



**MANAGEMENT OF TRANSBOUNDARY RIVERS IN
INTERNATIONAL LAW: THE CASE OF THE AMU DARYA AND SYR
DARYA**

Xudoyberdiyev Otabek Zafar o'g'li
International Islamic Academy of Uzbekistan

Annotation: This article examines the legal and institutional frameworks for managing transboundary rivers under international law, with a specific focus on the Amu Darya and Syr Darya rivers in Central Asia. These rivers, shared by multiple countries, are essential sources of freshwater for agriculture, energy production, and domestic use. The paper analyzes key international legal principles such as equitable and reasonable utilization, the obligation not to cause significant harm, and the duty to cooperate. It also explores regional agreements, including those from the post-Soviet period, and evaluates their effectiveness in resolving water allocation disputes. Special attention is given to the challenges of upstream-downstream dynamics and the potential of international legal mechanisms to foster sustainable and cooperative water governance in the region.

Keywords: International law, transboundary rivers, Amu Darya, Syr Darya, water governance, equitable utilization, no harm principle, regional cooperation, Central Asia, hydro-politics, upstream-downstream relations.

Transboundary water management is one of the most complex and sensitive issues in international law, especially in regions where rivers cross multiple national borders and where water resources are scarce. Central Asia presents a clear example of this challenge, with the Amu Darya and Syr Darya rivers flowing through several independent states — including Kyrgyzstan, Tajikistan, Uzbekistan, Turkmenistan, and Kazakhstan. These rivers are vital to the region's ecology, economy, and stability, serving as lifelines for irrigation, hydropower, and drinking water.

Since the dissolution of the Soviet Union, managing these shared water resources has become a major political and legal issue among the newly independent states. Competing national interests, lack of binding multilateral agreements, and the uneven distribution of water sources between upstream and downstream countries have often led to tensions. International law provides a framework to address such disputes, primarily through principles established in key documents such as the 1997 UN Watercourses Convention and the 1992 Helsinki Convention.





This paper aims to assess how these international legal norms apply to the Amu Darya and Syr Darya basins, and whether existing regional mechanisms align with global standards. It will also explore opportunities to improve cooperation and governance, ensuring the sustainable use of transboundary rivers in Central Asia.

The management of transboundary rivers is governed by a set of principles in international law that aim to promote equitable and sustainable use among riparian states. These principles are essential in regions like Central Asia, where rivers such as the Amu Darya and Syr Darya serve as critical water sources for multiple countries, each with distinct geographic positions and competing interests.

The **Amu Darya** and **Syr Darya** rivers originate in the mountainous upstream countries of Kyrgyzstan and Tajikistan, and flow downstream into Uzbekistan, Turkmenistan, and Kazakhstan. During the Soviet era, water and energy resources in the region were managed under a centralized system that ensured seasonal cooperation—water for irrigation in the summer and energy supplies for the upstream countries in the winter. After the dissolution of the USSR, the absence of a binding legal framework led to disputes, particularly over water allocation and usage rights.

Under international law, the **principle of equitable and reasonable utilization** obliges riparian states to use shared water resources in a fair manner, taking into account factors such as population, geography, climate, and existing use. In theory, this principle should balance the needs of both upstream and downstream states. However, in practice, implementation has been challenging in Central Asia. Upstream countries prioritize hydropower generation, while downstream states, reliant on irrigated agriculture, demand large volumes of water during growing seasons. This seasonal mismatch has resulted in recurring conflicts and a lack of consensus.

Another relevant principle is the “**no significant harm**” rule, which requires states not to cause substantial damage to other countries through their use of shared watercourses. Despite this, projects such as large dams and reservoirs in upstream areas have at times led to reduced water availability downstream, prompting diplomatic tensions. For example, Tajikistan's Rogun Dam and Kyrgyzstan's Kambarata project have been viewed with concern by downstream neighbors.

Regional cooperation mechanisms, such as the **Interstate Commission for Water Coordination (ICWC)** established in the early 1990s, were designed to maintain dialogue and technical coordination. While these institutions have had some success in managing water flow data and seasonal agreements, their authority is limited and lacks legal enforcement. The failure to adopt a binding regional water treaty further weakens cooperation.





At the global level, conventions such as the **1997 UN Convention on the Law of the Non-Navigational Uses of International Watercourses** and the **1992 UNECE Water Convention (Helsinki Convention)** provide frameworks for cooperation. These emphasize data sharing, notification of planned measures, dispute resolution, and integrated basin management. However, not all Central Asian countries are parties to these agreements, limiting their applicability in the region.

Geopolitical influences also play a role. External actors such as Russia, China, and international financial institutions have invested in infrastructure projects that sometimes exacerbate regional tensions or bypass cooperative frameworks. This external dimension underscores the need for stronger regional ownership of water governance issues.

In recent years, there have been signs of improved cooperation, particularly following Uzbekistan's policy shift toward regional engagement under President Shavkat Mirziyoyev. Bilateral and multilateral talks have increased, and environmental concerns, such as the Aral Sea crisis, have reinforced the urgency of joint water management.

Ultimately, the sustainable governance of the Amu Darya and Syr Darya requires not only adherence to international legal principles but also political will, trust-building, and institutional development. Strengthening regional legal instruments, increasing transparency in water management, and enhancing public participation are key steps toward preventing conflict and ensuring the long-term availability of water resources for all riparian states.

The management of transboundary rivers such as the Amu Darya and Syr Darya represents one of the most critical legal and political challenges in Central Asia. While international law offers clear principles—such as equitable and reasonable utilization, the obligation not to cause significant harm, and the duty to cooperate—actual implementation remains uneven due to regional rivalries, mismatched economic interests, and a lack of binding legal instruments.

Although cooperative frameworks like the Interstate Commission for Water Coordination (ICWC) and various bilateral agreements have helped facilitate dialogue, they remain limited in authority and effectiveness. The absence of a comprehensive, enforceable multilateral treaty on shared water use continues to be a major gap in regional water governance.

Moving forward, the adoption and implementation of international conventions, particularly the 1997 UN Watercourses Convention and the 1992 Helsinki Convention, could strengthen legal clarity and cooperation. Furthermore, regional states must





enhance transparency, build trust, and invest in integrated water resource management systems. Addressing the water-energy nexus, environmental degradation, and climate-related challenges in a collaborative manner will be essential to ensuring long-term water security and stability in the region.

Only through sustained commitment to legal norms and cooperative institutions can the states of Central Asia transform their shared rivers from sources of conflict into pillars of regional integration and development.

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