Project Number: 44458-013 Reporting period: July - December 2021 #13 Semi-annual Report June 2022

# UZB: Amu Bukhara Irrigation System Rehabilitation Project

Loan No. 3025/3026 - UZB (Financed by the Asian Development Bank)

Prepared by Project Implementation Unit of Amu Bukhara Irrigation System Rehabilitation Project for the Ministry of Water Resources of the Republic of Uzbekistan and Asian Development Bank

#### CURRENCY EQUIVALENTS

(as of 31 December 2021)						
Currency unit	_	uzs (лв)				
лв 1.00	=	\$ 0.0000922				
\$1.00	=	лв 10,837.66				

#### **ABBREVIATIONS**

EIA       -       Environmental impact assessment         EHS       -       Environmental health and safety         EMP       -       Environmental management plan         EMMP       -       Environmental management and monitoring plan         EMR       -       Environmental monitoring report         GTS       -       General Technical Specification of Contract         GoU       -       Government of Uzbekistan         HGME       -       Hydrogeological Meliorative Expedition         IA       -       Implementing agency         IEE       -       Initial environmental examination report         ISA       -       Irrigation System Administration         JICA       -       Japan International Cooperation Agency         MWR       -       Ministry of Water Resources of the Republic of Uzbekistan         M&ES       -       Monitoring and evaluation specialist         OHS       -       Occupational Health and Safety         PIU       -       Project implementation unit         SAEMR       -       Semi - annual environmental management plan         SPS       -       Safeguard Policy Statement         PNPC       -       Provincial level of State Committee for Nature Protection (Oblkompriroda) <th>ABIS ABISRP ADB BISA CNTIC EEC</th> <th>_ _ _ _</th> <th>Amu Bukhara Irrigation System Amu Bukhara Irrigation System Rehabilitation Project Asian Development Bank Basin Irrigation System Administration China National Technical Import and Export Corporation Environmental expert of consultant</th>	ABIS ABISRP ADB BISA CNTIC EEC	_ _ _ _	Amu Bukhara Irrigation System Amu Bukhara Irrigation System Rehabilitation Project Asian Development Bank Basin Irrigation System Administration China National Technical Import and Export Corporation Environmental expert of consultant
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PS(s) – Pump station(s) WCA – Water Consumers' Association {WEIGHTS AND MEASURES}	PDF	_	
WCA – Water Consumers' Association {WEIGHTS AND MEASURES}			
		_	
			{WEIGHTS AND MEASURES}
dB – Decibel dBA Decibel A Scale	dB		– Decibel

		DOOIDOI
dBA	_	Decibel A Scale
ha	_	hectare
m³	_	cubic meter

i

GLOSSARY							
Emergency Response Plans	<ul> <li>Plan to address contingencies associated with process upset and accidental circumstances. They include clearly assigned responsibilities for the assessment of the degree of risk to life and property with procedures on whom to communicate different types of emergencies and how.</li> </ul>						
Environmental Assessment	<ul> <li>A generic term used to describe a process of environmental analysis and planning to address the environmental impacts and risks associated with a project. The assessment may take the form of an EIA, IEE, environmental audit, or Matrix of Environmental Impacts.</li> </ul>						
Environmental Audit	An instrument to determine the nature and extent of all environmental areas of concern at an existing facility or a facility under construction. The audit identifies and justifies appropriate measures to mitigate the areas of concern, estimates the cost of the measures, and recommends a schedule of implementation. For certain projects, the environmental assessment report may consist of an environmental audit alone; in other cases, the audit is part of the environmental assessment documentation.						
Environmental Management Plan (EMP)	<ul> <li>A plan that guides the implementation of environmental management and mitigation measures. It contains the following key elements: mitigation measures, implementation and monitoring program, cost estimates, resource requirements, budget, and institutional arrangements.</li> </ul>						
Environmental Monitoring Plan	<ul> <li>A plan that details environmental monitoring and reporting requirements, including parameters to be measured, methods, sampling locations, frequency of measurements, detection limits, and definition of thresholds that will signal the need for corrective actions; typically, a part of an EMP.</li> </ul>						
Hazardous Waste	<ul> <li>Substances classified as hazardous waste possess at least one of four characteristics - ignitability, corrosivity, reactivity, or toxicity - or appear on special lists.</li> </ul>						

#### NOTE

(i) In this report, "\$" refers to United States dollars unless otherwise stated.

This environmental monitoring report is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature.

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.

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### **1 INTRODUCTION**

#### 1.1 Preamble

1. This report is the 13<sup>th</sup> Semi - Annual Environmental Monitoring Report (SAEMR) for AMU BUKHARA IRRIGATION SYSTEM (ABIS) REHABILITATION PROJECT (ABISRP).

#### **1.2 Headline Information**

2. In order to realize a sustainable and reliable water supply in Amu Bukhara Irrigation System (ABIS), the Project is expected to achieve the following outputs:

- a) Construction of one new pump station, and modernization and rehabilitation of four existing ones.
- b) Increase in the conveyance efficiency of the main canal of ABIS.
- c) Increase in the capacity of Basin Irrigation System Administration (BISA), Irrigation System Administrations (ISAs), water consumers' associations (WCAs), and farmers to adapt to climate change, and
- d) Efficient management of project and ABIS.

3. The Ministry of Water Resources of the Republic of Uzbekistan (MWR) has agreed to implement the Environmental Management Plan (EMP) and submit regular reports on its implementation. The Initial Environmental Examination Report (IEE), including the EMP, has been published on the Asian Development Bank (ADB) website.<sup>1</sup> JICA will provide parallel financing of \$100.0 million equivalent for the costs of (i) two turnkey contracts (Modernization and Rehabilitation of Kizil-Tepa 1 Pump Station and Modernization and Rehabilitation of Amu-Bukhara 2 Pump Station) under output 1 of the project; and (ii) the consulting services required for the design and construction supervision of item (i) above. JICA will fully administer the scope of works of its parallel financing. During project implementation, ADB and Japan International Cooperation Agency (JICA) will each be responsible for safeguard compliance in their respective project activities.

<sup>&</sup>lt;sup>1</sup> <u>Amu Bukhara Irrigation System Rehabilitation Project: Initial Environmental Examination | Asian Development Bank (adb.org)</u>

## 2 PROJECT DESCRIPTION AND CURRENT ACTIVITIES

#### 2.1 **Project Description**

4. The site of ABISRP is in the central part of Uzbekistan on the right bank of Amu Darya River bordering to Turkmenistan. Bukhara is 563 km far from the capital Tashkent. The project covers lands of Bukhara and Navoi provinces. The ABIS is very important for the area and gives life as an oasis.

5. The ABIS supplies water to already irrigated lands, cities, settlements, and industries in Bukhara and Navoi provinces through a series of large cascading pump stations and thousands of kilometers of conveyance canals. It also drains the excess water through drainage system outside of the project area.

6. The ABIS, with a command area of 315,000 ha, serves the irrigated lands of the Bukhara Zarafshan and Karakul oases and the Karaul Bazar massif. The population in the ABIS command area is about 1,788,000 people, including 1,550,000 in Bukhara and 239,000 in two districts of Navoi, of which 68% live in rural areas and fully rely on irrigated agriculture. It is particularly important to supply reliable water to these people in the region. ABIS also supplies water for municipal and industrial purposes.

7. The aim of the Project is to improve the irrigated agriculture and water resources management in the ABIS, with the goal of promoting sustainable economic and social welfare of communities dependent upon ABIS. The Project objectives are:

- a) modernization and rehabilitation of obsolete pump stations.
- b) increase of conveyance efficiency in ABIS main canal.
- c) increase climate change adaptation capacity; and
- d) increase efficiency of project management and irrigation system management.

#### 2.2 **Project Contracts and Management**

8. Summary of civil works contracts and works' progress is summarized in Table 2-1.

9. Supervision Consultant prepared IEE and updated on October 2015 in English and Russian. Russian version of IEE was used as environmental impact report and submitted to State Committee for Nature Protection of the Republic of Uzbekistan in June 2016. The positive conclusion of State Ecological Expertise (SEE) was obtained in October 2016. The conclusion outlines following main conditions during the realization of the Project:

- provision of construction activities only during day-time;
- establishing a traffic route for construction vehicles at least 50-100m distance from residential buildings
- provision for dust suppression of dumps and access roads;
- considering the allocation of work sites, parking and maintenance areas in line with the Resolution of Cabinet of Ministers No.174 dated from April 07, 1992;
- development of measures on reducing of noise and vibration during construction activities, as well as a schedule for noise measuring near to residential areas.

All awarded contracts included EMPs cleared by ADB and conditions of applicable national EIA (Environmental Impact assessment)/IEE clearance. According to ADB standards, ADB defined the Amu Bukhara Irrigation System Rehabilitation Project as category B and in accordance with the Government EIA requirements, this project is classified as class 3 project <sup>2</sup>.

<sup>&</sup>lt;sup>2</sup> <u>https://www.adb.org/projects/documents/uzb-amu-bukhara-irrigation-system-rehabilitation-project-oct-2015-iee</u>

Table 2-1. Summary of Civil Works Contracts and works' progress											
						Environmental personnel		Contract		Progress,%	
Contractor	Scope	Contract Signed	SSEMP approved	COVID-19 HSMP	ERP	Environmental officer	Health and safety officer	Effective Date	Completion Date	As of 30 Jun, 2021	As of 31 Dec, 2021
China National Technical Import and Export Corporation (CNTIC)	Construction of Amu Bukhara 1 NEW Pump Station (ABISRP 01)	02/08/19	06/10/21	08/12/20	08/12/20	Egamov Murod	Egamov Murod	05/09/19	04/09/23	17.57	27.03
Consortium LLC "Kogon Suv Kurilish" and JSC "Amubukhorokanalkurilish"	Modernization and Rehabilitation of Amu Bukhara Main Canal Regulation Structures (ABISRP 02)	16/03/16	15/02/17	22/11/21	22/11/21	Nazirbek Nayimovich Khuzhayev mobilized on 22/10/21	Nazirbek Nayimovich Khuzhayev mobilized on 22/10/21	27/04/16	12/04/22*	52.50	57.50
JV Hebei Construction Group Co, LTD & Hebei Water Conservancy Eng. Bureau	Modernization & Rehabilitation of Kuyu Mazar Pump Station (ABISRP 03 Lot 1)	21/12/16	20/02/18	09/12/20	09/12/20	Miao Guowang	Miao Guowang	20/09/17	22/04/21**	97.87	97.87
JV Hebei Construction Group Co, LTD & Hebei Water Conservancy Eng. Bureau	Modernization & Rehabilitation of Kizil Tepa Pump Station (ABISRP 03 Lot 2)	21/12/16	20/02/18	09/12/20	09/12/20	Miao Guowang	Miao Guowang	20/09/17	29/07/21***	98.06	99.53
LLC "Kogon Suv Kurilish"	Civil Works for Inter- farm and On-farm Irrigation System Rehabilitation (ABISRP 04)	30/06/16	15/02/17	Not issued	Not issued	Izamov Amin Ashurovich	Izamov Amin Ashurovich	22/08/16	10/09/17	100	100

SSEMP = Site-Specific Environmental Management Plan

HSMP = Health and Safety Management Plan

ERP = Emergency Response Plan

\* Extended Completion Date

\*\* Completion and Operational Acceptance dates are contractually different dates. This Contract was extended to 29.05.2021. Actual Completion date of this Contract is 22.04.2021 and the Completion Certificate for this Contract was issued on 24.05.2021 with minor deficiencies. Progress being less than 100% means that the minor deficiencies issued with the Completion Certificate are being eliminated. Upon relevant deficiencies are %100 eliminated. Operational Acceptance Certificate will be issued and the progress will be updated as 100%.

\*\*\* Completion and Operational Acceptance dates are contractually different dates. This Contract was extended to 29.07.2021 and the extended completion date of this Contract is given in the table. Contractor notified that the Works had been completed, and applied for the issuance of Completion Certificate on 14.06.2021. Contractually, the Functional Guarantee Tests of pumps had to be carried out after issuance of the Completion Certificate. The Employer asked the Contractor to carry out relevant tests before issuance of Completion Certificate. Tests were carried out in October 2021 and will be repeated due to discrepancies in the flowrates. Upon satisfactorily completion of the relevant tests, Completion Certificate will be issued taking into account the completion date as 14.06.2021. Then the completion date in the table will be updated accordingly as actual completion date. Progress being less than 100% means that there are minor deficiencies. Until satisfactorily completion of the tests, these minor deficiencies may be 100% eliminated and both Completion and Operational Acceptance Certificates may be consequtively issued. When the Operational Acceptance Certificate is issued, the progress will be updated as 100%.

10. A list or table of main organizations involved in the project and relating to Environmental Safeguards is given at Table 2-2 below. It includes borrower, PIU (Project implementation unit), Main Contractor/s and main sub-contractors, environmental staff of various organizations with their names and contact details.

	ental Safeguards of ABISRP
Borrower/PIU	Ministry of Water Resources of the Republic of
	Uzbekistan
Organization:	
Environmental Staff:	
E-mail:	abisr@mail.ru
Tel:	+ 998 99 895 82 31
Supervision Consultant	
Organization:	
	Inc. Sheladia Associates Inc
Environment Specialist (International):	Saban Cimen
Email:	saban.cimen@temelsu.com.tr
Tel:	+ 998 90 317 36 11
Environment Specialist (local):	Sherzod Sanatulin
Email:	shonic1987@mail.ru
Tel:	+ 998 90 966 59 54
Contractors	
Construction of Amu Bukhar	a 1 NEW Pump Station (ABISRP 01)
	port and Export Corporation (CNTIC)
Environmental Staff:	
	nu Bukhara Main Canal Regulation Structure BISRP 02)
•	lish" and JSC "Amubukhorokanalkurilish"
	Nazirbek Khuzhayev
	uyu Mazar Pump Station (ABISRP 03 Lot 1)
	D & Hebei Water Conservancy Eng. Bureau
Environmental Staff:	
Email:	
Tel:	1.1
-	(izil Tepa Pump Station (ABISRP 03 Lot 2)
	D & Hebei Water Conservancy Eng. Bureau
Environmental Staff:	, ,
Email:	9
Tel:	
-	Irrigation System Rehabilitation (ABISRP 04
	jon Suv Qurilish
	Izomov Amin Ashurovich
	Izomov Amin Ashurovich aff will be responsible for environmental monitori

- Basin Irrigation System Authority of Regions
- Contractor of any Subcomponent
- Civil Engineer of Consultant
- Climate Change Mitigation Specialist
- Environmental Expert of Consultant (EEC)
- Electrical Engineer of Consultant

- Ministry of Health
- Project Manager of Consultant
- Project Implementation Unit
- Water Consumer Associations

12. The key staff for the environmental management and monitoring activities is Mr. Sardor Pulatov, as PIU's Monitoring and Evaluation Specialist (M&ES). He has all responsibilities and tasks related to environment, land, social (including involuntary resettlement and indigenous people), and poverty and gender aspects in accordance with the environment and social safeguard documents and Summary Poverty Reduction and Social Strategy, all of which are project linked documents.

- 13. Specifically, PIU Monitoring and Evaluation Specialist:
  - takes responsibility for monitoring and evaluating performance targets and indicators with baselines indicated in the Design and Monitoring Framework of the project document for all dimensions with support from the implementation consultant.
  - provides necessary guidance to the Poverty, Social and Gender Officer in the PIU of Bukhara to collect relevant information on poverty, gender, and social aspects in relation to the Design and Monitoring Framework of the project document and Summary Poverty Reduction and Social Strategy.

14. Additionally, in relation to the environmental aspects, with the support from the international and national Environmental Experts of the Consultants (EECs) of the supervision consultant, the PIU Environmental Monitoring and Evaluation Specialist will:

- ensure that Environmental Management Plan (EMP) is updated during detailed design completed,
- ensure that bidding documents include all requirement to implement IEE and its EMP.
- ensure that the bidder selected will have adequate resources to implement and update EMP.
- undertake safeguards monitoring activities and prepare safeguard reports to be submitted to ADB.
- ensure that all construction works will be taken place in the permanent land possession of BISA.
- if additional land required for construction works, ensure that land acquisition and resettlement plan is prepared in accordance with ADB SPS (Safeguard Policy Statement) 2009 as well as the Government law and regulation related with land acquisition; and
- ensure that other project-related tasks are complied with ADB SPS 2009 and Government requirement.
- review and approve Site-Specific and Topic Specific Management Plans prepared by Construction Contractor.

15. PIU as responsible implementing agency for the project, recruited a Construction Supervision Consultant (CSC) – joint venture: «Temelsu International Engineering Services Inc.» and «Sheladia Associates Inc.». The International EEC (Mr. Saban Cimen) and national EEC (Mr. Sherzod Sanatulin) assist M&ES of PIU in the supervision of the construction activities under the Project.

16. The part of the work of the EEC is to develop a capacity building training program for Contractor's Environmental Officers in order to increase the implementation efficiency of environmental monitoring. The timing of this program is just before the commencement of civil works. EECs will develop the content of training.

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

#### 2.3.1 Contract ABISRP 01 - Construction of Amu Bukhara 1 New Pump Station

17. During the reporting period, the progress of Works in **Contract ABISRP 01 - Construction** of **Amu Bukhara 1 New Pump Station** were as followings:

- Progress in the detailed structural design of the pump station building and corresponding structures reached approximately 65%,
- Progress in the design of auxiliary mechanical systems reached approximately 85%,
- Progress in the design of electrical systems reached approximately 75%,
- Reinforced concrete works of the underground part (substructure) of the pump station building continued and approximately 11.400 m<sup>3</sup> of structural concrete (C25/30) was poured in the reporting period (cumulative volume as of end of December 2021 is 14.900 m<sup>3</sup> which is 85% of the design volume for the substructure of the pump station building)
- Dewatering of the foundation pit of the pump station building continued,
- Pylon of "Muborak Neftegaz" on the inlet canal was demolished in late December 2021 and excavation works on the inlet canal were resumed,
- Manufacturing and delivery of the following elements were completed;
  - Inlet elbows of the main pumps
  - Discharge pipes of the main pumps inside the pump station building
  - The penstocks to be embedded in the downstream wall of the pump station building
  - Embedded parts of the intake gates
- Inlet elbows at the suction chambers of all 8 pumps were installed,
- Embedded sections of the penstocks in the downstream wall of the pump station building were installed,
- Progress in manufacturing of the main pumps was reported as 95% by the Contractor, and the delivery status of the parts of main pumps is as follows;
  - Draft Cones  $\rightarrow$  for 7 pumps have been delivered
  - Impellers
- ightarrow for 6 pumps have been delivered
- $\rightarrow$  for 8 pumps have been delivered
- Sealings
- $\rightarrow$  for 4 pumps have been delivered
- Bearings

- Shafts

- $\rightarrow$  for 4 pumps have been delivered  $\rightarrow$  for 4 pumps have been delivered
- Pump CoversSpiral Casings
- $\rightarrow$  for 4 pumps have been delivered
- Progress in manufacturing of the main motors was reported as 80% by the Contractor (factory tests are in progress),
- Progress in manufacturing of the main valves was reported as 100% by the Contractor (ready for shipment),
- Manufacturing of the following elements is in progress;
  - Materials/equipment/auxiliary equipment for technical water supply system, oil supply and discharge system, compressed air system and emergency drainage system

# 2.3.2 Contract ABISRP 02 - Modernization and Rehabilitation of Amu Bukhara Main Canal Regulation Structures

# 18. During the reporting period, the Contractor of **Contract ABISRP 02 - Modernization and Rehabilitation of Amu Bukhara Main Canal Regulation Structures** carried out the following works:

- Repair of 1 set of stoplog on Regulator ABK-1 at Hydrosystem Dvoynik,
- Repair of 1 set of stoplog on Regulator Zarafshan at Hydrosystem Tashrabad,
- Repair of 1 set of radial gate on Regulator Zarafshan at Hydrosystem Tashrabad,
- Replacement of 3 small gates on outlet structures Mayta and Okrabad at Hydrosystem Tashrabad,
- Slope concrete reconstruction works on the downstream of Regulator Zarafshan at Hydrosystem Tashrabad,
- Riprap works on the downstream of Regulator Verkhnebukharskiy at Hydrosystem Kharkhur,
- Rehabilitation of guide slots of 8 gates on Outflow-Tudakul at Hydrosystem Prokop,
- Repair of 4 of the gates on Outflow-Tudakul at Hydrosystem Prokop,
- Replacement of the transformer at Hydrosystem Prokop,
- Rehabilitation and strengthening of slopes at the downstream and upstream of Outflow-Tudakul at Hydrosystem Prokop,
- Commencement of construction works of bypass structure ABK-1 at Hydrosystem Troynik.

#### 2.3.3 Contract ABISRP 03 - Modernization & Rehabilitation of Kuyu Mazar and Kizil Tepa Pump Stations

19. Under the Modernization and Rehabilitation of Kuyu Mazar and Kizil Tepa Pump Stations (PS(s)) (ABISRP 03) there are two contracts: **Modernization & Rehabilitation of Kuyu Mazar Pump Station (ABISRP 03 Lot 1)** and **Modernization & Rehabilitation of Kizil Tepa Pump Station (ABISRP 03 Lot 2)**. Contracts were signed in December 2016 and became effective in September 2017.

20. Kuyu Mazar PS: After examining the facilities with the Working Commission and seeing that the Works at KM PS had practically been completed with minor deficiencies, and all the pump units met the specified functional requirements (guaranteed efficiencies); the Completion Certificate of the Contract ABISRP 03 Lot 1 was issued by the CSC on May 24, 2021. During the reporting period, the Contractor mainly engaged with the elimination of deficiencies, the status of which is as follows as of end of the reporting period:

•	on Mechanical Works	→15/25	(60%)
•	on Electrical Works	→9/12	(75%)
•	on Civil Works	→24/26	(92%)
•	on Supply of Mandatory Spare Parts	<del>→</del> 13/21	(62%)
•	on General Items	→4/7	(57%)
•	identified by the Local Working Commission	→24/30	(80%)
	TOTAL	→89/121	(73.5%)

21. **Kizil Tepa PS:** Contractor, notifying that the main Works had been completed, applied for the issuance of Completion Certificate on 14.06.2021 (before the expiry of the extended completion date, i.e., before 29.07.2021). Contractually, the Functional Guarantee Tests

(Performance Tests) of pumps had to be carried out after issuance of the Completion Certificate. The Employer asked the Contractor to carry out relevant tests before issuance of Completion Certificate. Performance tests of the main pumps at KT PS were performed from September 30 to October 09, 2021 in accordance with the "Pump Performance Test Procedure" prepared by the main pumps' manufacturer (Andritz). According to the performance test results, 8 of the pumps at KT PS have failed in attaining the functional guarantees specified in the Contract. The Contractor and Pump Manufacturer claimed that the calibration of the ultrasonic flowmeters long ago, and the silt accumulated at the intake chambers of pumps and the forebay of the pump station caused the tests to fail. According to the Contract, *in case any of the pumps fails to meet the functional guarantees specified in the Contract, the Contractor shall make changes, modification and/or additions to the Plant or any part thereof as may be necessary to meet at least the minimum level of functional guarantees within 90 days (i.e., <i>in our case until 12 January 2022)*. Accordingly, the Contractor was asked to take all necessary remedial actions within specified duration and to repeat the tests latest from 12 January 2022. Contractor mainly engaged with the following works during the reporting period:

- Reconstruction of asphalt pavement around the PS (has been 100% completed),
- Construction of lodging buildings of the Operator's staff, domestic water supply tank and septic tank for the PS (has been 100% completed),
- Injection works (polyurethane grout) to stop leakage on the underground walls of the PS building (has almost been 85% completed),
- Completion of the remaining painting work on the façade of the pump station building,
- Recalibration of the ultrasonic flowmeters of main pumps,
- Dredging works at the forebay to ensure sufficient flow during repetition of the performance tests (in progress),
- Elimination of some of the minor deficiencies of the facility identified by the CSC on May 26, 2021, the current status of which is as follows:

	TOTAL	<del>→</del> 139/176	(79%)
-	on Civil Works	→42/60	(70%)
-	on Electrical Works	→71/75	(95%)
-	on Mechanical Works	→26/41	(63%)

#### 2.3.4 Summary

22. The main project activities carried out during the reporting period include the following:

# Table 2-3. Main Construction Activities Carried out During the Reporting Period (July December 2021)

Site	Construction Activity	Number of Workers						
		Max.	Min.					
Construction of Amu Bukhara 1 New Pump Station (ABISRP 01)								
Bukhara-Alat Construction of the underground part (substructure) of the pump station building		207	32					
Modernization and Rehabilitation of Amu Bukhara Main Canal Regulation Structures (ABISRP 02)								
Hydrosystems Kharkhur, Tashrabad and Prokop	Various rehabilitation works on regulating structures	60	12					
Hydrosystem Troynik	rosystem Troynik Commencement of construction works of bypass structure ABK-1							
Modernization and Rehabilitation of Kuyu Mazar Pump Station (ABISRP 03 Lot 1)								
Bukhara-Kuyu Mazar	Elimination of deficiencies	8	3					

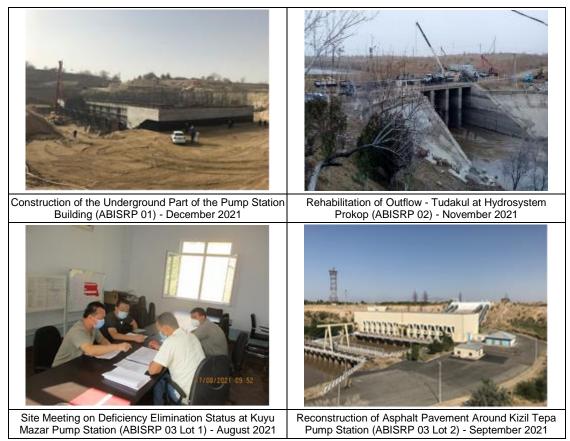
Site	Construction Activity	Number of Workers		
	·	Max.	Min.	
Modernization and Rehabil	itation of Kizil Tepa Pump Station (ABISRP 03 Lot 2)			
Navoi-Kizil Tepa	Reconstruction of asphalt pavement around the PS, Construction of lodging buildings of the Operator's staff, domestic water supply tank and septic tank for the PS, Injection works to stop leakage on the underground walls of the PS building, Completion of the remaining painting work on the façade of the pump station building, Dredging works at the forebay to ensure sufficient flow during repetition of the performance tests (in progress), Elimination of deficiencies	21	17	

23. The construction works at Amu Bukhara 1 New Pump Station started in May 2020 in the 10<sup>th</sup> reporting period (January - June 2020) and are in progress.

24. The construction works within the scope of the Contract ABISRP 02 started in late 2017 and are still in progress.

25. The construction works at Kuyu Mazar and Kizil Tepa Pump Stations started in the 6th reporting period (January - June 2018) and have been substantially completed.

- 26. Photos of construction works are given in Annex 1. **Photos**.
- 27. All photos were taken during the current reporting period.



#### 2.4 Changes in project scope

28. There has been no change during the reporting period in the design of the project which was assessed in the Impact Assessment phase of the project and was set out in the Initial Environmental Examination/Environmental Impact Assessment.

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

29. No changes to any construction processes have been observed during the construction period.

## **3 ENVIRONMENTAL SAFEGUARD ACTIVITIES**

#### 3.1 General Description of Environmental Safeguard Activities

30. The activities carried out during the reporting period by the environmental staff who are related to the project activities have been summarized at the following Table 3-1.

# Table 3-1. Environmental Safeguards Activities Carried out During Reporting Period (July - December 2021)

- December 2021)									
Environmental Safeguard Activities									
Project Officer/Review Mission Leader (Nasirov, Tal'at Ubaydullaevich) at Uzbekistan Resident									
Mission (URM)									
- Site visit in October 2021 within the scope of review mission.									
The International environmental expert (Saban Cimen) of Supervision Consultant (EEC)									
- Site audit on September-October 2021.									
- Review of the SAEMR with the information provided by the local experts and supervision team and	1								
clear the report before submission to ADB.									
- Ensure the corrective actions are implemented by the deadline.									
The National environmental expert (Sherzod Sunatulin) of Supervision Consultant (EEC)									
- Site audit in November 2021.									
Construction of Amu Bukhara 1 New Pump Station (ABISRP 01)									
(Responsible Environmental Manager: Egamov Murod)									
- Submitted the revised SSEMP in August 2021.									
- Submitted EMR integrated to Monthly Progress Reports (July, August, September, October,									
November, December 2021)	<b>a</b>								
Modernization and Rehabilitation of Amu Bukhara Main Canal Regulation Structures (ABISRP (	2)								
(Responsible Environmental Manager: Nazirbek Khuzhayev)									
<ul> <li>Submitted Health and Safety Plan against COVID-19 including Emergency Response Plan in November 2021.</li> </ul>									
- Submitted EMR covering the period October - December 2021.									
Modernization and Rehabilitation of Kuyu Mazar Pump Station (ABISRP 03 Lot 1) (Responsible Environmental Manager: Miao Guowang)									
- Training of site personnel on Environmental and H&S Issues.									
<ul> <li>No EMR has been submitted, the Contractor provided the CSC with only the information given in</li> </ul>									
Table 4-5, Table 4-9 and Annex 4. An NCR has been opened for continuously provision of reports									
as seen in Table 7-1.									
Modernization and Rehabilitation of Kizil Tepa Pump Station (ABISRP 03 Lot 2)									
(Responsible Environmental Manager: Miao Guowang)									
- Training of site personnel on Environmental and H&S Issues.									
<ul> <li>No EMR has been submitted, the Contractor provided the CSC with only the information given in</li> </ul>									
Table 4-6, Table 4-10 and Annex 2. An NCR has been opened for continuously provision of report									
as seen in Table 7-1.	2								

#### 3.2 Site Inspections

31. The safeguards rating of 44458-013 (L3025/L3026) Amu Bukhara Irrigation System Rehabilitation Project was "At Risk" for 2021 Q3, due to delayed implementation of time-bound corrective actions related to non-conformities opened in the previous reporting periods. As seen in Table 3-3, all the non-conformities from the previous periods have been closed in the reporting period according to the observations made by the CEC (civil engineer of the Consultant) and local EEC (environmental engineer of the Consultant) of the CSC.

32. Engineer's Health and Safety Plan-COVID-19 including Emergency Response Plan was submitted to the Employer in the previous reporting period and officially introduced to the

Contractors, requesting themselves through official letters to prepare their Health and Safety Plans against COVID-19.

33. CNTIC (ABISRP 01) and HBCG (ABISRP 03 Lot 1 and Lot 2) submitted to PIU and CSC their Health and Safety Plans against COVID-19 in previous periods.

34. In the beginning of reporting period, on July 13, 2021, meetings were held with the Contractors to review the status of the environmental issues:

- CNTIC for ABISRP 01,
- Kogon Suv Kurilish for ABISPR 02, and
- HBCG for ABISRP 03 Lot 1 and Lot 2.

35. A further meeting was held on July 14, 2021 with Kogon Suv Kurilish.

36. CNTIC was requested to update the Site-Specific Environmental Management Plan and Kogon Suv Kurilish was requested to prepare Health and Safety Plans against COVID-19. All the Contractors were requested to submit regularly the periodical reports including the following key performance indicators:

- Induction and trainings
- Exercises and drills,
- Incidents,
- Review and actions for closure the identified non-conformances,
- Commitment of the Contractors for monitoring of environmental issues.

37. A video conference was conducted on July 19, 2021 about the findings and implementation of actions with the participation of ADB environmental safeguard specialists, PIU and CSC, to discuss the implementation status of the corrective action plans and COVID-19 Emergency Response Plan. The following explanations were made by CSC during the video conference.

- Issuance of the SAEMRs on regular basis by the PIU with the support of the CSC's EECs in English.
- The information from the SAEMRs will be translated into Russian by the national EEC, so that the reports can be disclosed on MWR website and accessible by the Contractors;
- Full time appointment of a national EEC for monitoring of the environmental issues and the performance of the Contractors;
- Periodical inspection of the sites by the national EEC;
- Issuance of the Engineer's Health and Safety Plan-COVID-19 including Emergency Response Plan

38. Project review mission was performed by ADB Project Officer/Review Mission Leader Mr. Nasirov, Tal'at Ubaydullaevich from URM of ADB, in October 2021. The main issue which has been advised by the review mission is to ensure timely submission and revision of the SAEMR to meet environmental safeguard compliance.

39. The Contractors were notified about non-conformances which were still open, and their urgent action was requested. The actions as to the spoil disposal areas were emphasized, as documented in the enclosures, and agreement was requested on the actions by the Local Ecology and Environmental Protection Headquarter.

40. In case of non-conformances, the Contractors shall be deemed to be responsible for implementing the necessary actions within reasonable durations. Otherwise, actions shall be

implemented to the Contractors such as suspension of the payment of the IPCs and acceptance procedures.

41. Regular site monitoring visits were carried out during the reporting period by PIU and the national EEC to check up implementation of environmental protection measures parallel to civil works inspection as indicated below:

			cember 2021)											
Date	Conducted by	Purpose	Findings	Corrective Actions (CA)	Responsible for CA									
30/09/2021- 08/10/2021	Supervision Consultant International EEC	General, Environmental and OHS, ensure Non- Conformance issues applied on deadline	Non- Conformance issues have not been applied on deadline	Assist and enforce the site managers to correct Non- Conformance issues on time	HSE Managers of the Contractors									
30/11/2021- 03/12/2021	Supervision Consultant national EEC	General, Environmental and OHS	Non- Conformance has not been reported	-	-									
Daily Routine site visits	Supervision Consultant Site Engineers (SE)	General, Environmental and OHS (Occupational health and safety)	Usage of PPE (Personal protective equipment) has not been used in all	Daily control of the use of PPE and immediate warning of those who do not use PPE	HSE Managers of the Contractors									

Table 3-2. Environmental Inspections Carried out During Reporting Period (July -
December 2021)

EEC = environmental expert of consultant, OHS = occupational health and safety, PPE = personal protective equipment

42. The Contractor of Contract ABISRP 01 (Construction of Amu Bukhara 1 New Pump Station) submitted fifth version of Site-Specific Environmental Management Plan (SSEMP) on August 8, 2021 to PIU/CSC. The comments given to fourth version of the SSEMP on April 22, 2020 were satisfactorily replied by the Contractor. PIU/CSC has approved the SSEMP on October 6, 2021.

43. It has been requested from the contractors to send monthly environmental monitoring activities which could be integrated into the monthly progress report.

44. Mr. Miao Guowang is the Health, Safety and Environmental Manager of the Contract ABISRP 03 Lot 1 (for Kuyu Mazar Pump Station). The local Health, Safety and Environmental expert of the Contactor is Mr. Aziz Juraev.

45. Mr. Miao Guowang is acting also as the Health, Safety and Environmental Manager of the Contract ABISRP 03 Lot 2 (for Kizil Tepa Pump Station). The local Health, Safety and Environmental expert of the Contactor is also Mr. Aziz Juraev.

46. Mr. Egamov Murod Kuchkorovich (a local expert) is acting as the Health, Safety and Environmental Manager of the Contract ABISRP 01 (for Amu Bukhara 1 New Pump Station).

47. Environmental performance of the Contractor (of Contract ABISRP 02) is considered to be moderate. The Contractor submitted Health and Safety Plan against COVID-19 including Emergency Response Plan in November 2021, and submitted an EMR covering the period October - December 2021. The reconstruction and rehabilitation works at Hydrosystems Djilvan, Rostguy, Kharkhur, Tashrabad, Peresecheniye and Outflow-1 have been substantially completed with minor deficiencies. Works at Hydrosystems Prokop and Troynik are in progress (Annex 1. **Photos**).

48. Environmental performance of the Contractor (of Contract ABISRP 03 Lot 1) is moderate. Main construction and installation activities in the Contract have been completed on April 22, 2021. Defects/deficiencies and incomplete items have been notified to the Contractor including environmental issues on May 24, 2021. In the reporting period, the Contractor levelled the dredged material spoil area until November 5, 2021 and obtained a confirmation letter from Bukhara Local Environmental Authority that the environmental measures had been adequately implemented in the Kuyu Mazar Pump Station area on November 18, 2021 (Annex 5. **Confirmation Letters from Local State Authorities**). Overall performance of the contractor is moderate. Its environmental record keeping system has been formed but "day by day recording" has not been applied efficiently for health and safety training records. Health and safety conditions, social leisure areas have been created for the workers. Environmental and health and safety labelling has been partly applied at site. Hazardous waste management storage area has been developed, and separation of solid wastes has been applied after issuance of a few notifications during the project construction phase.

49. Environmental performance of the Contractor (of Contract ABISRP 03 Lot 2) is moderate. Main construction and installation activities in the Contract have been completed. In the reporting period, the Contractor levelled the dredged material spoil area until November 10, 2021 and obtained a confirmation letter from Navoi Local Environmental Authority that the environmental measures had been adequately implemented in the Kizil Tepa Pump Station area on November 19, 2021 (Annex 5. **Confirmation Letters from Local State Authorities**). Overall performance of the contractor is moderate. Its environmental record keeping system has been formed but "day by day recording" has not been applied efficiently for health and safety training records. Health and safety conditions, social leisure areas have been created for the workers. Environmental and health and safety labelling has been partly applied at site. Hazardous waste management storage area has been developed, and separation of solid wastes has been applied after issuance of a few notifications during the project construction phase.

50. Status of Non-Conformances revealed for previous period are given in the Table 3-3 below:

No	Site/Location	Date Recorded	Category	Description of Issue		NCN No	NC	Due Date	Priority	Person Responsible	Status	Date Closed
1	ABISRP 02 Camp Site	19/01/18	Environment	Sewage not disposed properly	Comply with the national legislation and contract requirements	N1	Major	31/03/18	Low	Izomov Amin Ashurovich	Closed	22/06/19
2	ABISRP 02 and ABISRP 04 Construction Sites	19/01/18	Environment	Hazardous waste collection area doesn't exist	No need for corrective actions. Since the maintenance of equipment and vehicles are outsourced, waste collection area doesn't exist	1	Minor	26/01/18	Low	Contractor	Closed	26/01/18
3	ABISRP 02 Construction Sites	19/01/18	Environment	Record of old tires and accumulators have not been kept	Provide the necessary data	N2	Minor	01/03/18	Medium	Izomov Amin Ashurovich	Closed	22/06/19
4	ABISRP 02 Construction Sites	19/08/17	Safety	Labeling doesn't exist for hazardous areas	Comply with the national legislation and contract requirements	N3	Major	01/03/18	High	Izomov Amin Ashurovich	Closed	22/06/19
5	ABISRP 02 Construction Sites and Camps	19/01/18	Environment	Separation of hazardous and solid waste	Sort solid waste separately	N4	Minor	12/02/18	Low	Izomov Amin Ashurovich	Closed	22/06/19
6	ABISRP 02 Construction Sites	19/01/18	Environment	Soil contamination with oil leakage	Remove all waste and contaminated soil. Contaminated soil should be disposed in special drums and transfered to the licenced sub- contractor for further treatment	2	Minor	12/02/18	Low	Izomov Amin Ashurovich	Closed	19/01/18
7	ABISRP 02 Construction Sites	19/01/18	Health	Hygienic conditions, protection against climatological conditions and light conditions poor	Comply with contract requirements	N5	Minor	12/02/18	Low	Contractor	Closed	22/06/19
8	ABISRP 02 Camp Site	19/01/18	Safety	Firefighting equipment or fire extinguisher doesn't exist	Comply with contract requirements	N6	Major	12/02/18	High	Contractor	Closed	22/06/19

#### Table 3-3. Status of Non-Conformances

No	Site/Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	-	Due Date	Priority	Person Responsible	Status	Date Closed
9	ABISRP 03 Lot1 Kuyu Mazar	26/11/17	Environment	National environmental expert has not been hired	Hire the national environmental expert	N7	Major	01/03/18	High	Contractor	Closed	14/02/18
10	ABISRP 03 Lot2 Kizil Tepa	26/11/17	Environment		Hire the national environmental expert	N8	Major	01/03/18	High	Contractor	Closed	14/02/18
	ABISRP 03 Lot1 Kuyu Mazar	26/11/17	Environment	SSEMP not prepared	Prepare SSEMP	N9	Major	20/12/17	High	Contractor	Closed	14/12/17
12	ABISRP 03 Lot2 Kizil Tepa	26/11/17	Environment	SSEMP not prepared	Prepare SSEMP	N10	Major	20/12/17	High	Contractor	Closed	14/12/17
13	ABISRP 03 Lot1 Kuyu Mazar	26/11/17	Environment	System has not been established	Establish the environmental recording system and record the environmental monitoring activities	N11	Major	31/12/17	High	Contractor	Closed	14/05/18
14	ABISRP 03 Lot2 Kizil Tepa	26/11/17	Environment	Environmental Record System has not been	Establish the environmental recording system and record the environmental monitoring activities	N12	Major	31/12/17	High	Contractor	Closed	14/05/18
15	ABISRP 03 Lot1 Kuyu Mazar	26/11/17	Social	Grievance Redress Mechanism has not been established	Establish the GRM and logbooks	N13	Major	31/01/18	High	Contractor	Closed	14/05/18
16	ABISRP 03 Lot2 Kizil Tepa	26/11/17	Social	Grievance Redress Mechanism has not been established	Establish the GRM and logbooks	N14	Major	31/01/18	High	Contractor	Closed	14/05/18
17	ABISRP 02 Contractor	18/07/18	Environment		Prepare and submit EMR monthly	N15	Minor	10/08/18	Medium	Contractor	Closed	13/12/21
	ABISRP 03 Lot1 Kuyu Mazar	17/12/18	Environment		Follow the rules stated in Hazardous Wase Management Plan, regularly check the site	N16	Major	30/06/19	High	Contractor	Closed	18/06/19
19	ABISRP 03 Lot2 Kizil Tepa	17/12/18	Environment	Oil Spills observed at site	Clean and regularly check the site	N17	Major	30/06/19	High	Contractor	Closed	17/06/19
20	ABISRP 03 Lot2 Kizil Tepa	17/12/18	Environment	The dust formation has been observed at unpaved roads	Spray the unpaved roads with water and regularly check the site	N18	Minor	30/06/19	High	Contractor	Closed	17/06/19

No	Site/Location	Date Recorded	Category	Description of Issue		NCN No	-	Due Date	Priority	Person Responsible	Status	Date Closed
	ABISRP 03 Lot1 Kuyu Mazar	18/12/18	Environment	The replacement of Environmental Manager has not been declared	Inform PIU/CSC	N19	Minor	01/02/19	Low	Contractor	Closed	04/02/19
22	ABISRP 03 Lot2 Kizil Tepa	18/12/18	Environment	The replacement of Environmental Manager has not been declared	Inform PIU/CSC	N20	Minor	01/02/19	Low	Contractor	Closed	04/02/19
	ABISRP 03 Lot1 Kuyu Mazar	18/12/18	Environment	The permission for the disposal site of the dredged material has not been obtained	Obtain the permission	N21	Major	01/02/19	High	Contractor	Closed	22/04/19
24	ABISRP 03 Lot2 Kizil Tepa	18/12/18	Environment	The permission for the disposal site of the dredged material has not been obtained	Obtain the permission	N22	Major	01/02/19	High	Contractor	Closed	21/02/19
	ABISRP 03 Lot1 Kuyu Mazar	31/12/18	Environment	EMR has not been submitted regularly	All previous EMR's will be send	N23	Major	01/02/19	High	Contractor	Closed	15/01/19
26	ABISRP 03 Lot2 Kizil Tepa	31/12/18	Environment	EMR has not been submitted regularly	All previous EMR's will be send	N24	Major	01/02/19	High	Contractor	Closed	15/01/19
27	ABISRP 03 Lot2 Kizil Tepa	17/06/19	Environment	Hazardous waste storage area doesn't exist	Hazardous waste storage area shall be constructed	N25	Major	27/06/19	High	Contractor	Closed	28/09/19
28	ABISRP 03 Lot2 Kizil Tepa and ABISRP 03 Lot1 Kuyu Mazar	17/06/19	Safety	HSE training records couldn't be presented to ADB mission	Conduct training for Kuyu Mazar & Kizil Tepa Contractor's	N26	Major	30/06/19	High	Supervision Consultant	Closed	22/06/19
29	ABISRP 03 Lot1 Kuyu Mazar	18/06/19	Environment	Hazardous material/waste storage area hasn't been constructed according to standards	Hazardous material/waste storage shall be re- constructed according to the standards	N27	Major	30/07/19	High	Contractor	Closed	28/09/19
30	ABISRP 03 Lot1 Kuyu Mazar	18/06/19	Health	Smoke has been formed in the welding area	Ventilation shall be provided in welding area	N28	Major	30/07/19	High	Contractor	Closed	28/09/19
31	ABISRP 02 Construction Sites	21/06/19	Safety	PPE not used by the staff at Kharkhur Construction Site	Daily check, and immediate cautions to the Contractor	N29	Major	01/08/19	High	Supervision Consultant	Closed	28/12/19

No	Site/Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	NC Level	Due Date	Priority	Person Responsible	Status	Date Closed
32	ABISRP 03 Lot1 Kuyu Mazar	18/06/19	Environment	Dredged material storage area left without leveling (GTS of Contract Chapter 11 Article 11.12) and planting as defined in the Permission	Level the area and plant	N30	Major	19/10/20	High	Contractor	Closed	18/11/21
33	ABISRP 03 Lot2 Kizil Tepa	17/06/19	Environment	Dredged material storage area left without leveling (GTS of Contract Chapter 11 Article 11.12) and planting as defined in the Permission	Level the area and plant	N31	Major	19/10/20	High	Contractor	Closed	19/11/21
34	ABISRP 01 Amu-Bukhara 1	26/12/19	Environment	SSEMP not completed	Finalize SSEMP	N32	Major	31/01/20	High	Contractor	Closed	06/10/21
35	ABISRP 03 Lot2 Kizil Tepa	27/12/19	Safety	Some fire extinguishers' expiration date passed	Replace the fire extinguishers which are expired	N33	Major	31/01/20	High	Contractor	Closed	10/01/20
36	ABISRP 03 Lot2 Kizil Tepa	27/12/19	Safety	Health and safety training records not kept regularly	Keep the record regularly	N34	Minor	04/01/20	High	Contractor	Closed	10/01/20
37	ABISRP 03 Lot2 Kizil Tepa	27/12/19	Environment	Demolished concrete left in site	Dispose the demolished waste to a site shown by the authorities	N35	Major	27/02/20	High	Contractor	Closed	10/01/20
38	ABISRP 03 Lot1 Kuyu Mazar	28/12/19	Environment	Solid waste disposal records not kept regularly	Keep the record regularly	N36	Minor	04/01/20	High	Contractor	Closed	10/01/20
39	ABISRP 03 Lot1 Kuyu Mazar	28/12/19	Environment	Hazardous solid waste collection and separation not active	Put in progress again hazardous solid waste collection and separation	N37	Major	11/01/20	High	Contractor	Closed	06/01/20
40	ABISRP 03 Lot1 Kuyu Mazar	28/12/19	Safety	Safety measures properly not applied	Conduct additional health and safety training for the staff	N38	Major	31/01/20	High	Contractor	Closed	10/01/20
41	ABISRP 02	31/03/21	Health	Health and Safety Plan against COVID-19 including Emergency Response Plan not prepared	Prepare Health and Safety Plan against COVID-19 including Emergency Response Plan and submit health and safety records of the staff	N39	Major	30/04/21	High	Contractor	Closed	22/11/21

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

51. Non-Conformance issues recorded in the previous periods related to the construction activities of project components have been tracked in the current reporting period (July – December 2021). Table 3-3 shows the present situation on these tracked non-conformance notices.

52. Contract ABISRP 01 - Contractor submitted fifth version of Site-Specific Environmental Management Plan (SSEMP) on August 8, 2021 to PIU/CSC. The comments given to fourth version of the SSEMP on April 22, 2020 were satisfactorily replied by the Contractor. PIU/CSC has approved the SSEMP on October 6, 2021.

53. Contract ABISRP 02 - Contractor submitted Health and Safety Plan against COVID-19 including Emergency Response Plan in November 2021, and submitted an EMR covering the period October - December 2021.

54. Contract ABISRP 03 - Contractor levelled the dredged material spoil areas of Kuyu Mazar and Kizil Tepa Pump Stations in the reporting period, and obtained confirmation letters from Bukhara and Navoi Local Environmental Authorities respectively on November 18-19, 2021 that the environmental measures had been adequately implemented in Kuyu Mazar and Kizil Tepa Pump Station areas. Thus, non-conformances on relevant issues have been closed.

55. The Contractor of Contract ABISRP 02 had not submitted Health and Safety Plan against COVID-19 including Emergency Response Plan. This had been recorded as a non-conformance, and finally closed upon submission of required plans in the reporting period.

56. All the non-conformance issues which were lasting from the previous reporting periods<sup>3</sup> have been closed as seen in the Table 3-4 below.

<sup>&</sup>lt;sup>3</sup> See Table 7-1 of the previous SAEMR: <u>Amu Bukhara Irrigation System Rehabilitation Project:</u> <u>Environmental Monitoring Report (January-June 2021) | Asian Development Bank (adb.org)</u>

	Table 3-4. Implementation Statu	us of Corrective Actions propo	sed in the las	t environ	nental monitoring report
	Issue	Required Action	Responsibility	Timing (Target Dates)	Status
1.	Information from the SAEMRs has never been disclosed to affected persons since the project became effective (Pending since monitoring period of July 2020 - December 2020)	PMU should disclose the SAEMR in local language (Uzbek and Russian) on MWR's, and local government's web site	PIU	31/03/21 <sup>4</sup> 19/10/21 (closed)	<b>RESOLVED.</b> SAEMRs for Jul-Dec 2020 and Jan-Jun 2021, prepared in Russian <sup>5</sup> on the basis of the information from the original reports, were disclosed on MWR's website on 19 Oct 2021. Original English version of the relevant SAEMRs were also disclosed on MWR's website. <sup>6</sup>
2.	PMU and the Supervision Consultant allowed the Contractor (ABISPR 01) to commence the civil works without approving the SEMP (Pending since monitoring period of July 2020 - December 2020)	The Contractor should submit the SEMP for review and approval by the Supervision Consultant	Contractor (ABISPR 01), PIU and Supervision Consultant	31/03/21 <sup>7</sup> 17/09/21 (closed)	<b>RESOLVED.</b> The SEMP has been prepared and approved on 17 Sep 2021.
3.	EMR of the Contractor not prepared (Pending since monitoring period of July 2020 - December 2020)	Prepare EMR	Contractor (ABISRP 02) <sup>8</sup>	31/03/21 11/12/21	<b>BEING IMPLEMENTED.</b> The procedures of preparing the EMR has been delayed due to absence of environmental specialist. The action has been completed on 11 Dec 2021 by the Contractor's Environmental Officer and Safety Officer mobilized on 22 Oct 2021.
4.	Kuyu Mazar Construction Site dredged material storage area left without levelling (GTS Chapter 11 Article 11.12) and planting as defined in the Environmental Permission (Pending since monitoring period of July 2020 - December 2020)	<ul> <li>Level the area</li> <li>Obtain permission from local environmental authorities on tree planting<sup>9</sup></li> <li>Plant trees</li> </ul>	Contractor (ABISRP 03) <sup>10</sup>	31/03/21 18/11/21 <sup>11</sup>	<b>RESOLVED</b> . ADB review mission met with the Contractor on 6 Oct 2021. The Contractor completed all leveling works on 5 Nov 2021. The State Committee on Ecology provided clearance on <b>18</b> <b>November 2021</b> .
5.	Kizil Tepa Construction Site dredged material storage area left without levelling (GTS	- Level the area	Contractor (ABISRP 03)	19/11/21 <sup>12</sup>	<b>RESOLVED.</b> ADB review mission met with the Contractor on 6 Oct 2021. The

<sup>4</sup> The target date has been set during the preparation period of the report based on comments.

<sup>5</sup> All affected people do understand Russian language.

<sup>6</sup> https://water.gov.uz/ru/page/1/6

<sup>7</sup> The target date previously set as 31 Jan 2020, has been adjusted in consultation with the Contractor of Amu Bukhara 1 New Pump Station.

<sup>8</sup> Modernization and Rehabilitation of Amu Bukhara Main Canal Regulating Structure

<sup>9</sup> Since the plantation will not be successful according to Contractor, the Contractor has been requested to obtain permission from local environmental authorities.

<sup>10</sup> Rehabilitation of Kuyu Mazar and Kizil Tepa Pump Stations

<sup>11</sup> This activity has been envisaged to be completed at the end of construction works. Since the construction works delayed, the leveling works has been postponed. The target date previously set as 19 Oct 2020, has been adjusted in consultation with the Contractor of Kuyu Mazar Pump Station. The target date was further extended during the ADB Mission on 6-7 Oct 2021

<sup>12</sup> Same as footnote 9.

#### Amu Bukhara Irrigation System Rehabilitation Project Environmental Monitoring Report (July - December 2021)

	Issue	Required Action	Responsibility	Timing (Target Dates)	Status
	Chapter 11 Article 11.12) and planting as defined in the Environmental Permission (Pending since monitoring period of July 2020 - December 2020)	<ul> <li>Obtain permission from local environmental authorities on tree planting (see footnote 7)</li> <li>Plant trees</li> </ul>			Contractor completed all leveling works on 10 Nov 2021. The State Committee on Ecology provided clearance on <b>19</b> <b>November 2021.</b>
6.	The Contractor (ABISPR 02) has been conducting civil works without preparing COVID-19 Health and Safety Management plan and emergency response plan (Pending since monitoring period of July 2020 - December 2020)	<ul> <li>Prepare COVID-19 Health and Safety Management plan and emergency response plan</li> </ul>	Contractor (ABISRP 02)	31/03/21 22/11/21	<b>RESOLVED.</b> The Contractor prepared detailed Health and Safety Management plan including COVID-19 Health and Safety Management plan and emergency response plan on Nov 22, 2021. The plan was approved by the supervision consultant and the PIU on Nov 22, 2021. and has been implemented.
7.	ABISRP 02 - Contractor did not define Environmental Officer and Safety Officer. Penalties not applied to the Contractor.	The Contractor shall define Environmental Officer and Safety Officer	Contractor (ABISRP 02)	22/10/21 (closed)	<b>RESOLVED.</b> Mr. Nazirbek Nayimovich Khuzhaev has been mobilized by the Contractor as Environmental and Safety Officer by 22 Oct 2021.
8.	ABISRP 02 - Contractor does not provide noise prevention measures for staff using noisy equipment, vehicles. Penalties not applied to the Contractor.	The contractor shall provide noise prevention measures	Contractor (ABISRP 02)	7/10/21 (closed)	<b>RESOLVED.</b> During the supervision performed on 7 Oct 2021, it was noted that PPE were used by the staff of the contractor.
9.	ABISRP 02 - Contractor does not check the health of the staff regularly and keep health record. COVID-19 measures are not implemented efficiently	<ul> <li>Conduct daily inspections and testing of workers' temperature</li> <li>Provide the regular health check of the staff and keep their records</li> <li>Conduct trainings and reporting</li> </ul>	Contractor (ABISRP 02)	03/12/21	<b>RESOLVED.</b> During the supervision performed on 7 Oct 2021, it was noted that COVID-19 measures were applied.
10.	Flow amount of water in channels, irrigated area (ha), amount of water used for irrigation purposes, water quality of irrigation water (pH, salinity, hardness, BOD, COD, Nitrate, Nitrite, Ammonium, Phosphate, Pesticides, Oil products, phenol) in the project area, soil quality/pollution (SOM) (humus), soil carbon, mobile and gross NPK, nitrates, nitrites, ammonium, phosphate, pesticides), water levels of wells in the irrigated areas, amount of water used for irrigation purposes, electricity consumed before the project by pumping, electricity consumed after the project by pumping, water quantity pumped before rehabilitation/reconstruction, water	Monitor all parameters. required data has been requested by PIU from the relevant government agencies on 7 Oct 2021.	BISA/WCA, PIU, Hydrogeological Meliorative Expedition (HGME)s, Uzhydromet	30/11/21	<b>BEING IMPLEMENTED.</b> It is understood from the data received from the relevant organizations in Oct 2021 for the year 2020 that monitoring is being implemented. However, since the provided data is not for the reporting period, it has not been included in the current report. Such data will be obtained regularly and (especially the results of water quality analysis) included in the following SAEMRs as requested by ADB.

#### Amu Bukhara Irrigation System Rehabilitation Project Environmental Monitoring Report (July - December 2021)

Issue	Required Action	Responsibility	Timing (Target Dates)	Status
quantity pumped after rehabilitation/reconstruction has not been monitored			,	

57. SAEMR for Jul-Dec 2020 and Jan-Jun 2021 in English<sup>13</sup> language, and a brief SAEMR for relevant periods in Russian<sup>14</sup> language were disclosed on MWR's website on 19 Oct 2021.

58. PMU and the CSC allowed the Contractor (ABISPR 01) to commence the civil works without approving the SSEMP. The fifth revision of the SSEMP has been submitted by the Contractor, and approved by PIU/CSC on 6 Oct 2021.

59. According to both the Contract ABISRP 03 Lot 1 (GTS Chapter 11 Article 11.12) and the Environmental Permission, dredged material disposal area at Kuyu Mazar Pump Station should be leveled and planted. In the reporting period, levelling of relevant area has been completed. Local Environmental Authority of Bukhara, after their site inspection, sent a letter to the Contractor stating that planting on relevant area was unnecessary (not appropriate).



60. According to both the Contract ABISRP 03 Lot 2 (GTS Chapter 11 Article 11.12) and the Environmental Permission, dredged material disposal area at Kizil Tepa Pump Station should be leveled and planted. In the reporting period, levelling of relevant area has been completed. Local Environmental Authority of Navoi, after their site inspection, sent a letter to the Contractor stating that planting on relevant area was unnecessary (not appropriate).



61. During the current reporting period (July - December 2021) five (5) new Non- Conformance issues have been recorded. All the open issues from the previous reporting period have been

<sup>&</sup>lt;sup>13</sup> <u>https://water.gov.uz/en/page/1/6</u>

<sup>&</sup>lt;sup>14</sup> <u>https://water.gov.uz/ru/page/1/6</u>

closed. Total number of Non-Conformance issues observed in the Project until end of current reporting period is 46, out of which 89% have been closed.

Table 3-5. Summary of Issues Tracking Activity for Current Period

Total Number of Issues for Project	46
Number of Open Issues	5
Number of Closed Issues	41
Percentage Closed	89%
Issues Opened in This Reporting Period	5
Issues Closed in This Reporting Period	5

62. The distribution of Non-Conformance issues based on priority is shown in Figure 3-1 and non-conformance level in Figure 3-2.

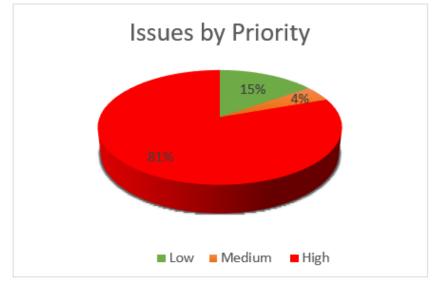


Figure 3-1. Summary of Issues by Priority





63. Duration to close any issue takes approximately 7.8 months. The distribution of days required to close any issue has been shown in Figure 3-3.

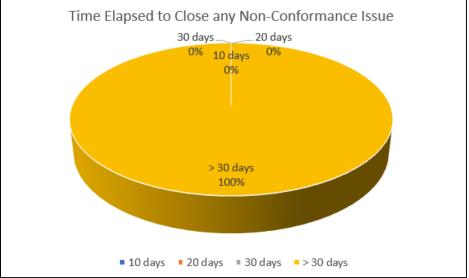


Figure 3-3. Time Elapsed to Close any Non-Conformance Issue

#### 3.4 Trends

64. Based on the record time, the trends of issues closed are as follows:

Semi-annual Report No	Total Number of Issues opened in Reporting Period	% of issues closed on time	% of issues closed late
6	7	29%	71%
7	10	50%	50%
8	7	17%	83%
9	7	57%	43%
10	0	NA	NA
11	0	NA	NA
12	1	0%	100%
13	5	0%	100%

#### Table 3-6. Status of NCR (Trend of NCR Closure)

#### 3.5 Unanticipated Environmental Impacts or Risks

65. During the current reporting period, COVID-19 pandemic has not affected working conditions. Environmental Impact and Health and Safety Plans of all the main Contractors were issued incorporating also the Emergency Response Plans against COVID-19 pandemic. No cases of COVID-19 have been registered among the workers during the monitoring period.

## 4 RESULTS OF ENVIRONMENTAL MONITORING

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

66. Contractor of Construction of Amu Bukhara 1 New Pump Station (ABISRP 01) has regularly monitored workplace and workers to assess effectiveness of health and safety management plans, including COVID-19 measures. Results of monitoring is given in Section 4.6.2. No COVID-19 positive case has been observed at the site.

67. Contractor of Modernization and Rehabilitation of Amu Bukhara Main Canal Regulation Structures (ABISRP 02) has no monitoring activity of workplace and workers to assess effectiveness of health and safety management plans, including COVID-19 measures.

68. Contractor of Modernization and Rehabilitation of Kuyu Mazar PS (ABISRP 03 Lot 1), has regularly monitored workplace and workers to assess effectiveness of health and safety management plans, including COVID-19 measures. Results of monitoring is given in Section 4.6.2. No COVID-19 positive case has been observed at the site.

69. Contractor of Modernization and Rehabilitation of Kizil Tepa PS (ABISRP 03 Lot 2), has regularly monitored workplace and workers to assess effectiveness of health and safety management plans, including COVID-19 measures. Results of monitoring is given in Section 4.6.2. No COVID-19 positive case has been observed at the site.

70. According to EMP, Contractors are responsible for conduction of environmental monitoring activities for environmental impacts caused during the construction. These monitoring activities are based on visual observations. There are no more requirements on environmental monitoring included in EMR and in SSEMPs submitted by the Contractors. EMRs submitted by the Contractors include the monitoring results of environmental and health and safety activities. Contractor of Contract ABISRP 01 submitted EMR which are included in Monthly Progress Reports. Contractor of Contract ABISRP 02 submitted an EMR covering the period October - December 2021. Contractor of Contract ABISRP 03 has not submitted any EMR, however, has provided the CSC with only the information given in Table 4-5, Table 4-6, Table 4-9, Table 4-10, Annex 2 and Annex 4.

71. During the reporting period, no complaints were received from people living in nearby residential areas for any construction site. In case of receiving such complains, further elaboration in environmental monitoring activities and solving and or settling the problematic issues needed.

#### 4.1.1 Air Emissions and Ambient Air Quality

72. At all the construction sites, appropriate measures were taken to prevent the pollution of atmospheric air, to limit the dust level from working vehicles and enforce strict observance of safety rules at main road crossing, along main roads, the mahalla streets and near sub-project construction sites.

73. While excavation and transportation of excavating materials, additional environmental requirements were followed: Schedule transportation activities by avoiding peak traffic periods; Use tarpaulins to cover loose material that is transported to and from the site by truck.

74. Inspection of exhaust emissions of vehicles and machinery used has been controlled in Uzbekistan with a regulation named "Implementation of Mandatory Technical Inspection of Vehicles and the Machinery" and numbered 54 which is in force since January 31<sup>st</sup>, 2003. Each Contractor should hold a valid permission for the vehicles and machineries used in the construction activities. Therefore, the vehicles and machineries used in construction activities do not exceed limits as far as they hold a valid permission from relevant Government authorities.

75. According to the IEE, the nature of the project activities, will not generate significant quantities of emissions, therefore visual monitoring of dust has been envisaged at the EMP of the project. Since there is no any change in the main project activities, no need for monitoring of air quality except the method stated in Environmental Management Plan given at IEE.

#### 4.1.2 Wastewater and Ambient Water Quality

76. Closed septic tanks and toilet facilities exist at Amu Bukhara 1 New Pump Station (ABISRP 01) camp site. The collected sewage has been transferred by septic tank trucks to disposal site. In the working field, workers use temporary toilets.

77. The toilet facilities for Contract ABISRP 02 exist at Hydrosystems Prokop and Troynik. But their conditions are poor. Since the number of workers are less in number, the wastewater produced during the daily activities have been directly filtered to the ground. The contamination risk of these effluents to the canals are low.

78. Closed septic tanks and toilet facilities exist both at Kuyu Mazar Pump Station (ABISRP 03 Lot 1) and at Kizil Tepa Pump Station (ABISRP 03 Lot 2) camp sites. The collected sewage has been transferred by septic tank trucks to disposal site. In the working field, workers use toilets located in the existing pump stations.

79. During the canal cleaning works it is unavoidable to form temporary turbidity and sediment problems. Existing water quality of the irrigation water turbid and high in sediment amount, therefore this temporary effect could not be differentiated, unless the sediment amount is measured before and during the cleaning activity.

80. Quality of irrigation water (pH, salinity, hardness, BOD, COD, Nitrate, Nitrite, Ammonium, Phosphate, Pesticides, Oil products, phenol) for the year 2020 has been received from the relevant public organizations on November 30, 2021 at sampling stations of (i) Zarafshan river, above the city of Navoi, (ii) Zarafshan River, below the city of Navoi; (iii) Zarafshan river, above the city of Bukhara (Central Bukhara collector); (iv) Zarafshan River, below the city of Bukhara, and (vi) South Bukhara Canal, above the city of Bukhara, and (vi) South Bukhara Canal, above the city of Bukhara, and (vi) South Bukhara Canal, above the provided data is not for the reporting period, it has not been included in the current report. Such data will be obtained regularly and included in the following SAEMRs.

#### 4.1.3 Noise

81. The Contractors have fit the daily regular working hours. It has been reported in EMR of Contractors to use new equipment and vehicle which is appropriate for the Occupational Health and Safety Noise levels. Since no grievance has been received from the public, it has been considered that noise level does not have any effect on public.

82. The Uzbek national construction noise norms that are relevant to all stages of the construction phase are provided by law KMK 2.01.08-96 - Protection from noise, detailed in Table 4-1.

Table 4-1. Uzbek construction noise norms (KMK 2.01.08 19 - Protection from noise						oise)					
	Time		Equivalent sound pressure levels, L <sub>eq</sub> (dB)					Level			
Premises and territories		31,5	63	125	250	500	1000	2000	4000	8000	of Sound, (dBA)
Territories directly adjacent to residential houses, recreation facilities, nursing homes and homes for the elderly and disabled	7.00- 23.00 23.00- 7.00	90 83	75 67	66 57	59 49	54 44	50 40	47 37	45 35	44 33	70 60
Territories directly adjacent to the recreation areas of polyclinics, schools and other general educational institutions, preschools, neighborhoods and groups of residential buildings	-	90	75	66	59	54	50	47	45	44	70

83. The Sanitarian Rules and Norms on providing allowed noise level into the living building, public building, and territory of living area (SanR&N No.0267-09) establish the maximum admissible noise level into the living areas, both inside and outside buildings, given in the Table 4-2.

Table 4-2. Admissible noise level into the living area, both inside and outside the
buildings (SanR&N No.0267-09)

Name of Location			Level of sound pressure, octave bands with average geometric mean frequencies (dB)							Level of
		63 125 250 500 1000 2000 2000				8000	Sound, (dBA)			
Living room of flats, bedrooms of	Daytime 07:00-23:00	63	52	45	39	35	32	30	28	40
resorts (inside)	Night-time 23:00-07:00	55	44	35	29	25	22	20	18	30
Territories adjacent to living houses (outside)	Daytime 07:00-23:00	75	66	59	54	50	47	45	43	55
	Night-time 23:00-07:00	67	57	49	44	40	37	35	33	45

84. The World Bank's "Environmental, Health and Safety General Directives, 2007 (EHS)" is functional instead of PPAH (Pollution Prevention and Abatement Handbook). EHS stipulates that noise at any activity shall not exceed the levels given in the Table 4-3 for given receptors, nor

shall they result in a greater increase of ambient noise than 3 dB at the nearest receiving area outside the site. Besides, permissible noise level in the workplaces which is specified in the Sanitary Norms (San R&N No. 0325-16) of the Republic of Uzbekistan has also been given in the actual noise level measurement tables below (Table 4-4, Table 4-5 and Table 4-6) for comparison.

	One Hour	L <sub>Aeq</sub> , (dBA)		
Receptor	Day time	Night time		
	07:00-22:00	22:00-07:00		
Residential; institutional; educational	55	45		
Industrial; commercial	70	70		

Table 4-3. Noise Level Guideline (EHS)

- 85. Nearest Receptors to the Working Areas are as listed below:
  - The nearest receptor to the Amu Bukhara 1 New Pump Station (ABISRP 01) construction site is the settlement area (houses) which has been located approximately 250 m northwest.
  - The nearest receptor to the Kuyu Mazar Pump Station (ABISRP 03 Lot 1) construction site is settlement area (houses), which has been located approximately 750 m southwest.
  - The nearest receptor to the Kizil Tepa Pump Station (ABISRP 03 Lot 2) construction site is settlement area (houses), which has been located approximately 500 m west.

86. Contractor (ABISRP 01) has monitored the noise levels at the location given in Table 4-4. Applicable standards are indicated both in IFC guidelines (please see paragraph 84 and Table 4-3) and in the Sanitary Norms (San R&N No. 0325-16) of the Republic of Uzbekistan. The measured noise levels have exceeded neither the permissible noise level specified in the referenced IFC guideline nor that of specified in the Sanitary Norms (San R&N No. 0325-16) of the Republic of Uzbekistan. Although the CSC observed that the noise levels are not measured at the nearest receptors; since no grievance has been received from the public (please see paragraph 81), it has been considered that noise level does not have any effect on public.

Date	Noise Level, dB(A)Applicable IFC Standard (EHS)Permissible level in workp (San R&N No.0)			
Jul 2021	66.1	70	80	
Aug 2021	66.2	70	80	
Sep 2021	66.0	70	80	
Oct 2021	66.0	70	80	
Nov 2021	62.0	70	80	
Dec 2021	66.0	70	80	

 Table 4-4. Noise Level Measurements at Amu Bukhara 1 New Pump Station (ABISRP 01)

 Construction Area

87. Contractor (ABISRP 03 Lot 1) has monitored the noise levels at the locations given in Table 4-5. The measurements have been realized by Mr. Miao Guowang with a digital sound level meter (model no: AR824/SL4001A). The measured noise levels have exceeded neither the permissible noise level specified in the referenced IFC guideline nor that of specified in the Sanitary Norms (San R&N No. 0325-16) of the Republic of Uzbekistan. The contractor has not monitored the noise levels at the nearest receptors defined in paragraph 85 on page 29, since no complains have been received from the relevant settlement areas.

Table 4-5. Noise Level Measurements at Kuyu Mazar Pump Station (ABISRP 03 Lot 1)
Construction Area

	No	ise Leve				
Dete		Locati		Applicable IFC	Permissible noise	
Date	Sediment basin	Pump house	Square in front of pump station	Standard (EHS)	level in workplaces (San R&N No.0325-16)	
Jul 2021	66	68	64	70	80	
Aug 2021	66	66	67	70	80	
Sep 2021	66	66	65	70	80	
Oct 2021	62	67	67	70	80	
Nov 2021	66	67	60	70	80	
Dec 2021	66	66	64	70	80	

88. Contractor (ABISRP 03 Lot 2) has monitored the noise levels at the locations given in Table 4-6. The measurements have been realized by Mr. Miao Guowang with a digital sound level meter (model no: AR824/SL4001A). The measured noise levels have exceeded neither the permissible noise level specified in the referenced IFC guideline nor that of specified in the Sanitary Norms (San R&N No. 0325-16) of the Republic of Uzbekistan. The contractor has not monitored the noise levels at the nearest receptors defined in paragraph 85 on page 29, since no complains have been received from the relevant settlement areas.

## Table 4-6. Noise Level Measurements at Kizil Tepa Pump Station (ABISRP 03 Lot 2) Construction Area

	No	ise Level Locati	· · · ·	Anniisekie ISO	Permissible noise	
Date	Sediment basin	Pump house	Square in front of pump station	Applicable IFC Standard (EHS)	level in workplaces (San R&N No.0325-16)	
Jul 2021	59	67	63	70	80	
Aug 2021	68	66	65	70	80	
Sep 2021	63	69	66	70	80	
Oct 2021	52	66	55	70	80	
Nov 2021	65	69	54	70	80	
Dec 2021	63	69	62	70	80	

### 4.2 Trends

89. Based on the visual inspection and EMRs, the air, noise and water quality conditions has not considerably changed during the project construction span.

### 4.3 Summary of Monitoring Outcomes

90. The instrumental and visual monitoring activities have been applied by the Contactors and CSC field experts regularly. Only the Contractor (of Contract ABISRP 02) does not provide information related to the monitoring activities in EMR.

### 4.4 Material Resources Utilization

### 4.4.1 Current Period

91. The utilization of electricity, water and other materials during the reporting period at the construction site of Amu Bukhara 1 New Pump Station (ABISRP 01) is given in Table 4-7.

Pump Station									
Resources	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Total		
Water (m <sup>3</sup> )	1030	1700	700	1900	1500	120	6950		
Cement (tons)	554	825	224	1009	738	20	3370		
Iron (tons)	68	120	59	65	97	59	468		
Fuel (m <sup>3</sup> )	85	95	79	93	80	95	527		
Electricity (kwh)	123770	131477	119747	144542	144542	155530	819608		
Sand (m <sup>3</sup> )	1459	2256	611	2762	2018	18	9124		

# Table 4-7. Material Resources Utilization at the Construction Site of Amu Bukhara 1 NewPump Station

92. The utilization of electricity, water and other materials during the reporting period at the construction sites of Amu Bukhara Main Canal Regulation Structures (ABISRP 02) is given in Table 4-8.

 Table 4-8. Material Resources Utilization at the Construction Sites of Amu Bukhara Main

 Canal Regulation Structures

Resources	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Total
Water (m <sup>3</sup> )	130	130	43	217	286	286	1092
Cement (tons)	60	60	20	100	132	132	504
Iron (tons)	2.45	1.31	1.9	1.89	4.5	20.04	32.09
Fuel (m <sup>3</sup> )	1.5	2	2.5	2.5	3	3	14.5
Electricity (kwh)	1251	1387	1547	2895	2567	5687	16334
Sand (m³)	68	68	23	114	150	150	573

93. The utilization of electricity, water and other materials during the reporting period at the construction sites of Kuyu Mazar Pump Station (ABISRP 03 Lot 1) and Kizil Tepa Pump Station (ABISRP 03 Lot 2) are given in Table 4-9 and Table 4-10 respectively.

Table 4-9. Material Resources Utilization at the Construction S	Site of Kuyu Mazar Pump
Ctation	

			Station				
Resources	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Total
Water (m <sup>3</sup> )	3	2	6	2	3	2	18
Cement (tons)	3	2	7	1	2	1	16
Iron (tons)	2	1	1	3	2	11	20
Fuel (m <sup>3</sup> )	4	3	3	2	2	1	15
Electricity (kwh)	8	11	22	8	13	8	70
Sand (m <sup>3</sup> )	2	1	3	1	1	1	9

Table 4-10. Material Resources Utilization at the Construction Site of Kizil Tepa Pump
Station

Station									
Resources	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Total		
Water (m <sup>3</sup> )	7	6	4	8	6	4	35		
Cement (tons)	7	6	3	4	2	1	23		
Iron (tons)	4	3	2	2	0.5	0.5	12		

Resources	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Total
Fuel (m <sup>3</sup> )	5	4.5	3	3	1	1	17.5
Electricity (kwh)	13	15	16	13	12	10	79
Sand (m <sup>3</sup> )	3	2	3.5	3	1	0.5	13

### 4.4.2 Cumulative Resource Utilization

94. The resources utilization records have been kept starting from the 10<sup>th</sup> SAEMR. The data given in Table 4-11 covers the cumulative utilization of the material resources at the construction site of Amu Bukhara 1 New Pump Station (ABISRP 01) until end of current reporting period.

### Table 4-11. Cumulative Material Resources Utilization at the Construction Site of Amu Bukhara 1 New Pump Station

Bukilara i New i uliip Station								
Resources		Repo	Total					
Resources	10	11	12	13	TOLAT			
Water (m <sup>3</sup> )	20	1596	2850	6950	11,416			
Cement (tons)	40	42	1370	3370	4,822			
Iron (tons)	-	-	320	468	788			
Fuel (m <sup>3</sup> )	15	247	249	527	1,038			
Electricity (Mwh)	7.0	951.0	1223.3	819.608	3,000.908			
Sand (m <sup>3</sup> )	65	57	-	9124	9,246			

95. The data given in Table 4-12 covers the cumulative utilization of the material resources at the construction sites of Amu Bukhara Main Canal Regulation Structures (ABISRP 02) until end of current reporting period.

## Table 4-12. Cumulative Material Resources Utilization at the Construction Sites of Amu Bukhara Main Canal Regulation Structures

Resources	Re	eport	Total		
Resources	10	11	12	13	Total
Water (m <sup>3</sup> )	13	-	-	1092	1,105
Cement (tons)	840	-	-	504	1,344
Iron (tons)	6.4	-	-	32.09	38.49
Fuel (m <sup>3</sup> )	12	5	5	14.5	36.5
Electricity (Mwh)	1.7	-	-	16.334	18.034
Sand (m³)	912	-	-	573	1485

96. The data given in Table 4-13 and Table 4-14 covers the cumulative utilization of the material resources at the construction sites of Kuyu Mazar (ABISRP 03 Lot 1) and Kizil Tepa (ABISRP 03 Lot 2) Pump Stations until end of current reporting period.

Table 4-13. Cumulative Material Resources Utilization at the Construction Site of Kuyu
Mazar Pump Station

Basauraas	Re	Total			
Resources	10	11	12	13	Total
Water (m <sup>3</sup> )	334	158	158	18	668
Cement (tons)	372	235	235	16	858
Iron (tons)	89	86	86	20	281
Fuel (m <sup>3</sup> )	355	195	195	15	760
Electricity (Mwh)	2.4	0.3	0.3	0.07	3.07
Sand (m <sup>3</sup> )	155	91	-	9	255

INTERNAL. This information is accessible to ADB Management and staff. It may be shared outside ADB with appropriate permission.

Resources	R	eporti	Total					
Resources	10	11	12	13	Total			
Water (m <sup>3</sup> )	549	304	304	35	1192			
Cement (tons)	73	294	294	23	684			
Iron (tons)	12	75	75	12	174			
Fuel (m <sup>3</sup> )	19	340	340	17.5	716.5			
Electricity (Mwh)	3.1	0.3	0.3	0.079	3.779			
Sand (m <sup>3</sup> )	129	135	-	13	277			

### Table 4-14. Cumulative Material Resources Utilization at the Construction Site of Kizil Tena Pump Station

### 4.5 Waste Management

97. The Contractor of Amu Bukhara 1 New Pump Station (ABISRP 01) submitted Waste Management Plan and Hazardous Waste Management Plan which were integrated into the SSEMP. The final version of the Waste Management Plan and the Hazardous Waste Management Plan are given in the SSEMP approved on October 6, 2021.

98. The solid waste disposal area of the Contractor of Amu Bukhara 1 New Pump Station (ABISRP 01) has been declared in Monthly Progress Reports that the solid waste has been collected by Alat Local Authority (Olot Obod LLC) and disposed to Alat Solid Waste Disposal Area.

99. The Contractor of Amu Bukhara Main Canal Regulation Structures (ABISRP 02) disposed the waste originated from their construction and worker's daily activities to the municipal solid waste disposal areas by their own trucks/tractors until end of the previous period. In the reporting period, the Contractor informed that he signed an agreement with the Toza-Khudud Municipal Unitary Enterprise for waste disposal.

100. The Contractor of Kuyu Mazar Pump Station (ABISRP 03 Lot 1) submitted a Waste Management Plan on 11<sup>th</sup> May 2018 and Hazardous Materials Management Plan on 10<sup>th</sup> May 2018 (Semi-annual EMR R.06).

101. The solid waste disposal area of the Contractor of Kuyu Mazar Pump Station (ABISRP 03 Lot 1) has been declared as Kuyu Mazar Solid Waste Disposal Area which is approximately 3 km away from the Kuyu Mazar Pump Station.

102. The Contractor of Kizil Tepa Pump Station (ABISRP 03 Lot 2) submitted a Waste Management Plan on 11<sup>th</sup> May 2018 and Hazardous Materials Management Plan on 10<sup>th</sup> May 2018 (Semi-annual EMR R.06).

103. The solid waste disposal area of the Contractor of Kizil Tepa Pump Station (ABISRP 03 Lot 2) has been declared as a local Solid Waste Disposal Area which is approximately 6 km away from the Kizil Tepa Pump Station.

### 4.5.1 Current Period

104. During the current reporting period (July - December 2021), the Contractor of Amu Bukhara 1 New Pump Station (ABISRP 01) has dumped domestic solid waste to the site defined by Olot Obod LLC. Waste disposal records kept by the Contractor are given in Table 4-15 below. The transfer and disposal of domestic solid waste has been realized by Olot Obod LLC firm.

Table 4-15. Solid waste transfer records							
	Vo	olume of	f Solid V	Naste (r	n³)		
Date of Solid Waste Transfer	Type I Very Hazardous	Type II Hazardous	Type III Medium Hazard	Type IV Slightly Hazardous	Type V Nearly No Hazard	Storage Area	
July 2021					40	Olot Obod LLC	
August 2021					42	Olot Obod LLC	
September 2021					45	Olot Obod LLC	
October 2021					45	Olot Obod LLC	
November 2021					45	Olot Obod LLC	
December 2021					40	Olot Obod LLC	
EMR-13 TOTAL	0	0	0	0	252		

105. During the current reporting period (July - December 2021), the Contractor of Amu Bukhara Main Canal Regulation Structures (ABISRP 02) has no record about the type, quantity of solid waste produced and disposed. Any domestic solid waste has not been observed at the construction and or camping sites.

106. During the current reporting period (July - December 2021), the Contractor of Kuyu Mazar Pump Station (ABISRP 03 Lot 1) has not reported any solid waste disposal since the construction activities have been completed at site. During the current reporting period (July - December 2021), the Contractor of Kizil Tepa Pump Station (ABISRP 03 Lot 2) has not reported any solid waste disposal since the construction activities have substantially been completed at site.

### 4.5.2 Cumulative Waste Generation

107. During the current reporting period (July - December 2021), totally 252 m<sup>3</sup> of solid waste has been originated within the scope of Amu Bukhara Irrigation System Rehabilitation Project by all contractors. The cumulative solid waste generation volume reached to 1001.40 m<sup>3</sup> during the current reporting period, including 42.00 m<sup>3</sup> of recycled or reused solid waste. Approximately 4% of this cumulative waste volume has been restored for reuse and recycling purposes. The progress in solid waste disposal has been shown in Table 4-16 below.

EMR Report		Total Volume (m <sup>3</sup> )				
Number	Disposed	Recycled or reused				
6	6.90	0				
7	54.62	42.00				
8	29.88	0				
9	123.00	0				
10	201.50	0				
11	28	0				
12	305.50	0				
13	252	0				
Total	1001.40	42.00				

Table 4-16. Total waste disposal amo	ounts
--------------------------------------	-------

108. During the current reporting period (July - December 2021), 252 m<sup>3</sup> of solid waste has been originated from the Contractor of Amu Bukhara 1 New Pump Station (ABISRP 01), no solid waste has been originated from the other Contractors in the Project. The cumulative solid waste generation volume reached to 1001.40 m<sup>3</sup> during the current reporting period.

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	Table 4-17. Distribution of total waste disposal amounts							
	Amu Bukha	ara 1 New	Kuyu	Mazar	Kizil	Тера	То	tal
EMR Report Number	Disposed	Recycled or reused	Disposed	Recycled or reused	Disposed	Recycled or reused	Disposed	Recycled or reused
6			3	0	3.90	0	6.90	0
7			42.62	0	12	42	54.62	42
8			11.88	0	18	0	29.88	0
9			53	0	70	0	123	0
10			53.50	0	148	0	201.50	0
11			16	0	12	0	28	0
12	181	0	9.50	0	115	0	305.50	0
13	252	0	0	0	0	0	252	0
Total	433	0	189.50	0	378.90	42	1001.40	42

109. During the 13<sup>th</sup> reporting period, no hazardous waste has been produced at construction sites.

### 4.6 Health and Safety

#### 4.6.1 Community Health and Safety

110. During the current reporting period, there were no incidents occurred within the scope of Community Health and Safety issues, including the traffic accidents and COVID-19 cases.

### 4.6.2 Worker Health and Safety

111. Health and Safety Plans, including Emergency Response Plans were issued by the Contractors with COVID-19 risk assessment in December 2020, except the Contractor of Amu Bukhara Main Canal Regulation Structures (ABISRP 02). The Contractor of Amu Bukhara Main Canal Regulation Structures (ABISRP 02) has finally issued the relevant plans on November 22, 2021. The measures have been successfully applied by the Contractors. Besides that, when Uzbek authorities declared the measures to control COVID-19, the Chinese Contactors (Contract ABISRP 01 and Contract ABISRP 03) have started to conduct the training, apply health and safety procedures and disinfection at the working camps, vehicles, construction area within the scope of COVID-19 protection measures.

112. CNTIC, the Contractor of Amu Bukhara 1 New Pump Station (ABISRP 01), has issued Health and Safety Plan including Emergency Response Plan considering the risk assessment and measures related to COVID-19 on December 8, 2020. Based on Health and Safety Plan and control measures, the following information has been reported by CNTIC, about the measures related to COVID-19 pandemic. Total volume of the disinfectant used by all site employees, supervision staff and visitors during current reporting period is 75 litre/month. No positive cases have been observed at the construction camp and site during the reporting period.

Table 4-18. Personal Protective Equipment (PPE) Usage and Nucleic Acid Test Numbers
(ABISRP 01)

PPE type / Test	Unit			Used b	y (pcs)		
Month	Unit	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
Medical Mask	pcs	9460	17560	12760	12760	14740	4640
FFPZ-FFP3- N95 Mask	pcs	-	-	-	-	-	-
Face Shield	pcs	-	-	-	-	-	-
Glove	pcs	3500	7620	4920	4920	5910	4000
Disinfectant	liter	50	90	80	80	80	80
Nucleic acid test	1/month	398	254	164	164	197	64

PPE type / Test	Unit			Used b	y (pcs)		
Month	Unit	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
	2/month	76	37	48	48	48	20

113. Kogon Suv Kurilish, the Contractor of Amu Bukhara Main Canal Regulation Structures (ABISRP 02), has issued Health and Safety Plan including Emergency Response Plan considering the risk assessment and measures related to COVID-19 on November 22, 2021 as indicated in paragraph 47 on page 13. The Contractor has carried out construction activities at Hydrosystems Prokop and Troynik in the reporting period. During the supervision performed on October 7, 2021 at Hydrosystem Prokop, it was noted that COVID-19 measures were applied by the Contractor. However, the Contractor has not provided records of COVID-19 training of workers including COVID-19 vaccination certificates or PCR test results of the working staff during the current reporting period.

114. HBCG, the Contractor of Kuyu Mazar Pump Station (ABISRP 03 Lot 1), has issued Health and Safety Plan including Emergency Response Plan considering the risk assessment and measures related to COVID-19 on December 9, 2020. Since the construction activities have been completed at site, no information has been provided about Personal Protective Equipment (PPE) Usage and Nucleic Acid Test. No positive cases have been observed at the construction camp and site during the reporting period.

115. HBCG, the Contractor of Kizil Tepa Pump Station (ABISRP 03 Lot 2), has issued Health and Safety Plan including Emergency Response Plan considering the risk assessment and measures related to COVID-19 on December 9, 2020. Since the construction activities have been substantially completed at site, no information has been provided about Personal Protective Equipment (PPE) Usage and Nucleic Acid Test. No positive cases have been observed at the construction camp and site during the reporting period.

### 4.7 Training

116. Mr. Egamov Murad, as the HSE Specialist of the Contractor of Amu Bukhara 1 New Pump Station (ABISRP 01), has conducted regular health, safety and environmental, site access and COVID-19 protection trainings for all staff working in construction site during the reporting period (See Annex 3. A Few Examples of OHS Training Records (ABISRP 01) for training logs).

117. Mr. Miao Guowang, as the HSE Specialist of the Contractor of Kuyu Mazar and Kizil Tepa Pump Stations (ABISRP 03 Lot 1 and Lot 2), has conducted regular health, safety and environmental, site access and COVID-19 protection trainings for the Chinese staff, while Mr. Aziz Juraev as local HSE officer has conducted that of for local staff working in both construction sites during the reporting period (See Annex 2. A Few Examples of OHS and COVID-19 Training Records (ABISRP 03 Lot 2) and Annex 4. A Few Examples of OHS and COVID-19 Training Records (ABISRP 03 Lot 1) for training logs).

### 4.8 Summary of Monitoring Outcomes

118. Status of compliance with environmental safeguards related covenants in the Project's Loan Agreement signed between Republic of Uzbekistan and ADB on 21 November 2013<sup>15</sup> is summarized in Table 4-19.

<sup>&</sup>lt;sup>15</sup> ADB. Loan Agreement (Special Operations [Concessional]) for Loan Amu Bukhara Irrigation System Rehabilitation Project (21 Nov. 2013). <u>https://www.adb.org/sites/default/files/project-document/79440/44458-013-sfj.pdf</u>

		Table 4-19. Loan Agreement Com	pliance Status
Schedule	Paragraph	Covenant	Compliance Status
4	6	<u>Conditions for Award of Contract</u> The Borrower shall not award any Works contract which involves environmental impacts until: (a) the IEE has been approved by the appropriate authority of the Borrower; and (b) the Borrower has incorporated the relevant provisions from the EMP into the Works contract.	Protection of the Republic of Uzbekistan provided State Ecological Expertise (SEE) in October 2016 (para. 9 on page 2). (b) All awarded contracts included
5	9 (a)	Environment The Borrower shall ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities comply with all applicable laws and regulations of the Borrower relating to environment, health and safety.	
5	9 (b)	Environment The Borrower shall ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities comply with the Environmental Safeguards.	
5	9 (c)	preparation, design, construction,	
5	12		Being complied with. The borrower makes available the budgetary and human resources to fully implement the EMP whenever required.

<sup>&</sup>lt;sup>16</sup> <u>Amu Bukhara Irrigation System Rehabilitation Project: Environmental Monitoring Report (January-June</u> 2021) | Asian Development Bank (adb.org)

Schedule	Paragraph	Covenant	Compliance Status
5	13 (a)	The Borrower shall ensure that all bidding documents and contracts for Works contain provisions that require contractors to comply with the measures relevant to the contractor set forth in the IEE and the EMP (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set forth in a Safeguards Monitoring Report;	Bidding documents and contracts for various works under the project have been prepared include the necessary provisions envisaged in the IEE and EMP. During the construction whenever required necessary corrective or preventive actions have been applied.
5	13 (b)	documents and contracts for Works	The bidding documents include the relevant provisions. The borrower makes available the budget for environmental measures whenever required.
5	13 (c)	The Borrower shall ensure that all bidding documents and contracts for Works contain provisions that require	The bidding documents include the relevant provisions. No environmental, resettlement or indigenous peoples risks or impacts issues have been arisen during the implementation of the Project including Jul-Dec 2021 reporting period.
5	13 (d)	The Borrower shall ensure that all bidding documents and contracts for Works contain provisions that require	Bidding and contract documents contain provisions that require contractors to adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction.
5	13 (e)	documents and contracts for Works	The bidding documents include the relevant provisions. For the completed project components, pathways, other local infrastructure, and agricultural land is being restored to at least their pre- project condition.

Schedule	Paragraph	Covenant	Compliance Status
5	14 (a)	The Borrower shall submit semi-annual	Report has been prepared and disclosed at ADBs website regularly. SAEMR for
5	14 (b)	The Borrower shall if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the IEE and the EMP, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and	(COVID-19 pandemic), COVID-19 health and safety management plans were prepared by each contractor and approved by the PMU and the supervision consultant. Control measures including the training and
5	14 (c)		requirements set forth in the EMP has

<sup>&</sup>lt;sup>17</sup> All affected people do understand Russian language. <u>https://water.gov.uz/ru/page/1/6</u>

# Table 4-20. Implementation Status of EMP during the construction period (Packages ABISRP 01, ABISRP 02, ABISRP 03Lot1, ABISRP 03 Lot2 and ABISRP 04)

		Compliance	Comment on Reasons for	Required Action and Target Dates
Subject	EMP Requirement	Attained	Partial or Non-Compliance	to Achieve Compliance
		ABISRP 01	r ardar of Non Complance	
	• Undertake a public awareness campaign to			
Awareness campaign	create awareness among farmers of the construction work plan and possible impacts on irrigation delivery.	Yes		
	EMP explained to contractor on-site before any work commences.	Yes		
Introduction of contractor to the site.	Approve the commencement of work only after the contractor understands the EMP	Partial	SSEMP (Rev.5) completed in August 2021 and approved in October 2021, while the Works commenced in May 2020	
Removal of trees in construction sites	Any trees that need to be removed can only be removed after the PNPC/ Hokimiyat has approved their removal.	Yes		
Site preparation	<ul> <li>Minimize land clearing and excavation areas, preserving existing ground cover wherever possible, and providing approved ground cover where necessary; plant trees, bushes/grass to minimize rainwater runoff; appropriate stabilizing techniques to prevent cave-ins or earth-slips in excavated areas.</li> </ul>	Yes		
	Constructing buildings and facilities following the land protection activities stipulated in Construction Norms and Regulations (CNR) 3.01.01-97 and CNR 3.05.03-97.	Yes		
Excavation of sites and opening of	• Use borrow material from sides of canals that has been dumped after excavation/ de-silting.	Yes		
borrow pits	<ul> <li>If borrow pits essential to be approved by PNPC and Ministry of Geology</li> </ul>	Yes		
	Borrow pits to be closed and landscaped.	-		
	Stockpile excavated materials alongside open trench for backfilling; use for road formation	Yes		
	Replace excavated material and landscape the area.	Yes		
	Remove all waste and unused pipes.	Yes		

Subject	EMP Requirement	Compliance Attained	Comment on Reasons for Partial or Non-Compliance	Required Action and Target Dates to Achieve Compliance
Rehabilitation activities during cropping season	Undertake pump station construction, rehabilitation planning and arranging to supply the minimum water requirements.	Yes		
	<ul> <li>Provide water by-pass structures along canal wherever feasible, e.g., provide a detour channel connecting the intake canal to the existing intake chamber behind the rehabilitation site during installation of new pumps (proposed site) to continue uninterrupted supply of irrigation</li> </ul>	Yes		
Removal and disposal of debris	Debris to be dumped in land fill sites approved by Oblast Gospropridom & Hokimiyat	-	No debris produced	
	Sell metal-based scrap and equipment to scrap dealers in Alat and Bukhara;	-	No metal waste produced	
	<ul> <li>Land fill sites to be closed and rehabilitated</li> </ul>	-	Works not completed yet	
	Old rising main pipes to be removed and disposed or recycled	-	No old rising main pipes	
	Any electrical equipment found to contain PCBs is to be disposed of in accordance with Gozecoexpertisa requirements:	-	No electrical equipment	
Storage and Handling of construction materials, fuel and lubricants	Prepare material/equipment storage areas with facilities not to impair air quality nor contaminate soil or water and placed about 20 m away from water sources at elevated areas without interfering with drainage pattern	Yes		
	<ul> <li>Bund fuel tank storages to 110% of tank capacity. Refuel vehicles and equipment 20 m away from water courses</li> </ul>	Yes		
	Dispose of used oil and oil filters to meet accepted industry procedures	Yes		
	Accidental spill handling action (contingency)     plan	Yes		
Noise from construction	Equipment fitted with approved sound suppression equipment and maintained	Yes		
equipment; e.g.,	<ul> <li>Operators provided with ear protection</li> </ul>	Yes		
jack hammers, air compressors	Limit activities to daylight hours	Yes		
Dust	contractor to provide water tanker or necessary provisions	Yes		
	contractor to spray water on work areas and roads as required	Yes		

Subject	EMP Requirement	Compliance Attained	Comment on Reasons for Partial or Non-Compliance	Required Action and Target Dates to Achieve Compliance
Worker Health and Safety	Contractor to implement workplace safety awareness program.	Yes		
	Workers to be provided with safety equipment and instructed in its use.	Yes		
	<ul> <li>Emergency accident -contingency plan</li> </ul>	Yes		
Solid and liquid waste management	<ul> <li>All solid waste collected in containers for safe temporary storage and weekly dispose to safe dumping areas approved by the PE and PNPC</li> </ul>	Yes		
Transport of equipment and material in existing roads	<ul> <li>If local roads are used, select routes based on the truck load; divide the load to prevent damages to local roads and bridges; observe speed limits and maintain in the good condition; transport material under cover; avoid peak hours in roads with moderate to high traffic.</li> </ul>	Yes		
	<ul> <li>Contractor attends to repair all damaged infrastructure/ roads, if needed. with relevant authorities (Hokimiyat);</li> </ul>	Yes		
Rehabilitation and	Remove all waste and contaminated soil	-	Works not completed yet	
closing of construction sites	Restore sites by replacing topsoil and re- vegetating area	-	Works not completed yet	
	Final payment may be withheld until work is completed	-	Works not completed yet	
Inspection and acceptance of construction works before handing over	<ul> <li>Inspection and signed acceptance by Operating Personnel</li> </ul>	-	Works not completed yet	
	L	ABISRP 02	l	
Awareness campaign	• Undertake a public awareness campaign to create awareness among farmers of the construction work plan and possible impacts on irrigation delivery.	Yes		
	<ul> <li>EMP explained to contractor on-site before any work commences.</li> </ul>	Yes		
Introduction of contractor to the site.	Approve the commencement of work only after the contractor understands the EMP	Partial	EMR prepared per two months (18/07/18 – Open)	Prepare and submit EMR monthly EMR covering the period Oct - Dec 2021 have been submitted. Strict follow up required for the next reporting period
Removal of trees in construction sites	<ul> <li>Any trees that need to be removed can only be removed after the PNPC/ Hokimiyat has approved their removal.</li> </ul>	Yes		

Subject	EMP Requirement	Compliance Attained	Comment on Reasons for	Required Action and Target Dates to Achieve Compliance
Cite mean exetien		Yes	Partial or Non-Compliance	to Achieve Compliance
Site preparation	• Minimize land clearing and excavation areas,	res		
	preserving existing ground cover wherever possible, and providing approved ground cover			
	where necessary; plant trees, bushes/grass to			
	minimize rainwater runoff; appropriate			
	stabilizing techniques to prevent cave-ins or			
	earth-slips in excavated areas.			
	Constructing buildings and facilities following	Yes		
	the land protection activities stipulated in			
	Construction Norms and Regulations (CNR)			
	3.01.01-97 and CNR 3.05.03-97.			
Excavation of sites	• Use borrow material from sides of canals that	Yes		
and opening of	has been dumped after excavation/ de-silting.			
borrow pits	• If borrow pits essential. to be approved by	Yes		
	PNPC and Ministry of Geology			
	Borrow pits to be closed and landscaped.	-		
	Stockpile excavated materials alongside open	Yes		
	trench for backfilling; use for road formation			
	Replace excavated material and landscape the	Yes		
	area.			
	Remove all waste and unused pipes.	Yes		
Rehabilitation	• Undertake pump station construction,	-		
activities during	rehabilitation planning and arranging to supply			
cropping season	the minimum water requirements.	N		
	Provide water by-pass structures along canal     wherever, feasible, a g, provide, a detour	Yes		
	wherever feasible, e.g., provide a detour channel connecting the intake canal to the			
	existing intake chamber behind the			
	rehabilitation site during installation of new			
	pumps (proposed site) to continue			
	uninterrupted supply of irrigation			
Removal and	Debris to be dumped in land fill sites approved	Yes		
disposal of debris	by Oblast Gospropridom & Hokimiyat			
	Sell metal-based scrap and equipment to scrap	Yes	Reused or sold by BISA	
	dealers in Alat and Bukhara;			
	Land fill sites to be closed and rehabilitated	Yes		
	• Old rising main pipes to be removed and	-		
	disposed or recycled			
	Any electrical equipment found to contain PCBs	-		
	is to be disposed of in accordance with			
	Gozecoexpertisa requirements:			

Subject	EMP Requirement	Compliance Attained	Comment on Reasons for Partial or Non-Compliance	Required Action and Target Dates to Achieve Compliance
Storage and Handling of construction materials, fuel and lubricants	<ul> <li>Prepare material/equipment storage areas with facilities not to impair air quality nor contaminate soil or water and placed about 20 m away from water sources at elevated areas without interfering with drainage pattern</li> </ul>	Yes		
	<ul> <li>Bund fuel tank storages to 110% of tank capacity. Refuel vehicles and equipment 20 m away from water courses</li> </ul>	Yes		
	Dispose of used oil and oil filters to meet accepted industry procedures	No	Record of old tires and accumulators have not been kept. (19/01/18 – 22/06/19)	Records have been provided on 22/06/19
	Accidental spill handling action (contingency)     plan	Yes		
Noise from construction	Equipment fitted with approved sound suppression equipment and maintained	No	Not required	
equipment; e.g.,	<ul> <li>Operators provided with ear protection</li> </ul>	Yes		
jack hammers, air compressors	Limit activities to daylight hours	Yes		
Dust	contractor to provide water tanker or necessary provisions	Yes		
	<ul> <li>contractor to spray water on work areas and roads as required</li> </ul>	Yes		
Worker Health and Safety	Contractor to implement workplace safety awareness program.	Yes		
	Workers to be provided with safety equipment and instructed in its use.	No	Labeling doesn't exist for hazardous areas (19/08/17 – 22/06/19)	Apply labelling. Completed on 22/06/2019
			Hygienic conditions, protection against climatological conditions and light conditions poor (19/01/18 – 22/06/19)	Comply with contract requirements for working accommodation and working sites. Closed on 22/06/19
			Firefighting equipment or fire extinguisher doesn't exist (19/01/18 – 22/06/19)	Comply with contract requirements for safety.
			PPE not used by the staff at Kharkhur Construction Site (21/06/19 – 28/12/19)	Daily check, and immediate cautions to the Contractor by the Supervisor.
	Emergency accident -contingency plan	Yes		
Solid and liquid waste management	<ul> <li>All solid waste collected in containers for safe temporary storage and weekly dispose to safe dumping areas approved by the PE and PNPC</li> </ul>	No	Sewage not disposed properly (19/01/18 – 22/06/19)	To comply with the national legislation and contract requirements for sewage disposal.

Subject	EMP Requirement	Compliance Attained	Comment on Reasons for Partial or Non-Compliance	Required Action and Target Dates to Achieve Compliance
				Completed on 22/06/19
			Hazardous waste collection	Provide the hazardous waste
			area doesn't exist (19/01/18	collection spot.
			- 26/01/18)	Completed on 26/01/18
			Separation of hazardous and solid waste not applied	Sort solid waste separately. Completed on 22/06/19
			(19/01/18 – 22/06/19)	Completed on 22/06/19
Transport of	• If local roads are used, select routes based on	Yes		
equipment and	the truck load; divide the load to prevent			
material in existing roads	damages to local roads and bridges; observe speed limits and maintain in the good condition;			
10805	transport material under cover; avoid peak			
	hours in roads with moderate to high traffic.			
	Contractor attends to repair all damaged	Yes		
	infrastructure/ roads, if needed. with relevant			
	authorities (Hokimiyat);			-
Rehabilitation and	Remove all waste and contaminated soil	Partial	Soil contamination with oil	Site cleaned on 22/06/19
closing of construction sites			leakage (19/01/18 – 22/06/19)	
construction sites	• Restore sites by replacing topsoil and re-	Partial	For the sites completed	Topsoil scraping and storage has
	vegetating area		topsoil laid and vegetated.	been applied under the supervision of CSC
	Final payment may be withheld until work is completed	Yes		
Inspection and	Inspection and signed acceptance by Operating	-	Works have not been	
acceptance of	Personnel		completed yet.	
construction works				
before handing over				
		BISRP 03 Lot 1		
	• Undertake a public awareness campaign to			
Awareness	create awareness among farmers of the	Yes		
campaign	construction work plan and possible impacts on irrigation delivery.			
	EMP explained to contractor on-site before any			
	work commences.	Yes		
Introduction of	Approve the commencement of work only after		Environmental expert has	
contractor to the	the contractor understands the EMP		not been hired (26/11/17 –	14/02/18
site.		Partial	14/02/18)	
			SSEMP has not been	444047
			prepared (26/11/17 – 14/12/17)	14/12/17

Subject	EMP Requirement	Compliance Attained	Comment on Reasons for Partial or Non-Compliance	Required Action and Target Dates to Achieve Compliance
		Fillanda	Environmental Record System has not been established. (26/11/2017 – 14/05/18)	14/05/18
			Grievance Redress Mechanism is not established (26/11/17 – 14/05/18)	Establish the GRM and log books
			The replacement of Environmental Manager has not been declared (18/12/18 – 04/02/19)	Inform PIU/CSC for replacement
			EMR has not been submitted regularly (31/12/18 – 15/01/19)	Submit all previous EMR's and next EMRs regularly
Removal of trees in construction sites	<ul> <li>Any trees that need to be removed can only be removed after the PNPC/ Hokimiyat has approved their removal.</li> </ul>	Yes		
Site preparation	<ul> <li>Minimize land clearing and excavation areas, preserving existing ground cover wherever possible, and providing approved ground cover where necessary; plant trees, bushes/grass to minimize rainwater runoff; appropriate stabilizing techniques to prevent cave-ins or earth-slips in excavated areas.</li> </ul>	Yes		
	<ul> <li>Constructing buildings and facilities following the land protection activities stipulated in Construction Norms and Regulations (CNR) 3.01.01-97 and CNR 3.05.03-97.</li> </ul>	Yes		
Excavation of sites and opening of	<ul> <li>Use borrow material from sides of canals that has been dumped after excavation/ de-silting.</li> </ul>	Yes		
borrow pits	If borrow pits essential. to be approved by PNPC and Ministry of Geology	Yes		
	Borrow pits to be closed and landscaped.     Stockpile excavated materials alongside open transporter backfilling: use for read formation	- Yes		
	<ul> <li>trench for backfilling; use for road formation</li> <li>Replace excavated material and landscape the area.</li> <li>Remove all waste and unused pipes.</li> </ul>	Yes		
Rehabilitation activities during cropping season	<ul> <li>Remove all waste and unused pipes.</li> <li>Undertake pump station construction, rehabilitation planning and arranging to supply the minimum water requirements.</li> </ul>	Yes -		

Subject	EMP Requirement	Compliance Attained	Comment on Reasons for	Required Action and Target Dates to Achieve Compliance
-	Provide water human structures along angel	Yes	Partial or Non-Compliance	to Achieve Compliance
	• Provide water by-pass structures along canal wherever feasible, e.g., provide a detour channel connecting the intake canal to the existing intake chamber behind the rehabilitation site during installation of new	Tes		
	pumps (proposed site) to continue uninterrupted supply of irrigation			
Removal and disposal of debris	Debris to be dumped in land fill sites approved by Oblast Gospropridom & Hokimiyat	Yes		
	Sell metal-based scrap and equipment to scrap dealers in Alat and Bukhara;	Yes	Reused or sold by BISA	
	Land fill sites to be closed and rehabilitated	No	Dredged material storage area left without leveling (GTS of Contract Chapter 11 Article 11.12) and planting as defined in the Permission (18/06/19 – Open)	Dredged material storage area has been leveled until 05/11/21 and permission has been obtained from national local authorities that plantation is not required, on 18/11/2021
	Old rising main pipes to be removed and disposed or recycled	-		
	Any electrical equipment found to contain PCBs is to be disposed of in accordance with Gozecoexpertisa requirements:	-		
Storage and Handling of construction materials, fuel and lubricants	• Prepare material/equipment storage areas with facilities not to impair air quality nor contaminate soil or water and placed about 20 m away from water sources at elevated areas without interfering with drainage pattern	Partial	Hazardous material/waste storage area are not constructed according to standards (18/06/19 – 28/09/19)	Hazardous material/waste storage area has been constructed according to standards until 28/09/19
	Bund fuel tank storages to 110% of tank capacity. Refuel vehicles and equipment 20 m away from water courses	Yes		
	Dispose of used oil and oil filters to meet accepted industry procedures	Yes		
	Accidental spill handling action (contingency)     plan	Yes		
Noise from construction	Equipment fitted with approved sound suppression equipment and maintained	Yes		
equipment; e.g.	Operators provided with ear protection	Yes		
jack hammers, air compressors	Limit activities to daylight hours	Yes		
Dust	Contractor to provide water tanker or necessary provisions	Yes		

Subject	EMP Requirement	Compliance Attained	Comment on Reasons for Partial or Non-Compliance	Required Action and Target Dates to Achieve Compliance
	<ul> <li>contractor to spray water on work areas and roads as required</li> </ul>	Yes		
Worker Health and Safety	Contractor to implement workplace safety awareness program.	Partial	Smoke has been formed in the welding area (18/06/19 – 28/09/19)	Ventilation system has been installed until 28/09/19 at the welding area
	• Workers to be provided with safety equipment and instructed in its use.	Yes		
	<ul> <li>Emergency accident -contingency plan</li> </ul>	Yes	Safety measures properly not applied (28/12/19 – 10/01/20)	Safety measures have been applied until 10/01/20
Solid and liquid waste management	All solid waste collected in containers for safe temporary storage and weekly dispose to safe	Partial	Hazardous wastes observed at site (17/12/18 – 18/06/19)	Hazardous wastes were removed from site until 18/06/19
	dumping areas approved by the PE and PNPC		The permission for the disposal site of the dredged material has not been obtained (18/12/18 – 22/04/19)	The permission for the disposal site of the dredged material has been obtained on 22/04/19
			Solid waste disposal records not kept regularly (28/12/19 – 10/01/20)	Solid waste disposal records have been kept regularly until 10/01/20
			Hazardous solid waste collection and separation not active (28/12/19 – 10/01/20)	Hazardous solid waste collection and separation has been put in progress on 10/01/20.
Transport of equipment and material in existing roads	<ul> <li>If local roads are used, select routes based on the truck load; divide the load to prevent damages to local roads and bridges; observe speed limits and maintain in the good condition; transport material under cover; avoid peak hours in roads with moderate to high traffic.</li> </ul>	Yes		
	<ul> <li>Contractor attends to repair all damaged infrastructure/ roads, if needed. with relevant authorities (Hokimiyat);</li> </ul>	Yes		
Rehabilitation and	Remove all waste and contaminated soil	Yes		
closing of construction sites	Restore sites by replacing topsoil and re- vegetating area	Yes		
	Final payment may be withheld until work is completed	Yes		
Inspection and acceptance of construction works before handing over	Inspection and signed acceptance by Operating     Personnel	Yes		

#### Amu Bukhara Irrigation System Rehabilitation Project Environmental Monitoring Report (July - December 2021)

Subject	EMP Requirement	Compliance	Comment on Reasons for	Required Action and Target Dates
	•	Attained BISRP 03 Lot 2	Partial or Non-Compliance	to Achieve Compliance
Awareness campaign	<ul> <li>Undertake a public awareness campaign to create awareness among farmers of the construction work plan and possible impacts on irrigation delivery.</li> </ul>	Yes		
	EMP explained to contractor on-site before any work commences.	Yes		
	Approve the commencement of work only after the contractor understands the EMP		Environmental expert has not been hired (26/11/17 – 14/02/18)	14/02/18
			SEMP has not been prepared (26/11/17 – 14/12/17)	14/12/17
Introduction of contractor to the		Yes	Environmental Record System has not been established. (26/11/2017 – 14/05/18)	14/05/18
site.			Grievance Redress Mechanism is not established (26/11/17 – 14/05/18)	Establish the GRM and log books
			The replacement of Environmental Manager has not been declared (18/12/18 – 04/02/19)	Inform PIU/CSC for replacement
			EMR has not been submitted regularly (31/12/18 – 15/01/19)	Submit all previous EMR's and next EMRs regularly.
Removal of trees in construction sites	Any trees that need to be removed can only be removed after the PNPC/ Hokimiyat has approved their removal.	Yes		
Site preparation	<ul> <li>Minimize land clearing and excavation areas, preserving existing ground cover wherever possible, and providing approved ground cover where necessary; plant trees, bushes/grass to minimize rainwater runoff; appropriate stabilizing techniques to prevent cave-ins or earth-slips in excavated areas.</li> </ul>	Yes		
	Constructing buildings and facilities following the land protection activities stipulated in Construction Norms and Regulations (CNR) 3.01.01-97 and CNR 3.05.03-97.	Yes		

#### Amu Bukhara Irrigation System Rehabilitation Project Environmental Monitoring Report (July - December 2021)

Subject	EMP Requirement	Compliance Attained	Comment on Reasons for Partial or Non-Compliance	Required Action and Target Dates to Achieve Compliance
Excavation of sites and opening of	• Use borrow material from sides of canals that has been dumped after excavation/ de-silting.	Yes		
borrow pits	If borrow pits essential. to be approved by PNPC and Ministry of Geology	Yes		
	<ul> <li>Borrow pits to be closed and landscaped.</li> </ul>	-		
	Stockpile excavated materials alongside open trench for backfilling; use for road formation	Yes		
	Replace excavated material and landscape the area.	Yes		
	<ul> <li>Remove all waste and unused pipes.</li> </ul>	Yes		
Rehabilitation activities during cropping season	Undertake pump station construction, rehabilitation planning and arranging to supply the minimum water requirements.	-		
	<ul> <li>Provide water by-pass structures along canal wherever feasible, e.g., provide a detour channel connecting the intake canal to the existing intake chamber behind the rehabilitation site during installation of new pumps (proposed site) to continue uninterrupted supply of irrigation</li> </ul>	Yes		
Removal and disposal of debris	Debris to be dumped in land fill sites approved by Oblast Gospropridom & Hokimiyat	Partial	Demolished concrete left in site (27/12/19 – 10/01/20)	Demolished concrete cleaned from site until 10/01/20
	• Sell metal-based scrap and equipment to scrap dealers in Alat and Bukhara;	Yes	Reused or sold by BISA	
	Land fill sites to be closed and rehabilitated	Yes	Dredged material storage area left without leveling (GTS of Contract Chapter 11 Article 11.12) and planting as defined in the Permission (17/06/19 – Open)	Dredged material storage area has been leveled until 10/11/21 and permission has been obtained from national local authorities that plantation is not required on 18/11/2021.
	Old rising main pipes to be removed and disposed or recycled	-		
	Any electrical equipment found to contain PCBs is to be disposed of in accordance with Gozecoexpertisa requirements:	-		
Storage and Handling of construction materials, fuel and lubricants	Prepare material/equipment storage areas with facilities not to impair air quality nor contaminate soil or water and placed about 20 m away from water sources at elevated areas without interfering with drainage pattern	Yes		

Subject	EMP Requirement	Compliance Attained	Comment on Reasons for Partial or Non-Compliance	Required Action and Target Dates to Achieve Compliance
	<ul> <li>Bund fuel tank storages to 110% of tank capacity. Refuel vehicles and equipment 20 m away from water courses</li> </ul>	Yes		
	Dispose of used oil and oil filters to meet accepted industry procedures	Yes		
	Accidental spill handling action (contingency)     plan	Yes		
Noise from construction	<ul> <li>Equipment fitted with approved sound suppression equipment and maintained</li> </ul>	Yes		
equipment; e.g.,	<ul> <li>Operators provided with ear protection</li> </ul>	Yes		
jack hammers, air compressors	Limit activities to daylight hours	Yes		
Dust	<ul> <li>contractor to provide water tanker or necessary provisions</li> </ul>	Yes		
	<ul> <li>contractor to spray water on work areas and roads as required</li> </ul>	Partial	The dust formation has been observed at unpaved roads (17/12/18 – 17/06/19)	Dust suppression measures have been regularly applied Closed on 17/06/19
Worker Health and Safety	Contractor to implement workplace safety awareness program.	Partial	Health and safety training records not kept regularly (27/12/19 – 10/01/20)	Health and safety training records have been kept regularly. Closed on 10/01/20
	• Workers to be provided with safety equipment and instructed in its use.	Yes	Some fire extinguishers' expiration date passed (27/12/19 – 10/01/20)	The fire extinguishers which are expired have been replaced until 10/01/20
	<ul> <li>Emergency accident -contingency plan</li> </ul>	Yes		
Solid and liquid waste management	<ul> <li>All solid waste collected in containers for safe temporary storage and weekly dispose to safe dumping areas approved by the PE and PNPC</li> </ul>	Yes	The permission for the disposal site of the dredged material has not been obtained (18/12/18 – 21/02/19)	The permission for the disposal site of the dredged material has been obtained on 21/02/19
			Hazardous waste storage area doesn't exist (17/06/19 – 28/09/19)	Hazardous waste storage area has been constructed until 28/09/19
Transport of equipment and material in existing roads	<ul> <li>If local roads are used, select routes based on the truck load; divide the load to prevent damages to local roads and bridges; observe speed limits and maintain in the good condition; transport material under cover; avoid peak hours in roads with moderate to high traffic.</li> </ul>	Yes		
	<ul> <li>Contractor attends to repair all damaged infrastructure/ roads, if needed. with relevant authorities (Hokimiyat);</li> </ul>	Yes		

#### Amu Bukhara Irrigation System Rehabilitation Project Environmental Monitoring Report (July - December 2021)

Subject	EMP Requirement	Compliance Attained	Comment on Reasons for Partial or Non-Compliance	Required Action and Target Dates to Achieve Compliance
Rehabilitation and closing of construction sites	Remove all waste and contaminated soil	Partial	Oil Spills observed at site (17/12/18 – 17/06/19)	Oil Spills have been cleaned and the site has been regularly checked until 17/06/19
	<ul> <li>Restore sites by replacing topsoil and re- vegetating area</li> </ul>	Yes		
	Final payment may be withheld until work is completed	Yes		
Inspection and acceptance of construction works before handing over	Inspection and signed acceptance by Operating     Personnel	Yes		

# Table 4-21. Implementation Status of EMP during the POST-CONSTRUCTION, OPERATIONS PHASE (INCLUDING DEFECT LIABILITY PERIOD) (Package ABISRP 04)

Subject	EMP Requirement	Compliance Attained	Comment on Reasons for Partial or Non-Compliance	Required Action and Target Dates to Achieve Compliance
[1] i. Regular maintenance of infrastructure ii. Regular maintenance of oil and water separators.	<ul> <li>Pump house &amp; irrigation canals i. Arrange maintenance training programs. ii. Evaluate training programs iii. Arrange irrigation canal and drainage channel maintenance programs iv. Arrange budgets for maintenance. v. Check that oil and water separators are being properly maintained</li> </ul>	Yes	-	-
[2] Maintenance of land productivity	<ul> <li>Irrigated Lands Prevent re-use of poor quality drainage water (containing more than 3 g/l mineralization) for irrigation; increase irrigation efficiency by avoiding over-use of irrigation water; enhance drainage in areas with high ground water tables; and regular maintenance of all drainage canals Crop rotation including green manure and introduction of current agricultural practices such as mineral fertilizers applied in a timely fashion, use of improved seed varieties, etc. to enhance fertility and productivity</li> </ul>	Yes	-	-
[3] Worker Safety Plan for those involved in irrigation system O&M	Pump house Implement Worker Safety Plan	<i>Not relevant</i> since it is not a pump station contract	-	-
[4] Maintenance of pump house cleanliness and sanitation	<ul> <li>Pump House Maintenance of water-seal toilets with periodic emptying of cesspits; Waste disposed according to the recommendations of the District Sanitary Epidemic Station either to the regional dump yards, for recycling or re-use depending on the category; Maintenance of a dedicated warehouse for waste such as mercury pollutants (luminescent lamps) for recycling (demercurization) through registered companies.</li> </ul>	<i>Not relevant</i> since it is not a pump station contract	-	-
[5] Abstraction of river water exceeding the allowable amount	At the Intake and the Pump House Adherence to international agreements	<i>Not relevant</i> since it is not a pump station contract	-	-

### 5 FUNCTIONING OF THE SSEMP

### 5.1 EMP Review

119. The fifth revision of SSEMP of the Contractor of Amu Bukhara 1 New Pump Station (ABISRP 01) has been submitted on August 8, 2021. The comments given by the CSC to the fourth revision of SSEMP have been replied by the Contractor. SSEMP has been approved by PIU/CSC on October 6, 2021.

120. The Contractor of Amu Bukhara Main Canal Regulation Structures (ABISRP 02) prepared the SSEMP just to fulfil its contractual obligations. The Contractor's SSEMP has been approved on February 15, 2017. However, the Contractor, for a long time, acted as if he was unaware of existence of SSEMP and did not submit EMR regularly. The Contractor was warned of their non-compliance with the SSEMP in the meetings held on July 13-14, 2021 and subsequently during ADB Review Mission in early October 2021. Subsequently, the Contractor submitted a Health and Safety Plan against COVID-19 including Emergency Response Plan, in November 2021; and submitted an EMR covering the period October - December 2021, in December 2021.

121. Currently, SSEMP of the Contractor of Kuyu Mazar (ABISRP 03 Lot 1) and Kizil Tepa (ABISRP 03 Lot 2) Pump Stations approved on February 20, 2018 has been assessed to fit the environmental requirements of the construction activities. No revision has been required on the existing SSEMP of Kuyu Mazar and Kizil Tepa Pump Stations due to construction activities.

122. As indicated under Clause 4.6.2, Health and Safety Plans and ERPs have been issued considering COVID-19 risk assessment and control measures by all the Contractors.

### 5.2 Grievance Redress Mechanism

123. No complaints received during the reporting period.

### 6 GOOD PRACTICE AND OPPORTUNITY FOR IMPROVEMENT

### 6.1 Good Practice

124. There is not any issue to be reported as good practice note.

### 6.2 **Opportunities for Improvement**

125. After the designation of the environmental staff by the Contractor of Amu Bukhara 1 New Pump Station (ABISRP 01), CSC has planned to organize a training session for the relevant staff. The subject of the training session will cover environmental, occupational health and safety trainings of the Contractor's staff, monitoring, recording, and reporting responsibilities of the Contractor. The training for this issue, which was planned for second quarter of 2021, has been postponed to the first quarter of 2022, due to COVID-19 pandemic.

### 7 SUMMARY AND RECOMMENDATIONS

### 7.1 Summary

126. During the current reporting period (July - December 2021) the following environmental safeguard activities have been performed:

- health and safety measures related to COVID-19 such as testing, distributing hand sanitizer, distributing face mask etc. by PIU supervision team and Contractors.
- Routine daily site visits by Site Engineers of Supervision Consultant including environmental, occupational health and safety issues.

127. The issues identified during this monitoring period is summarized in Table 7-1. In this reporting period, 5 nonconformities were identified, the observed nonconformities were duly registered. All discrepancies will be reflected in the next reporting period.

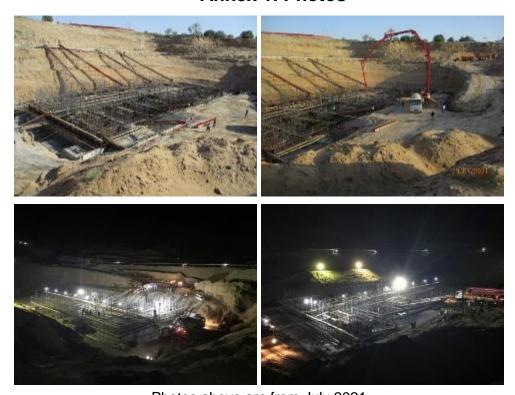
Table 7-1. Issues Identified During the Monitoring Period and their corrective actions					
Issue		Required Action	Responsibility	Timing (Target Dates)	
1.	The toilet facilities exist at Hydrosystems Prokop and Troynik. But their conditions are poor. Since the number of workers are less in number, the wastewater produced during the daily activities have been directly filtered to the ground. The contamination risk of these effluents to the canals are low (para.77 on page 27)	Either portable toilets should be used or a cesspit should be built for existing on-site toilets	Contractor ABISRP 02	15 Jun 2022	The works on Hydrosystem Prokop have been completed, the Contractor has demobilized from the relevant site. The works on Hydrosystem Troynik is ongoing with a very less manpower and the Contractor has proposed to remove the existing toilets in poor condition and take permission from the Operator to use their permanent toilets and bathrooms at the relevant site. The Contractor is expected to provide the permission of the Operator on using their permanent toilet facilities until revised target date.
2.	The Contractor does not provide information related to the monitoring activities in EMR (para.90 on page 30)	Provide monitoring information	Contractor ABISRP 02	15 Jun 2022	No EMR has been provided yet in 2022. The Contractor has recently been warned one more time and is expected to provide EMR at least for the period starting from Jan-2022 including information on relevant activities latest until revised target date.
3.	The Contractor has no record about the type, quantity of solid waste produced and disposed (para.105 on page 34)	Keep a log regarding every kind of wastes generated at site	Contractor ABISRP 02	15 Jun 2022	Same as above.
4.	The Contractor has not provided monthly EMR in the reporting period (Jul-Dec 2021)	Provide EMR on the monthly basis until end of the Contract, as provided in the previous periods	Contractor ABISRP 03 Lot 1	10 Jun 2022	The Contractor committed to provide EMR for 2022.
5.	The Contractor has not provided monthly EMR in the reporting period (Jul-Dec 2021)	Provide EMR on the monthly basis until end of the Contract, as provided in the previous periods	Contractor ABISRP 03 Lot 2	10 Jun 2022	Same as above.

#### **T** . . . **T** ...

EMR = environmental monitoring report

### 7.2 Recommendations

128. Routine supervision activities need to be performed by all parties to ensure that EMP of the project, SSEMPs of Contractors have been successfully implemented and environmental safeguard obligations have been fulfilled.

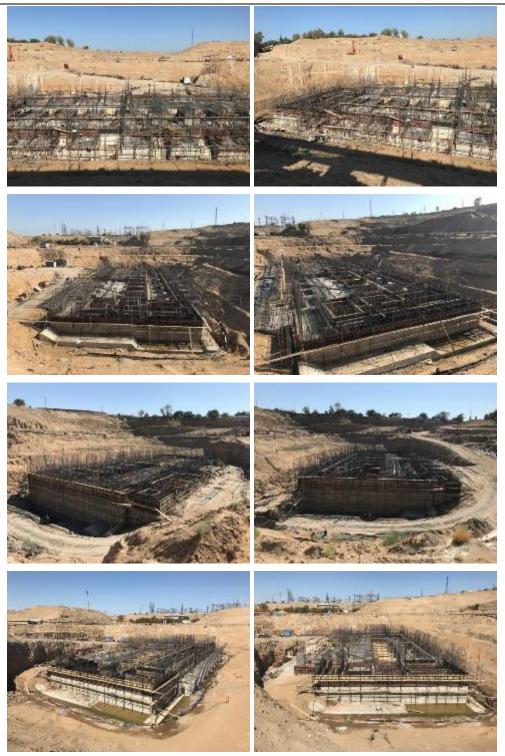


Annex 1. Photos

Photos above are from July 2021



Photos above are from September 2021 Structural Concrete Works for the Underground Part (Substructure) of the Pump Station Building (ABISRP 01)



Photos above are from September 2021

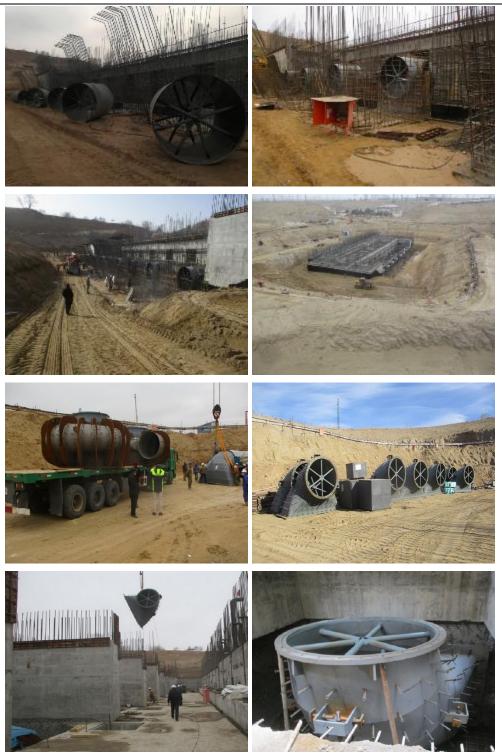
Structural Concrete Works for the Underground Part (Substructure) of the Pump Station Building (ABISRP 01)



Photos above are from October 2021



Photos above are from November 2021 Structural Concrete Works for the Underground Part (Substructure) of the Pump Station Building (ABISRP 01)



Photos above are from December 2021

Installation of Embedded Sections of Discharge Pipes to the Downstream Wall of the Pump Station Building and Installation of the Suction Elbows at the Pump Intake Chambers of the Pump Station Building (ABISRP 01)



Photos above are from December 2021

Bituminous Waterproofing of the Walls of the Underground Part of the Pump Station Building and Partial Backfilling around the Underground Part of the Pump Station Building (ABISRP 01)



Photos above are from December 2021 Excavation of the Intake Canal of the Pump Station Building (ABISRP 01)



Photos above are from September 2021 Riprap Works at the Downstream of Regulator Verkhnebukharskiy at Hydrosystem Kharkhur (ABISRP 02)





Photos above are from November 2021 Slope Concrete Reconstruction Works at the Downstream of Regulator Zarafshan at Hydrosystem Tashrabad (ABISRP 02)



Photos above are from December 2021 Rehabilitation of Slopes on Outflow-Tudakul at Hydrosystem Prokop (ABISRP 02)



Photos above are from December 2021 Rehabilitation of the Guide Slots of Gates and Repair of the Gates and Lifting Mechanisms of Outflow-Tudakul at Hydrosystem Prokop (ABISRP 02)



Photos above are from December 2021

Installation Works on Outflow-Tudakul at Hydrosystem Prokop (ABISRP 02)



Photos above are from December 2021 Construction of the Bypass Structure ABK-1 at Hydrosystem Troynik (ABISRP 02)



Photos above are from August 2021 Site Meeting on Defect Elimination Status at Kuyu Mazar Pump Station (ABISRP 03 Lot 1)

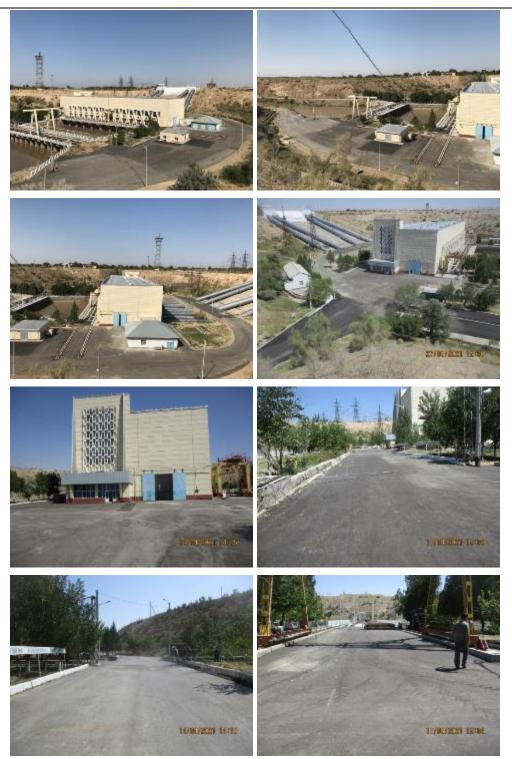


Photos above are from November 2021

Levelling of the Disposal Areas of the Material Dredged from the Water Intake Canals (ABISRP 03 Lot 1)



Photos above are from July 2021 Polyurethane Grout Injection on the Leaking Walls at Kizil Tepa Pump Station (ABISRP 03 Lot 2)



Photos above are from August and September 2021

Reconstruction of Asphalt Pavement Around Kizil Tepa Pump Station (ABISRP 03 Lot 2)



Photos above are from August 2021

Reconstruction of Asphalt Pavement Around Kizil Tepa Pump Station (ABISRP 03 Lot 2)



Photos above are from July and August 2021



Photos above are from August 2021

Construction of Lodging Buildings, Domestic Water Supply Tank and Septic Tank at Kizil Tepa Pump Station (ABISRP 03 Lot 2)



Photos above are from November 2021



Photos above are from November 2021

Construction of the Asphalt Pavement of the Road to the Operator's Lodging Buildings and Completion of the Remaining Painting Work on the Façade of Kizil Tepa Pump Station (ABISRP 03 Lot 2)



Photos above are from December 2021

Dredging Works at the Forebay of Kizil Tepa Pump Station (ABISRP 03 Lot 2)





Photos above are from November 2021

Levelling of the Disposal Areas of the Material Dredged from the Water Intake Canal (ABISRP 03 Lot 2)

# Annex 2. A Few Examples of OHS and COVID-19 Training Records (ABISRP 03 Lot 2)

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# Annex 3. A Few Examples of OHS Training Records (ABISRP 01)

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## Annex 4. A Few Examples of OHS and COVID-19 Training Records (ABISRP 03 Lot 1)

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### Annex 5. Confirmation Letters from Local State Authorities

Confirmation letter from the Bukhara Department of Ecology and Environmental Protection



### O'ZBEKISTON RESPUBLIKASI EKOLOGIYA VA ATROF-MUHITNI MUHOFAZA QILISH DAVLAT QO'MITASI

BUXORO VILOYATI EKOLOGIYA VA ATROF-MUHITNI MUHOFAZA QILISH BOSHQARMASI

705009, Buxoro sh., Shirbudin koʻchasi, 41-uy, tel.: 65-225-31-04, faks: 65-225-56-10 elektron manzil: <u>buxoro@uznature.uz</u>, E-xat: buharatabiat@exat.uz

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03/14 -2105 -son

Buxoro sh.

Главу ПУ Hebei Construction Group Co., Ltd Zhengsuchen

Бухарское областное управление по Экологии и охраны окружающей среды рассмотрев Ваше письмо за № 21.013 от 17.11.2021 года сообщает следующее.

Принимая во внимание устранение недостатков указанные в ходе проверки в рамках государственной приемочной комиссии по контракту «Реконструкция и модернизация насосной станции «Кую-Мазар» и в связи с ежегодной очистной работой в канале, посадка деревьев в дол канала протяженностью около 200 метров считает не целесообразным.

> Заместитель начальника управления

М.Махмудов.

#### Confirmation letter from the Navoi Department of Ecology and Environmental Protection



### O'ZBEKISTON RESPUBLIKASI EKOLOGIYA VA ATROF-MUHITNI MUHOFAZA QILISH DAVLAT QO'MITASI

#### NAVOIY VILOYATI EKOLOGIYA VA ATROF-MUHITNI MUHOFAZA QILISH BOSHQARMASI

210100 Navoiy sh, S.Ayniy ko'chasi 27-uy, tel: 79-220-61-65, tel:79-222-07-70 veb-sahifa:http://www.navoiyeco.uz, elektron manzil: navoiy@uznature.uz, e-xat navoiytabiat@exat.uz

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Xitoy respublikasining "Hebei Construction Group Co. Ltd. Hebei Water Conservancy Engineering Bureau" kompaniyasiga

Xitoy respublikasining "Hebei Construction Group Co. Ltd. Hebei Water Conservancy Engineering Bureau" kompaniyasining 2021 yil 16 oktyabrdagi HBCG-KTPE-21.018-sonli xatiga javoban quyidagilarni ma'lum qilaman:

O'zbekiston Respublikasi Prezidentining 2015 yil 25 avgustdagi "Amu-Buxoro irrigatsiya tizimini qayta tiklash loyihasini amalga oshirish bo'yicha qo'shimcha chora-tadbirlar to'g'risida"gi PQ-2396-sonli qaroriga binoan Xitoy respublikasining "Hebei Construction Group Co. Ltd. Hebei Water Conservancy Engineering Bureau" kompaniyasi tomonidan Qiziltepa tumanidagi "Qiziltepa" nasos stansiyasini rekonstruksiya qilish rejalashtirilgan.

Mazkur ob'ekt uchun Navoiy viloyati Davlat ekologiya ekspertiza markazi DUK tomonidan 2018 yil 26 apreldagi 576/18-sonli hamda 2019 yil 21 fevraldagi 60/19-sonli davlat ekologiya ekspertizasining ijobiy xulosalari olingan. Shuningdek, ob'ektning ish faoliyati jarayonida hosil bo'lgan maishiy va qurilish chiqindilarini olib chiqib ketish bo'yicha "DXSh AHOLITRANS" UK bilan rasmiylashtirilgan.

Xususan, ushbu ob'ekt joyida borib atroflicha o'rganilganda haqiqatdan ham ushbu nasos stansiyasini rekonstruksiya qilish ishlari yakunlanganligini, qurilishta'mirlash jarayonida hosil bo'lgan qurilish chiqindilari tashlangan joyidan tozalab olinganligi va o'z holatiga keltirilganligini hamda Amu-Buxoro kanalini qazish natijasida hosil bo'lgan tuproqlar rekultivatsiya qilinib, tekis holga keltirilganligini, Uchquduq tumani O'rmon xo'jaligi bo'limi bilan shartnoma asosida saksaul urug'i olib kelinib ekish ishlari amalga oshirilganligi ma'lum bo'ldi. Davlat ekologiya ekspertiza markazi talablari bajarilgan deb hisoblaymiz.

Boshqarma boshligʻi oʻrinbosari

N.Boltayev