



Food and Agriculture
Organization of the
United Nations

unicef 
for every child



UNDP, UNICEF and FAO Joint Programme
“Empowering Youth Towards a Brighter Future through Green
and Innovative Development of the Aral Sea region”



MPTF OFFICE GENERIC FINAL PROGRAMME NARRATIVE REPORT



Reporting period:
8 December 2022 – 30 April 2024



UN Multi-Partner Human
Security Trust Fund
for the Aral Sea Region
in Uzbekistan

This Joint Programme is funded by the UN Multi-Partner Human Security Trust Fund for the Aral Sea region in Uzbekistan, which is generously supported by the Government of Uzbekistan, Norway, Finland, the Republic of Korea, the European Union, and Alwaleed Philanthropies



Government of the
Republic of Uzbekistan



Government of Norway



European Union



Suomi Finland



Government of the
Republic of Korea



Alwaleed
Philanthropies



Government of the Federal
Republic of Germany

The views expressed in this publication are those of the author(s) and do not necessarily represent those of UNDP. UNDP is the leading United Nations organization fighting to end the injustice of poverty, inequality, and climate change. Working with our broad network of experts and partners in 170 countries, we help nations to build integrated, lasting solutions for people and planet. Learn more at undp.org/uzbekistan or follow @UNDPUzbekistan on social media.

© UNDP, 2024 (undp.org/uzbekistan)

Programme Title & Project Number	Country, Locality(s), Priority Area(s) / Strategic Results
• Programme Title: UNDP, UNICEF and FAO Joint Programme “Empowering Youth Towards a Brighter Future through Green and Innovative Development of the Aral Sea region” • Programme Number: 00134223 • MPTF Office Project Reference Number: 00134415	Country/Region: Uzbekistan, the Republic of Karakalpakstan, Chimbay, Kegeyli, Karauzyak districts Priority area/strategic results: • UNSDCF Priority B – “Inclusive human capital development leading to health, well-being and resilient prosperity” and Outcome 3 - By 2025, youth, women and vulnerable groups benefit from improved access to livelihoods, decent work and expanded opportunities generated by inclusive and equitable economic growth; • UNSDCF Priority C -” Sustainable, climate responsible and resilient development” and Outcome 5 - By 2025, the most at-risk regions and communities of Uzbekistan are more resilient to climate change and disasters, and benefit from increasingly sustainable and gender-sensitive efficient management of natural resources and infrastructure, robust climate action, inclusive environmental governance and protection.
Participating Organization(s)	Implementing Partners
Organizations that have received direct funding from the MPTF Office under this programme: • UNDP • UNICEF • FAO	• The Ministry of Economy and Finance of the Republic of Uzbekistan • The Ministry of Investments, Industry and Trade of the Republic of Uzbekistan • The Council of Ministers of the Republic of Karakalpakstan • The Ministry of Poverty Reductions and Employment of the Republic of Karakalpakstan • The Ministry of Water Resources of the Republic of Uzbekistan • The Ministry of Agriculture of the Republic of Karakalpakstan • The Ministry of Innovation of the Republic of Karakalpakstan • The International Innovation Centre for the Aral Sea Basin under the President of the Republic of Uzbekistan • The Scientific-Information Center of the Interstate Commission for Water Coordination in Central Asia (SIC ICWC) • The Ministry of Information Technology • The Ministry of Preschool and School Education of the Republic of Karakalpakstan • The Forestry Agency under the Ministry of Ecology, Environmental Protection and climate change of the Republic of Uzbekistan • Youth Agency of the Republic of Karakalpakstan • District Khokimiyats of Chimbay, Kegeili and Karayziak

Programme/Project Cost (US\$)		Programme Duration	
Total approved budget as per project document: USD \$1,740,001.55			
MPTF /JP Contribution by Agency:		Overall Duration (months)	16
• UNDP - \$1,313,828.04 • UNICEF - \$195,401.26 • FAO- \$230,772.25			
Agency Contribution			
• UNDP -\$120,000			
Government Contribution (if applicable)		Start Date (dd.mm.yyyy)	08/12/2022
Other Contributions (donors) (if applicable)		Original End Date (dd.mm.yyyy)	31/12/2023
TOTAL: \$1,740,001.25		Current End Date (dd.mm.yyyy)	30/04/2024
Programme Assessment/Review/Mid-Term Eval.		Report Submitted By	
Assessment/Review - if applicable please attach			
Yes	No	Date: dd.mm.yyyy	• Name: Ms. Akiko Fujii • Title: UNDP Resident Representative in Uzbekistan • Participating Organization (Lead): UNDP • Email address: akiko.fujii@undp.org
Mid-Term Evaluation Report – if applicable please attach			
Yes	No	Date: dd.mm.yyyy	

LIST OF KEY ACRONYMS

CDP	Community Development Plan
COVID-19	Coronavirus Disease 2019
FAO	Food and Agriculture Organization of the United Nations
GIS	Geographic Information System
GPS	Global Positioning System
GoU	Government of Uzbekistan
ICT	Information and Communication Technology
IICAS	The International Innovation Centre for the Aral Sea Basin under the President of the Republic of Uzbekistan
IT	Information Technology
JP	Joint Programme
MIIT	Ministry of Investment, Industry and Trade of Uzbekistan
MoA	Ministry of Agriculture
MoEF	Ministry of Economy and Finance of Uzbekistan
MOFA	Ministry of Foreign Affairs
MPHSTF	UN Multi-Partner Human Security Trust Fund for the Aral Sea region in Uzbekistan
PB	Project Board
PRA	Participatory Rural Appraisal
SDG	Sustainable Development Goals
SIC ICWC	Scientific Information Center of the Interstate Coordination Water Commission of Central Asia
STEM	Science, Technology, Engineering, Mathematics
TOR	Terms of Reference
UNDP	United Nations Development Programme
UNICEF	United Nations International Children's Emergency Fund
UNSDCF	United Nations Sustainable Development Cooperation Framework
VCC	Village Council of Citizens

EXECUTIVE SUMMARY

The UNDP, UNICEF and FAO Joint Programme (JP) **“Empowering Youth Towards a Brighter Future through Green and Innovative Development of the Aral Sea region”** aims at increasing the efficiency and innovations in agriculture, promoting smart and digitalized communities, with favourable infrastructures and facilitating active labour market initiatives, enhancing community development, empowerment of youth and women, support the infrastructure development and creation of employment generation in rural areas, focusing on most at risk communities, facing multiple vulnerabilities. During the reporting period, (8 December/2022 – 30 April 2024/), the JP accomplished the following results:

- ✦ Within the first component, the Joint Programme achieved milestones including thematic meetings Working Groups on sustainable development, and capacity building for 40 officials. Concepts of four project proposals were developed, avoiding duplication and filling thematic gaps and one proposal was submitted to a donor. The report “Partnering for integrated Development in the Aral Sea region: Partner Mapping for UNDP in Uzbekistan” has been prepared, and potential new donors have been identified. A repository with 3,668 datasets on 19 key sectors such as economy, healthcare, education, transportation, employment, and finance of Aral Sea Region (Karakalpakstan, Bukhara, Khorezm and Navoi) was established. Concepts for integrating unified data and regulatory documents have been prepared as the content of the platform. These accomplishments signify significant progress towards sustainable development and environmental innovation in the region, setting the stage for continued impactful initiatives;
- ✦ Under Outcome 2, the project empowered 390 youth and women in Karakalpakstan by equipping them with essential programming and robotics skills. It enhanced learning environments by providing modern IT equipment and furniture to three IT-Park Karakalpakstan branches and training centers. Through technical support, startup funding, and training programs, the project fostered digital skills development, entrepreneurship, and economic opportunities in the region;
- ✦ In the framework of Output 2.3 of the Joint Programme, UNICEF jointly with the national partners has equipped 656 young people (134 boys and 522 girls) with social, financial, employability, entrepreneurship and digital skills for entering the labour market. To ensure sustainability and mainstreaming of the introduced programme on social, employability, entrepreneurship skills and financial literacy, UNICEF endorsed and published the programme guidebooks with the Ministry of Employment and Poverty Reduction of the Republic of Uzbekistan;
- ✦ Under Outcome 3 the following activities were fulfilled: 2 Scientific expeditions conducted to the dried bed of the Aral Sea. As a result of conducted expeditions, a large amount of knowledge, statistical, cartographic, satellite and ground-spatial data on the Aral Sea has accumulated, and there is a need and opportunity for further use in a systematized approach. In this regard, it is necessary to unite

this information and data into an information portal. Currently, disseminated findings are used by forestry departments and development organizations to shape environmental policies and sustainable development initiatives; 955 rural women and young people gained skills in e-commerce, entrepreneurship, sustainable agriculture, green soft loans skills and handicraft and other alternative income generation skills. 350 smallholder farmers received new types of seeds of salt-tolerant crops and more resilient to water-shortages. 45 women of targeted districts received equipment and items for development of their handicraft skills and generate alternative income. 17 low-income households equipped with innovative agricultural African Grower System, hotbeds and Hydroponic. 3 green initiatives were supported at pilot farms and enterprises in cooperation with Farmer`s Council. Also, in 2 communities 57 people underwent community mobilization trainings on strengthening social cohesion through engagement in community planning, decision-making and community development plans (CDP) and 2 CDPs on addressing priority needs were developed using the UNDP methodology on Participatory Rural Appraisal. 3,685 rural people (50% women) improved access to clean drinking water.

- Overall, during the reporting period, the project successfully implemented the planned activities and managed to achieve all targets set for 2023-2024. This Joint Programme is funded by the MPHSTF for the Aral Sea region, which is generously supported by the Governments of Uzbekistan, Norway, Finland, the Republic of Korea, the European Union and Alwaleed Philanthropies and the Government of the Federal Republic of Germany.

I. PURPOSE

The ultimate goal of the UNDP, UNICEF and FAO Joint Programme is to promote integrated green and innovative resilience building of communities, through empowering rural youth and women, by equipping them with soft digital entrepreneurship and social innovation skills, thereby increasing their employment opportunities and adaptability to the Aral Sea crisis consequences. The programme addresses the crisis caused by the Aral Sea Disaster, which was further exacerbated by the COVID-19 pandemic. It will support youth and women at the most affected communities through seizing new digitalization opportunities and promoting innovative economic growth, decent work focusing also on sustainable agriculture.

The Programme's goal is in line with the policies and strategies of the Government of Uzbekistan on the development of the Aral Sea region, including the Presidential Decree on Aral Sea region adopted on July 29, 2021, which includes an action plan of activities by key ministries and agencies in line with the implementation of the special UN Resolution to transform the Aral Sea region into a Zone of Ecological Innovations and Technologies; Cabinet of Minister's decree on Integrated Roadmap for the sustainable development of the Aral Sea region adopted on 25 January 2022, the Government's comprehensive Development Programme for Karakalpakstan for 2020-2023 as well as the Green Transition Strategy adopted in 2019, which outlines the key priorities on green development, covering the Aral Sea region. The project seeks to improve the wellbeing of communities affected by the Aral Sea crisis through the objectives, which fully align with the Multi-Partner Human Security Trust Fund (MPHSTF) Programmatic Framework and Results Matrix as they contribute to addressing the multiple insecurities of people living in one of the most vulnerable districts of Karakalpakstan. The JP has three outcomes:

Outcome 1. Support effective monitoring of implementation of the Integrated Roadmap for donor coordination in the Aral Sea region;

Outcome 2. Increase access to livelihoods, decent employment, social infrastructure through digitalization and equipment with digital skills, for the most vulnerable youth and women in three target districts of Karakalpakstan,

Outcome 3. Promote climate change adaptation measures through climate smart agro practices to increase the food and environmental security of the population, thereby proposing the model of the integrated green local development of communities.

The JP results contribute to the attainment of UNSDCF Priority B — “Inclusive human capital development leading to health, well-being and resilient prosperity” and Outcome 3 — By 2025, youth, women and vulnerable groups benefit from improved access to livelihoods, decent work and expanded opportunities generated

by inclusive and equitable economic growth; Priority C — "Sustainable, climate responsible and resilient development" and Outcome 5 — By 2025, the most at risk regions and communities of Uzbekistan are more resilient to climate change and disasters, and benefit from increasingly sustainable and gender-sensitive efficient management of natural resources and infrastructure, robust climate action, inclusive environmental governance and protection.

The programme's first objective focuses on support with monitoring of implementation of the Integrated Roadmap for the Sustainable Development of the Aral Sea region for effective donor coordination in the region. It specifically focuses on introduction and development of systematic monitoring tools and on addressing the socio-economic and environmental impact and safeguarding progress towards the SDGs. It supports the institutional capacity development of the Government and contributes to Government efforts in the implementation of the Special UN resolution declaring the Aral Sea region a zone of environmental innovations and technologies. This objective enhances the capacities of the Government in monitoring the implementation of the Integrated Roadmap and interventions in the Aral Sea region for effective donor coordination. Thus, Objective 1 addresses the problem of donor ineffectiveness (Annex 2) of MPHSTF's TOR, as well as the output #16 of the Outcome 5 of the MPHTSF Results Matrix.

The second objective is aimed to develop cross-sectoral solutions in rural areas and create a culture of collaboration between residents, business sector, local authorities and local industry through digitalization and digital literacy. Holistic approach had been taken to the digitalization through the creation of a common digital platform (All-in-one integrated platform) to develop new solutions for the supply of local goods, communication, mobility and e-government. Programme also proposes to strengthen skills of next generation of smart digital entrepreneurs through knowledge sharing on modern business applications and digital tools to increase youth employability. Thus, this Objective contributes to the Output #4 and Output #5 of the Outcome 2, and Output #15 of Outcome 5 of the MPHTSF Results Matrix.

The third objective focuses on evidence-based climate change adaptation measures through promoting climate smart agro practices. Technical support and capacity building of the rural population on the innovative agriculture practices, promoting green growth and green technology in agro-business, social infrastructure, piloting innovative solutions and integrating new innovative technologies contribute to the environmental security (through introduction of water saving, land protection technologies, crop diversification) as well as economic and food securities, by engaging youth and households into agro-value chain development practices facilitating job creation and income generation. It also supported organization of two scientific expeditions to the dried bed of the Aral Sea in the area of 1.5 million hectares. Based on this, this objective contributes to the Output #1,2, 3 of the Outcome 1, Output 7 of the Outcome 3 of the MPHSTF Results Matrix.

II. Assessment of Programme Results

i) Narrative reporting on results

The JP results achieved for the period 8 December 2022 to 30 April 2024 are presented in this report. The JP geographically focuses on the three pilot districts of Chimbay, Kegeyli, and Karauzyak in Karakalpakstan, the most affected areas of the ecological crisis districts in the Aral Sea region. The Joint Programme addresses the crisis caused by the Aral Sea Disaster, which was further exacerbated by the COVID-19 pandemic, as well as supporting youth and women at the most affected communities through seizing new digitalization opportunities and promoting innovative economic growth, decent work focusing also on sustainable agriculture.

During this period, the key activities undertaken contributed to the following outcomes of the project:

Under **Outcome 1**, Support effective monitoring of implementation of the Integrated Roadmap for donor coordination in the Aral Sea region (UNDP), the following results were achieved by the Joint Programme:

- ✦ 2 thematic meetings of the working group “Sustainable Investments”, as well as the technical group “Data and Assessments” of the Advisory Committee were held to facilitate the discussion of the implementation of Integrated Roadmap for Sustainable Development of the Aral Sea Region, the Resolution of the Cabinet of Ministers No. 41 of January 25, 2022 “On additional measures to transform the Aral Sea region into a zone of environmental innovation and technology”. The meetings had played crucial role in exchange of information and facilitated national as well as international stakeholders' streamline their activities in Aral Sea Region;
- ✦ The capacities of 40 public officials have been enhanced to develop the institutional capacity of relevant national partners in applying systems thinking and a portfolio approach in developing project proposals;
- ✦ 4 concepts of project proposals have been developed and presented by working group members, applying a systematic approach and harmonizing the process to avoid duplication and fill gaps in thematic areas. The project proposals were developed by small groups comprising national agencies and focused on efficient water management in agriculture, sustainable livelihood, education in innovative irrigation, and transformation through strengthening public infrastructure;
- ✦ A web platform <https://gpp.miit.uz/> was developed to effectively monitor the implementation progress of the Integrated Roadmap for donor coordination in the Aral Sea region. The government intends to scale up this platform to the whole of Uzbekistan as this activity was fully in line with the Decree of the President of the Republic of Uzbekistan 5848 “On measures to improve mechanisms for attracting external gratuitous assistance and work with donors”;

- ✦ The report “Partnering for integrated Development in the Aral Sea region: Partner Mapping for UNDP in Uzbekistan” has been prepared, 10 potential new donors have been identified;
- ✦ 1 tender was completed, and a contract was concluded for the purchase of equipment as technical assistance (1 server and 5 laptops) to the Ministry of Investment, Industry, and Trade for effective coordination and monitoring of measures;
- ✦ The repository with 3668 data sets from the Aral Sea region has been established in the Open Data Platform of the Republic of Uzbekistan <https://data.egov.uz/eng/aral-sea>;
- ✦ 1 project proposal was developed and submitted to the donor for review in December 2023. The outcome of the proposal is expected on the first quarter of the 2024;
- ✦ 1 concept for project proposals was developed for the introduction of unified data into the project monitoring information system;
- ✦ 20 regulatory documents have been collected and prepared for inclusion in the content of the information system, considering the interests of stakeholders. A single criterion was used in the collection of regulatory documents, they should be aiming for the integrated development of the Aral Sea region. Those regulatory documents include Decrees of the President of the Republic of Uzbekistan, Resolutions of the Cabinet of Ministers of the Republic of Uzbekistan.

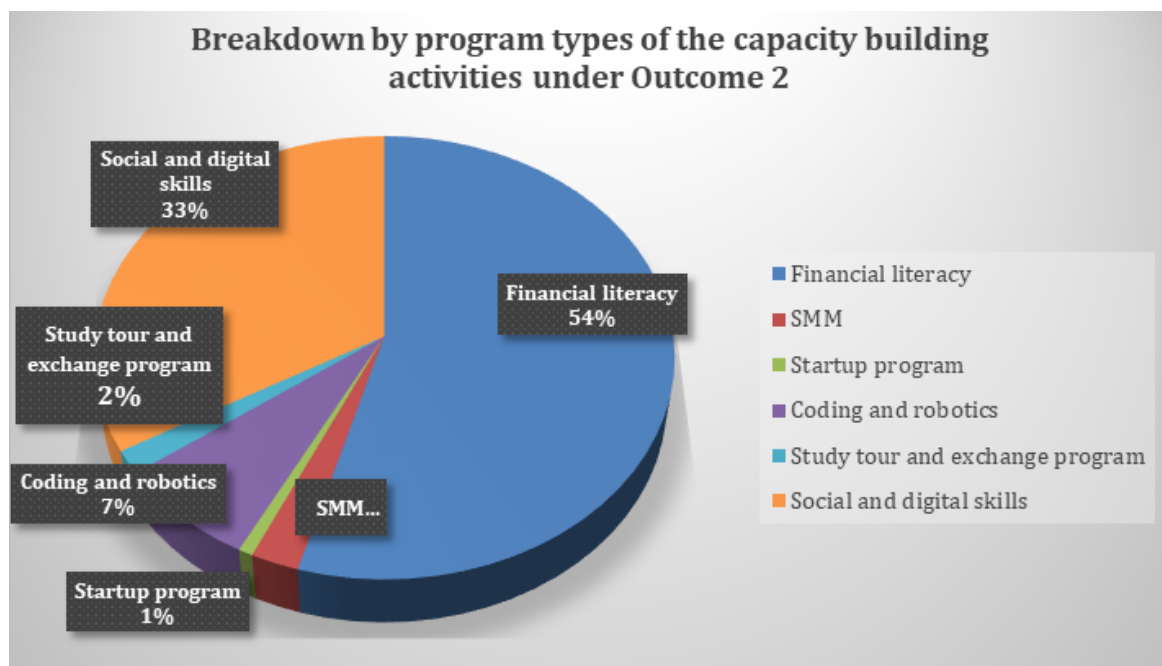
Under **Outcome 2**, Increase access to livelihoods, decent employment, social infrastructure through digitalization and equipment with digital skills, for the most vulnerable youth and women in three target districts of Karakalpakstan (UNDP/ UNICEF), the following results have been achieved:

- ✦ Various skills development programs were organized to enhance the capabilities of youth and women in specific areas such as entrepreneurship, computer literacy, digital and soft skills. These programs aimed to equip them with practical knowledge and skills to start businesses, startups or secure better employment opportunities. To overcome financial constraints, initiatives were taken to provide easier access to credit facilities and microfinance schemes such as presenting modern digital banking and interactive state services. This allowed youth and women to obtain loans or financial aid to establish or expand their businesses. Financial literacy programs educated them about financial management and prudent decision-making. Mentorship programs were introduced to connect youth and women with experienced professionals who could guide them in their respective fields. Networking events were also organized to provide exposure to potential business partners, clients, and markets. These opportunities helped to build their confidence, expand their professional networks, and gain valuable insights from industry experts. Efforts were also made to connect youth and women entrepreneurs with market opportunities. This involved establishing

partnerships with local businesses, organizations, and government agencies to facilitate market linkages, promote their products or services, and create a sustainable customer base. This exposure widened their market reach and increased their chances of business success. Support services like business development training, legal and regulatory guidance, and access to technology were provided to youth and women. These services aimed to enhance their business management skills, ensure compliance with regulations, and leverage technology for improved productivity and efficiency. Overall, these initiatives empowered and uplifted the income generation capabilities of 1317 youth and women by equipping them with skills, resources, and opportunities necessary for sustainable economic growth.

- ✦ 3 branches of IT Park Karakalpakstan in target districts were technically supported and provided with modern IT equipment and furniture to create conditions for the youth and women in receiving necessary skills and knowledge in programming and robotics. For the reporting period 390 youth and women and 180 adolescent girls received knowledge in several IT courses, coding and robotics on the basis of IT Park branches. Currently graduates of IT courses are employed as freelancers by the BPO centers established on the basis of IT Parks in the target districts;
- ✦ 1 startup contest was organized and 10 winner-teams of the start-up contest received financial support. As a result, 18 engaged young people became able to earn income and realize their ideas in the digitalization, robotics, social and educational spheres;
- ✦ 1 All-in-one online platform (Smart Awil: <https://smart-awil.uz/>) has been developed for entrepreneurs in 3 target districts covering such areas as marketplace, volunteer engagement, employment, supply chain, education and other informational resources;
- ✦ 60 young people increased their capacities and skills on “Social media marketing and e-commerce” and successful graduates received certificates;
- ✦ 10 young people from target areas were able to increase their skills and knowledge on startup development through participation and exchange of experience in Tashkent. During the study tour, aspiring startupper had the opportunity to communicate directly with successful entrepreneurs and leading experts in the IT field and in “ICT WEEK Uzbekistan-2023”;
- ✦ 150 youth and women, as well as persons with disabilities in 3 target districts increased their awareness and knowledge of new technologies and digital products through workshops organized within Joint Programme;
- ✦ 3 business initiatives of youth from target areas in the field of digitalization were supported and received co-financing. Sets of IT equipment and the necessary furniture were provided to create a modern IT training center in rural districts;
- ✦ 656 young people in three target districts (134 boys and 522 girls) were equipped with social, financial, employability, and entrepreneurship for school-to-work transition;

- UNICEF jointly with the Ministry of Employment and Poverty Reduction contextualized, translated, approved, published, and piloted the programme Aflayouth on social, financial, employability and entrepreneurship skills for young people in monocenters with the perspective of further integration of the curriculum of monocenters and professional colleges in all regions of the Republic of Uzbekistan;
- UNICEF established a partnership with MOFA of South Korea for an exchange programme and further cooperation between Karakalpak and Korean young people. In the framework of the partnership, the MOFA of South Korea covered all the expenses associated with the travel and stay of Korean students to Uzbekistan. UNICEF engaged the national partners to increase the awareness of Korean students of the Aral Sea tragedy and ensured their full engagement in UPSHIFT bootcamp. As a result, in 2023, 31 Karakalpak young people (16 boys and 15 girls) benefitted from the knowledge and experience exchange with the South Korean youth.



Under **Outcome 3**, Promote climate change adaptation measures through climate smart agro practices to increase the food and environmental security of the population, thereby proposing the model of the integrated green local development of communities (UNDP/FAO), the following results have been achieved:

The Outcome comprised a variety of output activities to increase skill development in the agricultural sector, addressing ecological issues through organization of scientific expeditions to the dried seabed followed by the results and recommendations to improve efficiency of afforestation works in the dried seabed. Assistance was provided to the households and farmers to create sustainable income sources, provision of clean drinking water for rural communities, introduction of community development

plans by using the UNDP methodology on Participatory Rural Appraisal. As a result of aforesaid interventions and initiatives below indicators have been reached in 2024.

- ✿ 2 Scientific expeditions conducted to the dried bed of the Aral Sea. Based on cumulative report and summary of the research on soil composition of land on the dried bed of the Aral Sea recipient institutions will be able to efficiently plan afforestation works; Next steps highlight the need for a centralized information portal to consolidate the vast knowledge, statistical records, and spatial data related to the Aral Sea;
- ✿ Smart Aquaponic Systems integrating real-time monitoring, automated water quality analyzers, and remote-control features via mobile apps to optimize fish and crop production were introduced to demonstrate and disseminate knowledge and experience as a much more efficient and profitable alternative for the production of fish and agricultural products
- ✿ 100 rural women were equipped with handicraft and other alternative income generation skills in 3 districts;
- ✿ 150 young people were trained with e-commerce and entrepreneurship skills with introduction of digital platforms for marketing agricultural products online through workshops and training;
- ✿ 200 smallholder farmers were capacitated with new skills and knowledge on sustainable agriculture through Farmer Field schools;
- ✿ Digital platforms and fintech solutions were used to train 200 smallholder farmers on green soft loans and financial literacy;
- ✿ 350 smallholder farmers were provided with new types of seeds of salt-tolerant crops and more resilient to water-shortages;
- ✿ 45 women of targeted districts were provided with equipment and items for development of their handicraft skills and generate alternative income;
- ✿ 17 low-income households were equipped with innovative agricultural African Grower System, hotbeds and Hydroponic;
- ✿ 300 smallholder farmers of targeted districts were trained on existing green soft loans that are already being provided by banks;
- ✿ 1 integrated green local development model was developed at the community level and presented to the Government (MoEF) for consideration of upscaling and replication;
- ✿ 3 green initiatives were supported in pilot districts in cooperation with the Farmer`s Council;
- ✿ 57 rural residents from 2 communities of targeted districts participated in needs assessment and community development plans (CDP) in 2023; Identified needs such as access to clean drinking water, stable electricity, improved education conditions, landscaping of the territory and partially addressed accordingly;

- ✿ As a result, 2 CDPs on addressing priority needs (access to clean drinking water, stable electricity, improved education conditions, landscaping of the territory) were developed using the UNDP methodology on Participatory Rural Appraisal by mobilizing the community members including the youth and women, where the needs and priorities of the local population are reflected;
- ✿ 3,685 rural people (50% women) of four communities of Chimbay, Kegeyli and Karauzyak districts improved access to clean drinking water through the reconstruction of the water desalination stations, construction of the water supply networks, installation of the water purification equipment and purchasing filters and consumable materials.

A more detailed description of the project's key results and achievements under each output is available below.

Outputs:

Outputs 1.1 Development of holistic project proposals by the members of Working group on Sustainable Investments of the Advisory Committee is facilitated (UNDP).

In partnership with the Ministry of Investment, Industry and Trade of the Republic of Uzbekistan, two meetings of the working groups “Sustainable Investments” and “Data Analysis” were held under the Advisory Committee for Sustainable Development of the Aral Sea Region. Both events were aimed at the implementation of the Integrated Roadmap, the Resolution of the Cabinet of Ministers No. 41 of January 25, 2022 “On additional measures to transform the Aral Sea region into a zone of environmental innovation and technology.” The meetings have been held in a hybrid mode, while the representatives of government offices of the members of the working groups have participated offline, the members of the working groups from the development agencies have participated online. The event addressed the following issues:

- ✿ Issues of implementation of Integrated Roadmap for sustainable development of the Aral Sea region.
- ✿ Procedures for interdepartmental exchange of information on projects in the Aral Sea region.
- ✿ Discussion of the terms of reference for an online platform for monitoring the implementation of projects aimed at the sustainable development of the Aral Sea region.
- ✿ Repository “Aral Sea Region” on the Open Data Portal of the Republic of Uzbekistan and ways of using it.

The second meeting combined the training of 30 public officials in project proposal development and covered the following issues:

- ✿ Current status of implementation of Integrated Roadmap for sustainable development of the Aral Sea Region.

- Presentation of project concepts prepared by the participants of the training “Mobilization of resources and development of project proposals”.
- Prospects for attracting financial and technical assistance to the Aral Sea region in 2024.
- The best innovative experience and practices for socio-economic and environmental development in arid regions like the Aral Sea region.

With support of International and National Expert the capacities of 30 public officials were developed during intensive training. The concepts of four projects were developed and presented at a meeting of the working groups “Sustainable Investments” and “Data Analysis” under the Advisory Committee for Sustainable Development of the Aral Sea Region.

With the assistance of an international expert, a joint project proposal by UNDP and FAO “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” was prepared for consideration at the 4th call of project proposals of the Multi-Partner Trust UN Human Security Fund for the Aral Sea region in Uzbekistan. The proposal was subsequently approved with the budget of 900 K, and launched in July 2024.

From April 17 to 19, 2024, a training and working group meeting was conducted in the Zomin district of Jizzakh region to enhance public officials’ capacity in monitoring projects and fostering sustainable development in the Aral Sea region. The first two days focused on training sessions where participants received detailed presentations on the Integrated Roadmap’s implementation, project proposal development strategies, and the functionalities of an online project monitoring platform. Experts from MIIT, UNDP, and Simplex ITC led hands-on training on data input, project lifecycle management, and troubleshooting issues within the platform. The sessions also included interactive discussions, evaluations, and networking opportunities to ensure effective knowledge transfer and practical application of skills.

Photos 1, 2: working group discussion in Zomin, Jizakh region



On the final day, a high-level working group meeting gathered representatives from various ministries, international organizations, and donor agencies to discuss ongoing UNDP initiatives, donor mapping, and strategies for sustainable development in the Aral Sea region.

Participants explored monitoring guidelines for international stakeholders, funding opportunities, and prospective project proposals. The event concluded with discussions on working group priorities, followed by a certificate awarding ceremony for the trained public officials. The meeting strengthened collaboration among national and international partners, promoting coordinated efforts for sustainable development in the region.



Photo 3: Presentation on donor mapping, strategies for sustainable development in the Aral Sea region

Output 1.2. Monitoring of implementation of the Integrated Roadmap for donor coordination in the Aral Sea region is enhanced (UNDP).

With the support of the national consultant, working meetings were organized with representatives of MIIT, UNDP in Uzbekistan, and other stakeholders. As a result, in the final stages, a concept and technical specifications were developed for a web platform — an information system designed for the online monitoring of the Integrated Roadmap. The terms of reference were approved by the MIIT and became the main document for the development of the web platform. Tender proposals for the development of monitoring platform were successfully completed and the platform became fully operational in April 2024 at the dedicated domain of <https://gpp.miit.uz/>

A concept of project proposals has been developed for an information system for monitoring projects aimed at sustainable development of the Aral Sea region. It is planned to implement this concept into the information system. The implementation will be conducted in reference to the Resolution of the President of the Republic of Uzbekistan 5848 “On measures to improve mechanisms for attracting external gratuitous assistance and work with donors”. Legal documents were prepared for the inclusion into the content of the information system, considering the interests of stakeholders. The relevant regulatory and legal acts of Uzbekistan adopted for the integrated development of the Aral Sea region have been identified and studied. In addition, solicitation was held for the purchase and a contract was concluded for the supply of servers and computers as technical assistance to MIIT for monitoring the implementation of the Integrated Roadmap.

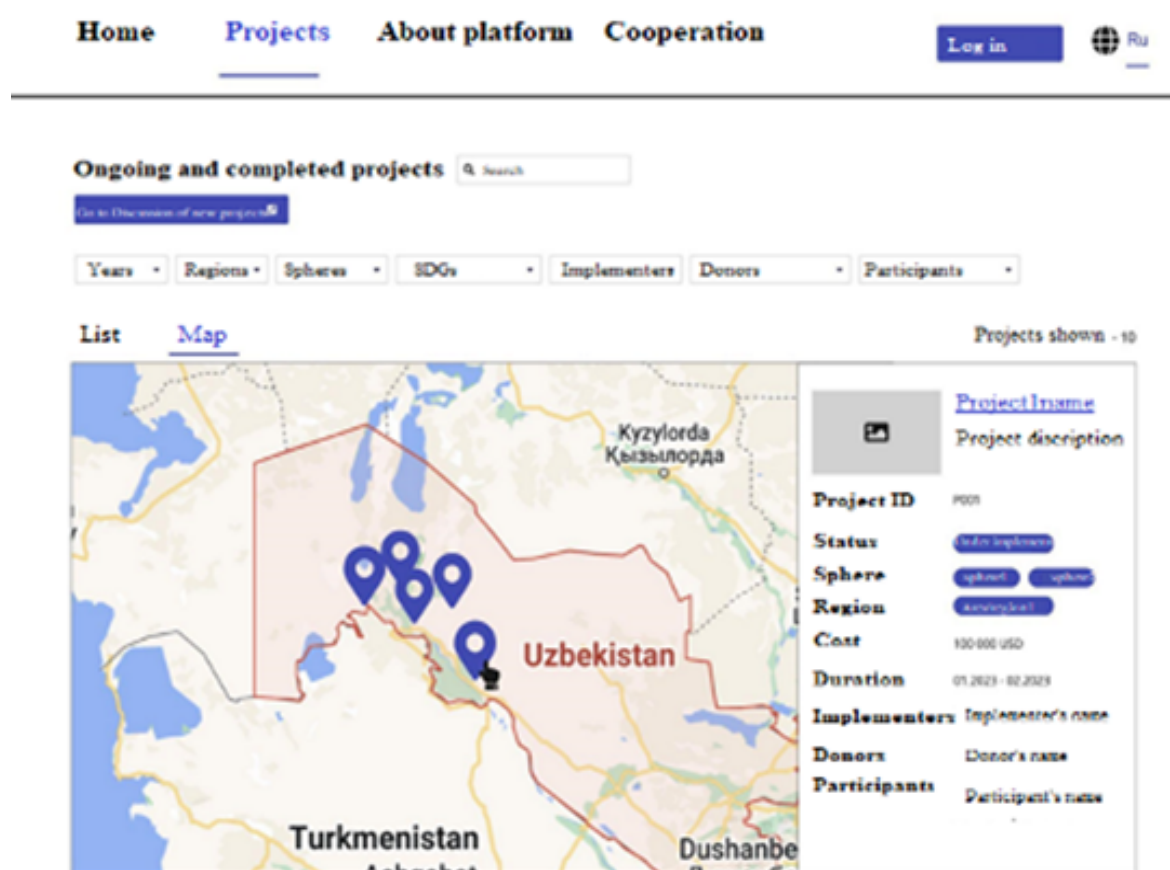
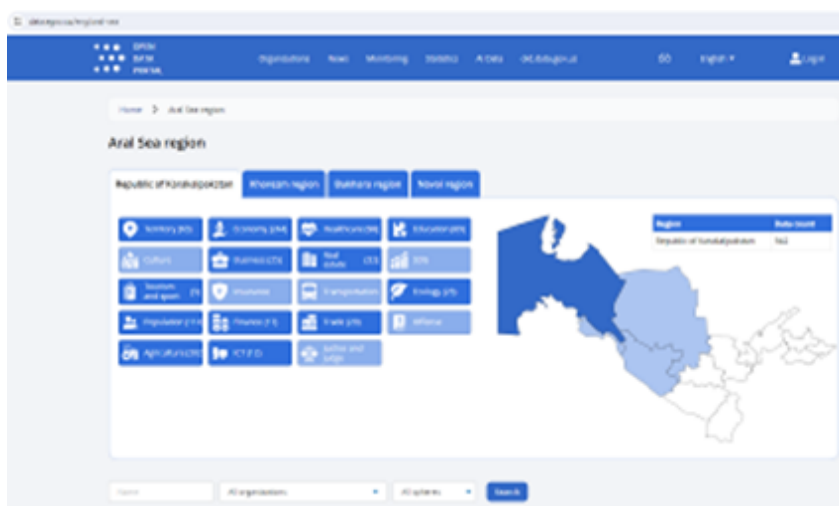
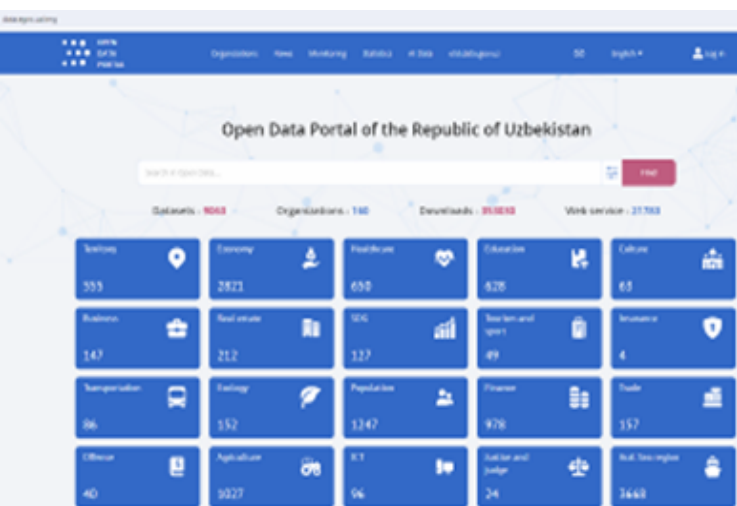


Photo 4: Preliminary design of the monitoring platform

Output 1.3. Data Repository established to facilitate Evidence-based decision making by donors and policymakers (UNDP)

Together with members of the working team from the Statistics Agency under the President of the Republic of Uzbekistan, more than 3,668 sets of open data were created and entered into the “Aral Sea Region” section on the Open Data Portal of the Republic of Uzbekistan. The Aral Sea region section of the Open Data Portal of the Republic of Uzbekistan is fully operational at the link <https://data.egov.uz/eng/aral-sea> in the context of regions adjacent to the Aral Sea and areas of economic activity. The database has been continuously promoted in all meetings of the working groups “Sustainable Investments” and “Data Analysis” were held under the Advisory Committee for Sustainable Development of the Aral Sea Region. As indicated on the screenshot below, the Aral Sea Region database has 123061 visits already. The platform is administered by the Digital government centre of Uzbekistan. As of March 2025, a total of 4,257 datasets have been created for the Aral Sea region in the database — an increase of 589 datasets since its initial development with project support. This growth clearly demonstrates the sustainability of activities in this area and the government’s commitment to further utilizing and expanding the database in the future.



Photos 5, 6: screenshots from open data portal of the Republic of Uzbekistan

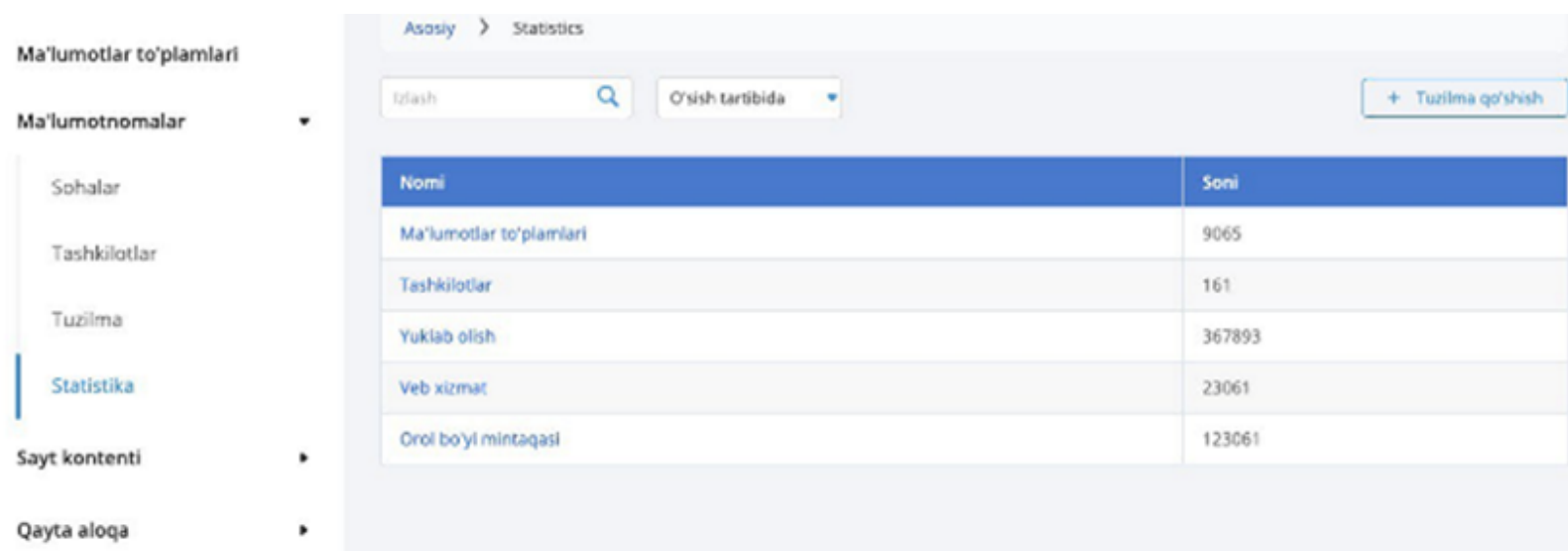


Photo 7: Screenshot from the administrator's of the Open Data Portal of the Republic of Uzbekistan.

Output 2.1 Creating of conditions for young entrepreneurs to engage in innovative service delivery (UNDP).

UNDP has carried out needs assessment on digitalization of rural economy and entrepreneurship identifying the necessity of digitalization areas. Within the framework of the Joint Programme, the needs of the population and communities were studied for further digitalization, including in accessing information online. Thus, it was found that the greatest need for digitalization of communities is experienced in the following areas of everyday life: access to local goods and services, access to reference information about institutions and organizations, online chat, issues of vocational training and advanced training, job search, logistics services, as well as volunteer assistance. In collaboration with local Khokimiyats and communities a market research and consultations were conducted with the private sector and experts on the trends in the area of digital markets and value-chain development, and these findings were used to propose new package of solutions for the Aral Sea region's digital development, focusing on increasing the local value chain in

food and goods supply. A start-up contest jointly with Youth Affairs Agency and the Regional Department of Ministry of Innovative Development of Uzbekistan was launched and 11 winner-teams of the start-up contest received financial support while 18 engaged young people became able to earn income and realize their ideas in the digitalization, robotics, social and educational spheres.

All-in-One digital platform (Smart Awil) has been developed by a winner startup team and established necessary tools, equipment, and capacity building support, to help beneficiaries of the target districts be able to provide services to the local users, which among others include the digital solutions on effective communication, delivery chains, food & goods supply. In cooperation with partners such as the Youth Agency and Ministry of Innovation of Karakalpakstan, the Programme in order to develop institutional capacity of IT Park branches in the target districts for enhanced quality and sustained provision of training programmes in IT provided its premises with modern IT equipment, robotics and furniture. IT Park branches of the target districts became able to provide more advanced programming courses and as well as in robotics.



Photos 8, 9, 10: IT Park Karakalpakstan branches in target districts with transferred equipment



Photos 11, 12, 13: Startup contest and developed online platform

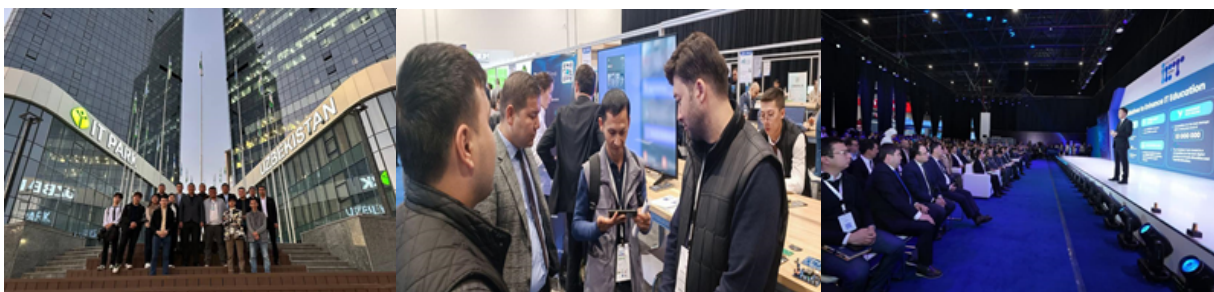
Output 2.2 Improving skills of young women and men to become as next generation of smart digital entrepreneurs (UNDP).

In cooperation with local khokimiyats and IT Park Karakalpakstan number of training sessions and workshops were conducted focused on digitalization. These trainings were designed to enhance participants' knowledge, skills, and understanding of digital technologies, processes, or strategies. The goal was to equip individuals with the necessary expertise to navigate the digital landscape effectively, whether it's

in the context of businesses, organizations, or other areas. A group of 60 youth and women underwent training focused on social media marketing and e-commerce. The training aimed to enhance their abilities and knowledge related to using social media for marketing purposes and understanding the e-commerce industry. As a result, those who completed the program successfully received certificates as a recognition of their newly acquired skills and expertise in these areas. After graduation of the courses beneficiaries of the target districts received necessary skills and knowledge to switch their businesses from traditional methods in marketing to more advanced digital technologies. Among 60 participants of the e-commerce courses 10 most active and successful graduates from target areas participated in an experience exchange program in Tashkent. During the study tour, the participants had the opportunity to exchange experiences with successful entrepreneurs and leading experts in the IT field and as well took part in “ICT WEEK Uzbekistan-2023”.



Photos 14, 15, 16: Conducted trainings and workshops.



Photos 17, 18, 19: Study tour to Tashkent city.

Additionally, a contest was organized among youth and women to support business initiatives in the digitalization. To engage private sector in providing modern and advanced courses in software development 3 business initiatives in target districts were supported and received co-financing. Within this project the business initiative owners newly established IT training centers in the premises of the Youth Center branches.



Photos 20, 21, 22: Established IT training centers in 3 target districts.

Output 2.3 Fostering employment and innovation through building capacity of young people, with the focus on women and vulnerable youth, with digital, social, employability, innovation and entrepreneurship skills (UNICEF).

UNICEF jointly with the Ministry of Employment and Poverty Reduction of the Republic of Uzbekistan has contextualized, translated to local languages and published the international programme, Aflayouth, on social, financial, employability and entrepreneurship skills for young people. Five trained teachers delivered the programme to a total of 411 unemployed young people from target districts of 16-30 years old (102 boys and 309 girls) in Nukus and Chimbay monocenters.

The teachers commented on the positive impact of the programme on students' ability to set goals, express their opinion, analyze their spending, present themselves during mock job interviews and pitch their business ideas. Additionally, teachers and students liked the interactive teaching and learning approaches of the programme. It was reflected by the high attendance rate of the classes, students' requests to attend the programme once more, and the results of the students — two girls are in the process of starting their business, one boy from Kegeyli founded a mobile laundry for beauty salons and keeps coming back to the teacher for guidance. Teachers keep applying the interactive teaching and learning approaches in other modules of the monocenter.



Photos 23, 24, 25: Training on social, financial, employability and entrepreneurship skills for young people.

Additionally, UNICEF jointly with IT Park (IT Centers in three target districts) and Barkamol Avlod centers (in Kegeyli and Shimbay districts) equipped 180 girls of 14-19 years old with block coding and robotics skills. 18 teachers from IT and Barkamol

Avlod Centers were trained by the South Korean enterprise Robotics Ware and provided with a teaching methodology in Uzbek and Karakalpak. 15 Robotics Toolkits were provided to the IT centers. The culmination moment of the programme was a Robot Football Match among girls from three target districts. Girls demonstrated the obtained coding skills in practice in a friendly and gamified atmosphere. Besides skills-building, the course and the Robot Football Match contributed to shifting the gender stereotypes and increasing the interest of girls in the ICT sphere.



Photos 26, 27, 28: Training on Robotic skills.

Moreover, UNICEF jointly with the International Innovation Center for the Aral Sea Basin (IICAS) continued implementation of the educational social innovation and social entrepreneurship programme UPSHIFT (Imkonlab). 65 young people (34 girls and 31 boys) were equipped with social and entrepreneurship skills. 10 youth-led projects were supported with mentoring support and seed funding for incubation. All teams continued implementation of their projects after incubation, e.g. production of bio humus, speech correction center, development of a detector of gas leakage, hydroponics, and production of a game box with traditional Karakalpak board and other games.

UNICEF has also established partnership with the South Korean MOFA and organize a joint South Korean and Karakalpak UPSHIFT bootcamp. Korean students worked side by side with Karakalpak youth, learned the reasons and consequences of the Aral Sea drying-up tragedy in-person, and developed innovative solutions to raise awareness and attract the attention of the global community to the problem sharing knowledge of some advanced technologies with the youth from Karakalpakstan.

Photos 29, 30: UPSHIFT bootcamp.



Output 3.1 Establishing data repository on the evidence-based monitoring of the dried Aral Sea bed to address the environmental insecurities of the local population face (UNDP).

Four expeditions were conducted by the Scientific Information Center of the Interstate Coordination Water Commission of Central Asia (SIC ICWC) on the dried bed of the Aral Sea. These expeditions, supported by the UN Development Programme from 2019 to 2023, aimed to address the ecological challenges arising from the disappearance of the Aral Sea and the subsequent formation of the Aralkum salt desert, covering approximately 5 million hectares, with 2.9 million hectares in Uzbekistan.

The region poses a significant threat to the environment and the health of the local population, making it a priority to mitigate the negative consequences of the Aral Sea's drying up and improve living conditions. The Government recognizes this urgency. It should be noted that on May 18, 2021, at the suggestion of the President of Uzbekistan, the UN General Assembly adopted a resolution declaring the Aral Sea region a zone of environmental innovations and technologies. Later, in January 2022, the Government of Uzbekistan adopted the Comprehensive Roadmap for the Development of the Aral Sea Region. Also, in 2018, a reforestation program was launched in the dried-up part of the Aral Sea, and today, out of 2.9 million/ha of the dried area, 1.8 million/ha are already covered with saxaul. To effectively implement further measures and ensure their sustainability, a comprehensive understanding of the current state of the environmental disaster zone based on scientific evidence is essential. Therefore, monitoring of the dried bottom was initiated, considering both natural processes of instability and intense anthropogenic pressure.

The SIC ICWC expeditions, conducted in four stages from 2019 to 2023, involved collaboration with the Scientific Center for the Aral Sea region and specialists in ecology, soil science, hydrogeology, dendrology, botany, and GIS. Encompassing a total area of 2.7 million hectares, the study spanned from Chink to the Kazakh border and from the water's edge to the historical sea mark.

The expeditions included the assessment and classification of soil, the creation of a soil map, identification of potential salt and dust transfer areas, and the determination of soil cover formation conditions and directions. Other notable results include research on the hydrogeological situation, groundwater levels, mineralization, purpose, and usage. The expeditions also involved geobotanical descriptions of vegetation, plant herbarium collection, establishment of formation patterns, and preservation of plant cover. The dynamics of afforestation were assessed through scientific field studies.



Photos 31, 32, 33,34: Screenshots from expedition fields.

Notably, the expeditions built on earlier complex studies conducted from 2005 to 2011, incorporating soil, hydrogeological, and geobotanical analyses with satellite imagery data. The current expeditions facilitated a retrospective analysis of satellite images from that period, enabling the creation of thematic territorial GIS maps and a comparison of landscape class changes and risk zones over the past decade. Simultaneous remote observations and the integration of GPS data into GIS maps allowed for the development of a concept for more accurate space-based monitoring of forest cover in the future.

During the round table, it was emphasized that the obtained data provide scientists with a unique opportunity to study the processes of natural landscape formation on a dried bottom. The completion of the study will enable the synthesis of data and the creation of a geoinformation system for the dried seabed, serving as a reliable foundation for future environmental innovations in the region. These efforts are geared towards establishing and preserving a natural environment conducive to human life and the well-being of flora and fauna.

The first two expeditions were carried out in 2019-2020 within the framework of the Joint UNDP-UNESCO project, the next two expeditions were carried out in 2023 within the UNDP, UNICEF and FAO “Empowering Youth Towards a Brighter Future through Green and Innovative Development of the Aral Sea region” Joint programme funded by the UN Multi-Partner Trust Fund for Human Security in the Aral Sea Region.

Round table was organized in the 19th January 2024 to present findings of all four expeditions to the wider audience (<https://www.undp.org/uzbekistan/press-releases/four-expeditions-unveil-fascinating-insights-aral-seas-dried-bed>).

Subsequently, “Summary of the Results Report of the Final Expedition on the Dried Bed of the Aral Sea” were developed and an electronic version of the Summary were disseminated among national stakeholders and international development organizations operating in Uzbekistan. Link is available at: <https://www.undp.org/uzbekistan/publications/summary-results-report-final-expedition-dried-bed-aral-sea>.



Output 3.2 Diversification of livelihood strategies introduced including the enabling activities in the agriculture resilience (FAO).

In total, 289 people (83 from Kegeyli, 123 from Karauzyak and 83 from Chimbay) participated in the trainings. The experts gave an overview of the selected topics, followed with discussion and questions. Mainly, the following topics were covered: sustainable agriculture including mulching, crop growing that is resistant to water scarcity and soil salinity, and water saving technologies, drip irrigation, sprinkling irrigation and subsoil irrigation, which are in line with objectives in Output 3.2 and in total, 350 beneficiaries received the sesame seeds.

Photos 35, 36, 37, 38, 39: Training sessions on sustainable agriculture and water saving technologies.



Rural e-commerce development and direct connection between rural communities and producers in the market is important. Therefore, it is essential to develop and/or promote smartphone applications for transportation and delivery of products from rural communities to the market suitable for Karakalpakstan. In total 6 trainings on rural e-commerce were organized where 261 people participated from three pilot districts. The participants worked in small groups, developed and discussed business plans. They also practiced e-commerce.

At the end of seminars in each district active beneficiaries received 45 mobile phones in 6 trainings.



Photos 40, 41, 42, 43: Training sessions on rural e-commerce.

Support access to green finance through trainings on business plan development, online banking, and how to apply for loans and grants. It is envisioned that green finance can be used to support solar panel pumps, bioenergy equipment, installation of drip irrigation and laser levelling among other things. Long-term access to green finance is essential to transform the agricultural sector from traditional energy consumption to sustainable energy consumption and even generation. Two-day trainings on business plan development, preparing applications for loans and grants, online banking, and green finance in each pilot district were organized. Trainings focused on working in small groups, analysing and presenting ideas and

case studies. Moreover, participants exercised practical online banking. Consultants were banking professionals, who have more practical experience. In total, 261 people attended the trainings from Kegeyli, Karauzyak and Chimbay districts.

This training included interactive sessions where the participants were actively engaged in the discussions of various topics.



Photos 44, 44, 46, 47: Training sessions on business plan development.

Training seminars on handicrafts and business marketing in agriculture were organized for 136 young people and women of pilot districts. Special focus was given to the development of “Aral Sea” region product branding. The training format was a two-day seminar for 20 women. In each district, two trainings (in total 4 days) were organized.

Photos 48, 49, 50, 51: Training sessions on alternative income generation activities.



On the first day of the training, theoretical aspects of starting business, opportunities, marketing, traditions of handicrafts and others were provided. On the second day practical sessions using sewing machines were organized. 15 sewing machines were distributed to beneficiaries in each district. In total, 45 sewing machines were provided. This training included the interactive sessions where the participants were actively engaged in the discussions and practical applications of handicrafts.

In addition, 45 drip irrigation systems were provided to households who are from Kegeyli, Karauzyak, and Chimbay districts. Importantly, before implementing drip irrigations systems they participated in the trainings so that they received the knowledge about water saving technologies in detail in the local conditions.

Finally, In addition, FAO also promoted local handicrafts and business in rural areas in social networks like Instagram and Telegram. More than 450 members of the channels have received information, short videos, success stories, business opportunities etc.



Photos 52, 53, 54, 55: Drip irrigation project site.

Output 3.3 Promoting the climate adaption practices through innovative, smart and green approaches to build the resilience of the rural households, farmers and green communities (UNDP).

The assessment of priority needs of 2 communities of the target districts with the participation of 57 residents was carried out. The results of the assessments have shown the need for access to clean drinking water, stable electricity, improved education conditions, landscaping of the territory and, accordingly, in these areas [2] Community development plans were developed, initiative groups with youth and women participation were created. As a result 3,685 rural people (50% women) in VCC “Abat” of Kegeyli district, VCC “Taza jol” of Chimbay district and VCCs “Karauzyak”, “Madeniyat” in Karauzyak district have access to clean drinking water.



Photos 56, 57, 58: Water project on access to clean drinking water in Taza jol VCC of Chimbay district.



Photos 59, 60, 61: Water project on access to clean drinking water in Abat VCC of Kegeyli district.

The initiative from IICAS for establishing smart agriculture practices — Aquaponic systems — was reviewed and approved by the Review Committee. Installation was completed in February 2024. Several types of aquacultures, including fish, salad plants, and strawberry plants, were introduced into the aquaponic system in mid-April 2024. The aquaponics system created at IICAS resulted in measurable improvements in resource efficiency, productivity, and income generation. By optimizing water and energy use, the system reduced water consumption by 90-95% compared to traditional pond farming. Survival rates in aquaponics resulted 10-30% higher (80–90% vs. 60–80%), Land use efficiency showed 10 times higher in aquaponics due to higher stocking density and vertical integration. Carp in aquaponics grows 25–50% faster compared to traditional ponds.(6–8 months vs. 10-12 months). The integration of digital farming tools such as multi-parameter aquaculture water quality analyzers, remotely controlled ventilation, and real-time monitoring via mobile apps improved precision farming, resulting in an overall system efficiency increase. Additionally, the data-driven approach enabled farmers to make informed decisions, improving crop health and reducing losses. The initiative also provided training opportunities for local farmers and researchers, promoting the adoption of innovative farming practices in the region.”



Photos 62, 63, 64: Aquaponics system created at IICAS.

17 low-income vulnerable households from the target three districts (mainly youth and women) enhanced access to innovative vertical and sustainable growing systems such as hotbeds with drip irrigation system, African Grower System, Hydroponics for livestock development. Low-income households were provided opportunities to improve food and economy securities through engaging innovative agricultural practices.



Photos 65, 66, 67, 68: Vertical hydroponic systems and hotbeds.

305 (40% women) smallholder farmers of targeted districts increased knowledge on existing green soft loans that are already being provided by banks. There were few people who used green soft loans among the training participants who shared their experiences. The training covered the following four areas:

1. Green economy and its role in the sustainable development of the region.
2. Preferential loans from commercial banks and state subsidies for the purchase of equipment for alternative energy sources for individuals and legal entities;
3. Opportunities for purchasing equipment of alternative energy sources on the single marketplace “energymarket.uz” by individuals and legal entities.
4. The use of new green technologies both in climate change and in the socio-economic situation of the population in agricultural development.
5. Current grants and programs of the state and international donor organizations in the region to support green technologies, women's entrepreneurship and innovative youth entrepreneurship.

Training participants shared their business initiatives, projects and as a result, based on the Review Committee decisions, JP supported three initiatives from pilot districts that are “Solar fruit drying” project in Kegeyli district, “Production of construction materials” in Chimbay district and “Project on the reuse of collector and drainage waters of KS-4-4 for agricultural needs and fish farming” in Karauzyak district.

Photos 69, 70 Training on green financing.



Photos 71, 72 Solar fruit drying and packaging equipment



II INDICATOR-BASED PERFORMANCE ASSESSMENT

	Achieved Indicator Targets	Reasons for Variance with Planned Target (if any)	Source of Verification
Outcome 1. Donor ineffectiveness in the Aral Sea region addressed through development of database of assistance, duplication of efforts avoided (UNDP)			Reports, Surveys, assessments
Indicator: Share of surveyed development Partners using the Integrated Roadmap monitoring tools to Design, Monitor, Coordinate and Evaluate New Interventions in the Aral Sea region. Baseline: N/A Planned Target for 2024: 60%	60%		
Output 1.1. Development of holistic project proposals by the members of Working group on Sustainable Investments of the Advisory Committee is facilitated.			Reports, Availability of the training module Proposals submitted to potential Donors
Indicator 1.1.1 # of online training courses developed to enhance the capabilities of the national partners Baseline: 0 Planned Target for 2024: 1	1		
Indicator 1.1.2 # of project proposals by working group members developed by application of systems approach Baseline: 0 Planned Target for 2024: 2	2		
Output 1.2. Monitoring of implementation of the Integrated Roadmap for donor coordination in the Aral Sea region is enhanced.			Reports, availability of protocols and procedures Reports, Operationality of the online database
Indicator 1.2.1 Availability of effective protocols and procedures for coordination and monitoring of Aral Sea interventions Baseline: N/A Planned Target for 2024: Yes	Yes		
Indicator 1.2.2 Availability of online monitoring tool/software, as database of assistance, to effectively coordinate donor assistance in the Aral Sea region Baseline: N/A Planned Target for 2024: Yes	Yes		
Output 1.3. Data Repository established to facilitate Evidence-based decision making by donors and policymakers.			Reports, Availability of the data catalogue Reports, Availability of up and running data repository
Indicator 1.3.1 # of socio-economic and Climate data catalogues developed for the Aral Sea region Baseline: N/A Planned Target for 2024: 1	1		
Indicator 1.3.2 Availability of user-friendly dynamic data repositories for the Aral Sea region, as a tool for streamlined data access for policy makers Baseline: No Planned Target for 2024: Yes	Yes		

	Achieved Indicator Targets	Reasons for Variance with Planned Target (if any)	Source of Verification
Outcome 2. The employment and income generation opportunities for local youth, women and rural communities are increased (UNDP, UNICEF)			Reports
Indicator: # of youth and women improved income generation through decent employment and skills development in smart digital entrepreneurship, social entrepreneurship, modern business applications and digital tools Baseline: 1,220 Planned Target for 2024: 2,673	2673		
Output 2.1. Conditions for young entrepreneurs to engage in innovative service delivery are created (UNDP).			Reports Transfer acts Progress reports, Transfer acts, field visits Transfer acts Transfer acts
Indicator 2.1.1 # of in-depth market studies and consultations with the private sector and experts on the global trends on digital markets Baseline: N/A Planned Target for 2024: 2	2		
Indicator 2.1.2 # of start-ups launched Baseline: 39 Planned Target for 2024: 48	50		
Indicator 2.1.3 # of integrated digital platforms developed Baseline: N/A Planned Target for 2024: 3	3		
Indicator 2.1.4 # of supported organization for sustained provision of IT, digitalization training Baseline: N/A Planned Target for 2024: 3	3		
Indicator 2.1.5 # of digital infrastructure projects supported and created Baseline: N/A Planned Target for 2024: 2	3		
Output 2.2. Skills of young women and men to become as next generation of smart digital entrepreneurs are improved (UNDP)			Training report/ spot checks, pre- and post-tests Master class report Training report
Indicator 2.2.1 # of young people (f/m) and women improved their skills in modern business applications and social media engagement. Disaggregated by gender Baseline: 60 Planned Target for 2024: 60	120		
Indicator 2.2.2 # of young people and women facilitated intensive knowledge exchange and master classes. Disaggregated by gender Baseline: 95 Planned Target for 2024: 155	155		
Indicator 2.2.3 # of young entrepreneurs (girls) had webinars with leading experts. Disaggregated by gender Baseline: N/A Planned Target for 2024: 40	40		

	Achieved Indicator Targets	Reasons for Variance with Planned Target (if any)	Source of Verification
Indicator 2.2.4 # of young people (f/m) benefited from internship programs for young entrepreneurs. Disaggregated by gender Baseline: N/A Planned Target for 2024: 10	10		Training report/spot checks, pre- and post-tests
Indicator 2.2.5 # of youth, women, disabled improved knowledge on digital technology through awareness-raising campaigns conducted among target underprivileged groups. Disaggregated by gender Baseline: N/A Planned Target for 2024: 150	150		Master class report
Indicator 2.2.6 # of digital business initiatives supported. Disaggregated by gender Baseline: 2 Planned Target for 2024: 5	5		Training report
Output 2.3 Employment and innovation through building capacity of young people with the focus on women and vulnerable youth with digital, social, employability, innovation and entrepreneurship skills are fostered (UNICEF)			
Indicator 2.3.1 # of girls and young women equipped with the digital skills (disaggregated by age) Baseline: 58 Planned Target for 2024: 208	238	The programme was delivered not only in IT Centers, but also in Barkamol Avlod Centers under MoPSE	Partner/training reports (monthly) Field monitoring visits
Indicator 2.3.2 # of young people equipped with social innovation and social entrepreneurship skills Baseline: 212 Planned Target for 2024: 302	277	The number is lower than planned because during both rounds of UPSHIFT conducted in 2023, 1 out of 10 selected teams did not come to the first day of bootcamp without any prior notification. The implementing partner did not have time to substitute it. The provided indicator number includes only Karakalpak young people. Eight South Korean young people are not counted in the reporting.	Partner/training reports (monthly) (every round of UPSHIFT) Field monitoring visits Partner/training reports (monthly) Field monitoring visits
Indicator 2.3.3 # of youth-led projects supported with seed funding and mentoring support Baseline: 33 Planned Target for 2024: 43	43		Partner/training reports (monthly)
Indicator 2.3.4 # of incubated youth-led projects which grew into income-generating startups Baseline: 5 Planned Target for 2024: 7	7		

	Achieved Indicator Targets	Reasons for Variance with Planned Target (if any)	Source of Verification
Indicator 2.3.5 # of young people equipped with social, employability, entrepreneurship skills and financial literacy (disaggregated by gender and age) Baseline: N/A Planned Target for 2024: 400	411 young people of 16-30 years old (102 young men, 309 young women)	The programme was delivered in the monocenters in Chimbay district and Nukus city, covering youth from Nukus, Karauzyak, Kegeyli and Chimbay districts	
Outcome 3. The evidence-based climate change adaptation measures and agricultural resilience with focus on smart agro practices and green approaches are enhanced (UNDP, FAO)			Reports, complex afforestation plan Reports, Training reports
Indicator: Recipient institutions efficiently plan afforestation works based on research driven data on soil composition of land on the dried bed of the Aral Sea Baseline: N/A Planned Target for 2024: Yes	Yes		
Indicator: # of jobs created in target communities per year that will result in sustainable income within the Project Baseline: 652 Planned Target for 2024: 780	780		
Output 3.1 Data repository on the evidence-based monitoring of the dried Aral Sea bed established (UNDP)			Reports
Indicator 3.1.1 # of reports on conducted expeditions to the dried bed of the Aral Sea Baseline: 2 Planned Target for 2024: 4	4		
Output 3.2 Diversification of livelihood strategies introduced including the enabling activities in the agriculture resilience (FAO)			Training Reports
Indicator 3.2.1 # of rural women are equipped with handicraft and other alternative income generation skills in 3 districts. Disaggregated by gender Baseline: 348 Planned Target for 2024: 448	448		
Indicator 3.2.2 # of young people trained with e-commerce and entrepreneurship skills through workshops and training. Disaggregated by gender Baseline: 25 Planned Target for 2024: 175	175		
Indicator 3.2.3 # of smallholder farmers are capacitated with new skills and knowledge on sustainable agriculture through Farmer Field schools. Disaggregated by gender Baseline: N/A Planned Target for 2024: 200	200		

	Achieved Indicator Targets	Reasons for Variance with Planned Target (if any)	Source of Verification
Indicator 3.2.4 # of smallholder farmers of targeted districts are trained and aware of existing green soft loans Baseline: N/A Planned Target for 2024: 200	200		
Indicator 3.2.5 # of smallholder farmers are provided with new types of seeds of salt-tolerant crops and more resilient to water-shortages. Disaggregated by gender Baseline: N/A Planned Target for 2024: 350	350		
Indicator 3.2.6 # of pilot projects/farmers equipped and tested new technologies adjusted to local conditions such as: drip irrigation equipment, installation of water wells. Disaggregated by gender Baseline: 51 Planned Target for 2024: 96	96		Training Reports
Indicator 3.2.7 # of women of targeted districts are provided with equipment and items for development of their handicraft skills and generate alternative income. Disaggregated by gender Baseline: 21 Planned Target for 2024: 66	66		
Output 3.3 Climate adaption practices are promoted through innovative, smart and green approaches to build the resilience of the rural households, farmers and green communities (UNDP)			
Indicator 3.3.1 # of communities with newly established access to clean drinking water Baseline: 14 Planned Target for 2024: 16	18		Transfer acts with beneficiaries
Indicator 3.3.2 # of people have access to clean drinking water in target communities Baseline: 0 Planned Target for 2024: 2000	3,685		Transfer acts with beneficiaries
Indicator 3.3.3 # of youth and women initiatives supported for smart agro-practices and technologies at communities. Disaggregated by gender Baseline: N/A Planned Target for 2024: 20	20		Transfer acts with beneficiaries
Indicator 3.3.4 # of farmers, youth, women strengthened skills and knowledge on smart agro- practices and green growth. Disaggregated by gender Baseline: N/A Planned Target for 2024: 15	15		Training reports
Indicator 3.3.5 # of low-income households equipped with innovative agricultural African Grower System and Hydroponic. Disaggregated by gender Baseline: N/A Planned Target for 2024: 15	17*		

	Achieved Indicator Targets	Reasons for Variance with Planned Target (if any)	Source of Verification
Indicator 3.3.6 # of smallholder farmers of targeted districts are trained and aware of existing green soft loans that are already being provided by banks. Disaggregated by gender Baseline: N/A Planned Target for 2024: 300	305		Transfer acts with beneficiaries
Indicator 3.3.7 # of the developed integrated green local development model at the community level and presented to the Government (MoEDPR) for consideration of upscaling and replication Baseline: N/A Planned Target for 2024: 1	1		Transfer acts with beneficiaries
Indicator 3.3.7 # of supported green initiatives at pilot farms and enterprises in cooperation with Farmer`s Council Baseline: N/A Planned Target for 2024: 3	3		

*in Prodoc Amendment dated 23.12.2023 there is typo (300, which belongs to indicator 3.3.6), however, target for 3.3.5 is 15.

III Evaluation, Best Practices and Lessons Learned

Delays in implementation:

Overall, the Joint Programme implemented the majority of its activities on time. JP has experienced some delays in 2023 and therefore initiated extension with some amendments of the Programme for some activities for four months until 30th April, 2024. However, in the extended period in 2024 JP was able to achieve all set objectives within **Objective 1**, particularly Output 1.2 the development of a platform for monitoring projects and completed in April 2024.

Within **Objective 2**, the process of contextualizing, translating, and approving the skills-building programme Aflayouth with the Ministry of Employment and Poverty Reduction was also successfully achieved in 2024.

Challenges:

One of the main challenges is ensuring the effective implementation of climate-smart agricultural practices and their adoption by local farmers. While initiatives like smart aquaponic systems and salt-tolerant crops have been introduced, widespread dissemination and sustained use require continuous training, technical support, and financial assistance. Many farmers may be reluctant to adopt new techniques due to limited awareness, traditional farming habits, and resource constraints.

Another challenge is addressing ecological issues in the dried seabed of the Aral Sea. Scientific expeditions have been conducted, but implementing afforestation efforts based on research findings requires proper planning, financial resources, and long-term commitment. The harsh environmental conditions of the region, including high salinity and water scarcity, make large-scale afforestation complex and resource-intensive.

Income diversification for rural communities also presents difficulties. While many rural women and young people have been trained in handicrafts, e-commerce, and entrepreneurship, ensuring that these skills translate into sustainable income opportunities is a challenge. Access to markets, financial support, and business development services must be improved to help participants turn their new skills into profitable.

Mitigation and adaptation measures taken by the Programme

In the extended period, JP initiated some adaptation measures which helped JP to mitigate risks of incompleteness of envisioned activities. Proper communication with stakeholders and beneficiaries is organized where a commonly agreed decision is made to complete efficiently planned activities within an extended period.

Lessons learned:

There is a need to bring UPSHIFT to the next level. In this context, additional capacity-building of UPSHIFT trainers and mentors is required. The first measure was made by establishing a partnership with the South Korean start-up programme. When the programme is continued, UNICEF will bring best practices and ensure the capacity-building of the local trainers and mentors in project acceleration.

There is a pressing need for continued efforts to reshape the mindset of female students, ICT teachers, parents and society at large to engage more girls in ICT and STEM spheres, especially at the advanced skills levels. Social behaviour change interventions and communication campaigns showcasing girls success in ICT and STEM spheres should be conducted in parallel to skills-building programmes.

Although the most modern computer equipment has been provided for the IT training centers, the knowledge and competence of the teachers of these centers is not enough to fully exploit their full potential. In this regard, comprehensive professional capacity-building should be foreseen with the transfer of new equipment.

Best practices:

The JP equipped local teachers and trainers with innovative, interactive, student-centered teaching approaches and tools that stimulated high interest, excellent academic performance and mind shifts among students.

The JP engaged a high number of girls in the non-traditional for them ICT sphere, stimulating further education and providing skills for decent jobs of the future.

The Joint Programme applied an integrated and holistic approach in implementing its activities. The coordinated joint efforts by UNDP, UNICEF and FAO allowed for addressing multiple insecurities of the population. For instance, UNDP and UNICEF materialized initiatives in the same remote community “Taza jol” of Chimbay district, where UNDP has been implementing reconstruction work on access to clean drinking water of rural communities, health care facility and school. UNICEF led JP has been implementing WASH project in the same community “Taza jol” health care facility. This kind of well-coordinated joint efforts of UN Agencies maximizes impact of Joint Programme.

The Joint Programme initiated innovative smart agro-practice “Aquaponics” on the basis of plot provided by IICAS. Current technology has recently become a sustainable and efficient agricultural system. It combines aquaculture and hydroponics in a symbiotic manner, allowing farmers to grow fish and plants in an integrated environment with minimal water and feed requirements. With its ability to produce high-quality food, aquaponics has the potential to significantly increase food production in the Aral Sea region, which will serve as a unique system to showcase and disseminate knowledge on efficiently using water resources and developing fisheries with a combination of vegetable crops.

The Joint Programme organized two scientific expeditions to the dried Aral Sea bed where numbers of experts were deployed to conduct complex research on plants, soil and potential areas to be focused for the environmental projects in the future. In total, four (4) expeditions were organized by UNDP led JPs since 2019 until 2023. Results of the initial two expeditions in 2019-2020 developed and disseminated in the form of a Book in English, Russian. The results of the last two expeditions were presented in the form of a comprehensive report.

Within the framework of the Joint Programme 3 awareness-raising campaigns covering 150 people from vulnerable groups with focus on people with disabilities from target districts were conducted. During the seminars people with disabilities received necessary knowledge and skills to use modern business applications, digital banking services and state interactive services. Digitalization allows people with disabilities to get equal opportunities and participate in economic and social life in full capacity.

Qualitative assessment:

Overall, within the Joint Programme all objectives planned for 2024 has been successfully achieved. Some results were achieved on time, some results were achieved earlier than expected. The JP established sound partnerships with key stakeholders at regional, district and grassroot levels, and local communities have been fully engaged in implementing the activities. Through its interventions at every stage, the project promoted gender mainstreaming principles. When organizing initiatives, committees or panels, the project always ensured that the voices of the most vulnerable groups of the population, including those of women, youth and the elderly, were all represented and heard. Through community mobilization and target audience identification for youth support and project initiatives, the JP engaged women and youth in communities. Since One UN model is a mandatory approach, JP fully promoted it through smooth coordination between UNDP and UNICEF and FAO, in terms of joint planning and implementation of activities.

IV Specific Stories

Smart Aquaponics: A Sustainable Solution for Karakalpakstan

In the heart of Karakalpakstan, where climate change and water scarcity pose increasing challenges to agriculture, an innovative solution has emerged. Through a joint initiative by UNDP and IICAS, a smart aquaponics system has been introduced to revolutionize farming in the region. This pioneering project represents a significant step toward sustainable food production, ensuring a stable supply of fresh produce while conserving precious water resources. The newly established aquaponics system spans 378 square meters, with a pool volume of 100 cubic meters. It features an advanced water filtration system with a capacity of 50 to 80 cubic meters per hour and an oxygen pump capable of supplying up to 145 cubic meters of air per hour. With 1,100 planting cells, the system seamlessly integrates fish farming and plant cultivation in a closed-loop environment that minimizes waste and maximizes efficiency.

The benefits of this aquaponics system are already evident. By recirculating water between fish tanks and grow beds, the system drastically reduces water consumption, a crucial advantage in Karakalpakstan's arid climate. Unlike traditional farming, which relies on chemical fertilizers and pesticides, this natural method utilizes fish waste to nourish plants, creating a self-sustaining ecosystem. Moreover, its compact design allows for vertical stacking, making it possible to grow more food in less space. This breakthrough not only enhances food security but also opens new economic opportunities. The demand for fresh, organic produce continues to rise, creating a promising market for sustainable agriculture in the region. Additionally, the system's remote monitoring capabilities ensure efficient and effective management of resources.

Beyond immediate agricultural benefits, the aquaponics initiative serves as a model for climate adaptation in the Aral Sea region. It provides a foundation for future research into optimizing aquaponic technology and improving productivity. With its sustainable approach, this project is paving the way for resilient food systems that can withstand the growing pressures of climate change.

The introduction of smart aquaponics in Karakalpakstan is more than just an agricultural advancement — it is a beacon of hope for communities striving for food security and environmental sustainability. As this innovative system continues to develop, it promises a brighter, greener future for the region and beyond.

Photos 73, 74, 75,76 Aquaponics project site in IICAS as a training center in
climate resilient innovative practices



Transformative Measures Yield Clean Drinking Water in the Aral Sea Region

Ensuring access to clean drinking water is paramount for safeguarding human health. The World Health Organization reports that a staggering 70% of global diseases stem from poor-quality water and failure to meet sanitation standards.

In recent years, the Aral Sea region faced a pressing issue with its sole water source, the Amu Darya River, becoming heavily polluted. Contaminants such as mineral salts, chemical residues from pesticides, biogenic elements, and heavy metals infiltrated the water, posing significant health risks to the populace. This dire situation resulted from pollution of water sources, challenges in water purification and disinfection, technical deficiencies in water supply systems, and the overall sanitary crisis in the Aral Sea region, leading to a sharp decline in public health.

Addressing this critical concern, efforts focused on improving sanitation, particularly in remote communities like "Shuyt," "Aranshi," and "Tokmangyt" in the Kegeyli district, where clean drinking water was scarce. Residents endured water shortages, exacerbated by outdated and dysfunctional water desalination plants, such as the one in Shuyt, built in 2006-2007. This plant, intended to serve as a water distribution point, lacked a proper water supply infrastructure, hindering access to clean water for the entire community.

Recognizing the urgency of the situation, a Joint programme initiated by UNDP, UNICEF, and FAO engaged residents in discussions to identify local challenges. Access to clean drinking water emerged as a primary concern, leading to proposals for renovating the desalination plant in Shuyt and constructing water supply networks in several communities, including Shuyt, Aranshi, and Tokmangyt.

"The desalination plant was originally built solely for commercial purposes, lacking a pipeline infrastructure. We had to walk a long way to buy water, however, with pipelines now reaching our homes, and we do not need to go to the station" says Gulimbetova Gumsay, one of the residents of the community Shuyt.

"With seven members in our family, we faced water supply challenges. As a 53-year-old, it was tough trekking long distances to fetch water, especially in varying weather conditions. Having water pipelines in our homes now greatly eases our daily tasks and saves us precious time and money." says Minaykhan Qoshanova, who is also from that region and had difficulties with clean drinking water.

On 12 December 2023, UNDP delegation visited the Republic of Karakalpakstan for the inauguration of a reconstructed water purification station, marking a milestone in the region's journey towards clean water access. With construction completed and desalination equipment operational, approximately 1,500 residents, including 800 women, now enjoy access to clean drinking water.

This transformative endeavor was made possible through the framework of the UNDP, UNICEF and FAO Joint programme “Empowering youth towards a brighter future through green and innovative development of the Aral Sea region”, which funded by the UN Multi-Partner Human Security Trust Fund for the Aral Sea Region in Uzbekistan with the support of the Governments of Uzbekistan, Norway, the European Union, Finland, the Republic of Korea, Germany and the Alwaleed Philanthropies charity organization.



Photos 77, 78,79,80: Access to drinking water project in the community Shuyt, Chimbay district

Link: <https://www.undp.org/uzbekistan/stories/transformative-measures-yield-clean-drinking-water-aral-sea-region>

