Aral Sea Region –

Zone of Environmental Innovations and Technologies

CONTENT:

"Uzbekistan supports the draft Conventions developed by the UN Regional Center for Primitive Diplomacy on water use in the Amudarya and Syrdarya river basins. I would like you to once again pay attention to the Aral Sea disaster, one of the most acute environmental issues of our times. I have a map of the Aral Sea tragedy in front of me. I think, no comments required. Today, active consolidation of the international efforts is important to overcome the impact of the Aral Sea drying.

We stand for the full implementation of the UN Special Program adopted this year to provide effective assistance to the people affected by the Aral Sea crisis**"**.

(from the speech of the President of Uzbekistan, Shavkat Mirziyoyev, on September 19, 2017 at the 72nd Session of the UN General Assembly)

Summit of the Heads of States-Founders of the International Fund for Saving the Aral Sea in Turkmenistan

"...I strongly believe, that we need nonconventional and firm measures aimed at improving the unfavorable environmental situation in our region .

In this regard, I propose to consider declaring the Aral Sea Region a Zone of Environmental Innovations and Technologies.

This initiative is proposed for uniting our common efforts in order to create conditions for mobilizing foreign investment in research and development of environmentally sound technologies ,integrated principles of the "green" economy, clean energy and water saving technologies; combatting further desertification and environmental migration, development of eco-tourism, etc.

To facilitate the comprehensive discussion of our initiative, we propose organizing a special conference next year, under support of the UN, World Bank, Asian Development Bank and the Global Environment Facility".

(from the speech of the President of Uzbekistan, Shavkat Mirziyoyev, on August 24, 2018 at the Summit of the Heads of IFAS States-Founders, Turkmenbashi city, Turkmenistan)

On 24-25 October, 2019, a high-level International Conference: Aral Sea Region - a Zone of Environment Innovations and Technologies was held in Nukus city by the initiative of the President of Uzbekistan and under the auspices of the UN.

The International Conference was organized with the aim to give a new impetus to attracting investments and strengthening the regional cooperation in the implementation of new, innovative and modern technology-based solutions aimed at enhancing the quality of life and environment in the Aral Sea Region.

Around 250 participants from 28 countries, including leaders and representatives of international organizations, such as UN, UN Economic Commission for Europe, UN Development Program, UN Regional Center for Preventive Diplomacy for Central Asia, World Bank, Asian Development Bank, European Investment Bank, European Bank for Reconstruction and Development, as well as of foreign governments and private companies - Western Export Solutions, Elion Group, and United Phosphorus Limited, participated in the Conference.

24-25 October 2019

28
countries

250
participants

Within the framework of the Conference, the stakeholders discussed measures aimed at attracting foreign investments in development of eco-friendly technologies, issues of integrated "green" economy principles, clean energy and water-saving technologies, food security, combatting desertification and environmental migration, and development of eco-tourism.

International Conference Outcomes

- Package of priority investment projects on implementation of environmental innovations and technologies.

- Road Map with further practical actions for mobilizing investments in innovative solutions and modern technologies for sustainable development of the Aral Sea Region.

- Specific proposals for inclusion in the draft Special UN General Assembly Resolution in support of the Uzbekistan's initiative on declaring the Aral Sea Region as a Zone of Environmental Innovations and Technologies.

- Conference Communique on transformation of the Aral Sea Region into a Zone of Environmental Innovations and Technologies.


TIME TO ACT
TOGETHER

ADDRESS

OF THE PRESIDENT OF UZBEKISTAN, SHAVKAT MIRZIYOYIEV, TO THE PARTICIPANTS OF THE HIGH-LEVEL INTERNATIONAL CONFERENCE: ARAL SEA REGION – A ZONE OF ENVIRONMENTAL INNOVATIONS AND TECHNOLOGIES UNDER THE UN AUSPICES

Dear Conference participants!

Ladies and gentlemen,

I am pleased to greet the participants and guests of the International Conference.

I would like to express my sincere gratitude to Antonio Guterres, Secretary General of the United Nations, for his special emphasis on the issues of the Aral Sea Region and supporting the initiative of Uzbekistan on organizing this high-level International Conference.

This initiative was proposed in August last year, at the Summit of the Heads of States-Founders of the International Fund for Saving the Aral Sea and supported by our partners.

I am very grateful to Natalia Gherman, Special Representative of the United Nations Secretary General for Central Asia, Abdoulaye Mar Dieye, UN Assistant Secretary General, Peter Burian, EU Special Representative for Central Asia, honorable representatives of international organizations, international research centers, and diplomatic corps for their assistance in organizing and active participation in the Conference.

Dear Conference participants!

The Aral Sea drying is one of the major global environmental disasters and the most acute problems of our times. Its consequences continue to have negative impact on the sustainable development of the entire region.

As you all know, Uzbekistan firmly and consistently takes integrated measures to stabilize the environmental situation and improve the living conditions in the Aral Sea Region.

Around one million hectares of protective forest plantations, including *saxaul* and other salt-resistant plant species, have been planted on the dry Aral Sea bottom.

We all understand very well that in order to overcome the impact of the sea drying, consolidation of international efforts is important. The Multi-Partner Human Security Trust Fund for the Aral Sea Region aimed at resource mobilization from the international donor community for focused programs and projects was established in November 2018, at the initiative of Uzbekistan.

Today, along with Uzbekistan, the European Union, Norway, the United Arab Emirates, the Federal Republic of Germany, Japan, the European Investment Bank and many others are actively involved in the implementation of environment related projects, strengthening the healthcare system, social and economic development and food security in Karakalpakstan.

The International Innovation Center for the Aral Sea Region, opened exactly one year ago, made a significant contribution to identification and development of innovative approaches for addressing problems associated with this environmental disaster.

Unfortunately, it is impossible to completely restore the Aral Sea. Therefore, our foremost task is to reduce the negative impact of the Aral Sea crisis on the environment and livelihoods of millions of people in the region.

We propose transforming the Aral Sea Region into a Zone of Environmental Innovations and Technologies. You will be shared a draft Concept aimed at ensuring sustainable social and economic development in the region on the basis of environmental innovations and technologies, “green” economy principles. The Special UN General Assembly Resolution on declaring the Aral Sea Region as a Zone of Environmental Innovations and Technologies, and the Regional Program on Efficient Water Use in Central Asia, were developed as part of the initiatives proposed at the IFAS Summit.

Your opinions and proposals, which will be reflected in the Concept, are extremely valuable for us.

I am convinced that these large-scale projects will contribute to improving quality of life and living standards throughout the region, restoring both dynamic ecosystem and biodiversity.

Dear friends!

The Aral Sea drying has become one of the most striking examples of the destructive man-made impact on the environment. At the same time, as UN Secretary-General, Antonio Guterres emphasized, consolidation of international efforts to save the Aral Sea Region "can become the illustration of our future actions around the world".

I firmly believe that the results of the Conference will form an effective platform for further strengthening the international cooperation in addressing urgent tasks to mitigate consequences of the Aral Sea tragedy, implement "green" technologies, clean energy and water-saving systems, combat further desertification and environmental migration, and attract foreign investments to the region.

I wish you a successful and productive work during the Conference.

VIDEO ADDRESS

OF UN SECRETARY–GENERAL, ANTONIO GUTERRES, TO PARTICIPANTS OF THE HIGH-LEVEL INTERNATIONAL CONFERENCE ON DECLARING THE ARAL SEA REGION - A ZONE OF ENVIRONMENTAL INNOVATIONS AND TECHNOLOGIES

I am pleased to welcome participants of this important Conference.

The disappearance of the Aral Sea is one of the greatest environmental disasters in our lives.

I still remember the shock that I experienced during my visit to the region in 2017.

The consequences of the crisis have been disastrous for the environment, fishing industry, agriculture and human health.

Climate change is a further complicating matters.

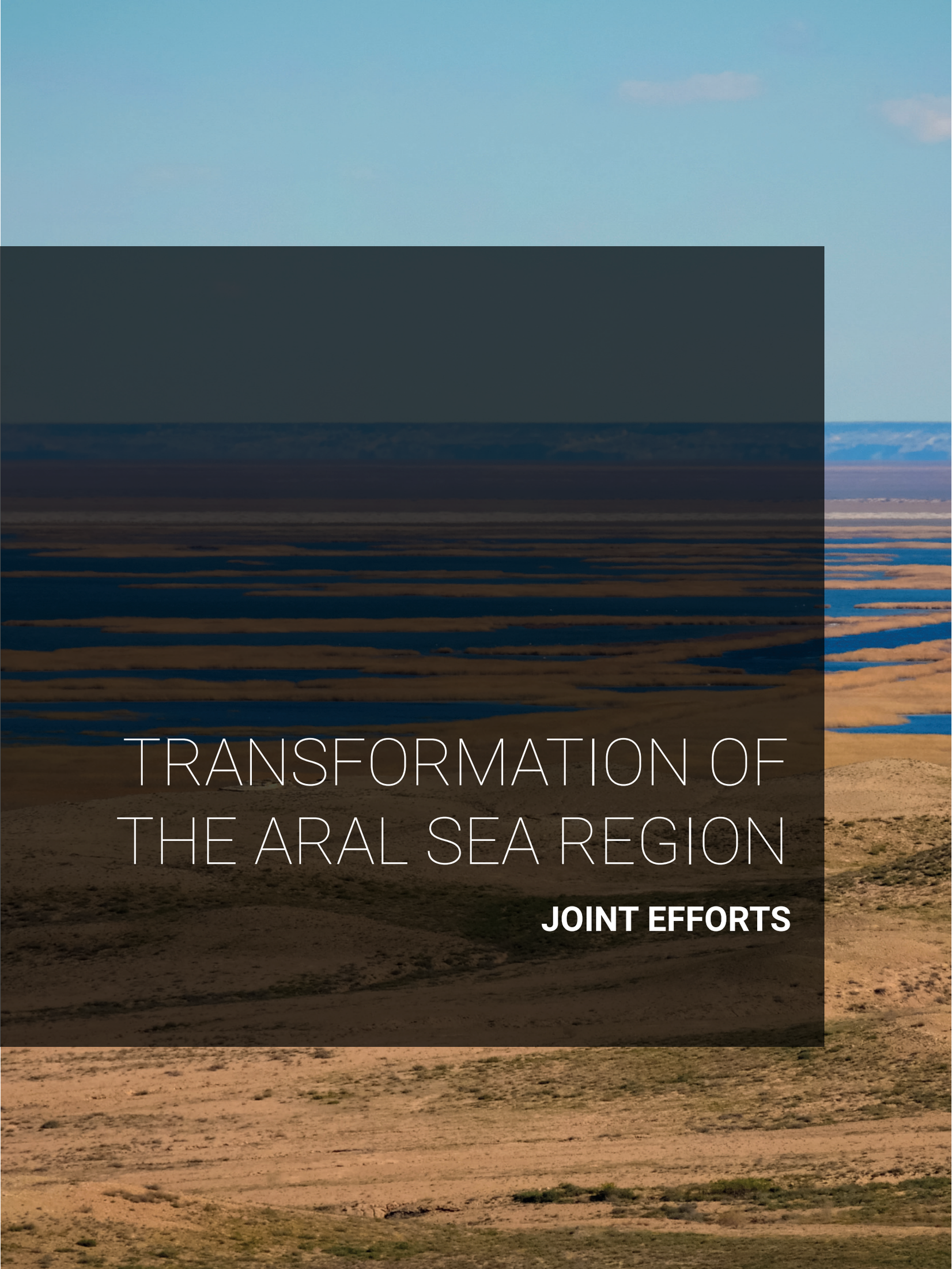
Cross-border cooperation is crucial, as there are new technologies, new investments and integrated strategies.

I welcome the initiative of the Government of Uzbekistan to convene this Conference.

As we see, progress in the region is possible.

Along with contributions to the UN Multi-Partner Human Security Trust Fund for the Aral Sea Region, we can intensify actions to reduce vulnerability and ensure sustainable development.

Please accept my best wishes for a successful event.



TRANSFORMATION OF THE ARAL SEA REGION

JOINT EFFORTS

Achilbay Ramatov, First Deputy Prime Minister of Uzbekistan

The initiatives of the Government of Uzbekistan to mitigate the impact of the Aral Sea environmental crisis, social and economic development of the Aral Sea region are a part of its priority measures identified within the framework of the Uzbekistan's Five-Area Development Strategy for 2017-2021.

The issue of addressing the Aral problem has also been reflected in other governmental decisions on environmental, social and economic, and water management areas.

However, overcoming the impact of the sea drying requires more active consolidation of the international efforts.

In this regard, we advocate for an integrated approach towards combatting the environmental problem, ensuring full implementation of the adopted strategies and programs for the development of this region, including those developed by the UN and regional international organizations.

We hope that this will be achieved through the implementation of innovative and investment projects in the crucial areas of the Aral Sea catastrophe, which will be brought to the attention of our Conference.

Boriy Alikhanov, Vice Speaker, Oliy Majlis

Legislative Chamber of Uzbekistan

Over the past 25 years, the countries in the region have taken significant measures to mitigate consequences of the Aral Sea disaster.

Thanks to contribution of Uzbekistan to the IFAS and attracting international investments to Uzbekistan, the Government has implemented around 350 projects for the total amount of more than US$ 3.06 billion.

Additionally, Uzbekistan adopted the National Aral Sea Region Development Program for 2017-2021 supported with a total budget over US$ 877.3 million.

The Government of Uzbekistan has also approved programs on additional measures aimed at further improving the living standards, social and economic development of Karakalpakstan and Khorezm region, including 279 projects worth US$ 38 million, including the Integrated Muynak Region Development Program of the Republic of Karakalpakstan for 2019-2021, consisting of 75 projects with a total value of US$ 3.2 billion, Climate Change Adaptation and Mitigation Program for the Aral Sea Basin until 2022 in the amount of US$ 17 million, as well as a list of priority national programs on continuous afforestation.

Currently, forest planting was implemented on the area of more than 460,000 hectares out of originally planned 500,000 hectares.

It should be particularly emphasized the importance of the Road Map adopted to ensure implementation of the initiatives and proposals of the President of Uzbekistan, Sh. Mirziyoyev, for the Aral Sea Region, voiced at the Summit of the Heads of IFAS States-Founders in Turkmenbashi city on August 24, 2018. In 2018, the Uzbek Government established the International Innovation Center for the Aral Sea Region under the President of Uzbekistan, and the Aral Sea Innovation Support Fund.

It should be noted that the initiative of Uzbekistan to establish a Multi-Partner Human Security Trust Fund for the Aral Sea Region under the auspices was supported by the UN Secretary General, Mr. Antonio Guterres, and other UN members, international organizations and countries.

I would also like to draw your attention to the motto of the Ecological Party of Uzbekistan, founded in January 2019 "We are responsible for the future". The parliamentary group of the Ecological Movement in the Legislative Oliy Majlis Chamber of Uzbekistan has been consistently advocating for taking practical measures aimed at reducing the negative environmental impact on human health and genepool, engagement of public, national and international partners into this activity.

Natalia Gherman, Special Representative of the UN Secretary General for Central Asia, Head of the UN Regional Center for Preventive Diplomacy for Central Asia

In recent years, Central Asia has undergone a qualitatively new stage of its development. Moreover, marked changes in the regional dynamics were noticeable. A number of bilateral and multilateral agreements between the countries have been signed, and the leaders of the five countries have demonstrated their political will in addressing key issues on the regional agenda. These developments open new opportunities for the region, which seeks to find mutually acceptable long-term solutions to the most important problems. Today, the chances of achieving success in this area are as high as ever.

I would like to remind you that recently, by the initiative of the Central Asian countries, a number of important resolutions of the UN General Assembly were adopted, including on water and environmental issues, including the Resolution on Strengthening Regional and International Cooperation to Ensure Peace, Stability and Sustainable Development in Central Asia, and others. All these resolutions are consonant with the report of the UN Secretary General on Science, Technology and Innovation for Development. In this sense, one cannot disagree with the main idea of this Conference that the search and implementation of new methods and approaches to addressing the Aral Sea problem is more relevant than ever. We need to reach a qualitatively new level of interaction through drawing attention to this problem of the international community, organizations such as the EU, OSCE, Asian Development Bank, etc.

Uzbekistan has begun to actively move in this direction. It is evidenced by the successful launch of the project to create a Multi-Partner Human Security Trust Fund for the Aral Sea region in cooperation with the UN, as well as the idea of creating the International Innovation Center for the Aral Sea Region by the initiative of the President of Uzbekistan.

Musa Yerniyazov, Chairman of Zhokargy Kenges, Republic of Karakalpakstan

The most important goal of today is to mitigate the destructive impact of the Aral Sea crisis on the environment and the livelihoods of millions of people living in the Aral Sea Region. The Aral Sea used to play a crucial role in economic development of the region and its production sectors ensuring employment, supporting a sustainable social infrastructure.

In the past, the sea was one of the richest fishing areas in the world. More than 80 percent of the people living at the Aral coast were engaged in fishing, processing and transportation of fish and fish products. The fertile lands of the Amudarya and Syrdarya deltas, as well as their highly productive rangelands provided employment for more than 100,000 people in livestock, poultry, and crop cultivation.

Also, the sea served as a climate-regulating water body and mitigated sudden weather fluctuations throughout the region with favorable effects for humans, agricultural production and environment.

Currently, the economy is suffering due to the Aral Sea disaster, high unemployment, external migration, quality of life of the local people has fallen.

Over the recent years, the leadership of Uzbekistan pays significant attention to the region. Thanks to the consolidation of efforts of the Government and international institutions in the Aral Sea Region, new jobs are created and infrastructure is being developed progressively.

As a result, the unprecedented by its coverage national program was adopted that includes around 800 public projects totaling more than US$ 1.5 billion.

However, taking into account the overall planetary nature of the Aral Sea disaster, it is important to expand joint actions with the global community in this direction through implementation of focused projects supported with adequate financial sources.

Abdoulaye Mar Dieye, UN Assistant Secretary General, Special Advisor to UNDP Administrator

I am very happy to be here in Uzbekistan - the cradle of science and Islamic thought.

Being here today, I feel the spirit of Imam al-Bukhari and Imam al-Termizi, who played a leading role in the development of the hadith science - sayings and lifestyle of the Prophet Muhammad.

I feel the wisdom of Abu al-Muin al-Nasafi and Abu Mansour al-Maturidi - the main creators of kalam - the "science of the word."

I find loads of inspiration of Omar Khayyam, Abu Ali Ibn Sina, Muhammad ibn Musa al-Khwarizmi, Abu Nasra Farabi and Ulugbek, who were the leading scientists and fathers of philosophy, mathematics and astronomy.

It is not surprising that Uzbekistan fully deserves its prestigious title - the "Symbol of Magical East". I am very pleased that this Aral Sea Conference is held in Nukus, the guardian city of the "forbidden art" (I. Savitsky Museum). I am convinced that the work of our Conference will be guided and inspired by the magical power of this place.

The Government of Uzbekistan attaches particular importance to the Aral Sea Region. This is clearly reflected in the Development Strategy of Uzbekistan.

UN Agenda for Sustainable Development until 2030 has the central principle: "Leaving no one behind." In this regard, Uzbekistan assigns a key role to the interests of the people of Karakalpakstan in its development strategy.

We were witnesses yesterday in Muynak of how Uzbekistan fulfilled its obligations, we saw large investments in progress. Afforestation programs and land reclamation are implemented on the dry Aral Sea bottom in order to minimize the danger to public health and prevent land degradation.

UNDP supports Uzbekistan in addressing complex issues of the region through the integrated approach - one that includes analysis, alternative financing, new knowledge and innovations, and integrated policy.

Success will be achieved, it must be achieved, because truly — "Oltin bu vodiylar – jon Uzbekiston, Ajdodlar mardona ruhi senga yor! Ulug khalk kudrati jush urgan zamon, Olamni makhliyo ailagan dier!" (from the National Anthem of Uzbekistan).

Peter Burian, EU Special Representative for Central Asia

Today's event is extremely important and timely. It is time to act without further delay. I would like to welcome the initiative and leadership of Uzbekistan on addressing the complex problem of the Aral Sea Region and raising awareness of the international community about it.

We consider the UN Multi-Partnership Human Security Trust Fund for the Aral Sea Region, initiated by the President, Sh. Mirziyoyev, as a comprehensive initiative. This is a response of the UN system aimed at mitigating the consequences of the Aral Sea disaster, as well as meeting the urgent needs of people living in the region.

We strongly welcome the initiative of Uzbekistan to declare the Aral Sea region as a Zone of Environmental Innovations and Technologies. We hope that this will be the first step to address this problem through the integrated and innovative approaches. Indeed, the challenge of the 21st century requires application of 21st century's methods.

The EU has been one of the first donors, which considered supporting the Fund. I am pleased to announce that the EU plans to make its contribution to the Fund in the amount of Euro 5 million.

We clearly understand the problem and pressure of the rapidly growing effects of climate change in the region, which require urgent and decisive actions. According to expert opinion, inadequate water cooperation in the region leads to significant costs and serious risks for future development. Inaction in this area costs more than US$ 4.5 billion every year.

The EU is determined to continue supporting the regional cooperation. Currently, the EU is financing the regional Central Asia Water and Energy Project, CAWEP.

I am also pleased to see an increase in investments provided by the European financial institutions (EBRD and EIB) for the projects aimed at more efficient water use in individual Central Asian countries. For example, the EIB agreed to invest Euro 100 million to support the goals of the Aral Sea Multi-Partner Trust Fund.

Bahrom Kuchkarov, Chairman of the State Committee of Uzbekistan on Ecology and Environmental Protection

Over the recent years, Uzbekistan has carried out large-scale activities to mitigate the consequences of environmental disasters. Today, we are not talking about complete restoring the Aral Sea. We call for joining our efforts to mitigate the consequences of the Aral Sea disaster, to transform Central Asia into a stable, economically developed and prosperous region.

In this context, the initiative of the President of Uzbekistan to declare the Aral Sea Region as a Zone of Environmental Innovations and Technologies is aimed at uniting our common efforts in order to create conditions for attracting investments in the development and implementation of eco-friendly technologies, comprehensive implementation of "green" economy principles, clean energy and water-saving technologies, combating further desertification and environmental migration and implementation of other measures.

Today's Conference is a platform to discuss the main areas of joint measures to turn the zone of environmental disaster into a thriving and sustainable region.

Guichgeldi Bayzhanov, Chairman of IFAS Executive Committee

The consequences of environmental catastrophe caused by inefficient water use have affected living conditions of many millions of people living in the Aral Sea basin.

Moreover, the processes caused by intense shallowing of the reservoir and natural resource degradation, including coastal desertification areas, deterioration of natural rangelands, soil salinization, formation of salt fields, decrease in biological diversity, have caused a real threat not only to Central Asia, but also to the adjacent territories of our region.

It was emphasized in the Joint Communique adopted at the Summit of the Heads of IFAS States-Founders held on August 24, 2018 in Turkmenbashi city, that "... the parties recognize the importance of consolidating efforts to comprehensively address issues related to the improvement of social, economic and environmental situation in the Aral Sea basin, especially in areas prone to ecological crisis".

The Program of Action to assist countries of the Aral Sea basin (ASBP-4) is an effective tool for achieving the IFAS's goals and aims at implementing joint practical actions and promising programs to mitigate Aral crisis impact.

Andrey Khudyk, Minister of Natural Resources and Environmental Protection, the Republic of Belarus

Water, without question, is the key factor for sustainable development. Given this fact, the Republic of Belarus has adopted a number of strategic documents on water management. The Government also has paid attention to international cooperation in the field of use and protection of transboundary water resources.

Implementation of interstate agreements give their beneficial results, such as a Technical Protocol between the Ministry of Natural Resources and Environmental Protection of Belarus and the Ministry of Environment of Lithuania on cooperation in the field of information sharing on the status of transboundary surface waters; Intergovernmental Agreement with the Russian Federation on cooperation in the field of protection and efficient use of transboundary water bodies; Intergovernmental Agreement with Ukraine on joint use and protection of transboundary waters, etc.

Particular attention is paid to mainstreaming SDGs in the national legislation and strengthening the Belarus policy for development of "green" economy.

Speaking of cooperation in addressing transboundary environmental issues, such as the Aral crisis, one cannot but recall about the Chernobyl disaster. You can draw certain parallels between the negative consequences of the Chernobyl accident and Aral Sea drying. These are social and economic, environmental, health and demographic issues with the large-scale cross-border pollution impact. The regional cooperation is one of the preconditions for addressing such environmental problems.

In this regard, we consider important to establish and develop interaction on the Aral Sea and Chernobyl topics with the neighboring states, international organizations and research centers.

Shavkat Khamraev, Minister of Water Resources of Uzbekistan

The changing political climate in Central Asia has benefitted for thawing many regional issues. Almost all controversial issues related to water facilities in the bordering areas have been settled, including their operation, water intake issues from the main transboundary rivers, joint efforts are implemented to mitigate the low water availability impact.

One of the important initiatives of the President of Uzbekistan, voiced at the IFAS Summit in August 2018, was development and adoption of the Regional Program on Efficient Water Use in Central Asia. Adoption of this Program will dramatically increase the level of regional water cooperation, implement joint projects and take concerted actions for efficient water use.

In order to further stimulate and widespread use of drip irrigation technology, by the decision of the President of Uzbekistan, the Government provides state subsidies in the amount of UZS 8.0 million or around US$ 900 per each drip irrigated hectare.

In addition, when land users apply for a loan to finance drip irrigation systems, the state covers 100% of interest rate and exempt them from land tax for 5 years. This year, drip irrigation has been developed on the area of 30,000 hectares, and by 2025 it is planned to cover almost 1.0 million hectares with water-saving technologies, while the area of drip irrigation will exceed 250,000 hectares.

Uzbekistan implements a project to construct and develop small local water reservoirs in the Amudarya river delta.

As a result, the engineering infrastructure will be developed to provide the optimal water horizon for ecosystem sustainability and economic activity based on local reservoirs in the southern parts of the Aral Sea Region. However, the stability can be ensured only under the condition of guaranteed water supply to this area from the Amudarya River. To do this, we must undertake special efforts to guarantee these water levels for the Aral Sea Region.

Ibrohim Abdurakhmanov, Minister of Innovative Development of Uzbekistan

The purpose of the Concept is to propose the strategic direction and action plan to transform the Aral Sea Region from a zone of natural ecological and human crisis to the zone of sustainable social and economic development based on environmental innovations and technologies.

The challenge of the past 25 years has been to reduce the negative impact of the Aral Sea crisis impacted livelihoods of millions of people in the Aral Sea Region. For this, well-designed, focused and reliable funding sources are required in order to ensure sustainable development. Nevertheless, development challenges are still remain and will intensify as climate change unfolds over time, increasing and aggravating noticeable impacts that have been felt in the Aral Sea Region. These multiple present and future, complex and interconnected factors indicate urgency of actions, including the need for fundamental changes in practice and scope to ensure restoration and functional integrity of the ecosystems that lie at the heart of social and economic development and well-being of people in the Aral Sea Region.

The Concept has been developed on the basis of the following design principles:

- institutional innovation such as public-private partnership, development of a legislative framework for promotion of all types of partnerships, decentralization of state involvement in environmental issues and more active involvement of the society;

- economic and financial innovation based on principles of innovative business models; "green" and "closed-cycle" economy (zero waste, regeneration and cost efficiency);

- political and legal innovations, including the policy aimed at higher incomes, improving living standards and stimulating further diversification in agricultural sector and beyond, as well as development of service sector;

- inclusion of multi-hazard risk assessment and well-developed approach to climate risks in the decision-making process.

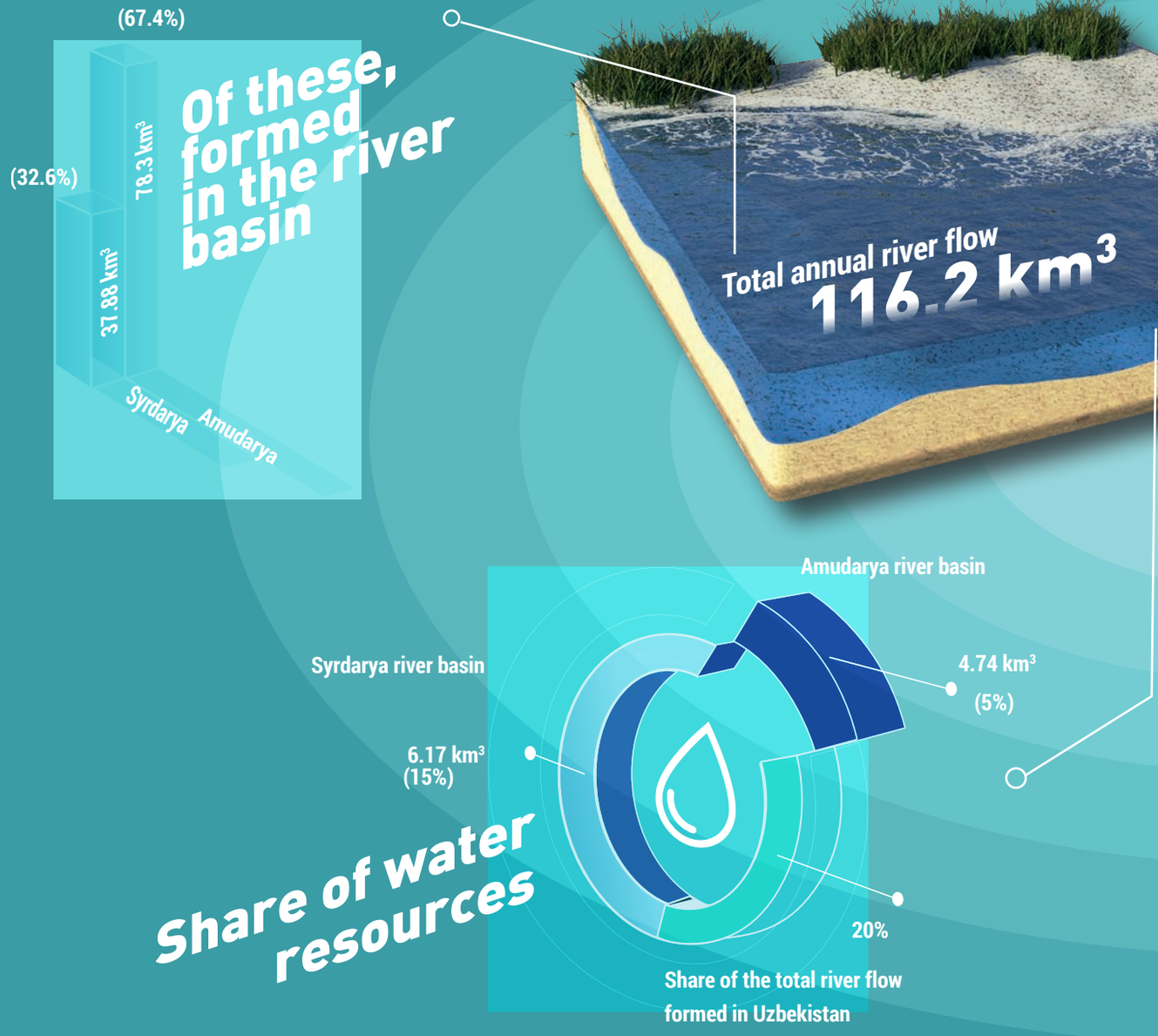
Iskandar Abdullaev, Deputy Director of CAREC Institute

In recent years, the political interaction in the Central Asia has improved. In particular, a favorable relationship and thawing the interregional ties, as well as strengthening the interaction on water and energy nexus have been developed.

The key elements of this policy are investments, innovations and evidence-based approach to addressing the Aral Sea problems. The CAREC proposes the following ideas for improving social and economic situation in the Aral Sea Region:

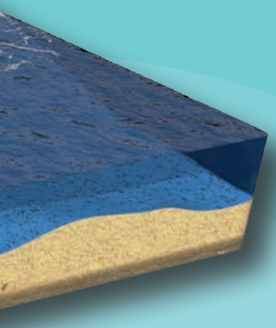
- *inclusion of the Aral Sea Region into one of the CAREC economic, tourist and environmental corridors;*
- *expansion of trade and transport opportunities, inclusion of road and logistic opportunities for servicing cargo and traffic from CAREC countries and regular visits, tours and trips for tourists from CAREC countries;*
- *eco-tourism development;*
- *business opportunities in the Aral Sea Region to develop renewable energy sources, agriculture and other economic opportunities;*
- *annual economic and eco-fairs, and development forums held in the Aral Sea Region;*
- *development of the Aral Knowledge Corridor and establishment of Interdisciplinary Council on studying the Aral Sea problem, research activity and creation of the observation station, publication of research papers on Aral Sea problems.*

Water resources of Aral Sea basin



Water limit of Uzbekistan from all river basins is more than 63.02 km³/year

Amudarya river basin	Syrdarya river basin	Small rivers
38.93 km³/year	17.29 km³/year	6.8 km³/year



64.0 *km³*

In the 80s of last century, the total annual water intake in the country

Over the last **30 years** decreased by **20%**

52.0 *km³*

Recent annual water use volume in the country

By 2050, water flow in the Amudarya and Syrdarya river basins may decrease from 5 to 15% of the many-year norm

In less than a half of century, the total river inflow into the Aral Sea has decreased on average to 12.9 km³ (2008-2018) or almost 45 times, the waterline has lowered by 29 meters

1964

CURRENT ARAL SEA STATUS

Sea water area
6,990 km²

Capacity
1.083 *km³*

Sea length **426** *km*

Sea width **284** *km*

50-55 *km³*
Annual water supply

Water level dynamics in the Aral Sea between 1960 and 2019

the deepest point **68 m**

Sea water area
6.99 km^2

Northern Sea **3.03** *thousand* km^2
Eastern Sea **1.28** *thousand* km^2
Western Sea **2.68** *thousand* km^2

9-11 km^3
- annual water inflow

Sea length

Northern Sea	*Eastern Sea*	*Western Sea*
100.5 km	**92.1 km**	**190.7 km**

Sea width

33.78 km	**25.64 km**	**32.98 km**

Capacity
69.3 km^3

Water salinity rate

Northern Sea	*Eastern Sea*	*Western Sea*
8 g/l	**300-350 g/l**	**130 g/l**

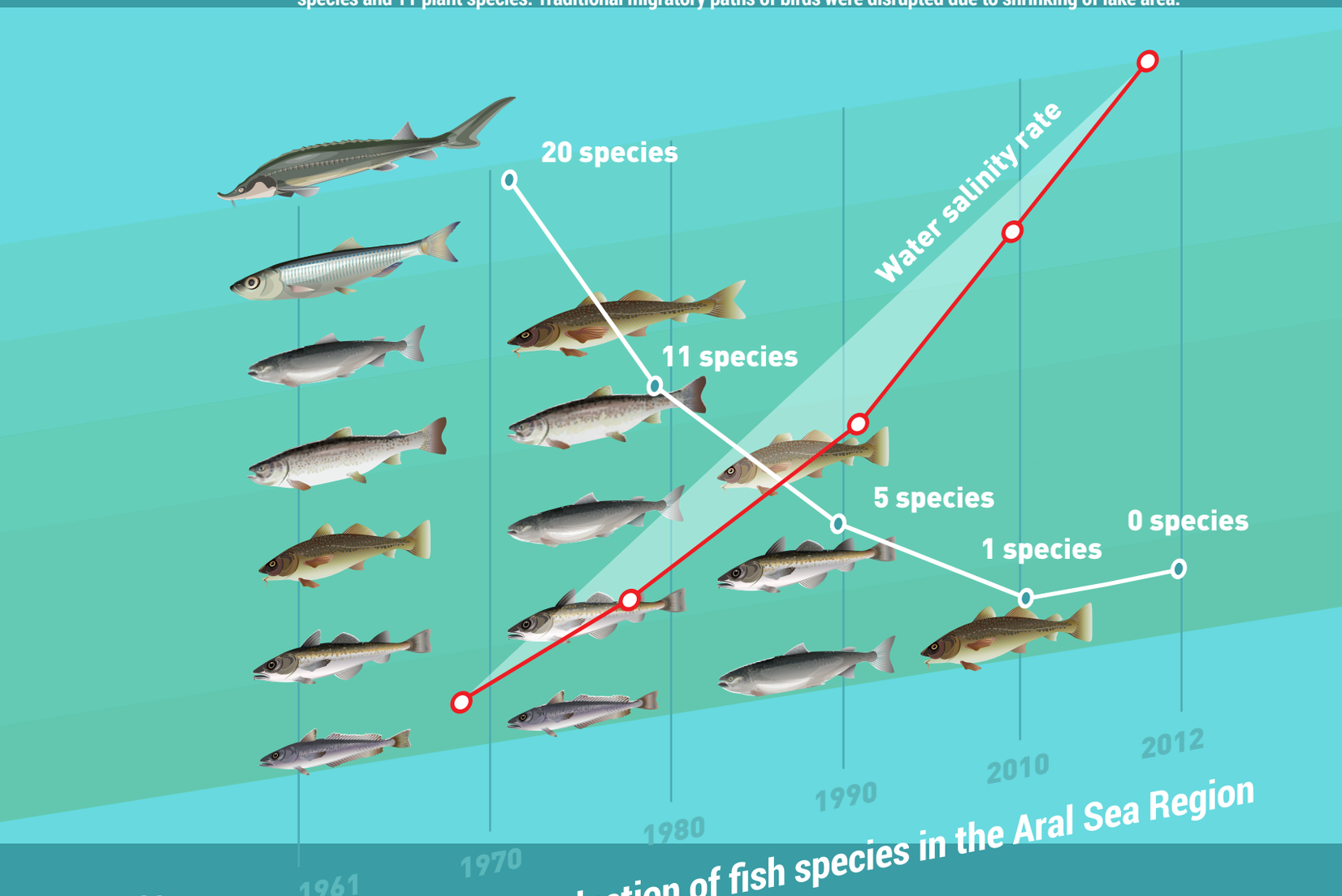
Water salinity in the Aral Sea has increased more than 13-25 times and exceeded the average salinity in the oceans 7-11 times. This has led to a sharp decline in crop yields

BIODIVERSITY

There used to be 38 fish species and many animal species in the Aral Sea Region listed currently in the Red List of Uzbekistan (Bukhara deer, gazelle, Ustyurt mufflon). A population of Saiga antelope used to reach 1 million, the floristic composition included 638 species of higher plants.

Today, more than half of the plant and animal genepool is lost in the Aral Sea Region. Dozens of plant species have been lost from the floristic composition and almost 90% of the existed riparian woodlands have disappeared, massive reed thickets have extinct on the area of 800,000 hectares and their inhabitants died with them.

Endemic species, such as Turaniam tiger, cheetah, Ustyurt mufflon, striped hyena, etc. can be found in the photographs only. Extremely difficult situation is with the Saiga antelope, which is on the verges of complete extinction. The Red List of Uzbekistan was updated with inclusion of 11 fish spices, 12 mammal species, 26 bird species and 11 plant species. Traditional migratory paths of birds were disrupted due to shrinking of lake area.



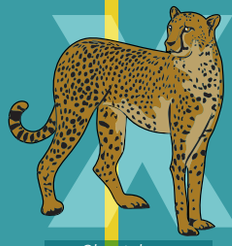
Reduction of fish species in the Aral Sea Region

Reduction of fauna species in the Aral Sea Region


Thick-tailed pygmy jerboa


Honey badger


Brandt's hedgehog

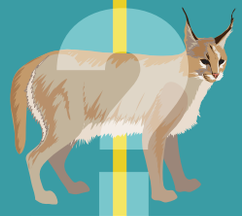

Cheetah


Gazelle


Bukhara deer


Caspian tiger


Ustyurt mufflon


Caracal lynx


Long-tailed eagle


Dalmatian


Monitor


Pond heron


Great white pelican


Marbled duck

Reduction of flora species in the Aral Sea Region


Lepidium subcordatun botch. Et vved


Malococarpus crithmifolius


Tulipa Sogdiana buhge


Salsola chiwensis


Stipa aktaunesis roshev


Tulipa buhseana

ECONOMIC CONSEQUENCES

Direct losses

Irrigated agriculture	US$ 6.55 million
Fishing industry and fishing	US$ 28.57 million
Breeding of musk beaver	US$ 4.0 million
Animal husbandry	US$ 8.4 million
Recreation and tourism	US$ 11.16 million

TOTAL FOR AGRICULTURE
US$ 58.68 million

Fishery – US$ 9.0 million

Fur processing – US$ 18.0 million

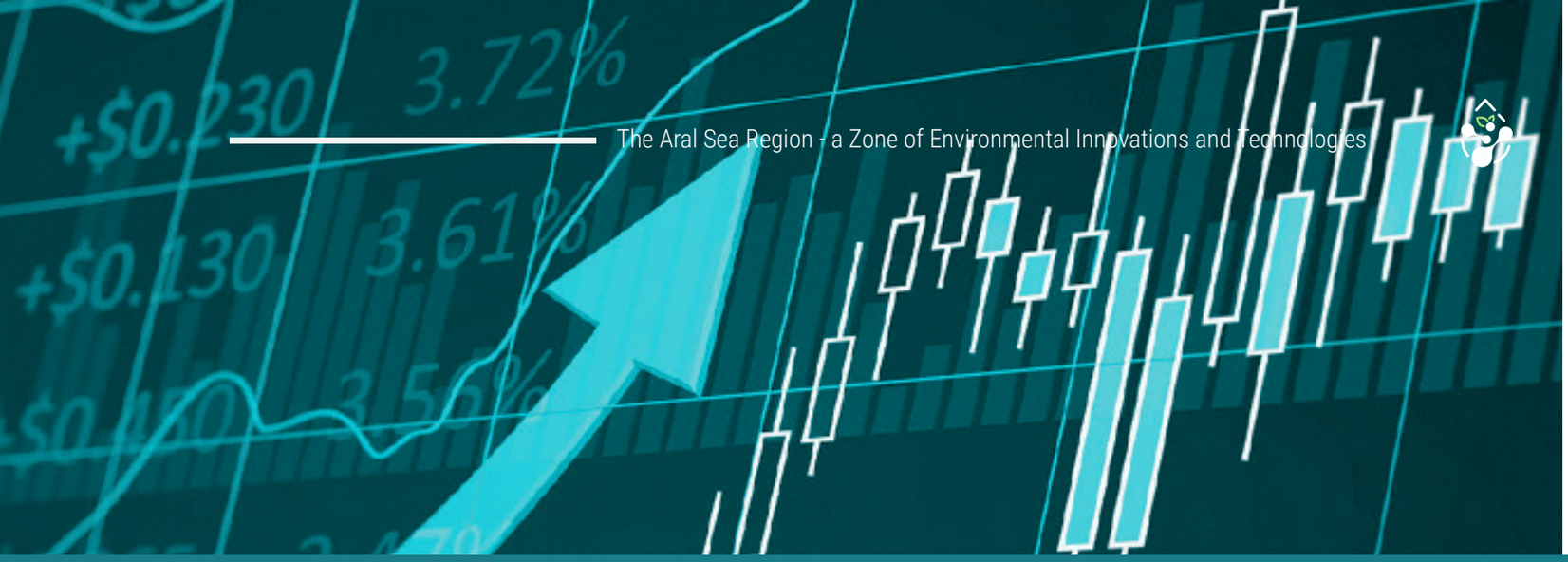
Reed processing – US$ 12.6 million

Total losses

Total industry losses – US$ 40.6 million

Total production losses – US$ 99.28 million

Annually



Indirect losses

Total annual social losses:

Human migration –	US$ **0.25** million
Turn out of competent staff –	US$ **4.40** million
Health impact –	US$ **1.65** million
Reduced life expectancy –	US$ **3.51** million
Deterioration of living conditions –	US$ **19.0** million
TOTAL:	US$ **28.81** million

Fishing industry –	US$ **11.64** million
Musk beaver breeding –	US$ **0.9** million
Meat production –	US$ **4.2** million

The total direct and indirect social and economic losses caused by the environmental disaster in the Aral Sea Region amount to US$ 144.83 million per annum

ECONOMIC CONSEQUENCES

Livestock losses

1950

58,500 heads

1985

18,000 heads

2016

14,000 heads

Fishing industry losses

1960

24,400 tons

1985

3,300 tons

2016

3,700 tons

Land degradation and desertification

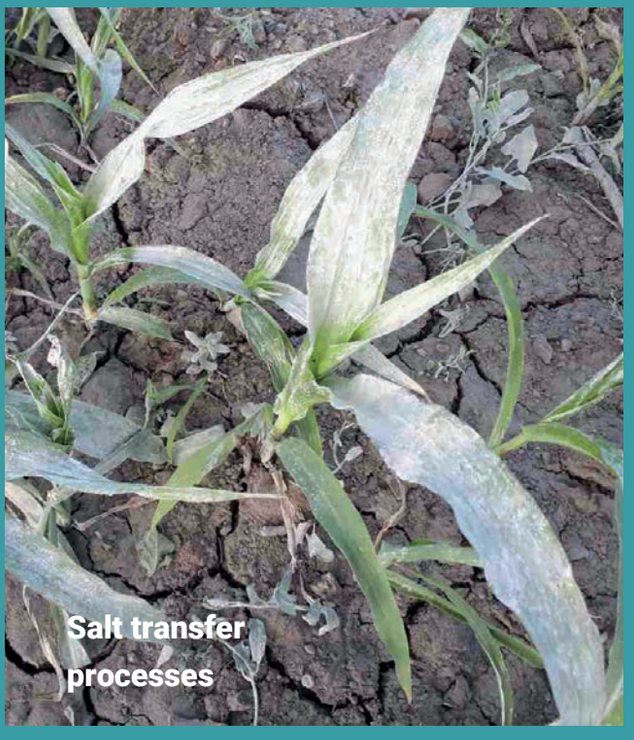
Vast areas of salt fields have appeared on the dried part of the sea and turned into a new Aralkum desert covering more than 5.5 million hectares in Uzbekistan and Kazakhstan

Around

150 million tons of salt of dust and sand accumulate annually from the congested bottom annually into the atmosphere and accumulate

They are carried over to the distance of up to

1,000 km, deposit on the soil or fall out with the prescription into the soil, thus causing enormous damage to agriculture and the national economy



Salt transfer processes

PLANTING PROTECTIVE FOREST STANDS ON THE DRY ARAL SEA BOTTOM

In the period 2018-2019, the following activities were implemented to create protective forest plantations on the dry Aral Sea bottom

- 500 pieces of equipment, 2 aircrafts and 2,000 workers were mobilized
- seeds for sowing (in furrows) on 1,126 million hectares were procured
- 1,532 tons of seeds of desert plants were procured, of which 1,459 tons of *saxaul* and 73 tons of *karaburak*
- forest plantations of desert plants were sown and planted on 461,000 hectares
- 93 km of mechanical protection systems were created
- nurseries were established on 420 hectares to grow 102 million pieces of *saxaul* seedlings
- Aral oasis was created, where 10 species of ornamental and fruit plants were planted

In autumn- winter 2019-2020, the following is planned

Establish protective forest plantations on 700,000 hectares

130,000 hectares of *kandym*
356,000 hectares of *saxaul*

Altogether, procure 2,400 tons of seeds

Including 1,026 tons of *Haloxylon* (*saxaul*)

520 tons of *kandym*

Mobilize 300 tractors, 4 aircrafts

more than 600 units of equipment and vehicles

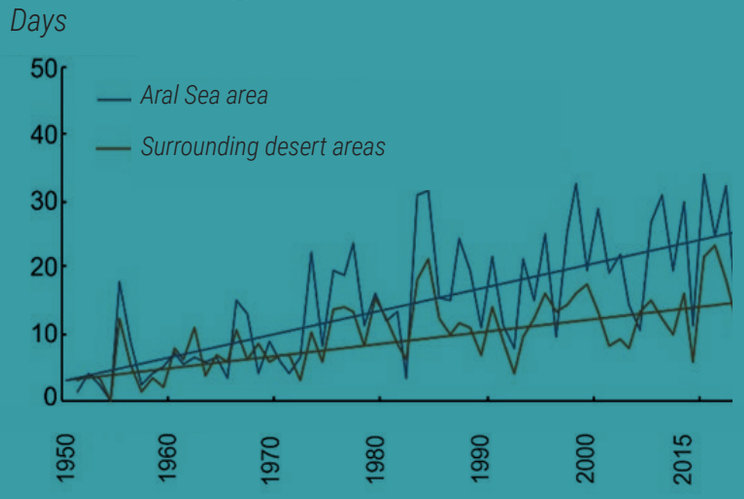
2,500 workers and 100 km of mechanical protection systems

Climate change

The Aral Sea Region is situated in the area prone to high air temperatures

Since the beginning of the 1960s, a number of days with temperatures above 40 has doubled in the Aral Sea Region

Change in the number of days with heat waves during summer season in Uzbekistan



The highest rates of increase in the number of days with heat waves (positive temperature anomalies that negatively impact human health) are observed in the region due to shrinking the Aral Sea water area

2035 – 2050

Air temperature in the region may increase by 1.5–3 degrees

Seasonal droughts have a noticeable tendency in Uzbekistan that indicates the negative impact of the Aral Sea drying on climate change in the region. Over the past two decades, the Republic of Karakalpakstan has been under the constant threat of drought

Previously, the Aral Sea water area has been a kind of regulator mitigating cold winds in winter and heats in summertime

HEALTH ISSUES IN THE ARAL SEA REGION

Water pollution and large amounts of dust and salt carried out from the dry Aral Sea bottom are the key factor for increasing the disease incidence. At the same time, as a result of a number of political decisions and creation of practical mechanisms for development of social infrastructure by the initiative of the President of Uzbekistan over the last two years, there has been a gradual improvement in quality of life and health status of people.

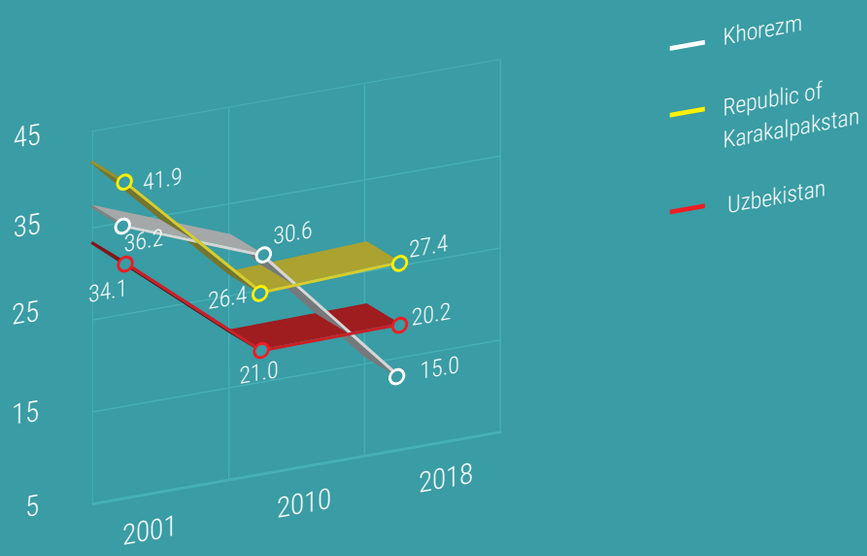
Infant mortality

(per 100,000 liveborn)

On an average, the level of infant mortality in the Republic of Karakalpakstan is getting down, however remains higher than across the country

Maternal mortality

(per 100,000 liveborn)



Primary incidence of tuberculosis

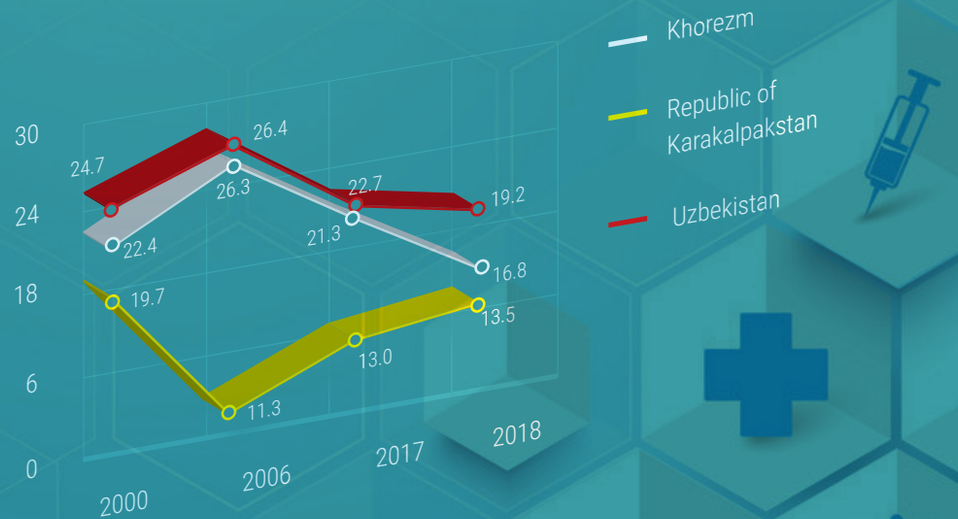
(per 100,000 people)

Primary incidence of urinary diseases

(per 10,000,000 people)

Primary Incidence of endocrine diseas

(per 10,000,000 people)



EMPLOYMENT ISSUES

In the past, Aral Sea used to be one of the richest fishing areas in the world - annual fish yield in the Aral Sea reservoirs was 30,000-35,000 tons. Around 80% of the people living at the Aral Sea coast were engaged in fishing, processing and transportation of fish and fish products. In the city of Muynak there was one of the largest fish canning factories with a production capacity of up to 20 million of conditional fish cans, which employed more than one thousand people.

The Aral Sea has always been an important transport artery. Annually, 200,000-250,000 tons of cargo was transported by sea. A complete logistic infrastructure was created in port cities, ship repair yards, where up to 1,500 people were permanently employed. The fishing and transport significance of the sea was completely lost, such industries as fish processing and ship repair facilities do not function any more. As a result, tens of thousands people turned out to be unemployed. In addition, reduction of rangeland areas and decreased land productivity, loss of riparian woodlands, drying out of the lakes caused the loss of more than 100,000 jobs in other sectors of the economy over the last years.

INITIATIVES OF THE GOVERNMENT OF UZBEKISTAN AND MEASURES TAKEN

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

Support provided by the UN to the initiative of Uzbekistan to create the UN Multi-Partner Human Security Trust Fund for the Aral Sea Region (MPHSTF) has been the logical continuation of the active dialogue between Uzbekistan and the international community on the path to eliminate consequences of the ecological crisis in the Aral Sea Region. The official launch of the MPHSTF took place in November 2018, in the UN Headquarters in New York, at the special 73rd UN High-Level Assembly on Promoting Regional and International Cooperation Towards Integrated Strategies in Support of Sustainable Development.

MPHSTF goals and objectives:

1. Increased regional international dialogue between countries-donors and the Government on addressing issues of the Aral Sea Region at a qualitatively new level leading to increased interest of the partners in the Aral Sea problems
2. Implementation of the Single Strategy for Assisting the Aral Sea Region together with donor organizations based on the needs assessment of the region
3. Fund mobilization and raising within the frameworks of the umbrella program, as well as strengthening coordination between donor organizations
4. Implementation of a universal and effective project selection and approval
5. Ensuring transparency of financial transactions and increasing trust of international financial institutions in relation to partner organizations in Uzbekistan

MPHSTF STRATEGY

Fund's strategy is aimed at addressing six clusters of interrelated issues

1. *Environmental safety*
2. *Economic security*
3. *Food security*
4. *Improving public health*
5. *Social security*
6. *Strengthening donor assistance*

Such a unique single platform for development of international cooperation and mobilization of donor community resources for implementation of integrated measures will fully complement and continue the Government's efforts aimed at addressing the Aral Sea Region issues on the basis of the Fund's Integrated Strategy giving priority to the most vulnerable and remote regions of the Aral Sea Region and directly working with communities for development in accordance with international best practices.

Currently, more than 100 countries around the world have created such mechanisms of collective financing. Over 100 countries-donors and 40 other financial institutions contributed US$ 10 billion to address social and economic, environmental and other issues.

The Government of Uzbekistan is actively supporting the Trust Fund, as evidenced in the Presidential Decree on Measures to Support Activities of the UN Multi-Partner Human Security Trust Fund for the Aral Sea Region.

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

Within the framework of the visit of the President of the Federal Republic of Germany, Frank-Walter Steinmeier, (May 21-22, 2019) to Tashkent, during the intergovernmental negotiations on financial and technical cooperation, it was agreed about provision of the concessional loan for the amount of Euro 30 million for the Improving Healthcare in the Aral Sea Region Project. Also, a possibility of allocating GIC grant financing in the amount of approximately Euro 8 million for projects in the Aral Sea Region is considered

Government of Norway contributed more than US$ 1.1 million

Memorandum of Understanding was signed between the Ministry of Investments and Foreign Trade of Uzbekistan and the Khalifa ibn Zayed Al Nahyan Fund (United Arab Emirates) on grant allocation in the amount of US$ 7 million for construction of one maternity hospital in Nukus

The Government of Uzbekistan has provided the first a tranche of US$ 2 million to the Trust Fund and additional US$ 4.5 million is committed for the next three years

During the visit of the Vice President of the European Investment Bank, V. Hudak, to Uzbekistan (September 23-25, 2019) a Memorandum of Understanding was signed between the Ministry of Investments and Foreign Trade of Uzbekistan and the EIB on allocation of the concessional loan in the amount at Euro 100 million for sustainable environmental development in the Aral Sea Region

In accordance with the Steering Committee decision, within the framework of the first call for applications, two projects were approved and launched (joint applications of UNDP/UNESCO and UNICEF/UNFPA) aimed at protecting environment, improving health and quality of life for the total amount of US$ 3.1 million

IMPROVING WATER MANAGEMENT AND EFFICIENT WATER USE IN THE REGION

The region is a home for over

70 *million people*

According to UN forecasts, the population growth will reach 94 million by 2050. In this regard, new challenges arise as related to the population growth and increased demand for food and water.

Improving water management

To promote drip irrigation technology the state provides subsidies to land users in the amount at UZS 8.0 million or around US$ 900 per each drip irrigated hectare

8.0 million

million or around US$ 900 per each drip irrigated hectare

The state covers 10% of the loan interest rate for development of drip irrigation systems, land users are also exempt from land tax for 5 years

This year, drip irrigation was introduced on the area of

30,000

hectares

By 2025, it is planned to cover almost 1 million hectares with water-saving technologies, while the area of drip irrigation will exceed 250,000 hectares

In order to reduce water consumption, the area under cotton was decreased over the past 10 years by 25% or from 1,425,000 hectares in 2008 to 1,070,000 hectares in 2018

EFFICIENT WATER USE IN THE ARAL SEA REGION

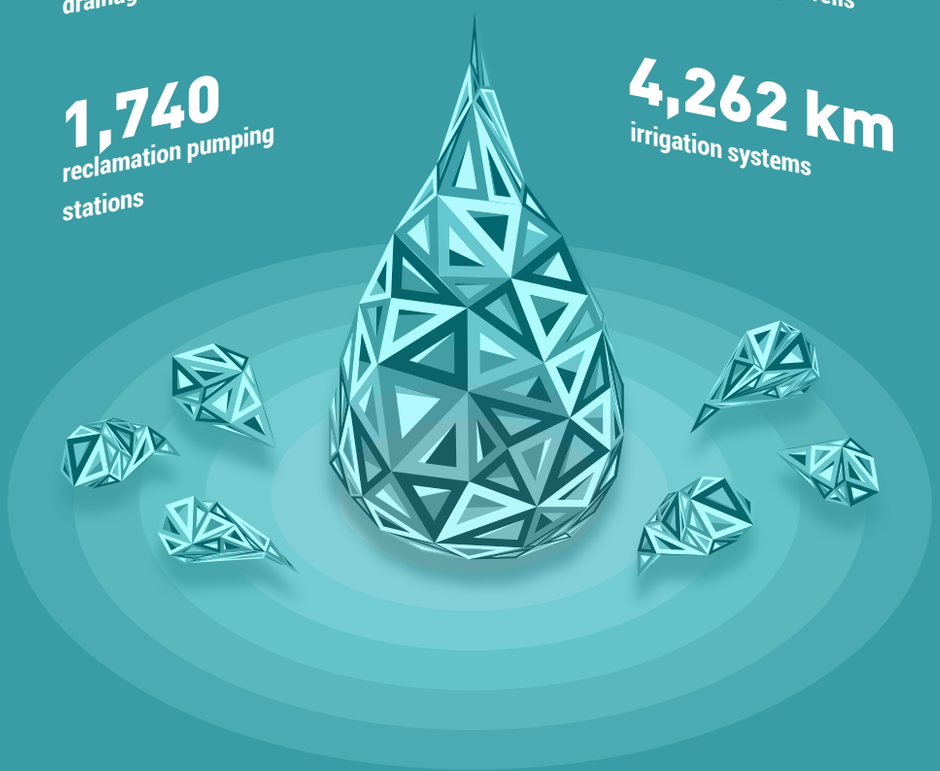
In accordance with the State Program on Land Reclamation of Irrigated Lands and Efficient Water Use for 2013-2017, the following infrastructure was developed using support of both public and private funds

77,643 km
drainage networks

3,658
vertical drainage wells

1,740
reclamation pumping stations

4,262 km
irrigation systems

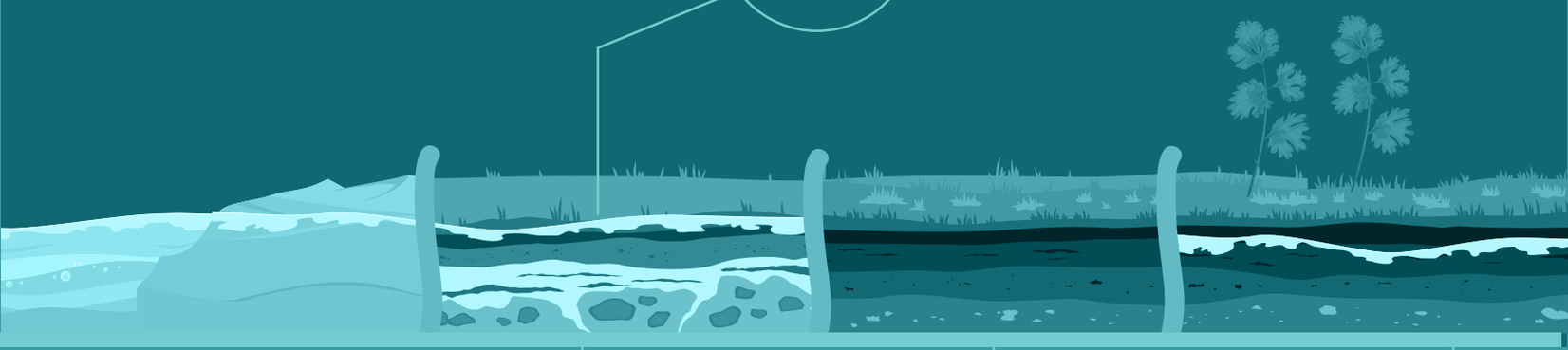


2,641 km
collector-drainage facilities

4,361
hydraulic structures

8,219 km
irrigation flumes

As a result of the State Program on Land Reclamation, the areas with high and medium soil salinity decreased by **149.4** thousand ha



Areas with high groundwater level (up to 2 m) decreased by **302,900** hectares

Land reclamation works are implemented on more than **897,000** hectares

On the area of **1,300** hectares

The Land Reclamation Fund supported establishment of field-protective forest stands in the Republic of Karakalpakstan and Khorezm region on an area of **435** hectares

The Rehabilitation of Main Irrigation Canals of Tashsakin System Project in Khorezm region supported by the Islamic Development Bank worth US$ 145.5 million is aimed at the following outcomes: improved water availability in Khorezm region on the area of 191,300 hectares; improved land reclamation state on the area of 100,000 hectares with reduced costs by UZS 14.10 billion and saved 700-860 million m^3 of water; increased irrigation system efficiency by 15%; higher production rates of raw cotton by 20,600 tons and wheat by 21,400 tons per year.

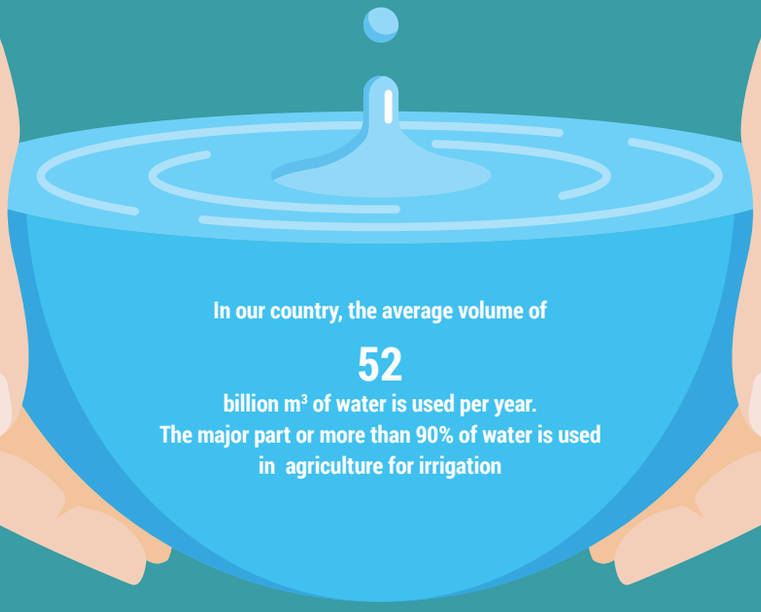
The Improving Water Resources Management Project in South Karakalpakstan supported by the World Bank with the total budget of US$ 376.7 million is aimed at improving water management on the area of around 100,000 hectares of irrigated land in South Karakalpakstan; increasing canal system efficiency by 0,6 and annual water savings up to 269 million m^3; and shutdown of over 402 pumping units with annual electricity savings and reduced operating costs by US$ 6.9 million.

Drip irrigation technology

Currently, more than 90% of the agricultural land in the region depend on irrigation

According to the World Bank forecasts by 2050, due to population growth in the region up to 90 million people, it could be expected 25-30% water shortage

At the same time, the demand for water for irrigated agriculture may increase by 30% till 2020



In our country, the average volume of

52

billion m³ of water is used per year.
The major part or more than 90% of water is used in agriculture for irrigation

Drip irrigation technology is developed in 2019

on 33,212 hectares

11,934
hectares under cotton production

1,428
hectares under other crops

19,849
hectares under orchards and vineyards

Sprinkling irrigation technology is developed in 2019 on more than

1,123
hectares

Water consumption is significantly reduced using drip irrigation technology as compared to conventional irrigation

Drip irrigation of potato saves
50%
of water

Drip irrigation of maize saves
25%
of water

Moreover, productivity increases by around 30%

Water and land pollution and salinization

Aral Sea water salinity increased more than **13-25 times**

It exceeds average sanity in the oceans **7-11 times**

This has led to a sharp yield reduction in agriculture

Public access to safe drinking water is the most acute problem. More than a half of population in Aral Sea Region, especially in the rural communities, has to use untreated and highly saline drinking water. Water pollution and high volume of dust and salts carried out from the Aral Sea dry bottom are the main factors in the growth of morbidity rate, in general and child mortality, in particular.

Recovery Activities

3 phases

phase I

In 2003, UzGIP Design Institute developed a Feasibility Study for construction of small local reservoirs in the Amudarya delta in 3 phases of construction and reconstruction of Mezhdurechensk, Muinaksk, Rybachy and Dzhiltirbassk reservoirs.

70,000 hectares of water area with the total capacity of 810 million m^3 local reservoirs were developed with creation of a livestock feed base and favorable environment for birds, riparian woodlands and fishing. The state budget resources in the amount of UZS 11,399.1 million was allocated.

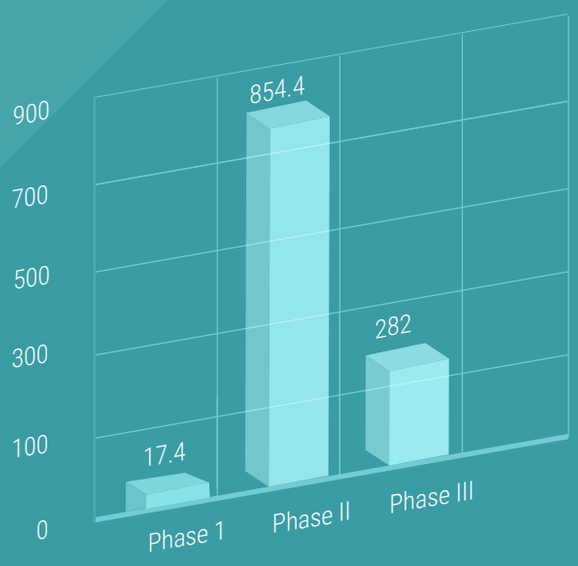
phase II

- includes 15 reservoirs for the total budget of UZS 854.4 billion
- Expected Phase II outcomes
- termination of canyon formation process;
- increase in water surface area by 15,500 hectares;
- increase in the capacity of the Mezhdurechensk reservoir to 440 million m^3;
- increase in fishing yield from 1,800 tons to 3,600 tons;
- safe flooding management;
- increased rangeland areas from 90,000 hectares to 170,000 hectares, as well as wild grass areas from 45,000 hectares to 155,00 hectares that will increase the livestock population

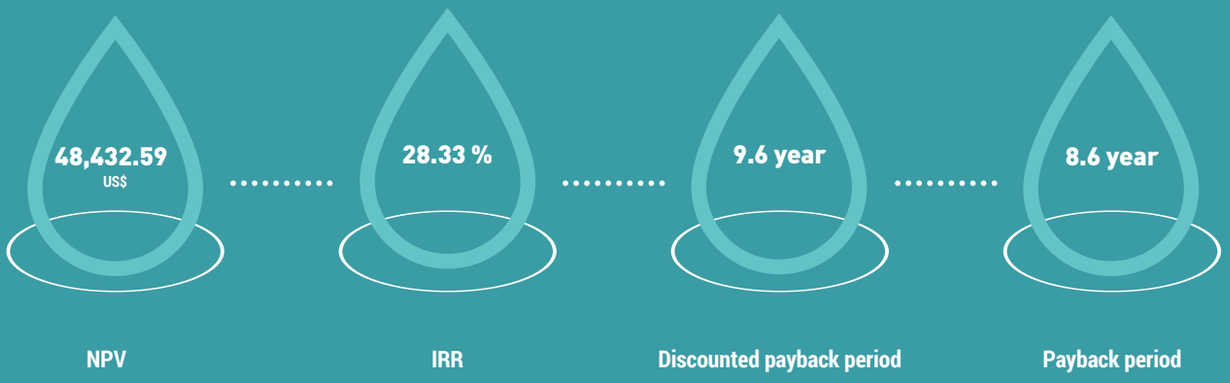
phase III

Preliminary financing is UZS 282 billion or US$ 34.1 million (Development of Water Reservoirs Project in the Southern Aral Sea Region)

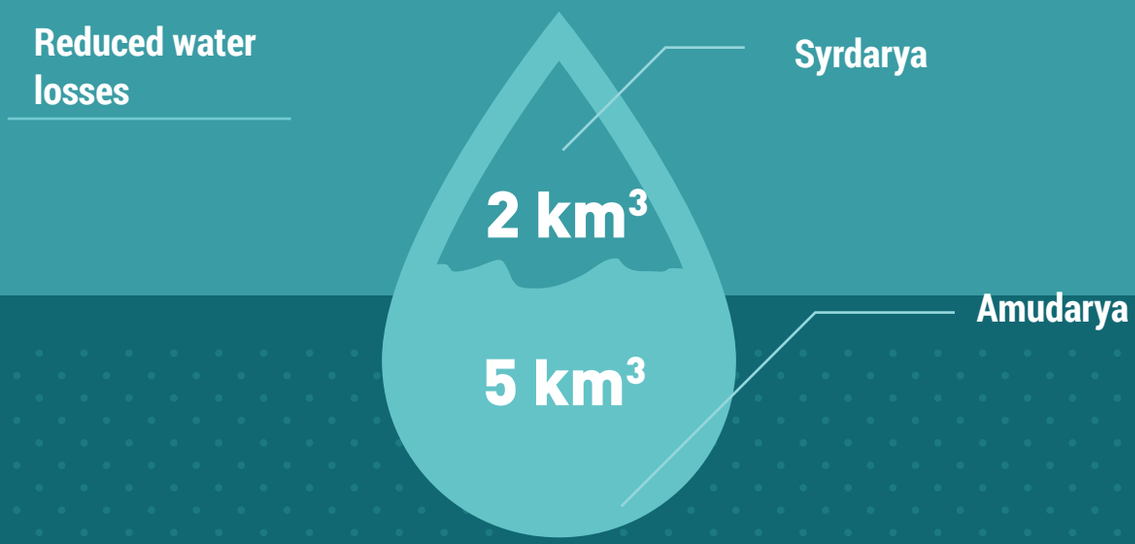
Financial support in billion UZS



Economic Effect of the Development of Water Reservoirs Project in the Southern Aral Sea Region



Reducing water losses through automation development can save 5 km³ of water in the Amudarya and 2km³ in the Syrdarya basins by bringing the losses down to the level of 1980



Construction of local water reservoirs and sustainable wetland ecosystem management in the Aral Sea Region

The ongoing Development of Small Local Reservoirs Project in Amu Darya River Delta will address issues of water availability in the Aral Sea Region. As part of the Comprehensive Program to mitigate consequences of the Aral Sea disaster, restoration and social and economic development in the Aral Sea Region for 2015-2018, approved by the Government, UZS 18.73 billion is allocated for the Project in the period of 2016-2018.

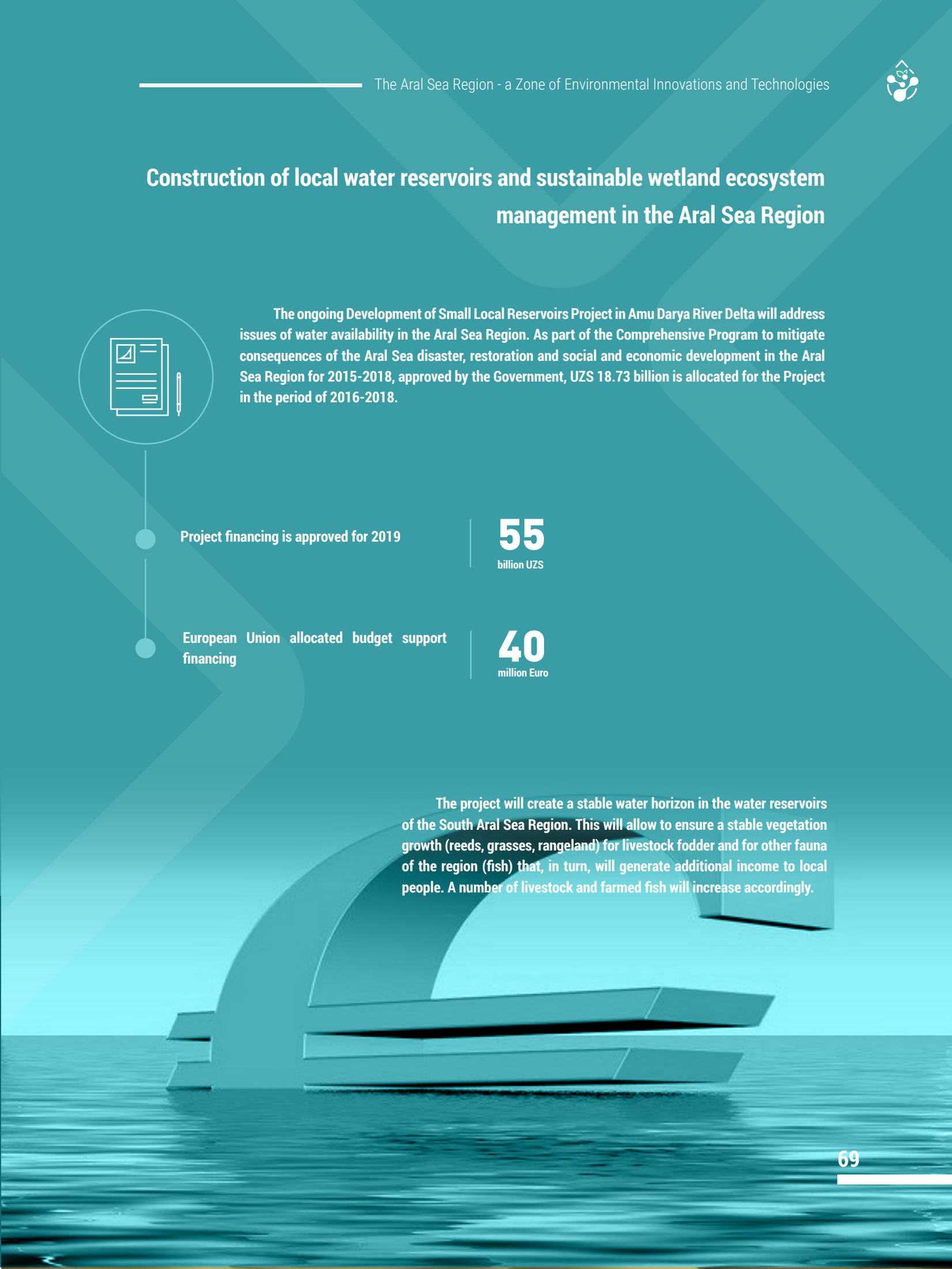
Project financing is approved for 2019

55
billion UZS

European Union allocated budget support financing

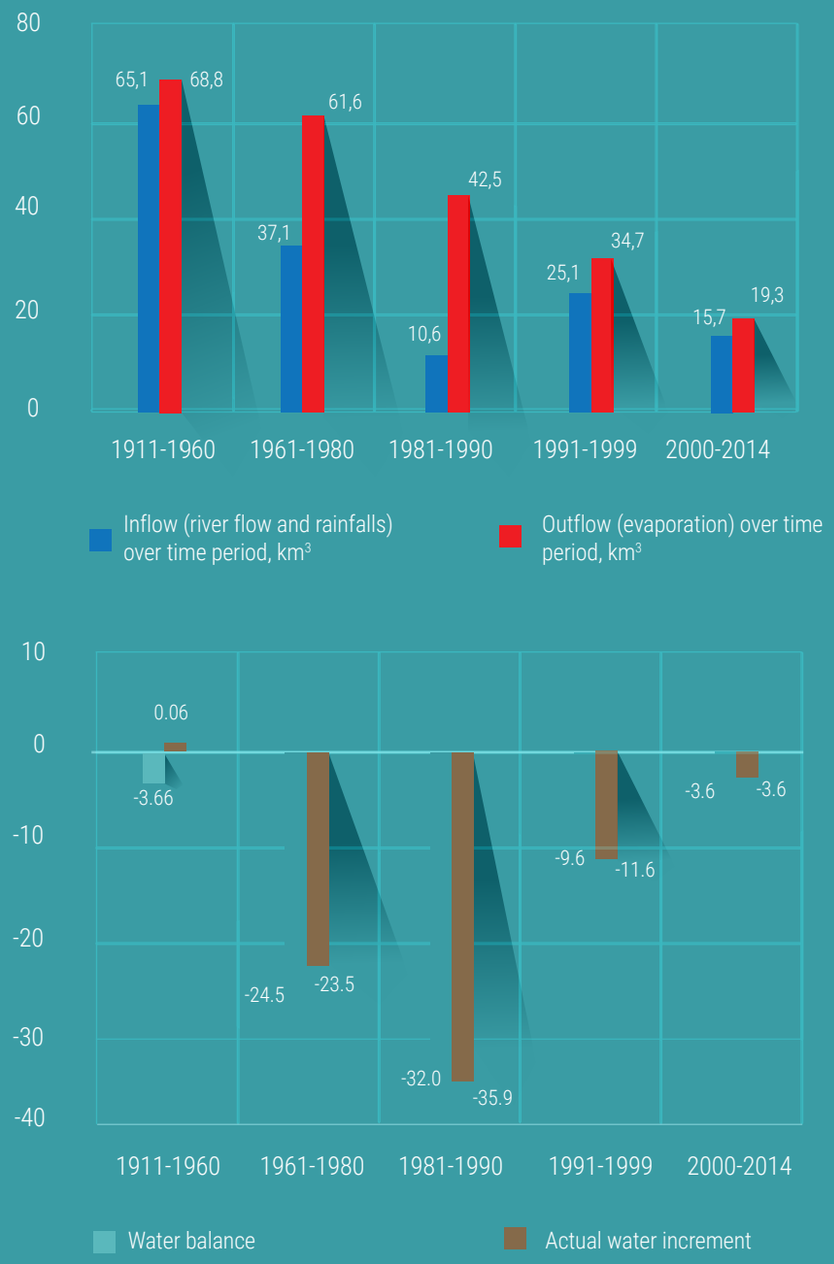
40
million Euro

The project will create a stable water horizon in the water reservoirs of the South Aral Sea Region. This will allow to ensure a stable vegetation growth (reeds, grasses, rangeland) for livestock fodder and for other fauna of the region (fish) that, in turn, will generate additional income to local people. A number of livestock and farmed fish will increase accordingly.

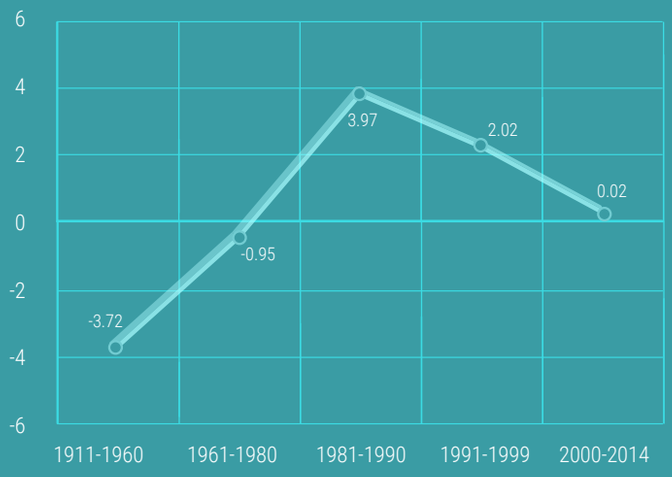


Aral Sea water balance, different periods

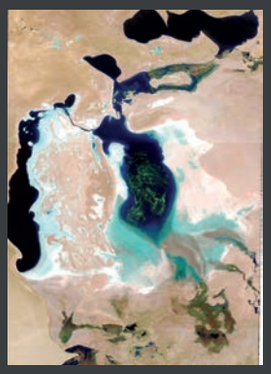
in different periods (km³)



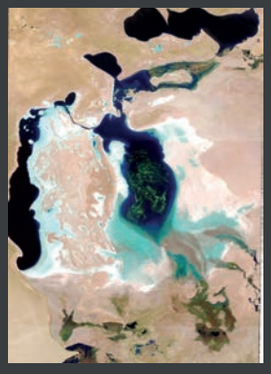
Total balance, different periods (km³)



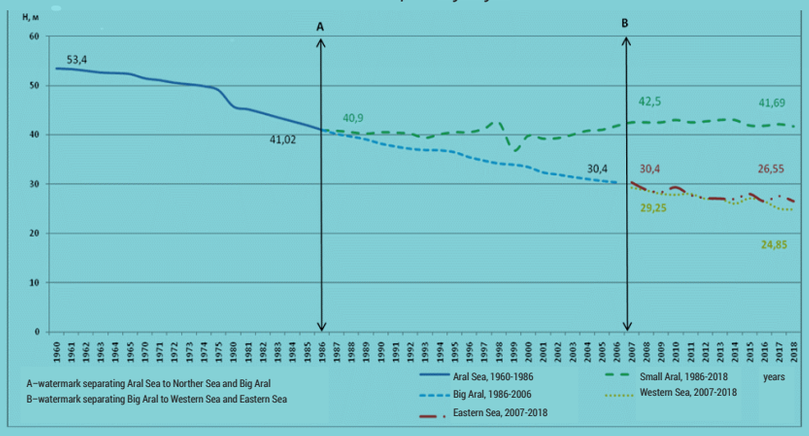
Satellite image (Landsat 8) April 2, 2018



Satellite image (Landsat 8) April 7, 2019



Aral Sea capacity dynamics

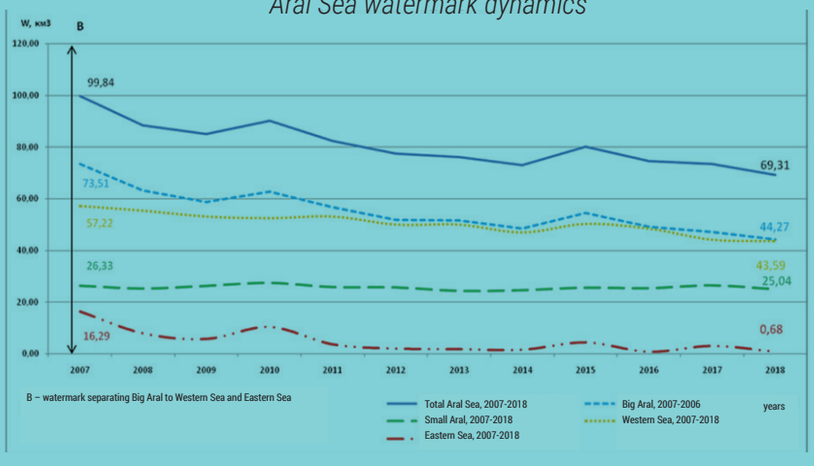


Aral Sea capacity dynamics

A – watermark separating Aral Sea to Norther Sea and Big Aral
B – watermark separating Big Aral to Western Sea and Eastern Sea

--- Aral Sea, 1960-1986
--- Small Aral, 1986-2018
--- Big Aral, 1986-2006
--- Western Sea, 2007-2018
--- Eastern Sea, 2007-2018

Aral Sea watermark dynamics



Aral Sea watermark dynamics

--- Total Aral Sea, 2007-2018
--- Big Aral, 2007-2006
--- Small Aral, 2007-2018
--- Western Sea, 2007-2018
--- Eastern Sea, 2007-2018

Early detection of endocrine diseases

In 2017-2018, a screening was conducted for early diagnosis of diabetes among women of fertile age and people from risk groups. In 2018, another glycosylated hemoglobin screening was undertaken for early detection of diabetes.

Early detection of endocrine diseases helps preventing complications, reducing disability and mortality due to these diseases

Cancer detection and treatment

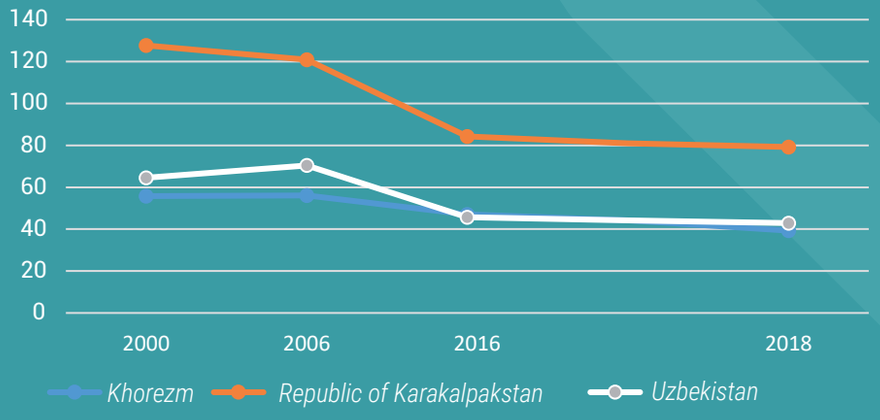
The Nukus and Urgench branches of the National Specialized Research and Practical Medical Center for Oncology and Radiology are staffed 100% with highly qualified experts. The Centers are equipped with the latest high-tech equipment for cancer detection and treatment. In addition, accessibility of modern antitumour drugs increased from 20-25% to 80-85%, 11 new diagnostic methods and 15 types of new cancer treatment methods were implemented.

Reduction of tuberculosis incidence

A modern reference laboratory was established in Nukus city, consequently the diagnosis of tuberculosis and detection of tuberculosis microbacteria resistance to modern drugs significantly improved.

Primary tuberculosis incidence in Karakalpakstan has decreased by 35.2% since 2010. The number of patients with drug resistance has been reduced as well

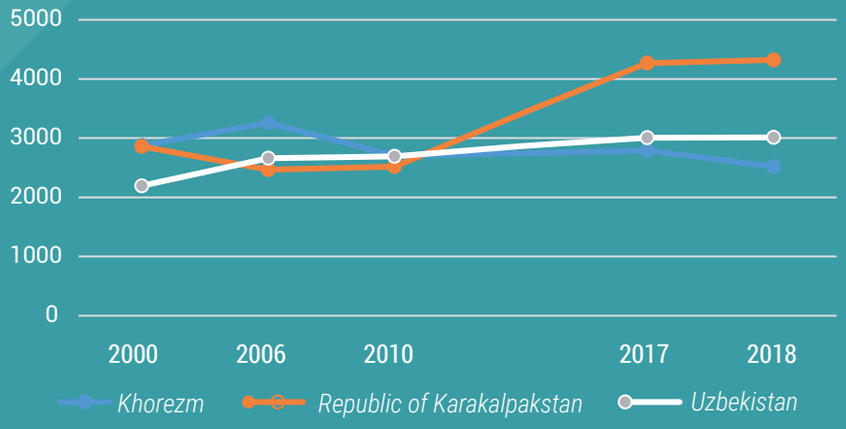
Primary TB incidence (per 100,000 people)



Detection of urological diseases

As a result of extensive medical examination held by the specialists of the National Specialized Research and Practical Medical Center for Urology, together with local doctors from Karakalpakstan, a growth of urological diseases was registered. This increase is recorded primarily due to genitourinary system diseases.

Primary incidence of urological diseases (per 100,000 people)



The primary incidence rate of genitourinary system diseases has been steadily increasing since the beginning of 2000, although over the last two years it is getting down. At the same time, urological disease cases in Karakalpakstan remain higher the average national level by 18.6%

Reduction of maternal and infant mortality

Nukus and Khorezm Mother and Child Screening Centers have been supplied with modern medical equipment. Genetic, biochemical, cytogenetic laboratories for neonatal screening are available for early detection of children with congenital malformations, phenylketonuria and congenital hypothyroidism.

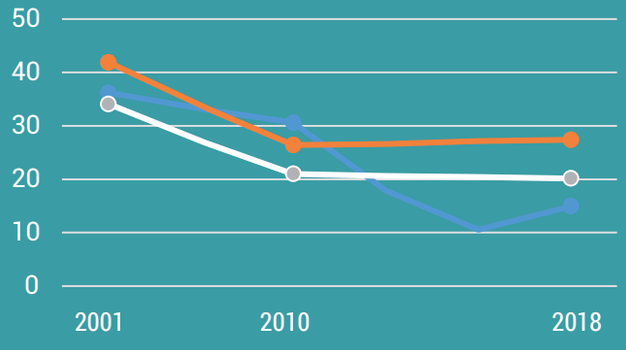
On the basis of Nukus Mother and Child Screening Center, interregional cytogenetic laboratory for karyotyping is functioning.

Significant improvements in the public health in Uzbekistan have been achieved over the past decades that is manifested in life expectancy increase from 70.8 years in 2000 to 74.6 years in 2018.

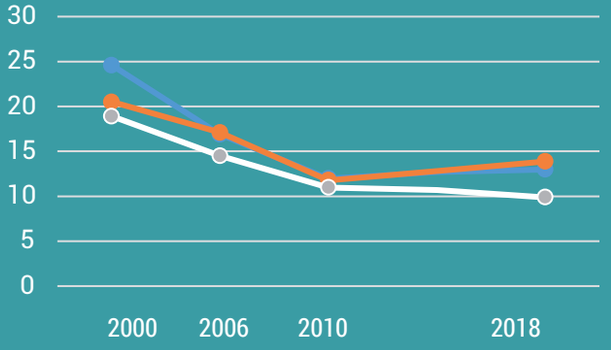
Since 2000, the infant mortality rate has been steadily declining (2000 - 18.9) and in 2018 this indicator was 9.9 per 1,000 liveborn.

A maternal mortality rate is an indicator of healthcare accessibility and quality during pregnancy, childbirth and postpartum periods. The maternal mortality rate has decreased since 2000 from 33.1 per 100,000 liveborn to 20.2 cases in 2018.

Maternal mortality
(per 100,000 liveborn)



Infant mortality
(per 1,000 liveborn)



Production and infrastructure modernization for social and economic development of the Aral Sea Region

Gross regional product of the Republic of Karakalpakstan, 9 months of 2019

UZS 12,835 billion

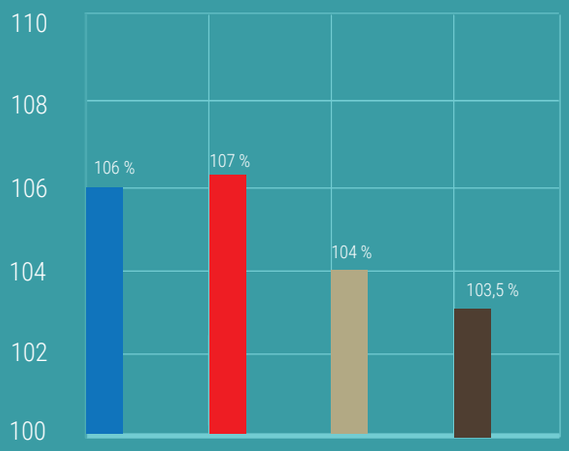
Consumer goods

UZS 1,632 billion

Agriculture

UZS 4,838 billion

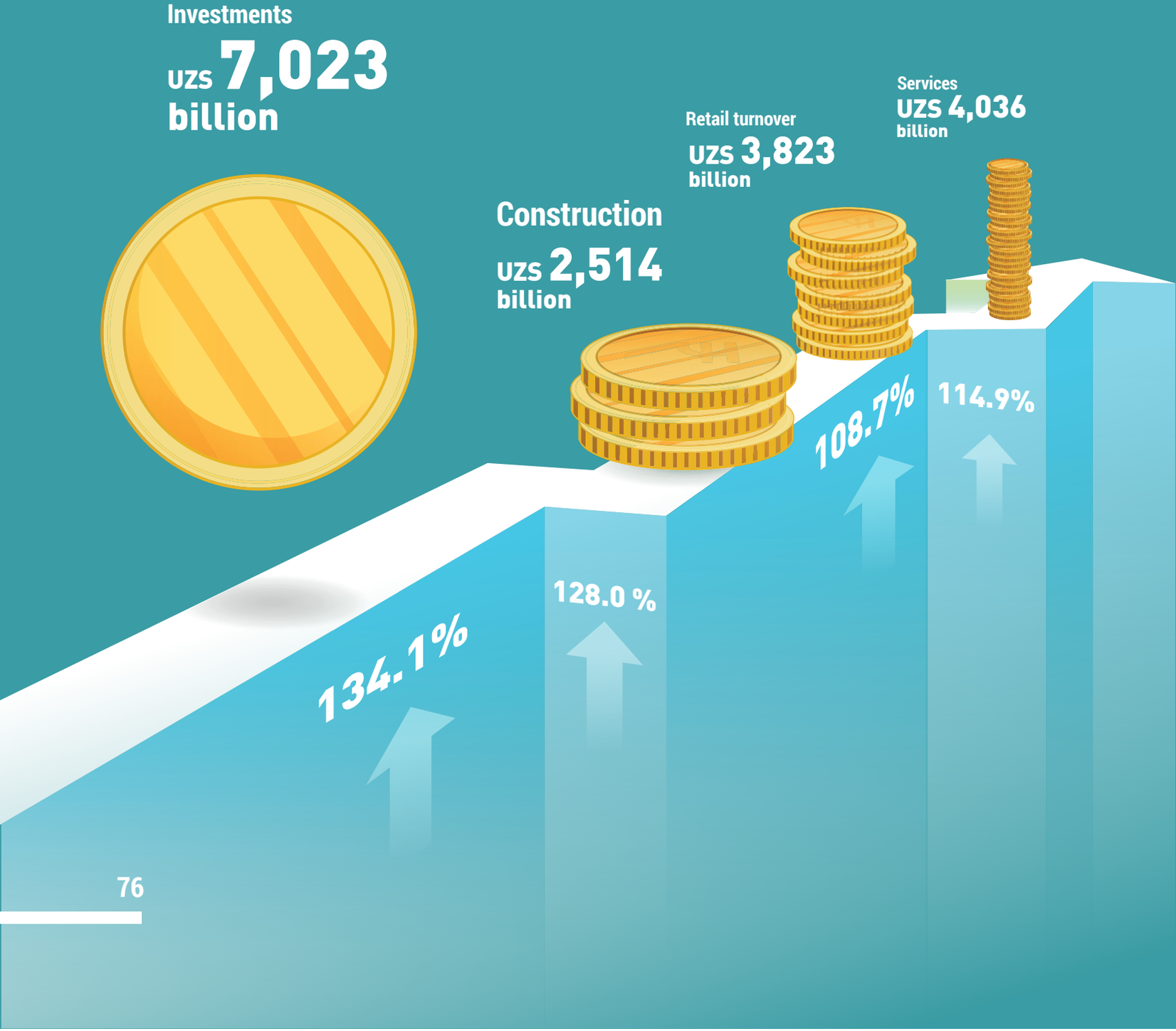
Growth rate over 9 months of 2019



Production of industrial goods

UZS 9,422 billion

Production and infrastructure modernization to ensure social and economic development of the Aral Sea Region



INDUSTRIAL DEVELOPMENT INDICATORS

By 2018, the gross regional product of Karakalpakstan increased 1.1 times as compared to 2016. It is observed an increase in the volume of industrial production (1.2 times) and civil works (1.2 times). According to the results of 9 months of 2019, the GRP of Karakalpakstan amounted to UZS 12,834.8 billion demonstrating 6% growth.

For the period January-September 2019, goods in Karakalpakstan were produced for a total amount of UZS 9,421.8 billion and GRP growth was 2.5% as compared to the corresponding period of 2018.

Currently, there are 242 enterprises in the region, including 6 large enterprises.

Within the framework of the Regional Development Program for 2018-2019, 7 major projects were launched for a total amount UZS 804,283 billion. It is planned to create about 1,500 new jobs.

On the basis of the free economic zone Nukus-Farm, a free economic zone Nukus (FEZ) was established in Karakalpakstan.

In FEZ Nukus 7 projects are implemented with a total budget of US$ 33.7 million (own funds – US$ 7.9 million, US$ 14.2 million – bank loans, and US$ 11.6 million – foreign investments).

In 2019, it is planned to implement

650 priority projects totaling

industry, agriculture and service sectors

UZS **3,384.6** trillion

with the creation of **7,088** new jobs

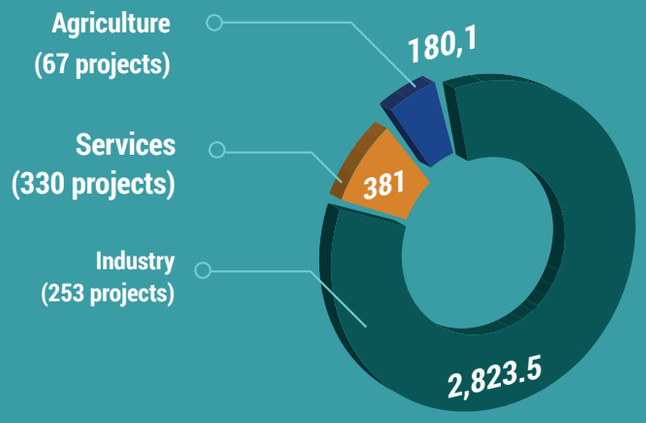
In particular, by sector

In the industry sector, it is planned to invest UZS 2.8 trillion in implementation of 253 projects with the creation of 5,055 new jobs.

In the service sector, it is planned to invest UZS 381.0 billion in implementation of 330 projects with the creation of 1,578 new jobs.

In the agriculture, it is planned to invest UZS 180.1 billion in implementation of 67 projects with the creation of 455 new jobs.

The total number of projects implemented in Karakalpakstan (in billion UZS)



514 projects were supported with investments in the amount of UZS 1.4 trillion and created 4,150 new jobs

Also, 704 projects worth UZS 2,468.1 billion were financed, including bank loans in the amount of UZS 1,185.0 billion

INVESTMENT PROGRAM IMPLEMENTATION IN KARAKALPAKSTAN FOR 2018-2019

Implementation of investment and infrastructure projects in 2018

Construction, reconstruction and repair of educational institutions – UZS 29,351.9 million

29,351.9 million sums

22 schools

Construction, reconstruction and repair of medical institutions

UZS **55,481** million

26 healthcare facilities

Investment Program for 2019

It is planned to build, reconstruct and repair a number of facilities, specialized Olympic reserve boarding schools

1 facility

UZS **5 billion**

Children's music and art schools
4 facilities

UZS **15,940 million**

Healthcare facilities
11 facilities

UZS **41,595 million**

The Construction of Kungrad-Muynak Water Conduit and Water Distribution Center Project was implemented with the aim to create livable conditions and provide water supply to people of Muynak district

The main trunk was constructed within a record time

5 months

Investments cost

UZS 26.4 billion

Length 101 km

Thus, safe water will be supplied to more than 25,000 residents of Nukus, Beruniy, Muynak, Kungrad and Karauzyak districts

Approval of the State Program for Aral Sea Region Development for 2017-2021 has been the logical continuation of the measures to mitigate consequences of the disaster with a total budget of more than

UZS 8.4 trillion
(around US$ 900 million)

Following the visit of the President of Uzbekistan to Muynak, the Government approved an Integrated Program for Muynak District Development of the Republic of Karakalpakstan for 2019-2021 comprised of 75 projects worth a total of UZS 26.974 trillion (around US$ 3.2 billion)

75 projects

for implementation in 2019-2021

totaling UZS 26,974 trillion

With the support of foreign direct investment, 59 projects are expected to be implemented in the fields of energy, construction materials, textile, chemical and food industries for the total amount of US$ 709 million from the Republic of Korea (US$ 408 million), China (US$ 161 million), Saudi Arabia (US$7 million), Japan (US$4 million), Kazakhstan (US$ 3 million)

59 projects

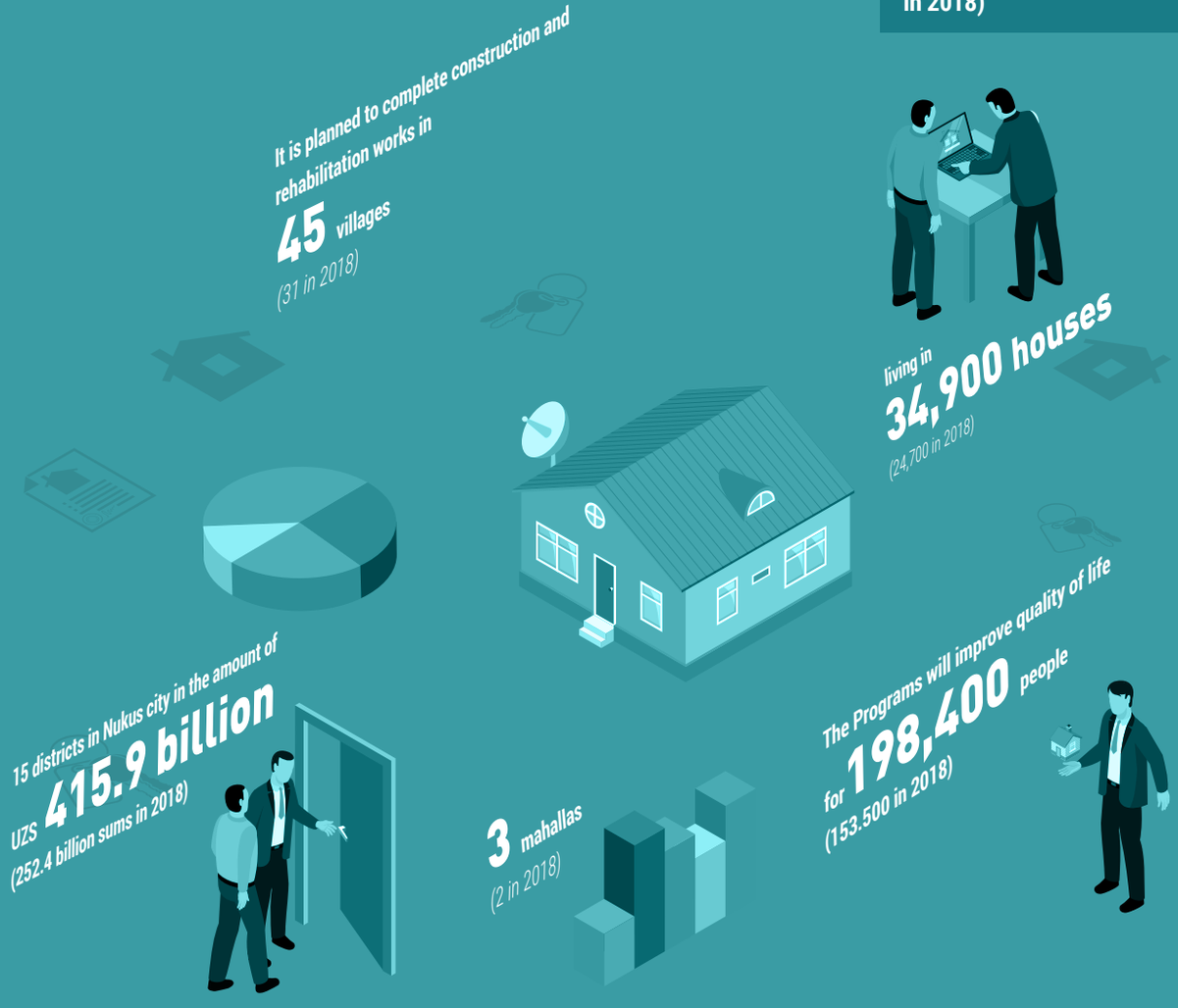
totaling (US$ 709 million)

- **Korea** (US$ 408 million)
- **China** (US$ 161 million)
- **Japan** (US$ 4 million)
- **Kazakhstan** (US$ 3 million)

Prosperous village and prosperous makhalla programs in the Republic of Karakalpakstan for 2018-2019

Within the Prosperous Village and Prosperous Makhalla Programs in Karakalpakstan in 2019

Over January-October, 2019, UZS 304.3 billion was invested (UZS 24.02 billion in 2018)

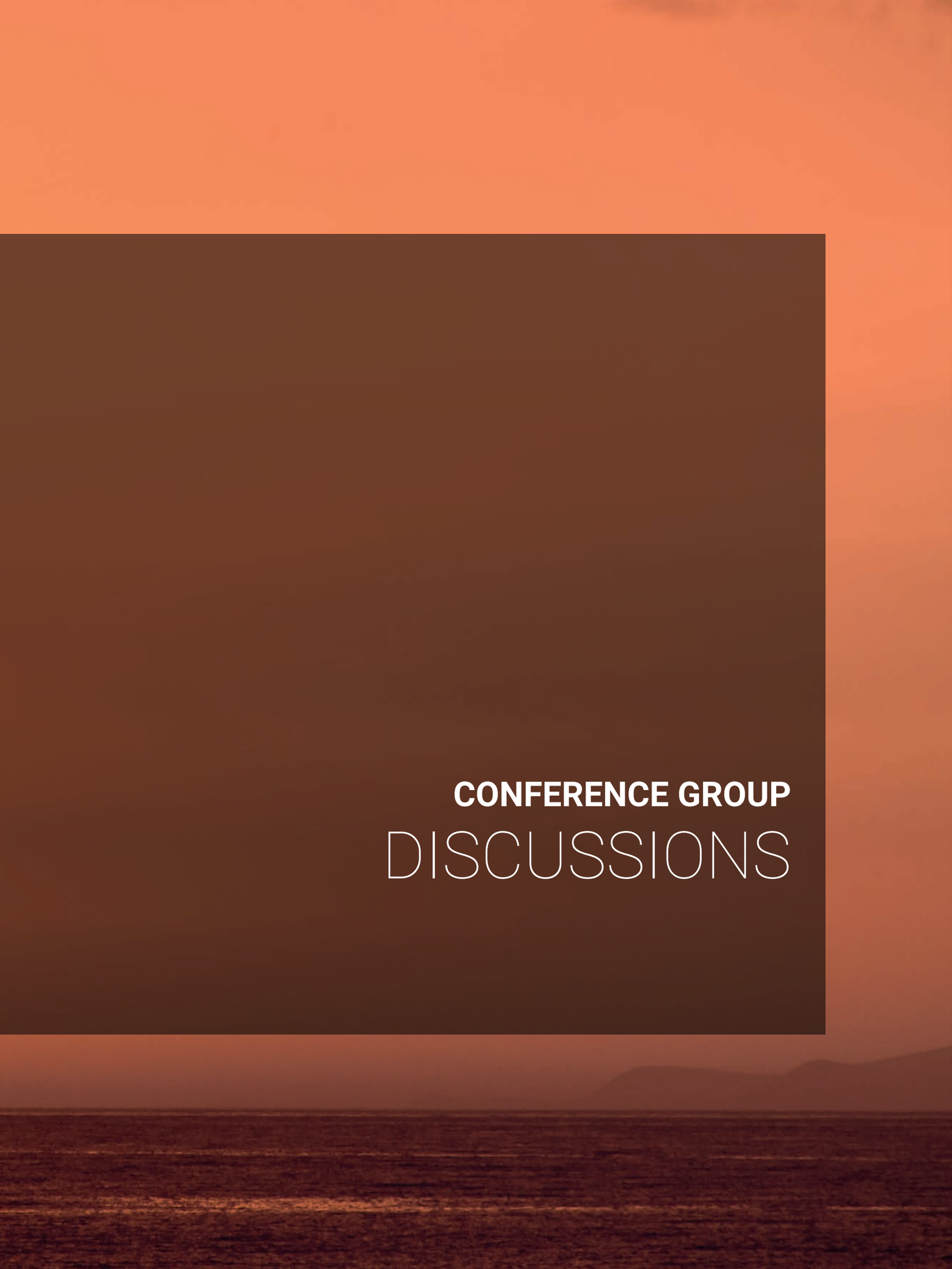


UZS 98.5 billion (UZS 47.0 billion in 2018) – national budget

UZS 155.6 billion (UZS 70.2 billion in 2018) – local budget

UZS 22.8 billion (UZS 20.1 billion in 2018) – various entity funds

UZS 12.3 billion (UZS 7.3 billion in 2018) – commercial bank loans



CONFERENCE GROUP

DISCUSSIONS

Session I

Creating conditions for attracting foreign investments in development and implementation of eco-friendly technologies

As for foreign investments, we must understand those, who want to attract these investments. For them, of course, predictability and transparency are very important. In this sense, the initiatives that we are discussing during the Conference should be aimed primarily at addressing this task. It is also very important, as stressed in many presentations and speeches, the region should be united, and concrete actions must be taken at the regional level, in order to show international partners and investing donors that we are ready, that the region operates as a single tandem.

Philip Saprykin

Deputy Special Representative of UN General Secretary

Application of innovative financing and development of the innovative financial platform in the Aral Sea Region through "innovative" projects, such as micropayments, taxes, public-private partnerships and market financial transactions, ensure the sustainability of the Aral Sea ecosystem. During planning strategies and programs, a clear definition of the outcomes and a concrete relationship between economic financial resources and social ecological and environmental results are important.

Noah Beckwith

Senior Expert, Credit Suisse

The NEXUS Investment Project aims at the efficient transboundary water management in Central Asia, in relation to agricultural and environmental issues in the region through modernization of the existing system and development of an automated water management system (SCADA) at the most important cross-border hydro stations of intercountry significance in the Syrdarya river basin to ensure transparency and accuracy of water consumption by the neighboring states.

carec

Zafar Makhmudov

CAREC Executive Director

In order to gain access to the resources of the Green Climate Fund, the Aral Sea Region should develop and submit a country program and national adaptation plan for Uzbekistan.

Svetlana Frenova

Regional Advisor for Eastern Europe and Central Asia, Green Climate Fund

Modernization and reconstruction of the existing inefficient irrigation and drainage infrastructure with effective water saving goals should reduce water intake from the Amudarya River and increase water discharge into the Aral Sea.

European Investment Bank

Umberto Del Panta

Managing Advisor, European Investment Bank

Through studying the situation in the region and Canadian experience in desalination, I can say that the problems with water supply and desalination to achieve drinking water standards in the Aral Sea Region can be addressed through installing small desalination plants for domestic and individual use.

Michael Kiefer

Head, Keefer Ecological Services Ltd, Canada

Session II

Integrated implementation of “green” economy principles, eco-friendly energy and water-saving technologies

In the Aral Sea Region, it is important to create "living" laboratories in order to stimulate both culture and space for innovation. "Living" labs are defined as user-centric, open innovation ecosystems based on a systematic approach to collaborative user creativity, combining research and innovation processes in real communities and environments.

Henry Weiss

Senior Researcher, Institute for Sustainable Technologies, Germany

In my understanding, the Aral Sea Region as a zone of environmental innovations and technologies is a "smart Aral city", where the following measures should be taken:

• promoting better convergence between infrastructure and services supporting the long-term human capital development;

• innovation must be discussed with civil society to create a prosperous digital age;

• "smart" skills. Even the most advanced professionals need training and transformation.

Nicholas Buscho

Director, Renaissance Urbane, France

Learning lessons from previous projects in the Aral Sea Region, a vision is formulated for a new project of economic and environmental revival of the Aral Sea Region with technological innovations. The main objective should be to ensure the economic value of natural capital to assist in decision-making and mobilizing investments.

THE WORLD BANK

Vladislava Nemova

Natural Recourse Management Expert, World Bank

The environmental circumstances of the world once again show that sustainable consumption and production must be included in the policies of every country: introduction of a life cycle approach and value chains in industry, agriculture, the food industry, and transition from a society of consumers to a society of recycling users.

Zulfia Zikrina

Key Expert, SWITCH-Asia Program

The main strategic goal of Uzbekistan's transition towards "green" economy is to integrate principles of the "green" economy into the structural reforms implemented in the country to achieve sustainable economic progress that would contribute to social development, reduce greenhouse gas emissions, ensure climate and environmental sustainability. Addressing climate change while promoting economic growth requires the widespread adoption of "green" technologies in the key sectors of the Aral Sea Region, namely power generation, environmental management and agriculture.

Bakhriddin Nishonov

First Deputy Director General, Center for Hydrometeorological Service of Uzbekistan

Session III

Implementation of water-saving technologies and ensuring food security

By declaring the Aral Sea Region as a Zone of Environmental Innovations and Technologies, we will create the required conditions and incentives for demanding high-tech environmental innovation technologies. For investors, Uzbekistan will create favorable conditions for efficient investment management for the development and implementation of environmentally friendly technologies and for the integrated implementation of the "green" economy principles.

Vadim Sokolov

Head, IFAS Agency

The issues of improving the reclamation state of irrigated lands, efficient and careful use of limited water resources, improving soil fertility are the key priority areas in the policy of further national development.

The areas of cotton fields are getting reduced, while the areas under fruit, vegetables and melons are expanding. As a result, it is expected that by 2020 the cultivation of potatoes will increase by 35%, vegetables – by 30%.

In Uzbekistan, more and more water-saving technologies are used in practice. When using drip irrigation, water consumption is significantly reduced, for example, at potato irrigation – by 50%, corn – by 25%, as compared to conventional irrigation. Moreover, the productivity gain is almost 30%.

Bakhodir Kholikov

Deputy Minister of Agriculture, Uzbekistan

Today, around 60 million people live in Central Asia, and the region faced serious challenges to maintain environmental sustainability, sustainable water management and public health. Given the high degree of vulnerability of the region to the effects of climate change, as well as the growing challenges associated with population growth, urbanization and changes in consumption habits, environmental problems turn into a serious threat to the environment and the population of Central Asian countries. In this regard, it is important to recognize the importance of regional cooperation and consolidating national and regional efforts in the face of increasing water scarcity and climate change.

IWMI International Water Management Institute

Duglas Mark Smith

Deputy Director General, International Institute for Water Resources Management (IWMI)

A new direction of the Government of Uzbekistan (to address issues of the Aral crisis) requires, along with the development of forest plantations on the dried sea bottom, ensuring a steady supply of at least 5 km³ of water in dry years and 8 km³ of water in other years for the Aral Sea by reducing losses in the river bed and redirection of Khorezm drainage collectors to the Aral Sea in the volume of 3 km³. At the same time, it is important to complete the full complex (construction) of hydro structures s in the Amu Darya delta and increase the capacity of the Mezhdurechensk reservoir to 800 million m³.

Victor Dukhovniy

Director, SIC ICWC

Water is the key for the future sustainable economic development of all countries, including the countries of Central Asia. An emphasis on creating the common benefits of water cooperation at the national and regional levels is important. Sustainable water management can be the key to success in the economic development of the region, if the needs of all stakeholders are integrated into a reliable model of cross-border cooperation.

Dominic Petter

Deputy Head, Swiss Mission in Uzbekistan

The Tashkent Institute of Irrigation and Agricultural Mechanization Engineers, as one of the leading specialized universities in the region, supports and encourages all of our partners to actively participate in constructive cooperation and develop water and agricultural potential in the region.

We suggest to strengthen mutually beneficial cooperation between specialized universities, research institutes and water management organizations in the field of sustainable water management in the region. Also, in our opinion, special attention should be paid to the following issues:

- *improvement and coordination of water management education, joint development and harmonization of curricula and resources, joint research;*
- *staff development;*
- *integration of "education-research-production" in all countries of the region.*

Abdukhakim Salokhiddinov

Prorector, TIIAME

A mechanism of cooperation is the basis in transboundary basins. This means agreed by countries, mutually beneficial frameworks at both legal and institutional level. Without or outside international law, the creation of truly integrated water resource management systems in transboundary basins is impossible. The draft Regional Program on Efficient Water Use in Central Asia is a very interesting document, this is a guideline for the future, a good start to decide in which direction we need to go.

UNIVERSITY OF DUNDEE

Sergey Vinogradov

Professor, Dundee University, Expert in International Water Law

Basic principles and irrigation practice:

sustainable agriculture – recognition that agriculture makes a significant contribution to water pollution, management to reduce water pollution from fertilizers, pesticides and salinity;

economic sustainability – good water management will reduce farming costs, pollution and improve productivity;

social sustainability – improving working and social conditions for farmers will allow to pay more attention to better water resource management;

environmental sustainability – good water management benefits the natural environment and wildlife;

focus on specific crops – examples of specific crops could be good practice cases for all.

Dr. Frank Riceback

Humboldt University of Berlin

Session IV

Combatting desertification, environmental migration and development of eco-tourism

Kuzupchi landscaping has become a high-tech large-scale production chain. It takes just 10 seconds to plant one tree. The soil is enriched with licorice, the roots of this medicinal plant fix nitrogen that helps making the soil more fertile. Potatoes, eggplants, melons, tomatoes, watermelons, sunflowers, corn and even lavender are grown on vast areas. This method can be applied in the Aral Sea region.

ELION 亿利资源

Jang Zhishu

Vice President, Environmental Restoration, Elion Group

To date, Urmia Lake is also on the verge of extinction. Due to the drought that began in 1998, the excessive consumption of water from the lake by residents of neighboring cities and villages, as well as construction of dams on its rivers, the area of Urmia Lake decreased by more than 70%. If the lake dries up completely, 10 billion tons of salt will remain in its place, and around 14 million people will be forced to leave their native lands. Every year, about 3 billion m^3 of water evaporates from the lake.

The main goal for the current moment to improve the situation with the lake is as follows:

- *reducing water use from the lake for agriculture by 40%;*
- *improving lake water supply through new infrastructure;*
- *strengthening monitoring and control of surface and groundwater intakes;*
- *lake conservation and risk management.*

Hussein Shaxbaz

Director General, Crop Development Fund under the Ministry of Agriculture, Iran

Until 2018, forestry management institutions created new forest plantations on an area of 18,000-20,000 ha annually. Over 30 years, about 400,000 ha of forest stands have been planted. For the period of 2018-2019, protective forest stands were planted on the area of 461,000 ha.

In 2020, it is planned to landscape 700,000 ha. To do this, it is planned to mobilize more than 2,000 people, more than 400 machinery units and 3 aircrafts. Around 2,500 tons of saxaul seeds and other desert plants will be procured.

We launched a five-year campaign: Plant a Million Garden Trees, initiated by the Food and Agriculture Organization of the United Nations (FAO), State Committee on Ecology and Environmental Protection, State Forestry Committee and Ministry of Agriculture.

Abdushukur Khamzaev

Deputy Chairman, State Forestry Committee of Uzbekistan

Since the beginning of 2019, a number of foreign tourists staying in the hotels in Karakalpakstan has reached 16,779 people, of whom 1,994 people visited the city of Muynak, In Muynak, several tourism development projects were implemented, such as Craftsmen Avenue, Fisherman Museum, museums and guest houses were built. In this region, various festivals and holidays are held annually.

Ulugbek Kosimkhodjayev

First Chairman, State Committee of Uzbekistan for Tourism Development

The culture of fruit tree planting is a tradition in Uzbek families. The National Campaign Plant a Million Garden Trees is exactly based on this good local tradition. We hope that it will become a model of sustainable development and environmental restoration at the national level and will contribute to improving the living standards of rural households.

Helena Fraser

UN Resident Coordinator in Uzbekistan

INVESTMENTS

THE BASIS FOR INNOVATIVE DEVELOPMENT IN THE ARAL SEA REGION

INTERNATIONAL INNOVATION CENTER FOR THE ARAL SEA REGION UNDER THE PRESIDENT OF UZBEKISTAN

The International Innovation Center for the Aral Sea Region (IIC) under the President of Uzbekistan was established in Nukus district of Karakalpakstan with the aim to expand research and development on the dried part of the Aral Sea, implement the best research and innovation practices for improving ecosystem, landscaping desert, ensuring drought management and livestock development in the Aral Sea Region.

The IIC establishment was proposed as one of the initiatives by the Head of Uzbekistan, Shavkat Mirziyoyev, to address issues of the Aral Sea basin. It indicates the high attention being paid to mitigating consequences of the Aral Sea ecological crisis.

The Memorandum on IIC opening was signed by the Ministry of Innovative Development of Uzbekistan and the International Center for Biosaline Agriculture (ICBA, Dubai).

The main goal of the IIC is expansion of research and development on the dried part of the Aral Sea, implementation of the best practices and innovations to improve ecosystem, desert landscaping, drought management, and livestock development.

IICAS
INNOVATION FOR DEVELOPMENT

- Productivity improvement of agro-ecosystems on saline soils of the Aral Sea bottom and adjacent areas of the Aral basin river deltas.
- Establishment of pilot demonstration sites for testing various salt and drought and frost-resistant crops and tree-shrub growing on saline soils and degraded rangelands.
- Development and implementation of innovative technologies and approaches in cooperation with international organizations aimed at restoring and improving water and land productivity in the Aral Sea Region.
- Promotion and presentation of innovative technologies and approaches, including sustainable water use and marginal water use, afforestation of desert sand areas on the Aral Sea bottom.
- Establishment of desert-pasture fodder production and livestock breeding, fertility improvement of saline degraded lands, diversification and wide-scale introduction of new and unconventional salt-and drought-resistant plants, their improved breeding, cultivation and seed production.
- Improvement and implementation of alternative farming on saline soils, harvesting plant raw materials from rangelands for sustainable use of medicinal, industrial, decorative and other plants of the Aral basin.
- Development of measures and institutional approaches for managing and improving rangeland productivity, restoration and improvement of pedigree animal breeding, processing of livestock products, marketing and export.
- Development of a set of measures and a national action plan on prevention and mitigation drought impact and human adaptation to climate change.
- Development of public-private partnerships to eliminate negative environmental and social consequences of the Aral Sea crisis.
- Development of a set of measures and approaches to improve the environmental situation, livability, income and welfare of people in the Aral Sea basin, conducting innovative research.
- Providing assistance to research institutions in conducting research and development in the Aral Sea Region.
- Participation in development of international research and technical cooperation, implementation of pilot technical and innovative projects with foreign partners, including with the assistance of grants from international programs and trust funds.

Financial sources	Key activity areas
Foundation for Support of Innovative Development and Innovative Ideas	Improving the ecosystem and economic activity on the Aral Sea bottom, establishment of pilot demonstration plots
(in-kind) International Center for Biosaline Agriculture (ICBA)	Harvesting seeds of highly productive varieties for subsequent sowing on the Aral Sea bottom
Grants allocated through competitions conducted by the Ministry Innovative Development	Drought management and mitigation, adaptation to climate change, as well as training and capacity building for public-private partnership
World Bank, Asian Development Bank and Islamic Development Bank	Development of cooperation with international organizations
Grants from international financial institutions and other foreign donor countries	Equipping the IIC with high-tech equipment, procurement of consumables and components
Charitable donation of legal entities and individuals, including non-residents of Uzbekistan	Operational support, financial and technical support and bonuses for ICC staff
Other sources, not prohibited by law	ICC's activity at the initial stage was supported by the Fund for Innovation Development and Innovative Ideas

INVESTMENT PROJECTS FOR ARAL SEA REGION

1 Green Belt in Aralkum

Objective

Development of environmental evidences for Green Belt in Aralkum, strengthening capacity of teachers and trainers, expanding opportunities and youth mobilization

Budget

US$ 70,000

Initiator

Center for Innovative Technologies and Environmental Innovations at Tashkent Institute of Design, Construction and Automobile Roads

2 Innovative and Creative Services for Tourism Development Using Aeronautics on Thermal Balloons in the Aral Sea Region

Objective

Development and improvement of ecological, ethnic and cultural, cognitive, archaeological and rural tourism in the Aral Sea Region, including ICT technologies

Budget

US$ 1,814,000

Initiator

Aeronautics Federation of Uzbekistan

3 Project Development on Fresh Water Production in Desert Using Condensing Units

Objective

Establishment of settlements in the desert areas at the modern social and technical level with autonomous energy and water supply

Budget

US$ 585,000

Initiator

Research Institute of Hydrometeorology

4 Use of Renewable Energy Sources in Social Facilities of the Aral Sea Region

Objective

Improvement of energy and heat supply for social facilities in remote rural settlements of the Aral Sea Region by installation of renewable energy sources

Budget

US$ 263,000

Initiator

Ecological Movement of Uzbekistan, Solar Technology LLC

5 Implementation of Large-Scale Aerial Sowing on the Aral Sea Bottom (100,000 hectares)

Objective

Improving the environmental situation in the Aral Sea Region by stabilizing sand formations with afforestation on the dry Aral Sea bottom

Budget

US$ 3,177,000

Initiator

Forestry Management Organizations of the Republic of Karakalpakstan and Uzbekistan Airways Company

6 Development of Industrial Poplar Production at Forestry Management Organizations of Karakalpakstan

Objective

Development of industrial poplar production at Forest Management Fund of Karakalpakstan by creating 200 hectares of poplar plantations

Budget

US$ 1,070,000

Initiator

Forestry Management Organizations of Karakalpakstan

7 Improving Access to Safe Drinking Water in the Aral Sea Region

Objective

Improving quality of drinking water and water treatment facilities in the Aral Sea Region

Budget

US$ 200,000

Initiator

Research Institute of Irrigation and Water Problems

8 Study of Salt-Resistant Genes of *Atriplex Pratovii* Growing on the Dry Aral Sea Bottom

Objective

Molecular-biological and biochemical characteristics of salt-resistant *Atriplex Pratovii* genes growing on the dry Aral Sea bottom and creation of its genepool

Budget

US$ 450,000

Initiator

Research Institute of Biophysics and Biochemistry at the Mirzo Ulugbek National University of Uzbekistan

9 Study of Bio-Ecological Characteristics and Chemical Composition of *Lycium Ruthenicum Murr*. and *Nitraria Schoberi l*. Growing on the Dry Aral Sea Bottom

Objective

Identification of bio-ecological characteristics, physical and chemical features of selected biologically active compounds from *Lycium Ruthenicum Murr.* and *Nitraria Schoberi l*., common on the dry Aral Sea bottom and assessment of their resource potential

Budget

US$ 300,000

Initiator

Research Institute of Bioorganic Chemistry at the Academy of Science of Uzbekistan

10 Establishment of Mini-Plantations for Piloting Biomass Production Technology from Microalgae Dunaliella Salina and from cysts of Artemia's maxillopods

Objective

Establishment of pilot mini-plantations for development of production technology for commercial products: dry biomass from microalgae Dunaliella salina, cysts of Artemia maxillopods, powder and oil extract of β-carotenes

Budget

US$ 320,000

Initiator

Research Institute of Microbiology at the Academy of Science of Uzbekistan

11 Prevention of Salt Drifting from the Dry Aral Sea Bottom and Soil Erosion and Livestock Development

Objective

Prevention of soil erosion, adaptation of fodder plants, development of shrubs and bushes

Budget

US$ 113,500

Initiator

Research Institute of Ecological and Environmental Technologies

12 Integrated Study of Plant and Animal Biodiversity Using GIS Technologies

Objective Documentation of flora and fauna, and development of geographical maps using GIS technologies

Budget US$ 2,000,000

Initiator State Committee of Uzbekistan for Ecology and Environmental Protection

13 Establishment and Networking of Natural Protected Areas in the Aral Sea Region

Objective Establishment of an integrated system of ecosystems and biodiversity conservation and reproduction to mitigate negative impact of Aral Sea drying and climate change

Budget US$ 20,000,000

Initiator State Committee of Uzbekistan for Ecology and Environmental Protection

14 Construction of Solar PV Station and Solar Village with Autonomous Power Supply

Objective Pilot demonstration of modern solar energy technologies for increasing reliability and eco-friendliness of power supply facilities

Budget US$ 429,850

Initiator Eco-Energy Research and Innovation Center

15 Organization of Eco-Tourism in Saigachiy Natural Reserve

Objective

Development and promotion of eco-tourism in Saigachiy natural reserve to support natural areas, promote social and economic opportunities for local people

Budget

US$ 80,700

Initiator

State Committee of Uzbekistan for Ecology and Environmental Protection

16 Mitigation of Negative Aral Sea Drying Impact, Rehabilitation of Riparian Fresh Groundwater Lenses in the Amu Darya Delta, as Alternative Water Supply Source

Objective

Assessment of hydrogeological and hydro-ecological condition of the area, identification of favorable sites for hydrogeological surveys to search fresh groundwater

Budget

US$ 115,000

Initiator

State Committee of Uzbekistan for Geology and Mineral Resources

17 Establishment of Laboratories for Agrochemical Analysis, Diagnostics and Monitoring of Degraded Soils in the Aral Sea Region

Objective

Physical and chemical research and development for practical recommendations to improve land reclamation status and combat soil chemical degradation and restore soil fertility using example of Karakalpakstan soils

Budget

US$ 1,000,000

Initiator

International Innovation Center of the Aral Sea Region, Institute of General and Inorganic Chemistry under Academy of Science of Uzbekistan, Karakalpak Berdakh State University

18

Restoration of Biocenosis Using Discharged Water and Creation of Agrobiocenosis Model with Improved Technologies of Growing Resistant of Plants and Production of Planting Materials for Fodder Production. Livestock Development on the Dry Aral Sea Areas

Objective

Research evidence of restoration on a homogeneous area of the Aral epicenter of a natural biocenosis and the transition to agrobiocenosis with the improved technologies of growing resistant plants and planting material for fodder production and livestock development using discharged water.

Budget

US$ 774,023

Initiator

International Innovation Center for the Aral Sea Region

19

Prevention of Dust And Salt Storms in The Dry Aral Sea Areas by Fixing Water-Soluble Soils with Interpolymer Complexes (IPC) and Supplements

Objective

Prevention of dust and salt storms in the dry Aral Sea Region by fixing soils with water-soluble interpolymer complexes (IPC) with supplements

Budget

US$ 300,000

Initiator

Center of Advanced Technologies, Moscow State University, International Innovation Center for the Aral Sea Basin under the President of Uzbekistan

20

Aral Sea Drying Monitoring

Objective

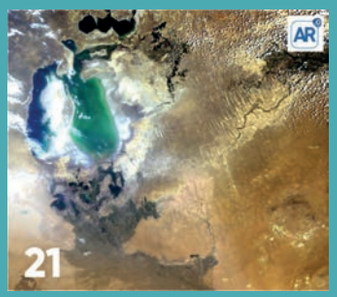
Establishment of a monitoring system in the delta and dry Aral Sea bottom with satellite observations and ground-based surveys to assess changes of the sea and the Aral Sea Region, improving environmental situation and ensuring efficient water use

Budget

US$ 251,020

Initiator

ICWC Research and Information Center of Central Asia



21

Preparatory Activity on Establishment of the Central Asian Expert Platform on the Basis of Scientific and Information Center of the Interstate Coordination Water Commission and Interstate Commission for Sustainable Development. Drafting a Joint Action Plan for Downstream Countries to Improve Environmental Situation in Former Water Area of the Aral Sea and the Aral Sea Region

Objective

Bringing experts from various fields to develop and analyze scenarios, strategies and policies for linking the interests of the Central Asian countries in the context of regional challenges to sustainable development and security, including under the influence of rapid geopolitical and demographic changes

Budget

US$ 230,000

Initiator

ICWC Scientific Information Center of Central Asia, ICSD Scientific Information Center, researchers from different disciplines and countries, academic and research institutions of Central Asian countries, regional organizations: CAIAG, international organizations and foreign partners: UN, IFIs, international research institutes, Central Asian countries, universities of different countries

22

Use of Artificial Water Cycle Generation Technology in the Aral Sea Region

Objective

Integrated solution for the Aral Sea Region by artificial influence on climate for the purpose of water and eco-balance restoration in the Region

Budget

US$ 3,000,000

Initiator

Physics and Technical Research Institute under Academy of Science of Uzbekistan

23 Implementation of Technology for Planting Protective Forest Stands with Granulated Seeds using Small Aircrafts on the Dry Aral Sea Bottom and in the Aral Sea Region

Objective

Iprovement of environmental situation in the Aral Sea Region by stabilizing sands through afforestation

Budget

US$ 170,000

Initiator

State Forestry Committee of Uzbekistan

24 Assessment of Increasing River Inflow in the Aral Sea by Cloud Seeding in Foothill Areas Using Innovative Methods

Objective

More intensive precipitations in the mountain and foothill areas of Amudarya and Syrdarya river basins, increasing their flow and water supply to the Aral Sea Region

Budget

US$ 345,000

Initiator

Namangan State University

OUTLOOK AT
THE PAST AND FUTURE ARAL SEA

IMPRESSIONS OF PARTICIPANTS

AFTER THEIR FLIGHT OVER THE DRY ARAL SEA BOTTOM

“I was in Muynak in May this year. I see now what changes have been noticeable, a lot has been done for the people within six months. And that, of course, is impressive. A textile factory in Muynak provided 700 job places. I am very glad that investors found the opportunity to create working conditions in Muynak for women”.

Helena Fraser,
UN Permanent Coordinator in Uzbekistan

”Having visited Muynak city, the Conference participants witnessed very beneficial changes”.

Abdoulay Mar Diye,
UN Assistant Secretary General, Special Adviser to UNDP Administrator

"I would like to emphasize high attention paid by President, Shavkat Mirziyoyev to this problem. Our trip to Muynak showed use that huge amount of work that Uzbekistan has done, which is a direct evidence of what can actually be implemented at this stage. We saw great planted areas and it was very impressive. More than a million hectares of the dry Aral Sea bottom have been planted with saxaul that, in turn, is bringing positive results. This work is very impressive!".

Natalia Gherman,
UN General Secretary Representativefor Central Asia

"It is very important that this initiative comes from your President and today we see that this program is giving its yielding results".

Peter Burian,
EU Special Representative
for Central Asia

"As a result of continuous water drying, the Aral Sea surface shrank 14 times, the water line receded hundreds of kilometers. The Aral Sea water level dropped to 40 m. Due to the Aral Sea drying in the region, a reclamation state of more than 70% of the irrigated land worsened, and the negative impact of the Aral crisis on the arable area continues up to now".

Musa Yerniyazov,
Chairman of Zhokargy Kenges, Republic of Karakalpakstan

"We all see that life is changing for better. On the initiative of President, Shavkat Mirziyoyev, business is developing, innovative technologies are implemented and these are very appropriate steps the successful results, which we all see today".

Tomas Holide,
Conference participant from Poland

"What has been done by your President today is a heroic act, this is a history. And above all, this is a caring about people. We visited a city that once lived near the sea, and today there is a desert. Today, many jobs are created there along with excellent living conditions".

Andrey Khudyk,
Minister of Natural Resources and Environment, Belarus

"The most important thing is to create a healthy and modern financial system in Uzbekistan. Only this system will attract both foreign and domestic investments, including in the environmental sphere. Thus, improving the banking system, strengthening stock exchanges, enhancing quality of financial regulation, and strengthening financial institutions are the most important steps".

Ben Slay,
Senior Adviser UNDP Regional Bureau for Europe and CIS

COMMUNIQUE

ON RESULTS OF THE HIGH-LEVEL INTERNATIONAL CONFERENCE ON THE ANNOUNCEMENT OF THE ARAL SEA REGION A ZONE OF ENVIRONMENTAL INNOVATIONS AND TECHNOLOGIES

Nukus October 24-25, 2019

On October 25-25, 2019, in the city of Nukus, at the initiative of the Government of Uzbekistan, the high-level International Conference was held under the auspices of the United Nations on Aral Sea Region - a Zone of Environmental Innovations and Technologies.

The Conference was attended by around 250 participants from 28 countries, leaders and representatives of the international organizations, such as the UN, UN Economic Commission for Europe, UN Regional Center for Preventive Diplomacy for Central Asia, World Bank, Asian Development Bank, European Investment Bank, European Bank for Reconstruction and Development as well as foreign governments and private companies – Western Export Solutions, Elion Group, and United Phosphorus Limited.

Within the framework of the Conference, plenary sessions and 4 group discussion sessions were held. The visits were organized to the area of the dry Aral Sea bottom.

The participants discussed the draft Concept on creating a zone of environmental innovations and technologies in the Aral Sea Region, and a Special UN General Assembly Resolution on declaring the Aral Sea Region a Zone of Environmental Innovations and Technologies, as well as the Regional Program for Efficient Water Use in Central Asia.

During the Conference, a broad understanding was reached that the problem of the Aral Sea drying is a tragedy that goes beyond national and regional borders. Undoubtedly, this is one of the largest global environmental disasters with environmental, climatic, social and economic, humanitarian consequences, which poses a direct threat to the sustainable development of the Aral Sea Basin countries and the global ecosystem.

A complete restoration of the Aral Sea is no longer possible, however the negative impact of its drying can be mitigated.

The most important challenge of today is to reduce the destructive impact of the Aral Sea crisis on the environment and livelihoods of millions of people living in the Aral Sea Region, and to mitigate or prevent further deterioration due to climate impacts.

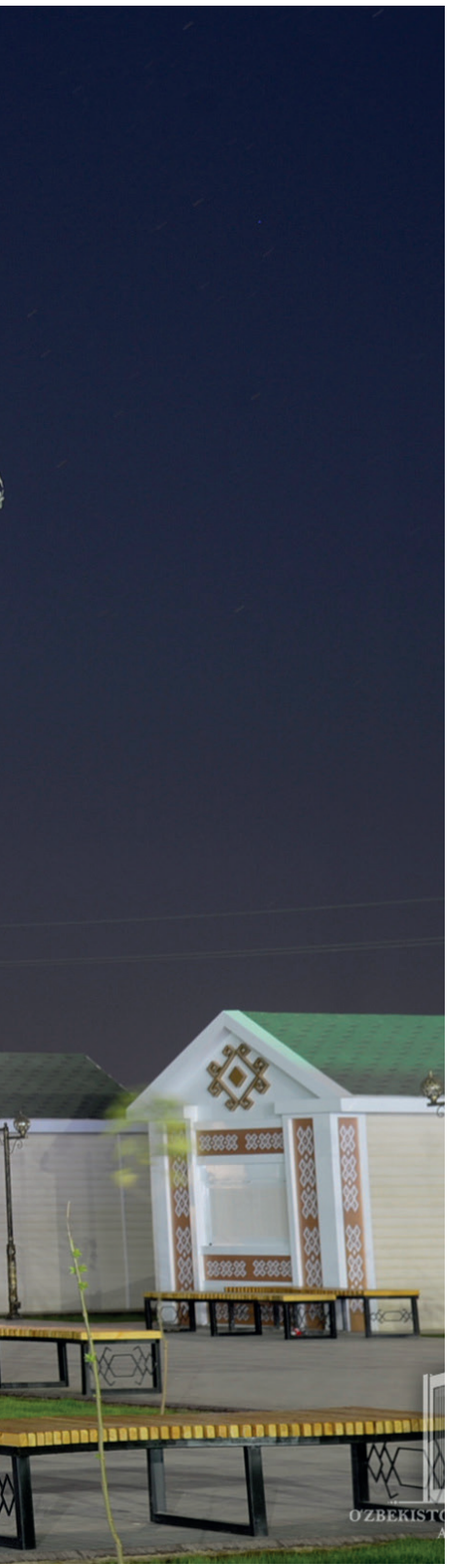
These efforts are based on the provisions of UN General Assembly Resolution N 72/283 on Strengthening Regional and International Cooperation to Ensure Peace, Stability and Sustainable Development in the Central Asian Region, as well as on the importance of mutually beneficial regional and international cooperation in the region.

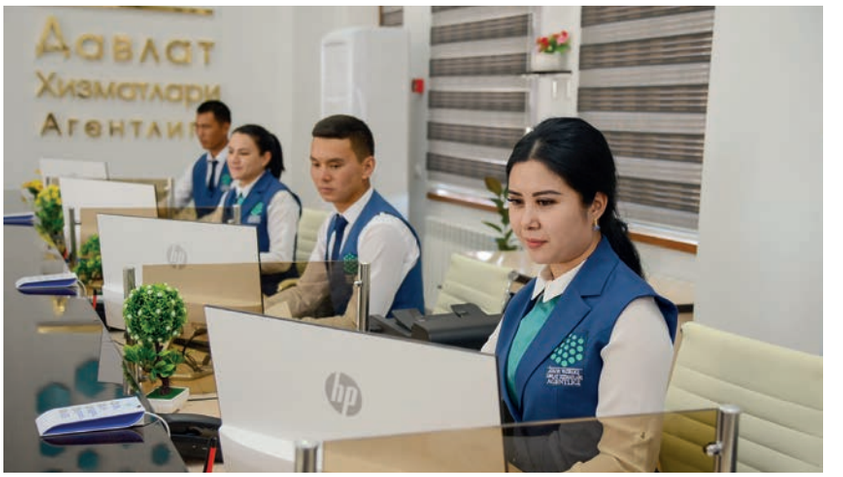
The participants of the Conference:

- Expressed their concern regarding aggravating consequences the Aral Sea drying;
- Supported establishment of the Multi-Partner Trust Fund (MPTF) aimed at overcoming the consequences of the environmental catastrophe in the Aral Sea Region and implementing projects on improving the social and economic situation in the region. They appealed to the donor countries and international organizations to make efficient contributions to the MPTF development;
- Emphasized the great importance of establishing the International Innovative Centrer under the President of Uzbekistan aimed at improving the ecosystem and sustainable living conditions, development and implementation of innovations and solutions to address multiple problems in saline areas on the dry Aral Sea bottom;
- Supported the initiative of Uzbekistan to declare the Aral Sea Region a Zone of Environmental Innovations and Technologies aimed at uniting the common efforts in order to attract foreign investments in the development and implementation of eco-friendly technologies; comprehensive implementation of the “green” economy principles, clean energy- and water-saving technologies, combatting further desertification and environmental migration; development of eco-tourism and implementation of other measures;
- Welcomed the proposal of Uzbekistan to adopt a Special UN General Assembly Resolution on declaring the Aral Sea Region a Zone of Environmental Innovations and Technologies;
- Highly appreciated efforts of Uzbekistan on promoting new activities for comprehensive addressing the issues in the Aral Sea Region through using innovative solutions and approaches.

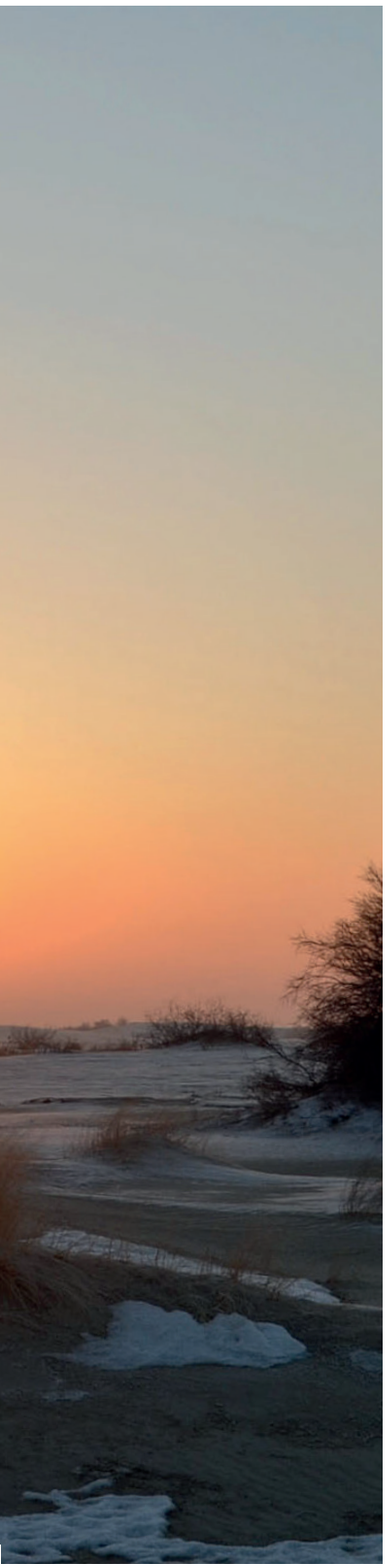

BALALAR JÚZIW BASSEYNI

MUYNAK
TODAY




Давлат
Хизматлари
Агентлиги

NATURE
OF THE ARAL SEA REGION



Following the results of the High-level International Conference, the participating countries and international community supported the initiatives of Uzbekistan on adoption a Special UN General Assembly Resolution on declaring the Aral Sea Region a Zone of Environmental Innovations and Technologies. The international community also welcomed establishment of the Multi-Partner Human Security Trust Fund for the Aral Sea Region, and stressed importance of creating the International Innovation Center for the Aral Sea Region under initiative of the President of Uzbekistan.


BERDAQ ATÍND
AKADE


ORALBO'YI – EKOLOGIK INNOVATSIYALAR
VA TEXNOLOGIYALAR ZONASI
25 oktyabr 2019, Nukus
ARAL SEA REGION – ZONE OF ENVIRONMENTAL
INNOVATIONS AND TECHNOLOGIES
25 october 2019, Nukus
ПРИАРАЛЬЕ – ЗОНА ЭКОЛОГИЧЕСКИХ
ИННОВАЦИЙ И ТЕХНОЛОГИЙ
25 октября 2019, Нукус
DAGÍ QARAQALPAQ MÁMLEKETLIK
MIYALÍQ MUZIKALÍ TEATRÍ

The participants of the Conference:

- Emphasized importance of strengthening effective international cooperation for implementation of focused projects to mitigate the negative Aral Sea disaster impacts and improve the social and economic situation in the Aral Sea Region;

- Expressed their confidence that the focused, multifaceted and systemic interaction between the states of the region, UN agencies, financial and donor organizations will enable development of the programs and projects aimed at addressing the most acute problems in the Aral Sea Region;

- Appreciated efforts of the international organizations, financial institutions, governments of donor countries for their support during the Conference and for specific investment projects and programs;

In view of the above, the participants appeal to international organizations and governments of donor countries to actively engage in the implementation of focused programs and projects in the Aral Sea Region, provide financial and technical assistance to implementation of specific investment projects.

Following the results of the International Conference, the participants formed a package of priority investment projects on the implementation of environmental innovations and technologies.

Besides, within the framework of the Conference, its participants submitted proposals for inclusion in the draft Concept on establishment of a Zone of Environmental Innovations and Technologies in the Aral Sea Region and Special UN General Assembly Resolution on declaring the Aral Sea Region a Zone of Environmental Innovations and Technologies, and for development of the Regional Program on Efficient Water Use in Central Asia.

In conclusion, the participants expressed their gratitude to the Government of Uzbekistan for warm welcome and organization of the high-level International Conference.