

Amu Darya River

The **Amu Darya River**, together with its tributary in Fyrod, Tajikistan, is approximately **2,620 km** long, ranked 36th amongst the world's longest rivers.

The **delta** of the Amu Darya River and its 10 smaller branches is considered to be one of the largest in the world – about **11,000 km²**.

Its **basin area** is about **535,000 km²** covering areas of China, Afghanistan, Tajikistan, Kyrgyzstan, Uzbekistan, Turkmenistan and Iran.



Agriculture

All arable land within the basin is covered by river silt making the area highly fertile.

Every square meter of the basin is annually deposited with an additional layer of 2.5 kg silt – raising the irrigated area yearly by **1 to 7mm**.

The population in the basin is increasing at a rapid pace. It is expected to reach **60 million** in 2025, an increase of almost 50% from today.



Water availability is declining. By 2050, changing regional weather patterns could lead to a **10-15%** reduction in water.



77% of its surface water is being used for agricultural irrigation.

Central Asia loses **3%** of the region's GDP per year due to low agriculture yields, resulting from poor water management.

Inefficient management of water resources costs the region approximately **\$ 1.75 billion annually**.

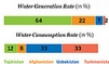
Over the past 30 years, the productivity of irrigated farmland decreased from **\$ 1,800 to \$ 700 per ha**.



The efficiency of water irrigation has declined – the income generated by 1 m² of irrigated water has decreased from **22 to 6 cents** from 1990 to 2002.

The Amu Darya River provides **57%** of the total irrigation water of Afghanistan.

Cotton is the dominant crop, representing **20 to 40%** of the exports of Tajikistan, Turkmenistan and Uzbekistan.



The Amu Darya is one of the fastest flowing rivers in the world, slower only than the Mississippi and Indus rivers.

Its natural deposits are more fertile than the Nile, with high concentrations of carbonic calcium, potash and phosphorus.

Environment



Due to the effects of predicted climate change, Amu Darya's water availability may decrease by up to **40%** over the next few decades.

During the 20th century, the Amu Darya Basin glaciers were reduced by **30%**.



Potential economic costs due to water-related diseases that relate to water resources are estimated to rise to the equivalent of **70% of Tajikistan's GDP**.

Experts predict a **5% decrease in food yields** in the region will raise the poverty rate by as much as **3%**.

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40 species of fish in the basin have become extinct over the last 50 years due to over-exploitation of the river.

The quality of drinking water in many populated parts of the Amu Darya is deteriorating, particularly downstream where a rise in kidney, thyroid and liver diseases is occurring.

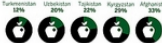


Irrigated fields in the mid and downstream reaches of Amu Darya are major sources of pollution. Each year, irrigation runoff of about **3-4 km³** is discharged directly into the river.



Irrigated agriculture also provides about **30%** of the basin countries' GDP.

Agriculture is responsible for (portion of) GDP:



20 million people in the Amu Darya Basin are economically dependent on irrigated agriculture.

AMU DARYA BASIN NETWORK

AN INITIATIVE OF

