



Agency for Innovative
Development of the
Republic of Uzbekistan



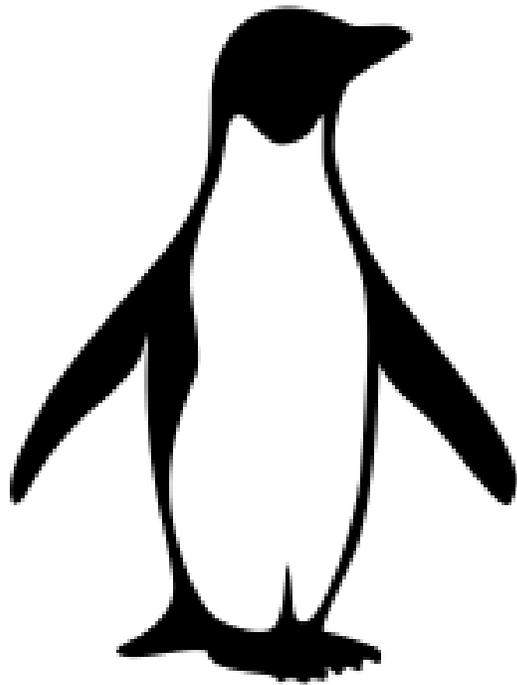
APCTT
Asian and Pacific Centre for
Transfer of Technology

AI control for Climate Change Adaptation in Uzbekistan



Technology and Innovation
Conclave 2.0, 28-30 January,
2026, Delhi, India

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The negative consequences of climate change have a global scale and are clearly manifested in the territory of Uzbekistan.

INCLUDING-TOXIC SUBSTANCES FROM THE ARALKUM DESERT FOUND IN THE BLOOD OF ANTARCTIC PENGUINS

Source: www.wikipedia.org



In recent years, the climate on Earth has changed markedly: some countries suffer from abnormal heat, others from too harsh and snowy winters, unusual for these places.

Ecologists talk about global climate change, including an increase in the average annual temperature, causing the melting of glaciers, and rising sea levels.



In addition to warming, there is also an imbalance in all natural systems, which leads to a change in precipitation patterns, temperature anomalies and an increase in the frequency of extreme events such as hurricanes, floods and droughts.



How the Aral Sea died: One of the worst environmental disasters of the modern world

About half a century ago, the Aral Sea was considered the 4th largest lake on our planet.

The total area of infection is approximately 54 thousand km².

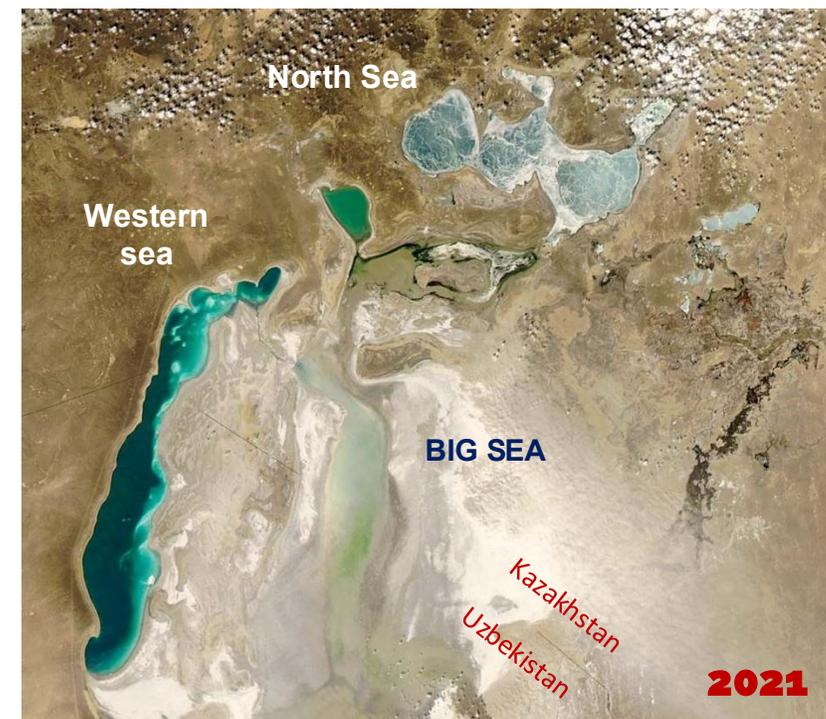
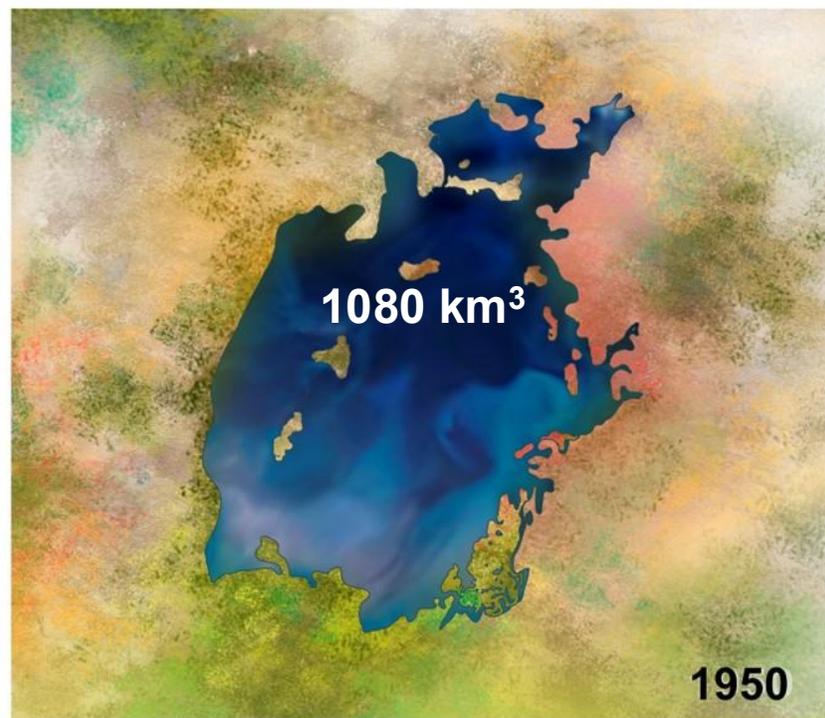


ARAL SEA NOW



1080 km³ **1950** - **2021** 69,4 km³

REMAINS OF THE ARAL SEA ARE LESS THAN 10% OF 1960 LEVELS



Water transparency - up to 25 m



Maximum depth 69 m

53,4 M

Water volume 1080 km³

Aral Sea

24,9 M

Water volume 43.6 km³

Western sea

41,7 M

Water volume 25,1 km³

North Sea

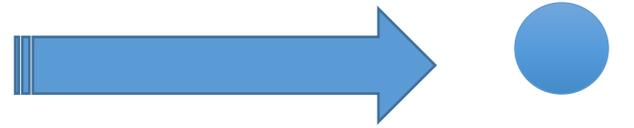
26,5 M

Water volume 0,7 km³

Big sea



Aralkum



Problems and

overcomings

during the **55** years
ARALKUM DESERT FORMED ON THE DRY
BOTTOM OF THE ARAL SEA

DROUGHT

HEALTH THREAT

LIFESTYLE DECLINE

HIGH POVERTY

DROUGHT ZONE

LACK OF INFRASTRUCTURE

As a result of the Aral Sea disaster, climate change in Central Asia is **twice** as fast as the world's indicators. It is manifested in negative aspects such as the gradual **melting of the glaciers** that form the water of the rivers, the **periodicity of dust storms** and their increase, the **degradation of the land**, and the **shortage of water resources**.



Partnership of the Agency for Innovative Development to consider the problem of the Aral Sea region

- United Nations Development Programme
- European Union
- UNISEF
- Islamic Development Bank
- International Center for Biosaline Agriculture (ICBA)
- International innovation Center for Aral Sea





Agriculture

development of technologies for monitoring soils and agriculture based on remote sensing of land.



Ecology policy

expansion of the possibilities of using artificial intelligence in the environmental control system



Transport&energy

Implementation of "IoT" technologies in the effective management and monitoring of transport and energy facilities.

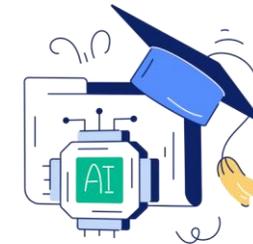


Industry

optimization of production processes using artificial intelligence algorithms, machine learning and forecasting methods

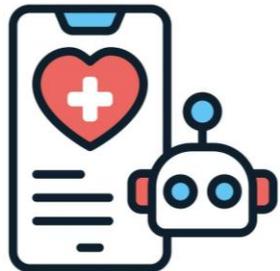


using and cooperation spheres



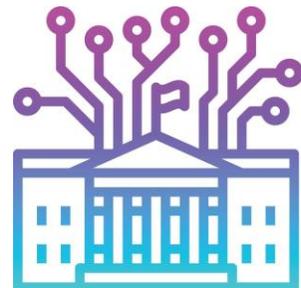
Education&culture

Expansion of opportunities for learning AI



Healthcare

implementation of projects aimed at determining methods for predicting, diagnosing, and treating diseases



Digital government

development of supercomputers and "cloud platforms" for working with artificial intelligence and "big data"



Finance

assessment and analysis of the solvency and other characteristics of clients in the process of providing banking services

