Bi-annual Environmental Monitoring Report

August 2017

Loan 3025/3026-UZB: Amu Bukhara Irrigation System Rehabilitation Project

Prepared by the Project Implementation Unit, Ministry of Agriculture and Water Resources, Government of Uzbekistan.

Bi-annual Environmental Monitoring Report

Project Number: 44458-013

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Uzbekistan: Amu Bukhara Irrigation System Rehabilitation Project

(Financed by the ADB Loan 3025-UZB/ 3025-UZB)

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Project Implementation Unit

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ABBREVIATIONS

ABIS	Amu Bukhara Irrigation System
ADB	Asian Development Bank
BISA	Basin Irrigation System Administration
EIA	Environmental Impact Assessment
EHS	Environment, Health and Safety
EMP/ SSEMP	Environmental Management Plan/ Site-Specific Environmental Management Plan
EMMP	Environmental Management and Monitoring Plan
GoU	Government of Uzbekistan
HGME	Hydrogeological Meliorative Expedition
IA	Implementing Agency
IEE	Initial Environmental Examination
ISA	Irrigation System Administration
MAWR	Ministry of Agriculture and Water Resources
M&ES	Monitoring and Evaluation Specialist
NPC	Nature Protection Committee
PIU	Project Implementation Unit
PMO	Project Management Office of PIU
SE	Site Engineer
SC	Supervision Consultant
SO	Safeguards Office
WCA	Water Consumers' Association

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Part I –Introduction

1.1 Project Background

1. The Amu Bukhara Irrigation System (ABIS) Rehabilitation Project is located in the central part of Uzbekistan on the right bank of Amu Darya River bordering to Turkmenistan. Bukhara is 563 km far from the capital Tashkent. The project covers lands of Bukhara and Navoi provinces. The ABIS is very important for the area and gives life as an oasis.
2. The ABIS supplies water to already irrigated lands, cities, settlements, and industries in Bukhara and Navoi provinces through a series of large cascading pump stations and thousands of kilometres of conveyance canals. It also drains the excess water through drainage system outside of the project area.
3. The ABIS, with a command area of 315,000 ha, serves the irrigated lands of the Bukhara-Zarafshan and Karakul oases and the Karaul Bazar massif. The population in the ABIS command area is about 1,788,000 people, including 1,550,000 in Bukhara and 239,000 in two districts of Navoi, of which 68% live in rural areas and fully rely on irrigated agriculture. It is very important to supply reliable water to these people in the region. ABIS also supplies water for municipal and industrial purposes.
4. The aim of the Project is to improve the irrigated agriculture and water resources management in the ABIS, with the goal of promoting sustainable economic and social welfare of communities dependent upon ABIS. The Project objectives are:

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

5. In order to realize a sustainable and reliable water supply in ABIS,the Project is expected to achieve the following outputs:

    a) Construction of one new pump station, and modernization and rehabilitation of four existing ones;

    b) Increase in the conveyance efficiency of the main canal of ABIS;

    c) Increase in the capacity of Basin Irrigation System Administration (BISA), Irrigation System Administrations (ISAs), water consumers' associations (WCAs), and farmers to adapt to climate change; and

    d) Efficient management of project and ABIS.

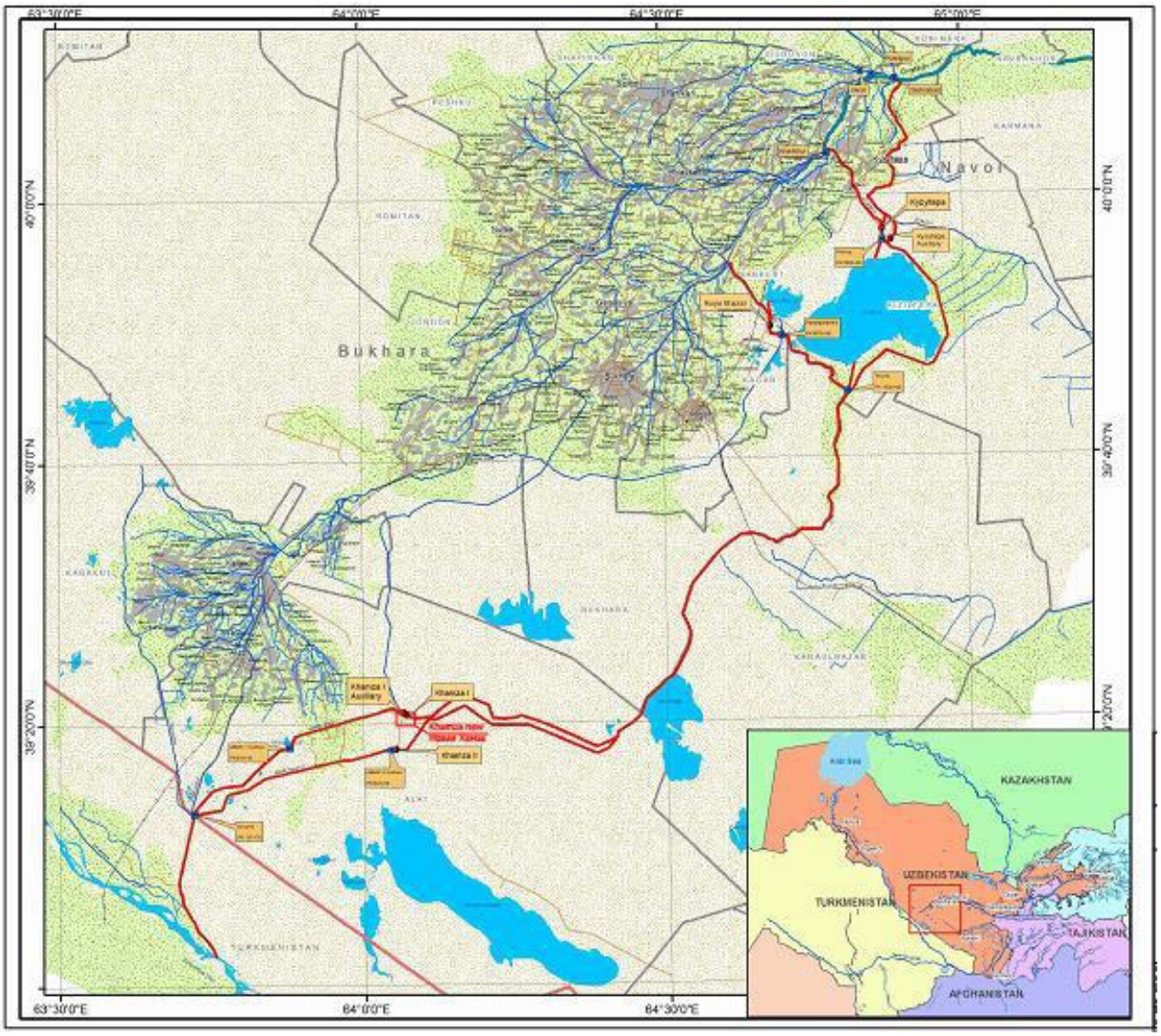
6. In order to realize the first output of ABISR, there will be two main contracts for civil works. These are:

    1) Construction of Amu Bukhara 1 New Pump Station (ABISR/ICB/01)

2) Modernization and Rehabilitation of Kizil Tepa and Kuyu Mazar Pump Stations (ABISR/ICB/03)

7. The second output will be achieved by the implementation of the following construction project: Modernization and Rehabilitation of Amu Bukhara Main Canal Regulation Structures (ABISR/ICB/02).
8. The third output is expected to be delivered by the Technical Assistance Project associated with the project, whereas the activities for achieving the fourth output will comprise project management, institutional, and operational support of Technical Assistance.

Figure 1. Project area map



1.2 Construction activities and project progress during the previous 6 months

9. The Project during the reporting period was in tendering stage and no physical activities have taken place over the last 6 months. Only two contracts have been signed under ABISRP/ICB/02 and ABISRP/NCB/04 in 2016.
10. The main project activities carried out in the reporting period include the following:

- Decision and preparation of retendering documents for construction of Amu-Bukhara 1 New Pump Station (ABISRP/ICB/01).
- Contract signed during the reporting period of July-December 2016 for modernization and rehabilitation of Amu Bukhara Main Canal Regulating Structure (ABISRP/ICB/02). No activities have taken place at site during the reporting period of January-June 2017.
- Contract signed for Modernization and Rehabilitation of Kuyu Mazar and Kizil Tepa Pump Stations (ABISRP/ICB/03) but not registered yet. Therefore no activities taken place during the reporting period of January-June 2017.
- Contract signed and on-going process for Rehabilitation of inter-farm and on-farm pilot irrigation network (ABISRP/NCB/04).

11. Project organization for the awarded contracts listed above is given in the table 1 below.

Table 1: Awarded contracts within Amu-Bukhara irrigation system rehabilitation project

	Contract name	**Contractor's name**	**Consulting company**	**Number of Contract**	**Date of signing**	**Duration of contract**
1.	Modernization & Rehabilitation of Amu Bukhara Main Canal Regulation Structures	Consortium LLC "KogonSuvQurilish" and JSC "Amubukhorokanalkurilish"	«Temelsu International Engineering Services Inc.» «Sheladia Associates Inc.»	ABISRP 02	March 18, 2016	1080 days
2.	Modernization and Rehabilitation of Kuyu Mazar and Kizil Tepa Pump Stations	JV Hebei Construction Group Co. Ltd / Hebei Water Conservancy Engineering Burea	«Temelsu International Engineering Services Inc.» «Sheladia Associates Inc.»	ABISRP/ ICB/03 (Lot1 & Lot 2)		

3.	Civil works for Inter-farm and On-farm Irrigation system	LLC “KogonSuvQurilish”	«Temelsu International Engineering Services Inc.» «Sheladia Associates Inc.»	ABISRP 04	June 30, 2016	426 days

12. Contract ABISRP 04 includes rehabilitation of the irrigation system infrastructure for the Amu-Bukhara Irrigation System Rehabilitation Project ABISRP pilot areas, Dilnoz Ugli Abdukhalil, Vafo and Yomgir farms in Bukhara district, with a total area of 65.9 Hectares.
13. To carry out demonstrations related to climate change within the existing irrigation network at the inter- and on-farm levels pilot rehabilitation works are going on in three districts of Bukhara province. In addition, the contract includes deep ripping and laser leveling in three demonstration farms of above districts; and additionally combined drainage in two farms.

Figure 2. Project ABISRP pilot areas location

14. Project organization for the awarded contracts listed above is given in the table 2 below.

Table 2: ABISRP 04 project progress during the Previous 6 Months

Site	DP-1 (Dilnoz Ugli Abdukhalil)
Works undertaken during January-June 2017	Laser leveling of Demonstration pilot 19.9 Ha – 100%
	Deep ripping of Demonstration pilot 19.9 Ha (70 cm) – 100%
	Cleaning of Lower Gaziobod canal – 100%

	Construction of Outlets of Lower Gaziobod canal and Off-take Nr 3 - 75%
	Drilling Works of Observation wells4 pcs (7 meter) – not started
	Drilling Works of Booster wells 4 pcs (30 meter) – already started
Site	**DP-2 (Vafo)**
Works undertaken during January-June 2017	Laser leveling of Demonstration pilot 20.48 Ha – 100%
	Deep ripping of Demonstration pilot 20.48 Ha (70 cm) – 100%
	Cleaning of Kukin canal – 100%
	Construction of Outlets of Kukin canal and Off-take Nr 3 - 75%
	Drilling Works of Observation wells 4 pcs (7 meter) – not started
Site	**DP-3 (Yomgir)**
Works undertaken during January-June 2017	Laser leveling of Demonstration pilot 20.1 Ha – 100%
	Deep ripping of Demonstration pilot 20.1 Ha (70 cm) – 100%
	Cleaning of Utabek canal – 100%
	Construction of Outlets of Utabek canal and Off-take Nr 3 - 75%
	Drilling Works of Observation wells 4 pcs (7 meter) – already started
	Drilling Works of Booster wells 4 pcs (30 meter) – completed

15 According to Contractor construction activities of the ABISRP/NCB/04, the contract is planned to complete by the end of September 2017.

16 Photos of construction works is given in Annex IV

1.3 Changes in project organization and environmental management team.

17 The following organizations and/or staff will be responsible for environmental monitoring activities. Their relationship has been illustrated in the figure given below.

- Basin Irrigation System Authority of Regions
- Contractor of any Subcomponent
- Civil Engineer of Consultant
- Climate Change Mitigation Specialist
- Environmental Expert of Consultant
- Electrical Engineer of Consultant
- Ministry of Health
- Project Manager of Consultant
- Project Management Office
- Water Consumer Associations

18 The key staff for the environmental management and monitoring activities Mrs. Shakhlo Naimova is the PMO's Monitoring and Evaluation Specialist (M&ES). Mrs. Naimova has all responsibilities and tasks related to environment, land, social (including involuntary resettlement and indigenous people), and poverty and gender aspects in accordance with the environment and social safeguard documents and Summary Poverty Reduction and Social Strategy, all of which are project linked documents. Specifically PMO Monitoring and Evaluation Specialist:

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

19 Additionally, in relation to the environmental aspects, with the support from the international consultant the environmental specialist will:

- ensure that Environmental Management Plan (EMP) is updated during detailed design completed,
- ensure that bidding documents include all requirement to implement IEE and its EMP;
- ensure that the bidder selected will have adequate resources to implement and update EMP;
- undertake safeguards monitoring activities and prepare safeguard reports to be submitted to ADB;
- ensure that all construction works will be taken place in the permanent land possession of ABISA;

- if additional land required for construction works, ensure that land acquisition and resettlement plan is prepared in accordance to ADB SPS 2009 as well as the Government law and regulation related with land acquisition; and
- ensure that other project-related tasks are complied with ADB SPS 2009 and Government requirement

20 PMO as responsible IA for the project recruited a Supervision Consultant (SC) – consortium: «Temelsu International Engineering Services Inc» and «Sheladia Associates Inc.». The International environmental expert (Saban Cimen) and national environmental specialist of Supervision Consultant (SC) – Jakhongir Gadaev assist M&ES of PMO in the supervision of the construction activities under the Project.

21 The part of the work of the Environmental Experts of the Consultant is to develop a capacity building training program for Basin Irrigation System Administration (BISA) in implementing the EMP/SEMP. The timing of this program will be just before the commencement of civil works. The content of training will be developed by Environmental Experts of the Consultant.

22 As it was mentioned above, two Contractors were assigned for the ABISRP 02 and ABISRP 04 contracts. The Environmental Officers of the Contractors shall be responsible for the preparation of site-specific EMPs (SSEMPs) before commencement of civil works and implementation of EMP/SEMP related to the construction activities.

23 Monitoring of the environmental performance will be done using checklists and reporting format, which will be completed quarterly as the relevant parts of the Appendix A. This reporting process has been included into the bidding documents as a regular reviewing requirement. The achievements and failures in each reporting period will be evaluated by the Environmental Experts of the Consultant.

24 Field supervision is realizing mainly by regular or unexpected field visits, by taking photographs, videos, by making inquiries with the staff or public affected from activities, conducting observations or observations.

25 Meetings and discussions might be required during the implementation phase with Contractor's Environmental Officer and/or Safety Officer, with the other technical members of Technical Assistance Team of PIU.

26 Structure diagram of the agencies Involved in Project Implementation is shown in the Fig. 3 below:

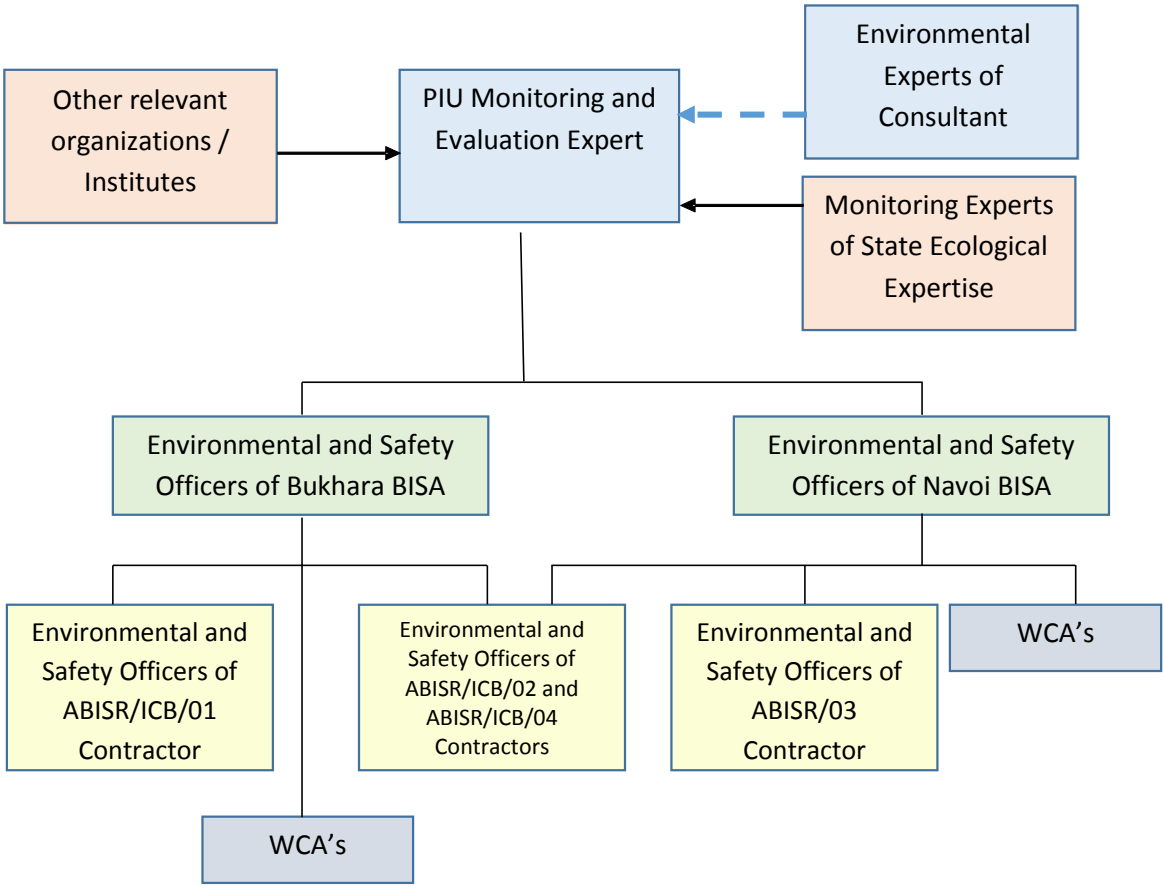


Figure 3.Structure Diagram of the Agencies Involved in Project Implementation

1.4 Relationships with contractors, owner, lender, etc.

27 The Ministry of Agriculture and Water Resources (MAWR) is the national institution responsible for irrigation and drainage with offices at central, provincial (12) and district level. Since 2003, water management is based on natural irrigation boundaries with the formation of basin authorities, Basin Irrigation System Administration (BISA). BISAs are contained within the MAWR structure as semi-autonomous organizations. There are 10 BISAs and each BISA is further subdivided into (i) canal Administration which looks after the canal systems, and (ii) irrigation system administration (ISA) that look after the irrigated areas. The subproject is situated in the Amu-Bukhara BISA.

28 The main institutions that are involved in IEEs/EMPs/SSEMPs implementation and monitoring, are the executing agency (EA) - MAWR, PIU, BISA, ISA, HGME, Uzhydromet, the Consultant, the Contractors, local branches of State Committee of Nature Protection and Municipal Authorities. EA represented by PIU and the Consultant are responsible for ensuring monitoring of the projects implementation at the construction stage. State

Committee of Nature Protection has the authority for periodic audits but should not be considered as a party responsible for monitoring.

29 The overall responsibility for the completion of the work and direction of the contractor to meet the EMMP requirements will be the responsibility of the Construction Engineer (of the Project Management Consultants) supported by the Monitoring Engineer (of the PMO). They will be supported by the SO. The contractor has his own representative on site – the Site Engineer (SE) who is responsible for implementing the contract and complying with the EMMP.

Part II - Environmental Monitoring

30 Since the main construction activities for the main contracts have not been started, except ABISRP 04 Contract for which construction activities are ongoing, , the Environmental Monitoring study has been based upon the collection of existing background environmental data from the relevant government authorities. The requested information is given in below table 3.

Table 3: Existing Background Environmental Data

Indicator	Data source	Frequency	Responsibility	Reporting
Quality of irrigation water (pH, salinity, hardness, BOD, COD, nitrate, nitrite, ammonium, phosphate, pesticides, oil products, phenol)	Measurement	Project area, twice a year	PIU, HGMEs, Uzhydromet	Bi-Annual EMR
Soil quality/pollution (SOM (humus), soil carbon, mobile and gross NPK, nitrates, nitrites, ammonium, phosphate, pesticides).	Measurement	Project area, twice a year	PIU, BISA, HGMEs, and WCAs	Bi-Annual EMR

31 Environmental impact monitoring and mitigation was carried out in accordance with the updated EMPs and Site-Specific Environmental Management Plans (SSEMPs) prepared by the Contractors. A comprehensive list indicators including the frequency of measurements is given in Annex I.

32 According to EMP requirements, Contractor is responsible for conduction visual monitoring of above indicated parameters. There are no more requirements on environmental monitoring included in EMP and as following in SSEMP. Per environmental

monitoring reports submitted by Contractors, no pollution of air and water at the construction sites was observed. No complaints were received from population located near construction sites, which could initiate additional activity on environmental monitoring.

2.1 Noise and Vibration.

33 Construction and reconstruction of water and sewerage pipelines in inhabited places and on streets conducted during the daytime from 08:00 am to 06:00 pm.

34 To avoid noise at the construction sites, the Contractor limited using of compressors and other heavy vehicles (i.e. trucks, excavators), to limit the dust at the construction sites adjacent to the sites area being watered in a due time.

35 The chief of a site of the Contractor - provided conformity of EMP, visually inspected safe use of the equipment, noise level of vehicles and mechanisms.

2.2 Water quality.

36 Canal cleaning involved excavation of large amounts of sediment. This was disposed of in locations to was agreed with the Engineer. Where there was insufficient space along the side of the canal embankment to deposit the excavated materials, they were transported and deposited in disposal areas further away from the canal.

2.3 Air quality.

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

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

2.3 Flora and fauna monitoring.

39 The construction sites of ABISRP/NCB/04 contract located in the area, which is not related to the protected area. As some of the waterlines goes close to agriculture fields, all workers were informed and necessary measures taken to prevent negative impact on vegetation and topsoil.

40 The impact on flora and fauna in the project area is minimal. Construction works were monitored and controlled in accordance with the EMP.

Part III - Environmental Management

3.1 The status of IEE/EMP and SSEMP

41 The Initial Environmental Examination Report (IEE) has been reviewed carefully by the Environmental Experts of the Technical Assistance Team. In following a brief information is given about this review.

42 In general, the prepared IEE has been regarded as a comprehensive document, which explains the project activities as required and gives clear identification of the prevailing environmental conditions. The IEE explains the projects impacts on the environment and proposes the necessary mitigation measures to overcome project. On base of this and previous assessment IEE categorizes ABISR is “Category B” according to OM Section F1/OP of ADB. The project impacts on environment is lead it to be considered as Category III Project according to the national requirements. Also comparison of project alternatives has been carried out within IEE.

43 The IEE provides an Environmental Management Plan (EMP) as an appendix, which clearly gives the activities related potential environmental impacts for each phase of the project, e.g. pre-construction, construction and operation and maintenance phases.

44 The EMP identifies also implementing and monitoring responsibilities, parameters to be monitored, frequencies and costs. However, it does not clearly give the cost amounts since they are associated either construction activities or consultant activities.

45 The IEE has been translated into Russian in 2013 and send tot NPC for approval. The approval of IEE has been obtained for the IEE on 23rd January 2013. The IEE has been published ADB’s website on May 2013.

46 As more than 3 years have passed over this approval, according to the national requirements IEE was renewed and sent to NPC for approval. The approval for the IEE has been obtained on October 13, 2016.

47 Based on this requirement, Environmental Experts of the Consultant have already updated both English and Russian versions of IEE. The Russian Version of the updated IEE was sent to the NPC for renewal of approval. During this approval process, comments received from NPC and reflected to the English version. The renewal of the approval is received from NPC, the English Version of IEE was sent to ADB for issuing in the website.

48 The Consultant has integrated the Environmental Management Plan and its requirements to the Bidding Documents like preparation of SEMP plans, designation of staff responsible for environmental monitoring activities, etc.

49 The Contractors ABISRP/ICB/02 and ABISRP/NCB/04 have prepared a Site Specific Environmental Management Plan (SSEMP), which is based on the Environmental Management Plan.

50 SSEMP’s have been prepared and submitted to the Engineer for approval by the end of November 2016. The Engineer has reviewed and made few comments to the submitted plans. By the end of reporting period the Contractor has been revised the SSMPs according to the engineers comments.

51 The project foresees three civil works and installation contracts with expected commencing date as early and middle of 2017. Preparation of three SSEMPs are

anticipated under the project. The SSEMP is expected to comprise a clear statement of environmental policy to be adopted for the Contract. As, according to the General Conditions of Contract "The Project Manager shall represent and act for the Employer at all times during the performance of the Contract. All notices, instructions, orders, certificates, approvals, and all other communications under the Contract shall be given by the Project Manager", the SSEMPs shall be subject to the approval by the Engineer (Project Manager).

3.2 Site inspections and audits

52 Regular site monitoring visits were carried out during the reporting period by PIU, and Environmental Specialist to check up realization of environmental protection measures parallel to civil works inspection as indicated below:

Date of Review Mission	Conducted by
March 2017	Bekhram Safarov (PIU SE) and Jakhongir Gadaev (SC)
May 2017	Bekhram Safarov (PIU SE)
June 2017	Bekhram Safarov (PIU SE) and Jakhongir Gadaev (SC)

53 Contractors regularly provide the progress on EMP implementation in their Quarterly Reports on Environmental Monitoring.

54 According to Contractors, workers are local and living in the neighboring area, and there was no construction camp available. On some sites workers have temporary trailers for storage their personal things and drying their clothes. There is no canteen in sites since the workers are local citizens and have lunch at home.

55 In order to comply with national legislation, a EIA documents were developed for each demonstration site (Dilnoz Ugli Abdukhalil, Vafo and Yomgir farms), to which the state ecological expertise of the Bukhara Regional Committee for Nature Protection was issued. Scanned state ecological expertise conclusions of 3 demonstration pilot sides is given in Annex II.

56 The Contractors have official agreements with the local communal services on removal of construction and domestic wastes to the municipal landfill. Depending to the stage of construction/rehabilitation and remoteness of construction site from closest community, removal could be done once per week or 10 days.

57 All construction sites have first-aid kit available for workers and there are regular trainings on H&S conducted by Engineers. Workers mostly have a special clothes and helmets and use them during working on sites.

58 On some sites residential facilities are located in the immediate closeness of construction works implementation area. According to the Contractors and PCU Regional Coordinator, there were no any complaints from the local citizens regarding the noise from construction site.

3.3 Non-compliance notices and corrective action plan

59 The following non-compliance issues have been revealed during construction activities of Outlets of canals and Off-takes Nr 3:

EHS issues and non-compliances	Corrective measures
There is no information about approve the remove of the trees during the construction of Outlets of the canals.	According to EMP any removal of trees needs to be approved by Goskompriroda. The contractor should arrange for trees of identical species to be planted elsewhere in the construction site area.
DP-2 (Vafo)  	

3.4 Consultation and complains

60 Construction works have been implemented in permanent interaction with local administrative units – mahallas. Prior to starting construction activities heads of mahallas

were informed about planning activities. During project implementation, communication between Contractors and PIU staff have been kept as well.

61 Consultations and explanation meetings on minimization of environmental degradation and observance of the Regulation of the State Committee for Nature Protection took place during the project implementation period.

62 The PIU environmental officer coordinates with local authorities, mahalla, and committee on nature protection to resolve any complaint within 5 working days by identifying how the solution is implemented, and communicating with the complainants. If within 5 working days, complaint cannot be resolved, complainants have the right to bring the complaint to high authorities, such as Hokim, or Ministry of Agriculture by following the Government Resolution on Civil Right. All complaints received and handled will be recorded in systematic manner and both resolved or unresolved have to be directly reported to ADB.

63 No complaint has been received by the GRM during the first half of 2017.

Part IV - Action plan for the next period

64 The anticipated physical activities have been planned for the early and the first half of the 2017. Therefore, the main activities related to environmental monitoring will be focused on collection of baseline information related to the project area, ensuring the inclusion of safeguard and environmental mitigation measures in bid proposals. These activities will be carried out by environmental and safeguard officers of PIU with the support of local and international consultants.

- Complete retendering process and sign the contract with awarded Contractor of the contract (ABISRP/ICB/01) - expected early 2018;
- Start construction phase of the contract (ABISRP/ICB/02) – July 2017;
- Preparation and approval of Site –Specific Environmental Management Plan, before commencement of construction phase of the contract (ABISRP/ICB/03) – Expected: last quarter of 2017;
- Complete the construction phase of the contract (ABISRP/NCB/04) – July 2017;
- Conducting capacity building training related to ADB environmental safeguards requirements for the representatives of PIU, SC and CC by ADB/RETA Regional Environmental Safeguards Consultants for contracts ABISRP/ICB/01 and ABISRP/ ICB/03– Postponed. Will be at the second half of the 2017 or early 2018.

ANNEX I

ENVIRONMENTAL MONITORING FRAMEWORK OF ABISR

INDICATORS	Data Source How it will be measured?	Frequency How often it will be measured?	Responsibility Who will measure it?	Reporting Where it will be reporting?
PRE-CONSTRUCTION PHASE				
Has the Consultant reviewed IEE?	By the activities of PMO Technical Assitance Team	Once in the initial phase of project.	EEC	Bi-annual EMR
If the IEE has been updated has it been send to the ADB for approval?	By the activities of PMO Technical Assitance Team	Once in the initial phase of project.	EEC	Bi-annual EMR
Has the PMO submitted IEE assessment report for approval to the National Authorities?	By the activities of PMO Technical Assitance Team	Once in the initial phase of project.	PMO	Bi-annual EMR
Has the Consultant included the EMP as a special Condition in the Bid Document?	By the activities of PMO Technical Assitance Team	Once in the initial phase of project.	PEC	Bi-annual EMR
Has the Contractor designed adequate staff facilities in the pump house redesigns (water-seal toilets, furbished rest rooms, dining rooms, etc.)	By technical review	Once in the review of design documents	CEC	Bi-annual EMR
Does the Contractor's design include raised walking ways?	By technical review	Once in the review of design documents	CEC	Bi-annual EMR
Does the Contractor's design provide safety guards on the areas exposed to the machinery?	By technical review	Once in the review of design documents	MEC	Bi-annual EMR
Does the Contractor's design have any drainage facility to lower ground water?	By technical review	Once in the review of design documents	CEC	Bi-annual EMR
Does the design meet the internationally acceptable safety standards of electricity for wet working areas?	By technical review	Once in the review of design documents	ElEC	Bi-annual EMR
Does the design consider critical periods for biological life and adhere any avoidance plan?	By technical review	Once in the review of design documents	EEC	Bi-annual EMR

INDICATORS	Data Source How it will be measured?	Frequency How often it will be measured?	Responsibility Who will measure it?	Reporting Where it will be reporting?
Does the Contractor have proper survey equipment?	By technical review	Once in the review of design documents	CEC	Bi-annual EMR
Does the design ensures free access to the facilities and availability of roads to them for O&M?	By technical review	Once in the review of design documents	CEC	Bi-annual EMR
Does the design take care the placement of building and facilities considering fire breaks?	By technical review	Once in the review of design documents	MEC	Bi-annual EMR
Does the design considers Corrosion protection of buildings by ground water?	By technical review	Once in the review of design documents	CEC	Bi-annual EMR
Does the design care the fire proof materials where necessary?	By technical review	Once in the review of design documents	CEC	Bi-annual EMR
Has the Contractor checked the desilting efficiency of inlet canal design and desilting basins?	By technical review	Once in the review of design documents	CEC	Bi-annual EMR
Has the Contractor developed inlet having sand trap and/or other alternative devices?	By technical review	Once in the review of design documents	CEC/MEC	Bi-annual EMR
Does the design consider oil separators to have oil concentration less than 0.3 mg/l?	By technical review	Once in the review of design documents	CEC/MEC	Bi-annual EMR
Does the Contractor developed a Worker Safety Plan in compliance with Uzbekistan Labor Code?	By technical review	Once in the review of design documents	EEC	Bi-annual EMR
Does the design consider protection measures for pipes laid in saline areas ?	By technical review	Once in the review of design documents	MEC	Bi-annual EMR

INDICATORS	Data Source How it will be measured?	Frequency How often it will be measured?	Responsibility Who will measure it?	Reporting Where it will be reporting?
Does the design consider safety conditions of crossing, bridges that will be used for transportation of vehicles, equipment and staff?	By technical review	Once in the review of design documents	CEC	Bi-annual EMR
Does the design consider landscaping convenient to the prevailing natural conditions?	By technical review	Once in the review of design documents	EEC	Bi-annual EMR
Does the design consider training of O&M staff on mechanical and electrical equipment?	By technical review	Once in the review of design documents	ElEC	Bi-annual EMR
Does the design consider to supply transformers free of PCB?	By technical review	Once in the review of design documents	ElEC	Bi-annual EMR
Is the EMP attached to the Contract to form a part of Contract Documents?	By technical review	Once in the review of design documents	PEC	Bi-annual EMR
Does the design consider the irrigational and drinking water requirements?	By technical review	Once in the review of design documents	MEC	Bi-annual EMR
Has PMO evaluated the bidder by checking EMP requirements?	By technical review	Once in the review of design documents	PEC	Bi-annual EMR
Has the Contractor prepared an acceptable EMP based on the Approved IEE?	By technical review	Once in the review of design documents	CEC	Bi-annual EMR
Has the Contractor developed Contingency Plan for accidents including spill of fuel?	By technical review	Once in the review of design documents	EEC	Bi-annual EMR
Has the Contractor submitted the Site Environmental Management Plan?	By technical review	Once in the review of design documents	EEC	Bi-annual EMR

INDICATORS	Data Source How it will be measured?	Frequency How often it will be measured?	Responsibility Who will measure it?	Reporting Where it will be reporting?
CONSTRUCTION PHASE				
Does the Contractor published a public notice regarding the nature and location of the project?	Questionaries	Once in the initial phase of construction project.	C	Bi-annual EMR
Has the Consultant conducted training program for WCA?	By the activities of PMO Technical Assitance Team	Once according to the time schedule of the training program	WCAC	Bi-annual EMR
Has the Consultant conducted training program for BISA?	By the activities of PMO Technical Assitance Team	Once according to the time schedule of the training program	WCAC/EEC/MEC	Bi-annual EMR
Has the EMP been explained to the Contractor before the commencement of works?	By the activities of PMO Technical Assitance Team	Once before the commencement of construction project.	PMC/EEC/PMO	Bi-annual EMR
Has the Contractor defined Environmental Management Officer?	Biding Documents	Once in bid evaluation phase	C	MRoC and Bi-annual EMR
Has the Contractor defined Safety Officer?	Biding Documents	Once in bid evaluation phase	C	MRoC and Bi-annual EMR
Does the Contractor handle the protected plant species, trees taking care of environmental concerns and/or permissions?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Does the Contractor excavate and preserve the top soil?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Does the Contractor maximize the use of excavated material for construction works?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Has the Contractor defined the licensed or got permissions borrow area for usage of construction material?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Has the Contractor caused any landslide or erosion?	Questionaries	monthly	C	MRoC and Bi-annual EMR

INDICATORS	Data Source How it will be measured?	Frequency How often it will be measured?	Responsibility Who will measure it?	Reporting Where it will be reporting?
Has the Contrator stockpiles of excavated material for backfilling?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Has the Contractor realized the work activities during non-cropping periods?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Has the Contractor take measures for providing water continuosly during construction work?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Has the Contractor defined spoil disposal site with the local authorities?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Does the Contractor disposed/recycled the waste material from the construction area?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Has PCB containing electirical equipment disposed according to the requirements of Gozecoexpertisa?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Has the Contractor defined material storage area?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Has the Contractor defined fuel storage area 20 m away from water course?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Is the noise level in working area below the defined limit 80 dB(A)?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Has the Contractor taken noise prevention measures for staff using noisy equipment, vehicles?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Is the nearest residential area affected by the noise level?	Questionaries	monthly	C	MRoC and Bi-annual EMR

INDICATORS	Data Source How it will be measured?	Frequency How often it will be measured?	Responsibility Who will measure it?	Reporting Where it will be reporting?
Has the working activities limited by daylight hours?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Does the Contractor have a water tanker for spraying water to roads?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Does the Contractor suppress the dust by watering?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Has the Contractor trained the staff on personnel health and sanitation procedures at the working camp, how to interact with the host communities, subprojects environmental protection measures?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Has the Contractor trained the staff on contingency plan?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Has the Contractor trained the personnel for fuel handling procedure?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Does the Contractor trained any person for the first-aid?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Does the Contractor apply any simple training measure for the visitors?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Does the Contractor keep the records for all kind of training?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Number of accidents occurred during report period?	Questionaries	monthly	C	MRoC and Bi-annual EMR

INDICATORS	Data Source How it will be measured?	Frequency How often it will be measured?	Responsibility Who will measure it?	Reporting Where it will be reporting?
Does the Contractor supply clean drinking water to the staff?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Does the Contractor provide the staff hygienic living and working conditions?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Does the Contractor have toilets, baths, sleeping quarter, dining hall for the staff?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Does the Contractor have any social facilities like sporting area, canteen, shuttle vehicles to the local centers, etc.?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Does the Contractor check the health of the staff regularly?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Does the Contractor keep the health record of the staff?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Does the Contractor have adequate fire protection measures?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Has the Contractor made available the first aid kit to the staff?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Has the Contractor provided safe floor and hand rails, stairs, lifts where necessary?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Has the Contractor provided the enough ventilation and lightening in the specific areas?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Has the Contractor provided the safety equipment, material to the staff?	Questionaries	monthly	C	MRoC and Bi-annual EMR

INDICATORS	Data Source How it will be measured?	Frequency How often it will be measured?	Responsibility Who will measure it?	Reporting Where it will be reporting?
Does security staff exist in the working area?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Does the working area have fencing in order to protect intrusion?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Has the Contractor defined solid waste storage area?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Has the Contractor defined the area for used material storage area?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Has the Contractor defined used material storage?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Does the Contractor apply solid waste separation for recyclable solid waste?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Does the Contractor keeps any record for the waste recycled?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Does the Contractor keep any record for the solid waste disposed?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Does the Contractor keep any record for the hazardous waste disposed?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Does the Contractor use the local public roads even the avoidance from these road(s) possible?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Has the Contractor collected and disposed the solid waste regularly?	Questionaries	monthly	C	MRoC and Bi-annual EMR

INDICATORS	Data Source How it will be measured?	Frequency How often it will be measured?	Responsibility Who will measure it?	Reporting Where it will be reporting?
Does the Contractor discharge the sewerage after treatment?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Does the Contractor avoid the peak hours of local traffic in case of use of local public roads?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Does the material carried on public roads covered?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Does the Contractor use the vehicles having the controlled exhaust emissions?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Does the Roads selected by the Contractor effect the protected areas?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Does the public informed with adequate signs about the working area and vehicles?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Do the Vehicles of the Contractor fit in to the speed limits?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Does the Contractor repair all infrastructure/roads when damage given by them?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Has the Contractor removed the soil if they contaminated?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Has the Contractor left the working area as defined in Landscape section of the Bidding Documents?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Has the Operating Personnel signed and accepted all work sites, labor camps, storage areas and temporary dumping areas?	Questionaries	monthly	C	MRoC and Bi-annual EMR
Number of grievances about the Contractor?	Interview with the relevant authorities	monthly	BISA	MRoC and Bi-annual EMR
Number of grievances solved by the Contractor?	Interview with the relevant authorities	monthly	BISA	MRoC and Bi-annual EMR

INDICATORS	Data Source How it will be measured?	Frequency How often it will be measured?	Responsibility Who will measure it?	Reporting Where it will be reporting?
OPERATION PHASE				
Has the Contractor provided the training on the safe use of electricity and pumps for operational staff?	Questionaries	Once when the project activities completed	EEC	Bi-annual EMR
Has the Contractor evalauted the trained O&M staff?	Questionaries	Once when the project activities completed	MEC/ElEC	Bi-annual EMR
Has the Consultant trained the WCA, BISA staff for irrigation canal and drainage canal management?	Questionaries	Once when the project activities completed	EEC	Bi-annual EMR
Has the Consultant evalauted the trained WCA, BISA staff?	Questionaries	Once when the project activities completed	EEC	Bi-annual EMR
Has the Oil Separator regularly checked and properly maintained?	Questionaries	Once when the project activities completed	EEC	Bi-annual EMR
Has the relevant organisations observed the irrigation water quality?	Questionaries	Once when the project activities completed	WCAC	Bi-annual EMR
Has the relevant organisations observed the ground water level in the irrigation area?	Questionaries	Once when the project activities completed	WCAC	Bi-annual EMR
Have the farmers applied crop rotation?	Questionaries	Once when the project activities completed	BISA	Bi-annual EMR
Have the farmers applied environmentally friendly agricultural production techniques?	Questionaries	Once when the project activities completed	BISA	Bi-annual EMR
Has the fertility and productivity been ehnanced?	Questionaries	Once when the project activities completed	BISA	Bi-annual EMR
Has the O&M staff applies the national Worker Safety Plan?	Questionaries	Once when the project activities completed	C	MRoC and Bi-annual EMR

INDICATORS	Data Source How it will be measured?	Frequency How often it will be measured?	Responsibility Who will measure it?	Reporting Where it will be reporting?
Has the Contractor made facilities available in the operational building with the clean drinking water?	Questionaries	Once when the project activities completed	C	MRoC and Bi-annual EMR
Has the Contractor made facilities available in the operational building with sewerage disposal/handling?	Questionaries	Once when the project activities completed	C	MRoC and Bi-annual EMR
Has the international agreements about the water abstraction been fitted?	Questionaries	Once when the project activities completed	EEC	Bi-annual EMR
GENERAL ENVIRONMENTAL IMPACTS OF THE PROJECT ON THE ENVIRONMENT				
Flow amount of water in channels?	Measurement	Monthly	BISA/WCA	Bi-annual EMR
Irrigated Area (ha)	Measurement	Monthly	BISA/WCA	Bi-annual EMR
Amount of water used for irrigation purposes.	Measurement	Monthly	BISA/WCA	Bi-annual EMR
Water quality of irrigation water (pH, salinity, hardness, BOD, COD, Nitrate, Nitrite, Ammonium, Phosphate, Pesticides, Oil products, phenol) in the project area.	Measurement	Bi-annual	PMO, HGMEs, Uzhydromet	Bi-annual EMR
Soil quality/pollution (SOM) (humus), soil carbon, mobile and gross NPK, nitrates, nitrites, ammonium, phosphate, pesticides)	Measurement	Bi-annual	PMO, BISA, HGMEs, and WCAs	Bi-annual EMR
Water levels of wells in the irrigated areas? (specify wells)	Measurement	Monthly	BISA/WCA	Bi-annual EMR
Amount of water used for irrigation purposes.	Health Statistics of Local Authorities	Yearly	PMO from local MoH	Bi-annual EMR
Electricty Consumed before the project by pumping?	Electricity Meter Records	Monthly Consumed, yearly total	BISA	Bi-annual EMR
Electricty Consumed after the project by pumping?	Electricity Meter Records	Monthly Consumed, yearly total	BISA	Bi-annual EMR
Water quantity pumped before rehabilitation/reconstruction?	Flow Measurement	Monthly, average flow	BISA	Bi-annual EMR
Water quantity pumped after rehabilitation/reconstruction?	Flow Measurement	Monthly, average flow	BISA	Bi-annual EMR
Reduction in % of GHG by implementation of project?	Calculations	Once based on yearly energy consumption amounts	Calculated by PMO CCMS	Bi-annual EMR

BISA : Basin Irrigation System Authority of Regions
C: Contractor of any Subcomponent
CEC: Civil Engineer of Consultant
CCMS: Climate Change Mitigation Specialist
EEC: Environmental Expert of Consultant
ElEC: Electrical Engineer of Consultant
EMR: Environmental Monitoring Report
MEC: Mechanical Engineer of Consultant
MoH : Ministry of Health
MRoC: Monthly Report of the Contractor about the Implementation of EMP
PEC: Procurement Expert of Consultant
PMC: Project Manager of Consultant
PMO: Project Management Office
WCA: Water Consumer Associations
WCAC: Water Consumer Associations of Consultant

ANNEX II

«APPROVED»

Representative of Consortium

«KogonSuvKurilish» Ltd. and

Kh.Barotov.

«____»_____ _____ 2017

REPORT

on the action plans

on the environmental management and resources conservation during rehabilitation of farm irrigation systems

(ABISRP 04) in Bukhara region

for 5 monthsof 2017.

Bukhara Region (rehabilitation works at irrigation systems)

№	Actions	Location and persons in charge of implementation	Period of implementation	Costs in current prices with accumulating total (in thousand UZS)				Effects (results) (ton, m^3, m^3 per year, km, hectaresetc.) with accumulating total		
				Plan for the year	Implemented for:			Plan for the year	Actual	
					I - quarter	5-month	II – quarter		I - quarter	5-month
i.	**I. Air Protection.**									
1.	Cutting and levelling the uneven earth roads resulting in a reduction of dust,	- On the territory of the farm "Vafo" in Vobkent district, - On the territory of farm "DilnozugliAbduhalil" Bukhara district. - On the territory of the farm "Yomgir" Romitan district. Implemented by: Head of the construction site.	January - - May.	1600	400	666,7		Length of earth roads where the dust level reduced – 12,6 km	3,15 km	5,25 km.
2.	Sprinkling of earth roads nearthe settlements with the movement of vehicles.	Earth roads near the settlements of the Vobkent, Bukhara, and Romitan districts. Implemented by: Head of the construction site.	April - May.	900	-	200		Sprinkled earth roads - 22,5km.	-	5,0 km.Volatile dust reduced 92,2%.
3.	Preventing the release of dust from the surface of the soil loaded into trucks	During transportation near the settlements of Vobkent, Bukhara, Romitan districts. Implemented by: Chief mechanic.	April- May.	250	-	66,7		Avoiding dust during transportation of soil 23.8 tons.	-	Transported 5,3 tons. Dry soil, prevention of volatile dust 82.3%
4.	Equip temporary storage facilities of bulk (loose) materials (sand, gravel, cement)	On the site of construction of culverts on the canals "Kukin", "NijniyGaziabad" and on the canal "Utabek" Implemented by: Site manager.	January - May.	800	200	333,4		Equipping special storage places to store loose materials 6m3	Stored 1,5м^3	Storage of 2,5м3 loose material; prevention of air pollution 96%.
5.	Organize dust cleaning systems during well drilling	Design provides for 5 pcs. at the site. Implemented by: Chief Engineer		2500	-	100		5 pcs. as per the design. Reducing the emission of dust by 99%.	-	Preparation works conducted
6.	Perform excavation work at a wind speed of no more than 2 m/s	On all the planned territory of the site. Implemented by: site manager.	January - May.	-	-	-	-	90%	90%	90%
7.	Prohibit the burning of fuel oil, oil and rubber products at the construction site.	On all the planned territory of the site. Implemented by: site manager.	January - May.	-	-	-	-	Protection of atmospheric air by 100%	100%	100%
8.	Equip the site for heating the bitumen with a neutralizer of the catholic oxidation.	On the construction site of culverts on the canal "Kukin", "NijniyGaziabad" and on the canal "Utabek" Implemented by: site manager.	January - May.	2400	600	1000		Prevention of air pollution For 1 ton of bitumen 25 kg CH (hydrocarbon)	2 ton. Effect of bitumen 50 kg CH	2,66 ton of bitumen 67 kgof CH.
9.	Prevent the leakage of oil products when operating a tractor, with laser land leveling	On the territory of the farm "Vafo" in Vobkent district,	January - May.	1200	1200	1200		With a laser levelling of 60.0 hectares of land.	60ha. Preven	-

	at farms.	- On the territory of farm "DilnozugliAbduhalil" Bukhara district. - On the territory of the farm "Yomgir" Romitan district. Implemented by: Site manager						prevention of air pollution by 100%	tion of polluti on by 100%	
10.	Provide fixed welding stations equipped with cleaning devices type ZIL-300.	On the territory of the base of LLC "KogonSuvKurilish" Implemented by: Chief Engineer	April	600	-	600		For the manufacture of 2500 welding stations. Effect 99%	-	Prevention of air pollution 99%.
11.	Provide the paint shop of the manufactured equipment with pneumatic electrostatic coating.	On the territory of the base of LLC "KogonSuvKurilish" Implemented by: Chief Engineer	April - December.	2500	-	500		Carry out the painting 25 pcs. of culverts. Elimination of atmospheric air pollution by 100%	-	Painted 5 pcs. of culverts. Elimination of atmospheric air pollution by 100%
12.	Equip fuel tanks with vacuum pressure valves according to OND-86	On the territory of the base of LLC "KogonSuvKurilish" Implemented by: Chief Engineer	January.	1500	1500	1500		Equipped with vacuum pressure valves, Prevent peak emissions in the atmosphere by 100%	4pcs.H =2,5m D=0,1 m 2 pcs. H=2,0 m D=0,1 m100%	-
13.	Use low sulfur fuel	On the territory of the base of LLC "KogonSuvKurilish" Implemented by: head of material supply department	January - May	As per fuel consumpti on.				Protection of air by 96%	Effect SO_2 up to 96%	Effect SO_2up to 96%
14.	Regularly check the leak tightness of the dispenser equipment.	On the territory of the base of LLC "KogonSuvKurilish" Implemented by: chief mechanic	January - May	750	250	500		Prevention of air pollution	100%fr om	100% hydrocarbon vapors
15.	Constantly check the vehicles for toxicity, Conduct inspections.	On the territory of the base of LLC "KogonSuvKurilish" Implemented by: chief mechanic	Inspection	620	310	-		Prevention of air pollution	Inspect 20vehi c.	-
16.	Organize a log for complaints and accept them for execution	On the territory of the base of LLC "KogonSuvKurilish" Implemented by: environmental expert	January - May	-	-	-	-	Proper development of the action plan for the use and protection of atmospheric air	100% preven tion	100% prevention
17.	Keep records of the procedure for applying compensation payments for air pollution at the construction sites	Throughout the territory of LLC "KogonSuvKurilish" Implemented by: environmental expert	January - March	200,0	50,0	-		Improving payment system for the environment.	Polluti on records	-
18.	Conduct monitoring of the EMP related to construction and protection of atmospheric air at construction sites	Throughout the territory of LLC "KogonSuvKurilish" Implemented by: environmental expert	January - May	-	-	-		Creating environmentally clean conditions.	Comply with the regulat ions	Comply with the regulations
	Total for Section I.			**15 820,0**	**4510**	**6667**				

II. Protection of water resources.										
1.	Organize temporary, mobile residential premises on the construction sites equipped with internal water and sewage networks and with the shower screens.	Construction sites. Implemented by: Chief Engineer of LLC "KogonSuvKurilish"	January - May	300	75,0	150,0		For rational use of water resources (water resources management), 50 m of pipes have been installed to provide cold and hot water supply.	100%	Creating environmentally clean conditions by 100%
2.	Installation of temporary tanks for the collection of domestic sewage at the construction site.	Construction sites. Implemented by: Chief Engineer of LLC "KogonSuvKurilish"	January - May	125	31,25	62,5		For protection of underground waters a 2 pcs. of metal tank of 400 m3 were installed.	100%	Creating environmentally clean conditions by 100%
3.	Make a contract for the discharge of domestic sewage to the treatment plants of public services utility	Throughout the territory of LLC "KogonSuvKurilish" Chief Engineer of LLC "KogonSuvKurilish"	At the beginning of the year	As per contract				Transport by vehicles 4 times per m. Elimination of discharge to the terrain.	98%	Protection of groundwater by 98%
4.	Organize mechanical washing of vehicles on the territory of the enterprise	Throughout the territory of LLC "KogonSuvKurilish" Chief Engineer of LLC "KogonSuvKurilish"	January - May	2860	-	40,0	-	ОрганизуетсясогласноПр. 1,5л/сек. Т.пр.902-2-416.	-	Prevention of groundwater pollution
5.	Prohibit washing of machinery and vehicles on the territory on the sites of construction of irrigation systems by issuing order of the LLC "KogonSuvKurilish"	Throughout the all territory. Director of "KogonSuvKurilish"	January - May	-	-	-		Навсе20ед .автотехнике.	100%	Prevention of groundwater pollution by 100%
6.	When working in canals and constructing a branch, take appropriate measures to the occurrence of a change in the chemical properties of the water.	Canals "Kukin" 3,31km, "NijniyGaziabad" -5,64 km "Utabek" – 4,5 km Implemented by: Site manager	January - May	4500	1125	1875	-	For preventing surface water pollution, construct temporary bypass lines.	100%	Prevention of mineral salts, acids, alkalis, clay particles 100%
7.	During rehabilitation of inter-farm and on-farm irrigation systems, observe measures on the hydrological regime of the water body, its hydrodynamic and morphological characteristics.	Canals "Kukin" 3,31km, "NijniyGaziabad" - 5,64 km "Utabek" – 4,5 km and main distribution sections. Implemented by: Site manager	January - May	3260	815	1358	-	Uninterrupted supply of surface water throughout the territory of the Bukhara region.	Rational water use	Rational use of water. Uninterrupted water supply.
8.	Development of the draft EIS, environmental impact assessment for the rehabilitation of inter-farm and on-farm irrigation systems.	On the territorial construction site areas of "KogonSuvKurilitsh". Implemented by: Chief Engineer	April - June	6600	-	4400		Environmental feasibility study of the consequences of the impact on the environment.	-	Development of the material is underway.
9.	Mark the sanitary protection zones depending on the width of the canal	Throughout the canal, inter-farm and on-farm irrigation networks. Engineer with a representative of District Water Management Dep.	January - May	-	-	-	-	Protection of water resources.	100%	100%
10.	Prohibit cleaning of overgrowing channels by chemical method	Throughout the canal, inter-farm and on-farm irrigation networks. Chief Engineer with the representative of District Sanitary and Hygiene Department.	January - May	-	-	-	-	Protection of water resources.	100%	100%

11.	Create a register log of received clean drinking water in accordance with the standard form "POD-11".	Throughout the territory of the enterprise. Implemented by: Health and Safety Engineer	January - May	-	-	-	-	Water metering.	By 100%	Water metering 100%.
12.	Establish a claim (complaints) log and accept them for execution	Throughout the construction sites of LLC "KogonSuvKurilish" Implemented by: Environmental Engineer	January - May	-	-	-	-	Proper development of the action plan for the use and protection of water resources.	By 100%	By 100%
13.	Keep records of applying compensation payments for pollution of water bodies and terrain.	Throughout the construction sites of LLC "KogonSuvKurilish" Implemented by: Environmental engineer	Once in quarter	600,0	150,0	-	-	Improvement of the payment system for the environment	By 100%	By 100%
14.	Conduct monitoring of the EMP related to the construction of water resources protection.	Throughout the construction sites of LLC "KogonSuvKurilish" Implemented by: Environmental engineer together with District Inspector	Once in a month	-	-	-	-	- Creating environmentally clean conditions	By 100%	Protection of water resources by 100%
.	Total for Section II			**18 245**	**2196**	**7885**				
				III. Protection of land and mineral resources:						
1.	Organize landfills for waste disposal (waste clay) after cleaning irrigation networks.	In Vabkent, Bukhara, Ramitan districts. Implemented by: Site Manager	January - May	300,0	100,0	167,0	-	Organized 3 landfills size. 20mx20m. H-1.5m at the site. Prevention of cluttering and pollution of places.	By 100%	Cluttering prevented 100% and re-use.
2.	Regularly transport waste to the landfill and dispose after cleaning irrigation networks.	Throughout the channel being cleaned, inter-farm and on-farm irrigation networks. Implemented by: chief mechanic	January - May	4500	1125	1875	-	Improve sanitation and hygiene at places. (Cleared 13.45 km of channels, used excavator -1pc., Dump truck -2 pcs..)	By 100%	Improving the sanitary and hygienic condition of the sites by 100%.
3.	Drying, disinfection, neutralizing waste for further use as a fertilizer.	At the newly organized landfills. Implemented by: Site Manager	Within 6 months	-	-	-	-	Material re-use and environmental safety.	By 100%	Reuse as secondary raw materials.
4.	Install special facilities to neutralize industrial waste (paper bags, waste generating from cleaning equipment and machinery, used oils, etc.)	On construction sites in Bukhara, Ramitan and Bukhara districts. Implemented by: Site Manager.	January - May	250,0	62,5	103,8	-	Material reuse and environmental safety.	By 100%	Material reuse and environmental safety by 100%
5.	Prohibit burning of solid waste in the work processes in fires or primitive furnaces	On all construction sites. Implemented by: Site Manager.	January - May	-	-	-		Prevent air pollution.	By 100%	Prevent air pollution by 100%
6.	Reclamation of disturbed lands during the construction of hydraulic structures.	On all construction sites. Implemented by: Site Manager.	January - May	2650,0	662,5	1077	-	Prevents deformation of the earth's surface	By 80%	Prevents deformation of the earth's surface by 80%
7.	Reinstatement of disturbed lands of irrigation systems by compaction and levelling.	On all construction sites. Implemented by: Site Manager.	January - May	1640,0	410,0	683	-	Strengthening the surface of the dumps from water and wind erosion.	By 88%	Protection of land resources by 80%
8.	Make contract for the placement (disposal) of solid domestic waste and industrial waste.	On the construction site and throughout the territory. Impl.by: Chief Engineer	From the beginning of the year.	1500,0	375,0	625	-	Improve sanitation and hygiene.	Ha 90%	Sanitation and hygiene Improved by90%.

			January-May.							
9.	Keep records of the application of compensation payments for pollution by production waste.	For all construction sites and production facilities of LLC"KogonSuvKurilish" Implemented by: Environmental Engineer	Once in quarter.	200,0	50,0	-	-	Improvement of the payment system for the environment.	Keep record of polluti ons.	Pollution record kept 100%
10.	Conduct monitoring of the EMP related to the protection of land resources during construction.	For all construction sites of LLC "KogonSuvKurilish" Implemented by: Environmental Engineer in cooperation with District Inspector	Once in quarter.	-	-	-	-	- Creating clean environmental conditions	By 100%	Protection of water resources by 100%
	Total for Section III.			**11040,00**	**2785**	**4531**				
				IV. Protection of flora and fauna.						
1.	Establish sanitary protection zones for irrigation systems and continuous compliance with established norms	In all irrigation systems. Implemented by: Chief Engineer together with district Sanitary and Hygiene Dep.	January-May	150,0	37,5	62,5	-	Provision of sanitary and epidemiological reliability.	By 100%	Protection of the sanitary zone and natural resources by 100%
2.	Avoid causing harm to the infrastructure by hydrological and technogenicimpacts, such as cutting down vegetation for fuel or economic needs.	In all construction sites. Implemented by: Site Manager	constantly	-	-	-	-	Protection of flora.	By 100%	Protection of natural resources by 100%
3.	Determine the number of trees subject to the cutting.	In all construction sites. Implemented by: Site Manager in cooperation with Mahalla (Community) Centers	constantly		-	-	-	Works organization.	By 100%	Protection and conservation of natural resources
4.	Reconciliation and payment for the removal of trees	In all construction sites. Implemented by: Site Manager in cooperation with District Environmental Department	As per protocol.	As per calculation.		.	.	Works organization.	By 100%	Protection and conservation of natural resources
5.	Comply with the fishery protection legislation when operating the irrigation system.	In the process of work. In all construction sites. Implemented by: Site Manager	constantly	As per procedure.	-	-	-	-Protection of fauna.	By 100%	By 100%
6.	Management of flora in the production of laser land levelling	- On the territory of the farm "Vafo" in Vobkent district, - On the territory of farm "DilnozugliAbduhalil" Bukhara district. - On the territory of the farm "Yomgir" Romitan district. Implemented by: Head of the construction site.	January - March	-/-	-	-	-	Protection of flora.	By 100%	By 100%
7.	Take measures to protect newly organized gardens from sand dunes, snowstorms, water and wind erosion.	After the works in the farm.	January-May	7500,0	1875	3125		Protection of flora.	By 100%	By 100%
	Total for Section IV.			7650	1912,5	3187				
				V. Health and Safety .						
1.	Set speed limit of 30 km/h in residential areas.	Near the settlements of Vobkent, Bukhara, Romitan districts. Implemented by: Chief mechanic.	January-May	-	-	-	-	Protection of fauna. Compliance with the norms of protected areas.	By 100%	Compliance with the norms of protected areas100%
2.	Restriction and coordination of work time.	In all construction sites. Implemented	Constantly	-	-	-	-	Prevention of the impact	By	By 100%

			V. Health and Safety .							
1.	Set speed limit of 30 km/h in residential areas.	Near the settlements of Vobkent, Bukhara, Romitan districts. Implemented by: Chief mechanic.	January-May	-	-	-	-	Protection of fauna. Compliance with the norms of protected areas.	By 100%	Compliance with the norms of protected areas100%
2.	Restriction and coordination of work time. Provide Work Schedule.	In all construction sites. Implemented by: Site Manager in cooperation with Mahalla (Community) Centers	Constantly	-	-	-	-	Prevention of the impact of negative phenomena (accidents).	By 100%	By 100%
3.	Install warning signs or tapes.	In all construction sites. Implemented by: Site Manager in cooperation with Mahalla (Community) Centers	Constantly	-	-	-	-	Prevention of the impact of negative phenomena (accidents).	By 100%	By 100%
4.	Follow standards and safety procedures for all activities.	In all construction sites. Implemented by: Site Manager in coopération with Safety Engineer.	Constantly	-	-	-	-	Prevention of the impact of negative phenomena (accidents).	By 100%	By 100%
5.	Coordinate the route plan for transportation	In all construction sites. Implemented by: Chief Mechanic in cooperation with District Traffic Police	Constantly	-	-	-	-	Prevention of the impact of negative phenomena.	By 100%	By 100%
6.	Comply with the legislation in cases of natural, historical, and archaeological finds.	In all construction sites. Implemented by: Site Manager in cooperation with Mahalla (Community) Centers and Internal Affairs Dep.	Constantly	-	-	-	-	Protection of natural resources, preservation of cultural resources.	By 100%	By 100%
	Total for Section V.									
	Total:			52 755,00	11 403	22270				

Developed by:
A.Izomov _____ Environmental Engineer

ANNEX III

O`ZBEKISTON RESPUBLIKASI
TABIATNI MUHOFAZA QILISH
DAVLAT QO`MITASI

BUXORO VILOYAT TABIATNI MUHOFAZA QILISH QO`MITASI

ГОСУДАРСТВЕННЫЙ КОМИТЕТ
ПО ОХРАНЕ ПРИРОДЫ
РЕСПУБЛИКИ УЗБЕКИСТАН

БУХАРСКИЙ ОБЛАСТНОЙ КОМИТЕТ ПО ОХРАНЕ ПРИРОДЫ

20 17 год "13" июня № 3-7-767

на № 336 от 07 июня 2017 г.

ЗАКЛЮЧЕНИЕ
Государственной экологической экспертизы

Объект: Проект заявления о воздействии на окружающую среду "Строительства демонстрационных участков фермерского хозяйства «Ёмгир» на территории АВП «Утабек сув йуллари» Рамитанского района»

Заказчик: ООО «Когон Сув Курилиш»

Разработчик: ООО «БухороГидромелиолойиха»

Директору
ООО «Когон Сув Курилиш»
Хайдарову С.
Начальнику Ромитанской районной
инспекции по охране природы
Мухсинову Т.

На Бухарскую государственную экологическую экспертизу представлен проект заявления о воздействии на окружающую среду "Строительства демонстрационных участков фермереского хозяйства «Ёмгир» на территории АВП «Утабек сув йуллари» Рамитанского района».

Демонстративное участки нацелены на продвижение улучшенных технологий и земледельческих практик, чтобы путем водосбережения и повышения производительности земли предотвратить проблемы, связанные с уменьшением доступных водных ресурсов.

Проектируемый объект размещается в Рамитанском районе. Фермерское хозяйство Ёмгир находится в 9 км от районного центра г.Рамитан. Ближайший пос. Ёмгир, участок примыкает к межхозяйственному коллектору Накиб.

В проекте расматривается участок канала Утабек от головного сооружения до ПК 47+00, канал находится на балансе УИС "Хархур-Дуоба". Расход канала составляет 1,0 м^3/сек. На проектном участке канала имеется 18 автодорожных и пешеходных мостов, 1 перегораживающее сооружения, 12 водовыпуска и т.д. Отвод имеет протяженность 1,075 км, расход составляет 0,06 м^3/сек. На отводе имеются 10 водовыпусков, 3 трубчатых переезда.

Проектом предусматривается реконструкция (бетонировка) канала Утабек на протяженности 4,7 км, ремонт (очистка) отвода на протяженности 1,075 км,

"Yo D" 3.1055 m.500-17

строительство водовыпусков 11 ед., строительство водомерных сооружений 11ед., строительство перегораживающего сооружения 1 ед., строительство трубчатых переездов 2 ед..

Проектом предусмотрена капитальная планировка на площади 20,1 га. Удельный объем планировочных работ составит 407 $м^3$/га, объем срезки составит 8157 $м^3$, объем насыпи 7012 $м^3$.

Продолжительность строительство данного объекта длится 12 месяцев.

В период строительства объекта и предусмотренных по проекту планировочных работ, реконструкция канала, а также при снятия четвертичных отложений и при земляных работах выделяется неорганическая пыль. Атмосферный воздух в период строительных работ будет загрязняться неорганической пылью, почва и грунты могут загрязняться в период перевозки автотранспортом строительных материалов и вывоза строй мусора.

Выбросы осуществляется от передвижного автотранспорта и неорганизованных источников. При строительстве используется автомобили: экскаватор, скрепер и бульдозер, работающие на дизтопливе. При работе этих автомобилей израсходуется 6,35 тн дизтоплива. Во время работы этих спецтехники от сгорания дизтоплива в атмосферный воздух выбрасывается выхлопные газы в количестве 1,32 тн/год.

При строительстве для рабочих на хозпитьевые нужды расход воды составляет 144,0 $м^3$. Израсходованная вода сбрасывается в специальном временном водоемы, который строят около стройплощадки.

На строительном площадке от рабочих образуется твердо-бытовые отходы образуются в количестве 0,86 тн. По мере накопления вывозится на полигон ТБО.

После окончания строительство улучшается водообеспечение земель на площади 600 га и повышается урожайность сельхозкультур с посевных площадей.

В соответствии с перечнем видов деятельности, утвержденным Постановлением КМ РУз № 152 от 05.06.2009 г., относится к 4-ей категории воздействия на окружающую среду.

Рассмотрев представленные материалы, Бухарская государственная экологическая экспертиза **согласовывает** проект заявления о воздействии на окружающую среду "Строительства демонстрационных участков фермерского хозяйства «Ёмгир» на территории АВП «Утабек сув йуллари» Рамитанского района" Бухарской области.

Контроль за соблюдением требований природоохранного законодательства на предприятии возлагается Рамитанской районной инспекции по охране природы.

Заключение государственной экологической экспертизы о соответствии объекта государственной экологической экспертизы экологическим требованиям имеет юридическую силу в течение трех лет со дня его выдачи.

Председатель комитета **А.Б.Ниязов**

М.Ёдгорова

O'ZBEKISTON RESPUBLIKASI
TABIATNI MUHOFAZA QILISH
DAVLAT QO'MITASI

BUXORO VILOYAT TABIATNI MUHOFAZA QILISH QO'MITASI

ГОСУДАРСТВЕННЫЙ КОМИТЕТ
ПО ОХРАНЕ ПРИРОДЫ
РЕСПУБЛИКИ УЗБЕКИСТАН

БУХАРСКИЙ ОБЛАСТНОЙ КОМИТЕТ ПО ОХРАНЕ ПРИРОДЫ

2017 год "13" июня № 3-7-766

на № 336 от 07 июня 2017 г.

ЗАКЛЮЧЕНИЕ
Государственной экологической экспертизы

Объект: Проект заявления о воздействии на окружающую среду "Строительства демонстрационных участков фермерского хозяйства «Вафо» на территории АВП «Мирсулаймон ариги» Вабкентского района

Заказчик: ООО «Когон Сув Курилиш»

Разработчик: ООО «БухороГидромелиолойиха»

Директору
ООО «Когон Сув Курилиш»
Хайдарову С.
Начальнику Вабкентской районной
инспекции по охране природы
Очилову У.

На Бухарскую государственную экологическую экспертизу представлен проект заявления о воздействии на окружающую среду "Строительства демонстрационных участков фермерского хозяйства «Вафо» на территории АВП «Мирсулаймон ариги» Вабкентского района».

Демонстративное участки нацелены на продвижение улучшенных технологий и земледельческих практик, чтобы путем водосбережения и повышения производительности земли предотвратить проблемы, связанные с уменьшением доступных водных ресурсов.

Проектируемый объект размещается в Вабкентском районе. Фермерское хозяйство Вафо находится в 4 км от районного центра г.Вабкент. Справа от демонстративного участка на расстоянии 1,5 км проходит автодорога Ташкент-Бухара. Вблизи расположен кишлак Бустон (старое название Арабхона).

Рассматриваемый участок берет воды от канала Кукин от головного сооружения до ПК 30+42. Канал находится на балансе УИС "Хархур-Дуоба". Водозабор осуществляется от канала Рохкент, расход канала составляет 1,0 $м^3$/сек. На проектном участке канала имеется 4 акведука, 6 автодорожных и пешеходных мостов, 5 переездов трубчатых, 2 перегораживающих сооружения, 4 водовыпуска и т.д. на канал ПК 0+50 имеется гидропост конструкции Паршала, который нуждается в ремонте. На ПК 21+40 канала Кукин расположен водовыпуск в отвод №3 подающий воду на проектный демонстративный участок. Отвод №3 имеет

"Yo D" 3.1055 m.500-17

протяженность 1,08 км, расход составляет 0,15 м^3/сек. На отводе имеются 10 водовыпусков, 3 трубчатых переезда.

Проектом предусматривается реконструкция (бетонировка) канала Кукин протяженности 3,042 км, ремонт отвода №3 (очистка) на протяженности 1,08 км, строительство водовыпусков 14 ед., строительство водомерных сооружений 5 ед., ремонт головного сооружения 1 ед., строительство регуляторов 2 ед., строительство трубчатых переездов 4 ед..

Проектом предусмотрена капитальная планировка на площади 20,48 га. Удельный объем планировочных работ составит 356 м^3/га, объем срезки составит 7284 м^3, объем насыпи 6213 м^3.

Продолжительность строительство данного объекта длится 288 день в году.

В период строительства объекта и предусмотренных по проекту планировочных работ, реконструкция канала, а также при снятия четвертичных отложений и при земляных работах выделяется неорганическая пыль. Атмосферный воздух в период строительных работ будет загрязняться неорганической пылью, почва и грунты могут загрязняться в период перевозки автотранспортом строительных материалов и вывоза строй мусора.

Выбросы осуществляется от передвижного автотранспорта и неорганизованных источников. При строительстве используется автомобили: экскаватор, скрепер и бульдозер, работающие на дизтопливе. При работе этих автомобилей израсходуется 6,2 тн дизтоплива. Во время работы этих спецтехники от сгорания дизтоплива в атмосферный воздух выбрасывается выхлопные газы в количестве 1,2927 тн/год.

При строительстве для рабочих на хозпитьевые нужды расход воды составляет 144,0 м^3. Израсходованная вода сбрасывается в специальном временном водоемы, который строят около стройплощадки.

На строительном площадке от рабочих образуется твердо-бытовые отходы образуются в количестве 0,86 тн. По мере накопления вывозится на полигон ТБО.

После окончания строительство улучшается водообеспечение земель на площади 600 га и повышается урожайность сельхозкультур с посевных площадей.

В соответствии с перечнем видов деятельности, утвержденным Постановлением КМ РУз № 152 от 05.06.2009 г., относится к 4-ей категории воздействия на окружающую среду.

Рассмотрев представленные материалы, Бухарская государственная экологическая экспертиза **согласовывает** проект заявления о воздействии на окружающую среду "Строительства демонстрационных участков фермерского хозяйства «Вафо» на территории АВП «Мирсулаймон ариги» Вабкентского района".

Заключение государственной экологической экспертизы о соответствии объекта государственной экологической экспертизы экологическим требованиям имеет юридическую силу в течение трех лет со дня его выдачи.

Председатель комитета **А.Б.Ниязов**

М.Ёдгорова

O`ZBEKISTON RESPUBLIKASI
TABIATNI MUHOFAZA QILISH
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ГОСУДАРСТВЕННЫЙ КОМИТЕТ
ПО ОХРАНЕ ПРИРОДЫ
РЕСПУБЛИКИ УЗБЕКИСТАН

БУХАРСКИЙ ОБЛАСТНОЙ КОМИТЕТ ПО ОХРАНЕ ПРИРОДЫ

2017 год "13" июня № 9-7-765

на № 336 - от 07 июня 2017 г.

ЗАКЛЮЧЕНИЕ
Государственной экологической экспертизы

Объект: Проект ЗВОС "Строительства демонстрационных участков фермерского хозяйства «Дилноз угли Абдухалил» на территории АВП «Куйи газиобод сувчилари» Бухарского района».
Заказчик: ООО «Когон Сув Курилиш»
Разработчик: ООО «БухороГидромелиолойиха»

Директору
ООО «Когон Сув Курилиш»
Хайдарову С.
Начальнику Бухарской районной
инспекции по охране природы
Шерипову Б.

На Бухарскую государственную экологическую экспертизу представлен проект заявления о воздействии на окружающую среду "Строительства демонстрационных участков фермерского хозяйства «Дилноз угли Абдухалил» на территории АВП «Куйи газиобод сувчилари» Бухарского района».

Демонстративное участки нацелены на продвижение улучшенных технологий и земледельческих практик, чтобы путем водосбережения и повышения производительности земли предотвратить проблемы, связанные с уменьшением доступных водных ресурсов.

Целью проекта является улучшение условий для сельскохозяйственного производства на орошаемых землях и пропускной способности канала Нижний Газиобод, путем проведения мехочистки оросительного канала, реконструкции технических средств распределения оросительной воды и проведения капитальной планировки на орошаемых землях.

Межхозяйственный канал Газиобод имеет протяженность 11,6 км и находится на балансе УИС Шахрух-Дустлик. Канал подает воду четырем АВП-Куйи-Газиобод, Юкори Газиобод, Кавала Махмуд и Чоррух.

На проектном участке канала имеется 16 водовыпусков, оборудованных стандартными стальными затворами ручного управления (плоские затворы), которые находятся в рабочем состоянии, но частично, нуждаются в ремонте. Канал имеет водоизмерительные приборы, которых 14 сооружений откалиброваны по каналу, 1 откалибровано по водосливу, а 1 использует водомерный колодец с рейкой. Система канала Куи-Газиобод имеет протяженность 21,7 км, включая 5,5 км верхнего участка, находящегося на балансе УИС Шахрух-Дустлик, а остальная часть канала находится на балансе АВП

"Yo D" 3.1055 m.500-17

Куи-Газиобод. По системе каналов имеется 18 водовыпусков, подающих воду 12 хозяйствам.

Проектом предусматривается: механизированная очистка канала 4,72 км, строительство водовыпусков 6 ед., строительство водомерных сооружений 6 ед., замена трубы на существующем акведуке 21 м, выполнение капитальной планировки на площади 19,9 га.

Также предусмотрена механизированная очистка канала на протяженности 4,94 км, из них с ПК 2+23 по ПК32+00 очистка производится в земляном русле, с ПК 32+00 по ПК49+40 в бетоном русле. Проектом предусмотрена капитальная планировка земель на площади 19,9 га. Удельный объем планировочных работ составил 288 $м^3$/га, объем срезки составит 5715 $м^3$, объем насыпки 4728 $м^3$.

Продолжительность строительство данного объекта длится 288 день в году.

В период строительства объекта и предусмотренных по проекту планировочных работ, реконструкция канала, а также при снятия четвертичных отложений, при земляных работах в атмосферный воздух выделяется неорганическая пыль. Атмосферный воздух в период строительных работ будет загрязняться неорганической пылью, почва и грунты могут загрязняться в период перевозки автотранспортом строительных материалов и при вывозе строй мусора.

Выбросы осуществляется от передвижного автотранспорта и неорганизованных источников. При строительстве используется автомобили: экскаватор, скрепер и бульдозер, работающие на дизтопливе. При работе этих автомобилей израсходуется 7,06 тн дизтоплива. Во время работы этих спецтехники от сгорания дизтоплива в атмосферный воздух выбрасывается выхлопные газы в количестве 1,472 тн/год.

При строительстве для рабочих на хозпитьевые нужды расход воды составляет 144,0 $м^3$. Израсходованная вода сбрасывается в специальном временном водоемы, который строят около стройплощадки.

На строительном площадке от рабочих образуется твердо-бытовые отходы образуются в количестве 0,86 тн. По мере накопления вывозится на полигон ТБО.

После окончания строительство улучшается водообеспечение земель на площади 787 га и повышается урожайность сельхозкультур с посевных площадей.

Соблюдать рекомендации указанные в проекте:

Производить работу канала по уклонам, не допускающим размывов.

Не допускать сбросы поверхностных вод в КДС, соблюдать нормы внесения удобрений, химикатов и требования их хранения.

В соответствии с перечнем видов деятельности, утвержденным Постановлением КМ РУз № 152 от 05.06.2009 г., относится к 4-ей категории воздействия на окружающую среду.

Рассмотрев представленные материалы, Бухарская государственная экологическая экспертиза **согласовывает** проект заявления о воздействии на окружающую среду Строительства демонстрационных участков фермерского хозяйства «Дилноз угли Абдухалил» на территории АВП «Куйи газиобод сувчилари» Бухарского района».

Контроль за соблюдением требований природоохранного законодательства на предприятии возлагается Бухарской районной инспекции по охране природы.

Заключение государственной экологической экспертизы о соответствии объекта государственной экологической экспертизы экологическим требованиям имеет юридическую силу в течение трех лет со дня его выдачи.

Председатель комитета **А.Б.Ниязов**

М.Ёдгорова

ANNEX IV

Photos

Works on Station 4+60. "Kukin" canal for water supply on the territory of the farm "Vafo" in Vabkent District of the Bukhara Region.

On-farm irrigation systems

Along "Kukin" canal the uneven surfaces of land in both sides of the canal were cut off and the slopes compacted in the length of 6.3 km which enabled to carry out rehabilitation works in on-farm irrigation systems. Movement and operation of vehicles did not cause an impact on air, water resources and land resources. Provision is made for the protection of flora and fauna. Dump sites for construction materials, concrete products are organized. The water protection zone of the canal and sanitation zones were established. Sanitary and epidemiological safety of the area was provided.

Condition of the canal before works Condition of the canal after completion of works

St. 7+58. St. 7+58

The sprinkling of 15 km earth roads in the settlements was carried out in order to reduce the dust during vehicular traffic. Soil excavation and loading on trucks was performed by an excavator. When transporting the soil, all the bodies of the loaded trucks were closed with canvas covers. The main excavation works were performed in light conditions. The removal of some trees, bushes and grass is coordinated by the head of the WMA and the representative of the Mahalla Center. Most of the work was done manually. Temporary roads were constructed for the transport of construction materials and culverts. The banks of the canals compacted and fixed. Proper slopes has been created for the uninterrupted supply of water to irrigated land of the farm. All the provisions made for the preservation of trees and perennial plants.

Before the works at St. 9+30

After completion of works at St. 9+30

Clearing of the overgrown canal was performed manually. The banking-up of excavated clay was done. Solid wastes were sorted. Burning dry branches and grass on construction sites was not allowed. The internal slopes of the canal were made manually. Existing trees along the coast of the canal were conserved. The excavated mud and other wastes generated during the canal cleaning were taken out daily to a temporary organized own landfill of the company near the site. After drying, neutralization and settling, after a certain time it is used as a fertilizer on agricultural work.

- Pipedcrossingat St. 13+40 →completed


- Piped crossing atSt.17 + 12 →completed


- OutletSluice atSt.17 + 12→completed


All these spillways - outlets are made of sound material: concrete, reinforced concrete, stone embankment and combined. In some places along the ravines and along the length earthy one shave been installed with compacted slopes. According to construction regulations (SNiP II-I.4-62), earth slopes are made from a homogeneous soil. Their function is to supply the farm with quality water, also filling and draining individual irrigation networks through a system of water supply and discharge canals. Concrete dams were erected to detain and raise the water level by blocking the canal and inside the rivers. In the process of operation, under the influence of various factors, earth slopes can deform and collapse. The major harm is caused by filtration, wind wave rolling, as a result of which breaks, landslides and other destruction can occur. In this regard, it is necessary to establish a protection and security zone in width, depending on the capacity of the canal and for the constant monitoring by the WCA representatives, to take timely preventive measures and fix the damages.

- Outlet at St.19 +51→completed

- Facility with crossing (passage) at St.19 +73→completed

One of the noteworthy aspect of this work is that increasing the efficiency of water use, water saving and a corresponding reduction in the drainage load can be achieved by improving the management of existing irrigation systems, and after reaching the maximum of the possibilities of the methods used, the transition to new technologies should follow, installation of water measuring rods and account for water abstraction for each individual farm.

Construction work on the rehabilitation of inter-farm irrigation systems

on cleaning of "Kukin" canal(total length 3310 m)

All transportation vehicles prepared for the canal cleaning. A protection zone is established around the canal. Measures to prevent the leakage of oil products when working with a tractor are strictly observed. For rational use of water, the schedule of work with the head of the Water Consumers Association (WCA) has been adopted. Provisions are made for the conservation of trees and vegetation. All clay (sludge) after excavation during cleaning the canal loaded on dump trucks and transported to the newly organized landfill for decontamination and drying. It is then used as a fertilizer on the fields. Reclamation of disturbed lands during work processes was carried out. After the completion of the work all equipment is mobilized at a specially organized car-wash.

The rehabilitation works on inter-farm irrigation systems for cleaning the "Nizhniy Gazioad" Canal of the Bukhara district, Bukhara region is completed.


- The cleaning work was completed in the "Nizhniy Gaziabad" canal and branch No.3 (total length 5640 m)


During cleaning and construction of water facilities in canals the following machinery and equipment was used:

- Excavator LiuGong 225 C 1 pc.
- Bulldozer Shantui S16 1 pc..
- Jack-hammer 1 pc.
- Bulldozer with ripper Liu Gong CLGB 160 1 pc.
- Excavator Liu Gong 925 LL 1 pc.

- Truck crane 15 t 1 pc.
- Tractor T-28 1 pc.
- Dump truck Камаз 5511 1 pc.
- Light wagon Gaz-52 1 pc.
- Preliminary excavation work with laser grading was carried out on the farm "Vafo" in Vobkent district.

The work was done at the beginning of this year. This work relates not only to water management in general, but also to work on improving the meliorative state of irrigated land. This work was done on a step-by-step basis:

1. Surface measurement (leveling);
2. Office work or design;
3. Preparation of machinery and equipment;
4. Preparation of laser device;
5. Execution of grading and levelling work;
6. Troubleshooting;
7. Deep loosening;
8. Applying organic and mineral fertilizer.

Similar works were performed on the farm "Dilnoz ugli Abduhalil" in Bukhara region and on the farm "Yomgir" in Ramitan district.

The cycle of work conducted was accompanied by land reorganization, which allowed creating a single irrigated plot of 20.0 hectares in area and five small fields, divided by separate irrigation networks. Around each hectare of fields, mulberry trees were planted to protect against erosion of land and measures were taken against sand drifts, snow drifts, water and wind erosion.

These results clearly demonstrate the high efficiency of agromeliorative measures for laser grading and deep loosening of soil. At these sites, production and theoretical seminars were conducted for farmers, WMA leaders, representatives of water management and construction workers. The result of the laser-leveling work with deep loosening allowed increasing the coefficient of land use and saving irrigation water by more than 10%, increasing the uniformity of moisture and rate of the groundwater lowering by more than twice.

In addition, six vertical wells of combined drainage are planned to be installed in these sites, connected to an open collector, which drains particular area. The construction of booster wells in the farm "Dilnoz Ugli Abdukhalil" has already started.