

REPORT

**ON THE MONITORING VISIT OF THE TECHNICAL SECRETARIAT
OF THE UN MULTI-PARTNER HUMAN SECURITY TRUST FUND FOR THE ARAL
SEA REGION IN UZBEKISTAN, TO THE REPUBLIC OF KARAKALPAKSTAN**

Programme: “Building knowledge and skills of local partners and communities to address environmental insecurities through innovative air, land, and water management solutions in the Aral Sea Region”

Participating UN Organization(s): The United Nations Development Programme (UNDP) and the Food and Agriculture Organization of the United Nations (FAO)

Duration: July 2024 – June 2025

Budget: USD 900,000

The main goal of the Joint Programme: Providing new and enhanced services that allow local partners and communities to be more fully capable of addressing the deteriorating environmental situation in the Aral Sea Region.

Objectives:

- Conduct a comprehensive assessment of ecosystem services in the Aral Sea Region, with the goal of improving local community management practices.
- Implement innovative approaches in water purification, afforestation, and soil stabilization within the region to address environmental degradation.
- Establish integrated air, water, and soil quality monitoring systems to facilitate improved regulatory practices in the Aral Sea Region.

Trip/mission member (s):

- Tulkun Karimov, Project and M&E Technical Analyst, MPHSTF TS

Accompanied by:

- Alisher Utemisov, Programme Manager, UNDP
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Destination: Nukus city, Kungrad, Takhtakupir, districts of the Republic of Karakalpakstan.

Date: 26-28 March 2025

Objectives of the visit:

- To monitor the results of Joint Programs approved by the MPHSTF Steering Committee under the Fourth Call for Proposals.

The present report summarizes the current progress of the JP vis-à-vis the Work Plan. The report also provides findings from the meetings held with local authorities, project partners and beneficiaries, and from the site visits. Specific recommendations are developed from the monitoring visits for further consideration of the JP team.

CURRENT PROGRESS:

Objective 1. Assessment of ecosystem services in the Aral Sea Region to enhance local management practices (UNDP and FAO).

The UNDP, in collaboration with FAO, has embarked on a mission to enhance the local management practices through assessment of ecosystem services in the Aral Sea Region.

Output 1.1: Participatory ecosystem restoration to enhance community-based tugai and desert pasture ecosystems management (UNDP)

Activity 1.1.1 Plan and conduct ecosystem services mapping in selected communities in three pilot districts of Karakalpakstan.

In collaboration with the Ministry of Ecology, Environmental Protection and Climate Change, UNDP conducted an assessment of ecosystem services in the Aral Sea Region to support improved local management.

Key results include:

- **Stakeholder Engagement:** 3 thematic meetings held in three target districts involving VCC heads, forestry departments, and community members. Consultations and surveys were conducted to gather community perspectives and promote awareness on ecosystem services. Eco-volunteers were mobilized for future initiatives.
- **Field Assessments:** Forests, pastures, and desert areas were visited and analyzed across the three districts to identify and evaluate ecosystem services.
- **Youth & Women Empowerment:** A 3-month incubation program was launched with IT Park to build capacities in entrepreneurship and startup development. A startup contest focused on air, soil, and water monitoring systems was also conducted.

Output 1.2 Enhanced Ecosystems Services (FAO)

As part of this subcomponent, Ismail Belen, Chief Forestry Officer of Türkiye's Chamber of Forest Engineers (OMO), visited Karakalpakstan to meet with the Forestry Agency and its district departments. Together, they assessed potential restoration sites in Muynak and Kungrad districts.

The visit aimed to support the development of an Ecosystem Restoration Guideline for the Aral Sea region, addressing the area's severe environmental degradation. The Guideline offers practical strategies for ecosystem restoration, biodiversity enhancement, and sustainable land management.

Mr. Belen's meetings provided valuable insights into local conditions, regulatory frameworks, and ongoing efforts. Based on this collaboration and field analysis, the Chamber of Forest Engineers (OMO) developed the Guideline within the project.

The **Ecosystem Restoration Guideline** developed with support from Ismail Belen and the Chamber of Forest Engineers (OMO) can significantly contribute to mitigating severe environmental degradation in the Aral Sea region by offering a structured, locally adapted approach. Overall, the Guideline bridges technical expertise and local realities, making it a practical instrument for reversing environmental decline in the Aral Sea region.

Thus, **it is recommended** that the Joint Programme team actively disseminate the Guideline among relevant government organizations, donor institutions, broader community representatives and other stakeholders to explain the significance of the Guideline in shaping future interventions in the region.

Objective 2. Adopting new approaches in water purification, afforestation, and soil stabilization in the Region (UNDP, FAO).

Output 2.1. Supporting sustainable afforestation and land revitalizing practices in the Aral Sea Region (UNDP)

Technical support has been extended to forestry departments in selected pilot districts to establish plant nurseries and expand afforestation efforts. In partnership with experienced specialists from OISCA, a three-day hands-on training on Cistanche cultivation was conducted. The training covered key techniques for host tree preparation, afforestation practices, and parasitic planting methods. The primary aim was to equip local families with new agricultural skills, promote seasonal employment through Cistanche farming, and introduce innovative approaches to afforestation and soil stabilization. A total of 72 households participated in the training and began cultivating Cistanche, contributing to both environmental sustainability and improved rural income generation. Training participants were provided with two packages of Cistanche seeds — each package sufficient for planting 100 Cistanche plants. In addition to the seeds, essential tools and materials were procured to support successful knowledge transfer and early-stage plant care. These included illustrated planting manuals, a practical demonstration of the cultivation process, basic gardening tools (e.g., shovels and gloves), and organic fertilizers.

Technical support is being provided to IICAS for procuring a mobile laboratory to analyse soil composition and monitor sand and dust migration in the region.

That day, I had a tripartite meeting with Ms. Leyla Seyitova, Minister of Ecology, Environmental Protection, and Climate Change of the Republic of Karakalpakstan (Minecology); Mr. Bahitjan Khabibullaev, Head of IICAS; and Mr. Ziyatov Oman, Head of the Department for Atmospheric and Air Protection at Minecology.

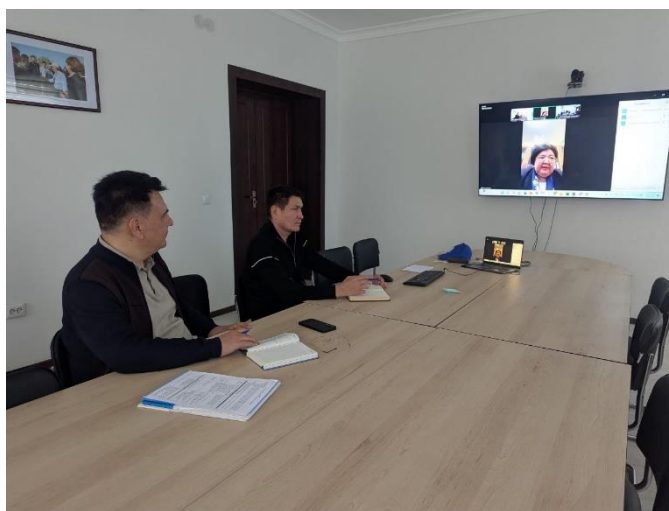
All three emphasized the importance of acquiring this type of mobile laboratory, as it will enable more effective monitoring of air, soil, and water quality in the region. Notably, the mobile laboratory will significantly improve the accuracy of biochemical analyses by allowing tests to be conducted directly on-site. Previously, samples had to be transported to Tashkent for analysis, which could sometimes compromise the reliability of the results.

In addition, the Laboratory can control the quality of vegetables and fruits produced locally. Up to date, this kind of laboratory was available only at the State Research Institute of Soil Science and Agrochemistry of the Republic of Uzbekistan.

The technical specification of the laboratory, which enables comprehensive analysis of the quality and safety of locally produced fruits and vegetables, presents a significant opportunity to enhance inter-sectoral collaboration—particularly between the Ministry of Ecology and the Ministry of Healthcare. This collaboration is essential in addressing public health risks associated with the consumption of spoiled or contaminated produce.

By utilizing the laboratory's diagnostic capabilities, the Ministry of Ecology can regularly monitor environmental and agricultural factors that affect food quality, such as soil contamination, pesticide levels, and water quality. These findings can then be shared with the Ministry of Healthcare, enabling it to anticipate and prevent potential health threats. Early identification of harmful substances or pathogens in produce can directly inform public health advisories, nutritional guidelines, and awareness campaigns aimed at reducing foodborne illnesses.

To this end, **it is recommended**, echoing suggestions raised during the meeting, that the Joint Programme (JP) team actively engage with the Ministry of Healthcare of the Republic of Karakalpakstan. This would help raise awareness of the laboratory's potential role in disease prevention and lay the groundwork for establishing a structured cooperation mechanism. Possible avenues for



Pic. 1: A meeting with Ms. Leyla Seyitova, Minister of Ecology, Environmental Protection, and Climate Change of the Republic of Karakalpakstan (Minecology); Mr. Bahitjan Khabibullaev, Head of IICAS; and Mr. Ziyatov Oman, Head of the Department for Atmospheric and Air Protection at Minecology

collaboration include:

- **Joint data sharing protocols** on food quality and public health trends;
- **Coordinated inspections** and cross-sectoral health and safety campaigns targeting local markets and farming communities;
- **Capacity-building initiatives**, such as joint trainings for laboratory and healthcare personnel;
- **Policy development support**, fostering integrated approaches to food safety, environmental health, and disease prevention.

Strengthening this partnership will not only increase the effectiveness of both ministries in their respective domains but also ensure a more resilient and health-conscious approach to food security and environmental sustainability in the region.

The Mobile Laboratory just arrived that day at the IICAS premises and had to undergo certain legal formalities before it could be officially transferred from UNDP to IICAS. Taking that opportunity, I requested the Minister of Ecology to support the JP team in expediting the legal transfer process should any obstacles occur, to which she kindly agreed.

Whenever high-tech equipment is procured under the Aral Sea Trust Fund Joint Programmes (JPs) and handed over to local beneficiaries, **the issues of maintenance and sustainable use** remain acute. In this regard, I addressed the Head of IICAS to inquire whether the organization would ensure all necessary conditions for the sustainable operation of the Mobile Laboratory. Mr. Bahitjan Khabibullaev assured me that there would be no issues concerning maintenance costs or the long-term, effective use of the equipment.

During the wrap-up meeting with the Joint Programme team, I once again raised the issue of ensuring the sustainable use of high-tech equipment. **I recommended that this concern** be explicitly addressed in the legal transfer documents and that the team maintain regular follow-up with the beneficiaries—potentially through spot-checks. If these spot-checks reveal ineffective or improper use of the equipment, the team should promptly raise the issue with the beneficiaries' management and encourage them to take appropriate corrective measures to prevent such practices in the future.

In collaboration with the Academy of Science of the Republic of Karakalpakstan a field research is organized, focusing on sand and dust storms and assessing loss and damage to ecosystem services. Currently 30% of the work has been completed and final output will be available by the end of April, 2025.

Output 2.2 Enhanced Integrated Management and Restoration of Tugai Forest Ecosystems for Sustainable Livelihoods and Environmental Resilience (FAO)

To promote ecosystem restoration and sustainable land management in the Aral Sea region, 4 hectares of oleaster (*Elaeagnus angustifolia*) demonstration plots were established in Kungrad and Taxtakupir districts. A total of 3,200 drought-tolerant seedlings were planted to showcase restoration potential in harsh environments.



Pic. 2: A mobile laboratory to analyse soil composition and monitor sand and dust migration in the region.

Innovative water-saving technologies were tested, including 200 Waterboxxes—devices that collect rainwater and condensation to support seedlings—alongside hydrogel and traditional planting methods. These plots serve as living laboratories to compare the effectiveness of each technique.

The initiative provides practical insights into ecosystem restoration and aims to inspire local adoption of sustainable practices.

On that day, I visited the Kungrad District Forestry Department and met with Mr. Batir Dagdanov, Head of the Department, along with other representatives. As part of the Joint Programme, two water pumps and a moto-cultivator were provided to the Department.



Pic. 3: A Waterboxx technology of growing plants

Mr. Dagdanov expressed his sincere gratitude to the Aral Sea Trust Fund for the technical support, particularly for the moto-cultivator. Previously, they did not have such equipment, and it will greatly facilitate the work of the Department's staff, especially in narrow areas of the nurseries.

He also noted that the Department had faced challenges with irrigation in the past. The newly provided pumps, each with a capacity of 400 cubic meters of water per hour, will significantly improve irrigation efficiency and enhance the overall productivity of the nurseries.

Currently, the Department manages 13 hectares of nurseries where they cultivate desert plants. With the support of the Aral Sea Trust Fund, they plan to expand the nursery area from 13 hectares to 20 hectares.

I asked Mr. Dagdanov whether the Forestry Department would ensure the maintenance and sustainable use of the equipment provided to them after the completion of the Joint Programme. He assured me that the Department would establish the necessary conditions to support both proper maintenance and effective utilization of the equipment.

It is recommended that the Joint Programme staff conduct regular post-programme monitoring of the equipment's use and take appropriate action if any misuse or improper handling is identified.

I also had the opportunity to visit the project sites where 200 Waterboxxes are currently being tested. The Head of the Kungrad Forestry Department informed me that it is still too early to assess the effectiveness of this planting method, as the vegetation period begins in early April. Therefore, at the time of my visit, it was difficult to evaluate the results.



Pic. 4: Equipment purchased within the Aral Sea Trust Fund for the Kungrad Forestry Department

While the Waterboxx method appears promising, it also seems to be relatively costly due to the large number of plastic boxes required.

Just a week before my visit, Mr. Unrinbaev, Chairman of the Jokargy Kenes of the Republic of Karakalpakstan, also visited the project sites. He expressed his support and promised to assist with the localization of Waterboxx production—should the method prove successful—which could help reduce

costs and enable the wider scaling of this approach.

If the Waterboxx planting method proves successful, **it is recommended** to maintain regular communication with the Forestry Department and the Joqorgi Kenes of the Republic of Karakalpakstan to facilitate the localization of Waterboxx production in the region and conduct wider awareness raising campaign on the planting method in Karakalpakstan.

The following day, I visited the Takhtakupir District Forestry Department and met with its Head, Mr. Bazarbay Turdibaev. As part of the Joint Programme, a seeder and a soil tiller were procured for the department. According to Mr. Turdibaev, the newly provided equipment will significantly ease the workload of the forestry personnel. It is expected to be used on 20–30 hectares of land and contribute to increased productivity. Mr. Bazarbay Turdibaev assured me

that there would be no problem with proper maintenance and effective utilization of the equipment in post project period.

Additionally, international experts conducted intensive training sessions on Tugai forest improvement in Karakalpakstan. Around 60 forestry professionals from Kungrad and Taxtakupir participated, along with university students. The training built local capacity in managing these critical riparian ecosystems and ensured knowledge transfer to future forestry professionals.



Pic. 5: Equipment purchased within the Aral Sea Trust Fund for the Takhtakupir Forestry Department

Objective 3. Promoting integrated air, water, and soil quality monitoring systems to facilitate regulatory practices in the Region (UNDP, FAO).

Output 3.1 Facilitating Integrated Air Quality Management Systems and Regulatory Practices (UNDP).

A comprehensive needs assessment of air quality monitoring systems was conducted across 27 locations in 13 districts of Karakalpakstan. The assessment was carried out in collaboration with the expert organization "Davlat Ekologik Sertifikatlashtirish va Standartlashtirish Markazi" (Davekosertifikat). In coordination with Uzhydromet and the Ministry of Ecology, air quality monitoring systems compatible with the existing national infrastructure were identified.

As a result, 17 priority locations across 10 districts were selected for the installation of Automatic Air Quality Monitoring Systems (AQMS). A detailed Technical Specification for the equipment was developed by Davekosertifikat. Based on the findings of the needs assessment and the Technical Specification, a tender has been launched for the supply, installation, and commissioning of the AQMS.

During my meeting with the Minister of Ecology, Ms. Leyla Seitova, she emphasized the importance of installing the Air Quality Monitoring System (AQMS) as part of the Joint Programme. She noted that the system is highly modern and advanced.

I inquired whether the Ministry of Ecology has sufficient skilled personnel to operate the system. In response, she assured me that the Ministry will ensure the necessary staff are trained and prepared.

Ms. Seitova mentioned that the AQMS will initially be integrated into the nationwide system managed by the Ministry of Ecology of Uzbekistan. She also proposed the establishment of a local situational center in Karakalpakstan to take full advantage of the AQMS.

She underscored that the data generated by the system will enable the Ministry to make informed decisions on measures aimed at mitigating the environmental consequences of the Aral Sea catastrophe.

Although the purchased system is sophisticated and modern, the meeting gave the impression that its operation will require significant effort—particularly in training operational specialists. Therefore, **it is**

recommended that the Joint Programme team give serious attention to this aspect and, in coordination with the system supplier, ensure the prompt and effective preparation of skilled operational personnel.

Output 3.2 Enhanced Comprehensive Environmental Quality Management and Regulatory Practices (FAO).

To support informed decision-making in the Aral Sea region, a comprehensive environmental assessment was carried out, focusing on water and soil quality in six key districts of Karakalpakstan: Muynak, Kungrad, Taxtakupir, Chimbay, Amudarya, and Ellikala. Understanding the current condition of these vital resources is essential for guiding ecosystem restoration and promoting sustainable land management.

The water analysis evaluated salinity, nutrient levels, and pollutants like pesticides and heavy metals. This helped determine the water's suitability for uses such as irrigation and aquatic habitat restoration. The findings will guide strategies to improve water quality and ensure sustainable use amid growing scarcity.

In parallel, detailed soil analysis examined composition, fertility, salinity, and contaminants to assess land potential for agriculture, forestry, and other uses. This data will support the adoption of appropriate land management methods, including soil conservation, sustainable farming, and land restoration.

Recognizing climate's critical role, six meteorological stations were installed across the districts. Equipped with advanced sensors, they monitor temperature, precipitation, humidity, wind speed, and solar radiation. This data will reveal climate trends and extremes, supporting the development of climate-resilient restoration and development strategies.

Combined, the water, soil, and climate data form a strong foundation for decision-making. They will help:

- Identify restoration priority areas.
- Develop environmentally sustainable land practices.
- Monitor and adapt restoration efforts.
- Build resilience to climate change and future challenges.

This assessment reflects a strong commitment to evidence-based action in the Aral Sea region. By clarifying the status of key resources, it empowers communities, authorities, and partners to collaboratively pursue a more sustainable and resilient future.

Delays in implementation

The Joint Programme (JP) implemented most activities on time. However, delays in several areas led to a 5-month extension until 31 May 2025, approved by the Project Board on 12 November 2024 and the MPHSTF Steering Committee in December 2024.

Under **Objective 1, Output 1.1**, delays occurred in hiring an international consultant. After prolonged negotiations, a local expert was hired due to time constraints. Work will be completed by April 2025 and handed over to the Ministry of Ecology.

Under **Objective 2**, delays affected:

- **Output 2.1:** Time was needed to develop a concept, engage beneficiaries, and define specs for a mobile soil lab.
- **Output 2.2:** Two demo sites were set up to test sustainable practices, but more time is needed for monitoring and result transfer.
All activities will be completed and transferred by April 2025.

Under **Objective 3:**

- **Output 3.1:** Equipment specs for air quality monitoring were developed; tender and installation require more time. Awareness events will follow installation.
- **Output 3.2:** A water and air monitoring network with 6 stations was set up to test agricultural practices. Results will inform training and awareness on One Health and dust storms.

Due to the time needed for full monitoring and knowledge sharing, an extension was essential until May 2025.

Conclusions and Recommendations

The monitoring visit conducted in March 2025 to project sites across the Republic of Karakalpakstan confirms that the Joint Programme has made commendable progress toward its stated objectives, despite the implementation delays that led to a five-month extension. Across all three pillars of the programme—ecosystem services assessment, innovation in land and water management, and the establishment of integrated monitoring systems—there is clear evidence of tangible outputs, meaningful stakeholder engagement, and local capacity development.

In terms of ecosystem restoration and knowledge building, significant strides were made through participatory ecosystem mapping and community consultations. These activities have not only informed the assessment of environmental conditions in the Aral Sea region but also created opportunities for youth and women to participate in environmental initiatives, particularly through incubation and startup programmes. The development of the Ecosystem Restoration Guideline, in collaboration with the Chamber of Forest Engineers of Türkiye, marks a critical milestone. This Guideline offers structured, locally adapted restoration strategies and has the potential to become a cornerstone document for future ecosystem management efforts in the region.

Progress was equally notable in the area of sustainable afforestation and soil stabilization. Innovations such as the introduction of Cistanche cultivation and Waterboxx technology reflect a forward-looking approach that seeks to merge environmental sustainability with local livelihoods. The provision of essential equipment, including a mobile laboratory and agricultural machinery, alongside hands-on trainings, has empowered forestry departments and households with new skills and resources. However, the sustainability of such technical support remains a concern, and the need for structured follow-up mechanisms has become evident.

On the regulatory front, the programme's support for integrated air, water, and soil monitoring systems has laid the groundwork for evidence-based environmental governance in Karakalpakstan. Comprehensive assessments of soil and water quality, alongside the installation of meteorological and monitoring stations, will enhance the capacity of local authorities to develop climate-resilient restoration strategies. The air quality management component, including the forthcoming installation of Automatic Air Quality Monitoring Systems (AQMS), holds strong potential. However, its success will depend on the rapid development of technical expertise and operational readiness among the relevant government organizations' staff.

To build upon the progress achieved so far, several recommendations are proposed. First, the Ecosystem Restoration Guideline should be disseminated widely among government institutions, development partners, and community stakeholders, with particular emphasis on its integration into policy and programme planning. Secondly, given the valuable possible role of the mobile laboratory in monitoring food safety and environmental risks, a formal cooperation mechanism between the Ministry of Ecology and the Ministry of Healthcare should be established. This intersectoral collaboration will be essential in promoting One Health approaches and preventing health threats linked to environmental degradation.

Moreover, it is critical to institutionalize the sustainable use of transferred equipment. Legal handover documents should explicitly address maintenance obligations, and the Joint Programme team should conduct periodic post-programme monitoring visits. Where misuse or neglect is identified, prompt corrective actions must be taken in consultation with the relevant beneficiary leadership.

If the Waterboxx pilot proves successful during the 2025 vegetation season, the programme should support efforts to localize production and reduce costs, possibly through collaboration with regional authorities such as the Joqorgi Kenes of Karakalpakstan. Broader awareness-raising on this technique may also facilitate its adoption across the region.

Lastly, the AQMS initiative must be accompanied by capacity-building for local technical staff. The proposal by the Ministry of Ecology to establish a situational monitoring center in Karakalpakstan deserves serious consideration and would further enhance the utility of the new infrastructure. The remaining capacity-building events and awareness materials, as outlined in the workplan, should be finalized and disseminated before the programme concludes.

In conclusion, the Joint Programme is on track to deliver its intended results and is contributing meaningfully to the environmental and human security agenda in the Aral Sea region. With targeted follow-up on the above recommendations, the programme will not only ensure the sustainability of its

interventions but also leave behind a robust foundation for future action.

Annex 1. Indicator-Based Performance Assessment

	Achieved Indicator Targets	Reasons for Variance with Planned Target (if any)	Source of Verification
Outcome 1. The stress on local communities due to the deteriorating environmental situation reduced (UNDP, FAO)			
Indicator: # of tugai forests with restored ecosystems Baseline: N/A Planned Target for 2025: 3	0	This indicator will be measured only at the end of the project after completion of all activities.	Monitoring visit reports
Indicator: % of air quality forecasting efficiency is increased Baseline: N/A Planned Target for 2025: 10 %	0	This indicator will be measured only at the end of the project after completion of all activities.	Monitoring visit reports
Output 1.1. Inclusive participatory ecosystem services mapping.			
Indicator 1.1.1 # of people (women/men/youth) engaged to ecosystem services mapping exercise Baseline: 0 Planned Target for 2025: 45	45	Field visits were carried out, currently list of 45 ecovolunteers has been compiled. Engagement of ecovolunteers is planned for April-May, 2025	Reports, validation workshops and etc.
Indicator 1.1.2 # area of degraded tugai/pasture/other ecosystems (hectare) covered by participatory mapping Baseline: 0 Planned Target for 2025: 60ha	60	Area of 60ha tugai/pasture has been observed, GIS maps will be updated in April, 2025.	Maps, GIS
Indicator 1.1.3 # of people (women/men/youth) benefitted from knowledge sharing and capacity building events disaggregated by gender and types of occupation Baseline: 0 Planned Target for 2025: 30	0	Capacity building events are planned for March-April, 2025	Reports, validation workshops and etc.
Indicator 1.1.4 # of design of education, communication and outreach materials for various target groups at local, regional and national levels. Baseline: 0 Planned Target for 2025: 1 promo material (social video, leaflets and etc) 100 people	0	Promo material development and dissemination is planned for March-April, 2025	Reports, TV and social network materials etc.
Output 1.2. Enhanced Ecosystem Services (FAO)			
Indicator 1.2.1 #of guidelines developed for ecosystem restoration, NBS, native trees conservation Baseline: 0 Planned Target for 2024: 2 reports	2		Reports, Records of meetings, workshops, or consultations Expert estimates

	<u>Achieved</u> Indicator Targets	Reasons for Variance with Planned Target (if any)	Source of Verification
Indicator 1.2.2 # of people who gained access to improved ecosystem services (women/men/youth) with the project support Baseline: N/A Planned Target for 2025: 150	150		
Outcome 2. Adopting new approaches in water purification, afforestation, and soil stabilization in the Region (UNDP, FAO).			Reports
Output 2.1.Supporting sustainable afforestation and land revitalizing practices in the Aral Sea Region			Reports, Meetings, Transfer of acts , etc , Research Reports
Indicator 2.1.1 # # sand and salt resilient plants nurseries are established in target districts Baseline: 3 Planned Target for 2025: 3	6		
Indicator 2.1.2 # of land and soil analysis mobile labs are established Baseline: N/A Planned Target for 2025: 1	1		
Indicator 2.1.3 # of local farmers and smallholders (women/men/youth) with improved knowledge and skills on sustainable afforestation and pasture management practices Baseline: N/A Planned Target for 2025: 60	72		
Indicator 2.1.4 #of seasonal job places (including women, youth and others) created in planting and maintaining nurseries Baseline: N/A Planned Target for 2025: 30	30		
Output 2.2 Enhanced integrated management and restoration of Tugai forest ecosystems for sustainable livelihoods and environmental resilience			Reports, Records of meetings, workshops, or consultations
Indicator 2.2.1 #of participants attending the workshop Baseline: 0 Planned Target for 2025: 40 people	55		
Indicator 2.2.2 #of ha of restored tugai Baseline: N/A Planned Target for 2025: 4ha	4ha		
Indicator 2.2.3 #of Waterboxx installed Baseline: 0 Planned Target for 2025: 200	200		

	<u>Achieved</u> Indicator Targets	Reasons for Variance with Planned Target (if any)	Source of Verification
Outcome 3. Promoting integrated air, water, and soil quality monitoring systems to facilitate regulatory practices in the Region (UNDP, FAO)			
Output 3.1 Facilitating Integrated Air Quality Management Systems and Regulatory Practices (UNDP)			Reports, Meetings, Act of transfers
Indicator 3.1.1 #of air quality monitoring systems established integrated to the network of UzHydromet Baseline: 1 Planned Target for 2025: 9	0	The vendor is contracted. Supply and installation of the AQMS equipment is expected in May, 2025	
Indicator 3.1.2 # of developed national standards for the air quality in the Aral Sea Region in line with SDG11 Baseline: 0 Planned Target for 2025: 1	0	The vendor is contracted. Supply and installation of the AQMS equipment is expected in May, 2025	
Indicator 3.1.3 # of population in 8 spots are benefited from the air monitoring quality systems Baseline: 0 Planned Target for 2025: 691900	0	The vendor is contracted. Supply and installation of the AQMS equipment is expected in May, 2025	
Output 3.2 Enhanced Comprehensive Environmental Quality Management and Regulatory Practices (FAO)			Reports, Records of meetings, workshops, or consultations Reports, Records of meetings, workshops, or consultations Manuals
Indicator 3.2.1 #of comprehensive reports generated Baseline: 0 Planned Target for 2025: 2	2		
Indicator 3.2.2 #of training materials developed Baseline: 0 Planned Target for 2025: 1	1		
Indicator 3.2.3 #of monitoring network stations installed Baseline: 0 Planned Target for 2025: 5 stations	6		

