

Environmental Monitoring Report

Project Number: 47181-003, Grant G0576/0577

Reporting period: July – December 2022

Republic of Tajikistan: Water Resources Management in Pyanj River Basin Project (Additional Financing)

Prepared by the Project Implementation Group (PIG) for 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 ²	square kilometer
m	meter
m ²	square meter
mg/m ³	milligram per cubic meter
dB	decibel

1 INTRODUCTION

1.1 Preamble

1. This is the sixth semi-annual environmental monitoring report (SAEMR) of the “Water Resources Management in Pyanj River Basin Project (Additional Financing)”.
2. This SAEMR covers the period from July to December 2022 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 (PIG) with regards to environmental safeguard issues. During reporting period, works covered Construction of Building No. 5 and 6 Mixed-Use Buildings which started on 25 October 2022.
4. The additional financing supports the modernization of the new Hydromet headquarters operations center including main office building, ancillary buildings, and two mixed-use buildings. The contractor on completion of construction of the Hydromet main office and building auxiliary buildings is the Joint venture LLC "KHURAMSHAHR-2015" and JSC INSHAAT. All construction work on this component has been completed on June 2022.
5. Construction of Building No. 5 and 6 Mixed-Use Buildings was awarded to “Binosoz 2015” LLC. The civil works of Construction of Building No. 5 and 6 Mixed-Use Buildings commenced in October 2022.

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 1990-2016.¹ 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.² Climate vulnerability is particularly acute in the districts along the Pyanj River Basin (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 information³ and accurate and timely warnings of severe weather and flood⁴ 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 water resources management (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 WRM; and to the Agency of Land Reclamation and Irrigation (ALRI), for development and management of 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,

¹ The OFDA/CRED. International Disaster Database. http://emdat.be/emdat_db/.

² 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.

³ 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.

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

in line with principles of integrated WRM. The project will implement reforms in the PRB as highlighted in items (i) and (ii).⁵

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 two of the original project's outputs. The project will support the modernization of the new Hydromet headquarters operations center including main office building, ancillary buildings, and two mixed-use buildings.
12. Location of the project in Dushanbe is shown in **Figure 1** below.

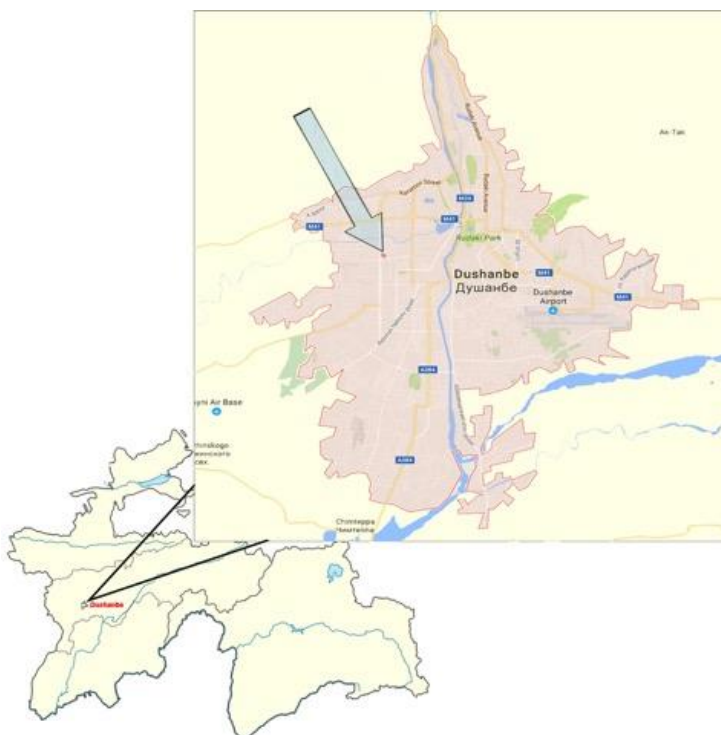


Figure 1: Location of project area

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

⁵ MEWR. 2015. Water Sector Reforms Programme for 2016-2025. Dushanbe

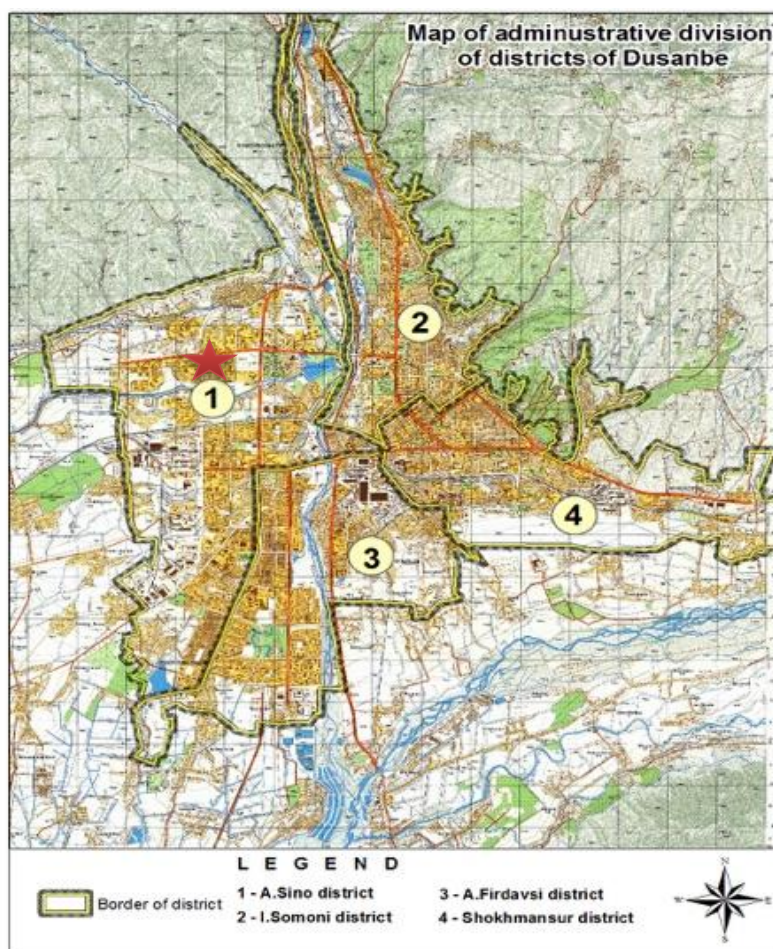


Figure 2: Administration map of Dushanbe city and location of the project (red star)

14. 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.
15. 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.
16. 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.
17. 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

18. A new Project Implementation Group (PIG) has been established in Hydromet on 27 December 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 are 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 explores cost- or staff-sharing arrangements with the PIG for the ongoing World Bank project in Hydromet subject to ADB approval.

19. **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 than 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.

20. The contract between PIG and Project Implementation Consultant (PIC) – international company FCG Finnish Consulting Group jointly with ARPA Consulting LLC was concluded on 5 June 2019 for period of 45 month (till March 2023). The extension of the contract with the PIC is currently under consideration.

21. 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 on 22 December 2020 for duration of 12 months. The contractor submitted initial version of the SSEMP on 15 January 2021. The SSEMP was checked by NES of PIC and finally approved by the PIG on 22 January 2021 before the commencement of civil works. Construction works on this component were completed by the end of June 2022. The period of liability for defects has started and will last for 12 months.

22. During reporting period, the tender for construction works on Construction of Building No. 5 and 6 Mixed-Use Buildings were concluded and the construction firms were picked out. The contract on Construction of Building No. 5 and 6 Mixed-Use Buildings has been concluded with LLC Binosoz-2015 on 12 October 2022 for duration of 545 days. The contractor submitted initial

version of the SSEMP on 20 October 2022. The SSEMP was checked by NES of PIC and finally approved by the PIC on 25 October 2022 before the commencement of civil works. Civil works were not commenced before the approval of SSEMP of Contractor by PIC.

23. Summary of civil works contracts and works' progress is summarized in Table 1. All awarded contracts included EMPs cleared by ADB and conditions of national IEE clearance which are listed under the following paragraph.

24. The IEE 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) with following conditions:

- a) During reconstruction and construction of hydrometeorological agency infrastructure, the requirements of construction rules and norms, sanitary norms (SI) 245-71, state and environmental standards, norms and requirements of legislation of the Republic of Tajikistan in the field of environmental protection and improvement should be strictly observed; and
- b) Prior to the commencement of construction works, develop an environmental protection plan and agree it with the competent authorities. To take forward current recommendation have been prepared Site specific environmental management plan by contractor, which was approved it by Department of environmental protection of Dushanbe city.

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	HSMP	ERP	Environmental officer	Health and Safety officer	Start	End	DLP	01 Jul 2022	01 Jan 2023
1	Construction of the Hydromet main office and building auxiliary buildings	Joint venture LLC "KHURAMSHAH R-2015" and JSC INSHAAT	22 Dec 2020	22 Jan 2021	22 Jan 2021	22 Jan 2021	Khakika Surieva	Khakrizo Saidov	Jan 2021	June 2022	Ongoing (365 days)	100%	100%
2	Construction of Building No. 5 and 6 Mixed-Use Buildings	LLC "Binosoz 2015"	12 Oct 2022	25 Oct 2022	25 Oct 2022	25 Oct 2022	Abdurahim Talbakov	Sherali Rakhmonov	Nov 2022	(May 2024)	Not yet started (365 days)	0%	3.1%

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

DLP = defects liability period, ERP = Emergency Response Plan, HSMP = Health and Safety Management Plan, SSEMP = site-specific environmental management plan

2.2.1. Project environmental management

25. The PIG under Hydromet hired Environmental Specialist Mr. Sharifjon Rajabov on 20 April 2020. The main responsibilities of PIG Environmental specialist includes following⁶: (i) ensure that EMP will be updated during detailed design completed; (ii) review and update 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.

26. The PIG is supported by the international company FCG Finnish Consulting Group jointly with ARPA Consulting LLC team which includes one international environmental consultant – Pasi Vahanne and one national environmental consultant – Dilshod Dadobaev.

Table 2: Project's environmental, health and safety (EHS) personnel

Environmental Personnel	Allocated PMs	Date of assignment (From-To)	Name
Environmental Specialist of PIG	full time	20 April 2020 – March 2023	Sharifjon Rajabov
International Environmental Specialist (Finnish Consulting Group)	2 Person month	1 December 2021 – March 2023	Pasi Vahanne
National Environmental Consultant	6 person month + 45 days	01 June 2020 – March 2023	Dilshod Dadobaev

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

⁶ Project Administration manual, Water resources Management in Pyanj river basin project, 2019

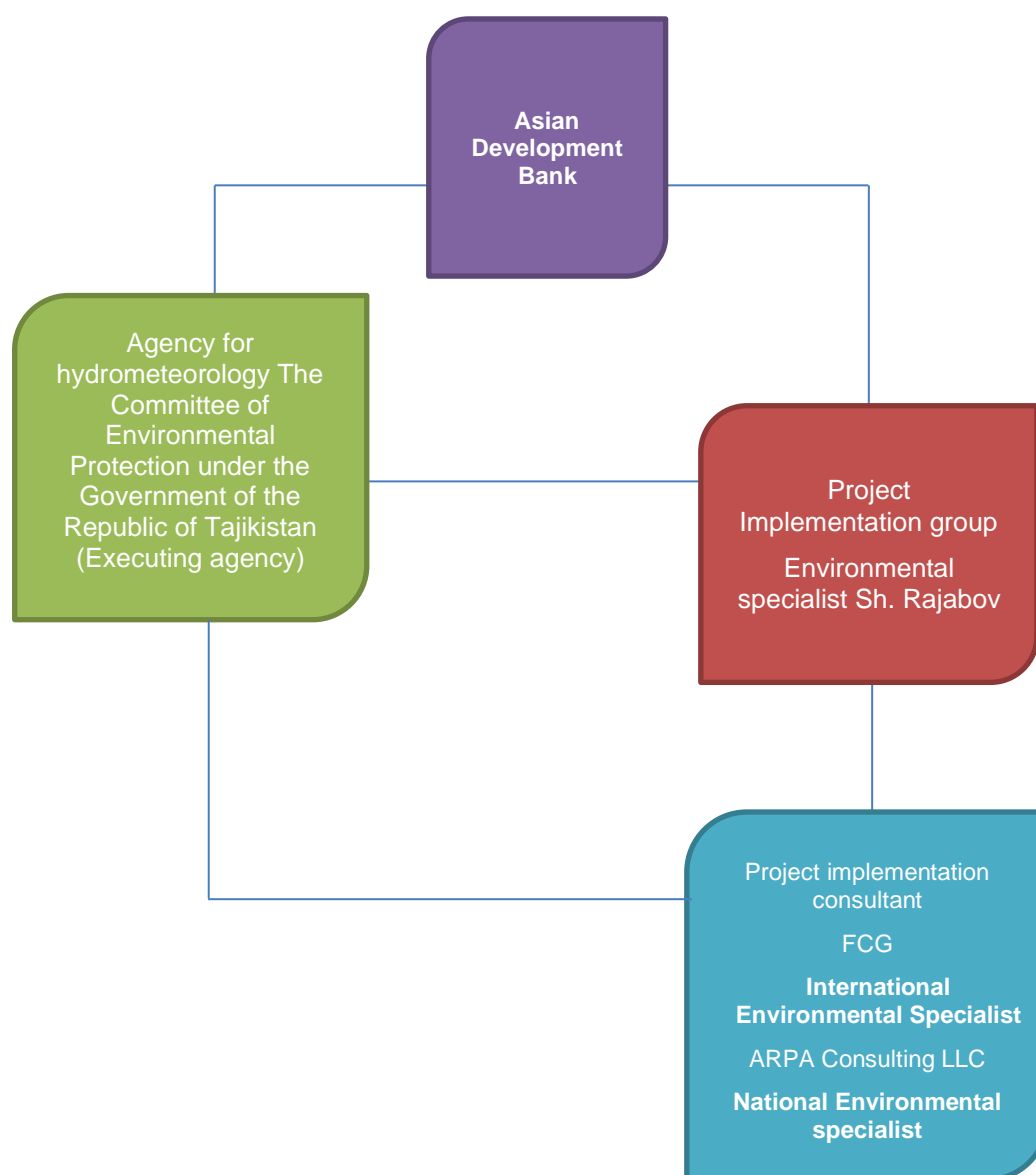


Figure 3: Project organizational structure and environmental management

2.3 Construction activities and project progress in reporting period

2.3.1 Construction of the Hydromet main office and building auxiliary buildings

28. Construction works started on 22 January 2021 and have been completed at 100% by the end of June 2022. The contractor was scheduled to complete the landscaping of the site during the fall and winter planting season. In the planting season, 30 seedlings were planted. Thus, a total of 150 seedlings were planted to replace the 23 trees that were cut down.



Photo 1: Planted seedlings, December 2022



Photo 2: Planted seedlings, December 2022



Photo 3: Planted seedlings, December 2022



Photo 4: Planted seedlings, December 2022

2.3.2 Construction of the Construction of Building No. 5 and 6 Mixed-Use Buildings

During the reporting period, construction works on the Construction of Building No. 5 and 6 Mixed-Use Buildings started. Commencement date of the construction works is 25 October 2022. The contractor began excavation of the buildings' pits. The total progress of the work is calculated as 3.1%.

2.4 Changes in project design

29. No changes in project design were done in the reporting period.

2.5 Description of Any Changes to Agreed Construction methods

30. No changes of construction methods were done in the reporting period.

3 ENVIRONMENTAL MANAGEMENT

3.1 General Description of Environmental Safeguard Activities

31. The PIG in conjunction with 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.
32. 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.
33. Activities carried out by international and national consultant during the monitoring period are provided in Table 3 below.

Table 3: Environmental Safeguards Activities Carried out During Reporting Period (July- December 2022)

Environmental Safeguard Activities	
PIG's environmental specialist (Sharifjon Rajabov)	
-	Ensured interaction with government agencies and organizations
-	Conducted site visits, to audit of implementation of SSEMP and EMP
-	Audit the corrective actions are implemented by the deadline.
PIC's international environmental expert (Pasi Vahanne)	
-	Review Semiannual Environmental Monitoring report
PIC's national environmental expert (Dilshod Dadobaev)	
-	Site visits to audit of implementation of SSEMP and EMP
-	Review site specific environmental management plan of contractor
-	Preparation of Semiannual Environmental Monitoring Report

3.2 Site inspections

34. The overall objective of the inspections is to ensure good environmental practice in project operations and enable PIG to establish good governance and efficient environmental management of day to day activities. Two site inspections were conducted in the reporting period as the construction work began in early December.
35. The purpose of the first field visit was to check the progress of mobilization by the contractor for the construction of building number 5 and multifunctional building number 6. The fulfillment of the security guarantee requirement during mobilization was regarded as satisfactory.
36. During the second field visit, the implementation of the corrective measures indicated in the report for the previous period was checked. It was confirmed that the planting of trees in the autumn-winter period of 2022 was completed. An inspection of the contractor for the Construction of building number 5 and multifunctional building number 6 was also carried out. During the inspection, it was revealed that the contractor had completed mobilization and started excavation work. The contractor was instructed to provide all employees with seasonal PPE.



Photo 5: Foundation pit excavated, December 2022



Photo 6: Foundation pit excavated, December 2022

3.3 Issues Tracking (Based on Non-Conformance Notices)

37. During the reporting period (1 July 2022 - 31 December 2022), two non-conformances have been recorded. The Implementation Status of Corrective Actions proposed in the previous environmental monitoring report is shown below (Table 4).

Table 4: Implementation Status of Corrective Actions proposed in the previous environmental monitoring report (Jan-June 2022) and identified in current period (July-December 2022)

No.	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.
Pending from previous monitoring period						
1	Tree planting	Planting trees to replace those that have been cut down	Contractor for Construction of the Hydromet main office and building auxiliary buildings	After completion of construction works	Resolved by December 2022 Contractor planted trees on the territory of Hydromet campus (Photo 1 - Photo 4)	
Identified during current monitoring period						
2	Excavated foundation pit is not fenced	Install fences around the foundation pit	Contractor for Construction of Building No. 5 and 6 Mixed-Use Buildings	20 January 2023		
3	Some workers' PPE does not correspond to the season	Provide all workers with seasonal PPE, including footwear	Contractor for Construction of Building No. 5 and 6 Mixed-Use Buildings	20 January 2023		

3.4 Unanticipated Environmental Impacts or Risks

38. 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.
39. 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.
40. Contractors' personnel wear mask, gloves, helmets and working wear, but not all the time. PIC advised the Contractor to monitor its workers on wearing the full set of PPE. Wearing masks is not mandatory in Tajikistan since March 2022.

4 RESULTS OF ENVIRONMENTAL MONITORING

4.1 Overview of Monitoring Conducted during Current Period

41. Contractor for Construction of Building No. 5 and 6 Mixed-Use Buildings concluded contract with Centre for Analytical control of Committee of Environmental Protection under the Government of the Republic of Tajikistan. Contractor has not conducted the site-specific instrumental measurement of air and noise levels during current period because the physical work on the site began in early December. Environmental quality measurements are scheduled for January 2023. Environmental monitoring is overseen by the approved EMPs, IEEs and EIAs, environmental standards and other environmental commitments.

4.1.1 Water quality monitoring

42. No instrumental measurements of water quality are foreseen for this Project as per IEE/EMP. 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 institution's buildings, which form the existing infrastructure.

4.1.2 Air quality monitoring

43. During the reporting period, no instrumental measurements were conducted due to the fact that physical work on the site began in early December 2022.

4.1.3 Noise monitoring

44. During the reporting period, no instrumental measurements were conducted due to the fact that physical work on the site began in early December 2022.

4.1.4 Flora and fauna monitoring

45. 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.
46. In total, 150 trees were planted by the Contractor of Construction of the Hydromet main office and building auxiliary buildings to replace the 23 trees that were cut down. Mainly these are coniferous trees such as spruce, larch, pine, as well as chestnut and plane trees.

4.2 Summary of Monitoring Outcomes

47. Status of compliance with environmental safeguards related covenants in the Project's Grant Agreement signed between Republic of Tajikistan and ADB on 3 August 2018⁷ is summarized in Table 5 below.

⁷ 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

Table 5: Grant Agreement Compliance Status

Schedule	Paragraph	Covenant	Compliance Status
3	7 (a)	<u>Condition for Award of Contracts</u> The Recipient shall not award any Works contract which involves environmental impacts until CEP has granted the final approval of the IEE.	Complied The Committee for Environmental Protection issued SEE “environmental appraisal” on 4 September 2020 (Registration No. 1203/15)
3	7 (b)	<u>Condition for Award of Contracts</u> The Recipient shall not award any Works contract which involves environmental impacts until the Recipient has incorporated the relevant provisions from the EMP into the Works contract.	Complied All contracts include EMPs cleared by ADB and conditions of national IEE clearance which are listed under para. 24.
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 are 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 The Client has provided preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities, which corresponds to: environmental safeguards;
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 1 of 1 corrective actions proposed in the previous SAEMR has been fully implemented (Ошибка! Источник ссылки не найден.).
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.	Complied. Personnel involved for EHS reflected in table 2 and figure 3.

Schedule	Paragraph	Covenant	Compliance Status
4	5 (a)	<u>Safeguards – Related Provisions in Bidding Documents and Works Contracts</u> 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	Complied All contracts include EMPs cleared by ADB and conditions of national IEE clearance which are listed under para. 24.
4	5 (b)	<u>Safeguards – Related Provisions in Bidding Documents and Works Contracts</u> 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	Complied The recipient makes available the budget for environmental measures whenever required.
4	5 (c)	<u>Safeguards – Related Provisions in Bidding Documents and Works Contracts</u> 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.	Complied All safeguard requirement documents included to the bidding documents
4	6 (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, Ongoing. Semiannual Environmental Monitoring Report has been prepared and disclosed at ADBs website regularly. The previous SAEMR (January-June 2022) was disclosed at ADB website ⁸ and Hydromet agency website in Russian. ⁹

⁸ <https://www.adb.org/projects/documents/taj-47181-003-emr-3>

⁹ <http://meteo.tj/projects/proekt-upravlenie-vodnymi-resursami-v-bassejne-reki-pyandzh-dopolnitelnoe-finansirovanie/polugodovoj-otchet-o-monitoringe-okruzhayuwej-sredy> All affected people understand Russian language.

Schedule	Paragraph	Covenant	Compliance Status
4	6 (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;	<u>Complied, ongoing</u> COVID-19 is considered as unanticipated risks and impacts. COVID-19 HSMP was prepared and has been implemented. No workers of the Project are identified to be infected by COVID-19 so far.
4	6 (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.	<u>Complied.</u> 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.
4	8(a)	<u>Labor Standards, Health and Safety</u> The Recipient shall ensure that the core labor standards and the Recipient's applicable laws and regulations are compiled with during Project implementation. The Recipient shall include specific provisions in the bidding documents and contracts financed by ADB under the Project requiring that the contractors, among other things: (a) comply with the Recipient's applicable labor law and regulations and incorporate applicable workplace occupational safety norms;	<u>Complied</u> The core labor standards and the Recipient's applicable laws and regulations are compiled with during Project implementation. The Recipient included specific provisions in the bidding documents and contracts financed by ADB under the Project requiring that the contractors, among other things: (a) comply with the Recipient's applicable labor law and regulations and incorporate applicable workplace occupational safety norms;
4	8(b)	<u>Labor Standards, Health and Safety</u> The Recipient shall ensure that the core labor standards and the Recipient's applicable laws and regulations are compiled with during Project implementation. The Recipient shall include specific provisions in the bidding documents and contracts financed by ADB under the Project requiring that the contractors, among other things: (b) do not use child labor;	<u>Complied</u> The core labor standards and the Recipient's applicable laws and regulations are compiled with during Project implementation. The Recipient included specific provisions in the bidding documents and contracts financed by ADB under the Project requiring that the contractors, among other things: (b) do not use child labor;

Schedule	Paragraph	Covenant	Compliance Status
4	8(c)	<p><u>Labor Standards, Health and Safety</u></p> <p>The Recipient shall ensure that the core labor standards and the Recipient's applicable laws and regulations are compiled with during Project implementation. The Recipient shall include specific provisions in the bidding documents and contracts financed by ADB under the Project requiring that the contractors, among other things: (c) do not discriminate workers in respect of employment and occupation;</p>	<p><u>Complied</u></p> <p>The core labor standards and the Recipient's applicable laws and regulations are compiled with during Project implementation. The Recipient included specific provisions in the bidding documents and contracts financed by ADB under the Project requiring that the contractors, among other things: (c) do not discriminate workers in respect of employment and occupation;</p>
4	8(d)	<p><u>Labor Standards, Health and Safety</u></p> <p>The Recipient shall ensure that the core labor standards and the Recipient's applicable laws and regulations are compiled with during Project implementation. The Recipient shall include specific provisions in the bidding documents and contracts financed by ADB under the Project requiring that the contractors, among other things: (d) do not use forced labor;</p>	<p><u>Complied</u></p> <p>The core labor standards and the Recipient's applicable laws and regulations are compiled with during Project implementation. The Recipient included specific provisions in the bidding documents and contracts financed by ADB under the Project requiring that the contractors, among other things: (d) do not use forced labor;</p>
4	8(e)	<p><u>Labor Standards, Health and Safety</u></p> <p>The Recipient shall ensure that the core labor standards and the Recipient's applicable laws and regulations are compiled with during Project implementation. The Recipient shall include specific provisions in the bidding documents and contracts financed by ADB under the Project requiring that the contractors, among other things: (e) allow freedom of association and effectively recognize the right to Collective bargaining; and</p>	<p><u>Complied</u></p> <p>The core labor standards and the Recipient's applicable laws and regulations are compiled with during Project implementation. The Recipient included specific provisions in the bidding documents and contracts financed by ADB under the Project requiring that the contractors, among other things: (e) allow freedom of association and effectively recognize the right to Collective bargaining</p>

Schedule	Paragraph	Covenant	Compliance Status
4	8(f)	<p><u>Labor Standards, Health and Safety</u></p> <p>The Recipient shall ensure that the core labor standards and the Recipient's applicable laws and regulations are complied with during Project implementation. The Recipient shall include specific provisions in the bidding documents and contracts financed by ADB under the Project requiring that the contractors, among other things (f) disseminate, or engage appropriate service providers to disseminate, information on the risks of sexually transmitted diseases, Including HIV/AIDS to the employees of contractors engaged under the Project and to members of the local communities surrounding the Project area, particularly women.</p>	<p><u>Complied</u></p> <p>The core labor standards and the Recipient's applicable laws and regulations are complied with during Project implementation. The Recipient included specific provisions in the bidding documents and contracts financed by ADB under the Project requiring that the contractors, among other things: (f) disseminate, or engage appropriate service providers to disseminate, information on the risks of sexually transmitted diseases, Including HIV/AIDS to the employees of contractors engaged under the Project and to members of the local communities surrounding the Project area, particularly women.</p>

48. Status of compliance with the Project EMP attached to the disclosed updated IEE is summarized in Tables 6 and 7.

Table 6: Implementation Status of EMP during the construction period - Package 2 (July-Dec 2022)

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)	Yes		
	Appropriate signposting of the sites will inform workers of key rules and regulations to follow.	Yes		
	Emergency Response Plan	Yes		
	Health and Safety Plan	Yes		
	COVID-19 pandemic management plan	Yes		
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	Construction works will be limited to restricted times	Yes		
	Timely public announcements of works	Yes		

Subject	EMP Requirement	Compliance Attained	Comment on Reasons for Partial or Non-Compliance	Required Action and Target Dates to Achieve Compliance
Compounds and thinners	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 (sidewalks, roads) free of debris to minimize dust	Yes		
Construction waste	Timely disposal of construction waste	Yes		
	Dispose of 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		
	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		

Subject	EMP Requirement	Compliance Attained	Comment on Reasons for Partial or Non-Compliance	Required Action and Target Dates to Achieve Compliance
Water quality	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		
Wastewater treatment	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 order to meet the minimal quality criteria set out by national guidelines on effluent quality and wastewater treatment.	Yes		
	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.	Partial	Workers are not provided with seasonal PPE	The Contractor has been instructed to take measures to ensure that workers provided seasonal PPE. By March 2023
	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: head protection, eye and face protection, footwear, protective clothing, hand protection, safety harness, fall protection, respiratory equipment, hearing conservation.	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.	Partial	Worker provided and wear PPE, however, PPE is not appropriate for the season	The Contractor has been instructed to take measures to ensure that workers provided seasonal PPE. By March 2023

Subject	EMP Requirement	Compliance Attained	Comment on Reasons for Partial or Non-Compliance	Required Action and Target Dates to Achieve Compliance
	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		
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		

Table 7: Implementation Status of EMP during the operation period - Package 1 (July-Dec 2022)

Subject	EMP Requirement	Compliance Attained	Comment on Reasons for Partial or Non-Compliance	Required Action and Target Dates to Achieve Compliance
Environmental impacts related to the sewage system, electrical safety, emergency system etc.	Ensure that administration of Hydromet campus continue to maintain properly in accordance with standards project buildings and facilities.	Yes		

4.3 Material Resources Utilization

49. No information on material resource utilization has been received due to the fact that physical work on the site began in early December 2022.

4.4 Waste management

50. No information on waste utilization have been received due to the fact that physical work on the site began in early December 2022. No ACM have been generated in the reporting period.

4.5 Health and Safety

51. The Health and Safety Plan was submitted by the Contractor and approved by the PIC. No accidents or incidents have been recorded during the reporting period.

4.5.1 Community health and safety

52. The territory of the construction sites is mostly fenced, appropriate informational and warning signs are installed. During reporting period no incidents occurred and lead to community health and safety issues, including the traffic accidents.



Photo 7: Informational board and warning signs installed, December 2022

4.5.2 Workers health and safety

53. The Contractor assumed the following obligations:

- Provision of PPE (protective clothing, gloves, shoes) and special protective equipment (helmet, goggles and ear protectors, etc.) to personnel in accordance with standards (SNiP III 4-80);
- Provision of protective guardrail of mobile type, fencing of stationary type, separation grid, roof for holes, safety warning signs;
- Constant provision of personnel with clean drinking water;
- Ensuring safe disposal of construction waste;
- Availability of fire extinguishers, facilities, firefighting equipment;
- Cooperation of with health agencies of Dushanbe city and making first aid kits available.

54. No separate construction camp is established for the project because all workers are local. No incidents/accidents, or COVID-19 infection cases occurred during the reporting period.

4.6 Training

55. On the part of the construction supervision company's safety assurance specialists, training was held for Hydromet, PIU, and contractor employees on ADB safeguards requirements. The training discussed issues such as waste management, environmental quality measurement, warehouse and stockpiles management, and grievance redress mechanism.

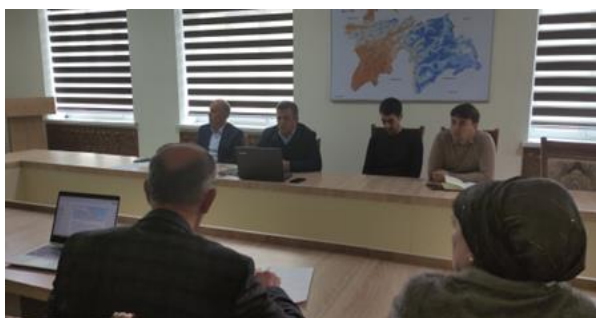


Photo 8: Training, November 2022



Photo 9: Training, November 2022

4.7 GRM functioning

56. Complaints logbooks are available at site and district authority building. No complaints received within July-December 2022.eeceecececece,

5 SUMMARY AND RECOMENDATIONS

5.1 Summary

56. All issues pending from previous monitoring period have been resolved. Contractor for the Construction of Building No. 5 and 6 Mixed-Use Buildings was awarded to “Binosoz 2015” LLC. The civil works on Construction of Building No. 5 and 6 Mixed-Use Buildings commenced in October 2022. During reporting period, no complaints were registered.

57. The issues identified during the current reporting period and the associated corrective actions are summarized in Table 8.

Table 8: Issues identified during the monitoring period

No.	Issue	Required Action	Responsibility	Timing (Target Dates)
1	Excavated foundation pit is not fenced	Install fences around the foundation pits	Contractor for Construction of Building No. 5 and 6 Mixed-Use Buildings	20 Jan 2023
2	Some workers' PPE does not correspond to the season	Provide all workers with seasonal PPE, including footwear	Contractor for Construction of Building No. 5 and 6 Mixed-Use Buildings	20 Jan 2023
3	Environmental post-construction audit report for completed works under Package 1 needs to be prepared.	Prepare post-construction audit report for the completed works under package 1. The report should include information and photo documentation regarding reinstatement / rehabilitation of all disturbed areas, revegetation activities (trees cut and replanted, etc.), and waste and materials disposed and/or handed over to the employer for reuse.	PIG / PIC	Environmental post-construction audit already conducted and provided in previous SaEMR

5.2 Recommendations

58. The PIG should oversee the Grievance Redress Mechanism (GRM) and ensure that complaint registers are available at construction sites. To facilitate communication and cooperation, the PAG should establish closer ties with consultants, contractors, the Team Leader, and Environmental Protection Specialist through email and other online platforms.

59. To prevent accidents, warning signs indicating safety precautions, appropriate personal protective equipment, and sturdy fences should be installed.

60. If civil works need to be carried out outside of scheduled hours or days due to construction delays or other reasons, the PIG, contractor, and local consultants should hold consultation

meetings with interested parties, local residents, and other stakeholders to explain and agree on the reasons for the change. Construction methods should be limited to those that generate minimal noise, vibrations, and pollutants.

61. Finally, the contractor should conduct monthly instrumental measurements of noise and air quality to ensure compliance with regulations.

Annex 1: Post construction audit

POST-CONSTRUCTION ENVIRONMENTAL AUDIT CHECK-LISTS


Final environmental audit check-list on completed construction works and sites

Проверочный лист по экологическому аудиту завершённых строительных работ

Project: Проект:	Water Resources Management in Pyanj River Basin Project (Additional Financing)	Executing Agency: Реализующее агентство:	PIG, Agency for hydrometeorology The Committee of Environmental Protection under the Government of the Republic of Tajikistan
Site: Участок:	CW01 Construction of the Hydromet main office and building auxiliary buildings	Contractor: Подрядчик	Joint venture LLC "KHURAMSHAHR-2015" and JSC INSHAAT – Toirov Umedjon, Project director
Date, time: Дата и время:		Auditors: ФИО и должность специалиста, проводившего инспекцию	Sharifjon Rajabov – PAG, Environmental and social consultant Dilshod Dadobaev – CSC National Environmental specialist

№	Type of works Вид работ	Impacts Воздействие	Mitigation measures according EMP/SSEMP Мероприятие(-я) согласно ПУОС/СПУОС	Control Контроль	Measures conducted Выполненные мероприятия	Comments/recommendations (if any)
1	Project site vegetation rehabilitation (re-vegetation) Реабилитация растительности на участке	Change of land cover, erosion resulting from the construction activities Изменение растительного покрова, эрозия в результате строительных работ	Plantation and vegetation measures (trees, grass etc.) Посадка и восстановление растительного покрова	Yes	Grass and flowers were planted at leveled sites where appropriate Трава и цветы были посажены на выровненных участках, где это необходимо	To carry out additional tree planting in the autumn-winter planting season Провести дополнительную посадку деревьев в осенне-зимнем посадочном сезоне
			Соответствующие работы по восстановлению ландшафта с обеспечением дренажа при необходимости	Yes	All works on restoration of area (leveling, preparation of sites for planting grass and vegetation) were conducted Проведены все работы по восстановлению района (выравнивание, подготовка участков для посадки травы и растительности)	
2	Waste management Управление отходами	Waste accumulation, air and soil pollution Накопление отходов, загрязнение воздуха и	Collect and disposal all wastes at designated location; Сбор и утилизация всех	Yes	Municipal solid waste is utilized in accordance with enterprise Муниципальные твердые отходы утилизируются	

		почвы	отходов на выделенных местах Other construction debris removed Остальной строительный мусор удален	Yes	соответствующим предприятием All construction debris removed Весь строительный мусор удален	
3	Remove disabled equipment Убрать непригодное оборудование	Housekeeping matters Вопросы по благоустройству территории	Contractor equipment and machinery removed; Оборудование и техника подрядчика удалены	Yes	Contractor equipment and machinery were removed; Оборудование и техника подрядчика удалены;	
4	Clean the construction site Очистить строительный участок	Issues of site improvement Вопросы по благоустройству/усовершенствованию участка	The land plot was cleaned and brought to safe environmental condition Земельный участок очищен и приведен в безопасное экологическое состояние	Yes	The land plot was cleaned and brought to safe environmental condition Земельный участок очищен и приведен в безопасное экологическое состояние	

Prepared by Toirov Umedjon  (Project director Joint venture LLC "KHURAMSHAHR-2015" and JSC INSHAAT)

Checked by Dadobaev Dilshod  (CSC, Environmental consultant)

Approved by Sharifjon Rajabov  (PIG Environmental specialist)



Photo 10: Facade of main building, March 2017



Photo 11: Facade of main building, June 2022



Photo 12: Side view of Hydromet main building, March 2017



Photo 13: Side view of Hydromet main building, June 2022



Photo 14: Condition of the corridor, March 2017



Photo 15: Condition of corridor, June 2022



Photo 16: Condition of premises, March 2017



Photo 17: Condition of premises, June 2022



Photo 18: Territory of Hydromet campus, March 2017



Photo 19: Territory of Hydromet campus, June 2022