on Ecology and Climate (SCEC),
 - Department of Disease Prevention and State Sanitary and Epidemiological Surveillance of the Ministry of Health of the Kyrgyz Republic (DDPSSSES)
 - MOTC is responsible for development of transport sector and is the Executive Agency (EA) for the project. MOTC has overall responsibility for planning, design, implementing and monitoring of the project. IPIG operates under MOTC and performs tasks assigned from MOTC.
 - MEoF KR is authorized state body responsible for coordination with ADB and other donors regarding external assistance issues.
 - *SCEC is* leading government agency for environmental protection, which is responsible for government policy in this area and coordinates environmental protection with other government agencies. Its functions include:
 - development of environmental policy and its implementation;
 - conducting state environmental impact assessment;
 - issuance of environmental licenses;
 - environmental monitoring;
 - supervising environmental information service, environmental legislation, established rules, limits and norms of environmental management, norms of emissions and discharges of pollutants and waste disposal;
 - DDPSSSES supervises sanitary and epidemiological well-being of population, safety of goods, products, environmental facilities and conditions, prevention of harmful impact of environmental factors on human health.

Table 3. Main organizations involved in project and related to environmental protection

No	Organization	Project activity	Responsible for environmental protection	Contact information
1	ADB	Country Environment Focal	Ninette R. Pajarillaga	npajarillaga@adb.org
2	ADB Resident Mission in the Kyrgyz Republic	National Environmental Consultant	Sultan Bakirov	Sbakirov.consultant@adb.org
3	IPIG under MOTR	Implementing Agency	Abdygulov Asylbek	asylbeka@piumotc.kg
4	Roughton International Ltd., and sub-consultants RAM Engineering Associates LLC.	International Environmental Protection Specialist	Ayaz Khan	khan.ayaz99@gmail.com
		Local Environmental Protection Specialist	Akmatova Nasiba	nasibamn@hotmail.com
5	Sinohydro-Powerchina Roadbridge JV.	Contractor's Local Environmental Protection Specialist	Beisheev Isake	isake.beysheev@bk.ru

2.3 Project Activities During Current Reporting Period

31. On the project sites there are objects of historical and cultural heritage (OHCH) located along the road. By order of the Ministry of Transport and Roads of the Kyrgyz Republic, the Research Institute "Kyrgyzrestavratsia" prepared a project for the protection zones of the (OHCH), which was approved by the Ministry of Culture, Tourism and Information of the Kyrgyz Republic. Copies of the plans of the (OHCH) protection zones were provided to the Construction Supervision Consultant and the Contractor for the study and organization of work on the marking of the protection zones, as well as for the excavation of (OHCH) located 50 meters away from the project road.

32. During the reporting period, the Contractor, on the basis of the "OHCH protection zones project", approved by the Ministry of Culture, Tourism and Information of the Kyrgyz Republic, developed by the Research Institute "Kyrgyzrestavratsiya" in accordance with the Law of the Kyrgyz Republic "On the Protection and Use of Historical and Cultural Heritage" No. 91 dated July 26, 1999 and the Regulations "On the Archaeological Field Committee, the Procedure for Conducting Archaeological Field Research and Reporting Scientific Documentation of the NAS of the Kyrgyz Republic 2014", an archaeologist, candidate of historical sciences Kunbolot Akmatov was involved to conduct excavations of (OHCH). The archaeologist, in accordance with the legislation of the Kyrgyz Republic, received "Open sheet of form No. 4 - for the right to conduct emergency excavations of monuments in emergency condition or under threat of destruction in the course of economic development of territories or natural disasters."

33. At the end of April, the Consultant's archaeologist marked the burial sites of the 1st century BC, located in Orto-Tokoy reservoir area at the section Lot 1 "Balykchy-Kochkor" between 32 and 36 km, and subject to excavation.



Photo 1. Lot 1. Mounds of Orto-Tokoi burial place located on RHS of the road at 32 km.



Photo 2. Mounds of "Orto-Tokoi" burial place located on LHS of the road at 32 km.



Photo 3. At the burial site of Orto-Tokoi. The Archaeologist Consultant shared with the international environmental specialist information on burials.

34. Below on the plan, the red line marks the boundaries of the protection zones of Orto-Tokoi burial ground, included in the project of the (OHCH) protection zones approved by the Ministry of Culture, Tourism and Information of the Kyrgyz Republic. Green circles mark the mounds located within 50 m from the edge of the road, red circles mark the mounds located outside 50 m from the edge of the road.

35. In May - June 2021, a group of archaeologists led by archaeologist Mr. Kunbolot Akmatov excavated 9 burial structures (burial mounds) located near the road in Orto-Tokoi reservoir area

at the section of Balkchy-Kochkor road between 32 and 36 km. According to “ Project of protection zones of OHCH ”. The bones of a person, a horse, and individual fragments of an earthen vessel were found in the mounds (photo 4-9). All finds were recorded, an inventory was conducted, then they will be sent to the laboratory of archeology and ethnography of the State Kyrgyz-Turkish University "Manas" to determine the age of the excavated burials and restore ceramic products.

Figure 5. Map of «Orto-Tokoi» OHCH location (Lot 1)



Photos of the progress of archaeological excavations Lot -1



Photo 4. Mound #6 before the start of excavations.



Photo 5. Progress of excavations at mound # 6.



Photo 6. Mound №1. Human skeleton, clay vessels.



Photo 7. Mound №3.



Photo 8. Mound №3. Horse bones.



Photo 9. Mound №5. Human skeleton, clay vessels.

36. In addition, according to the OHCH Protection Zones Project, archaeologists in the process of field work conducted work on the removal of the boundaries of archaeological sites in nature and their fencing with the establishment of information panels (photo 10-13).



Photo 10. Installation of an information panel on the Archaeological Monument "Sary-Bulun I" X-XII centuries. Iron ore processing workshop. Km 7 + 300 RHS of the road.



Photo 11. Archaeological monument "Sary-Bulun I" X-XII centuries. Workshop for the processing of iron ore. Km 7 + 300 RHS of the road.



Photo 12. Archaeological monument "Sary-Bulun II" X-XII century Settlement of metallurgists. Km 7 + 900 LHS of the road.



Photo 13. Informational panel Sary-Bulun II archaeological monument of the X-XII century. The settlement of metallurgists.

37. In July 2021, an archaeologist Mr.Akmatov.K will complete the preparation of a scientific report on the performed archaeological research and excavations, which will be sent to the Ministry of Culture, Information, Sports and Youth Policy of the Kyrgyz Republic for consideration.

After consideration and approval of the archaeologist's report, a written permission from the the Ministry of Culture, Information, Sports and Youth Policy of the Kyrgyz Republic and a copy of the scientific report will be submitted in the first half of August 2021 to the MOTC KR and the Contractor.

Road Construction Works

38. The following works were conducted at Lot 1 section:

- Road widening. During road widening, the roadside was cleared and grubbed (photo 14). The volume of work performed during the reporting period is 9.1%, from the beginning of the Project implementation - 19%.
- Excavation of soil (photo 15). The volume of work performed during the reporting period is 16%, from the beginning of the Project implementation - 34%.
- Preparation of the existing road bed: loosening, removal of unusable soil, leveling and compaction with moisture (photo 16, 17). The volume of work performed during the reporting period is 23%, from the beginning of the Project implementation - 23%.
- Embankment construction (photo 18). The volume of work performed during the reporting period is 11%, from the beginning of the Project implementation - 11%.
- Removal of the existing asphalt (photo 19, 20). The volume of work performed during the reporting period is 18%, from the beginning of the Project implementation - 18%.
- Completed culvert construction work 1m dia 7 pcs. (Excavation of the pit, pouring the foundation, installing headwalls and culvert rings, waterproofing, backfilling (photo 21, 22). The volume of work performed during the reporting period is 10.1%, from the beginning of the Project implementation - 18%.
- New bridge construction work at km 12+063 (abutment №1 is filled).



Photo 14. Road widening at km 14+050 – 16+500: after clearing and grubbing.



Photo 15. Lot 1. Excavation at km 21+000.



Photo 16. Soil compaction at section km 13 + 280.



Photo 17. Removal of unusable material km.14 + 482.



Photo 18. Lot 1. Earthworks on the embankment at km 4 + 200.



Photo 19. Lot 1. Scarifying and removal of old asphalt concrete at km 7 + 560.



Photo 20. Lot 1. Removal and disposal of old asphalt concrete at km 4 + 800.



Photo 21. Lot 1. Warning road safety signs at km 4 + 800.



Photo 22. Lot 1. Culvert construction work at km 8 + 159.



Photo 23. Culvert backfilling at km 18+585.

39. The following works were conducted at Lot 2 section

- Road widening. During road widening the roadside was cleared and grubbed (photo 24). The volume of work performed during the reporting period is 6.4%, from the beginning of the Project implementation - 17%.
- Soil excavation. The volume of work performed during the reporting period is 38.58%, from the beginning of the Project implementation - 43%.
- Preparation of the existing roadbed: loosening, leveling and compaction with moisture (photo 25, 26). The volume of work performed during the reporting period is 6%, from the beginning of the Project implementation - 6%.
- Embankment construction (Photo 27). The volume of work performed during the reporting period is 24%, from the beginning of the Project implementation - 24%.
- Removal of existing asphalt (photo 28). The volume of work performed during the reporting period is 28%, from the beginning of the Project implementation - 28%.
- Construction work was conducted on culvert construction 1 m dia 3 pcs (excavation of the pit, pouring the foundation, installation of headwalls and pipe rings).



Photo 24. Road widening at km. 14 + 050 - 16 + 500: after clearing and grubbing.



Photo. 25. Km 74 + 100. Subgrade leveling.



Photo 26. Subgrade soil compaction with moistening at km 79 + 300.



Photo 27. Embankment construction at km 64+300.



Photo 28. Scarifying of asphalt concrete pavement at km. 74 + 550.

Territory of production site

40. An asphalt concrete plant and a crushing plant for Lot 1 are located at the section of the project site Balykchy km 0 - km 43 at 16 + 200 km RHS of road at 50m distance (Figure 6). All necessary permits / approvals from local authorities, and the approval of the State Committee for Ecology and Climate have been received.

Workers' accommodation camp.

41. Contractor's camp for Lot 1. The Contractor's camp for Lot 1 is located on the section of the project site Balykchy km.0 - km.43 at 16 + 100 km, RHS of the road 50m distance, with an area of 4.5 hectares. All necessary documents / approval from local authorities, and approval of the State Committee for Ecology and Climate have been received.

42. The workers' camp is designed for 45 people. On the territory of the camp there are: office, first-aid post, rooms for workers, place for namaz (namazkana), canteen. In April of the reporting period, camp construction and arrangement works were completed as well as communication to energy resources facilities (water, electricity).

Figure 6. Location of ACP and SCP production facilities

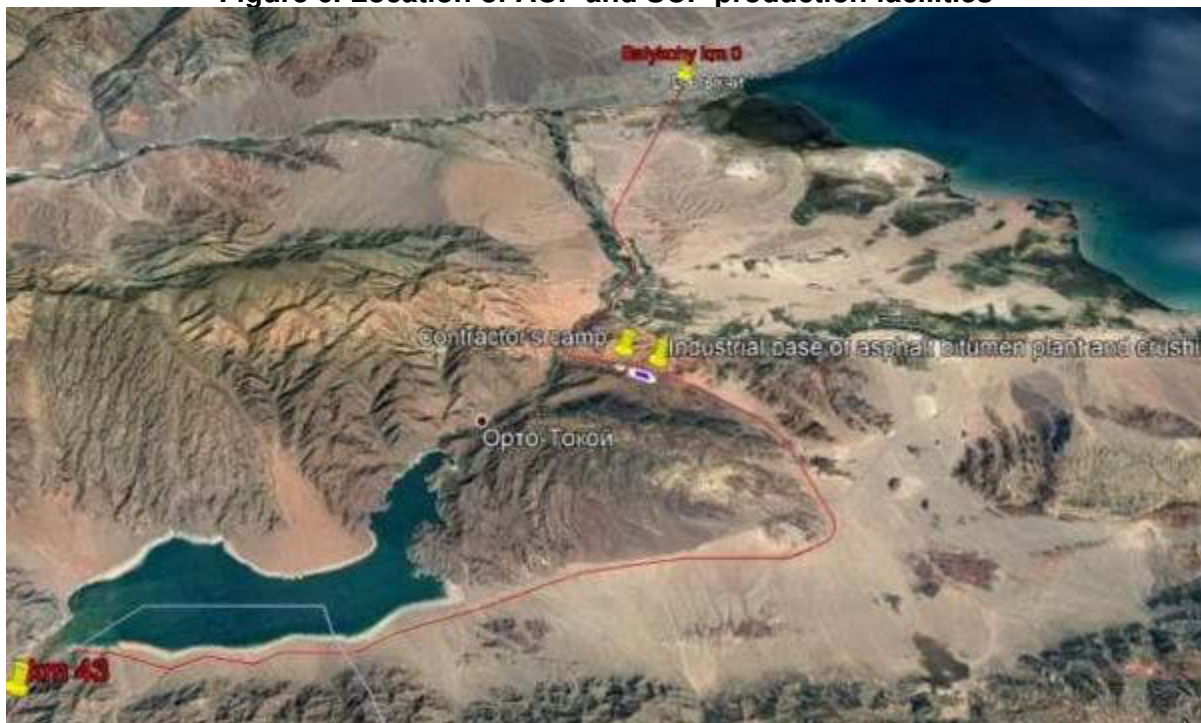
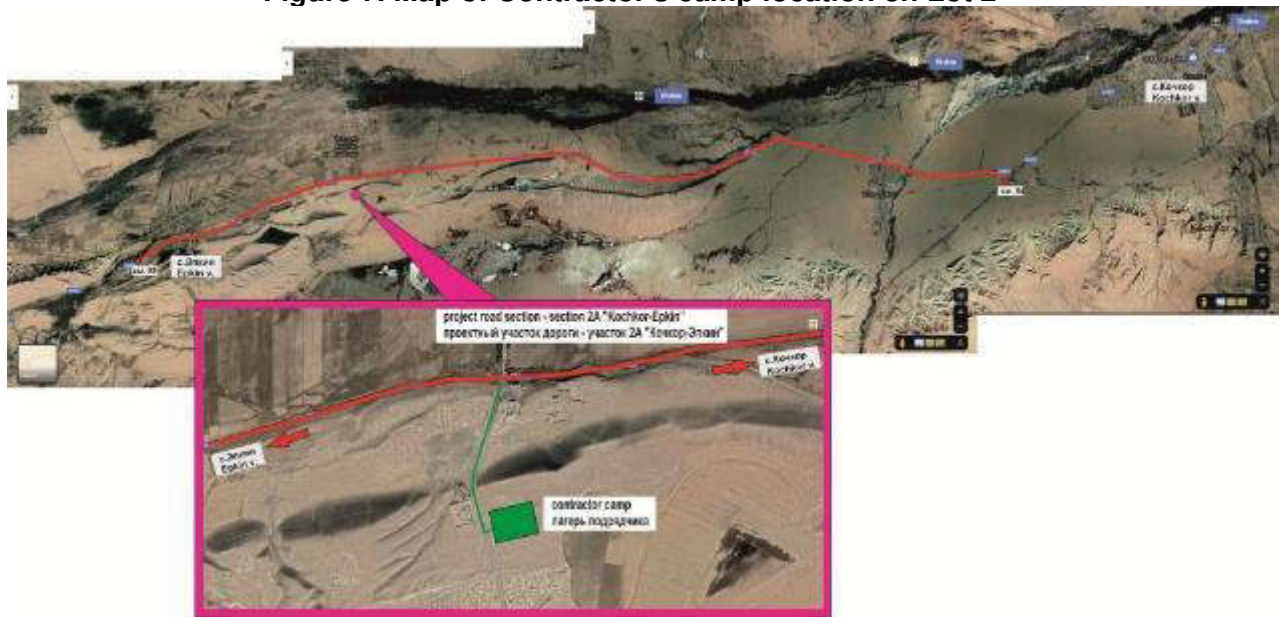




Photo 29. Location of camp road builders at km 16+100.

43. Contractor's camp for Lot 2. The contractor's camp for Lot 2 is located on the section of the project site 2A "Kochkor-Epkin" at 81 km, 250 meters from the project site, with an area of 4.5 hectares. All necessary documents / approval from local authorities, and approval of the State Committee for Ecology and Climate have been received. The territory of the camp is fenced and refined by planting trees. On the territory of the camp there are: an office, a first-aid post, rooms for workers, a parking lot for construction equipment, a dining room with a kitchen block. Each living room has a bathroom and shower.

Figure 7. Map of Contractor's camp location on Lot 2



Photos of Contractor's camp arrangement progress

Lot 1



Photos 30, 31. Lot 1. Camp area.



Photos 32, 33. Lot 1. Camp arrangement.



Photo 34. First aid post.



Photo 35. Office.



Photo 36. Room for living.



Photo. 37. Room for living.



Photo 38. Shower room.



Photo 39. WC.



Photo 40. Laundry.



Photo 41. Room for namaz.



Photo 42. Dining room.



Photo 43, 44. Kitchen.

Lot 2



Photo 45. Contractor's camp location Lot 1.



Photos 46, 47. Lot 2. Contractor's camp area.



Photos 48, 49. Lot 2. Camp area is fenced.



Photos 50 and 51. Living rooms in the Contractor's camp.



Photo 52. WC.



Photos 53, 54. First aid post at Contractor's camp.

44. Trees management. In 2020, the Contractor jointly with Consultant, conducted work on setting out of road central lines and the boundaries of the roadbed (including the road slope) at place, the number of felling trees under the item “forced” was determined. Contractor received all the necessary permits from State Committee on Ecology and Climate (SCEC), State Inspectorate for Environmental and Technical Safety under Kyrgyz Republic Government (SIETS).

45. On the Lot 1 section, the number felling trees is 160 pcs. Trees felling was completed in 2020. The actual number of felled trees is 122pcs. The felled trees were handed over to local village administration (ayil okmotu), statement of release and acceptance was drafted.

46. On the Lot 2 section, the number of felling trees is 1064pcs, and 685pcs of shrubs. In 2020, 661pcs of trees were felled. No tree felling was conducted in the reporting period. According to local legislation requirements, compensation will be made instead of the felled trees in 1: 2 ratio (2 trees will be planted instead of one felled tree). Sites for planting new trees will be identified and confirmed with local village administration (aiyl okmotu) in the process of completing the main construction work on the project section.

47. Staff information. In the reporting period, Contractor mobilized 251 people, including 15 foreign personnel (management, engineer, office manager) and 236 local personnel, including the personnel of the contracted companies involved. Below is a breakdown by local personnel of the Contractor and subcontractor involved in the project section.

Personnel	Contractor SINOHYDRO	«Arek stroy» LLC	«Jagylmai» LLC
Engineer / Technician	18	16	5
Operators and drivers	13	45	14
Qualified labor	9	34	10
Unskilled labor	10	29	7
Others	5	18	3

2.4 Description of Any Changes to Project Design

48. No changes were made to the Project.

2.5 Description to Any Changes to Agreed Construction Methods

49. No changes were made in construction methods.

3 ENVIRONMENTAL SAFEGUARD ACTIVITIES

3.1 General Description of Environmental Safeguard Activities

50. Within the authority of the local environmental specialist of the Construction Supervision Consultant "Roughton International Ltd." and the sub-consultant "RAM Engineering Associates LLC" during the reporting period regularly monitored the implementation of the EMP and SSEMP requirements during construction works on sections of the Balykchy road km. 0 + 000- 43 + 000 and Kochkor-Epkin. Participated in instrumental monitoring. Participated in and conducted trainings on SSEMP implementation. The specialist has visited the site more than 25 times. During site visits, special attention was paid to visual monitoring of environmental components condition (water, air, soil) and the implementation of mitigating measures for environmental impact during construction works, quarrying process and waste disposal in the environment.

51. Site inspection by a local environmental specialist was conducted jointly with Contractor's environmental specialist. During the reporting period, when environmental problems were identified, the Consultant warned the Contractor verbally or in written form regarding the necessity to eliminate violations within the specified terms, explanatory work was also conducted at places as well as trainings for employees who commit violations and those responsible for EMP and SSEMP implementation.

3.2 Site Audits

52. Visual monitoring of construction sites by Engineer's environmental specialist was conducted each month jointly with Contractor's environmental specialist: since February, the dates of site inspections are reflected in the table below. Monitoring site visits of Engineer's Environmental Specialist started in February because of weather and restricted travelling to regions and country's COVID-19 epidemiological situation and limited amount of work on Lot-1 and lack of construction work on Lot-2 in January 2021.

Table 4. Dates of conducted site inspection

No	Date	Auditor name	Purpose of audit	Summary of any significant findings
February				
1	15.02.2021	Akhmatova N. Beishev I.	Monitoring of construction sites for Lot 1 with the Contractor's environmental specialist	Visual monitoring of all construction sites, disposal of unusable soil, quarries and monitoring of the environmental documentation of the Contractor. Collecting information for the monthly report.
2	16.02.2021	Akhmatova N. Beishev I.	Monitoring of construction sites for Lot 2 with the Contractor's environmental specialist	

March				
3	23-26.03.2021	Akhmatova N. Beisheev I.	Monitoring of construction sites for Lot 1 and 2 with the Contractor's environmental specialist and participation in archaeologist training	Visual monitoring of all construction sites, dump sites, quarries and monitoring of the Contractor's environmental documentation. Collecting information for the monthly report.
April				
4	26.04.2021	Akhmatova N. Beisheev I. Ayaz Khan	Introduction international specialist Ayaz Khan with the project road and the Builders' Camp on Lot 1 in Balykchy km. 0 - km 43	It was identified that old asphalt was stored at the site for spoil banks of unusable soil. According to verbal instructions, the Contractor, within two days, ensured the removal of waste of old asphalt to an authorized site for the disposal of waste of old asphalt concrete.
5	27–30.04.2021	Akhmatova N. Beisheev I. Ayaz Khan	Introduction to international specialist Ayaz Khan the project road for Lot 2, with the production bases for Lot 1 and 2.	The lack of personal protective equipment was noted for the Contractor's employees and the Consultant's employees, except vests.
May				
6	07.05.2021 г.	Akhmatova N. Beisheev I.	Lot 1. Monitoring of construction sites and production base with the Contractor's environmental specialist	Visual monitoring of construction sites, production bases, quarries, spoil banks. Lack of personal protective equipment for workers at the sites.
7	10.-12.2021 г.	Akhmatova N.	Monitoring of construction sites, production bases, quarries, spoil banks.	Daily visual monitoring of all construction sites. Collecting materials for drafting monthly report.
June				
10	2.06.2021 г.	IPIG protective measures specialist Abdygulov A. ADB Local Office Safeguard Specialist Bakirov S. Akhmatova N. Beisheev I.	Monitoring of construction sites, production bases, quarries, spoil banks.	Visual monitoring of all construction facilities. The local consultant of ADB and the IPIG specialist issued recommendations for improving road watering: on Lot 1, all existing machines are provided with a gravity irrigation system, i.e., water is supplied for watering by gravity. The use of a pressure irrigation system significantly increases the efficiency of the irrigation machine, which makes it possible to reduce water consumption by 2 times and increase the intensity of watering. No personal protective equipment among workers at the

				production base: helmets, special shoes, eye protector, noise protection equipment, respiratory protection. For lot 2: Dust control during crusher plant operation and vehicle traffic on technological earthen roads.
11	03-04.06.2021	Akhmatova N. Beisheev I.	Monitoring of construction sites, production bases, quarries, spoil banks jointly with the Contractor's environmental specialist	Visual monitoring of all construction facilities. Checking elimination of violations identified before.
12	08-11.06.2021	Akhmatova N.	Monitoring of construction sites, production bases, quarries, spoil banks	Monitoring of construction sites, production bases, quarries, spoil banks. Checking the elimination of violations identified before. Collecting of information for drafting a semi-annual report.

3.3 Issues Tracking (Based on Non-Compliance Notices)

53. During the reporting period, if environmental issues were identified, a verbal warning was initially given to the Contractor with a deadline. A letter was sent in case if Contractor did not eliminate the identified environmental issue.

54. Table 5 reflects issues and non-compliances that took place during the reporting period. In the reporting period, there were 14 non-compliances, 12 of which were resolved during the reporting period, 2 were not fulfilled.

Table 5. Contractor's activities to eliminate EMP non-compliances

No n/n	Comments, non-compliances, recommendations	Corrective measures	Responsible Executor. Deadlines	Status of the previous Corrective measures execution Terms of non-compliance elimination
For both sections Lot 1 and Lot 2				
1	No Environmental passport of the company	Speed up the process of developing Environmental Passport.	Contractor "Sinohydro" Deadline March 2021	<u>Done</u> May 2021 The delay is due to the fact that it was under consideration in the territorial department of environmental protection for a long time
2	No Permit for emissions of pollutants (prohibited substances) into the	Obtain a permit from the territorial department of environmental protection of the State	Contractor "Sinohydro" Deadline until March 15, 2021	<u>Done</u> Permit №034084

No п/п	Comments, non-compliances, recommendations	Corrective measures	Responsible Executor. Deadlines	Status of the previous Corrective measures execution Terms of non-compliance elimination
	atmosphere for 2021	Committee on Ecology and Climate (SCEC).		
3	No Contract for the removal of wastewater from the temporary camp of builders and its' treatment	Conclude an agreement with a specialized organization for the removal of wastewater from the temporary camp of builders and its' treatment.	Contractor "Sinohydro" Deadline until March 15, 2021	<u>Done</u> March 2021 r.
4	No Agreement with an accredited laboratory for instrumental monitoring of the quality of environmental components: water, air; noise and vibration level	Conclude an Agreement and provide instrumental monitoring. Issued 18.02.2021 Second time on May 18, 2021	Contractor "Sinohydro" Deadline until March 1, 2021 Second time until May 30, 2021r.	<u>Done</u> Agreement is concluded. Instrumental monitoring was conducted in June 2021. The delay in monitoring is related to laboratory staff disease with COVID-19
5	Finding workers at construction sites without personal protective equipment (photos 55-56).	Provide all employees with personal protective equipment (special protective clothing, footwear, helmets, noise protection equipment, respiratory protection, etc.) according to work specifics	Contractor "Sinohydro" Urgently	<u>Done</u> Additional monitoring will be conducted on this issue.
Lot 1				
6	On April 26, the storage of old asphalt was found on the area for a dump of unusable soil at km 12 + 000 LHS of the road at 100m distance (Photo 57)	According to verbal instructions, the Contractor, within three days, ensured the removal of the waste of old asphalt to an authorized site for the disposal of waste of old asphalt concrete. Issued April 26, 2021r.	Deadlines Until April 29, 2021	<u>Done</u> (photos 58, 59)
		Submit to Engineer all permits from the relevant local self-	Deadline until May 20, 2021	<u>Done</u>

No п/п	Comments, non-compliances, recommendations	Corrective measures	Responsible Executor. Deadlines	Status of the previous Corrective measures execution Terms of non-compliance elimination
		government bodies, the territorial administration of the State Committee for Economics and Control. Develop a plan for the disposal of old asphalt, agreed with the territorial department of environmental protection.		
7	The area around the inspection pit of the vehicle is contaminated with oil products. Storage conditions for used oils do not meet environmental requirements (photo 60).	Ensure that the area is cleaned from pollution. In order to prevent soil pollution with oil products, ensure storage of containers with waste oils on an impenetrable protective surface under a canopy to protect against atmospheric precipitation and protect from direct sunlight to reduce emissions during natural evaporation of fuels and lubricants arising from daily air fluctuations.	Contractor "Sinohydro". Deadline until May 25, 2021	<u>Partially executed</u> (photo 61). The territory was cleaned. It is planned to construct a special concreted area with a canopy for storing waste oils. Concreting of site will be done as soon as concrete-mixing unit completed. Scheduled start is August 15. Therefore, deadline for corrective actions extended to August 25, 2021.
8	The conditions of storage and keeping materials and production wastes do not comply with environmental requirements (photos 62, 63).	Provide separate storage of materials from waste tires, waste oils.	Contractor "Sinohydro". Deadline until May 25, 2021	<u>Done</u> (photos 64, 65).

No n/n	Comments, non-compliances, recommendations	Corrective measures	Responsible Executor. Deadlines	Status of the previous Corrective measures execution Terms of non-compliance elimination
9	On Lot 1, watering of the roadway is carried out by sprinklers with gravity water supply (photo 66). The use of a gravity irrigation system is not effective enough, since it requires more water consumption and more time to watering the same distance of the road than when using a pressure irrigation system.	Recommended for the effectiveness of roadside watering: on water-washing machines with gravity irrigation, install pumps for spraying water. The use of a pressurized irrigation system significantly increases the efficiency of watering and the operation of a watering machine, which makes it possible to reduce water consumption by 2 times, and to increase the intensity of watering.	Contractor «Sinohydro». Deadline July 15 2021	<u>Done</u> One of the three sprinklers has a pump for spraying water (Photo 67). The rest of the machines will be pumped as soon as they arrive, which is expected by July 15th.
Lot 2				
10	On June 2, during the monitoring of construction sites and facilities, dust formation was detected: during the operation of the crushing and screening plant located at the production base Lot 2 (photo 68) and the vehicles traffic on earthen road during materials transportation (photo 69). Letter No. KGZ 4267 210609 AH-BK079 dated 09.06.2021	Install watering facility at crushing and screening plant for dust control. Provide a high-quality hard surface of access, technological roads and the production site of the crushing and screening plant and watering them	Contractor «Sinohydro».	<u>Done</u> (photos 70–73)
11	The base of the gas station site is unpaved; during the process of refueling vehicles, diesel fuel leaks from the pistol, which leads	Provide concreting of the base of gas station area	Contractor "Sinohydro". Deadline until May 25, 2021	<u>Done</u>

No n/n	Comments, non-compliances, recommendations	Corrective measures	Responsible Executor. Deadlines	Status of the previous Corrective measures execution Terms of non-compliance elimination
	to soil contamination.			
12	Storage conditions of containers with fuels and lubricants do not meet environmental requirements (photo 74)	In order to prevent soil contamination with oil products, ensure storage of containers with fuels and lubricants on a waterproof and oil-tight surface and under a canopy to protect against atmospheric precipitation	Contractor "Sinohydro". Deadline until May 25, 2021	<u>Not executed</u> (photo 75). Cleaning of the territory and temporary storage of containers with fuels and lubricants under a protective film until the completion of the construction of a covered warehouse for fuels and lubricants was ensured. Concreting of site will be done as soon as concrete-mixing unit completed. Scheduled start is August 15. Therefore, deadline for corrective actions extended to August 25, 2021.
13	The WC in one of the living rooms is adapted to a kitchen (photo 76).	To bring WC into compliance (as it should be by initial purpose)	Urgently	<u>Done</u> (photo 77).
14	The uprooted roots from the felled trees were not removed on the roadside at km 75. (Photo 78).	Ensure the removal of the uprooted roots of felled trees.	Until 25.05.2021.	<u>Done</u> (photo 79)

Summary of non-compliances based on current period notifications

Total Number of Issues for Project	14
Number of Open Issues	2
Number of Closed Issues	12
Percentage Closed	86%
Issues Opened This Reporting Period	2
Issues Closed This Reporting Period	12

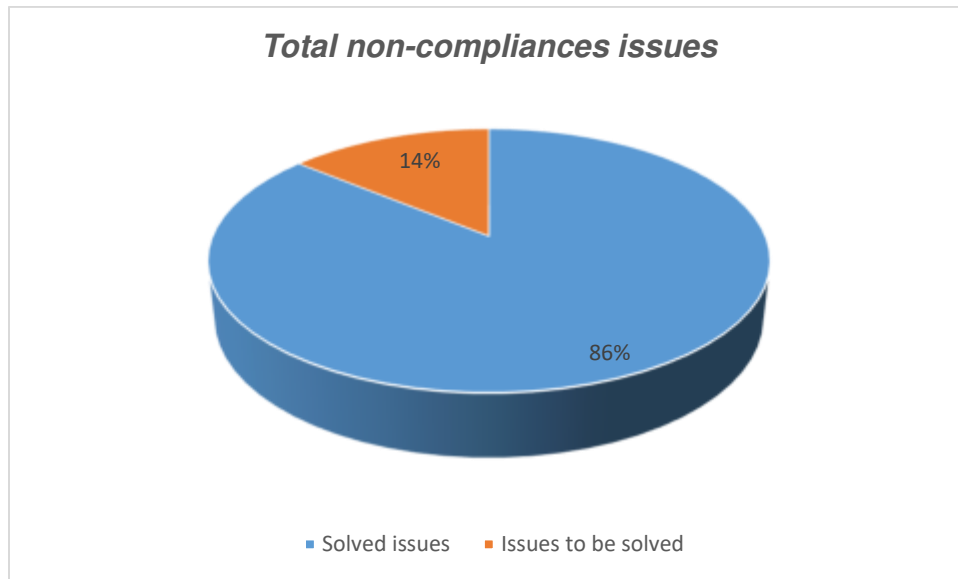


Photo 55. Crushing and screening plant worker with no appropriate personal protective equipment.



Photo 56. Concrete plant worker with no personal protective equipment.



Photo 57. Lot 1. Stored old a asphalt concrete dump of unusable soil km 12 + 000.



Photo 58. Lot 1. Removal of waste of old asphalt on a concrete.



Photo 59. Lot 1. Work on the removal of waste from the old asphalt concrete from spoil bank at km. 12 + 000.



Photo 60 Before and after cleaning (photo 61).



Photos 62. and Photo 63. The conditions of storage and keeping of materials and production waste do not comply with environmental requirements.



Photo 64 and Photo 65. Lot 1 after cleaning and orderly storage of materials and waste oils and tires.



Photo 66. Gravity irrigation system.



Photo 67. Pressure irrigation system.



Photo 68. Lot 2.



Photo 69. Lot 2. Lack of watering earthen roads.



Photo 70, 71. Lot 2. Backfilled technological earthen road to the crusher plant.



Photo 72. Lot 2. Work of crusher plant after the installation of the irrigation system with water: no dust.



Photo 73. State of the production site of the crusher plant after watering.



Photo 74. Lot 2. Storage conditions for fuels do not meet environmental requirements.



Photo 75. Lot 2. Cleaning of the territory and storage of containers with fuels under a protective film.



Photo 76. Lot 2. The bathroom transformed into kitchen.



Photo 77. The bathroom is brought into conformity with its purpose.



Photo 78. Lot 2. Uprooted roots.



Photo 79. The area after cleaning km 75.

3.4 Trends

55. During reporting period 14 non-compliances identified where 12 resolved during reporting period, 2 were not. Two non-compliances mean fuel and lubricants storage conditions do not meet environmental requirements, i.e. no measures to protect soil from contamination by oil products as a result of possible accidental leaks and spills. To eliminate inconsistencies, the Contractor was issued corrective actions for preventing soil contamination with petroleum products: to ensure storage of fuel and lubricant containers on a concrete surface and under a shelter to protect them from atmospheric precipitation. Since concrete-mixing unit is not operational yet, timing of concreting the fuel and lubricant storage production sites postponed to next reporting period until August 25, 2021

56. Such factors as incomplete scale of physical works, late start dates, absence of nonconformities or their insignificant number in the previous reporting period do not allow to trace trends. In the next reporting period, trends in problems will be determined taking into account sufficient information of this reporting period.

3.5 Unanticipated Environmental Impacts or Risks

57. There were no unexpected environmental impacts or risks during the reporting period.

4 RESULTS OF ENVIRONMENTAL MONITORING

4.1 Overview of Monitoring Conducted during Current Period

58. Because of current COVID-19 situation the construction works started only by end of October 2020. Contractor jointly with Consultant worked to engage a laboratory for environment quality instrumental monitoring. The nearest instrumental monitoring laboratory is located in Bishkek, however because of their scheduled workload and COVID-19 situation until end of 2020, engagement for services is denied in 2020 and until March 2021.

59. March 2021, Contractor submitted (Letter E10-03.kg March 17, 2021) to Engineer for

reviewing and approving lists of instrumental monitoring laboratories. Upon approval from Engineer (letter #KGZ4267 210503 AH-BK068 May 3, 2021), Contractor concluded Contracts with Chui-Bishkek Territorial Department of State Agency for Environmental Protection and Forestry under GKR for laboratory studies of quality of environmental components (water, atmospheric air) and with laboratory of ProfiLab LLC for instrumental measurements of vibration, noise in areas of high environmental and social sensitivity recipients along the project road and borrow pits.

60. As per Contracts, laboratory specialists were to come in May and to conduct measurements, but instrumental monitoring postponed until late June because among laboratory staff infected with COVID-19 found. Written note received by Contractor (letter dated 10.06.2021)

61. The start of baseline instrumental monitoring with 2 months repeating frequency during construction works is failed because of reasons mentioned above in paragraphs 57-59

62. During reporting period, the Instrumental Monitoring in accordance with SSEMP's Environmental Quality Monitoring Plan (water, air, noise, vibration) was conducted once in June 2021. The list of socially sensitive receptors and objects of increased environmental sensitivity is shown in the table below.

Sensitive recipients for each Lot

Lot 1:	Lot 2
<ul style="list-style-type: none"> • Balykchy town. High road, beginning of the section km 0 + 000 - 0 + 300 • Tash-Sarai village, km. 11+000 • Chu river, Tash –Sarai village (bridge), km 11+500 • Irrigation ditch, km 12+055 • Chu river, gauging station, bridge, km 42+600 • Production base km 16+600 	<ul style="list-style-type: none"> • Kok-Jar village at km 65+985 • Chekildek village 70+003L • Epkin village, next to mosque km 86+540 • Production base at km 81+500 • Joon-Aryk river km 65+410 • Sazdyn Suusu river km 86+261 • Mukandyn suusu river km 68+044 • Kok-Jar river cemetery km 68+000 • Cemetery Chekildek village km 69+800 • Cemetery Cholpon village km 82+800

63. In June, the Contractor provided instrumental monitoring of the quality of the environmental components (water, air) and the levels of noise and vibration (Photos 80 and 81). The results of laboratory analyzes and instrumental measurements are shown in tables 6 and 7.



Photo 80. Measurement of the level of noise and vibration.



Photo 81. Air quality measurements.

64. Air quality was determined by the following indicators: sulfur dioxide, nitrogen dioxide, carbon monoxide and suspended solids. According to the test results, in the selected samples of atmospheric air, the excess of the maximum permissible concentration (MPC) for all determined ingredients was not found.

65. The water quality of surface water bodies flowing along and crossing the project road was determined by the following indicators: transparency, suspended solids, oil products, BOD₅. According to the results of chemical analyzes in water, the concentration of pollutants in all selected samples does not exceed the MPC established for reservoirs of the fish-economic and cultural-household category for all determined ingredients.

66. The level of noise and vibration. According to the results of instrumental measurements, the level of noise and vibration during the operation of the company's vehicles and equipment in quarries and at production bases, as well as the background level of noise and vibration from not yet developed quarries and traffic flow on the roads are within the established limits of the MPC.

Table 6. Results of instrumental monitoring: December 2015 (baseline indicators) - June 2021

Location, name of the monitoring site	Monitoring period	CO mg/m ³	NO ₂ mg/m ³	SO ₂ mg/m ³	Dust concentration, mg/m ³	Noise level, dB	Vibration level
Regulatory maximum permissible concentration of pollutants		5	0.085	0.5	0.5	80	112
LOT 1							
70. Balykchy town 0+000 km Latitude 42°27'09 Longitude 76°09'37"	December 2015 (baseline indicators)		0,022±0,004	0,05±0,006	0,29±0,07	43,1	92,4
	June 2021 (baseline indicators)	0,4±0,08	0,082±0,021	0,008±0,002	0,073±0,015	68	96
0+300 km Latitude 42°27'09 Longitude 76°09'32"						58	90
71. Tash-Sarai village 11+000 km Latitude 42°22'14 Longitude 76°04'53"	December 2015 (baseline indicators)		0,027±0,005	<0,05	<0,26	40,2	91,7
	June 2021 (baseline indicators)	0,2±0,08	0,025±0,006 3	0,004±0,001	0,4±0,08	57	87
72. Production base (Asphalt plant, crushing plant) Quarry km 16+600 Latitude 42°22'14 Longitude 76°04'53"	June 2021 (baseline indicators)	0,7±0,14	0,033±0,008 3	0,006±0,0015	0,012±0,0024	62	93
Quarry km 7+100 Latitude 42°40'60 Longitude 76°09'32"	June 2021 (baseline indicators)					58	90
Quarry 9+000 Latitude 42°38'89 Longitude 76°09'86"	June 2021 (baseline indicators)					46	90
Quarry km 26+800 Latitude 42°29'36	June 2021 (baseline indicators)					51	

Location, name of the monitoring site	Monitoring period	CO mg/m ³	NO ₂ mg/m ³	SO ₂ mg/m ³	Dust concentration, mg/m ³	Noise level, dB	Vibration level
Regulatory maximum permissible concentration of pollutants		5	0.085	0.5	0.5	80	112
Longitude 76°09'94"							
LOT 2							
73. Kok-Jar village km 65+985 Latitude 42°19'17 Longitude 75°65'33"	December 2015 (baseline indicators)		<0,02	<0,05	<0,26	57	90
	June 2021 (baseline indicators)	0,3±0,06	0,018±0,004 5	0,003±0,0008	0,012±0,0024	51	88
	Kok-Jar village km 66+100 Latitude 42°19'17 Longitude 75°65'33"					54	88
74. Chekildek village km 70+003 Latitude 42°19'44 Longitude 75°60'80"	December 2015 (baseline indicators)		0,023±0,004	<0,05	0,028±0,07	68,1	91,1
	June 2021 (baseline indicators)	0,3±0,06	0,018±0,004 5	0,003±0,0008	0,103±0,021	56	85
75. Epkin village next to mosque km 86+540 Latitude 42°17'36 Longitude 75°42'25"	December 2015 (baseline indicators)						
	June 2021 (baseline indicators)	0,3±0,06	0,013±0,003 3	0,003±0,0008	0,079±0,016	51	92
76. Production base Quarry 81+200 Latitude 42°18'50 Longitude 75°47'84"	December 2015 (baseline indicators)						
	June 2021 (baseline indicators)	0,5±0,1	0,016±0,004	0,004±0,001	0,109±0,022	83	98
	Quarry 81+200 next to shop Latitude 42°18'79 Longitude 75°47'52"					51	88

Location, name of the monitoring site	Monitoring period	CO mg/m ³	NO ₂ mg/m ³	SO ₂ mg/m ³	Dust concentration, mg/m ³	Noise level, dB	Vibratio n level
Regulatory maximum permissible concentration of pollutants		5	0.085	0.5	0.5	80	112
Epkin village km 86+000 east side of the road Latitude 42°10'24 Longitude 75°25'21''	June 2021 (baseline indicators)					46	88
Epkin village km. 86+000 Next ot the shop Latitude 42°17'36 Longitude 75°42'25''						53	88
Quarry km. 71 + 500 north side of the road Latitude 42°18'83 Longitude 75°58'95''						52	98
Quarry 75 + 400 near the house st. Orkoshov M, 30 Latitude 42°19'27 Longitude 75°54'45''						55	
Chekildek village, km 70 + 000 north side of the road Latitude 42°19'44 Longitude 75°60'80''						51	85

Table 7. Results of laboratory research of surface water quality

Sampling location	Selection period	Transpare ncy, cm	Petroleum products	BOD 5, mgO ₂ / dm ³	Weighted substances, mg / l	Notes
MPC for reservoirs household life category		Not less than 20	0,3**	2–4**	increase 0,25/0,75	
Lot 1						
148. Chu river	December 2015. (baseline)	41	<0,05			Baseline measurements in 2015.
	June 2021. (baseline)	24	0,012	1,3	3,2	Color exceeding is not related to the impact of construction work
149. Irrigation ditch	June 2021 r. (baseline)	26	0,02	2,5	3,0	
150. Chu river, gauging station Orto-Tokoy reservoir km. 42 + 600	December 2015 (baseline)	37	<0,05	0,3	3,0	Baseline measurements in 2015
	June 2021 (baseline)	23	0,017	1,1	3,4	
Lot 2						
151. Joon-Aryk river km.65 + 410	December 2015 (baseline)	40	<0,05			Baseline measurements in 2015
	June 2021 (baseline)	>50	0,03	1,4	1,4	Color exceeding is not related to the impact of construction work
152. river Sazdyn-Suus km. 86 + 261	June 2021. (baseline)	39	0,026	0,3	3,0	Color exceeding is not related to the impact of construction work
153. Mukandyn-Suus river Km. 68 + 044	June 2021 r. (baseline)	10	0,026	1,1	20	
154. Zhar-Korundu river	June 2021 r. (фон)	39	0,022	2,5	0,6	Color exceeding is not related to the impact of construction work

4.2. Trends

67. Given the difficult COVID-19 situation described above, instrumental environmental monitoring was delayed. Also, taking into account the incomplete scale and late start of physical activities during the reporting period, there is insufficient information to determine a tendency.

4.3. Summary of Monitoring Outcomes

68. During the reporting period, no construction work was conducted in areas of high environmental sensitivity and socially sensitive receptors along the Project Road. At these sites,

baseline monitoring of the quality of environmental components (atmospheric air, water), noise and vibration levels was conducted. Instrumental measurements of noise and vibration levels were made at all quarry areas. During the construction period in the second half of 2021, it is planned to monitor the quality of atmospheric air, water, noise impact and vibration in the areas where construction work will take place. It is recommended to monitor the air quality indicators during quarryings close to settlements at km. 9 + 000, km 71 + 500, km. 75 + 400, also provide instrumental measurements of the concentration of CO (carbon monoxide) contained in emissions from vehicles and construction equipment of the Contractor. There is no need in additional monitoring not envisaged by SSEMP.

4.4. Material Resources Utilization

4.4.1. Current Period

69. In the reporting period, water was used for watering during earthworks, quarrying and dust control in all areas subject to dust formation in Lot 1 and Lot 2.

4.4.2. Cumulative Resource Utilization

70. As of June 30, 2021, the Contractor has 16 quarries at its disposal for the extraction of construction material. The contractor has received all the necessary documents / approval from the local authorities, and the State Committee on Ecology and Climate of the Kyrgyz Republic for the development of these quarries. Table 8 shows the main characteristics of the quarries.

Table 8. Characteristics of quarries

№	Quarry	Reserves (m³)	Area (Га)	Distance from road	Quarrying conducted yes/no
Lot 1					
№1	km. 5+500	600 000	5,09	430 м.	Yes
№2	km. 7+100	164 000	4,1	122 м.	Yes
№3	km. 7+200	195 200	4,88	122 м	No
№4	km. 9+000	380 000	7,6	25 м.	No
№5	km. 11+300	76 000	1,9	50 м	No
№6	km.16+600	1 744 000	43,6	42 м	Yes
№7	km. 16+600	51 000	12,84	42 м	-
№8	km. 19+360	66 500	22,16		
№9	km. 20+600	65 600	1,64	120 м	No
№10	km. 22+700	380 000	9,5	37 м	No
№11	km. 26+800	488 000	12,2	80 м	No
№12	km. 33+000	609 000	20,3	25 м.	No
Lot 2					
№13	km. 71+500	-	5,2	5 м.	Yes
№14	km. 75+400	108 000	2,7	30 м.	Yes
№15	km.81+200	-	5,6	50 м	Yes
№16	km. 86+000	85 000	2,0	20 м	No

71. The Contractor has agreed with the local authorities on the sources (points) for water intake for the implementation of dust control:

- Letter of consent of the Kok-Jar village administration No. 319 dated July 21, 2020
- Letter of consent of the Cholpon village administration No. 405 dated June 20, 2020

Table 9. Sources for water intake Section 1 "Balykchy - km.43"

№	Water source	GPS coordinates
1	Orto-Tokoi reservoir	N 42° 12.765 E 075° 30.966
2	Orto-Tokoi reservoir	N 42° 18.315 E 075° 54.123
3	Orto-Tokoi reservoir	N 42° 17.739 E 075° 55.975
4	River Chu	N 42° 21.882 E 076° 03.894
5	River Chu	N 42° 22.324 E 076° 04.886
6	River Chu	N 42° 23.207 E 076° 05.868
7	River Chu	N 42° 23.831 E 076° 05.939

Table 10. Sources for water intake Section 2 "Kochkor-Epkin"

№	The name of the reservoir	GPS coordinates
1	Joon-Aryk	N 42° 10.394 E 075° 25.194
2	Mukandyn Suusu	N 42° 10.394 E 075° 39.708
3	Chekildektin Suusu	N 42° 11.852 E 075° 37.128
4	Sazdyn Suusu	N42°09.753 E075°23.393
5	Sazdyn Suusu	N42°09.798 E075°23.576
6	Tarmal Saz	N42°11.266 E075°34.744

4.5. Waste Management

72. In the process of the main and auxiliary economic activities for the road reconstruction, the following waste is generated:

- unsuitable soil;
- removed old asphalt concrete pavement;
- wastewater and solid household waste generated during the life of personnel in the construction camp.

73. The Contractor has all the necessary permits from the relevant state bodies (village administration, territorial bodies for environmental protection) for the placement of unsuitable soil dumps in the environment. In the reporting period, the Contractor received the necessary permits from the relevant state bodies (ayil okmotu, territorial environmental authorities) for additional dumps of unusable soil in the environment at km 40 + 360, 71 + 640, 71 + 860 (Table 11) and for disposal of waste of old asphalt concrete in old quarries (table 12) in accordance with the disposal plan:

Lot 1. km. 12 + 000 (letter of consent of Kok-Moynok village administration No. 465 of 10.16.2020. Permit of the Issyk-Kul territorial administration of the State Agency for Environmental Protection and Forestry for disposal of waste in the environment No. 005952 dated 19.10.2020, No. 005967 dated 20.05.2021) ...

Lot 2. km. 80 + 900 and km 89 + 090 (Permit of the Naryn Territorial Department of Environmental Protection No. 02-4 / 682 dated 03.11.2020, Letter of consent of Cholpon village administration No. 662 dated 29.10.2020, Permit of Kochkor Forestry Development Department Forest ecosystems No. 02-2 / 71 dated 27.04.2021).

Table 11. Unsuitable soil spoil bank

№	Spoil bank	Area, m²	Distance from the road
1	km 12+000	12500	100m LHS
2	km 40+360	10645	30m LHS
3	km 71+640	3850	12 LHS
4	km 71+860	2069	12 LHS
5	km 80+900	4200	70 m LHS
6	km 89+090	12000	60m RHS

Table 12. Spoil bank of old asphalt concrete

№	Spoil bank	Area, m²	Distance from the road
1	Km 7+000	1,04	50m RHS
2	Km 20+100	18,3	50m RHS
3	Km 21+260	4,87	50m RHS
4	Km 32+720	0,41	150m LHS
5	Km 38+660	2,61	100m LHS
6	Km 40+200	3,99	100m LHS
7	Km 40+360	10,64	LHS
8	Km 70+180	1,88	400 RHS

74. The old asphalt removed on Lot 1 was taken out for burial at the old quarry at km 7 + 100 (photo 84). The contractor has developed a Plan for the disposal of old asphalt, agreed with the territorial department of environmental protection of the State Committee for Environmental Protection of the Kyrgyz Republic.



Photo 82. Spoil bank of old asphalt concrete at km. 7 + 100LHS before disposal, on the right during disposal.

75. The old asphalt, in volume of 5843 m³, removed from Lot 2 was used for the development of internal roads in Cholpon village and volume of 612 m³ laid on technological road to SCU.

76. Solid household waste is disposed of at the municipal landfill of Balykchy and Cholpon village. Wastewater discharged to the treatment plant in Balykchy in accordance with the concluded Agreement with the municipal enterprise of Balykchy - Gorvodokanal.

4.5.1. Current Period

77. In the reporting period, soil waste was formed on the Lot 1 section when the road was widened. Unsuitable soil was taken out to the spoil bank at km 12 + 000 and km. 40 + 360. Unsuitable soil hazard class - V. The volume of unusable soil waste in the reporting period was 2322 m³. Unsuitable soil from sections is removed and stored in special places, allocated by local administration and obtained permission from environmental authorities.

78. In the reporting period, soil waste was formed on the Lot 2 section when the road was widened. Unsuitable soil was taken to the spoil bank at km. 71 + 640 and km 71 + 860. Unsuitable soil hazard class - V. The volume of unusable soil waste in the reporting period was 7089 m³.

79. Solid waste was generated when the camp was set up for the workers. MSW belongs to the IV class of hazard and is disposed of at the municipal landfill in Balykchy. Solid waste at Lot 2 is transported from the construction camp to the Cholpon village administration municipal landfill. The volume of solid wastes in reporting period is 2215 m³.

4.5.2. Cumulative Waste Generation

80. During the reporting period, the following wastes were generated under the Project:

- Waste of unusable soil on Lot 1 was taken to the agreed areas of the spoil bank;
- Solid household waste on Lot 1 and Lot 2 were taken to the sanctioned solid waste landfill in Balykchy city of the "Improvement and sanitary cleaning". Municipal enterprise

4.6. Health and Safety

4.6.1. Public Health and Safety

81. During the reporting period, there were no incidents or road traffic accidents related to construction activities that could lead to problems for public health and safety. Warning signs and information boards have been installed at the construction sites. To improve/improve road safety, Contractor has been instructed to increase number of temporary speed limit signs in sections with works is being done, especially in Lot 1.

82. During the inspection, it was discovered that the Contractor for Lot 2, as a result of excavation work at the Kochkor-Epkin section, violated the entrance to the house of a resident Mr.Shakiev Azamat.

83. During the discussion of this situation with the owner of the house, he informed that he has no claims against the Contractor, since he agreed to partial demolition of the entrance to the

house and agrees, for the benefit of the road construction, to temporary inconveniences until the completion of the road construction, since he has an entrance to the house from the other side.

84. In accordance with the verbal instruction, the Contractor promptly provided safe passage / passage to the house.



Photo 83. Violated passage to the house.



Photo 84. Reconstructed passage to the house.

4.6.2. Health and Safety of Workers

85. During the reporting period, there were no accidents or illness among the Contractor's working personnel. The workers' housing camps on Lot 1 and Lot 2 are kept in good condition and comply with hygienic and sanitary standards. Good living conditions have been created for the employees (photo 32, 33, 35-44, 50-52). The contractor provided workers with disinfectants, antiseptics and personal protective equipment (masks, respirators, gloves), disinfectants and antiseptics were installed in all public places (photos 85 and 86).



Photos 85 and 86. Lot 1. Disinfectants and antiseptics.

86. In the Camp for Lot 1 and Lot 2, conditions for personal hygiene have been created: there is a bathroom with a shower, personal hygiene products. A room for a medical center was equipped (photos 34, 53, 54): "entrance" and daily temperature control with registration in registe

book was organized. With hospitals in Balykchy and Kochkor signed a contract for the provision of medical services. The Contractor is in compliance with the COVID-19 Response and Prevention Plan.

87. The Contractor provided training on labor protection and safety with a record in instruction poster. That poster later was posted on Contractor's camp for Lot 1 and Lot 2:

- the structure of the organization of safety management. Responsible persons and their contact details.
- information posters on protective measures against COVID-19, safety, first aid (photo 87-90).
- Fire shields and fire extinguishers have been installed (photos 91-92).



Photos 87 and 88. Lot 1. Contractor's Camp. Information posters on safety and first aid.



Photos 89 and 90. Lot 2 A. Contractor's Camp. Information posters on COVID-19 protective measures and hygiene.



Photo 91. Lot 1 Shield with fire-fighting equipment.



Photo 92. Lot 2. Fire extinguishers.

4.7. Training

During the reporting period, the following trainings were conducted:

88. Information and educational training. The archaeologist of the consulting company, on the recommendation of IPIG, in March 2021 made a presentation on the results of archaeological research conducted in November and December 2020 at Kochkor-Epkin site, on the finds and their significance for science, as well as training the personnel of contractors and subcontractors on the protocol / project procedures applicable national regulations related to accidental finds and physical cultural resources. (photo 93-95). Representatives of village administration and local people were invited to the presentation.



Photos 93 and 94. Presentation of the results of archaeological excavations and training.

89. Educational training. On May 10, 2021, the Contractor conducted training on environmental and social protection during Project implementation; measures to prevent / mitigate the negative impact of the work conducted within the Project on the environment, provided for in

the Environmental Management and Monitoring Plan for specific work sites (EMMP). Possible risks were discussed in case of non-compliance with the requirements for environmental safety, labor safety, road safety, health protection, sanitation and hygiene, adverse effects on human health and safety and the environment. The heads of local village administrations, located near the villages of the project road, were invited to the training.



Photo 95. The nurse informs about the measures to prevent, prevent and protect the health of staff and workers in relation to COVID, infectious diseases, including sexually transmitted diseases (STDs) and HIV / AIDS.

90. On April 30, 2021, the Local Environmental Specialist of the Construction Supervision Consultant, based on the results of the violation of the disposal of old asphalt on Lot 1 by the Subcontractor on April 26, 2021, conducted a training (photo 96) for the managers and specialists of the Contractor and the Subcontractor on Lot 1 responsible for the implementation of SSEMP. At which the issues of industrial waste management, requirements for the disposal of industrial waste in the environment, responsibility for violation of the provisions of the SSEMP and the environmental legislation of the Kyrgyz Republic, on the requirements for working in water protection zones were highlighted.



Photo 96. Training in the office for Lot 1.

91. It is necessary in reporting period:

- Contractor shall organize and conduct safety and PPE training for its and Subcontractor's personnel on both Lots in August and September;
- The Consultant shall conduct training on environmental issues for local and foreign personnel of the Contractor and Subcontractor to provide knowledge and clarification on the importance of environmental aspects and the need to implement mitigation/preventive measures for the environmental impact of construction activities.

5 FUNCTIONING OF THE SSEMP

5.1 SSEMP Review

92. The SSEMP prepared by the Contractor for both sites was approved by the MoTC KR for Lot 1 in October 2020 and for Lot 2 in November 2020. The SSEMP according to the requirement of (IEE) includes 14 separate annexes:

1. Emergency Management Plan;
2. Grievance consideration mechanism;
3. Occupational safety, health and hygiene plan;
4. Construction camp management plan;
5. Construction waste management plan;
6. Noise management plan;
7. Water quality management plan;
8. Air quality management plan;
9. Tree management plan;
10. Dust control plan;
11. Land Protection Management Plan;

12. Plan of environmental protection during the construction and reconstruction of bridges;
13. Quarry Management Plan;
14. Plan for the prevention and control of COVID-19.

A plan to prevent the spread of COVID-19 was developed additionally taking into account the epidemiological situation.

93. During construction work, the Contractor ensured the implementation of mitigating measures for the impact of construction work on the environment in accordance with the EMP:

- Removal of the soil-vegetation layer and its storage in a cavalier;
- Removal of unsuitable soil from excavations to the dump, ensuring storage and leveling of the soil in specially designated and agreed places. All the necessary permits for the disposal of dumps from the Contractor have been received.
- A plan for the disposal of old asphalt concrete has been developed in accordance with environmental requirements.
- To prevent dust formation during construction work, extraction of material in quarries during vehicles traffic on unpaved roads, watering was conducted on unpaved sections of the roadbed, rock mass during quarrying. Backfilling of technological earthen roads. (photo 97). During ensuring of proper watering, visually no dust emission is observed (photo 98-100).
- To improve dust suppression in the reporting period, the Contractor activated three more watering machines, thus the number of machines became 7, 4 machines for Lot 1 (DONGFENG with a volume of 8 m³ - 3 pcs. And Kamaz, V = 16 m³ - 1 pc.) and 3 machines for Lot 2 (DONGFENG with a volume of 8 m³ - 2 pcs and HOVO V = 20 m³ - 1 pcs).
- The sanitary condition of the territory of the production base is satisfactory, all containers are marked (photo 101-104)
- At all quarries, before the start of their development, the vegetation soil layer was removed, the boundaries of the quarries were lined out and marked (photo 105).



Photo 97 Lot 2. Poured technological earthen road to crusher plant Km 81 + 200.



Photo 98. Lot 2. Loading material at the quarry.



Photo 99. Lot 2. Loading of material at the quarry km. 75 + 400.



Photo 100. Lot 1. During the operation of crusher plant, dust emission is observed. Hydraulic irrigation system provided at crusher plant.



Photo 101. Lot 2. Hydraulic irrigation of the roadbed.



Photo 102. Marking of containers at the concrete plant.



Photo 103-104. The state of the territory after the completion of the arrangement of the concrete plant.



Photo 105. Lot 1. Quarry km. 9 + 000. The soil and vegetation layer were removed, and the boundaries of the quarry territory were marked by installing white racks with flags.

6 GOOD PRACTICE AND OPPORTUNITY FOR IMPROVEMENT

94. Based on the experience of other alternative projects and ongoing projects in the Kyrgyz Republic, for the successful completion of construction work, one of the important aspects is to ensure communication with the local population and representatives of village administrations. Taking this into account, the Contractor's personnel, jointly with the Engineer, need to work more closely with the local population to resolve quickly any emerging issues.

6.1 Good Practice

95. Conducting archaeological excavations at Lot 1 site made it possible to exclude further impact on these objects, to obtain useful information for the scientific community of specialists. Archaeologists have performed activities such as:

- determination of the boundaries of archaeological sites, which made it possible to provide a visual marking of the boundaries of OHCH object, for the safety of these objects in the future;
- information panels were installed that in the future will affect the tourist attraction, as well as the awareness of the local population about the objects of historical and cultural heritage located in the area and subsequently will affect the local population in terms of respect and preservation of these objects.

6.2 Opportunities for Improvement

96. The contractor should take a more responsible attitude to the issues of environmental protection, labor protection, safety, provision of personal protective equipment. To carry out timely and in sufficient quantity hydro-irrigation of the soil surface of the roadbed, in the places of construction work, as well as at the crushing and screening plant.

7 SUMMARY AND RECOMMENDATIONS

7.1 Summary

97. In general, according to the results of the monthly inspections and monitoring of construction sites, it should be noted the positive work of the Contractor in terms of the implementation of measures to mitigate and prevent the negative impact of the work on the environment. Most of the violations and non-compliances identified by the Contractor were eliminated within the specified timeframe: out of the 14 identified non-compliances, 12 were eliminated. But at the same time, there are shortcomings such as the delay and postponement of the instrumental monitoring of the environment, which was connected with the COVID disease of the laboratory employees (about which the Contractor was notified in written form by the Laboratory), the untimely provision of workers with personal protective equipment.

7.2 Recommendations

98. The contractor must provide workers with personal protective equipment in a timely manner. Do not allow workers without Personal protective equipment to access their workplaces (helmets, special footwear, eye protector, respiratory and hearing protection).

99. After receiving approval for the archaeologist's report, the Consultant will organize an informational training for the Contractor and Subcontractor staff, which will provide information on the results of the work conducted at the sites of historical and cultural heritage (OHCH) located next to the project road. This will provide a "minimum" of knowledge / information on objects of historical and cultural heritage, as well as increase the level of knowledge in terms of the issue of the ancient history of the Kyrgyz Republic.