

## THE AMU DARYA RIVER BASIN

The Amu Darya River Basin (~309,000 km<sup>2</sup>) is located in Central Asia. It is shared by Afghanistan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. The Amu Darya River originates in the Pamir Mountains and drains into the Aral Sea after a total length of 2,540 km. It has many tributaries in the mountainous part of its catchment, where the water flow is generated. Throughout the rest of the basin, precipitation is low. The Amu Darya River does not have any significant tributaries in the plain downstream area of its basin.

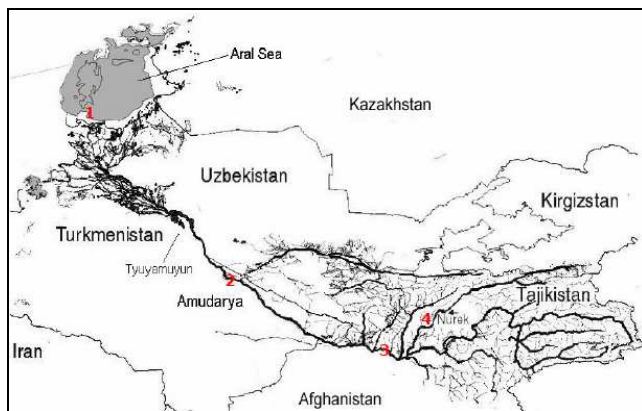
Water withdrawal from the Amu Darya plays an essential role for agriculture in the region. In total, irrigated agriculture contributes 30% to the basin countries' economies.

### SOCIO-ECONOMIC DESCRIPTION (UZBEKISTAN)

The agricultural sector dominates Uzbekistan's economy. Irrigation-based cotton production plays a major role for the country's exports. Almost two thirds of the population live in rural areas, mostly in densely populated river valleys. After Uzbekistan's independence from the Soviet Union in 1991, the government aimed to maintain its command economy with subsidies and controls on production and prices. A sharp increase in the inequality of income distribution has occurred after independence. About 28% of the population is below poverty line.

### WATER MANAGEMENT ORGANISATIONS (UZBEKISTAN)

The *Interstate Commission for Water Coordination* determines limits the annual water consumption by the basin countries. Water management regimes in the riparian states are highly centralized. Management organisations are reorganised frequently. In Uzbekistan, the *Ministry for Agriculture and Water Resources* is the main water management agency.



The Amu Darya basin (Schlüter 2006)

## NEWATER PROJECT

The Amu Darya river catchment was one of seven cases studied in the Newater project.

NeWater activities in the Amu Darya basin focused on the **Uzbek part** of the river delta and at the **transboundary level**. Irrigated agriculture plays an important role in all of the basin countries. Intensive irrigation, mainly for the production of cotton, is the reason for **overuse of the Amu Darya's water resources**. This has caused degradation of agricultural soils, the ecosystems along the river's course, the deltaic wetlands and the Aral Sea. As less water reached the Aral Sea, its size shrank dramatically in the past decades with severe economic, ecologic and social consequences. After the end of the Soviet union, all five riparian states have initiated **(water) reforms and restructured agriculture** to a varying extent, which add further to the pressure and uncertainty.

NeWater's research priorities were set together with stakeholders from Uzbekistan and Tajikistan at the beginning of the project: **Coping with extreme events** (e.g. droughts), production and management of **information, social aspects** of water management and incorporating **environmental flows** into water management. NeWater analysed the vulnerability of wetland ecosystems as well as the economic value of selected wetland ecosystem services. NeWater applied **participative methods** in its analyses. These methods stimulated open discussions and promoted a more holistic problem understanding. Stakeholders adopted some of the results directly into their practice, such as planning and implementing a wetland restoration project initiated by the Uzbek government.

Like in other NeWater case studies, participatory research supported participatory water management as well as capacity building.

(ADDITIONAL INFO ON [WWW.NEWATER.UOS.DE](http://WWW.NEWATER.UOS.DE))

## ABOUT TWIN2GO

*Twin2Go reviews, consolidates, and synthesises research on adaptive and integrated water resources management in basins around the world. The aim is to draw insights relevant to policy and research on issues around adaptive water governance in the context of climate change, and to make them transferable to other basins. Twin2Go further promotes sharing of research results with practitioners and high level decision makers through effective dialogue.*