

UN MULTI-PARTNER HUMAN SECURITY TRUST FUND FOR THE ARAL SEA REGION IN UZBEKISTAN

UNDP and UNESCO Joint Programme ‘Addressing the urgent human insecurities in the Aral Sea region through the promotion of sustainable rural development’

MPTF OFFICE GENERIC FINALPROGRAMME¹ NARRATIVE REPORT

Reporting period: 26 August 2019 – 31 August 2021

Programme Title & Project Number	Country, Locality(s), Priority Area(s) / Strategic Results
<ul style="list-style-type: none"> Programme Title: <i>UNDP and UNESCO Joint Programme ‘Addressing the urgent human insecurities in the Aral Sea region through the promotion of sustainable rural development’</i> Programme Number: 00123193 MPTF Office Project Reference Number: 00117259 	<p>Country/Region: <i>Uzbekistan, the Republic of Karakalpakstan, Takhtakupir district</i></p> <p>Priority area/strategic results:</p> <ul style="list-style-type: none"> - <i>UNDAF Outcome 1: Equitable and sustainable economic growth through productive employment, improvement of environment for business, entrepreneurship, and increased innovations;</i> - <i>UNDAF Outcome 6: Rural population benefits from sustainable management of natural resources and resilience to disasters and climate change.</i>
Participating Organization(s)	Implementing Partners
<ul style="list-style-type: none"> Organizations that have received direct funding from the MPTF Office under this programme: <i>UNDP, UNESCO</i> 	<ul style="list-style-type: none"> - <i>The Ministry of Economy and Industry of the Republic of Uzbekistan (now the Ministry of Economic Development and Poverty Reduction)</i> - <i>The Council of Ministers of the Republic of Karakalpakstan</i> - <i>The State Committee on Forestry of Uzbekistan and its branch in Karakalpakstan</i> - <i>The Scientific Information Centre of the Interstate Coordination Water Commission of Central Asia (SIC ICWC)</i> - <i>The International Innovation Centre for the Aral Sea Basin under the President of the Republic of Uzbekistan</i> - <i>The Ministry of Employment and Labour Relations of the Republic of Uzbekistan</i> - <i>The Ministry of Agriculture in Karakalpakstan</i> - <i>The Ministry of Housing and Communal Services in Karakalpakstan</i> - <i>The Chamber of Commerce and Industry of Uzbekistan</i> - <i>Business Women’s Association</i> - <i>Youth Union</i> - <i>The State Committee of the Republic of Uzbekistan for Tourism Development</i>

¹ The term “programme” is used for programmes, joint programmes and projects.

Programme/Project Cost (US\$)
Total approved budget as per project document: USD \$1,463,900 MPTF /JP Contribution: \$1,463,900 by Agency (if applicable) Agency Contribution • by Agency (if applicable)
TOTAL: \$ 1,463,900
Programme Assessment/Review/Mid-Term Eval.
Assessment/Review - if applicable please attach <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Date: dd.mm.yyyy Mid-Term Evaluation Report – if applicable please attach <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Date: dd.mm.yyyy

Programme Duration	
Overall Duration (months)	24
Start Date (dd.mm.yyyy)	26/08/2019
Original End Date (dd.mm.yyyy)	28/02/2021
Current End Date (dd.mm.yyyy)	31/08/2021
Report Submitted By	
<ul style="list-style-type: none"> ○ Name: <i>Ms. Matilda Dimovska</i> ○ Title: <i>UNDP Resident Representative in Uzbekistan</i> ○ Participating Organization (Lead): <i>UNDP</i> ○ Email address: matilda.dimovska@undp.org 	

TABLE OF CONTENTS

TABLE OF CONTENTS	3
LIST OF KEY ACRONYMS.....	4
EXECUTIVE SUMMARY	5
I. PURPOSE.....	6
II. ASSESSMENT OF PROGRAMME RESULTS.....	7
I) NARRATIVE REPORTING ON RESULTS	7
II) INDICATOR BASED PERFORMANCE ASSESSMENT	17
III) EVALUATION, BEST PRACTICES AND LESSONS LEARNED	24
1) <i>Challenges</i>	24
2) <i>Mitigation and adaptation measures taken by the project through the COVID-19 outbreak situation</i>	24
3) <i>Lessons learned:</i>	25
4) <i>Best practices:</i>	25
5) <i>Qualitative assessment:</i>	26
IV) SPECIFIC STORIES	26
1) <i>Story on ‘Access to clean drinking water’</i>	26
2) <i>Story on ‘Promoting the development of rural entrepreneurship initiatives’</i>	27
3) <i>The two expeditions ‘key findings and recommendations’</i>	28

LIST OF KEY ACRONYMS

BWA	Karakalpakstan Branch, Business Women’s Association of Uzbekistan ‘Tadbirkor Ayol’
CCI	Chamber of Commerce and Industry
CDP	Community Development Plan
CIS	Commonwealth of Independent States
COVID-19	Coronavirus Disease 2019
DWO	Drinking Water Organization
FGDs	Focus Group Discussions
MPHSTF	UN Multi-Partner Human Security Trust Fund for the Aral Sea region in Uzbekistan
IICAS	International Innovation Center for Aral Sea basin under the President of the Republic of Uzbekistan
JP	Joint Programme
SIC ICWC	The Scientific-Information Centre of the Interstate Coordination Water Commission
SME	Small and medium-sized enterprises
TDK	Takhtakupir District Khokimiyat (District Municipality)
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNESCO	United Nations Educational Scientific and Cultural Organization
VCC	Village Council of Citizens
WASH	Water Sanitation and Hygiene

EXECUTIVE SUMMARY

The UNDP and UNESCO Joint Programme ‘Addressing the urgent human insecurities in the Aral Sea region through the promotion of sustainable rural development’ (JP) addresses multi-dimensional problems in the areas of environmental and social securities in the Aral Sea region. During the reported period of its implementation (26 August 2019 – 31 August 2021), the JP accomplished all set objectives and targets in line with the approved programme document as follows:

- Six infrastructure projects on water purification and supply of drinking water implemented in Takhtakupir district with a total number of beneficiaries of 3,491 (1762 females, 51%) people in five rural communities;

Training module on Water Sanitation and Hygiene (WASH) and brochures for the population “Water, sanitation and hygiene” were developed. 150 people were trained in WASH, sanitation and hygiene rules.

- 13 business projects (milk processing, soap production, forage production, production of reed slabs, bakery, poultry, etc.) were supported, which resulted in 60 new jobs for rural people as well as indirectly benefiting 5,537 people from the services/products produced by those projects; 95 people (52% women and youth) enhanced skills through training on value chain management at livestock sector and fundamentals of business planning and entrepreneurship development; 20 owners of SME were trained on strategy formulation, value-chain analysis and taxation, which had positive impact on their business development; over 225 tourism and culture professionals, and specialists in the field of natural heritage as well as local communities, including women and youth were trained on the development of heritage-based sustainable tourism, hospitality industry, eco, rural and community-based tourism, as well as enterprise approach on building sustainable tourism, tourism marketing and communication as well as development of media content on tourism, cultural and natural heritage of Karakalpakstan. Three research/assessment on development of sustainable tourism in Karakalpakstan, including eco-tourism and elaboration of the new tourism destinations and products; Hospitality industry; and Potential of geological heritage and development of geo-tourism in the region, set of recommendation in the respective fields and 1 survey on media coverage was developed.
- Within the framework of measures for adaptation to climate change, through evidence-based afforestation initiatives, two scientific expeditions were conducted to the dried bed of the Aral Sea by the Scientific-Information Center of the Interstate Commission for Water Coordination of Central Asia (SIC ICWC) and the International Innovation Center of the Aral Sea region. As a result: more than 30 plant species from 1500 different points were identified, their planting on the dried seabed was recommended; A comprehensive report in the form of a Book “Monitoring of dried bed of Aral Sea” was developed, published in Russian and English and disseminated to Project partners and potential donors; Based on the carried-out assessment of the needs of the Takhtakupir forestry department, 17 types of machinery and equipment were determined and most of them were purchased and transferred for use. These measures helped to plant saxaul on over 3000 hectares of land on the dried bed of the Aral Sea and create a nursery on 49 hectares of land for growing seedlings from drought-resistant plants. Technical support was provided to three pasture cooperatives for development of nurseries on drought-resistant plants in 58 hectares of pasture areas. These measures had a positive impact on sand stabilization, decreased air pollution, improved agriculture and health condition of people and created more employment opportunities.

Overall, during the reported period, the project successfully implemented the planned activities and managed to achieve all set targets in 2019-2021. 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.

I. Purpose

The ultimate goal of the UNDP and UNESCO Joint Programme (JP) is to address the environmental, social and economic insecurities in the most vulnerable communities of the Aral Sea region, by formulating comprehensive solutions to address environmental issues, promote access to basic services, improve livelihoods through the development of sustainable tourism, and provide access to clean drinking water.

The JP's goal is in line with the government's policy that highlights addressing the negative consequences of the Aral Sea environmental disaster as a priority issue. The project seeks to improve the wellbeing of communities affected by the Aral Sea crisis through the following objectives, which fully align with the MPHSTF Programmatic Framework, 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.** Improving community resilience by ensuring access to clean drinking water.
- Outcome 2.** Enhancing the social wellbeing of the rural population (including women/youth) through the expanding income generation opportunities and promoting inclusive sustainable growth of tourism in Karakalpakstan.
- Outcome 3.** Promoting climate change adaptation actions through evidence-based afforestation initiatives.

The JP results contribute to the attainment of UNDAF Outcome 1 (equitable and sustainable economic growth) and Outcome 6 (sustainable management of natural resources and resilience to disasters and climate change), while they also mirror the MPHSTF Results Matrix Outcomes. The first objective has a direct contribution to all three outputs of the MPHSTF Results Matrix Outcome 3 (security of local community access to affordable and healthy food and clean drinking water). The second objective contributes to the first two outputs of the MPHSTF Results Matrix Outcome 2 (an increase in employment and income generation opportunities for local communities). The third objective addresses all three outputs of the MPHSTF Results Matrix Outcome 1 (reduction of stress on local communities due to the deteriorating environmental situation).

The project's goal and objectives are fully aligned with the following policies and strategies of the Government of Uzbekistan for addressing the Aral Sea crisis:

- The State Programme on Development of the Aral Sea Region for 2017-2021², which focuses on improving the environmental and socio-economic situation, the living conditions of the population, and the effective implementation of investment projects to mitigate the environmental disaster in the region;
- The Resolution of the Cabinet of Ministers of Uzbekistan³ on 'Organizational aspects of establishing green areas and creation of protected forests on the dried-up areas of the Aral Sea' with planned afforestation on nearly 500,000 hectares of land in 2019;
- The Resolution of the Cabinet of Ministers of Uzbekistan on 'Measures for integrated socio-economic development of the Muynak District of the Republic of Karakalpakstan', which focuses on the development of the Muynak District, including its tourism sector;
- The Resolution of the President of the Republic of Uzbekistan⁴ on 'Measures for integrated socio-economic development of the Republic of Karakalpakstan in 2020-2023'. This resolution focuses on the holistic development of the region through strategies including the improvement of water supply, education, health infrastructure, sport facilities, attraction of investments into the region, creation of



² The State Programme on Development of the Aral Sea Region for 2017-2021, approved by the Cabinet of Ministers of Uzbekistan on 12 October 2017, No. 100-2017-100, dated 12 October 2017.

³ Resolution of the Cabinet of Ministers of Uzbekistan on 'Organizational aspects of establishing green areas and creation of protected forests on the dried-up areas of the Aral Sea' with planned afforestation on nearly 500,000 hectares of land in 2019, dated 12 October 2019, No. 100-2019-100, dated 12 October 2019.

⁴ Resolution of the President of the Republic of Uzbekistan on 'Measures for integrated socio-economic development of the Republic of Karakalpakstan in 2020-2023', dated 12 October 2020, No. 100-2020-100, dated 12 October 2020.

industrial production entities, and support of youth and entrepreneurship.

II. Assessment of Programme Results

i) Narrative reporting on results

This report demonstrates the JP achievements and results attained for the period from 26 August 2019 to 31 August 2021. The JP geographically focuses on the Takhtakupir district of Karakalpakstan, which is one of the least developed districts of the Aral Sea region. As per survey results, 60.0% of respondents noted the lack of a water supply system, the highest level of dissatisfaction was in Takhtakupir district - 81.9% and only 52.3% is covered with piped water, and many of the existing water pipes in remote communities are outdated and not functioning). The JP also covers Muynak and Chimbay districts in regards to supporting sustainable tourism development. During this period, the key activities undertaken contributed to the following outcomes of the project:

- Outcome 1.** Improving community resilience by ensuring access to clean drinking water (UNDP).
- Outcome 2.** Enhancing the social wellbeing of the rural population (including women/youth) through expanding income generation opportunities and promoting inclusive sustainable growth of tourism in Karakalpakstan (UNDP/UNESCO).
- Outcome 3.** Promoting climate change adaptation actions through evidence-based afforestation initiatives (UNDP).

Overall, under **Outcome 1**, six infrastructure projects on water purification and supply of drinking water were implemented in the Takhtakupir district, for 3,491 beneficiaries in five rural communities:

1. The Tazakonis Community - 175 inhabitants
2. The Beltau Community Centre - 878 inhabitants
3. The Mulk Community - 1,178 inhabitants
4. The Marjankol Community - 525 inhabitants
5. The Janadarya Community - 735 inhabitants

The project has provided access to clean drinking water and has improved the relevant physical conditions of facilities which contribute to the overall improvement of the health and wellbeing of the local population in the Takhtakupir district of Karakalpakstan. Access to clean water became more important during COVID-19 pandemic for people to improve hygienic and preventive measures.

A training module on WASH and brochures for the population on “Water, sanitation and hygiene” were developed in Russian and Karakalpak. The electronic version of the brochures was disseminated to the heads of the “Tazakonis” “Beltau”, “Mulk”, “Marjankol” and “Janadarya” communities for further dissemination among the rural population. 150 people from five rural communities improved their knowledge on WASH rules through organized online training. The project has enhanced the knowledge and skills of rural inhabitants of target communities on prioritizing needs and on the formulation of community development plans in organized trainings.

Under **Outcome 2**, the JP created jobs and income-generating opportunities, promoted entrepreneurship, developed sustainable tourism and enhanced the social wellbeing of the rural population, including youth and women. The JP has supported six business projects, including dentistry service development, milk processing, soap production, fodder production, halva/kozinaki production and reed slabs production businesses, with 60 rural people now employed at these businesses. Over 60 women and youth have improved their entrepreneurship skills through series of trainings. Over 225 tourism, nature and culture

professionals, local communities, including women and youth, strengthened/developed their capacities through five trainings on development of heritage-based sustainable tourism, development of hospitality industry, development of eco and rural tourism, building sustainable tourism with enterprise approach in Karakalpakstan and media in tourism as well as one online incubator on teaching and creation of media content on tourism in Karakalpakstan and its cultural and natural heritage.

Awareness about potential and heritage of Karakalpakstan raised through 1 survey on media coverage of Karakalpakstan in Europe, Asia and CIS countries, one online meeting on tourism potential of Karakalpakstan for 100 representatives of governmental, educational and private institutions, tourism, culture, natural and media professionals and local communities, development of media tourism content on Karakalpakstan.

Three researches/assessments on development of sustainable tourism in Karakalpakstan, including ecotourism and elaboration of new tourism destinations and products; Hospitality industry in Karakalpakstan; and Potential of geological heritage and development of geo-tourism in the region were carried out, including and formulation of set of recommendations in the respective fields.

Under **Outcome 3**, within the framework of measures for adaptation to climate change, SIC ICWC and IICAS jointly conducted second scientific expedition to the dried seabed of the Aral Sea (the first expedition was in 2019). As a result of these expeditions, more than 30 plant species from 1,500 different locations were identified, with recommendations to plant these on the dried seabed of the Aral Sea. Comprehensive report in the form of a book/publication ‘Monitoring of the dried seabed of the Aral Sea’ was developed, published in Russian and English and being disseminated amongst project partners and potential donors. Based on an assessment of the needs of the Takhtakupir Forestry Department, 17 types of machinery and equipment were identified and most of which have been purchased and transferred for use by end 2020. These measures helped to plant drought-resistant saxaul plants on over 3000 hectares of land on the dried bottom of the Aral Sea and create a nursery on 49 hectares of land for growing seedlings from the plants. Technical support was provided to three pasture cooperatives for development of nurseries on drought-resistant plants in 58 hectares of pasture areas. The technical capacity of Takhtakupir forestry was significantly improved that increased efficiency of afforestation work, increased work volume in dried bed of Aral Sea and thus more income for the Forestry and hiring of more forestry employees. Over 100 employees from 16 forestry departments increased their knowledge on “Innovative methods of afforestation” in a 2-day training organized jointly with IICAS. The obtained knowledge was disseminated among all forestry employees of the region.

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

Outputs:

Output 1.1. The water purification and distribution station at the Tazakonis community (in the Takhtakupir district) is fully functional (facility renovated and water purification equipment installed) (UNDP).

Output 1.2. The Beltau Community Centre in the Takhtakupir district has access to safe drinking water through the installation of water pipeline networks (UNDP).

Output 1.3. The Mulk community in the Takhtakupir district has access to safe drinking water through the installation of water pipeline networks (UNDP).

Output 1.4. Community-level capacities in the management of water purification and distribution stations improved through the establishment of a Drinking Water Association (DWA), and dissemination of knowledge and best-practices for upscale and replication.

As Outputs 1.1, 1.2 and 1.3 have a similar scope and sequence, the below is a consolidated description of key achievements:

After meetings and consultations organized with the Takhtakupir district Khokimiyat and the District Water Supply Organization and community development plans developed initially three water projects were identified and relevant estimation documents were developed for water supply projects in Tazakonis, Beltau Community Centre and Mulk communities. In addition to the planned three water infrastructure projects, other three water projects were implemented in Janadarya and Marjankol communities. All six infrastructure projects improved access to clean drinking water for 3,491 rural people, and improved their health conditions. Photos 1 and 2 document the construction of the drinking water supply networks at the project site in the Beltau community. As reflected in the photos, the JP reconstructed existing water distribution facility, and installed 7,185 meters of water pipeline network which ensured an access of 639 rural people in 112 households to clean drinking water.



Photo 1 Reconstruction of the water distribution facility and installation of the water pipeline network at the Beltau Community Centre (2020)



Photo 2. Installation of water distribution network at Janadarya community (2021)

Photos 3 and 4 illustrate the commissioning ceremony for the water cleaning plant and supply network of the Tazakonis community of another water infrastructure project. This initiative has provided access to clean drinking water for approximately 200 rural residents. The commissioning ceremony took place with the participation of a delegation which included the Permanent Representative of the Republic of Uzbekistan to the UN H.E. Mr. Bakhtiyor Ibragimov, the Permanent Representative of the Republic of Uzbekistan to UNESCO Mr. Umid Shadiev, the Permanent Representative of the Republic of Uzbekistan to the UN Office and other international organizations in Geneva Mr. Ulugbek Lapasov, and UNDP representatives in Uzbekistan. The procurement and delivery of artesian water purification equipment, and the reconstruction of the water purification compound was completed in late October 2020, resulting in 175 people in the Tazakonis community receiving access to safe drinking water by the end of 2020 and improvement of quality of their lives.



Photos 3 and 4. Commissioning ceremony for the water cleaning plant and supply network of the Tazakonis community of the Takhtakupir district (2020)

After installation of water pipelines at the Beltau Community Centre, 878 people have access to safe drinking water in Beltau. Currently rural community people consume safe and clean drinking water supplied by the water pipelines to households and women do not go far anymore to take/bring water to households.

Installation of water pipelines in the Mulk community improved lives of 1,178 people as they received access to safe drinking water.

Output 1.4. Community-level capacities in the management of water purification and distribution stations improved through the establishment of a Drinking Water Association (DWA), and dissemination of knowledge and best-practices for upscale and replication.

The establishment of the Drinking Water Association (DWA). Initially the project conducted a rapid, related analysis at the grassroots level. The project held three focus group discussions (FGDs) with community residents to compare their points of view on establishing the DWAs. The FGD findings noted that there are many factors such as the number of water consumers and collection fees, negotiations with the District Water Supply Department on ownership issues and deployment of department specialists in major maintenance works, and others, that require agreement between the DWA and respective local institutions. In-depth research on the establishment of the DWA was conducted. Based on the research analysis, establishing a DWA was considered to be impractical due to lack of wiliness to take ownership of water resources and management, with further technical maintenance of the water treatment facility which indicated sustainability of water supply is not secured and the function of the state water supply organization will be duplicated. Instead, it was recommended that financial resources be utilized to realize additional water projects. As a result, two more sets of water purification equipment, with capacities of eight and ten cubic/meters per hour were purchased and installed at Marjankol community benefiting 525 people and Janadarya community benefiting 735 people directly as well as water supply networks constructed in Janadarya community with total length of 4000 m.

Local specialists of district water distribution organization and community members (20 people) were trained who will carry on proper use, and if necessary, maintenance of the installed water system, its effective use, and hygiene rules. The current approach will increase sustainability of the project.

Implementation of WASH procedures. 150 people from five rural communities were trained on proper sanitation and hygiene norms, while sanitation and hygiene materials were developed in Russian and Karakalpak (see Photo 5) and disseminated to the five Village Council of Communities for further dissemination among the rural population.



Photo 5. Brochure on water sanitation and hygiene

Output 2.1. Six innovative small and medium enterprises established (led by rural youth and women) that produce marketable products for local and regional markets, while enhancing food security and strengthening economic security for the population of target communities (UNDP).

The establishment of thirteen innovative small and medium business projects in 2020 and 2021 created employment opportunities for rural youth and women, and enriched the local market with relevant products, which were not before produced and served locally. The project was affected by the COVID-19 pandemic and had some delays in implementing activities and procuring equipment in 2020. However, despite this fact, the project team continued to work and achieved the following results:

Implementation of the new entrepreneurship development projects in a pilot district of Karakalpakstan through trainings and the provision of necessary equipment/machinery. Six new income generation projects (three led by women) in 2020 and seven projects in 2021 were selected for co-financing in a review committee meeting organized by JP. These included projects on fodder production, milk processing, straw mat/board production, soap production, halva-kozinaki production, dentistry facility development, bakery, and poultry. Procurements of all necessary equipment for thirteen income generation projects completed. 60 people benefit directly from new jobs and 5,537 people have access to goods produced and services provided.

Enhancing rural entrepreneurs' management skills on value chain management, strategy formulation and taxation. Fifty people enhanced their skills through training on value chain management within the livestock sector and on fundamentals of business planning and entrepreneurship development. Forty-five people (52 % women and youth) had training on the basics of entrepreneurship, business development, on strategy formulation, value-chain analysis and taxation, while strategies were developed for five SMEs. 20 owners of SME were trained on strategy formulation, value-chain analysis and taxation which had positive impact on their business development. A total of 115 people enhanced their skills and those skills will be instrumental in developing businesses.

Implementation of the new women's entrepreneurship development programme in the pilot district of Karakalpakstan through trainings for rural women from remote communities and the provision of necessary equipment/machinery. Five business projects namely on soap production, halva-kozinaki production, rural dentistry facility development, dumplings production workshop and poultry led by women/girls. These five business projects created 21 new job places among women/girls. Relevant items of equipment for all business projects were delivered from 2020 end to 2021 July (Photos 6, 7, 8, 9).



Photo 6. Dentistry income generation project (2020)



Photo 7. Soap production income generation project (2020)



Photo 8. Poultry income generation project (2021)



Photo 9. Dumplings production workshop (2021)

Output 2.2. Community-based tourism and eco-tourism in the Aral Sea region supported and piloted (UNESCO).

Under this output, the project intended to strengthen the development of tourism in the region. The following activities were implemented in 2020 and 2021:

Building/developing the capacity of local communities and tourism professionals to adopt sustainable tourism production practices (using globally recognized sustainable tourism criteria).

32 tourism, natural and cultural professionals, as well as representatives of local communities, including women and youth, strengthened/built their capacities in the development of sustainable tourism in Karakalpakstan, based on natural and cultural heritage and were trained by a leading international expert.

38 tourism, natural and cultural professionals, as well as representatives of local communities, including women and youth, strengthened/developed their capacities in building sustainable tourism with enterprise approach in Karakalpakstan and trained by a leading international expert.

Developing eco-tourism by building capacities of local communities and tourism professionals, and developing new tourist routes/destinations in Karakalpakstan.

The research/assessment on the development of sustainable tourism in Karakalpakstan, including eco-tourism, carried out by national and international experts. Recommendations formulated and aimed at improving and developing both existing and new tourism, products and destinations in Karakalpakstan. They were also aimed to improve existing tourism infrastructure to meet international standards, marketing and management of the tourism sector in Karakalpakstan. Assessment results are expected to provide support to the tourism sector through various types of interventions (financial, institutional, legislative and regulatory) and related policies and measures across all different stages of the value chain (creation, production, marketing and participation).

The assessment of the potential of natural and geo-sites as tourism assets is carried out by national experts with contribution by international expert. The assessment aims to strengthen the development of sustainable eco-tourism in Karakalpakstan based on natural heritage, including further recommendations for the establishment of geoparks in the region.

35 tourism professionals, specialists in the field of protection of natural heritage as well as representatives of local communities, including women and youth, strengthened/developed their capacities in development of eco and rural tourism in Karakalpakstan and trained by leading international experts.

Developing community-based tourism through the provision of consultations/development of recommendations for improving tourism infrastructure of existing hotels/home stays (guest houses, hostels, etc.) in Karakalpakstan, including of Muynak, Takhtakupir, Chimbay and other areas.

The research/assessment on the development of the hospitality industry in Karakalpakstan was carried out, including the elaboration of a set of recommendations for improving existing hotel service, management, and infrastructure, and development of new hotels, home stays, etc., that meet international standards while at the same time preserving the traditions of the Karakalpak people.

30 representatives of the hospitality sector (directors, senior managers, hotel business owners, and representatives from the State Committee for Tourism Development, including women and youth) built/increased capacities on the development of the hospitality industry in Karakalpakstan in an organized five-day training.

Raising awareness of the cultural and natural heritage of Karakalpakstan at the international level.

The survey on media coverage of Karakalpakstan in Europe, Asia and CIS countries is carried out, based on traditional and social media with the aim to evaluate the current situation with regard to media coverage of both international and regional tourism to Karakalpakstan; and provide pointers and suggestions for future media coverage of sustainable tourism to the region.

The online meeting on tourism potential of Karakalpakstan held with participation of 100 representatives of governmental, educational and private organization/institutions, tourism, culture, natural and media professionals and local communities, including women and youth, to bring together all stakeholders to discover new opportunities and discuss challenges in the promotion of the tourism potential of Karakalpakstan.

60 tourism, natural and cultural professionals as well as specialist in marketing and communication, including youth and bloggers, build/strengthened their capacities in media and tourism and new approached to development in Karakalpakstan and trained by leading international experts.

30 tourism, natural and cultural professionals as well as specialist in marketing and communication, including youth and bloggers, build/strengthened their capacities and created media content on tourism potential and cultural and natural heritage on Karakalpakstan within 2-month online incubator conducted by leading international experts.



Photos 10 and 11. *Development of tourism in Karakalpakstan (training and research)*



Photos 12 and 13. *Raising awareness of the cultural and natural heritage of Karakalpakstan (survey process and training)*

Output 3.1. Evidence base strengthened and international best practices applied to enhance the effectiveness of afforestation works on the dried Aral Sea seabed (UNDP).

Under this output, the JP initiated two expeditions to the dried seabed of the Aral Sea to analyse the current situation, resulting in a set of practical recommendations presented in the form of a book (and a book

summary), as well as technical support to local forestry institutions in their efforts to mitigate the negative environmental consequences of the crisis.

Monitoring the dried bottom of the Aral Sea (SIC ICWC and the IICAS). The first complex expedition to the dried seabed of the Aral Sea region took place from 20 September 2019 to 20 October 2019, and a second expedition was conducted in May-June 2020. The expeditions covered the southern part of the dried seabed, particularly the regions of Muynak and Adzhibay Bay (see Figure 1). The JP recruited a team of research experts and technical staff, comprised of one international and 12 national consultants, including ecologists, soil scientists, botanists, hydro geologists, and GIS and remote sensing specialists. The expedition travelled 5,350 km, collected 56 soil samples and described 2,142 points on various surface classes. Figure 1 contains visual maps that present the expedition routes. Photo 15 shows land furrowing conducted for the further planting of desert plants in those territories.

The purpose of the expedition was:

- To determine the state and dynamics of the area affected by drying, and the approximate classification of the landscape on the newly drained area using remote sensing observations;
- To assess the state of the landscape, soils, hydrogeological conditions, fauna and flora, and the state of vegetation, especially the artificial forest plantations of the entire drained territory;
- To determine the scale of development of desertification processes, changes in landscape classes and risk zones, in comparison with the state of the previous monitoring in 2005-2011;
- To develop recommendations for improving the ecological state and productive use of drained and reclaimed territory.



Figure 1. Areas covered by the two expeditions



Photo 14. Soil surveys during the expeditions



Photo 15. Desert plants in furrows

During the expeditions, more than 74 species of higher plants were identified (Photo 16) from over 2,060 different survey points of the dried bottom of the Aral Sea. These plants comprised 51 genera and 21 families, and represented the majority of vegetation cover.



Photo 16. Three of the 74 species identified during expedition vegetation surveys of the Aral Sea seabed

The key findings and recommendations of the two expeditions are provided in the book ‘Monitoring of the dried seabed of the Aral Sea’ and a summarized version a brief summary of the results of expeditions to the dry seabed of the Aral Sea in 2019-2020’. A roundtable was organized to present and discuss the book with the participation of representatives of various organizations, scientists and experts in December 2020. Russian and English language versions of the summary brochure were printed. The cover pages of the book and its summary are presented in Figure 2 and Figure 3, respectively. Distribution among partner organizations and donors is in process.



Figure 2. Cover of the book ‘Monitoring of the dried seabed of the Aral Sea’

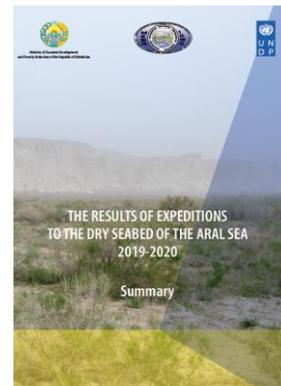
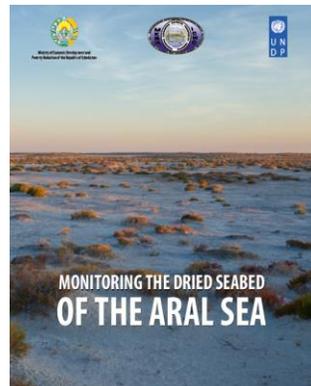
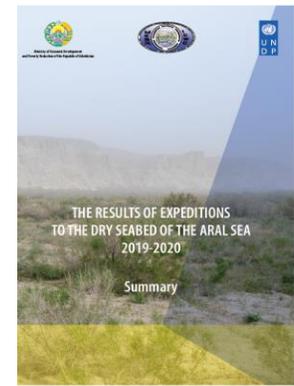


Figure 3. ‘A brief summary of the results of expeditions to the dry seabed of the Aral Sea in 2019-2020’



Over 100 afforestation specialists of the State Forestry Committee and its 16 branches improved knowledge on innovative methods of afforestation through organized, in cooperation with IICAS, a two-day training in December 2020 organized in cooperation with IICAS (held through the Zoom platform due to the COVID-19 lockdown). Based on identified needs on capacity building, afforestation specialists enhanced knowledge in the following four thematic areas:

- (i) Inventory of forested areas using GIS technology;
- (ii) Development and introduction of a system of measures for protecting the seeds of trees and shrubs against pests and diseases;
- (iii) Development of measures to promote the natural renewal of forestry crops in Tugai forests;
- (iv) Development and implementation of innovative methods of afforestation in drought prone areas.

Trained afforestation specialists share/disseminate knowledge on innovative methods of afforestation with local farmers, dehkans and pasture cooperative members among the districts. The project developed and

published methodological guideline-brochures on these four thematic areas in Russian and Karakalpak languages.

Output 3.2. Technical and material capacity of relevant institutions involved in afforestation works improved in order to enhance the efficiency of work (UNDP).

The JP has worked to identify real needs for enhancement of technical and institutional capacity of relevant institutions in further improving afforestation measures in the Aral Sea area. As such, the project has compiled a list of the most essential machinery and technologies to create people-centred, favourable conditions to enhance the productivity, efficiency and effectiveness of afforestation works on the dried seabed. Based on the assessment results the JP identified demand for 17 types of essential machinery and equipment, which included a mobile home to be used in remote areas during afforestation works, a welding machine on wheels, a bus truck, storage tanks on wheels for water and petrol, tents and sleeping bags. Bidding for procurement was completed in 2020. By the end of 2020, some of the machinery and equipment was delivered to the Takhtakupir Forestry Department, namely radio telephones for field communications, a truck for transporting seeds and seedlings, an excavator-bulldozer, mobile homes with diesel generators, heaters, air conditioning systems, and also tents, field ovens, tarpaulins and welding units on wheels. Other machinery such as food tanks on a trailer, a tanker trailer, a square baler, tractor trailers, tractors, long-base planner and excavation plows, was delivered in May 2021.

These measures helped to plant saxaul in over 3000 hectares of land on the drained bottom of the Aral Sea compared to 100-150 hectares the start, and create a nursery on 49 hectares of land for growing seedlings from drought-resistant plants compared to 2-3 hectares before, with 142 additional hectares expected to be developed. Technical support provided to 3 pasture cooperatives for development of nurseries on drought-resistant plants in 58 hectares of pasture areas.

ii) **Indicator Based Performance Assessment**

	Achieved indicator targets	Reasons for variance with planned target (if any)	Source of verification
Outcome 1. Improving community resilience by ensuring access to clean drinking water (UNDP)			Project estimation documents/prior to bids announcement. Purchase order (PO) contracts with subcontracted companies. Transfer documents. Statistical data provided by the district municipality.
Indicator 1.1. Number of functional Water Distribution Facilities (WDFs) in the Takhtakupir district. Baseline: 7 Planned target: 10	12		
Indicator 1.2. Number of the population with access to safe drinking water and improved sanitation service levels. Baseline: 20,644 Planned target: 23,960	24,135		
Output 1.1. The water purification and distribution station at the Tazakonis (Takhtakupir district) is fully functional (facility renovated and water purification equipment installed) (UNDP).			Community development plans/once per community project. Semi-annual project progress reports. Field monitoring reports/once a month. Impact assessment reports/4 months prior to completion of project. Annual reporting to Project Board. PO contract with Project Estimation Institute. Statistical data provided by the district municipality. Project estimation document. PO contract with subcontracted construction companies.
Indicator 1.1.1. Number of people with access to safe drinking water in the Tazakonis community. Baseline: 0 Planned target: 878 (Note: This number reflects the population of the Beltau Community Centre)	878		
Indicator 1.1.2. Number of project estimation documents prepared for intended target projects. Baseline: 0 Planned target: 3	4		
Indicator 1.1.3. Number of Water Distribution Stations fully renovated Baseline: 7 Planned target: 9	10		
Indicator 1.1.4 Number of installed boreholes and repaired water cisterns for the water distribution station in Tazakonis community: Baseline: 0 Planned Target: - borehole: 1 - water cisterns: 2	1 3		

Output 1.2. The Beltau Community Centre in the Takhtakupir district has access to safe drinking water through the installation of water pipeline networks (UNDP).		Official statistical data provided by the district municipality.
Indicator 1.2.1. Number of people with access to safe drinking water in the Beltau Community Centre. Baseline: 0 Planned target: 175 (Note: This number reflects the population of the Tazakonis community)	175	
Indicator 1.2.2. Total metres of pipe laid in the community for water delivery. Baseline: 0 Planned target: 6,000	20,943	
Output 1.3. The Mulk community in the Takhtakupir district has access to safe drinking water through the installation of water pipeline networks (UNDP).		National consultants' reports.
Indicator 1.3.1. Number of people with access to safe drinking water in the Mulk community. Baseline: 0 Planned target: 1,178	1,178	
Indicator 1.3.2. Number of households of the community connected through the main water pipe. Baseline: 0 Planned target: 409	409	
Indicator 1.3.3. Number of public organizations with access to safe drinking water: including schools, kindergartens and rural health points. Baseline: 0 Planned target: - Schools: 3 - Kindergartens: 1 - Rural health points: 2	4 4 2	
Indicator 1.3.4. Number of Drinking Water Associations established. Baseline: 0 Planned target: 1	0	
		As per the result of assessment with community residents, Drinking Water Association is found to be impractical due to the lack of willingness of local people and it is likely to duplicate the functions of district water distribution

		organization. Instead, 2 more additional water projects implemented for the financial resources.	
Output 1.4. Community-level capacities in the management of water purification and distribution stations improved through the establishment of a Drinking Water Association (DWA), and dissemination of knowledge and best-practices for upscale and replication.			Charter of DWA. Quarterly financial reports of DWAs. Training reports upon completion of each training.
Indicator 1.4.1. Number of people trained on proper use of water system (proper maintenance of the installed water system, its efficient use, and recording of water consumption in target community Baseline: 0 Planned target: 20	20		National consultants' reports.
Indicator 1.4.2. Number of people trained on proper sanitation and hygiene norms in target communities. Baseline: 0 Planned target: 150	150		PO contract with publishing company.
Indicator 1.4.3. Number of sanitation and hygiene booklets and information materials developed and distributed in the community. Baseline: 0 Planned target: 100	100		National consultants' reports.
Indicator 1.4.4. Number of articles and broadcasts produced that share project knowledge and best practices. Baseline: 0 articles, 0 broadcasts Planned target: 3 articles, 2 broadcasts	9 articles 4 broadcasts		
Indicator 1.4.5. Number of external stories on recognition achieved. Baseline: 0 stories Planned target: 4 stories	6		

Outcome 2. Enhancing the social wellbeing of the rural population (including women/youth) through expanding income generation opportunities and promoting inclusive sustainable growth of tourism in Karakalpakstan (UNDP/UNESCO).		Semi-annual project progress reports. Review Committee's meeting minutes. Project monitoring reports/monthly. Annual reporting to Project Board.
Indicator 2.1. Number of innovative small entrepreneurship initiatives supported in the Takhtakupir district. Baseline: 6 Planned target: 14	19	
Indicator 2.2. Number of job places created. Baseline: 30 Planned target: 110	90-114	
Indicator 2.3. Percentage of jobs created for women. Baseline: 50 Planned target: 70 per cent	71	
Output 2.1. Six innovative small and medium enterprises established (led by rural youth and women) that produce marketable products in local and regional markets, while enhancing food security and strengthening economic security for the population of target communities while creating 70 job places (50 per cent are women and girls) (UNDP).		Semi-annual project progress reports. Training reports/upon completion of each training. Impact assessment reports - twice in project lifetime. Newly registered business entities' documents. Annual reporting to Project Board. Review Committee's meeting minutes.
Indicator 2.1.1. Number of unemployed people, including women and youth, selected for trainings. Baseline: 0 Planned target: 60	60	
Indicator 2.1.2. Number of thematic trainings conducted. Baseline: 0 Planned target: 3	3	
Indicator 2.1.3. Percentage of training participants who have initiated income generation opportunities based on acquired knowledge and skills within six months of training. Baseline: 0 Planned target: 30	30	
Indicator 2.1.4. Number of co-financed income generation projects. Baseline: 6 Planned target: 12	19	

Indicator 2.1.5. Number of new direct and indirect beneficiaries. Baseline: 0 Planned target: 70 direct and 1,000 indirect beneficiaries	70 direct 1500 indirect		
Indicator 2.1.6. Number of new job places created for women and girls. Baseline: 0 Planned target: 35	37		
Output 2.2. Community-based tourism and eco-tourism in the Aral Sea region supported and piloted (UNESCO).			Training reports and programmes - upon completion of each training. Communication materials- quarterly and press-releases for each event/activity. Reports of research/assessments and survey Contracts with consultants and service companies. Articles and broadcast/media materials. Annual reporting to Project Board.
Indicator 2.2.1. Number of trainings conducted on tourism management. Baseline: 0 Planned target: 2	5		
Indicator 2.2.2. Number of Regional Tourism Development Committee staff and key stakeholders in tourism sector with enhanced tourism management capacity. Baseline: 0 Planned target: 60	195		
Indicator 2.2.3. Number of new tour routes developed in Karakalpakstan. Baseline: 0 Planned target: 2	3		
Indicator 2.2.4. Number of hotel and guest house managers and specialists trained in hospitality management. Baseline: 0 Planned target: 60	30		
Indicator 2.2.5. Number of new Broadcasting programmes and articles developed on cultural and natural heritage of Karakalpakstan: Baseline: 0 Planned target: - Broadcast program: 2 - article: 2	2 1		

Outcome 3. Promoting climate change adaptation actions through evidence-based afforestation initiatives (UNDP).		Bi-annual progress reports. Project monitoring reports. Training reports - upon completion of trainings. Annual reporting.
Indicator 3.1. Area of land afforested in desertified areas (ha) by the Takhtakupir Forestry Department. Baseline: 21,200 Planned target: 33,450	33,782	PO contract with vendors. PO contract with vendors.
Indicator 3.2. Area of lands (ha) in desertified areas afforested by three cooperatives in Takhtakupir district. Baseline: 0 Planned target: 3,750	5,600	
Indicator 3.3. Number of State Forestry Department representatives, pasture cooperative members, and local farmer and dehkans with enhanced knowledge and skills on innovative methods of afforestation. Baseline: 0 Planned target: 850	100 specialists trained. Knowledge disseminated to 1020 farmers and dehkans.	
Output 3.1. Evidence base strengthened and international best practices applied to enhance the effectiveness of afforestation works on the dried Aral Sea seabed (UNDP).		Project monitoring. Monthly reports. Mission monitoring report and laboratory analysis results upon study completion. Annual reporting to Project Board. PO contract with vendors.
Indicator 3.1.1. Number of demonstration plots (forest plantation nurseries) set up by the Takhtakupir Forestry Department and three cooperatives to produce seedlings for 10,000 ha of plantation land. Baseline: 0 Planned target: 4	4	
Indicator 3.1.2. Area of land (ha) covered by demonstration plots (forest plantation nursery) by the Takhtakupir Forestry Department and three cooperatives. Baseline: 0 Planned target: 49 (Forestry Dept); 15 (in 3 cooperatives)	49 (forestry) 56 (cooperatives)	
Indicator 3.1.3. Availability of research-driven data on soil composition of land on the dried seabed of the Aral Sea. Baseline: 0 Planned target: Full set of data including GIS mapping	Book and summary publication with full set of data, GIS mapping	

and remote sensing, as well as physical check results being available.	and remote sensing.		
Indicator 3.1.4. Number of jobs created in established demonstration plots in cooperatives. Baseline: 0 Planned target: 20 (10 full time and 10 seasonal)	120 (18 full time)		
Output 3.2. Technical and material capacity of relevant institutions involved in afforestation works improved in order to enhance the efficiency of work (UNDP).		As per result of the needs assessment conducted to improve technical capacities of Takhtakupir forestry, 17 types of machinery and items identified, which are slightly differ than in result matrix. Details can be found in the report.	Baseline assessment report when project is initiated. Transfer of machinery and equipment. Field monitoring reports - once a month. Impact assessments, delivered once. Satisfactory survey report – produced by the end of the project. PO contract with vendors.
Indicator 3.2.1. Amount of machinery and equipment provided to the Takhtakupir Forestry Department and three pasture cooperatives (including mobile homes, mobile kitchen, special machinery, tree planting machine, furrow driller, excavation plows, tents, sleeping bags, and radio phones). Baseline: 0 Planned target: Two mobile homes; One mobile kitchen; Two special machineries; Five tree-planting machines; Ten furrow drillers; Ten excavation plows; Five tents; Fifty sleeping bags; Five radio phones.	2 1 2 0 0 2 6 11 4		
Indicator 3.2.2. Area of land (ha) with plantations supported by machinery and equipment. Baseline: 0 Planned target: 1,500	6,000		
Indicator 3.2.3. Percentage of income increase for pasture cooperatives who have received support in the form of machinery and equipment. Baseline: 0 Planned target: 20 per cent	35 per cent		

iii) Evaluation, Best Practices and Lessons Learned

1) Challenges

- The COVID-19 outbreak rapidly spread to more than 100 countries in 2020. As observed, this pandemic has disrupted manufacturing and the global supply chain. The COVID-19 pandemic and partially lockdowns continued abroad and in Karakalpakstan in 2021 with limited traveling and face-to-face activities. Thus, in terms of the procurement of equipment and consumables in support of the project, some delays in delivering the activities and results have occurred;
- Almost all field visits were cancelled and all offline/on-ground project activities changed to online modes of operation in 2020 and hybrid modes in 2021;
- Delays with identification of project sites due to the limited communication with potential beneficiaries and partners were common, especially at the beginning of the COVID-19 outbreak in 2020;
- The majority of project staff, as well as project partners, were affected by COVID-19 and were hospitalized in 2020 and 2021;
- Delays occurred in vendor selection and contracting, as vendors were affected by the COVID-19 pandemic, with many having no experience or tools needed to sign contracts online. This caused a slowdown in the process of tasks such as obtaining commercial offers for services in 2020;
- Delays occurred in the procurement of equipment and items from abroad as the majority of equipment imported from sources including China and Turkey were stuck at the border at customs control points;
- Three contracts were extended/amended until the end of February 2021, due to the delay of services;
- Several capacity-building and awareness-raising activities on sustainable tourism development were postponed to 2021;
- Prices of some of the equipment and items increased due to transaction costs and additional transport costs in 2020 and 2021;
- International expert trips on tourism development to Karakalpakstan were cancelled, with the activity having to be reorganized from an on-site to online and hybrid format, including organization of trainings in the field of sustainable tourism development in the region.

2) Mitigation and adaptation measures taken by the project through the COVID-19 outbreak situation

The project facilitated some of project activities via an online remote mode:

- Conducted project trainings via Zoom;
- Coached document signers (contracted vendors and partners) to use digital instruments like DocuSign to sign contracts and other documents;
- Ensured that all PPE measures against COVID-19 were observed among project staff, and followed both in the office and in the project vehicles;
- Relevant project staff regularly communicated with vendors, and were updated on the status of the delivery of goods and services;

- Ensured proper communication with vendors on delays of services;
- The Project Board was informed of delays associated with the COVID-19 outbreak, and a proposal for the project to be extended until 31 August 2021 was supported and approved.

3) Lessons learned:

During the reported period, the project encountered challenges associated with the COVID-19 outbreak and lockdown both within the country and globally, which affected the project implementation pace and caused a delay in delivering project activities. However, the project has proposed alternative options and modes of operation by proposing solutions for using online and hybrid modes of work and adapting to the new lockdown situation.

Takhtakupir district is located in the most remote area where water shortage remains the main problem in the district. Drinking water supply system and stations constructed in Soviet era are worn out and therefore there is a need to pay more attention to provide access to clean drinking water. During the feasibility work it became clear that activity on the creation of the DWA has proved to be a duplication of the role of the District Water Department. Project managed to save some budget amount from effective use of financial resources, and it conducted an assessment in regard to creating additional water projects. As a result, the project used saved resources for implementation of additional three water projects in the Janadarya and Marjankol communities, instead of the creation of the DWA. It is also worth to note that programme/project duration (1-2 years) is not long enough to implement full scale entrepreneurship projects and ensure full ownership and sustainability of results;

4) Best practices:

- The Joint Programme applied an integrated and holistic approach to supporting the socio-economic and environmental needs of the Takhtakupir district by providing access to clean drinking water, creating income generation and employment opportunities, and supporting the Forestry Department in expanding afforestation works. This will increase the resilience of the Takhtakupir population to address their social, health, economic and environmental insecurities;
- In order to study the problems and needs of target communities in the Takhtakupir district, community resource mobilization meetings were organized and held with the participation of over 100 rural residents from among the elderly, youth and women. The participants of the meetings were given the opportunity to define their own needs and determine solutions. Each participant had the right to vote in making decisions and determining their needs. Community Development Plans are developed taking into account their wishes and suggestions. As a result, projects were implemented aimed at the development of social infrastructure such as improvement of access to clean drinking water including in medical, educational facilities;
- To identify and support innovative business projects in efficient and transparent way, Review Committee of business initiatives was established where representatives of partner organizations collectively reviewed business plans and selected respective business projects based on scoring system. The selected business projects were subsequently supported by the Joint Programme through delivery of relevant equipment/items and organizing of trainings necessary for realization of business initiatives;
- Two scientific expeditions were organized to the dried seabed of Aral Sea. Results of expeditions published in the form of Book and Summary brochure and disseminated among relevant organizations and agencies. An electronic version of the book and summary are available in UNDP corporate website for the easy access. The publications contain valuable information and recommendations on stabilization of landscapes, efficient management of the dried seabed of Aral Sea area including afforestation of the areas under desertification. Four knowledge products (brochures) on innovative methods of afforestation were developed and published in local language. Over 100 specialists enhanced knowledge in the four

thematic areas, including usage of GIS technology in inventory of forested areas which was the first time among forestry specialist. Shared knowledge is used among forestry specialists and workers, increasing their work efficiency on afforestation.

5) Qualitative assessment:

Overall, the project achieved significant results. Despite some delay in 2020, all planned activities for successfully implemented. Majority of the results were achieved on time in 2020, while some activities had to be extended due to the impact of the COVID-19 outbreak. Projects initiated in 2021 did not experience delay and were implemented on a timely manner. The project established sound partnerships with key stakeholders at regional, district and grassroot levels, and local communities were fully engaged in implementing the project activities. This has been important for ensuring ownership of the results, and ongoing local commitment and sustainability. Through its interventions at every stage, the project has promoted gender mainstreaming principles. When organizing initiatives, committees or panels, the project has 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 entrepreneurship support and skill-building initiatives, the project engaged women and youth in communities. The One UN model was fully promoted through smooth coordination between UNDP and UNESCO, in terms of joint planning and implementation of activities.

iv) Specific Stories

1) Story on ‘Access to clean drinking water’



The Tazakonis community is the most remote location of the Takhtakupir district. In this community, there was previously a water treatment plant built in the Soviet era that had since deteriorated and was no longer functional. Only one well was available, but its water contained a large amount of salt which did not meet human consumption standards, but was instead used for watering domestic animals. Local residents were forced to carry drinkable water from a neighbouring community where a water treatment plant had been established.

Within the UNDP/UNESCO JP, assistance was provided to residents of this locality. During community mobilization workshops, local residents unanimously identified the drinking water problem as being the highest priority, and approached the JP seeking practical assistance. The Beltau Community Centre had also experienced difficulties accessing clean drinking water. As part of the state programme, the existing

water treatment plant at this locality had been reconstructed, but due to limited financial resources it was impossible to cover the entire territory of this locality with a pipeline, and many residents of more remote areas had to carry water from neighbouring streets. Local residents approached the JP with a request for its assistance in increasing the length of water supply lines in this locality.

The Village Council of Citizens (VCC) of the Mulk community is also in one of the remote localities of the Takhtakupir district. This VCC's community encompasses a large area with a great number of residents, many of whom have previously not had access to clean drinking water. During community mobilization workshops, residents asked the JP to assist in increasing the length of water supply lines to ensure access for all residents and rural citizens.

The JP studied the needs of local residents and decided to assist them in solving the priority problem of the lack of access to clean drinking water. Together with the district administration and local residents, a large-scale work programme was organized to implement water projects in these localities. Upon completion of tender selections, it was revealed that there were savings made while implementing these three projects. To meet the water needs of even more local residents, including those from other localities, the JP decided to provide two water treatment plants for the Janadarya and Marjankol communities of the Takhtakupir district. These communities were also included in state programs to ensure access to drinking water. In order to save the funds of the state programme, the JP proposed the delivery of water treatment plants at the programme's expense, and the funds allocated for these installations should be used to enhance the scale of pipelines.

As a result, the JP successfully implemented five water projects instead of the three planned projects, thereby increasing the number of beneficiaries to 3,491 rural residents. In 2020, UNDP provided significant assistance in improving access to drinking water for residents of remote settlements of the Takhtakupir district, within the framework of the trust fund project. Rural women and their family members now have clean drinking water at homes, which saves much of time and energy than carrying from distanced area and improves health of people as well.

2) Story on 'Promoting the development of rural entrepreneurship initiatives'



Supporting women's entrepreneurial initiatives, as well as promoting gender equality through economic instruments under the concept of human security, has been the basis of UNDP's work in Karakalpakstan. Guided by this concept, the UNDP-UNESCO JP has supported the initiative of the 'Hurliman-Aru-Takhta' family enterprise to produce laundry soap. This business initiative was reviewed by the JP Selection Committee and was approved for co-financing. In December 2020 soap production equipment was

delivered, and the workshop now produces over 600 units of laundry soap per day for residents of the Takhtakupir district, providing work for three young people and also the initiator of the business project.

The project initiator, Ms. Arukhan Seitmuratova, has described to us the production process and how she decided to engage in this entrepreneurial activity:

“It all started with the fact that we were all unemployed, but also we had some experience in retail. From within our family, my husband, son, daughter and daughter-in-law had all been advised to open a family business and to launch a small level of production. We immediately opened the enterprise and named it after the female members of our family, plus the place where we live. That is why we ended up naming the enterprise ‘Hurliman-Aru-Takhta’,” she said.

“It was decided that, together with our family members, we would think about the product we would be producing. While we were thinking, life set everything in place. The outbreak of the pandemic pushed us to produce laundry soap, as on TV we were being told about the importance of washing our hands every 20 minutes. Plus, the local habits of the Takhtakupir district also proved beneficial to us, as here laundry soap is often used to wash both hands and our daily laundry. We quickly developed a project idea and submitted it to the contest of the UNDP Joint Programme, which we had heard about at a meeting at the khokimiyat.”

3) The two expeditions ‘key findings and recommendations’

The results of the needs assessment conducted in 2017 revealed that 46.9 per cent of respondents were dissatisfied with the environmental situation, with their main concerns being soil salinity (70.6 per cent), air pollution (12.7 per cent), water pollution (9.5 per cent), and drought (6.7 per cent). The assessment also determined that the main causes of environmental pollution included salt dust storms from the dried bottom of the Aral Sea, solid waste, pesticides and emissions from large enterprises. In turn, these processes had led to soil salinization and crop loss, and deterioration of the quality of drinking water.

Following from these findings, the project organized two expeditions. The first expedition took place during September and October 2019 and covered an area of 600,000 hectares. The second expedition took place during May and June 2020 and also covered an area of 600,000 hectares. These two expeditions therefore covered a total area of 1.2 million hectares of the southern part of the delta, including the territory from the Ustyurt Plateau Chink to the former Akpetka Archipelago and to the historic edge of the former sea. These expeditions were integrated and the expedition team included ecologists, soil scientists, hydrogeologists, dendrologists, botanists and GIS specialists. The expedition undertook several analyses of flora, soil and underground water conditions. The GIS remote sensing maps of the water surface, soil levels and landscape visualization incorporated physical analysis. The expedition report contained detailed results of the research. In terms of afforestation work planning, the expedition findings showed that most of the researched area from the Tiger's Tail to the Ustyurt Plateau Chink is often flooded, which creates an ecosystem for the natural renewal of tamarix, karabarak and other salt-resistant crop species.

The expedition findings have shown that, within the afforestation campaign, a vast amount of land furrowing should be conducted for further planting desert plants in those territories. The expeditions’ key takeaway recommendations to be applied during the implementation of afforestation works on the dried seabed of the Aral Sea included the following:

- The importance of delaying furrowing activities until the subsoil groundwater subsides and loamy soil formations appear, which will create a favourable environment for the development of the root systems of desert crops;

- If salt-resistant species are planted immediately after sand-accumulating furrowing, the premature planting on furrows with no accumulated sand will greatly reduce the survival rate of plants;
- The promising plant species that have been identified play a key role in sand and salt stabilization.

All findings and recommendations will be critical in organizing future work efficiently, including afforestation, in the dried bed of Aral Sea.

Story on conducted expeditions by Head of two expedition team Ms. Galina Stulina

About the Aral Sea region: in a nutshell - “There is hope”! Quote: The expeditions were carried out with the support of UNDP. The work was very well organized and therefore it was easy for us to monitor. Many specialists, were involved. We must remember that the Aral Sea region has a dangerous neighbour, a dried seabed, a unique natural formation, a new desert. And since a desert means desertification. The effect of drying is very significant. The north-easterly wind carries dust, salt and sand that falls asleep in Muynak. There is evidence that the salt of the Aral Sea was found in the Arctic.

However, we have not covered another 1.5 million hectares. Our task now is to get funding, finish it, and we plan to make a geographic information system. We also work closely with foresters, discussing the possibilities of joint application of the results obtained, since the most important thing on the drained seabed is forest planting. They [representatives of forestry department] determine where to plant the forest, and we provide information about the area.

