

# Environmental Monitoring Report

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Semestral report (January-June 2021)

October 2021

## Tajikistan: Water Resources Management in the Pyanj River Basin Project (Additional Finance)

Prepared by the Project Implementation Group of the Agency for Hydrometeorology for the Committee of Environmental Protection under the Government of the Republic of Tajikistan and for the Asian Development Bank.

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# Semi-annual Environmental Monitoring Report

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Project Number: 47181-003

Reporting period: January - June 2021

## Republic of Tajikistan: Water Resources Management in Pyanj River Basin Project (Additional Financing) (Financed by the Asian Development Bank)

*Prepared by Project Implementation Group (PIG) with support of Project implementation company FCG Group jointly with ARPA Consulting LLC for the The Agency for Hydrometeorology of the Committee of Environmental Protection under the Government of the Republic of Tajikistan and the Asian Development Bank.”*

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### ABBREVIATIONS

ADB	Asian Development Bank
ALRI	Agency for Land Reclamation and Irrigation
CEP	Committee for Environmental Protection under the Government of Tajikistan
CSJC	Closed stock joint company
DRR	Disaster Risk Reduction
DRS	Districts of Republican Subordination
EMP	Environmental Management Plan
GBAO	Gorno-Badakhshan Autonomous Oblast
Hydromet	State Agency for Hydrometeorology
JPRBC	Joint Pyanj River Basin Commission
IEE	Initial Environmental Examination
LLC	Limited Liability Company
MLRWR	Ministry of Land Reclamation and Water Resources
MEWR	Ministry of Energy and Water Resources
O&M	Operation and maintenance
OSJC	Open stock joint company
PIG	Project Implementation group
PIC	Project Implementation company
PPE	Personal Protective Equipment
PRB	Pyanj River Basin
RBMP	River Basin Management Plan
RBO	River Basin Organizations
SAEMR	Semi-Annual Environmental Management Report
SPS	Safeguard Policy Statement
SSEMP	Site Specific Environmental Management Plan
TA	Technical Assistance
TJRM	Tajikistan Resident Mission of ADB
TSP	Total Suspended Particles
WMO	World Meteorology Organization
WRM	Water Resource Management

### Units

°C	degree Celsius
cm	centimeter
km	kilometer
km <sup>2</sup>	square kilometer
m	meter
m <sup>2</sup>	square meter
mg/m <sup>3</sup>	milligram per cubic meter
dB	decibel

## **1. INTRODUCTION**

### **1.1. Preamble**

1. This report is the Semi-annual environmental monitoring review of the “Water Resources Management in Pyanj River Basin Project (Additional Financing)” project.
2. This Third semi-annual report on environmental monitoring covers the period from January to June 2021 and presents the results of the monitoring of environmental safeguards implementation at construction sites.

### **1.2. Headline Information**

3. The report describes the status of project implementation activities carried out by the Project Implementation group with regard to environmental safeguard issues. During reporting period the construction works covered completion of main office and building auxiliary buildings, which were started on January 22, 2021.
4. The contractor on completion of construction of the Hydromet main office and building auxiliary buildings is the Joint venture LLC "KHURAMSHHR-2015" and JSC INSHAAT.
5. Contractor for the construction of Multifunctional buildings was not selected yet. The tender is scheduled for the end of the year.

## 2. PROJECT DESCRIPTION AND CURRENT ACTIVITIES

### 2.1. PROJECT DESCRIPTION

6. Tajikistan is a country highly prone to climate-related extreme weather events, notably flooding, which has caused roughly 80% of disaster mortalities in the country in the period 1990-2016.<sup>1</sup> Climate change is expected to exacerbate these adverse events and their impacts. Higher temperatures and changes in precipitation patterns are expected to cause earlier and faster snowmelt and recession of glaciers and a decline in overall water availability. Water stress conditions are likely to become more common, and flooding and landslides are likely to become more frequent and damaging.<sup>2</sup> Climate vulnerability is particularly acute in the districts along the PRB, the primary tributary to the Amu River in the south of the country, which are among the country's poorest and comprise a wide range of geographical and climatic conditions. The PRB is also vulnerable to climate change. Gradual shift in the river flow seasonal distribution and increase of crop water deliveries requirements in irrigation systems are predicted as climate change impacts.

7. However, insufficient availability of hydrometeorological information<sup>3</sup> and accurate and timely warnings of severe weather and flood<sup>4</sup> is a limiting factor to water resources management in Tajikistan, as well as disaster risk reduction (DRR) and climate resilience more broadly. The responsible agency, the State Agency for Hydrometeorology (Hydromet) has limited forecasting capacity, suffers from poor building infrastructure, a degraded monitoring network, poor staff retention, and insufficient operation and maintenance (O&M) budget.

8. For efficient WRM, increase of food security, and reduction of poverty in the PRB, the project will adopt a comprehensive approach to implement appropriate measures at (i) overall basin level; (ii) water supplier level; and (iii) water user level. Additional financing will expand the scope of the original project by supporting Hydromet's development to a sustainable and well-resourced national institution that produces timely and accurate forecasting and warning services. In doing so, the project will address key underlying institutional weaknesses, and thereby develop a strong foundation upon Hydromet may continue to develop.

9. At overall basin level, the project will support the country's ongoing water sector reform. Some required actions to reform water sector have been undertaken by the Government. The Ministry of Land Reclamation and Water Resources (MLRWR) was abolished in November 2013 and its responsibilities were reassigned to the newly formed Ministry of Energy and Water Resources (MEWR) for the policy and regulations on water resources management (WRM); and to the Agency of Land Reclamation and Irrigation (ALRI), for development and management of

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<sup>1</sup> The OFDA/CRED. International Disaster Database. [http://emdat.be/emdat\\_db/](http://emdat.be/emdat_db/).

<sup>2</sup> Punkari et al. 2014. Climate Change and Sustainable Water Management in Central Asia. ADB Central and West Asia Working Paper Series No. 5. Asian Development Bank. Manila.

<sup>3</sup> ADB. 2014. *Technical Assistance to the Republic of Tajikistan for Building Capacity for Climate Resilience. Manila (TA 8090-TAJ)*. — *Climate and Impact Modeling Advisory Group. Climate Change and Impact Modeling Experts' Report*; World Bank. 2009. *Improving weather, climate and hydrological services delivery in Central Asia*. [https://www.gfdr.org/sites/gfdr.org/files/Improving\\_Weather\\_Climate\\_HydrologyDelivery\\_CentralAsia.pdf](https://www.gfdr.org/sites/gfdr.org/files/Improving_Weather_Climate_HydrologyDelivery_CentralAsia.pdf).

<sup>4</sup> ADB, 2016. *Tajikistan: Agency of Hydrometeorology Transformation – institutional restructuring scenarios report. Consultant's Report*. Manila

WRM infrastructure. Further reforms include (i) the change from administrative to hydrological areas; and (ii) the establishment of (a) river basin management plans (RBMPs) to clarify and monitor water allocations, and (b) water governance institutions such as river basin organizations (RBOs) and river basin councils, in line with principles of integrated WRM. The project will implement reforms in the PRB as highlighted in items (i) and (ii).<sup>5</sup>

10. Given that more than 40% of the PRB covers the territory of Afghanistan and serious flood disasters occurred frequently, both governments of Afghanistan and Tajikistan signed a bilateral agreement for joint hydrological monitoring of Pyanj River in 2010. A road map to establish a joint PRB commission (JPRBC) was drafted in 2013 with ADB's assistance to implement the bilateral agreement. The project will also support required activities to implement the road map through a capacity development delegated technical assistance (TA).

11. The additional financing will comprise four components, which will expand the of two of the original project's outputs.

12. The project will support the modernization of the new Hydromet headquarters operations center including main office building, ancillary buildings, and two mixed- use buildings.

13. Location of the project in Dushanbe is shown in Figure 1 below.



**Figure 1: Location of project area**

14. The construction site is located in Sino district of Dushanbe city.

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<sup>5</sup> MEWR. 2015. Water Sector Reforms Programme for 2016-2025. Dushanbe



**Figure 2: Administration map of Dushanbe city and location of the project (red star)**

15. The project will support legal and organizational transformation into a government entity with increased flexibility to seek and retain additional entrepreneurial income to supplement core government support.

16. The modernization of the Hydromet operations center and legal transformation underpins the project's contribution to the World Meteorological Organization (WMO) Strategy for Service Delivery and Global Framework for Climate Services pillars and achievement of the project objective of a sustainable and well-resourced Hydromet.

17. The project will support capacity building to improve forecasting and warning of extreme weather events. The project will develop Hydromet's capacity for flood forecasting and local flood alerts to support improvements in the water resources management and disaster risk reduction in the PRB area. The project will provide flood awareness and preparedness training for local stakeholders. The project will develop and implement of a viable business model for the marketing and sale of fee-based services. A system and platform for the sale of information and forecasting products will be developed, and at least one new weather information product will be marketed among key stakeholders in the PRB to support agricultural production and water resource

management.

18. The original and additional financing project is categorized B for environment. ALRI and Hydromet shall ensure that the design, construction, operation and maintenance of project's facilities to be financed under output 2 are carried out in accordance with ADB's Safeguard Policy Statement (SPS, 2009), the applicable laws and regulations in Tajikistan, and the initial environmental examination (IEE) and its environmental management plan (EMP).

## **2.2. Project contracts and management**

19. A new Project Implementation Group have been established in Hydromet (PIG) at December 27, 2018, which is responsible for (i) implementing project activities in accordance with the project design; (ii) coordinating activities between EAs, stakeholders, and other agencies concerned; (iii) ensuring compliance with environmental and social safeguard requirements; (iv) maintaining appropriate accounts, including reports on withdrawal applications and disbursement; (v) carrying out recruitment of consulting services and procurement activities; (vi) developing asset management and O&M plan to comply with the grant covenant; (vii) monitor, evaluate and report on project progress, and disseminate project progress (e.g., planned and completed project activities including procurement) through Hydromet's or Project's website; and (viii) preparing quarterly progress and other reports in format acceptable to ADB. The PIG and project implementation consultants will be primarily based in the current Hydromet building and are expected to use the offices recently renovated under the ongoing ADB technical assistance (TA8090-TAJ). During implementation, the project will explore cost- or staff-sharing arrangements with the PIG for the ongoing World Bank project in Hydromet subject to ADB approval.

20. Board of Directors for Hydromet. The transformed Hydromet will have a board of directors with composition and responsibilities appropriate to its new legal form and structure. The board is expected to provide oversight and guidance to Hydromet management on strategy and policy. In line with the format of the board: (i) the director of Hydromet will represent Hydromet management as the secretary of the board of directors; (ii) Asian Development Bank will have observer status on the board of directors: such status will allow a previously-agreed designated representative to participate in board meetings and review board meeting minutes, without voting or other decision-making rights; and (iii) World Bank will be invited to join under observer status, and other donor agencies may likewise be invited. The board of directors will meet upon request, and in any event not less that annually, with meeting minutes recorded and published on the Hydromet website. The board of directors may comprise five (5) to seven (7) members chaired by the Deputy Prime Minister, made up of a subset of members of the Project Steering Committee. Additional representatives, such as from Tojik Telekom and Barqi Tojik may be invited to join the board to reflect the range of stakeholders of Hydromet services.

21. The contract between PIG and Project Implementation Consultant– international company FCG Group jointly with ARPA Consulting LLC was concluded on 5 June 2019 for period of 45 moth (till March 2023)..

22. During reporting period the tender for construction works to completion of main office and

building auxiliary buildings was conducted at November 19, 2020 and the construction firms were picked out. The contract on completion of construction of the Hydromet main office and building auxiliary buildings was concluded with Joint venture LLC "KHURAMSHAHR-2015" and JSC INSHAAT at December 22, 2020 for duration of 12 month.

23. Summary of civil works contracts and works' progress is summarized in Table 1. All awarded contracts included EMPs cleared by ADB and any conditions of applicable national EIA/IEE clearance.

24. The initial environmental examination report covering entire scope of the project was submitted by Hydromet agency to the State Ecological expertise (SEE) of the Committee for Environmental Protection, which issued "environmental appraisal" on 4 September 2020 (Registration No. 1203/15).

## Water Resources Management in Pyanj River Basin Project (Additional Financing)

**Table 1: Summary of Civil Works Contracts and works' progress**

Package /Lot	Scope	Contractor	Signed	Approval Date			Environmental personnel		Civil Work		Progress as of	
				SSEMP	COVID-19 HSMP	ERP	Environmental officer	Health and Safety officer	Start	End	31 Dec 2020	30 Jun 2021
1	Construction of the Hydromet main office and building auxiliary buildings	Joint venture LLC "KHURAMSHAH R-2015" and JSC INSHAAT	Dec 22, 2020	Jan 22, 2021	Jan 22, 2021	Jan 22, 2021	Khakika Surieva	Khakrizo Saidov	Jan 22, 2021	Dec 22, 2021	0%	65%
2	Construction of Multifunctional buildings	Not yet mobilized	expected Q3 2021	n/a-	n/a-	n/a-	n/a-	n/a-	expected Q3 2021	Q3 2023	0%-	0%

Note: The Month/Years in brackets are planned schedule.

COVID-19 HSMP = COVID-19 Health and Safety Management Plan, ERP = Emergency Response Plan, SSEMP = site-specific environmental management plan

### **2.2.1. Project environmental management**

25. The Project Implementation group under Hydromet hired Environmental Specialist Mr. Sharifjon Rajabov on 20 April 2020.

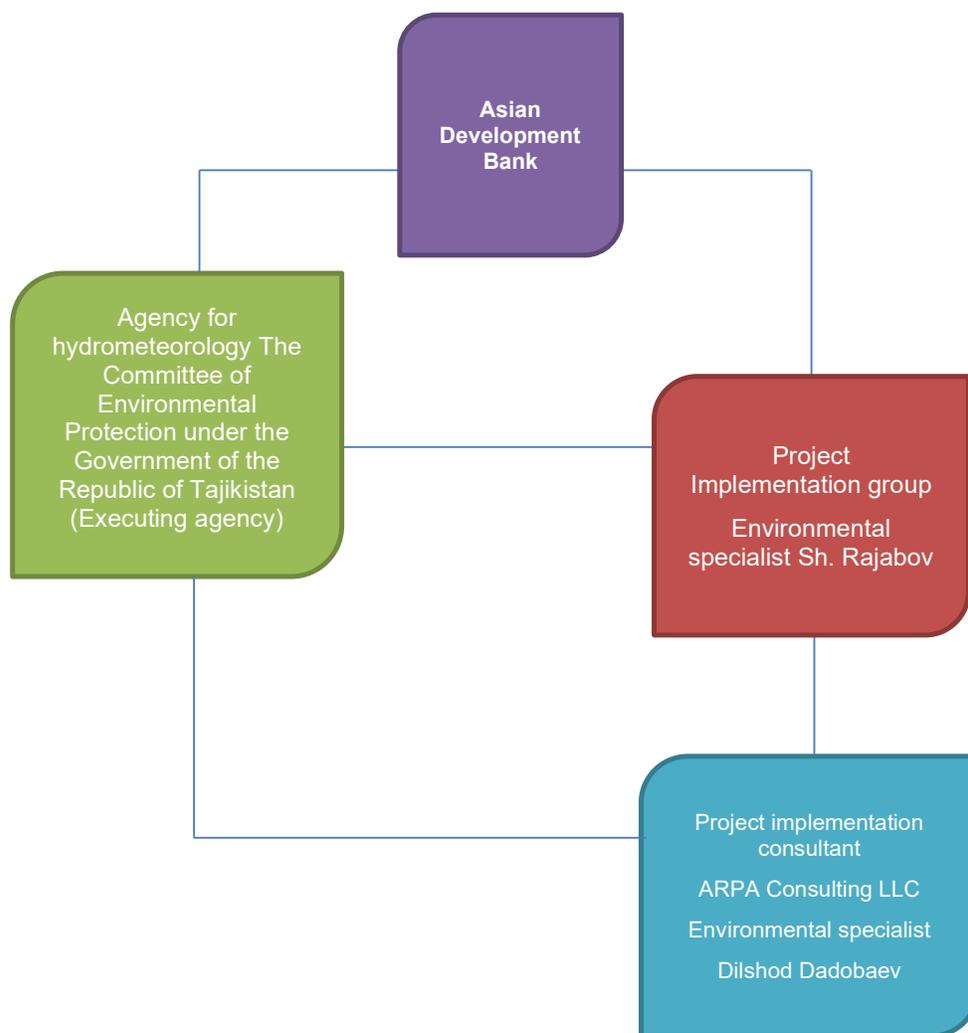
26. The main responsibilities of PIG Environmental specialist includes following<sup>6</sup>: (i) Ensure that EMP will be updated during detailed design completed; (ii) Review and updated IEE as required; (iii) Ensure that bidding documents include all requirement to implement IEE and its EMP; (iv) Ensure that the bidder selected will have adequate resources to implement and update EMP; (v) Undertake environmental safeguards monitoring activities and prepare environmental safeguard reports to be submitted to ADB; and (vi) Ensure that the any works are implemented in accordance with ADB SPS 2009 as well as the government law and regulation related to environment

27. The PIG is supported by the international company FCG Group jointly with ARPA Consulting LLC team which includes one National environmental consultant – Dilshod Dadobaev. The project does not provide for the hire International Environmental Consultant.

28. Project Organization Structure and environmental team are shown in the Figure 3 below.

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<sup>6</sup> Project Administration manual, Water resources Management in Pyanj river basin project, 2019



**Figure 3: Project organizational structure and environmental management**

### 2.3. Construction activities and project progress in reporting period

29. Construction works started in January 22, 2021 31 and has been completed at 60% by the end of June 2021. The Table 8 below presents detailed information on implemented construction activities.

**Table 2: Construction activities conducted**

No.	Description	Unit	Quantity
<b>Section 1. Construction works</b>			
1	Development of soil with loading onto dump trucks by excavators with a bucket a capacity of 1,25(1,25-1,5) m3, soil group 2	1000 m <sup>3</sup>	0,0625
2	Manual soil extraction	100 m <sup>3</sup>	0,0437

No.	Description	Unit	Quantity
3	Construction of reinforced concrete walls up to 3 m tall, thickness up to 300 mm /M-250 Concrete	100 m <sup>3</sup>	0,0188
4	Dismantling of monolithic concrete walls in the basement for the doorway	1 m <sup>3</sup>	0,33
5	Dismantling of brick partitions δ = 120mm	1 m <sup>3</sup>	6,075
6	Construction waste clean-up	100 m <sup>3</sup>	0,02
7	Masonry of walls made of gas blocks without facing on glue: with a floor height of up to 4 m	1 m <sup>3</sup> of masonry	2,0
8	Masonry brick interior	1 m <sup>3</sup> of masonry	3,3
9	Construction waste clean-up	100 m <sup>3</sup>	0,1245
10	Plastering surfaces with cement-lime or cement mortar on stone and concrete: improved walls	100 m <sup>2</sup>	6,3
11	Filling of reinforced concrete window openings up to 3m high, thick up to 300mm, Concrete M-250	100 m <sup>3</sup>	0,056
<b>Section 2. Dismantling of sanitary units</b>			
12	Dismantling of pipelines from water and gas pipes for welding with a diameter of up to 100 mm in buildings and structures	100m	0,6
13	Dismantling of pipelines from water and gas pipes with a thread up to 32mm in diameter in buildings and structures	100m	0,6
<b>Section 3. First floor of the main building</b>			
14	Dismantling of stained-glass windows	100m <sup>2</sup>	0,0364
15	Dismantling drywall partitions	100 m <sup>2</sup>	0,50
16	Dismantling of floor coverings in buildings and structures from tiles laid on mortar	100m <sup>2</sup> of coverings	0,76
17	Dismantling the glazed tile wall cladding	100m <sup>2</sup>	0,736
18	Dismantling of suspended plasterboard ceilings	100m <sup>2</sup>	1,27
19	Dismantling of brick partitions δ = 120mm	1 m <sup>3</sup>	3,8
20	Disassembly: foam block walls	1 m <sup>3</sup>	12,6
21	Masonry of walls made of gas blocks without facing on glue: with a floor height of up to 4 m	1 m <sup>3</sup> of masonry	12,6
22	Masonry partitions	100 m <sup>2</sup> of covering	0,09
23	Dismantling of plastic window blocks	100 m <sup>2</sup> of openings	0,319
24	Dismantling of wooden fillings of openings: door	100 m <sup>2</sup>	0,045
25	Plastering surfaces with cement-lime or cement mortar on stone and concrete: improved walls	100 m <sup>2</sup>	1,125
26	Passenger lifts with a car speed of up to 1 m / s with a carrying capacity of 630 kg, the number of stops is 12, the height of the shaft is 44 m	lift	1
27	Construction of concrete staircase walls /Class B15 concrete	100 m <sup>3</sup> of concrete, rubble concrete and reinforced concrete in use	0,00625
<b>Section 4. Plumbing and sewerage</b>			
28	Dismantling bowls with a high-positioned cistern	10 sets	0,2
29	Dismantling of sinks (washbasins)	100 sets	0,01

## Water Resources Management in Pyanj River Basin Project (Additional Financing)

No.	Description	Unit	Quantity
30	Dismantling of internal cast iron sewer pipes with a diameter of 100mm	100m	0,02
<b>Section 5. Heating and Ventilation</b>			
31	Dismantling of pipelines from water and gas pipes with a thread up to 32mm in diameter in buildings and structures	100m	0,6
32	Dismantling of air ducts made of sheet steel up to 0.9 mm thick and 100 mm in diameter	100 m <sup>2</sup>	0,0157
<b>Section 6. Electric installation work</b>			
33	Dismantling of hidden wiring	100m	0,5
<b>Section 7. Air conditioning</b>			
34	Dismantling of ACs	10 pieces	0,3
<b>Section 8. Second floor of the main building</b>			
35	Dismantling of stained-glass windows	100m <sup>2</sup>	0,0364
36	Dismantling slab suspended ceilings: Armstrong	100 m <sup>2</sup>	0,5343
37	Dismantling of wooden fillings of openings: door	100 m <sup>2</sup>	0,1512
38	Dismantling of laminate flooring	100 m <sup>2</sup> of coverings	0,745
39	Dismantling of floor coverings in buildings and structures from tiles laid on mortar	100 m <sup>2</sup> of coverings	0,77
40	Dismantling the glazed tile wall cladding	100m <sup>2</sup>	0,4186
41	Dismantling of MDF wall cladding	100m <sup>2</sup>	0,80
42	Masonry partitions	100 m <sup>2</sup> of covering	0,0783
43	Disassembly: foam block walls	1 m <sup>3</sup>	15,92
44	Masonry of walls made of gas blocks without facing on glue: with a floor height of up to 4 m	1 m <sup>3</sup> of masonry	15,93
45	Dismantling of plastic window blocks	100 m <sup>2</sup> of openings	0,324
46	Plastering surfaces with cement-lime or cement mortar on stone and concrete: improved walls	100 m <sup>2</sup>	0,775
<b>Section 9. Plumbing and sewerage</b>			
47	Dismantling bowls with a high-positioned cistern	10 sets	0,5
48	Dismantling of sinks (washbasins)	10 sets	0,02
49	Dismantling of internal cast iron sewer pipes with a diameter of 100mm	100m	0,03
<b>Section 10. Heating and ventilation</b>			
50	Dismantling of pipelines from water and gas pipes with a thread up to 32mm in diameter in buildings and structures	100m	0,3
51	Dismantling of radiators weighing 80kg	100 pc	0,02
52	Dismantling of air ducts made of sheet steel up to 0.9 mm thick and 100 mm in diameter	100 m <sup>2</sup>	0,0157
<b>Section 11. Electric Installation works</b>			
53	Dismantling of hidden wiring	100m	1,5

No.	Description	Unit	Quantity
<b>Section 12. Air Conditioning</b>			
54	Dismantling of ACs	10 pieces	0,4
55	Construction waste clean-up	100 m <sup>3</sup>	0,15
<b>Section 13. Third floor of the main building</b>			
56	Dismantling of stained glass	100m <sup>2</sup>	0,0364
57	Dismantling slab suspended ceilings: Armstrong	100 m <sup>2</sup>	0,7670
57	Dismantling of wooden fillings of openings: door	100 m <sup>2</sup>	0,1512
58	Dismantling of floor coverings in buildings and structures from tiles laid on mortar	100 m <sup>2</sup> of coverings	0,9405
59	Dismantling the glazed tile wall cladding	100m <sup>2</sup>	0,4186
60	Dismantling of MDF wall cladding	100m <sup>2</sup>	0,72
61	Disassembly: foam block walls	1 m <sup>3</sup>	15,94
62	Dismantling of plastic window blocks	100 m <sup>2</sup> of openings	0,3375
63	Plastering surfaces with cement-lime or cement mortar on stone and concrete: improved walls	100 m <sup>2</sup>	0,775
<b>Section 14. Plumbing and Sewerage</b>			
64	Dismantling bowls with a high-positioned cistern	10 sets	0,25
65	Dismantling of internal cast iron sewer pipes with a diameter of 100mm	100m	0,03
<b>Section 15. Heating and Ventilation</b>			
66	Dismantling of pipelines from water and gas pipes with a thread up to 32mm in diameter in buildings and structures	100m	0,1
67	Dismantling of air ducts made of sheet steel up to 0.9 mm thick and 100 mm in diameter	100 m <sup>2</sup>	0,0157
<b>Section 16. Electric Installation works</b>			
68	Dismantling of hidden wiring	100m	1,10
<b>Section 17. Air Conditioning</b>			
69	Dismantling of ACs	10pieces	0,3
70	Construction waste clean-up	100 m <sup>3</sup>	0,10
<b>Section 18 Fourth floor of the main building</b>			
71	Dismantling of stained glass	100m <sup>2</sup>	0,0364
72	Dismantling slab suspended ceilings: Armstrong	100 m <sup>2</sup>	0,7677
73	Dismantling of suspended plasterboard ceilings	100m <sup>2</sup>	1,835
74	Dismantling of floor coverings in buildings and structures from tiles laid on mortar	100 m <sup>2</sup> of coverings	0,9405
75	Dismantling the glazed tile wall cladding	100m <sup>2</sup>	0,4186
76	Dismantling of MDF wall cladding	100m <sup>2</sup>	0,71
77	Disassembly: foam block walls	1 m <sup>3</sup>	15,92
78	Masonry of walls made of gas blocks without facing on glue: with a floor height of up to 4 m	1 m <sup>3</sup> of masonry	16,28
79	Plastering surfaces with cement-lime or cement mortar on stone and concrete: improved walls	100 m <sup>2</sup>	0,775
<b>Section 19. Plumbing and Sewerage</b>			
80	Dismantling of bowls with a high-positioned cistern	10 sets	0,5
81	Dismantling of sinks (washbasins)	100 sets	0,02

## Water Resources Management in Pyanj River Basin Project (Additional Financing)

No.	Description	Unit	Quantity
82	Dismantling of internal cast iron sewer pipes with a diameter of 100mm	100m	0,06
<b>Section 20. Heating and ventilation</b>			
83	Dismantling of pipelines from water and gas pipes with a thread up to 32mm in diameter in buildings and structures	100m	0,1
84	Dismantling of air ducts made of sheet steel up to 0.9 mm thick and 100 mm in diameter	100 m <sup>2</sup>	0,0314
<b>Section 21. Electric Installation Works</b>			
87	Dismantling of hidden wiring	100m	1,25
<b>Section 22. Air Conditioning</b>			
88	Dismantling of ACs	10 pieces	0,3
89	Construction waste clean-up	100 m <sup>3</sup>	0,25
<b>Section 23. Fifth floor of the main building</b>			
90	Dismantling of stained glass	100m <sup>2</sup>	0,0364
91	Dismantling slab suspended ceilings: Armstrong	100 m <sup>2</sup>	0,7677
92	Dismantling of suspended plasterboard ceilings	100m <sup>2</sup>	1,835
93	Dismantling of plastic window blocks	100 m <sup>2</sup> of openings	0,324
94	Dismantling of floor coverings in buildings and structures from tiles laid on mortar	100 m <sup>2</sup> покрытия/100 m <sup>2</sup> of coverings	0,9405
95	Dismantling of laminate flooring	100 m <sup>2</sup> of coverings	0,33
96	Dismantling the glazed tile wall cladding	100m <sup>2</sup>	0,4186
97	Dismantling of MDF wall cladding	100m <sup>2</sup>	0,71
98	Disassembly: foam block walls	1 m <sup>3</sup>	15,92
99	Masonry of walls made of gas blocks without facing on glue: with a floor height of up to 4 m	1 m <sup>3</sup> of masonry	16,28
100	Masonry partitions	100 m <sup>2</sup> of covering	0,24
101	Plastering surfaces with cement-lime or cement mortar on stone and concrete: improved walls	100 m <sup>2</sup>	0,775
<b>Section 24. Plumbing and sewerage</b>			
102	Dismantling of pipelines from water and gas pipes with a diameter of 15, 20, 25 mm	100m	0,1
103	Dismantling of internal cast iron sewer pipes with a diameter of 100mm	100m	0,06
<b>Раздел 25. Отопление и вентиляция/Section 25. Heating and Ventilation</b>			
104	Dismantling of pipelines from water and gas pipes with a thread up to 32mm in diameter in buildings and structures	100m	0,1
105	Dismantling of air ducts made of sheet steel up to 0.9 mm thick and 100 mm in diameter	100 m <sup>2</sup>	0,0157
<b>Section 26. Electric Installation Works</b>			
106	Dismantling of hidden wiring	100m	1,25
<b>Section 28. Sixth floor of the main building</b>			
107	Dismantling of stained glass	100m <sup>2</sup>	0,0325

No.	Description	Unit	Quantity
108	Dismantling slab suspended ceilings: Armstrong	100 m <sup>2</sup>	0,7676
109	Dismantling of suspended plasterboard ceilings	100m <sup>2</sup>	1,835
110	Dismantling of plastic window blocks	100 m <sup>2</sup> of openings	0,216
111	Dismantling of floor coverings in buildings and structures from tiles laid on mortar	100 m <sup>2</sup> of coverings	0,975
112	Dismantling the glazed tile wall cladding	100m <sup>2</sup>	0,281
113	Dismantling of MDF wall cladding	100m <sup>2</sup>	0,71
114	Dismantling of brick partitions t-120mm	1m <sup>3</sup>	3,0
115	Разборка: стен из Пено блока/Disassembly: foam block walls	1 m <sup>3</sup>	17,415
116	/Masonry of walls made of gas blocks without facing on glue: with a floor height of up to 4 m	1 m <sup>3</sup> of masonry	17,00
117	Plastering surfaces with cement-lime or cement mortar on stone and concrete: improved walls	100 m <sup>2</sup>	0,88
118	Masonry partitions	100 m <sup>2</sup> of covering	0,445
<b>Section 29. Plumbing and Sewerage</b>			
119	Dismantling of pipelines from water and gas pipes with a diameter of 15, 20, 25 mm	100m	0,1
120	Dismantling of internal cast iron sewer pipes with a diameter of 100mm	100m	0,03
<b>Section 30. Heating and ventilation</b>			
121	Dismantling of air ducts made of sheet steel up to 0.9 mm thick and 100 mm in diameter	100 m <sup>2</sup>	0,0157
<b>Section 31. Electric Installation Works</b>			
122	Dismantling of hidden wiring	100m	2,5
<b>Section 32. Air Conditioning</b>			
123	Construction waste clean-up	100 m <sup>3</sup>	0,125
<b>Section 33. Roof of the main building</b>			
124	Dismantling of roofing from roll materials	100m <sup>2</sup>	3,0589
125	Installation of cement sand leveling screeds 15 mm thick	100m <sup>2</sup>	3,0589
126	Installation of cement sand leveling screeds 15 mm thick	100m <sup>2</sup>	3,0589
127	Installation of flat roofs made of deposited materials: in one layer	100 m <sup>2</sup> of roofing	3,0589
128	Installation of flat roofs made of deposited materials: in two layers	100 m <sup>2</sup> of roofing	3,0589
129	Installation of flat roofs made of deposited materials: in one layer	100 m <sup>2</sup> of roofing	0,705
130	Installation of gutter funnels	1 funnel	1
131	Construction waste clean-up	100 m <sup>3</sup>	0,1527
<b>Section 36. Landscaping of the territory</b>			
132	Dismantling of supports of overhead lines 0.38-10 kV without attachments: single-column	1 support	1,5
133	Dismantling of wall panels	100 pieces. prefabricated structures	0,895
134	Dismantling of metal fences	100m	0,26

No.	Description	Unit	Quantity
135	Dismantling the walls of structures with a hydraulic hammer based on an excavator	1 m <sup>3</sup>	61,2

30. Photos below shows of rehabilitation works and implementation of SSEMP



**Photo 1: Dismantling works in main office of Agency of Hydrometeorology, 15.04.2021**



**Photo 2: Construction works on Laboratory building, some workers not wear PPE, 25.05.2021**



**Photo 3: Some waste observed in the site, 15.04.2021**



**Photo 4: Construction works on Auditorium and Information center, 25.05.2021**

## 2.4. Changes in project design

31. No changes in project design were done within reporting period

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

32. No changes construction methods were done in the reporting period.

### 3. ENVIRONMENTAL MANAGEMENT

#### 3.1. General Description of Environmental Safeguard Activities

33. The Project implementation group (PIG) in conjunction with Project implementation company (PIC) are responsible to carry out day-to-day management of project execution. The PIG and PIC includes an Environmental and Social Safety specialist and Environmental and Social Safety Consultant who executed management of all environmental and social aspects of the project.

34. Environmental Safeguards team will conduct regular supervising of the construction works regarding implementation of environmental safeguards requirements and, in particular, for supervising and reporting on the Contractor’s performance in the implementation of the EMP/SSEMP.

35. The PIG submitted updated IEE to State Ecological expertise of the Committee for environmental protection under Government of Tajikistan (CEP) for getting their positive conclusion (clearance). The conclusion is attached in *Annex 1* of the report.

36. Activities carried out by national consultant during the monitoring period is provided in Table 5 below.

37. The updated IEE states (September 2020)<sup>7</sup> states “*The Construction Supervision Consultant team will include a national and international Environmental Specialists to ensure that the Contractor is compliant with his environmental obligations.*” The Project Administration Manual (August 2020)<sup>8</sup> also states “*The National and International Environmental Specialists of the implementation consultant will supervise functioning of the project’s Environmental Management System including implementation of the EMP. The National and International Environmental Specialists of the implementation consultants will also be responsible for preparation of the semi-annual environmental monitoring reports and inputs into quarterly progress reports that will be submitted to ADB.*”. However, no International environmental specialist was hired by CSC.

**Table 3: Environmental Safeguards Activities Carried out During Reporting Period (January- June 2021)**

<b>Environmental Safeguard Activities</b>
<p><b>The national environmental expert (Dilshod Dadobaev) of Construction Supervision Consultant (Arpa consulting)</b></p> <ul style="list-style-type: none"> <li>- Site visits, to audit of implementation of SSEMP and EMP</li> <li>- Review of SSEMP.</li> <li>- Audit the corrective actions are implemented by the deadline.</li> <li>- Preparation of Semiannual Environmental Monitoring Report</li> </ul>

<sup>7</sup> [Water Resources Management in Pyanj River Basin \(Additional Financing\): Initial Environmental Examination | Asian Development Bank \(adb.org\)](#)

<sup>8</sup> [Water Resources Management in the Pyanj River Basin Project \(Second Additional Financing\): Project Administration Manual | Asian Development Bank \(adb.org\)](#)

### 3.2. Site inspections

38. The overall objective of the inspections is to ensure good environmental practice in project operations, and enable PAG to establish good governance and efficient environmental management of day to day activities. Site inspections and audits in the reporting period are shown in Table 4 below.

**Table 4: Site visits and audits in the reporting period**

No	Date	Object	Auditors	Purpose of Audit	Summary of any Findings
1	10.03.2021	Construction of the Hydromet main office and building auxiliary buildings	Dadobaev D. ARPA Consulting. Environmental Consultant	Monitoring of the fulfilment of the requirements of the SSEMP during construction works	<ul style="list-style-type: none"> <li>- Information board and warning signs should install in proper places!</li> <li>- Household and Hazardous Waste containers should be installed in proper place with relevant signs!</li> <li>- Site internally should be arranged properly and cleaned regularly. All construction materials should be properly segregated and stored adequately!</li> <li>- All workers should be provided with PPE immediately and control that PPE is wearing.</li> <li>- Site should be equipped with firefighting thinks immediately</li> <li>- Conclude agreements with municipal services for waste disposal,</li> <li>- Arrange medical point and equip with first aid kits immediately</li> </ul>
2	01.04.2021	Construction of the Hydromet main office and building auxiliary buildings	Dadobaev D. ARPA Consulting. Environmental Consultant	Monitoring of the fulfilment of the requirements of the SSEMP during construction works	<ul style="list-style-type: none"> <li>- All workers should be provided with PPE immediately and control that PPE is wearing.</li> <li>- Site should be equipped with firefighting thinks immediately</li> <li>- Conclude agreements with municipal services for waste disposal,</li> </ul>

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					- Arrange medical point and equip with first aid kits immediately
3	15.04.2021	Construction of the Hydromet main office and building auxiliary buildings	Dadobaev D. ARPA Consulting. Environmental Consultant	Monitoring of the fulfilment of the requirements of the SSEMP during construction works	- All workers should be provided with PPE immediately and control that PPE is wearing. - Site should be equipped with firefighting thinks immediately - Conclude agreements with municipal services for waste disposal, - Arrange medical point and equip with first aid kits immediately Non-compliance letter sent to contractor
4	21.05.2021	Construction of the Hydromet main office and building auxiliary buildings	Dadobaev D. ARPA Consulting. Environmental Consultant	Monitoring of the fulfilment of the requirements of the SSEMP during construction works	The implementation of EMP/SSEMPs and environmental safeguards can be considered as satisfactory
5	21.05.2021	Construction of the Hydromet main office and building auxiliary buildings	Dadobaev D. ARPA Consulting. Environmental Consultant	Monitoring of the fulfilment of the requirements of the SSEMP during construction works	The implementation of EMP/SSEMPs and environmental safeguards can be considered as satisfactory

39. Photos below illustrate some of Audit findings.



**Photo 5: Dismantling works in main office of Agency of Hydrometeorology, 15.04.2021**



**Photo 6: Information board installed, firefighting means in place, 25.05.2021**



**Photo 7: The site not fully equipped with Fire-fighting equipment, 15.04.2021**



**Photo 8: Firefighting things in place, corrective action was implemented. 21.05.2021**



**Photo 9: Construction waste observed, 21.05.2021**



**Photo 10: Complaint logbook in place, 25.05.2021**



**Photo 11: Not all workers use PPE, 15.04.2021**



**Photo 12: Not all workers use PPE in full set, 25.05.2021**

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

40. During the reporting period (1st January 2021 - 30th June 2021) the observed non-conformance issues have been recorded given below related to the safety and health. 6 non-conformances were observed and 5 of them have been fully closed, 1 of them – is partially closed. The status of corrective actions is shown in the Table 5 below.

**Table 5: Implementation Status of Corrective Actions**

#	Issue	Required Action	Responsibility	Timing (Target Dates)	Description of Resolution and Timing (Actual)	If not yet resolved, indicate the reason why and specify further required action and timeframe.
1	No Information board installed and warning signs are installed partially at sites where works are going on	Install Information board and warning signs in proper places	Contractor	15/04/2021	Done. Information board and warning signs installed, 21.05.2021	
2	Workers are not provided by PPE's and use it.	Make records in complaints log books on daily basis;	Contractor	15/04/2021	Partially done. Workers provided by PPE (21.05.2021), but not all of them use the full set of PPE	The checking of the PPE use by all workers will be done during the site visits 30.09.2021
3	The waste management is not fully meet the requirements: no collection point for household waste. There are no containers for the garbage. Construction waste could be observed in several places withing the site.	Clean the area of construction site, arrange containers for the waste, Conclude contract with municipal organization to waste disposal and ensure regular waste removal	Contractor	15/04/2021	Done. Contractor concluded agreement with municipal organization in April 2021, containers were arranged at construction site; construction waste were disposed at designated landfill in _____	The construction works on Lot 1 will be completed in December 2021. All construction waste to be generated within July-December 2021 should be disposed in December 2021. The inspection on this item will be conducted in December 2021
4	A fire-protection means are not in full set	Arrange full set of fire-protection means	Contractor	15/04/2021	Done. Fire-protection meant arranged	
5	There no means of prevention COVID-19	Arrange means of prevention COVID-19	Contractor	15/04/2021	Done COVID-19 prevention means arranged	
6	SSEMPs are not available in site office of Contractor	Ensure availability of full set of environmental documentation at construction site as equipment maintenance schedules, complaints log book and SSEMPs, training records at site office of Contractor	Contractor	15/04/2021	Done. Documentation available in construction site	

### **3.4 Trends**

41. As the construction works have been started in this reporting period no trends can be defined currently.

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

42. During the reporting period, COVID-19 is viewed as an unanticipated impact and risk to the community and workers. There were no major delays during the monitoring period due to the COVID-19 situation. No cases of COVID-19 among workers were reported during the monitoring period.

43. The Contractor developed Occupational Health and Safety Plan as part of its SSEMP which includes, inter alia, corresponding measures on prevention of the spread of COVID-19. The Contractor's SSEMP also includes Emergency Management Plan.

44. Contractors' personnel wear mask, gloves, helmets and working wear, but not all the time. SCS advised the Contractor to monitor its workers on wearing the full set of PPE.

## 4. RESULTS OF ENVIRONMENTAL MONITORING

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

45. During this period of January to June 2021, Contractor concluded contract with Centre for Analytical control of Committee of Environmental Protection under the Government of the Republic of Tajikistan. Contractor has conducted the site-specific instrumental measurement of air and noise levels. Environmental monitoring is overseen by the approved EMPs, IEEs and EIAs, environmental standards and other environmental commitments.

#### 4.1.1. Water quality monitoring

46. No instrumental measurements of water quality are foreseen for this Project. The Project does not impact water bodies as all works will be implemented at the relevant distance from water sources and inside the fenced area of rehabilitated institutions buildings, which are an existing infrastructure.

#### 4.1.2. Air quality monitoring

47. During this period, instrumental measurements were recorded at the three (3) sensitive areas of the construction sites. Monitoring results of Air quality in the Project impact zone are within the Tajikistan environmental standard.

**Table 6: Air quality measurement results**

Parameters		TSP	CO	NO <sub>x</sub>	NO	SO <sub>2</sub>	CH <sub>2</sub> OH	HCOH
<b>National Standard (MPC) mg/m<sup>3</sup></b>		0,15	5	0,085	0,04	0,05	0,003	0,003
<b>Side of the highway</b>	<b>Baseline values</b>	0,06	2,9	0,009	0,006	0,008	0,001	0,001
	<b>03/2021</b>	0,07	1,5	0,004	0,007	0,005	0,0006	0,0003
	<b>06/2021</b>	0,1	2,9	0,08	0,01	0,02	0,003	0,0009
<b>Side of the railroad</b>	<b>Baseline values</b>	0,05	2,8	0,007	0,005	0,009	0,001	0
	<b>03/2021</b>	0,02	1,2	0,005	0,006	0,001	0,0004	0,0001
	<b>06/221</b>	0,11	2,7	0,07	0,009	0,009	0,001	0,0008
<b>Near a residential building</b>	<b>Baseline values</b>	0,07	2,7	0,006	0,007	0,005	0,002	0,001
	<b>03/2021</b>	0,06	1,5	0,004	0,004	0,004	0,002	0,0002
	<b>06/2021</b>	0,11	2,8	0,06	0,008	0,009	0	0,001

48. The concentration of harmful substances in the ambient air at all points in the Project's area of influence is below the permissible limits (MPC). During the entire construction period, regular dust suppression was also carried out. There were no complaints from the population.

49. References, on the basis of which the work was carried out, and all calculations were

performed as per following:

- "Collection of methods for determining the concentrations of pollutants in industrial emissions", Leningrad, Gidrometioizdat, 1987.
- Instruction on the procedure for the preparation and conduct of state control of organized emissions of harmful substances into the atmosphere at industrial enterprises." Ministry of Environmental Protection of the Republic of Tajikistan, - Dushanbe - 1993.

50. The concentration of pollutants at the control points that characterize the impact of the object on the environment was carried out by the Express method of the gas analyzer "GANK-4".

#### 4.1.3. Noise monitoring

51. During this period, instrumental measurements were recorded at the three (3) sensitive areas of the construction sites. Monitoring results of noise level measurements in the Project impact zone are within the Tajikistan environmental standard.

**Table 7: Noise Measurement Results**

#	Location of Sampling	Noise standards in dB		Baseline values	Q1	Q2
		07:00-23:00	23:00-06:40			
1	Highway side	75	75	<b>56,2</b>	69,5	77,8
2	Railwayline side	75	75	<b>57,3</b>	63,0	73,5
3	Residential area	55	45	<b>50,6</b>	54,4	54,0

52. The noise level in the Project's area of influence in the period from April to June 2021 did not exceed acceptable standards. Work is carried out in a limited period of time – from 700 am to 2200 PM. No complaints were received from the population.

53. Noise measurements are carried out by the sound meter "TEST-815".

#### 4.1.4. Flora and fauna monitoring

54. Monitoring of fauna is not foreseen for this Project according to IEE/EMP. All works were implemented within the fenced area of project in Dushanbe city. All measures are being implemented within the facilities and building constructions of the institutions.

55. Regarding the permissions for cutting trees in the campus of Agency for Hydrometeorology, the Committee for Environmental Protection conducted audit of trees. The permit for cutting of 90 trees has been obtained from the Committee for Environmental Protection, and the relevant

statement has been drawn up. The trees were removed in March 2021 and delivered to the Road Maintenance service of the Sino district (Ministry of transport).

## 4.2 Summary of Monitoring Outcomes

56. Status of compliance with environmental safeguards related covenants in the Project's Grant Agreement signed between Republic of Tajikistan and ADB on 3 August 2018<sup>9</sup> is summarized in Table 8 below.

**Table 8: Grant Agreement Compliance Status**

Schedule	Paragraph	Covenant	Compliance Status
4	2 (a)	<u>Environment</u> The Recipient 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,	Complied, Ongoing All applicable laws and regulations of the Republic of Tajikistan is applied.
4	2 (b)	<u>Environment</u> The Recipient shall ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities comply with the Environmental Safeguards.	Complied, Ongoing
4	2 (c)	<u>Environment</u> The Recipient shall ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities comply with all measures and requirements set forth in the IEE, the EMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	Complied, Ongoing. Semiannual Environmental Monitoring Report has been prepared and disclosed at ADBs website regularly.
4	4	<u>Human and Financial Resources to Implement Safeguards Requirements</u> The Recipient shall make available necessary budgetary and human resources to fully implement the EMP.	<b>Not Complied.</b> Regardless of the requirements specified in the IEE and the PAM, no International environmental specialist was hired by CSC. (para. 37)

<sup>9</sup> ADB. Grant Agreement (Externally financed) for Water resources Management in Pyanj River Basin Project -Additional financing (3 Aug.2018). [https://www.adb.org/sites/default/files/project-documents/47181/47181-003-grj-en\\_0.pdf](https://www.adb.org/sites/default/files/project-documents/47181/47181-003-grj-en_0.pdf)

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Schedule	Paragraph	Covenant	Compliance Status
4	3	<p><u>Indigenous Peoples and Involuntary Resettlement</u></p> <p>The Recipient shall ensure that the Project does not have any indigenous peoples or involuntary resettlement impacts, all within the meaning of the BPS. In the event that the Project does have any such impact, the Recipient shall take all steps required to ensure that the Project complies with the applicable laws and regulations of the Recipient and with the SPS.</p>	<p>Complied</p> <p>No resettlement or indigenous peoples risks or impacts issues have been arisen during the implementation of the Project.</p>
4	5 (a)	<p><u>Safeguards – Related Provisions in Bidding Documents and Works Contracts</u></p> <p>The Recipient 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;;</p>	Complied, Ongoing.
4	5 (b)	<p><u>Safeguards – Related Provisions in Bidding Documents and Works Contracts</u></p> <p>The Recipient shall ensure that all bidding documents and contracts for Works contain provisions that require contractors to make available a budget for all such environmental and social measures</p>	<p>Complied.</p> <p>The recipient makes available the budget for environmental measures whenever required.</p>
4	5 (c)	<p><u>Safeguards – Related Provisions in Bidding Documents and Works Contracts</u></p> <p>The Recipient shall ensure that all bidding documents and contracts for Works contain provisions that require contractors to provide the Recipient with a written notice of any unanticipated environmental, resettlement or indigenous peoples risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the IEE and the EMP.</p>	Complied.

Schedule	Paragraph	Covenant	Compliance Status
5	14 (a)	<u>Safeguards Monitoring and Reporting</u> The Recipient shall submit semiannual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission;;	Complied. Semiannual Environmental Monitoring Report has been prepared and disclosed at ADBs website regularly. The previous SAEMR (July-Dec 2020) was disclosed at ADB web-site <sup>10</sup> and Hydromet agency website in Russian <sup>11</sup>
5	14 (b)	<u>Safeguards Monitoring and Reporting</u> The Recipient 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 proposed corrective action plan;	Being complied with To address unanticipated impact (COVID-19 pandemic), COVID-19 health and safety management plans were prepared by contractor and approved by the PIG and the supervision consultant.
5	14 (c)	<u>Safeguards Monitoring and Reporting</u> The Recipient shall report any actual or potential breach of compliance with the measures and requirements set forth in the EMP promptly after becoming aware of the breach..	Complied. During the project implementation period no actual or potential breach of that compliance with the measures and requirements set forth in the EMP has been observed.

57. Status of compliance with the Project EMP attached to the disclosed updated IEE is summarized in Table 9.

<sup>10</sup> <https://www.adb.org/projects/documents/taj-47181-003-emr-0>

<sup>11</sup> <http://www.meteo.tj/projects/proekt-upravlenie-vodnymi-resursami-v-bassejne-reki-pyandzh-dopolnitelnoe-finansirovanie/polugodovo-j-otcht-o-monitoringe-okruzhayuwe-j-sredy-yanvar-iyun-2020/> All affected people understand Russian language.

**Table 9: Implementation Status of EMP during the construction period (January-June 2021)**

Subject	EMP Requirement	Compliance Attained	Comment on Reasons for Partial or Non-Compliance	Required Action and Target Dates to Achieve Compliance
Notification and Worker Safety	The local construction and environment inspectorates and communities have been notified of upcoming activities	Yes		
	The public has been notified of the works through appropriate notification in the media and/or at publicly accessible sites (including the site of the works)	Yes		
	All legally required permits have been acquired for construction and/or rehabilitation	Yes		
	All work will be carried out in a safe and disciplined manner designed to minimize impacts on neighboring residents and environment.	Yes		
	Workers will comply with international good practice (always hardhats, as needed masks and safety glasses, harnesses and safety boots)	Partially Yes	Not all workers of Contractor wear the full set of PPE	HSE of Contractor has to check the regular wearing of PPE by all workers and provide the check-list to ES of CSC.  CSC to do inspections in September 2021.  Target date: 30.09.2021
	Appropriate signposting of the sites will inform workers of key rules and regulations to follow. <ul style="list-style-type: none"> <li>• Emergency Response Plan</li> <li>• Health and Safety Plan</li> <li>• COVID-19 pandemic management plan</li> </ul>	Yes		

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Subject	EMP Requirement	Compliance Attained	Comment on Reasons for Partial or Non-Compliance	Required Action and Target Dates to Achieve Compliance
Noise and Vibration	Construction works will be limited to restricted times agreed to in the permit	Yes		
	Timely public announcements of works	Yes		
	Providing the construction workers with suitable personal protective equipment	Yes		
Air quality, Dust, and emissions of Volatile Organic Compounds and thinners	Construction works will be limited to restricted times	Yes		
	Timely public announcements of works	Yes		
	Providing the construction workers with suitable personal protective equipment (respirators)	Yes		
	There will be no open burning of construction / waste material at the site	Yes		
	There will be no excessive idling of construction vehicles at sites	Yes		
	Keep surrounding environment (side-walks, roads) free of debris to minimize dust	Yes		
EA: construction waste	Timely disposal of construction waste	Yes		
	Dispose off waste appropriately to prevent pollution of soil and groundwater	Yes		
	Do not allow any burning or burying of waste on site.	Yes		
	Prevent littering by construction staff at work sites by providing bins or waste bags in sufficient locations	Yes		

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Subject	EMP Requirement	Compliance Attained	Comment on Reasons for Partial or Non-Compliance	Required Action and Target Dates to Achieve Compliance
	Aim to minimize waste through reducing and re-using (packaging) material.	Yes		
Asbestos containing materials (ACM)	ACM will not be used as a new material in construction works of new buildings.	Yes		
Toxic / hazardous waste management	Temporarily storage on site of all hazardous or toxic substances will be in safe containers labeled with details of composition, properties, and handling information	Yes		
	The containers of hazardous substances should be placed in a leak-proof container to prevent spillage and leaching	Yes		
	The wastes are transported by specially licensed carriers and disposed in a licensed facility.	Yes		
	Paints with toxic ingredients or solvents or lead-based paints will not be used	Yes		
Soil	The site will establish appropriate erosion and sediment control measures such as e.g. hay bales and / or silt fences to prevent sediment from moving off site and causing excessive turbidity in nearby streams	Yes		
Water Quality	The approach to handling sanitary wastes and wastewater from building sites (installation or reconstruction) must be approved by the local authorities	Yes		
	Before being discharged into receiving waters, effluents from individual wastewater systems must be treated in	Yes		

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Subject	EMP Requirement	Compliance Attained	Comment on Reasons for Partial or Non-Compliance	Required Action and Target Dates to Achieve Compliance
	order to meet the minimal quality criteria set out by national guidelines on effluent quality and wastewater treatment.			
	Monitoring of new wastewater systems (before/after) will be carried out	Yes		
Direct or indirect hazards to workers	Contractor its subcontractors shall provide full set of personal protective equipment (PPE) to each worker upon employment, train each worker on use prior to start of assigned task, regularly check conditions of the PPEs, and issue replacement if required. Contractor to maintain record of PPE issuance, trainings conducted, inventory, and replacement.	Yes		
	The PPEs shall conform with international accepted standards and specifications. Each worker/laborer/employee shall be provided with the following PPEs commensurate to the assigned tasks/activities:	Yes		
	Contractor shall not allow employee/worker/laborer to work on-site if PPEs are absent, incomplete or not in accordance with the approved Health and Safety Plan and without written instructions from the EHS supervisor.	Partially Yes	Not all workers of Contractor wear the full set of PPE	HSE of Contractor has to check the regular wearing of PPE by all workers and provide the check-list to ES of CSC. CSC to do inspections in September 2021. Target date: 30.09.2021
	The employee/worker/laborer have the right to refuse work if imminent danger situation exists in the workplace that may result to death or illness.	Yes		

## Water Resources Management in Pyanj River Basin Project (Additional Financing)

Subject	EMP Requirement	Compliance Attained	Comment on Reasons for Partial or Non-Compliance	Required Action and Target Dates to Achieve Compliance
Direct or indirect hazards to public traffic and pedestrians by construction activities	Signposting, warning signs, barriers and traffic diversions: site will be clearly visible and the public warned of all potential hazards	Yes		
	Traffic management system and staff training, especially for site access and near-site heavy traffic. Provision of safe passages and crossings for pedestrians where construction traffic interferes.	Yes		
	Adjustment of working hours to local traffic patterns, e.g. avoiding major transport activities during rush hours or times of livestock movement	Yes		
	Active traffic management by trained and visible staff at the site, if required for safe and convenient passage for the public.	Yes		
	Ensuring safe and continuous access to office facilities, shops and residences during renovation activities, if the buildings stay open for the public.	Yes		

#### 4.4. Material Resources Utilization

58. The tracking of resource utilization was started from the February of 2021. By the end of June 2020, the Contractor used in total 1,504 kW of electricity and 23,000 m<sup>3</sup> water for the construction needs.

#### 4.5. Waste management

59. Constructions works promote to generation of different type wastes starting from garbage, recycle waste, household waste and construction and demolition debris. Waste Management Plan was developed by Contractors and approved by PIG.

60. Construction waste are accumulated on construction site in special isolated areas divided by hazardous, domestic and construction waste. Construction Company signed contracts with the companies for waste removal. The waste is being removed from construction by authorized personnel only in accordance with the safety regulations and disposed at Chorbog landfill (Northern part of Dushanbe, landfill for the construction waste). The quantity of generated waste is presented in Table 10.

**Table 10: Waste generation in the reporting period**

No	Name	Unit	Number
1	Removal of construction waste in January 2021	tons	102,080
2	Removal of construction waste in February 2021	tons	463,961
3	Removal of construction waste in March 2021	tons	21,600
4	Removal of construction waste in April, 2021	tons	184,945
5	Removal of construction waste in May 2021	tons	367,224
6	Removal of construction waste in June 2021	tons	178,509
	Total	tons	1,318,319

61. Concrete debris generated during demolition works, as far as possible have been reused by the construction firm as filling material. Monitoring of waste management issues is being carried out by contractor environmental specialist and by environmental specialists of PIG.

##### 4.5.1. ACM waste

62. No any ACM have been generated in the reporting period .

#### 4.6. Health and Safety

63. The Contractor took all precautions at all construction sites for health and safety of the workers and the people of the surroundings in accordance to the Health and Safety Plan submitted

by the Contractor and approved by the PIG. Health and Safety measures were continuously applied at all construction sites by the health and safety managers of the Contractor and checked by the Environmental and social safeguards staff of the PIG.

#### **4.6.1. Community health and safety**

64. The territories of all sites were fenced, appropriate information and warning signs are installed. During reporting period no incidents occurred, including the traffic accidents.

#### **4.6.2. Workers health and safety**

65. During the site visits it was observed that all workers provided with PPE but some of them didn't wear. No accidents, incidents and any injuries have been recorded during the period.

66. The medical room is arranged and equipped by bed, blood pressure measuring device, first aid kits. Medical staff is hired.

67. Contractor has taken prevention measures according to the Government of Tajikistan and WHO COVID 19 Pandemic Prevention recommendations.

68. Contractor's workers and staff were provided with specific PPEs and means for job specific and COVID-19 prevention. All mechanisms and tools (set of hand tools etc.) which were used by workers during reporting period were inspected and safe, in addition tools and mechanisms were periodically treated by disinfectant and alcohol.

69. No incidents/accidents, COVID-19 infection cases occurred during the reporting period and during the whole project implementation.

#### **4.7. Training**

70. Due to the COVID-19 pandemic regular trainings organized by PAG with Contractors and Contractor staff were restricted. COVID-19 infection risks instruction on issues of disease prevention methods were provided to workers of Contractor.

#### **4.8. GRM functioning**

71. Complaints log book are available at site and district authority building. No complaints received within January-June 2021 from the local residents.

## 5. FUNCTIONING OF THE SSEMP

72. The contract for completion of construction of the Hydromet main office and building auxiliary buildings was awarded to Joint venture LLC "KHURAMSHAHR-2015" and JSC INSHAAT in December 22, 2020.

73. The contractor submitted initial version of the SSEMP in January 15, 2021. The SSEMP was finally approved by the PIG in January 22, 2021 before the commencement of civil works.

74. No any civil works were commenced before the approval of SSEMP of Contractor by PIG.

**Table 11: Status of SSEMPs for reporting period from January to June 2021**

Management Plan	Status	Note
<b>Joint venture LLC "KHURAMSHAHR-2015" and JSC INSHAAT</b>		
Completion of construction of the Hydromet main office and building auxiliary buildings	SSEMPs revised and approved by PIG on January 22, 2021 before commencement of civil works	Scan letter from PIG with approval of SSEMP is in place

## 6. SUMMARY AND RECOMENDATIONS

### 6.1. Summary

75. Monitoring activities were held by environmental consultant to ensure proper control on environment in rehabilitation objects. Site visits were executed with approximate frequency 1 times per two weeks. Impact mitigation measures and environmental protection actions were successfully implemented. To ensure health and safety measures the Contractor provided to its staffs all necessary sanitary conditions, drinking water, PPE, fire-protection means and relevant application of safety rules. Some minor non-conformances were observed regarding use of PPE (not all workers used PPE), availability of first aid means at construction site.

76. Warning signs and information boards were installed at site to avoid potential accident. All completed subprojects completed reinstatement of the site after completion of construction activities.

77. During reporting period no complaints were registered.

78. The tender for construction multifunctional buildings scheduled at the end of 2021.

79. The implementation of EMP/SSEMPs and environmental safeguards issues from January to June 2021 can be considered as satisfactory. Action Plan with on-going requirements to follow the safeguards requirements has been prepared for the next reporting period (January-June 2020).

### 6.2. Recommendations

80. It is recommended that existing safeguard processes be followed with a focus on compliance and proactively identifying and addressing risks.

81. The corrective action plan for the next six-month period is presented in the table below.

**Table 12: Corrective Action Plan for July-December 2021**

Issue	Required Action	Responsibility	Timing (Target Dates)
Regardless of the requirements specified in the IEE and the PAM, no International environmental specialist was hired by CSC. (para. 37)	To mobilize International environmental specialist.	PIC/EA	Q4 2021
<b>Some workers do not have correct health and safety Personal Protective Equipment (PPE)</b>	<b>Ensure correct health and safety Personal Protective Equipment (PPE) provided t and used by all workers</b>	Contractor	30.09.2021
Waste removal after completion of construction works	Remove all waste from site after completion of construction works	Contractor	December 2021
Reinstatement of area after completion of construction works	Clean from waste, level the area Landscaping	Contractor	After completion of construction works. December 2021

## Water Resources Management in Pyanj River Basin Project (Additional Financing)

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Planting of trees	Plant the trees instead of removed trees	Contractor	December 2021
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