KAZAKHSTAN

June 2025

FINANCING OPTIONS FOR SECTORAL ADAPTATION PROGRAMMES

CONTEXT

Kazakhstan is increasingly exposed to the impacts of climate change, including extreme temperatures, flooding, droughts, and glacier melting. These effects threaten key sectors such as infrastructure, agriculture, and public health. Against this backdrop, the "Identifying Financing Options for Selected Adaptation programmes" project - commissioned by GIZ under the Policy Advice for Climate Resilient Economic Development (CRED) programme - has assessed climate finance flows and developed strategic project ideas in two priority areas that were identified in previous economic modelling and policy scenario work on suitable adaptation programmes: enhanced energy efficiency in the building sector, and multi-purpose water infrastructure (MPWI) for flood protection and irrigation (see Table 1).

The Climate Finance Flow Assessment provides a detailed overview of adaptation-relevant finance trends, investment needs, and opportunities for Kazakhstan. Based on this foundation, two Project Idea Notes (PINs) for the priority sectors have been developed to address structural barriers and promote climate resilience through targeted interventions in the building and water sectors.

The purpose of this country report is to summarise the key findings and lessons learned from the implementation of the project work for identifying financing options for the selected adaptation programmes in Kazakhstan.

CONTENTS

Drawing on insights from the assessment of climate finance flows, consultations with national stakeholders and the development of the PINs aimed at designing bankable adaptation projects, the report presents consolidated analyses and conclusions that can inform future planning and investment strategies.

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Table 1: Brief description of relevance and scope of selected adaptation policy scenarios.

ADAPTATION PROGRAMMES	BRIEF DESCRIPTION OF RELEVANCE AND SCOPE
IMPROVED ENERGY-EFFICIENCY IN THE BUILDING SECTOR	The qualitative adaptation policy scenario is designed around improving the energy efficiency class of different types of buildings to ensure compliance with the Law on Energy Savings and Energy Efficiency Improvement. This will lead to better adaptation to climate change hazards such as extreme temperature changes. The focus is put on public buildings and the residential sector. Of the 9,965 public buildings in Kazakhstan, 90.1% have an energy efficiency class below "C". Furthermore, the majority of public buildings, 76.2%, have the lowest energy efficiency class (G).
DEVELOPMENT OF MULTI-PURPOSE WATER INFRASTRUCTURE IN KAZAKHSTAN (MPWI): CONSTRUCTION OF WATER RESERVOIRS FOR FLOOD PROTECTION AND IRRIGATION IN AGRICULTURE	The primary goal of the development of water management infrastructure is the enhanced flood protection. Through multi-purpose infrastructure, water from upstream countries is collected through counter-regulation (CR) reservoir to prevent flooding, which can also be used for irrigation in downstream areas. This type of multi-purpose water infrastructure (MPWI) can both support adaptation to the impacts of climate change and have positive indirect impacts on other sectors of the economy, such as agriculture and water supply. The qualitative adaptation policy scenario proposes to develop the pipeline of MPWI projects that will have flood control functions, identify their capital and operating costs, and analyse their potential direct and indirect macroeconomic impacts on the economy of Kazakhstan.

Sources: GIZ CRED scenario documentation

1. ADAPTATION PRIORITIES AND FINANCING NEEDS IN KAZAKHSTAN

1.1. Adaptation priorities identified by CRED in Kazakhstan

1.1.1. Improving energy efficiency in buildings

Enhancing energy efficiency in Kazakhstan's building stock is a central adaptation priority, driven by the country's severe climate extremes and inefficient infrastructure. With heating needs lasting up to 231 days annually and rapidly growing cooling demand (especially in Almaty and southern regions), buildings face considerable stress under both current and future climate scenarios. Kazakhstan is experiencing a growing frequency and intensity of heatwaves, with temperatures in some areas exceeding +49°C. These extreme heat events pose serious risks to public health, particularly for vulnerable groups such as the elderly, children, and low-income populations. Heat stress can lead to higher mortality rates, cardiovascular and respiratory diseases, and reduced labour productivity. Urban populations are especially at risk due to the urban heat island (UHI) effect, where built environments retain heat, exacerbating temperature increases.[1]

Energy inefficiency is widespread: over 90% of public buildings fall below energy class "C", and 76% are rated G, the lowest class. In the residential sector, 80% of buildings lack insulation in roofs, floors, and foundations, while 28% of households still rely on coal, contributing to indoor air pollution and respiratory issues. The CRED programme developed a qualitative adaptation policy scenario focusing on thermal modernisation of both public and private residential buildings. This scenario aligns with Kazakhstan's Law on Energy Efficiency (2012) and leverages the State Energy Register for public buildings. The proposed strategy targets renovation of nearly 10,000 public buildings and over 50,000 older multi-apartment buildings constructed before 2005 across the country.

Macroeconomic modelling using the e3.kz model and associated cost-benefit assessments (CBA) highlight strong economic and climate resilience benefits from energy retrofitting. Three modernization packages were analysed: a super-simple, a simple, and a full package. The full package includes insulation, smart heating systems, and appliance upgrades. It yields up

[1] Ministry Of Ecology And Natural Resources Of The Republic Of Kazakhstan, 2023: Updated Nationally Determined Contribution of the Republic of Kazakhstan to the global response to climate change

to 60% heating energy savings, increases building value, and improves thermal comfort. Monetised co-benefits include:

- GHG reductions: up to 202 tCO_2eq/building
- Health cost savings: estimated at KZT 500 billion
- Avoided repair costs: over KZT 870 billion
- Property value increases: up to KZT 348 billion
- Green jobs: 64 jobs per building in Year 1; long-term maintenance adds further employment

The scenario assumes government support of 50% of CAPEX via grants, with the remaining covered by concessional loans. Under the SSP1-2.6 climate scenario, GDP is projected to grow up to +0.2 percentage points per year until 2050 due to increased investments, household savings, and export potential of released fossil fuels (e.g. natural gas and coal). Employment rises by 8,700 jobs, primarily in construction and energy services. Even under more extreme scenarios (SSP5-8.5), the adaptation benefits - particularly in heating savings and health improvements - remain robust.

Overall, improving energy efficiency in buildings is a highly viable adaptation priority for Kazakhstan. It delivers tangible co-benefits across climate resilience, economic growth, and public health, especially if a dual financing mechanism - grant plus concessional loan - is mobilised effectively.

1.1.2. Developing Multi-Purpose Water Infrastructure for Flood Protection and Irrigation

Flooding is Kazakhstan's most destructive natural hazard, and its frequency and intensity are rising due to glacier melt and extreme precipitation. The number of people affected by floods jumped from 33,000 in 2020 to 117,000 in 2024, and average annual losses (AAL) from flooding are estimated at USD 419 million. The regions of Western Kazakhstan, Akmola, Kyzylorda, and Turkestan are especially vulnerable, facing both infrastructure damage and socio-economic disruption.

The adaptation priority identified through the CRED project is the development of 15–30 counter-regulatory (CR) reservoirs, designed to buffer floodwaters, enhance irrigation reliability, and support year-round water availability. These reservoirs would emulate successful models like the Kaksaray reservoir, which captures excess runoff and supports downstream agriculture.

Although not included in the scenario analysis conducted by CRED using the e3.kz macroeconomic model, nature-based solutions (NbS) for flood prevention, such as wetland restoration and green retention areas, are considered within the MPWI financing scenario to complement grey infrastructure.

Figure 1: Climate change scenario (SSP1-2.6) without energy efficiency in buildings measure.

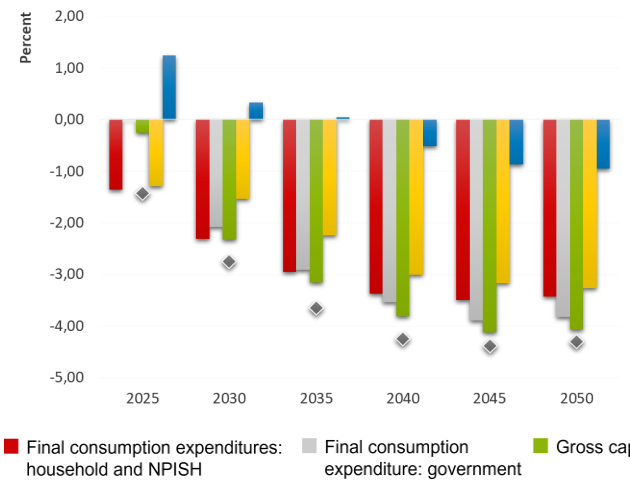
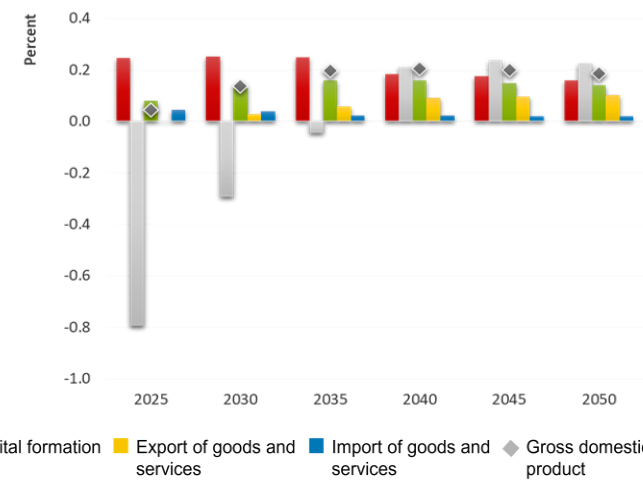
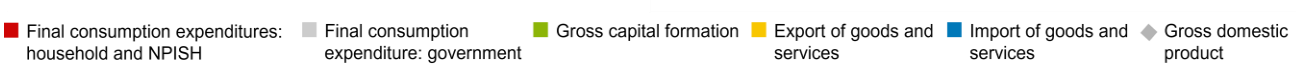


Figure 2: Climate change scenario (SSP1-2.6) with energy efficiency in buildings measure.





Source: GIZ-CRED / GWS based on e3.kz, April 2025

The adaptation policy scenario assessed the economic impact of CR reservoir investments using the e3.kz macroeconomic model. Key direct benefits include reduced flood-related damage and government savings on emergency repairs and recovery. Under the SSP2-4.5 climate scenario, GDP is projected to grow up to +0.14 percentage points per year until 2050 and employment rises by 6,900 jobs. The estimated AAL reduction forms the primary quantifiable benefit stream. Indirect macroeconomic impacts include:

- Increased demand for construction and raw materials
- Job creation in construction and civil engineering
- Stabilised agricultural outputs in irrigated zones
- Reduced strain on public finances and emergency services

Stakeholder consultations with the Ministry of Water Resources and Irrigation, established in 2023, revealed strong political interest in developing CR reservoirs as a flagship adaptation strategy. The Ministry has plans for up to 20 new reservoirs, aiming to integrate this infrastructure into the national water resilience and flood protection strategy.

From a cost-benefit perspective, the CR reservoirs scenario has high upfront costs (capital and operational), but high payoff in reduced flood losses, economic stabilisation, and co-benefits for agriculture. These include improved water security in dry seasons and reduced transboundary conflict risk over water discharges from upstream countries.

CBA parameters include:

- Costs: Investment in CR reservoirs, associated irrigation, and operational maintenance.
- Benefits: Avoided flood damage (AAL), reduction in public infrastructure repairs, productivity protection in flood-prone sectors, and potential irrigation revenue streams.

The CR reservoir strategy thus emerges as a strategic adaptation programme, especially if combined with integrated water governance reforms, cross-border coordination, and blended financing mechanisms. The modelling underscores its value not just for climate resilience, but for macroeconomic stability in flood-prone and agriculturally critical regions.

Figure 3: Climate change scenario (SSP2-4.5) without CR reservoirs measure.

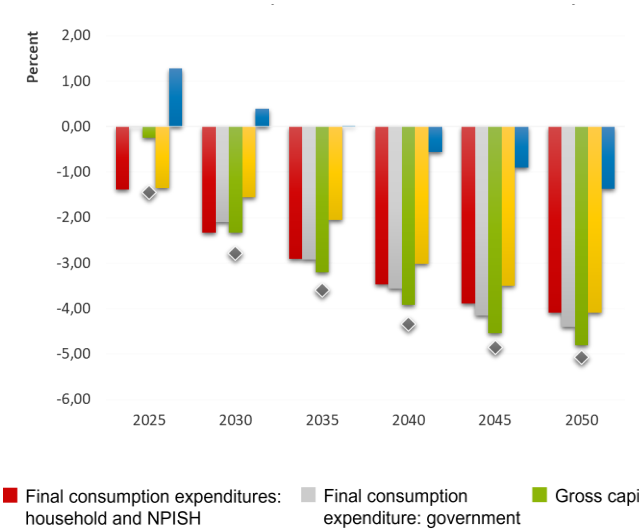
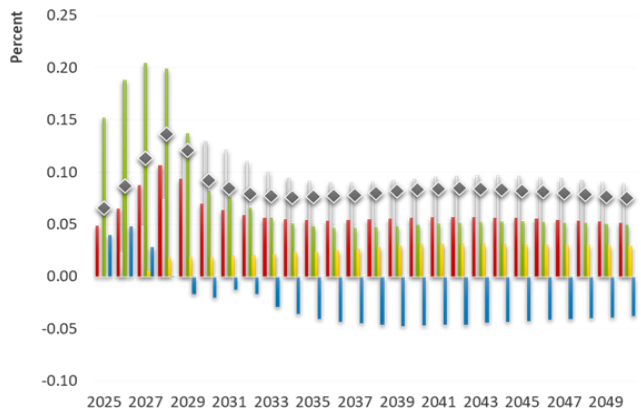
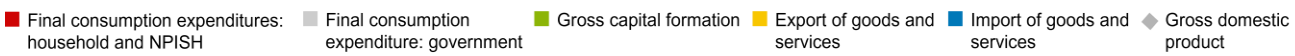


Figure 4: Climate change scenario (SSP2-4.5) with CR reservoirs measure.





Source: GIZ-CRED / GWS based on e3.kz, April 2025

1.2. Adaptation funding needs in Kazakhstan

Kazakhstan is facing a significant adaptation finance gap that undermines its ability to respond effectively to the escalating impacts of climate change. Between 2017 and 2022, the country received approximately USD 2.3 billion in international public climate finance, of which only 26% - around USD 610 million - was earmarked specifically for adaptation. Strikingly, 96% of this adaptation finance was delivered through debt-based instruments. This underscores a broader reliance on repayable funding even for non-revenue generating adaptation interventions, highlighting a misalignment between financing modalities and the nature of adaptation needs. Multilateral development banks such as the European Bank for Reconstruction and Development (EBRD) and the Asian Development Bank (ADB) have played a central role in this finance landscape, while bilateral donors like Germany and Japan have contributed mostly through grants. Nevertheless, overall adaptation support remains far below what is needed.

The funding shortfall is particularly acute in the sectors prioritised for adaptation under the CRED project. Despite their strategic importance, no international climate finance was recorded between 2017 and 2022 for energy conservation, demand-side efficiency, or construction policy and administrative management - critical areas for advancing energy efficiency in Kazakhstan's building sector. Similarly, support for multi-purpose water infrastructure (MPWI) has been negligible. While the agriculture sector did receive approximately USD 14.5 million, and a mere USD 45,000 was allocated to the water sector more broadly, there was no recorded support for key subsectors like disaster risk reduction, river basin development, or multi-hazard preparedness. These findings are particularly concerning given the country's increasing exposure to extreme weather events and flood risks.

This funding gap must be seen in the context of Kazakhstan's broader climate investment needs, which are enormous. According to the World Bank's Country Climate and Development Report, the country requires a total of USD 1.165 trillion in climate investments between 2025 and 2060. While the majority of this sum - USD 1.15 trillion - is allocated to mitigation efforts, the report identifies at least USD 610 million in adaptation finance needs for initiatives such as climate-smart agriculture, water resource resilience, infrastructure adaptation, and early warning systems. Furthermore, Kazakhstan's Carbon Neutrality Strategy estimates a requirement of USD 610 billion to transition to a low-carbon economy, of which only 3.8 percent is expected to be covered by direct public investment. This leaves the remaining USD 580 billion to be mobilised from private and international sources.

Despite these challenges, Kazakhstan has begun to create a foundation for mobilizing greater climate finance, particularly for adaptation. The international project pipeline includes a USD 200 million energy efficiency project proposed by the ADB, and the World Bank has already committed over USD 200 million to water-related infrastructure and environmental restoration projects. Furthermore, public institutions such as the Astana International Financial Center (AIFC), the Development Bank of Kazakhstan, and the Damu Fund have introduced green finance frameworks, including green bonds and concessional loan programs aimed at sustainable development.

Importantly, the private sector shows growing potential as a partner in financing adaptation - especially in the building sector. Energy efficiency measures often yield measurable financial returns, including reduced energy costs and higher real estate values. Innovative public-private partnerships, such as energy performance contracting with Energy Service Companies (ESCOs), are already in operation and have mobilised over USD 68 million to date. However, scaling these models will require addressing persistent barriers, including the lack of supportive regulations, limited awareness among building owners, and insufficient access to affordable finance.

To bridge the adaptation finance gap, Kazakhstan must continue to build on its initial efforts by aligning national policy priorities with international funding opportunities. Mobilising more grant-based and concessional finance for public infrastructure, developing standardised and bankable project concepts, and expanding blended finance models will be key to unlocking the volume and type of resources required to adapt effectively to climate change.

2. IDENTIFYING FINANCING OPTIONS FOR SELECTED ADAPTION PROGRAMMES IN KAZAKHSTAN

To enable Kazakhstan's shift towards a climate-resilient and low-emission development pathway, the implementation of targeted adaptation programmes must address persistent sector-specific challenges. The GIZ CRED programme, through detailed assessments and stakeholder consultations, has identified two critical intervention areas: (1) the development of Multi-Purpose Water Infrastructure (MPWI) and (2) enhanced energy efficiency and climate resilience in the building sector, based on the result from economic modelling and related policy scenarios. For each, a PIN for accessing international climate finance has been developed (see Figure 5). This section outlines the key barriers, proposed outputs, and the financial structure needed to deliver transformational change.

2.1. Overcoming key barriers for adaptation programmes in selected priority sectors in Kazakhstan

2.1.1. Development of Multi-Purpose Water Infrastructure (MPWI)

Barriers and Challenges

Kazakhstan faces recurring and intensifying flood events due to glacier melt, erratic precipitation, and aging water infrastructure. The country recorded a fourfold increase in flood-affected individuals between 2020 and 2024. However, the implementation of MPWI is constrained by numerous barriers.

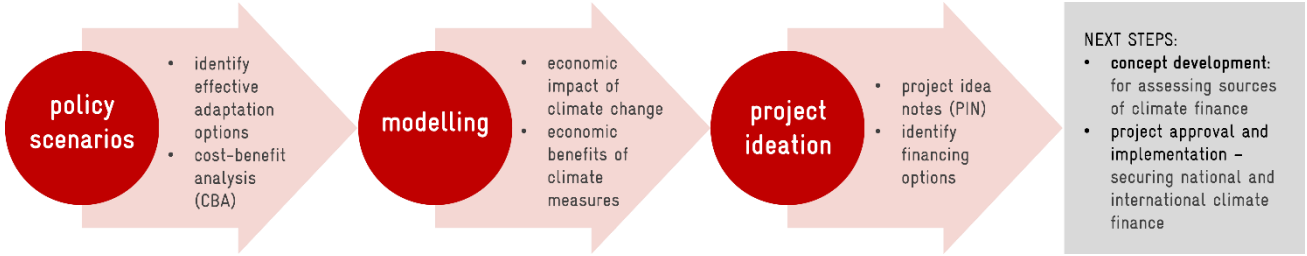
Financial constraints dominate, with the construction of 15–30 counter-regulatory (CR) reservoirs requiring significant capital investment - well beyond the reach of national budgets alone. Currently, sustainable financing models such as blended finance, sovereign loans, and green bonds are not adequately deployed. Additionally, water tariffs are set too low to incentivise water-saving investments, particularly in agriculture.

Regulatory and institutional fragmentation also hinders progress. The newly established Ministry of Water Resources and Irrigation lacks established coordination with other sectoral ministries, while enforcement of water regulations remains weak. Transboundary water governance is underdeveloped despite Kazakhstan's reliance on rivers originating in neighbouring countries.

On the technical side, most existing infrastructure is outdated, with over 40% water loss due to inefficiencies. The use of smart irrigation systems, remote sensing, and real-time water monitoring remains minimal. These issues are compounded by environmental challenges, including degraded watersheds and river ecosystems, which reduce natural flood buffering capacity.

Finally, social barriers - notably limited farmer awareness and poor community-level capacity - further restrict the adoption of climate-resilient practices at the grassroots level.

Figure 5: Process of developing the PINs



Source: GIZ-CRED programme

Outputs

The project idea proposes a comprehensive intervention combining grey infrastructure, nature-based solutions (NbS) and digital innovation. On the infrastructure front, it foresees the construction of 15–30 CR reservoirs, modernised irrigation systems and the possible integration of small-scale hydropower. These reservoirs are expected to reduce flood damages (currently USD 419 million annually), stabilise water availability and enable climate-smart agriculture across 280,000 hectares of land.

Complementing the hard infrastructure will be the adoption of NbS, including upstream reforestation, wetland restoration, and vegetative buffer zones. These ecosystems will enhance water retention, mitigate erosion, and support biodiversity.

A robust institutional support package will include policy reforms for tariff restructuring, inter-agency coordination mechanisms and transboundary water agreements. Smart water management tools -such as AI-driven flood forecasting and satellite monitoring systems - will underpin proactive flood management.

Downstream, the project will empower farmers through capacity-building and access to precision irrigation, improving agricultural resilience and reducing water losses. The design includes clear gender-responsive components to ensure equitable participation in training, decision-making and access to finance.

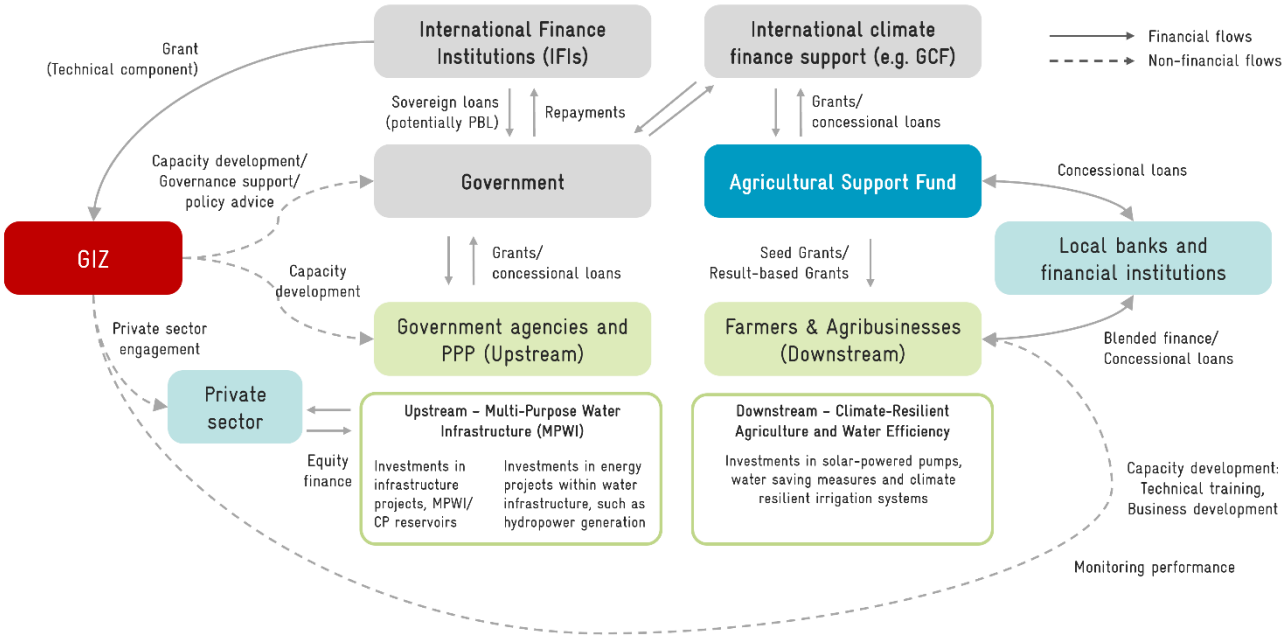
Financing Requirements and Structure

The financial volume for this project idea is estimated at USD 170–285 million (Financial Component) and USD 6–11 million for Technical Assistance (TA). Financing will be structured through a combination of:

- Sovereign loans and concessional finance from MDBs (such as ADB, EIB, World Bank)
- Public-private partnerships (PPPs) in infrastructure and smart irrigation
- Blended finance instruments, including green bonds and performance-based grants
- Results-based subsidies and concessional loans to support smallholder adoption of efficient irrigation systems

To de-risk private sector engagement, the project will use grants for capacity-building and seed financing, while revolving funds will reinvest repayments to ensure sustainability. A flow-of-funds structure could be developed to link international climate finance with national execution, e.g. channelled through the Development Bank of Kazakhstan and local agricultural funds.

Figure 6: Flow of funds structure under the proposed financial support mechanism (Development of Multi-Purpose Water Infrastructure (MPWI))



2.1.2. Enhanced Energy Efficiency and Climate Resilience in Kazakhstan's Building Sector

Barriers and Challenges

Kazakhstan's building sector is characterised by poor energy performance, long heating seasons and growing cooling needs. Over 90% of public buildings fall below energy class C, and more than 80% of residential buildings lack basic insulation. These conditions increase vulnerability to heatwaves and extreme cold while driving energy demand and household costs.

Regulatory barriers include low energy tariffs, limited performance standards, and weak enforcement. Building codes are outdated or poorly applied and mechanisms to engage apartment owners - especially in multi-apartment buildings - are largely missing.

Technical barriers are similarly pressing. Kazakhstan lacks high-quality energy audits, modern building data systems, and common control devices like smart meters or thermostatic radiator valves. The country also has a shortage of trained energy auditors and Energy Service Companies (ESCOs), which inhibits project delivery at scale.

The institutional setup is fragmented. Housing management is poorly organised, especially in the residential sector, where 95% of buildings lack a functioning maintenance system. Finally, financial barriers - including high upfront costs and interest rates of up to 20% - prevent adoption. ESCOs cannot access affordable finance, and public buildings lack resources for modernisation.

Outputs

The project idea aims to reduce energy consumption in buildings by 20–50%, increase climate resilience and develop a robust market for ESCOs. Central to this is the creation of a Sustainable Energy Revolving Fund (SERF). This fund will provide low-interest loans (2–5%), co-financed with grants covering 20–50% of the capital costs, depending on the beneficiary (e.g., low-income households, schools, hospitals).

Technical interventions include full thermal retrofits, integration of decentralised renewable energy (DRE) such as rooftop solar and heat pumps and deployment of smart energy systems. A digital platform will be developed to extend the State Energy Register, providing real-time building energy data for public and private use.

A comprehensive capacity-building programme will train energy auditors, consultants, and housing managers, with a focus on gender inclusion. Public campaigns and technical support for Owner Associations (OAs) will foster collective investment in apartment retrofits. Professional housing management systems will be piloted to demonstrate centralised maintenance benefits.

Financing Requirements and Structure

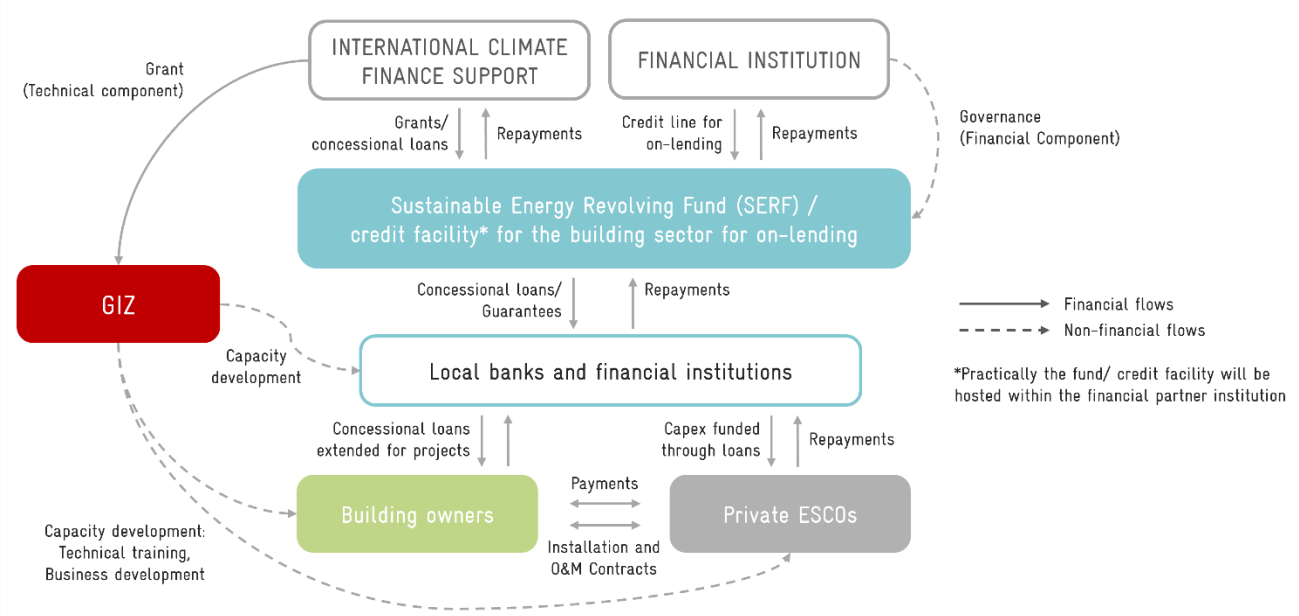
The estimated budget includes a technical component of USD 11–17 million and a financial component of USD 285–455 million over five to seven years. The financing model is a two-pronged approach:

Grants (20–50%) funded by the Government of Kazakhstan and international donors to reduce upfront costs for vulnerable groups

Concessional loans via the SERF, to be managed by a national financial institution (e.g., Development Bank of Kazakhstan)

ESCOs will play a critical role in delivering performance-based retrofits, particularly in public buildings and large multi-apartment blocks. The SERF structure ensures that loan repayments recycle capital, enabling continuous reinvestment. Complementary financing tools, including PPP models, green mortgages, and energy performance contracts, will be pursued to mobilise additional capital. The financing structure is designed to deliver payback periods of 4–8 years for energy efficiency measures and 7–12 years for renewable systems. The IRR for pilot retrofits is estimated at over 15%, and up to 64 construction jobs per building will be created, underlining both economic and environmental benefits.

Figure 7: Illustration of proposed financial mechanism for Enhanced Energy Efficiency and Climate Resilience in Kazakhstan's Building Sector



2.2. Opportunities of international climate finance for adaptation programmes in Kazakhstan

Kazakhstan's adaptation finance landscape presents a paradox: while climate vulnerabilities - particularly to flooding, water scarcity, and temperature extremes - are acute and growing, the mobilisation of international adaptation finance remains modest. From 2017 to 2022, only about USD 610 million - just 26% of the country's total climate finance - was allocated to adaptation, and nearly all of it (96%) was in the form of debt. This imbalance underscores the need for stronger institutional readiness, more concessional resources, and bankable, scalable project concepts.

Consultations with stakeholders and the climate finance flow assessment have revealed several systemic barriers to accessing international funding. A key finding is the absence of a mature pipeline of bankable adaptation projects. Despite growing interest among development partners, projects in priority sectors - like water infrastructure and building energy efficiency - often remain at conceptual or pilot stages. Challenges include fragmented institutional responsibilities, weak technical capacity, underdeveloped financial instruments, and the lack of aggregation models to standardise and scale investment opportunities.

Critically, stakeholders emphasised that without early technical assistance (TA) and strategic financial structuring, most adaptation concepts cannot meet the due diligence and impact expectations of international funders like the GCF, ADB, or EBRD. This calls for proactive government leadership, project bundling strategies and financing mechanisms that de-risk investment for public and private actors alike.

Success Factors for Unlocking Adaptation Finance: To effectively overcome investment barriers and mobilise large-scale adaptation finance, several success factors have emerged:

- Standardisation and Aggregation: Investors require predictable, replicable project models. Bundling energy efficiency retrofits or irrigation upgrades into standardised packages allows for scale and reduces transaction costs.
- Blended Finance Mechanisms: A mix of grants, concessional loans and guarantees is essential to crowd in private capital and international public finance. Instruments like the proposed Sustainable Energy Revolving Fund (SERF) for buildings or results-based subsidies for farmers are seen as catalytic.

- Institutional Readiness and Policy Coherence: Strong government anchoring is vital. Projects must be aligned with national strategies (e.g., NAP, NDC, Green Economy Strategy) and supported by coordinated ministries, particularly the Ministries of Energy, Water Resources and Irrigation, Finance, and National Economy.
- Early Technical Assistance (TA): Donors expect fully articulated project proposals. TA must include feasibility studies, MRV frameworks, regulatory gap analysis and gender-inclusive stakeholder engagement. This is particularly important in Kazakhstan, where regulatory enforcement and project preparation remain inconsistent.
- Transparency and Impact Monitoring: Demonstrating adaptation outcomes - such as avoided flood damages, energy savings, and social resilience - through robust MRV systems builds funder confidence and enables scaling.

Funding Adaptation Projects in Kazakhstan: Key Considerations

Financially, international funders prefer co-financed projects that offer clear economic returns or social cost-avoidance, such as reduced energy subsidies or flood recovery costs. Instruments like green bonds, sovereign concessional loans and risk-sharing facilities are especially promising in Kazakhstan's context.

On the technical assistance side, capacity-building for ESCOs, irrigation operators, and public institutions is essential. For instance, smart irrigation deployment will require farmer training and remote monitoring infrastructure, while energy retrofits demand skilled auditors and installers. From a regulatory and institutional perspective, success hinges on tariff reforms (for energy and water), legal frameworks enabling Energy Performance Contracts (EPCs) and stronger enforcement of energy and building codes. These reforms must be embedded in national policies and clearly integrated into funding proposals.

Kazakhstan has significant potential to leverage support from major climate finance institutions:

- The ADB, Islamic Development Bank (IsDB)[2] and World Bank have ongoing and planned projects in energy efficiency and water resource modernisation.
- The GCF is well-positioned to support systemic interventions such as MPWI and SERF, particularly where social inclusion and gender equity are integrated.
- The GEF and EBRD provide support for enabling environments and PPP models.
- Bilateral partners like Germany, Japan and Korea have shown interest in technical cooperation for buildings and water systems.

Aligning proposals with these institutions' thematic priorities - such as resilience, co-benefits and innovation - will be essential to secure financing.

To guide future project development, a nine-step financing roadmap for the further development of the project ideas in the priority sectors has been outlined (as presented in recent stakeholder workshops on the PINs): [see following Table]

This roadmap emphasises early engagement, capacity-building and the structured development of financing strategies aligned with national and donor priorities.

[2] IsBD, 2024: Islamic Development Bank and Kazakhstan Launch $1.32 Billion Climate-Resilient Water Project, 12 November 2024.

STEP 1.	**Stakeholder Engagement and Governmental Buy-In:** Engage ministries, ESCOs, utilities, and financial institutions to secure broad support (Months 1–4). The PINs has been presented to relevant ministries; however, ownership is not ensured yet. In particular, the relevant sectoral ministries should be involved and consulted, such as

EE in buildings: Conduct consultations with national and sectoral stakeholders, including Ministry of Energy, Ministry of National Economy, Ministry of Finance, Ministry of Ecology and Natural Resources (as the National Designated Authority (NDA) to the GCF), and the Council for Transition to a Green Economy to align project objectives and ensure the project integrates into existing policy frameworks and national priorities. Secure high-level support and commitment from these ministries, demonstrating the project's alignment with Kazakhstan's green economy strategy. Also engage ESCOs, building owners, local financial institutions, and energy regulators for feedback and buy-in.

Water sector: Ministry of Water Resources and Irrigation, Ministry of Agriculture, Ministry of Finance, Ministry of Ecology and Natural Resources. To provide policy guidance and regulatory oversight; Ensure alignment with national climate adaptation strategies; and facilitate inter-agency coordination for water management reforms.

STEP 2.	**Identification of Implementation Partners:** Involve the Development Bank of Kazakhstan (DBK), local banks, and accredited entities. (Months 1–4)

Identify and involve suitable implementation partners, such as Development Bank of Kazakhstan (DBK) for national financing support, local banks and financial institutions for fund disbursement, and accredited entities like Asian Development Bank (ADB), European Bank for Reconstruction and Development (EBRD), International Finance Corporation (IFC) or Green Climate Fund (GCF) for international funding and technical assistance. Also consult international technical partners, such as UNDP, BMUV and GIZ.

STEP 3.	**Initial Conceptualisation:** Refine project ideas and ensure alignment with funder requirements. (Months 2–4)

Refine the project concept, incorporating stakeholder input, and develop a detailed proposal for implementation, ensuring alignment with the requirements of potential financiers like ADB, EBRD, and DBK. Update the draft project outline including financial viability, implementation structure, and expected outcomes.

STEP 4.	**Identification of Finance Sources:** Map out suitable international and domestic finance options. (Months 2–6)

Identify and secure commitments from suitable finance sources, such as: National Sources: Government funds through the Ministry of Finance and DBK. International Sources: ADB (e.g., 58135-001), EBRD (Kazakhstan programs), bilateral donors, and Green Climate Fund (GCF).

STEP 5.	**Development of Concept Note:** Draft initial concept note tailored to target financiers (e.g., GCF, ADB). (Months 6–9)

Develop a concept note detailing project objectives, financial structure, and expected outcomes. Tailor the note to meet the requirements of each financier, ensuring alignment with their funding criteria (e.g., ADB's focus on climate resilience and energy efficiency, EBRD's renewable energy investments, GCF's transformative climate action focus).

STEP 6.	**Detailed Funding Proposal:** Prepare full proposal, including CBA, environmental safeguards, and MRV plans. (Months 9–18)

Prepare a comprehensive funding proposal, including feasibility study, financial models, risk assessments, environmental and social safeguards, and implementation plans. Collaborate with identified implementation and financing partners to ensure alignment with their guidelines and requirements.

STEP 7.	**Submission and Approval:** Submit proposal through accredited entities (e.g., GCF via Ministry of Ecology and Natural Resources). (Months 18–24)
STEP 8.	**Securing National Co-Financing:** Confirm public budget support and domestic in-kind contributions. (Months 9–24)
STEP 9.	**Project Start:** Operationalise the investment with donor and national funding. (After 24 months)

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Project description
Policy Advice for Climate Resilient Economic Development

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