

# Bi-annual Environmental Monitoring Report

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Project Number: 42145-043  
August 2020

## ARM: North–South Road Corridor Investment Program – Tranche 3)

Prepared by the Road Department State Non-Commercial Organization of the Ministry of Territorial Administration and Infrastructure of the Republic of Armenia for the Asian Development Bank.

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# Semi-annual Environmental Monitoring Report

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Project Number: 42145  
January - June 2020

Armenia: North-South Road Corridor Investment Program, Tranche 3  
(Financed by the ADB)

Prepared by  
Transport Project Implementation Organization  
Yerevan, Armenia

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## Abbreviations

ADB	Asian Development Bank
CEMP	Contractor's Environmental Management Plan
EMP	Environmental Management Plan
EIA	Environmental Impact Assessment
IEE	Initial Environmental Evaluation
ES	Environmental Specialist
MFF	Multi-tranche Financing Facility
ME	Ministry of Environment
MOTAI	Ministry of Territorial Administration and Infrastructure
MESCS	Ministry of Education, Science, Culture and Sport
SEMP	Site Specific Environmental Management Plan
TMP	Traffic Management Plan
RD	Road Department SNCO
EMR	Environmental Monitoring Report

# **1 INTRODUCTION**

## **1.1 Preamble**

This Bi-annual Environmental Monitoring Report covers the time period from January to June of 2020 (Number 8).

The Report was prepared with close cooperation with Supervision Consultant, which is the joint venture of SPEA Engineering & IRD Engineering companies.

## **1.2 Headline Information**

Construction works have been implemented by Sinohydro Corporation Ltd and its subcontractor S&A mining LLC.

JV SPEA Engineering & IRD Engineering has provided supervision consulting services.

The following construction activities were implemented: Traffic regulating signs/signals have been installed for safety/security purposes and maintenance of road has been implemented.

In order to ensure the environmental performance, supervision was provided to ensure that the implementation of construction activities meets EMP requirements which is prepared in accordance with ADB Environmental Policy and RA legislation.

Contractor is guided by the EIA and EMP for Tranche 3 as a part of the Bid and Contract documents, Site-specific Environmental Management plans, as well as by the Contractor's Environmental Management Plan prepared by the Contractor that detail on site environmental management requirements implementation and management, particularly construction impacts mitigation, monitoring and reporting requirements in order to ensure the environmental performance. Compliance with EMP is being regularly monitored and reported.

## 2 PROJECT DESCRIPTION AND CURRENT ACTIVITIES

### 2.1 Project Description

1. The RA has selected the Bavra-Yerevan-Agarak route as the North-South Road Corridor to be rehabilitated, reconstructed and expanded and has appointed “Road Department” SNCO (RD) of the Ministry of Territorial Administration and Infrastructure (MOTAI) to co-ordinate the work.
2. The Multi-tranche Financing Facility (MFF) is designed to rehabilitate and upgrade national north-south roads to form a new, upgraded and expanded North-South highway. The main objective is to widen the existing 2-lane roads (often in poor condition) to become 4-lane divided roads along existing alignments wherever possible or to construct new alternate 2-lane roads where a single 4-lane road would not be feasible.
3. The Asian Development Bank has provided a loan in the framework of the MFF for the North-South Road Corridor Investment Program to the Government of Armenia to cover the cost of Reconstruction and Improvement of Talin—Lanjik road Section (Km 71+500 to Km 90+200) of M1 Talin—Gyumri Road.
4. The Tranche 3 Project starts at km 71+500 in Talin community and end at km 90+200 close to Lanjik community – about 18.7km. This road is currently a 2<sup>nd</sup> category and has 2 opposite traffic lanes. After reconstruction this road section is expected to be 1<sup>st</sup> category with cement concrete pavement.
5. The reconstruction of 9 overpasses on M2 Yerevan-Artashat and M1 Yerevan-Ashtarak is financed from cost savings from Tranche 3. These works are being carried out by local contractors and are supervised by the Supervising Consultant/Engineer for Tranche 3.

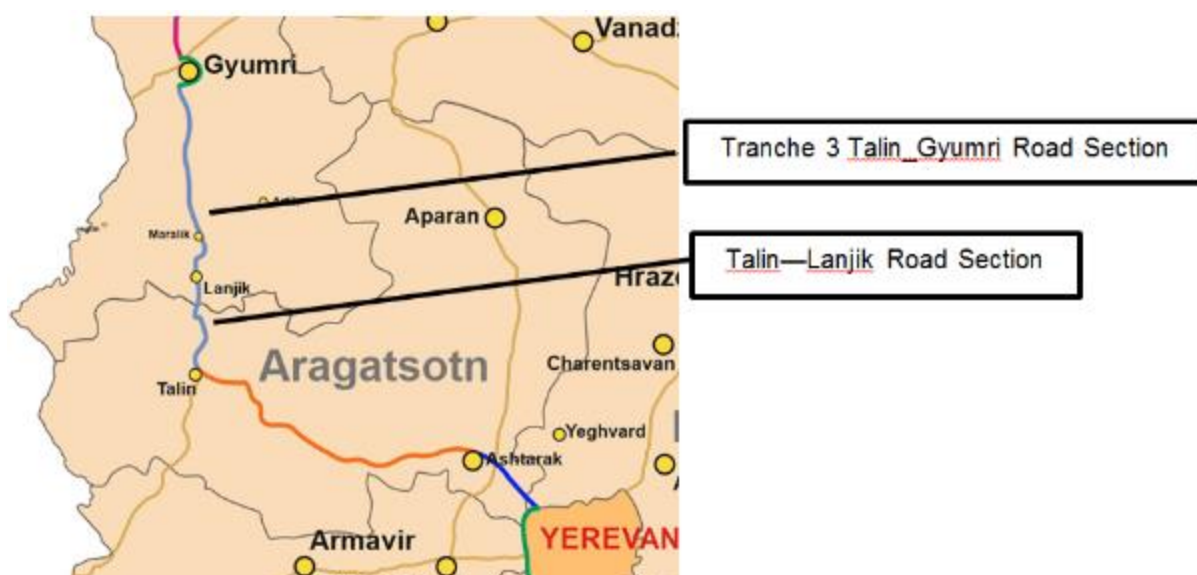


Figure 1. Tranche 3 of North-South Road Corridor

## 2.2 Project Contracts and Management

ADB carry out periodic Project reviews, inspections of the Project throughout the Project cycle in conformity with the principles and requirements embodied in the SPS 2009. ADB will provide assistance to the RD in managing the social and environmental impacts and risks, thus contributing to the promotion of the long-term sustainability of investments.

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*Phone number:* +374-10-546371 , +374-10-546372 , +374-10-546373

*www.adb.org/armenia*

RD is implementing day-to-day management of project execution. The RD includes a Social and Environmental staff whose responsibilities include the management of all environmental aspects of the project.

*Contact information:*

*Phone number:* +37412 201009 , +37412 201010

*Email:* [info@armroad.am](mailto:info@armroad.am)

*www.armroad.am*

The Supervision Consultant/Engineer carries out all construction supervision activities and reporting of the project. Environmental Safeguards Unit of the Consultant is responsible for supervising the construction works in relation to environmental and archaeological impact and, in particular, for supervising and reporting on the Contractor's performance in the implementation of the EMP.

*Contact information:*

*Email:* [t3\\_talinlanjik\\_spea\\_ird@irdeng.com](mailto:t3_talinlanjik_spea_ird@irdeng.com)

Contractors are implementing construction works. Contractor's Environmental Unit is responsible for preparation and implementation of Contractors' EMPs, SSEMPs, monitoring of the construction activities and reporting.

*Contact information:*

*Email:* [sinohydro\\_am\\_tl@163.com](mailto:sinohydro_am_tl@163.com)

### RD Environmental and Social Staff

The Project Impact Management activities are undertaken by Head of Environmental Impact Management Service; and Environmental and archaeological Specialist:

Mr. Gevorg Afyan - Head of Environmental Impact Management Service is responsible for Environmental management of the project and compliance with the national environmental legislation of the RA and safeguard policies of financing Donors during the preparation and implementation of the Projects, including design, construction and supervision.



Mr. Mikael Tevosyan - Environmental and Archaeological Specialist is responsible for the compliance of the projects to safeguard policies of financing Donors and RA legislation.

Consultant Environmental Safeguards Unit

Presently the Consultant Environmental Safeguard Unit consists of:

Ms. Edita Vardgesyan - Environmental Specialist (ES), is responsible for the overall management of the environmental safeguards. She employed on a contractual basis. During the reporting period her inputs were: 6 days per month.

Mr. Boris Gasparyan - Archaeological Specialist (AS), responsible for the consultancy on archaeological issues in the road section, compliance of the construction activities to the Armenian archaeological related legislation and inspection visits to the borrow pit, dumping and concrete plant sites with archaeological evaluation purposes. During the reporting period his inputs were: 6 days per month.

Contractor's Health and Safety, Environmental, Archaeological and Social Unit

The Unit is staffed by five people:

Mr. Zhong Zhen Min, the HSE Director, is responsible for the overall management of the Unit;

Mr. Hovhannes Tovmasyan - Environmental Specialist, to assist the HSE director on the environmental management plan implementation;

Mr. Martin Asatryan - Social Impact Specialist, is responsible for the compliance of the Contractor's activities to social part of the ADB Safeguard Policy Statement;

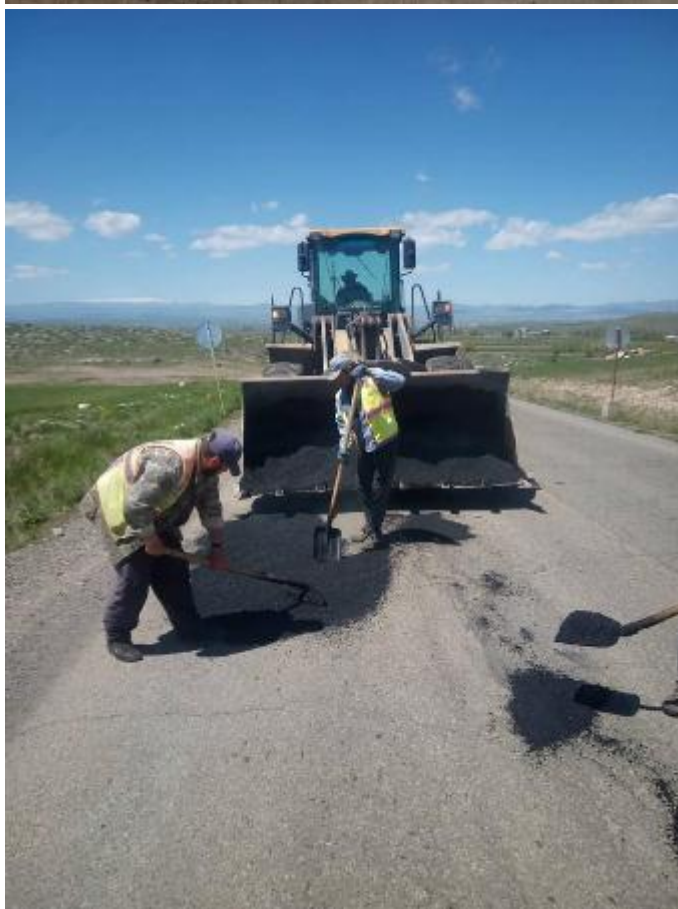
Mr. Ashot Revazyan - Security and Health Specialist is responsible for the compliance of the Contractor's activities to health and safety part of the ADB Safeguard Policy Statement.

Mr. Artur Petrosyan - Archaeologist, is responsible for protection of historical, cultural and archaeological monuments from negative impacts of the construction activities within framework of the EMP implementation;

## **2.3 Project Activities During Current Reporting Period**

During the reporting period only limited scale of road maintenance works have been implemented in Talin- Lanjik road section.

*Photos form maintenance works*





The total number of staffs of the Contractor and Sub Contractor during the current period was 21. The workforce consisted of 7 Chinese Nationals and 14 Armenian Nationals. As well as Contractor involved additionally 9 workers from local communities.

## **2.4 Description of Any Changes to Project Design**

No changes with regards to the design took place during the reporting period.

## **2.5 Description of Any Changes to Agreed Construction methods**

No changes with regards to agreed construction methods took place during the reporting period.

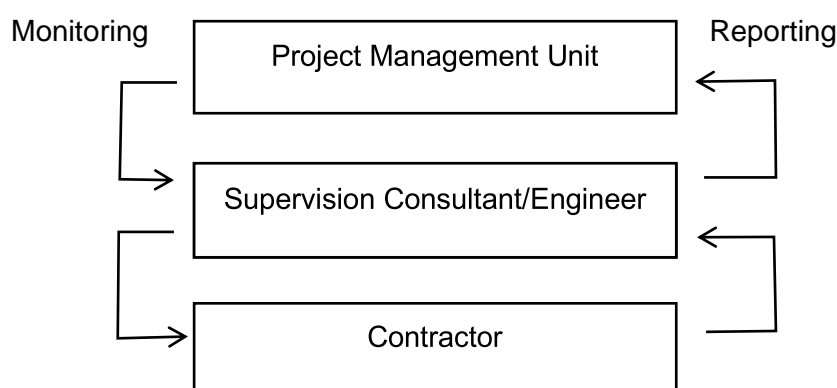
### 3 ENVIRONMENTAL SAFEGUARD ACTIVITIES

#### 3.1 General Description of Environmental Safeguard Activities

Road Department is implementing day-to-day management of project execution. The RD includes a Social and Environmental staff whose responsibilities include the management of all environmental aspects of the project.

The Supervision Consultant/Engineer carries out all construction supervision activities and reporting of the project. Environmental Safeguards Unit of the Consultant is responsible for supervising the construction works in relation to environmental and archaeological impact and, in particular, for supervising and reporting on the Contractor's performance in the implementation of the EMP.

Contractors are implementing construction works. Contractor's Environmental Unit is responsible for preparation and implementation of Contractors' EMPs, SSEMPs, monitoring of the construction activities and reporting.



#### 3.2 Site Audits

Site audits carry out in accordance with the monitoring program developed based on the ADB Safeguards and EMP requirements. Unscheduled audit visits were carried out when needed. Usually, the following site audits are undertaken:

- Regular audit site visits on weekly basis by contractors' environmental specialists. The audits results are recorded in an approved checklist template.
- Regular audit site visits on monthly basis by engineer's environmental specialist. The audits results are recorded in the approved checklist template.
- The RD environmental specialists participated in some of the audit site visits of the engineer's environmental specialist, but not less than once in a quarter.

The environmental monitoring has been held by the Contractor's environmental staff to check environmental compliance of the activities and the checklists have been completed.

Engineer's ES and RD environmental specialists didn't conduct monitoring visits, due to minor maintenance works and situation related to COVID-19.

No significant trends were observed.

All the details presented in the Engineer's Monthly and Quarterly reports.

### 3.3 Issues Tracking (Based on Non-Conformance Notices)

Two definitions are used to describe issues that have occurred and need to be addressed: (i) Minor Non-compliances are issues that are registered only in checklists during monitoring visits and provided to the Contractor for corrective action. In this case issues are relatively insignificant or corrective action can be completed quickly. (ii) Major Non-compliances are major issues or repeated non-conformances that Engineer besides registering in checklists, requests corrective action through official letter.

#### *Major Non-compliances*

**Table 3-1 Summary of Issues Tracking Activity for Current Period**

Summary Table	
<b>Total Number of Issues for Project</b>	13
<b>Number of Open Issues</b>	-
<b>Number of Closed Issues</b>	13
<b>Percentage Closed</b>	-
<b>Issues Opened This Reporting Period</b>	-
<b>Issues Closed This Reporting Period</b>	-

### 3.4 Trends

Quarterly Report No	Total No of Issues	% issues Closed	% issues closed late
3, 2018	0	0	0
4, 2018	1	1	0
1, 2019	1	0	0

2, 2019	0	0	0
3, 2019	0	0	0
4, 2019	0	0	0
1, 2020	0	0	0
2, 2020	0	0	0

### **3.5 Unanticipated Environmental Impacts or Risks**

There is no unanticipated environmental impacts or risks occurred during the reporting period.

## **4 RESULTS OF ENVIRONMENTAL MONITORING**

### **4.1 Overview of Monitoring Conducted during Current Period**

Instrumented measurements and monitoring of environmental parameters (dust, noise, water and vibration) during the reporting period was not conducted due to the lack of construction activities.

### **4.2 Waste Management**

Currently Contractor has occupied totally 6 sites for permanent disposal of excavated unsuitable subsoil, approved by the Engineer.

No asphalt was removed during the reporting period.

Garbage. All the generated garbage was removed to the Maralik landfill based on the contract with the community.

### **4.3 Health and Safety**

#### **4.3.1 Community Health and Safety**

During the reporting period no any accident have been recorded. More than 100 traffic signs and concrete blocks have been reinstalled and repaired.

#### **4.3.2 Worker Safety and Health**

No any accident recorded during the reporting period

Toolbox talks about construction works implementation in situation of COVID-19 were conducted at the site with the workers of Contractor.

Construction(maintenance) activities during emergency situation in RA caused by COVID-19 has been performed by taking into account special requirements of the Government of RA, in particularly PPE's (masks, gloves and etc.) provided to workers, hygienic conditions of the office territory managed properly, temperature of the workers have been checked before starting the work, proper distances between the workers have been managed and all the other requirements stated by the decisions of the Commandant was met.

### **4.4 Training**

There was no training on environmental / H&S safeguards implemented during the reporting period.

## **5 FUNCTIONING OF THE SEMP**

### **5.1 SEMP Review**

The Contractor has mainly complied with all the requirements set in SEMP's/CEMP. Effectiveness of the SEMP's/CEMP considered as high level, changes are not needed.

No new SEMP's prepared during the reporting period;

Detailed information about the SEMP's is presented in the Annex B.



## **6 GOOD PRACTICE AND OPPORTUNITY FOR IMPROVEMENT**

### **6.1 Good Practice**

Nothing to report for the current period.

### **6.2 Opportunities for Improvement**

Manual presented by ADB for the pandemic situations as COVID-19 will be very useful for our Contractors to manage their activities and improve capacity of the workers.

## **7 GRIEVENCE REDRESS MECHANISM**

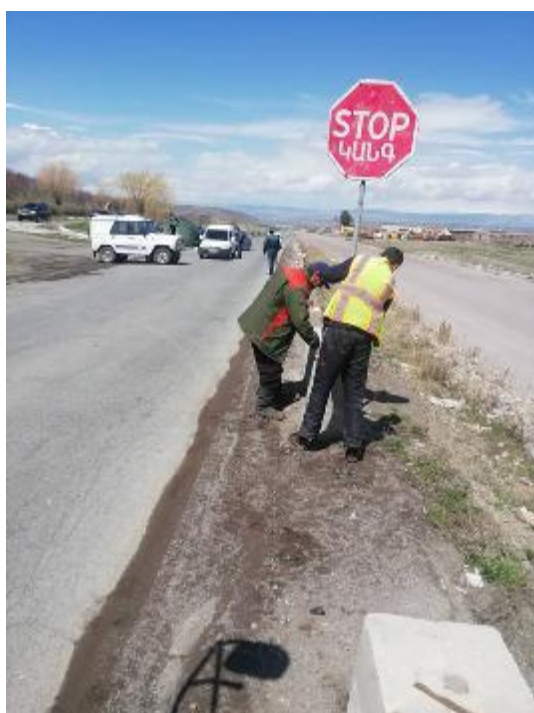
### **7.1 Grievances**

No any new complaints logged during the reporting period. Previously raised issues by the local residents that was not solved yet is 12 and remained open. 4 of them are under Contractor's responsibility and 8 are land acquisition and design issues that is forwarded to Road Department for solution.

## 8 SUMMARY AND RECOMMENDATIONS

- During the reporting period the program has ensured the compliance of Project activities to the national legislation such as Contractor's regular environmental reports submitted to RA MNP in accordance with Armenian legislation: 4th quarter of 2019, 1st quarter of 2020 and annual statistic report for 2019.
- Also, the compliance with the requirements of ADB environmental safeguard was ensured such as Contractor's environmental management plans, approval of Site-specific Environmental Management Plans containing the identification of site-specific environmental impacts, risk assessment and mitigation measures by the Project in pursuance of ADB SPS (2009) requirements on information disclosure and public participation, ADB conducted review missions to check compliance of the Program activities.
- Grievance redress mechanism has been established in all communities where construction works have been implemented. Preconstruction public consultation and other regular communication with impacted communities took place and the proper functioning of grievance redress mechanism in all communities regularly checked.
- Project related issues were regularly communicated with the environmental specialists of RD and Engineer, as well as Contractor's management and environmental team.
- Asphalt waste is not generated during the reporting period.
- Currently 11 of topsoil and dump sites are in use (see Annex B). New quarries or borrow sites were not opened.

## ANNEX A: Photos of construction (maintenance) process











**ANNEX B: Status of SEMP's for Tranche 3, Talin-Lanjik Section and operation of the sites as of June 31, 2020**

No	Name of site	Pk Km	SMP approved (Y/N)	Status of operation		
				Temporarily stopped	Currently being operated	Operation not started
Topsoil sites (TSS)						
1	Mastara-7 TSS	76+600	Y/ SEMP is approved on November 6, 2017			
2	Mastara-4 TSS	80+800	Y/ SEMP is approved on	The site is closed		

			October 12, 2017			
3	Mastara-1 TSS	81+200	Y/ SEMP is approved on October 12, 2017			
4	Mastara-5 TSS	85+200	Y/ SEMP is approved on October 12, 2017			
5	Lanjik-4 TSS	87+000	Y/ approved on January 13, 2017			
6	Lanjik- 1TSS	87+300	Y/ approved on January 13, 2017			
<b>Excavated subsoil dump sites (DS)</b>						
7	Talin -3 DS	72+750	Y/ approved on March 13, 2018			
8	Mastara-6 DS	79+500	Y/ approved on July 27, 2018			
9	Mastara-3 DS	80+800	Y/SEMP is approved on October 24, 2017			
10	Mastara-2 DS	82+300	Y/ SEMP is approved on October 24, 2017			
11	Mastara-9 DS	83+000	Y/ approved on July 27, 2018			
12	Lanjik-5 DS	87+200	N/ rejected			



13	Lanjik-2 DS	88+500	Y/ approved on March 9, 2017			
<b>Sites for borrowing subsoil for embankment (BP)</b>						
14	Mastara-BP-1	86+400	Y/ approved on March 13, 2018			
15	Lanjik	87+500	No			
<b>Temporary storage of subsoil</b>						
16	Mastara	79+600	Yes/ approved on Nov 30, 2018			
17	Mastara	80+000	No	removed		
18	Maralik	next to CP	Yes/ approved on Dec 17, 2018  Approval is withdrawn	removed		
<b>Concrete and Asphalt plants</b>						
19	Maralik CP		Y/conditional approved on March 9, 2017/ update requested			
20	Maralik AP		Yes/ draft SEMP provided			
<b>Crasher machine area (CM)</b>						
21	Mastara	79+500	Y/ approved on May 4, 2018			
<b>Construction camp (CC)</b>						

22	Maralik		Y/ approved on March 9, 2017			
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