



Policy Brief

Financing mechanisms for water management in Central Asia

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Introduction

Efficient water management in Central Asia is vital to economic growth and sustainable development. An effective water management system will have a positive impact on the agriculture sector, hydropower sector, industry sector and the public health and sanitation sectors. The country currently faces issues related to ineffective irrigation practices as well as outdated infrastructure for water resources. Additional financing mechanisms must be considered since national budgets cannot provide all the necessary funds for investing in the water sector.

This policy brief integrates a review of academic literature, the analysis of current policy frameworks and the empirical evaluation of the current situation in Central Asia related to existing and new financing mechanisms for water-related projects.

Literature review

The infrastructure investment needs of the government-dominated water sector have not been a priority after the end of the Soviet era. The water sector has had a relatively low profile compared to other sectors—such as energy, transport, and telecommunications and it has had limited investment flows.¹ Water availability determines economic performance, social coherence, and even political stability in the region as it is a transboundary resource that is in high demand for food, energy production, environmental safety, and livelihood security. The growing population and climate change impacts will further increase the demand for water in all spheres of the economy, thus, making efficient management and infrastructure upgrade a priority which will redefine the future of water resources management in the region. This change can be implemented by qualified institutions that need a comprehensive understanding of the real economic value of water and the ability to assimilate its value into the broader economic activities of the countries.²

In Central Asia, even if the water infrastructure is funded by the national state budgets, the allocated budgets – in average - are only covering about 40-80% of the costs for the operation, maintenance and capital investments.³ This lack of funding calls for additional financial mechanisms for improving the water systems in the region.

Policy context

While in possession of vast water resources, the water sector in Central Asia is affected by limited investments and outdated infrastructure. Population growth with respectively increasing water demands is adding additional pressure on the current infrastructure. Additional funding sources are necessary to update the current infrastructure and to build a new climate change-resilient infrastructure with the ability to provide for the increasing water demands.

¹ Abdullaev, I., & Atabaeva, S. S. (2012). Water sector in Central Asia: Slow transformation and potential for cooperation. *International Journal of Sustainable Society*, 2(23), 103-112

² Abdullaev, A., & Akhmedov, S. (2023). *Water Infrastructure in Central Asia: Promoting Sustainable Financing and Private Capital Participation* (Project report)

³ Ziganshina, D. (2022). *Water, Energy, Food and Environmental Security in Central Asia: Smart Investment Needs*

https://www.unescap.org/sites/default/d8files/event-documents/Session%20II_Dinara%20Ziganshina.pdf

Analysis of findings

As revealed by the literature review, current funding from the national budgets is not sufficient to sustain the current water infrastructure or to modernize it. The World Bank estimated that a minimum of \$20–\$25 billion is required to upgrade water infrastructure in Central Asia.⁴ Considering the high amount of necessary funding, a multi-faceted approach needs to be implemented. For example, although the household water supply fee collection has improved due to better metering and infrastructure enhancements in all the Central Asia countries, the progress needs to continue until the point where the operation and management costs of the water infrastructure are covered by the fees. The fee collection improvements should also cover the irrigation water supply.

The limited engagement of the private sector is also one of the reasons why investments in the water sector are limited. This is due to high regulation and unclear ownership of water infrastructure. The Central Asia countries are taking important steps to facilitate the future investments of the private sector in water projects (see *“Development of Public-Private Partnerships (PPPs) for financing water infrastructure in Central Asia”* policy paper).

The most important tool Central Asia countries have for improving water management in the region is international funding (loans / grants / official development assistance). Between 1991-2018, the region has received 24.9 billion USD of developing assistance. From this sum, around 1.2 billion USD were distributed to water supply and sanitation projects (not including the investments in the irrigation sector).⁵ To transform the water management sector into a competitive and sustainable one, Central Asia countries need to prioritize the investments in this area. Additionally, to be more attractive to donors, the new implemented projects have to be climate resilient and, where possible, to have a holistic approach that will consider the entire region.

Recommendations

Although Central Asia is confronted by major challenges when it comes to water financing and infrastructure, there is potential for improvement. Opportunities shall be assessed and exploited to build a more sustainable and resilient future as it pertains to water resource management.

Increasing cost recovery

A gradual and continuous increase in water tariffs, particularly for irrigation, is essential to cover operation, maintenance, and infrastructure costs. This must be balanced with affordability measures to protect vulnerable populations. Improved metering and billing systems are crucial for accurate cost assessment and fee collection.

Promote public-private partnerships

Central Asia needs to refine regulatory frameworks to increase clarity on infrastructure ownership, to balance the risks for private investors and for governments when developing a project. This will attract private capital and expertise towards infrastructure upgrades and expansion.

⁴ Discussion during Asia Water Forum, 2022

<https://www.carecinstitute.org/news/carec-institute-participates-in-discussions-at-the-asia-water-forum-2022/>

⁵ Central Asian Bureau for Analytical Reporting, Donor Activity in Central Asian Countries since 1991

<https://cabar.asia/en/donor-activity-in-central-asian-countries-since-1991>

Develop strategies to access international funding

Central Asia should prioritize water sector investments in order to enhance access to international donor funds as well as development banks. To be attracted for the international donors, the new projects should focus on climate resilience as well as regional collaboration.

Way Forward / consulting mechanisms

National tariff revision

- Compare current tariffs with the actual costs of supplying water;
- Develop a plan for a gradual tariff increase;
- Launch public awareness campaigns explaining the rationale for adjustments and their link to improved water services.

PPP encouragement

- Secure international expertise for revising PPP legislation, ensuring it balances risk, investor benefits, and public interests;
- Establishing a regional PPP center to promote PPP opportunities and knowledge sharing between the Central Asia countries.

Engaging in partnership with organizations such as Asian Development Bank or the World Bank has the advantage of both accessing their technical expertise as well as possible funding channels for the water infrastructure. It is vital that civil society groups are involved in the discussions regarding the water fees – they need to understand the long-term benefits of a water system that is self-sustained.

Additionally, utilizing platforms like CAREC (Central Asia Regional Economic Cooperation) can help harmonize policies related to financing cross-border infrastructure projects.