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Semi-annual Environmental Report
From January 1 to June 31 2019

Kyrgyz Republic:

CAREC Corridors 1 and 3 Connector Road Project
(Section “Epkin [Km 89] to Bashkugandy [formerly
Dyikan] [Km 159]”)

Financed by the Asian Development Bank

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For the Executing Agency: Ministry of Transport and Roads of the Kyrgyz Republic (Bishkek,
Kyrgyz Republic)

June 31, 2019

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Abbreviations

ADB	-	Asian Development Bank
CAREC	-	Organization of Central Asian Regional Economic Cooperation
CSC	-	Construction Supervision Consultant
EMP	-	Environmental Management Plan
IPIG	-	Investment Project Implementation Group
IFC	-	International Finance Corporation
km	-	kilometer
KR	-	Kyrgyz Republic
MPC	-	Maximum permissible concentration
MPL	-	Maximum permissible level
MoTR	-	Ministry of Transport and Roads of the Kyrgyz Republic
MoF	-	Ministry of Finance of the Kyrgyz Republic
SAEPF	-	State Agency for Environmental Protection and Forestry under the Government of the Kyrgyz Republic
SIETS	-	State Inspectorate for Environmental and Technical Safety under the Government of the Kyrgyz Republic
DDPTSSSES	-	Department of Disease Prevention and State Sanitary-Epidemiological Surveillance of the Ministry of Health of the Kyrgyz Republic
TA	-	Technical Assistance
TS	-	Technical Specification
SSEMP	-	Site-specific Environmental Management Plan
AP	-	Asphalt Plant
SCP	-	Stone crushing plant
CBP	-	Concrete batch plant

1. INTRODUCTION

1.1 Preamble

1. Kyrgyz Republic is a mountainous, landlocked country, regional commerce depends heavily on road transport, which dominates the Kyrgyz transport system and heavily dependent on road transport. The Government of the Kyrgyz Republic has requested the Asian Development Bank (ADB) to assist in funding for the realization of The Section «Epkin (Km 89) to Bashkugandy (km 159)” of the CAREC Corridors 1 and 3 Connector Road.
2. This report is the first semi-annual environmental monitoring report, covering the period from January to June 2019, within the ongoing CAREC Corridors 1 and 3 (Epkin (Km 89) to Bashkugandy (km 159) road section) Improvement Project, which contains environmental issues, mitigation and monitoring measures performed by the Contractor and reviewed by the GENTEK - Construction Supervision Consultant. During the reporting period, the road rehabilitation works included existing road maintenance, marking and cutting of trees, excavation of spoil unsuitable material from cuttings, removal of old asphalt, and embankment with cut material.
3. The report contains reporting materials on the progress of work and changes related to the prevention of environmental impacts. The results are based on numerous site visits, conducted by a local environmental specialist from January to July 2019, wherein the focus was on monitoring of compliance with the environmental and safety requirements during execution of earthworks, tree cutting, noise impact and traffic management.

1.2 Headline Information

4. The project road Section Epkin (Km 89) to Bashkugandy (km 159) is a 70-km east to west highway. Generally, this Section follows the existing alignment up to Bashkugandy (km159).
The entire of this section is within Naryn Oblast and it traverses small western part of Kochkor District (Kochkor, as the capital); while the most part is in Jumgal District (Chaek as the capital).
5. The road 70 km from Epkin (km 89) to Bashkugandy (km 159) runs over Kochkor valley through Kyzart mountain pass (2664m) to Jumgal depression. The Section proceeds westward to Bashkugandy village passing through a number of settlements interspersed by agricultural fields with a 2-line configuration of carriageway. These western parts of Kochkor District are vast tracts of agricultural lands devoted to farming and animal stock-raising. The road climbs to around 2,600 m which seem to be the highest point at Kyzart Pass after which it descends to Jumgal District. The high portion appears to be the boundary between Kochkor and Jumgal Districts, and also the delineation of the watersheds for the Chui and Jumgal Rivers. This high point on the road seems to be the saddle point between mountain ranges the run parallel east to west of Naryn Oblast. The terrain is characterized as undulating and mountainous and covered with grasses suitable for grazing.
6. CAREC Corridors 1 and 3 (Epkin (Km 89) to Bashkugandy (km 159) road section) Improvement Project aims to improve connectivity and market access in the Kyrgyz Republic. The project outputs will be efficient movement of freight and passenger traffic along the CAREC Corridors 1 and 3, improving the safety of both road users and pedestrians, as well as minimizing the environmental impact of the road in terms of noise impact from passing traffic by updating asphalt pavement.

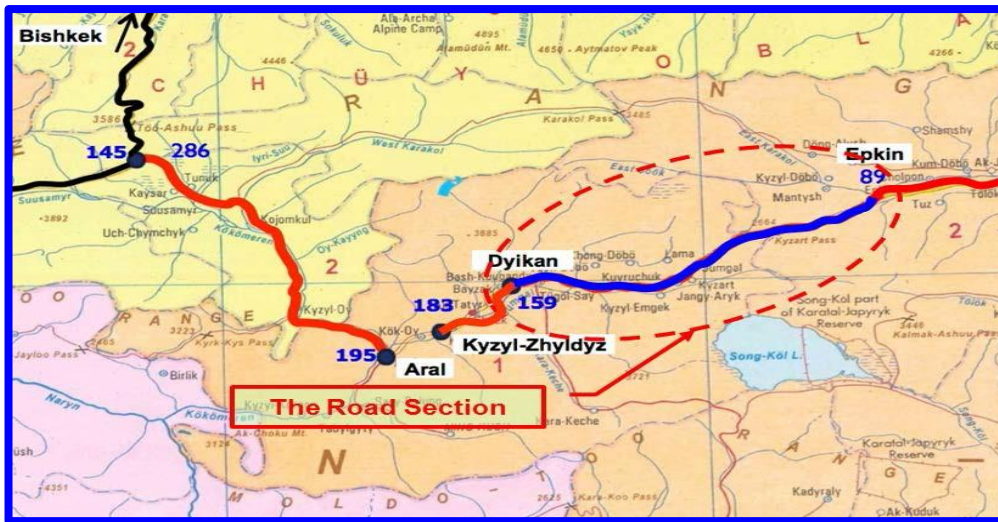


Figure 1 Location Map of the Epkin-Bashkugandy road section, of the CAREC Corridors 1 and 3 roads

2. PROJECT DESCRIPTION AND CURRENT ACTIVITIES

2.1 Project Description

2.1.1 Location of the project site and basic design

7. The project will improve connectivity between north and south in the Kyrgyz Republic. The project output will be efficient movement of freight and passenger traffic along the North-South alternative road. According to the classification of the ADB Safeguard Policy Statement, the project classified as B category.
8. The project road Section Epkin (Km 89) to Bashkugandy (km 159) is a 70-km east to west highway. This Section follows the existing alignment up to Bashkugandy (km 159). The entire of this section is within Naryn Oblast and it traverses small western part of Kochkor District (Kochkor, as the capital); while the most part is in Jumgal District (Chaek as the capital).
9. The road is in poor condition; the surface is bumpy with numerous patches, covered with frequent transverse and longitudinal cracks, often with crack network. The road goes along the Jumgal River and crosses Tugol-Sai river as well as other many feed and irrigation ditches and low places.
10. Engineering-geological conditions of subgrade construction on the North-South Alternative road on the section between Epkin and Bashkugandy are favorable. Baseline with a length of 70 km is laid mainly on the existing roadbed with gravel envelope, in some spaces with asphalt coat. Coating is asphalt, mainly with a thickness of 5–6 cm, rarely 9–10 cm. Base of road pavement and is constructed from gravel, pebble and crushed-stone soils with sandy-loam, sandy fillers.

Table 1 The Project details are summarized in below

From	To	Total Road Length	
KM 89+500	KM 159+200	69.7 Km	
Excavations to dumpsite	406 818 m ³	Unsuitable material from cuts	269 291 m ³
		Rock material from cuts	136 860 m ³
		Unsuitable material from dismantling	667 m ³
Embankment	533 250 m ³	Common fill material from cuts	174 697 m ³
		Rock fill material from cuts	9 100 m ³
		Common material from borrow	186 663 m ³
		Selected material from borrow	157 290 m ³
		Common material for road signs and backfilling	5 500 m ³
Subbase Class C Grading 0/40	364 667 m ³	Main Road Thickness = 25 cm	361 612 m ³
		Ramp Thickness = 25 cm	3 055 m ³
Lower Shoulder Class C4 Grading 0/70	71 063 m ³	Main Road Thickness = 20 cm	70 648 m ³
		Ramp Thickness = 15 cm	415 m ³

Upper Shoulder Class C10 Grading 0/40	62 131 m ³		Main Road Thickness = 15 cm		61 301 m ³	
			Ramp Thickness = 5 cm		830 m ³	
Base Course Class I Grading 0/30	149 681 m ³		Main Road Thickness = 20 cm		148 771 m ³	
			Ramp Thickness = 15 cm		910 m ³	
Asphalt Pavement	103 963 m ³		Binder Course Thickness = 9 cm		62 225 m ³	
			Wearing Course Thickness = 6cm		41 738 m ³	
Drainage	Open Drain		Subsurface Drain with PVC		Subsurface Drain without PVC	
	Excavation of 20 258 m ³		1 363 m		3 000 m	
Culverts Sulphate resistant, 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 m	27 m	10 m	11 m
Armature	42.91 t		Bridge		28.87 m	

Table 2 Road sections where the construction work was carried out in 2019

Type of Work	Planned Start Date	Actual Start Date	Within Report Period		
			Location		Length (m)
Cutting of Trees		02.04.2019	139+500	149+500	2 935
Clearing & Grubbing		02.04.2019	148+000	158+480	5 430
Cut Excavation		23.04.2019	150+940	158+100	2 060
Embankment	02.04.2019	11.05.2019	152+750	156+780	4 010
Asphalt Excavation		23.04.2019	152+500	152+740	240

The itemized progress of works is represented in the table 3 below

Table 3 Progress of works in January – June, 2019

Description	Unit	Quantity			%	
		BOQ	Actual	Remaining	Actual	Remaining
Clearing and Grabbing	Ha	80	4.47	75.53	5.59	94.41
Scarifying of existing pavement	M3	18877	1286.92	17590.08	6.82	93.18
Cutting	M3	423818	68444.83	355373.17	16.15	83.85
Embankment	M3	533250	21457.08	511792.92	4.02	95.98

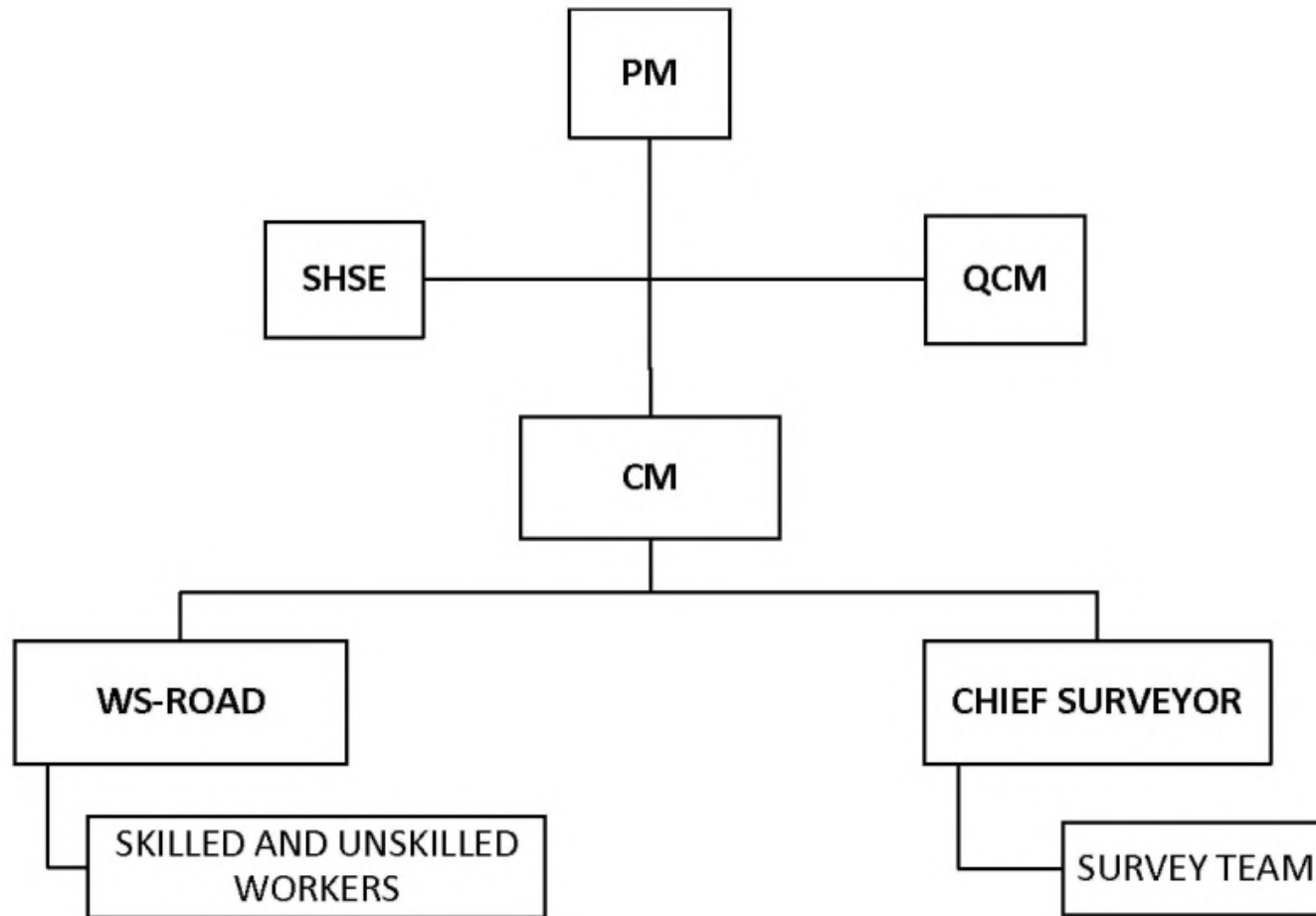
11. The construction work will be carried out mainly within the existing road right-of-way, thus keeping environmental impacts to a minimum. The Project will involve a number of consequential activities such as development of borrow pits, operation of asphalt plants and aggregate crushing plants, arrangement of contractor's worker camps and storage sites, etc.
12. According to the Terms of Reference, the road pavement will be designed for an initial design life of 10 years with structural overlay options for 15 and 20 years of design life.

2.2 Project Contracts and Management

Table 4 Project Contracts and Management

Project	Central Asia Regional Corridors 1 and 3 (Epink-Bashkugandy Road Section) Improvement Project.
Contractor	Todini Costruzioni Generali SPA
Road section:	89 km – 159 km, the overall length is 70
Donor:	Asian Development Bank.
Contract Sign Date:	28/03/2017
Executive Agency	Ministry of Transport and Roads of the Kyrgyz Republic
Notice to Commence	13/11/2018
Completion Date	12/11/2021
Time for Completion – Days	3 years
Extension of Time – Days	-
Defect Liability Period – Days	365
Contract Amount	USD 40,750,971.37
Minimum Amount of Interim Payment USD (3%)	
Total Amount of Advance Payment	Maximum 20% of the Accepted Contract Amount less Provisional Sums
Amount of Performance Security	%20 of Accepted Contract Price
Amount of Third Party Insurance	500,000 USD per occurrence with the number of occurrence unlimited
Periods for submission of insurance a) evidence of Insurance b) relevant policies	14 days 14 days
Delay damages for the Works	0.05% of the Accepted Contract Amount for each lot, which is in delay, per day in USD
Maximum amount of delay damages	10% of the Accepted Contract Amount
Repayment Amortization of Advance payment	10%
Limit of Retention Money	10% of Accepted Contract Amount
Percentage of Retention	5% of Value of Works certified for Payment

Figure 2 Project Organization Structure and Management



2.2.1 Main Organizations involved in the project

13. Relevant organizations involved in the project: the Ministry of Finance of the Kyrgyz Republic (MOF); the Ministry of Transport and Roads of the Kyrgyz Republic (MoTR); the Investment Projects Implementation Group (IPIG) under the MoTR; the State Agency for Environmental Protection and Forestry (SAEPF); the State Inspectorate for Environmental and Technical Safety under the Government of the Kyrgyz Republic (SIETP); the Department of Disease Prevention and State Sanitary and Epidemiological Surveillance under the Ministry of Health of the Kyrgyz Republic (DDPSSSES).
14. MoTR is responsible for the development of the transport sector and is the Executive Agency (EA) of the project. MoTR has overall responsibility for the planning, designing, implementation and monitoring of the project. IPIG works under the MoTR and implement the tasks assigned by MoTR.
15. The Ministry of Finance of the Kyrgyz Republic is the authorized state body responsible for coordinating actions with ADB and other donors on external assistance issues.
16. The state Agency for Environmental Protection and Forestry – the head environmental state agency responsible for the state policy in this field and coordinating the actions of other state bodies on these issues. Its functions as follow:
 - environmental policy development and implementation;
 - state ecological expertise;
 - issuance of environmental licenses;
 - ecological monitoring;
 - provision of environmental information services.
17. The State Inspectorate for Environmental and Technical Safety works in accordance with the Law "On the procedure for conducting inspections of entrepreneurship entities". The State Inspectorate for Environmental and Technical Safety in the prescribed manner carries out supervision procedure on compliance with:
 - (ii) environmental legislation, established rules, limits and norms of environmental management, standards of emissions and discharges of pollutants and waste disposal in the environment;
 - (iii) industrial safety requirements during construction, expansion, reconstruction, technical re-equipment, operation, conservation and liquidation of hazardous production facilities;
 - (iv) the requirements of land legislation;
 - (v) safety requirements for operation of equipment and facilities for the storage and distribution of petroleum products and gases, cranes;
 - (vi) requirements of safe operation rules in construction, installation and maintenance of electrical networks and electrical equipment.
18. Department of Disease Prevention and State Sanitary and Epidemiological Surveillance supervises the sanitary and epidemiological welfare of the population, the safety of goods, products, environmental objects and conditions, and the prevention of harmful impact of environmental factors on human health.

Table 5 Main organizations involved in the project and relating to Environmental Safeguards

No	Organization name	Role in project	Responsible person for the environmental safeguards	Contacts
1	ADB	Donor	Ana Paula Oliveira Das Neves Araujo	paraujo@adb.org
2	ADB	ADB Consultant	Sultan Bakirov	Sbakirov.consultant@adb.org
3	IPIG ADB	Executive agency	Asylbek Abdygulov	asylbeka@piumotc.kg
4	Gentek	Consultant	Almaz Asipjanov	almaz.asipjanov@gmail.com
5	Todini Costruzioni Spa	Contractor	Nurlan Nurdinov	nnurdinov78@mail.ru
6	Howo Center	Subcontractor	-	
7	Enisey Stroy LLC	Subcontractor	-	

Table 6 Consultant's staff

KEY EXPERTS (International)	
Position	Name
Team Leader	Selcuk Mutlu
Pavement and Materials Engineer	Ersoz Yamak
Structural Engineer	Sadi Numan
Road Safety Engineer	Ercan Duymaz
Contract Specialist	Murat Kose
Social development and Resettlement Specialist	Saim Tuzlu
Environment Specialist	Serpil Ozcan Nazlioglu
KEY EXPERTS (National)	
Highway Engineer/Deputy Team Leader	Zheksheev M. Sarychalovic
Pavement and Materials Engineer	Omorov Mirbek Boobekovich
Structural Engineer	Turdubaev Sherikbek Mailievitch
Quality Assurance Engineer	Umarov Muradzhan Ibragimovich

Quantity Surveyor	Kaparov Saadalbek Abdyl daevich
Road Safety Engineer	Ruslan Gasimov Musajanoviç
Social and Resettlement Specialist	Azamat Omorbekov
Environment Specialist	Almaz Asipjanov
Hydrological/Drainage Specialist	Batyrbekov Maksatbek Meymanbekovich

2.1.3 The characteristics of the road according to the specifications of the project

19. Design of the project meets standards of Technical Category 1-b (main urban arteries) with the following geometrical attributes:

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

20. Over the entire length of the project area, the two layers of the asphalt-concrete pavement 14 cm thick will be laid, the upper one is 5 cm and the lower one is 9 cm thick, with underlying black crushed stone course 9 cm thick.

Vegetation Planting

21. Most of trees planted on the road sides will be cut down in course of road rehabilitation. As compensation, it is required planting of hardwood seedlings in the ratio of 1:2.

Land Acquisition and Resettlement Plan

22. The project site passes through populated areas. The project provides for the demolition of commercial services, pavilions, service stations, fences and houses that will be affected by the project, in the sections of road widening and sections of construction of new sidewalks. A Resettlement Plan was drawn up, based on which compensation is planning to be paid to 143 affected persons, including owners and users of land, business owners, tenants and employees.

2.3 Project Activities During Current Reporting Period

23. During the reporting period from January to July 2019, Actual commence date for construction works is April 2019 and works were carried out at road section 159km + 142km.

2.3.1 Construction work included:

- Existing Road Maintenance
- Cutting of Trees
- Clearing and Grubbing
- Excavation to spoil unsuitable material from cuttings

- Existing asphalt pavement break up and dispose to spoil
- Embankment with Cut Material



Figure 3 Old asphalt removal



Figure 4. Excess soil removal

2.3.2 Construction of bridges and culverts

2.3.3 Culverts

24. Works on dismantling of old and installation of new culverts have not started yet.

2.3.4 Borrow-pits

25. At the project road (Epkin-Bashkugandy road section, km 89 – km 159) 7 plots were allocated for borrow-pits. Currently, the Contractor is in the process of receiving all the necessary documents / approvals for borrow-pits from local authorities, the State Committee for Industry, Energy and Subsoil Use (SCIESU) and the State Agency for Environmental Protection and Forestry (SAEPF). The usage of 7 borrow-pits will be determined by MoTR and the Consultant.

26. Table 7 shows 7 borrow-pits available and locations listed below.

Table 7. Borrow-pits Description

No.	Borrow-pit	Km	RML	Approximate Distance (m)

1	Borrow Pit №1	90+540.00	R	0
2	Borrow Pit №2	100+850.00	R	0
3	Borrow Pit №3	121+800.00	L	0
4	Borrow Pit №4	133+000.00	R	200
5	Borrow Pit №5	140+200.00	L	500
6	Borrow Pit №6	144+070.00	L	1,200
7	Borrow Pit №7	148+000.00	R	150

2.3.5 Asphalt plant territory

27. The production site is identified at the territory of Kuyruchuk Ayil Okmoty, close to Tugol-Say village. The area belongs to the industrial and communal zone. Currently, the permit obtaining process is still in progress and planned to be completed in July.
28. The following buildings and structures are planned to be located in the site: console control building, stone-crushing plant (SCP), asphalt-bitumen plant (asphalt plant), concrete batch plant (CBP), silos - bin for cement.

Workers camp

29. The workers' camp site has not identified yet and has not established yet.
30. Currently, sub-contractors' workforce living in the rented houses. Regular explanatory conversations on the observance of the camp rules with the residents is carried out.
31. Fueling of the sub-contractors' trucks are conducted at Partnerneft gas station and trucks are parked and maintained at construction site.

2.3.6 Soil Management

32. Topsoil is removed and stored in special areas allocated by the local administration of Bash-Kugandy Ayil-Okmotu. After completion of the construction work, it can be used for backfilling slopes.
33. Obtaining permission to remove topsoil in the construction corridor from the environmental authorities is not required. The contractor has obtained permission from local authorities to store topsoil in several sections. Embankments of topsoil are kept at a height not exceeding 1.5 m and maximally protected from the impact of elements, mainly, from a wind during the dry construction season. Currently, topsoil is removed on an area of 5 hectares.

2.3.7 Tree management

34. At sections km139+500 and km149+500, 1,440 trees were marked, all documentation was prepared, permission for tree cutting was obtained from the local environmental authorities (see Annex 1). Stems of the cut down trees were stored in specially designated area at RMU and distributed among local authorities. The exact number of trees to cut was determined during the designing of the road by the contractor and it lead to discrepancy with IEE identified number of the trees, With further works movement, this number of trees may change.



Figure 5 Cutting and loading the trees



Figure 6 Grubbing the trees' root.

2.3.8 Workers camp

35. The workers' camp site has not identified yet and has not established yet. The number of planned residents of the camp will be identified during the mobilization of work-force by the sub-contractors.

36. Household waste is timely removed; in general, all protective measures are respected.

Table 8 Progress of construction work

	Name of works	Unit	Scope per design	Total completed
				Volume
1	Clearing and grubbing	ha	76	20,18
2	Tree cutting	pcs	3 348,00	1440
3	Earthworks	m3	258 730	162 853,32
4	Unsuitable soil excavation to dump	m3	103 129	73 861,41

	Name of works	Unit	Scope per design	Total completed
				Volume
5	Existing asphalt scarification	m3		
6	G&S mixture (Subbase)	m3		
7	Base course	m3		
8	Black crushed stone (Organomineral layer)	m3		
9	Binder course (1 asphalt layer)	m3		
10	Wearing course (2 asphalt layer)	m3		

Staff information

37. In 2019, the Contractor involved 376 persons (the total number including management, engineering staff and workforce).

2.4 Description of Any Changes to Project Design

38. No changes to Project Design.

2.5 Description of Any Changes to Agreed Construction Methods

39. Not applicable during the reporting period.

3. ENVIRONMENTAL SAFEGUARD ACTIVITIES

3.1 General Description of Environmental Safeguard Activities

40. During the reporting period, regular visual monitoring on compliance with environmental requirements during the execution of construction works at all road sections was carried out by the Gentek local environmental specialist, the environmental specialist of the Investment Project Implementation Group under the MoTR KR, the environmental specialist of the Contractor.

3.1.1 Construction work:

41. Dust formation has the main impact on the environment during the execution of earthworks. The increased air temperature led to increase of dust formation on existing road, which is currently on the Contractor's balance. However, dust suppression activities are exercised at sites where road construction works are taking place. In this regard, the Contractor was instructed to increase the intensity of road watering sprinkling, including shoulders, at construction sites from 6 a.m. to 19 p.m. Currently, six watering trucks are allocated for this task and each of them do watering activity 3 times per day.

3.1.2 Bridge construction

The Bridge over Tugol-Say River.

42. Not applicable during the reporting period, no construction works has started on the bridge.

3.1.3 Borrow-pits

43. Not applicable during the reporting period, no operation of the borrow pits has started.

3.1.4 Asphalt Plant Territory

44. Not applicable during the reporting period, asphalt plant has not constructed yet.

3.1.5 Tree Management

45. In sections 139+500 and 149+500, 1,440 trees were marked, all documentation was prepared, permission for tree cutting was obtained from the local environmental authorities. Stems of the cut down trees were stored in specially designated area at RMU and distributed among local authorities.

3.1.6 Construction waste

46. Construction waste was formed during the removal of old asphalt. The Contractor must determine in advance the place for the removal of construction waste. Six stockpile sites between the sections 139+500 and 149+500 were identified by the contractor's Environmental Specialist and received permits from the local environmental and municipal authorities.

3.1.7 Workers camp

47. The workers' camp site has not identified yet and has not established yet.

3.2 Monitoring of Construction Sites

Table 9 Monitoring of construction sites in January – June 2019 period.

No.	Date of visit	Auditors Name	Propose of Audit	Summary of any Significant Findings
1	14.05.19	A. Asipjanov A. Abdygulov N. Nurdinov	Monitoring of construction sites. Jointly with the IPIG and Contractor's environmental specialists.	No significant findings.
2	28.05.19	A. Asipjanov N. Nurdinov	Monitoring of construction sites. Jointly with the Contractor's environmental specialist.	Identification of the areas for stockpile of excavated subsoil materials.
3	28.06.19	A. Asipjanov N. Nurdinov	Monitoring of construction sites. Jointly with the Contractor's environmental specialist.	Increased dust generation in the road was noted. Warning was given to the Contractor. Road safety issues were raised.

3.3 Issues Tracking (Based on Non-Conformance Notices)

Table 10 Report of non-compliance with the environmental requirements (January-June)

No	The issue of non-compliance	SSEMP Number and date of notification	Applicable Guide on Best Practices (No.)	Specific issue and location	Actions taken by the Contractor (specify)	Results of Inspection	Status as of current monitoring period
1.	Dust formation issue;			The increase in air temperature led to increased dust formation in the road. In connection with the current situation, it is necessary to increase the intensity of water sprinkling of the road. To do this, it is necessary to monitor the observance of the water-sprinkling interval by watering machines.	The schedule is drawn up with an interval of 30 minutes between watering, but it is necessary to strengthen the control over the observance of the water sprinkling interval by watering machines.		
2.	The road safety measures are not implemented properly			The road safety measures are not implemented properly, as there is a shortage of traffic signs and marking. Therefore, the traffic management plan is subject to revisions to fully address those issues.	The Contractor should provide adequate signalization, appropriate lighting, well-designed traffic safety signs, barriers and flag persons for traffic control.		

Table 11 Summary of Issues Tracking Activity for Current Period
Summary Table

Total Number of Issues for Project	2
Number of Open Issues	2
Number of Closed Issues	2
Percentage Closed	100%
Issues Opened This Reporting Period	2
Issues Closed This Reporting Period	2

3.4 Unanticipated Environmental Impacts or Risks

48. There has not been any unanticipated environmental impact during the construction works, since project works has not started in full steam and it is still expected to operationalize asphalt and crushing plant, workers camp.

4. RESULTS OF ENVIRONMENTAL MONITORING

4.1 Overview of Monitoring Conducted during Current Period

49. During the construction period three observational monitoring has been conducted by Consultant's environmental specialist to monitor implementation of EMP by the Contractor.
50. No on-site instrumental monitoring has been applied yet, since the construction activities have just commenced.

4.2 Trends

51. During the active phase of the construction period of 2019 July-November, it is planned to conduct monitoring of the air quality, surface water quality, noise impact and, if necessary, vibration in the areas where construction work will take place.

4.3 Summary of Monitoring Outcomes

52. Analyzing the monitoring results, it is necessary to take into account that the project works just started and road section passes through a number of settlements interspersed by agricultural fields with not significant traffic flow. Therefore, current environmental impact issues were related to dust suppression, community safety issues with proper installation of the signs and utilization of old asphalt.

4.4 Material Recourses Utilisation

53. The water for dust suppression is taken from the following water bodies: Jumgal river, Tugol-Say river and Irrigation canal at km147+540 LHS.

4.5 Waste Management

54. During the construction, a large amount of waste is generated, including construction waste. Fueling of the sub-contractors' trucks are conducted at "Partnerneft" Company gas station and trucks are parked and maintained at construction site.

Construction waste

55. Initially, construction waste was promptly taken out to areas for storage of old concrete products allocated by RMU-24 and permits have been obtained by the local authorities in Bashkugandy, Kuyruchuk villages for the dump location in the areas: Km 151 + 140 - 151 + 400, Km 158 + 540 - 158 + 400. With the increase in the volume of construction work, there was a problem with the definition of storage for reinforced concrete waste.

Old Asphalt

56. With the beginning of road works at sections 152+500 and 152+740 there was a problem with the getting the permission from Bash-Kuugandy Ayil Okmotu disposal of old asphalt, since Municipality was proposing the site not-suitable for disposal of old asphalt, since it was located close to water body. The Contractor's environmental specialist, Nurlan Nurdinov, dealt with the disposal of old asphalt and the old asphalt was taken out for backfilling of rural streets and without leveling of large pieces of old asphalt in villages, since RMU and village inhabitants will do it on their own, as per their letter of request. The old asphalt was not taken out to any nearby wetland areas.
57. Local authorities proposed secondary roads for backfilling of rural streets with old asphalt. The Contractor's specialists conducted a preliminary analysis of all the proposed roads.

58. During the reporting period, the streets of two Ayil Okmotus: Kuyruchuk and Bashkugandy were backfilled.



Figure 7. Taking out of old asphalt for backfilling of rural streets

Household waste

59. No household waste is generated, since workers camp has not been established yet.

4.6 Health and Safety

4.6.1 Community Health and Safety

60. During the reporting period, there were not any incidents which have occurred during the reporting period which resulted in or could have resulted in Community Health and Safety issues. However, there is a shortage of traffic signs and marking, which lead to not proper implementation of the road safety measures.

4.6.2 Worker Health and Safety

61. The Contractor hired Occupational Health and Safety Specialist with necessary qualifications to perform his duties. The OH&S Specialist conducted H&S briefings to the employees.

62. No incidents which have occurred during the reporting period which resulted in or could have resulted in Workers Health and Safety issues.

4.7 Trainings

63. No training has been conducted during the reporting period.

5. FUNCTIONONG OF THE SSEMP

5.1 SSEMP Review

64. SSEMP describes the various measures proposed within the Project, designed to prevent, minimize or compensate adverse environmental impacts that occur because of implementation of the Project. Initially provided Mitigation measures in the SSEMP were not sufficient, effective and acceptable, so the Engineer's Environmental Specialist revised it and accepted by IPIG with additional information to be provided on Borrow pits, Worker's Camp and Asphalt Plant.

65. The Contractor's Environmental Specialist – Nurlan Nurdinov, implements the construction mitigation measures. Gentek's Environmental Specialist – Almaz Asipjanov, supervises the Contractor's compliance with the environmental requirements. In case of any violations revealed, Gentek warns the Contractor verbally or in writing about the need to eliminate this violation within the specified period.

66. During the reporting period, the main problems in compliance with the SSEMP measures were:

- dust formation issue;
- the problem of implementing road safety measures.

6. GOOD PRACTICE AND OPPORTUNITY FOR IMPROVEMENT

7.2 Good Practice

67. Mitigation measures provided in the SSEMP are sufficient, effective and acceptable.

7.2 Opportunities for Improvement

68. In order to apply best practices and to overcome the existing situation, the road safety and traffic management plans are needed to be improved. The Contractor should provide adequate signalization, appropriate lighting, well-designed traffic safety signs, barriers and flag persons for traffic control.

7. SUMMARY AND RECOMMENDATIONS

7.2 Summary

69. During the reporting period, the Contractor mainly implemented the necessary environmental measures during the construction work. However, there were cases when some Contractor's specialists ignored the recommendations of Gentek.
70. Some measures, such as dust control, were insufficient. Despite the fact that the water sprinkling schedule in every 30 minutes was approved, the Contractor did not monitor its compliance. The problem of dust formation was constant in existing roads and on construction sites. Gentek will further instruct the Contractor to ensure compliance with the schedule of road water sprinkling in the construction site and will require to continue water sprinkling from 07.00-20.00 in dry summer weather.
71. The road safety measures are not implemented properly, as there is a shortage of traffic signs and marking. Therefore, the traffic management plan is subject to revisions to fully address those issues.
72. During the reporting period, there were no grievances recorded by the Contractor and if any are related to environment.

7.2 Recommendations

73. Given the fact that during the construction period, the Contractor does not always eliminate the violations in the specified time, and Gentek is not able to take any measures other than suspension of work.
74. Dust control measures should adequately be provided on the sections which are handed over to the Contractor for maintenance and in other construction sites as well.
75. The traffic management plan is subject to revisions to fully address the road safety measures, like a shortage of traffic signs and marking. The Contractor should provide adequate signalization, appropriate lighting, well-designed traffic safety signs, barriers and flag persons for traffic control. MOTR and the Engineer will follow up those road safety concerns, implement mitigation measures described in EMP/SSEMP, and provide sufficient training to the Contractor's staff.
76. The Contractor is also need to hold regular public consultations with local communities on road safety issues during construction and should regularly submit road safety reports to MOTR for a monitoring purpose.

Annex 1. Permission from authorities for tree cutting.

КЫРГЫЗ РЕСПУБЛИКАСЫНЫН
ӨКМӨТҮНӨ КАРАШТУУ КУРЧАП
ТУРГАН ЧӨЙРӨНҮ КОРҒОО ЖАНА
ТОКОЙ ЧАРБА
МАМЛЕКЕТТИК АГЕНТТИГИ



ГОСУДАРСТВЕННОЕ АГЕНТСТВО
ОХРАНЫ ОКРУЖАЮЩЕЙ СРЕДЫ
И ЛЕСНОГО ХОЗЯЙСТВА ПРИ
ПРАВИТЕЛЬСТВЕ
КЫРГЫЗСКОЙ РЕСПУБЛИКИ

Нарин айылдык мургаи мургаи
наименование структурного подразделения
Тайрану Коргоо Башкорттук
индекс, адрес, телефон

«30» апрель 2012 г.

РАЗРЕШЕНИЕ
на снос деревьев № 000 297

Башкорттуктук шешкирме
адис Э. Баймериев
должность, Ф.И.О

рассмотрев ТОЛЫН компаниясынын Тайрану
наименование объекта и перечень рассмотренных материалов
кампания кезинде:

10,15 га Кыргыз Республикасынын Бююк Коозогонун
81- станицынын Кеменчиктин
айлы.

РАЗРЕШАЮ с Экми - Баш - Ненгагон авто молдуну
адрес, время, дата
132+075 такрландын 149+140 такрландын тейини
наименование объекта (количество, порода, состояние)
ш/о 150 тара такрландын жон салуу шешерине
шешерин Башкорттук дан-даракшардын Тайрану унук-
сан беридем
(Башкорттук тавырк шакы 1 метр мазду 014 ш/о,
50 см - шаар тейини 310 ш/о, 50 см тейини 269 ш/о)



Разрешение выдал: Иван адис Э. Баймериев
должность Ф.И.О. подпись

Разрешение получил: Н. Мурганов
Ф.И.О. ответственного лица подпись