



Policy Brief

**Water financing in Central Asia:
challenges and opportunities**

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June 2024

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The policy brief is written by Georg Petersen, ADB International Consultant, based on the research reports "[Water sector financial governance gap analysis in Central Asia](#)" and "[Water Sector Financing Improvement Action Plan for Efficient Water Sector Financing](#)." The research is funded through the technical and financial assistance from the ADB under "TA-6694 REG: Water sector financial governance gap analysis in Central Asia: from planning to practice."

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Introduction

Central Asia faces significant challenges in securing sustainable water finance. The fragmented governance structure within the water sector, along with inadequate investment in infrastructure, leads to serious water-related issues. Minimal cost recovery due to low tariffs and a lack of private sector involvement further complicate matters. Additionally, weak regulatory monitoring makes efficiency and pollution control a constant battle. Despite these challenges, opportunities exist to improve the water finance landscape in Central Asia.

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 water financing challenges and opportunities.

Literature Review

The water financing aspects from Central Asia are broadly described in regional and international literature. As per CAREC Institute's research, one of the challenges related to water finance in Central Asia is the fragmented nature of water rights and their impact on investments and water management.¹ Another challenge is related to sourcing capital, where the most efficient way to increase financing for the water sector is to aim for a combination of private and public resources. Mobilizing public and private resources faces a range of complex difficulties, including a complicated regulatory environment and inefficient policies, as well as a low financial return. These challenges are often rooted in, or made more difficult by, the low priority for the sector and the limited awareness or understanding of water's real economic, social, and environmental value. The widespread undervaluing by both public and private actors of water resources and their potential benefits as associated with investment leads to limited consideration of financing opportunities for the sector.² For context, investment projects with the participation of private capital in Central Asia between 1990 and 2021 was only at 9.1 billion USD across 75 projects according to World Bank statistics (Figure 1). Out of these 75 projects, only four projects were implemented in the water and sewerage sector, with a comparably low amount of 160 million USD.³

On the revenue side, the service fees charged by state water organizations for water supply are not fully collected since the water users are often reluctant to pay for unreliable water supply. However, lately, household water supply fee collection has been improved due to better metering and infrastructure improvements. For the irrigation water supply, the collected service fees rates are still significantly below the point where they can cover a substantial portion of the operation and maintenance (O&M) costs. Central Asian countries are in the process to increase service collection rates, by introducing water metering (Uzbekistan), giving more responsibilities to user organizations (Kyrgyz Republic) and management organizations (Tajikistan), or giving them the right to keep part of the fees (Kazakhstan). Nevertheless, none of these adjustments alone can solve the water financing problems in the water sector.⁴

¹ CAREC Institute (2022). Water Infrastructure in Central Asia: Promoting Sustainable Financing and Private Capital Participation (<https://www.carecinstitute.org/publications/project-report-on-water-infrastructure-in-central-asia-promoting-sustainable-financing-and-private-capital-participation/>)

² OECD, 2022. Financing a Water Secure Future, OECD Studies on Water, OECD Publishing, Paris, <https://doi.org/10.1787/a2ecb261-en>

³ The World Bank Private Participation in Infrastructure Database <https://ppi.worldbank.org/en/ppi>

⁴ Petersen, G., Madumarov, E., Uteyeva, A., Gaforzoda, B., Begyanova, G., & Karimov, A. (2024). Water financing gaps report - Final report (Project report, TA-6694 REG: Water sector financial governance gap analysis in Central Asia: from planning to practice).

Figure 1: Projects with private capital in Central Asia, by sector, 1990-2021⁵

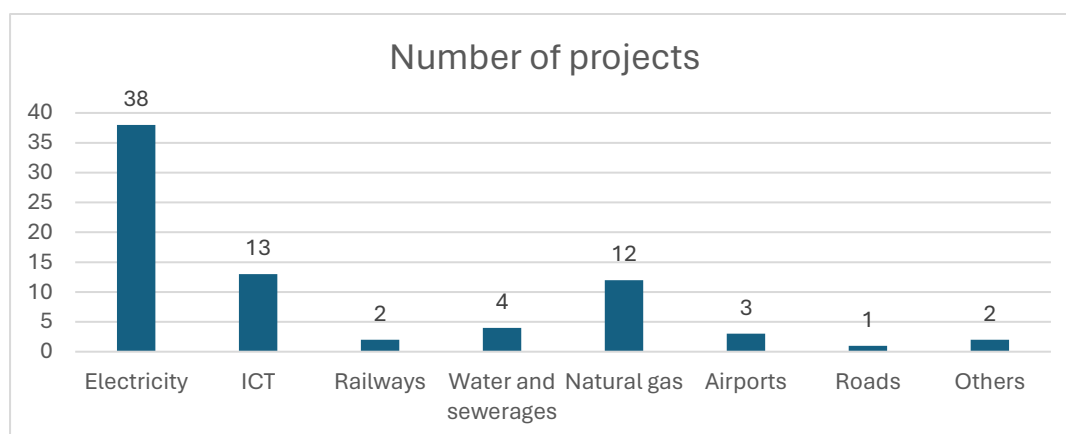
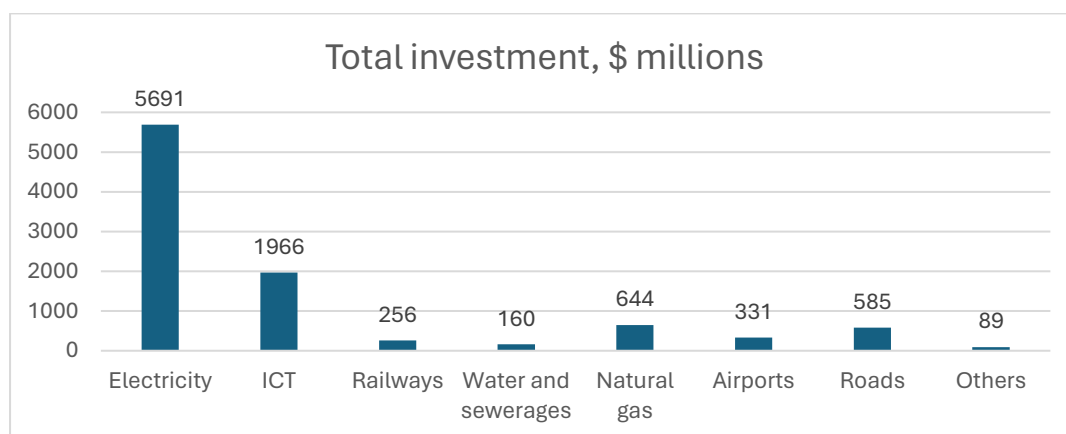


Figure 2: Total investment with private capital participation in Central Asia, by sector, 1990-2021⁴



While institutional capacity and cost recovery are comparatively weak, the region has the potential to benefit from its strong comparative advantage, given its energy and water resources available for agriculture, power generation, industry and mining operations.⁶

Policy Context

Water financing in Central Asia is heavily reliant on funding from the national budgets, which is often not sufficient to cover the investment's needs. This, along with challenges like fragmented water management structures and low pricing of water services, limits the effectiveness and sustainability of water infrastructure. Increased opportunities for private investment, coupled with improved regulatory frameworks, are essential to improve financing.

⁵ <https://ppi.worldbank.org/en/ppi>

⁶ The World Bank (2016) Central Asia Energy-Water Development Program - CAEWDP Annual Report 2016 (<https://documents1.worldbank.org/curated/en/979261502174391564/pdf/117997-Central-asia-energy-water-development-program-WP-PUBLIC.pdf>)

Analysis of findings

Water rights

Central Asian countries are facing challenges in managing water resources on country level, and the resulting impact on water security poses risks to agriculture and economic growth in the region. Respectively, adjustments to the policy- and legal frameworks are necessary to drive improvements in water resources management.

Transboundary water management

Transboundary water management agreements are essential for cooperation and coordination in addressing water supply limitations and ensuring sustainable water use. Considering that in Central Asia a large proportion of the water basins are transboundary, this aspect allows the opportunity for cooperation but also poses a risk for future conflict. The water resources sharing negotiations would need to include aspects of resource- as well as benefit sharing to allow for win-win situations. Due to their complexity, these types of negotiations can span across years.

Private investments

In Central Asia, private investments in the water sector are not common due to an unfavorable regulative environment and an often-unclear ownership of water infrastructure. The region primarily relies on state-owned water agencies for operation and maintenance of the water infrastructure. This situation limits the possibility of privatization, concessions, or other forms of private engagement in the water sector. Clearer ownership structures, more transparent governance systems, and regulatory frameworks would encourage private sector participation, providing opportunities for private capital to contribute to the sustainable development of water infrastructure in the region.

Cost recovery

Cost recovery aspects are crucial for sustainable water infrastructure financing. Central Asia faces challenges in fee collection due to governance gaps and ownership issues. Since private engagement is limited, this limits the financing options. Efforts to improve fee collection have started in each Central Asia country but are not yet sufficient to ensure sustainable financing for water infrastructure projects. Cost recovery aspects from water projects involve ensuring that the funds invested in infrastructure development are recuperated through realistic water tariffs. Additionally, the service fees charged by state water organizations frequently stay uncollected because of the customers' reluctantness to pay.

Private investments in water projects

Private engagement in the water sector in Central Asian countries is uncommon, with both ownership and investment by private entities rarely observed. Regulatory obstacles and unclear ownership of water infrastructure hinder private capital participation in water projects in Central Asia. The region lacks clarity in ownership of water infrastructure, making it challenging to find financing sources and attract private investments.

Recommendations

Fragmented governance, insufficient investment and an unclear regulatory environment are impediments that are negatively affecting the capacity to raise funds for the water sector in Central Asia. However, since these issues are identified, this can be used in the region's advantage to start building a regional plan on how to improve attractiveness and respectively gain additional investments for the water sector.

- As a basis for improving collaboration in the future, continuing the regional collaboration of the Central Asian countries through the working groups under CAREC Water Pillar is important. This will allow for maintaining important communication channels and close coordination of efforts. In formulating strategies for regional water cooperation in Central Asia, it's crucial to acknowledge the roles of external actors, such as the Russian Federation, Afghanistan and China.
- Taking the lessons learned from the transboundary collaborations, establishment of a regional water investment partnership will be beneficial. This partnership should have a clear roadmap and goals that will benefit all Central Asian countries. Having all the countries involved will provide the following benefits:
 - The negotiation power will be increased when taking loans from international donors, having the possibility to take loans with lower interest rates.
 - The new investment projects will have a holistic approach, taking into consideration any possible negative effects to the neighboring countries, and be more cost effective when covering multiple benefits.
- Development of a workable strategy and regional guideline for sustainable operation/maintenance and eventually cost recovery of water investments. The guideline needs to be applied "phase-by-phase", taking into consideration the affordability of the water and the generated revenue. Levels of subsidies should be limited, clearly defined, and adhered to, allowing long-term planning.
- Launch regional capacity building programs that promote climate-smart water practices / implementation of water conservation measures that will reduce the costs for the end user.

Way Forward / consulting mechanisms

Central Asia's path to improved water financing requires both internal and regional action. Before pursuing regional water finance initiatives, each Central Asian country must address key obstacles within its national context. Consulting with stakeholders like water agencies, agriculture groups, potential private sector partners, and civil society is vital to setting water financing goals and developing realistic roadmaps. Once these national frameworks exist, a high-level regional summit for regional coordination can be organized to establish clear commitments for each country and attract the interest of international financiers.

Step-by-step actions

1. Each Central Asian country must conduct comprehensive national consultations that will include the water agencies, agricultural representatives, potential private sector partners and civil society organizations. These discussions should focus on:
 - Identifying specific water financing goals (e.g., infrastructure upgrades, cost recovery improvements).
 - Developing a roadmap outlining strategies to achieve goals, including timelines and responsible agencies.

2. Organization of a high-level regional summit where:
 - Each country will present their water financing goals and roadmaps.
 - The countries will establish a formal regional coordination mechanism for water finance initiatives.

3. Initiate small-scale, collaborative water projects to:
 - Test and refine regional cooperation protocols.
 - Build track record and trust between Central Asian nations.
Demonstrate successful outcomes to private investors and international donors, solidifying interest and support.