

The Syr Darya River - A Review

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The Syr Darya is a river in Central Asia. The Syr Darya originates in the Tian Shan mountains in Kyrgyzstan and eastern Uzbekistan and flows for 2,212 kilometres (1,374 mi) west and north-west through Uzbekistan and southern Kazakhstan to the northern remnants of the Aral Sea. It is the northern and eastern of the two main rivers in the endorrheic basin of the Aral Sea, the other being the Amu Darya. In the Soviet era, extensive irrigation projects were constructed around both rivers, diverting their water into farmland and causing, during the post-Soviet era, the virtual disappearance of the Aral Sea, once the world's fourth-largest lake.

Name

The second part of the name Darya means sea in Persian. The current name dates only from the 18th century.

The earliest recorded name comes down to us as Jaxartes or Iaxartes in Ancient Greek. This name is recorded by several sources, including those relating to Alexander. The Greek preserves the Old Persian name Yakhsha Arta ("True Pearl"), perhaps a reference to the color of its glacially-fed water. More evidence for the Persian etymology comes from its Turkic name up to the time of the Arab conquest, the Yinchu, or "Pearl river".

Following the Muslim conquest, the river appears in the sources uniformly as the Seyhun, one of the four rivers flowing from the Paradise (Jannah in Arabic).

The current local name of the river, Syr (Sīr), does not appear before the 16th century. In the 17th century, Abu al-Ghazi Bahadur Khan, historian and ruler of Khiva, calls the Aral Sea the "Sea of Sir," or Sīr Tengizi.

Syr Darya River



Syr Darya at Kyzylorda, Kazakhstan

Countries:Kyrgyzstan, Uzbekistan, Tajikistan, Kazakhstan

Tributaries:

- left Kara

- right Naryn, Chirciq, Arys, Chu, Sarysu

Cities: Khujand, Tashkent, Turkestan, Kyzylorda, Baikonur

Source Confluence of Naryn and Kara Darya

- location Fergana Valley, Uzbekistan
- elevation 400 m (1,312 ft)
- coordinates 40°54'03"N, 71°45'27"E

Mouth North Aral Sea

- location Kazaly, Kazakhstan
- elevation 42 m (138 ft)
- coordinates 46°09'15"N, 60°52'25"E

Length 2,212 km (1,374 mi)

Basin 402,760 km² (155,507 sq mi)

Discharge

- average 1,180 m³/s (41,671 cu ft/s)
- max 3,900 m³/s (137,727 cu ft/s)
- min 170 m³/s (6,003 cu ft/s)



Map of the watershed of Syr Darya. Aral Sea boundaries are c. 1960.



Astronaut photograph of the Syr Darya River floodplain



Syr Darya River at Khujand

Geography

The river rises in two headstreams in the Tian Shan mountains in Kyrgyzstan and eastern Uzbekistan—the Naryn River and the Kara Darya which come together in the Uzbek part of the Fergana Valley—and flows for some 2,212 kilometres (1,374 mi) west and north-west through Uzbekistan and southern Kazakhstan to the remains of the Aral Sea. The Syr Darya drains an area of over 800,000 square kilometres (310,000 sq mi), but no more than 200,000 square kilometres (77,000 sq mi) actually contribute significant flow to the river: indeed, two of the largest rivers in its basin, the Talas and the Chu, dry up before reaching it. Its annual flow is a very modest 37 cubic kilometres (30,000,000 acre-ft) per year—half that of its sister river, the Amu Darya.

Along its course, the Syr Darya irrigates the most productive cotton-growing region in the whole of Central Asia, together with the towns of Kokand, Khujand, Kyzylorda and Turkestan.

Various local governments throughout history have built and maintained an extensive system of canals. These canals are of central importance in this arid region. Many fell into disuse in the 17th

and early 18th century but the Khanate of Kokand rebuilt many in the 19th century, primarily along the Upper and Middle Syr Darya.

Ecological damage

Massive expansion of irrigation canals in Middle and Lower Syr Darya during the Soviet period to water cotton and rice fields caused ecological damage to the area. The amount of water taken from the river was such that in some periods of the year, no water at all reaches the Aral Sea, similar to the Amu Darya situation in Uzbekistan and Turkmenistan.

History

During the era of Alexander, the Syr Darya marked the northernmost limit of Hellenic conquests and also the site of a famous battle, the Battle of Jaxartes. It was on the shores of the Syr Darya that Alexander placed a garrison in the City of Cyrus (Cyropolis in Greek) which he then renamed after himself, Alexandria Eschate – "the farthest Alexandria"—in 329 BC. For most of its history since at least the Muslim Conquest of Central Asia, the name of this city has been Khujand (in Tajikistan).

In the middle 19th century, the Russian Empire introduced steam navigation to the Syr Darya, with an important river port at Kazalinsk (Kazaly) from 1847 to 1882, when service ceased.

During the Soviet Era, a resource-sharing system was instated in which Kyrgyzstan and Tajikistan shared water originating from the Amu Darya and Syr Darya rivers with Kazakhstan, Turkmenistan, and Uzbekistan in summer. In return, Kyrgyzstan and Tajikistan received Kazakh, Turkmen and Uzbek coal, gas and electricity in winter. After the fall of the Soviet Union, this system disintegrated and the Central Asian nations have failed to reinstate it. Inadequate infrastructure, poor water management and outdated irrigation methods all exacerbate the issue.

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