

Funding Proposal

FP309: Resilient Water Systems for All (RWS4All): Deep Adaptation Pathways for Water Infrastructure in Kyrgyz Republic and Tajikistan

Kyrgyzstan, Tajikistan | the European Bank for Reconstruction and Development (EBRD) | Decision
B.45/08

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A. PROJECT/PROGRAMME SUMMARY				
A.1. Project or programme	Programme	A.2. Public or private sector	Public	
A.3. Request for Proposals (RFP)	Not applicable			
A.4. Result area(s)			GCF contribution	
			Co-financers' contribution ¹	
	Mitigation total		0 %	
	☐ Energy generation and access		Enter number %	
	☐ Low-emission transport		Enter number %	
	☐ Buildings, cities, industries and appliances		Enter number %	
	☐ Forestry and land use		Enter number %	
	Adaptation total		100 %	
	☒ Most vulnerable people and communities		33.3 %	
	☒ Health and well-being, and food and water security		33.3 %	
☒ Infrastructure and built environment		33.4 %		
Ecosystems and ecosystem services		Enter number %	Enter number %	
A.5. Expected mitigation outcome <i>(Core indicator 1: GHG emissions reduced, avoided or removed / sequestered)</i>	N/A	A.6. Expected adaptation outcome <i>(Core indicator 2: direct and indirect beneficiaries reached)</i>	1,821,100	
			621,100 Direct beneficiaries	1,200,000 Indirect beneficiaries
			3.5%	7%
A.7. Total financing (GCF + co-finance ²)	160,000,000 Euros	A.9. Project size	Medium (Upto USD 250 million)	
A.8. Total GCF funding requested	55,000,000 Euros			

¹ Co-financer's contribution means the financial resources required, whether Public Finance or Private Finance, in addition to the GCF contribution (i.e. GCF financial resources requested by the Accredited Entity) to implement the project or programme described in the funding proposal.

² Refer to the Policy of Co-financing of the GCF.

A.10. Financial instrument(s) requested for the GCF funding	<i>Mark all that apply and provide total amounts. The sum of all total amounts should be consistent with A.8.</i> ☒ Grant <u>55,000,000</u> ☐ Equity <u>Enter number</u> ☐ Loan <u>Enter number</u> ☐ Results-based payment <u>Enter number</u> ☐ Guarantee <u>Enter number</u>		
A.11. Implementation period	15 years	A.12. Total lifespan	30 years
A.13. Expected date of AE internal approval	9/21/2026	A.14. ESS category	B
A.15. Has this FP been submitted as a CN before?	Yes ☒ No ☐	A.16. Has Readiness or PPF support been used to prepare this FP?	Yes ☐ No ☒
A.17. Is this FP included in the entity work programme?	Yes ☐ No ☒	A.18. Is this FP included in the country programme?	Yes ☐ No ☒
A.19. Complementarity and coherence	Yes ☒ No ☐		
A.20. Executing Entity information	European Bank for Reconstruction and Development (EBRD) will carry out the functions of the Accredited Entity and Executing Entity. Other Executing Entities shall include ministries of finance as borrowers of EBRD loans, as well as government agencies, municipalities, and utility companies as implementing partners responsible for delivering the investment projects.		
A.21. Executive summary (max. 750 words, approximately 1.5 pages)			
“Resilient Water Systems for All (‘RWS4All’ or the ‘Programme’): Deep Adaptation Pathways for Water Infrastructure in Kyrgyz Republic and Tajikistan” - The Programme aims to address escalating climate hazards that are jeopardising water utilities serving 1.82 million direct and indirect beneficiaries in Kyrgyz Republic and Tajikistan. Floods alone are causing USD 134.1 million in annual expected losses (see B.1 Climate Context). The management of such climate hazards is diverting financial resources from capital investments urgently required to sustain utility service levels and impose costs beyond utility budgets: consumers bear service interruptions and environmental burdens that are often uncompensated and go beyond consumer affordability levels. - This Programme seeks a GCF catalytic grant of EUR 55M (in addition to EUR 5M donor grant co-financing) to derisk escalating climate hazards by (i) building institutional capacity to proactively manage climate risks in both countries’ water sectors and (ii) by building climate resiliency in both the existing water infrastructure and in works that will be delivered under EBRD’s co-financing of EUR 100M			

concessional loan that seeks to significantly strengthen the commercial viability of the utilities through more sustainable cost recovery models that will protect consumers' water services well into the future.

3. Modelling estimates suggest that Kyrgyz Republic and Tajikistan could realise approximately EUR 500 million in climate resilience benefits as a result of the GCF–EBRD investment programme (sensitivity range: EUR 340–670 million) over a 20 year horizon (see Annex 3: Economic Model). The Programme presents a strong economic case, with an estimated benefit–cost ratio of 3.8 (1.2–6.3) and an economic internal rate of return (EIRR) of approximately 23% (16%–30%, based on sensitivity analysis) (see Annex 3: Economic Model).

Water-security risks are already eroding welfare and climate change is increasingly turning this into a systemic risk.

4. In the Kyrgyz Republic and Tajikistan, the combination of accelerating warming, glacier retreat more volatile hydrology, and delapidated water infrastructure are already undermining water security. Mean temperatures have risen faster than the global average and are projected to increase by around 3°C by mid-century, sharply increasing extreme heat days, evaporative demand, and drought risk. At the same time, floods, mudflows, landslides and glacial lake outburst floods are intensifying, placing acute stress on water infrastructure. Refer to *B.1 Climate Context* for the bigger picture, and the site specific climate vulnerability assessments in *Annex 2, Feasibility Study*. These impacts directly threaten public health, livelihoods, and economic activity, particularly in secondary cities and peri-urban areas where redundancy is limited and adaptive capacity is low.

Resilience is a system quality, and the resilience of water systems is failing where climate hazards collide with ageing assets and weak institutions.

5. Municipal water supply, wastewater and last-mile irrigation systems are highly exposed to climate hazards and structurally vulnerable due to constrained institutional capacity, ageing infrastructure, intermittent service and high water losses. The compounding effects of climate change (refer to *Annex 2, Feasibility Study* for site specific assessments) translate into more frequent service disruptions, declining water quality, emergency repairs from infrastructure damage and rising operating costs and systemic impacts where cumulative stress risks a shift from periodic disruption to persistent system failure as resilience thresholds are crossed. These risks are intensified by strong water–energy interdependencies, as climate-exposed hydropower systems increasingly disrupt pumping and treatment operations.

Business-as-usual already carries high economic costs, and those costs are rising.

6. Climate-related service disruptions already impose significant welfare losses on households and the wider economy through lost workdays, health impacts, coping costs and reduced productivity. Evidence from the programme's feasibility and economic assessments indicates that climate-related disruptions to water supply result in socio-economic losses of approximately EUR 0.5 million per year for Vodokanal customers within the programme area (see *Annex 3, Economic Model*)³. These losses substantially exceed the direct financial losses observed on utility balance sheets⁴, meaning that the true economic cost of climate effects is systematically underestimated in investment decisions. The imbalance between relatively small tariff losses and much larger economic welfare losses underscores a central rationale for the required shift in approach proposed by this Programme.

³ Captured through the loss of domestic shadow water value, which represents the economic value of water that households are unable to access during climate-related disruptions, households incur coping costs, face health risks, lose productive time, and experience reduced welfare when water services are interrupted or degraded.

⁴ Climate shocks lead to lost tariff revenues as service disruptions reduce the volume of water that can be delivered and billed as well as the significant increase in operational and maintenance costs resulting from climate hazards e.g. emergency repairs, additional pumping, sediment removal, and unplanned maintenance activities.

Why the market will not fix this: How the climate resilient trajectory is blocked by affordability, borrowing constraints and institutional capacity.

7. Climate hazards are causing scarce capital to be diverted to emergency patch and repair works on a fragmented, project-by-project level. Therefore, utilities and public authorities face critical deficits that directly reinforce financial non-viability. These include: (i) lack of capacity to conduct multi-hazard climate risk and vulnerability assessments tailored to mountainous, glacier-fed systems; (ii) limited ability to translate climate risk into engineering standards, investment prioritisation and capital sequencing; (iii) insufficient institutional frameworks to embed climate resilience into tariff methodologies, public service contracts, asset management and financial planning; and (iv) a lack of operational capacity to sustain efficiency gains once assets are rehabilitated.
8. The core barrier is not a lack of need, but a structural viability gap that combines limited institutional capacity to deal with climate-risks with financial non-viability. Regarding the latter, existing tariffs and municipal fiscal space are insufficient to fund comprehensive climate-resilient service provision, while debt sustainability limits and IMF concessionality requirements limit governments' ability to borrow on non-concessional terms. Utility-level analysis indicates an **average ~35% shortfall** between current revenues and cost-recovery levels required to finance climate-resilient services. Financial and economic assessments show that without grant support, the affordability burden would rise sharply, **surpassing the 5% benchmark for many low-income households** for multiple years, making full cost recovery on critical climate resilience investments socially and politically untenable.

Proposed Intervention: a EUR 160 million resilience programme that converts climate risk into durable public value.

9. RWS4All is a programmatic adaptation investment of **EUR 160 million (EUR 55m GCF grants, EUR 100m EBRD loans, and EUR 5m donor grant co-financing)** designed to keep essential water services functioning under worsening hydrological extremes while safeguarding affordability and equity. The programme targets **1.82 million beneficiaries (including 621,100 direct beneficiaries)** with a focus on climate-vulnerable communities, with adaptation benefits centred on water security, health and resilient infrastructure. The Programme is also fully aligned with the GCF's Updated Strategic Plan 2024–2027 and targeted results areas. It specifically contributes to: **Target 1** by advancing the implementation of Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs) through integrated climate investment planning, **Target 6** by supporting the development of climate-resilient water infrastructure through systemic, country-driven resilience investments, and **Target 9** by delivering approved adaptation outcomes.
10. The Programme is anchored in an indicative pipeline of climate-resilient sub-projects that will be progressively developed during the Programme's implementation through utility-level deep adaptation pathways. This includes sub-projects, for which site-specific climate risk, institutional, technical and financial feasibility has been assessed under the Feasibility Study (Annex 2).. This structure allows the Programme to respond dynamically to evolving climate risks, institutional readiness, and investment maturity, while ensuring that only sub-projects aligned with adaptation pathways and that meet the Programme-specific climate resilience and sustainability criteria defined under component 3 advance to financing.
11. **Most importantly, RWS4All goes beyond standard infrastructure rehabilitation.** Instead of only repairing, rehabilitating, replacing assets ("fix what is broken"), this programme builds *systems* that perform under a changing climate. GCF resources are a catalytic enabler in transforming what would otherwise be a standard infrastructure rehabilitation programme into a climate resilience programme and delivering climate impact.

Standard Infrastructure Rehabilitation	Climate-Resilient Programme (This Programme)
Replace assets like-for-like at end of life	Upgrade and resize assets for future climate conditions
Restore previous service levels	Increase storage, redundancy, and flexibility
Focus on individual assets	Strengthen system-wide resilience
Fix current failures	Anticipate future climate risks
Standard technical specifications	Climate-informed design and smart systems
Limited institutional reform	Adaptation pathways, capacity building, tariff reform
Commercial financing only	Blended finance to maintain affordability
No replication focus	Scalable models and knowledge transfer

Table 1 Comparison of Standard Infrastructure Rehabilitation and the RWS4All Climate-Resilient Programme

Contribution to GCF USP-2 targeted results.

12. The Programme advances the GCF's Updated Strategic Plan 2024–2027 priorities by contributing to various targeted result areas. This is achieved through directly operationalising NDC, NAP and long-term climate objectives in the water sector, translating national resilience commitments into policies, utility-level planning tools, and investable pipelines (Target 1). It also delivers climate resilient infrastructure at system scale, moving beyond asset-level rehabilitation toward pathway-based, multi-hazard investments that remain viable and affordable under increasing climate stress (Target 6). At the same time, it strengthens locally-led adaptation by empowering utilities, municipalities, and users to co-develop deep adaptation pathways, improve demand management and affordability, and build lasting institutional and technical capacity to manage climate risks over time (Target 9).

A clear Theory of Change: Deep adaptation pathways prevent systems from crossing climate tipping points.

13. EBRD is leveraging its deep institutional knowledge of sector constraints, reform pathways, and utility operating realities from over a decade of experience in the water sectors of the Kyrgyz Republic and Tajikistan. To achieve a paradigm shift, the water sector needs to be diverted from business-as-usual towards a climate resilient trajectory. This realignment requires GCF additionality through the introduction of deep adaptation pathways, which prioritise climate-resilient investments at the utility level alongside urgently required sector reform and institutional support. This approach presents a deliberate strategic shift from reactive and limited project-by-project rehabilitation toward forward-looking, climate-informed, system-level adaptation interventions that strengthen resilience across infrastructure, operations, and institutions, aligned with projected hydrological conditions for 2030–2050 and beyond. Based on this theory of change, utilities and sector institutions will be able to reduce the likelihood of climate-induced service collapse.

Three Components at three scales: How deep adaptation pathways deliver system-level benefits in practice.

14. To operationalise this approach, the Programme is structured around three mutually reinforcing components operating at different but interlinked scales. It embeds knowledge management and learning throughout, supporting replication and scaling across Central Asia and other climate-vulnerable regions.

- **Component 1: National-level Water Sector Reforms and Climate Resilience Transition Platforms**

At national level, this component's activities strengthen the enabling environment by embedding climate resilience, inclusion and financial sustainability into legal/regulatory reforms, **including climate-resilient public service contracts (PSCs) with climate KPIs**, tariff methodology updates with affordability safeguards, and the establishment of **Climate Resilience Transition Platforms (CRTPs)** to coordinate stakeholders, consolidate knowledge and scale best practice.

- **Component 2: Utility-level climate resilience baselining and technical support for adaptation pathway development**

Utilities are positioned as the primary agents of climate-resilient service delivery. This component's activities strengthen institutional and technical capacity through climate resilience baselining, multi-hazard risk assessment, and the development of **utility-level adaptation pathways**. These pathways integrate governance and financial reform instruments with prioritised infrastructure measures and are supported by corporate development programmes, and customer engagement.

- **Component 3: Catalyse climate investments for the implementation of adaptation pathways**

This component catalyses climate resilience investments across four archetypes, covering climate resilient (1) water supply, (2) wastewater, (3) water conveyance and (4) nature-based solutions, which establish system robustness under current and future climate conditions. Refer to *Section B.3 Programme Description* for an overview of how these archetypes deliver climate adaptation and resilience outcomes as part of GCF addittonality, or *Annex 2, Feasibility Study* for a demonstration of site-specific climate rationale across these archetypes as part of the indicative project pipeline. Investments are advanced only where they align with prioritised adaptation pathways, meet climate-resilience eligibility criteria and are accompanied by cost-recovery and corporate development commitments.

B. PROJECT/PROGRAMME INFORMATION

B.1. Climate context (max. 1000 words, approximately 2 pages)

Climate change problem

National and local trends in climate hazards and vulnerabilities

15. Kyrgyz Republic

Mean air temperature in the Kyrgyz Republic increased by ~0.8–1.2°C over the 20th century, exceeding the global average, and is projected to rise by ~3 °C by mid-century and up to ~5 °C by 2100 under high-emissions scenarios, with annual maximum temperatures increasing by ~4–6 °C and a two- to three-fold increase in the number of very hot days (>35 °C) in lowland areas^{5,6}. Regional models show declining Standardized Precipitation Evapotranspiration Index (SPEI), with mid-century decreases of ~–0.5 to –1.0 units and late-century declines exceeding –1.5 units in parts of Kyrgyzstan and Tajikistan, signaling intensifying drought conditions^{7,8}. Long-term water security is further threatened by cryospheric decline, with >16% loss of glacier area since the mid-20th century and projected Toktogul reservoir inflow reductions of up to 19% by 2050⁹. At the other end of the hydrological spectrum, floods and wet mass movements accounted for most of the Kyrgyz Republic's reported disaster damages¹⁰, risk assessments project greater hazard potential under warming scenarios¹¹. Glacial lake outburst floods (GLOF) hazard projected to increase by up to 3-fold by 2100 under high-warming scenarios in parts of Asia, as the number of glacial lakes has already more than doubled since the 1990s^{12,13}. However, high resolution extreme event projections remain largely unavailable in the region.

16. Tajikistan

In Tajikistan, average temperatures are projected to rise by ~3 °C, while annual maximum temperatures increase by ~4–5 °C and the number of extremely hot days (>35 °C) is projected to more than double under high-emissions pathways by mid-century (RCP8.5/SSP5-8.5), sharply increasing evaporative demand^{14,15}. Precipitation trends remain mixed and uncertain, but climate model analyses show significant regions with severe drought frequency projected to increase from 3% to over 25% under mid-century pessimistic climate scenarios¹⁶. Intensifying extreme rainfall and temperatures is increasing the occurrence of flash floods, mudflows and GLOFs. However, projections of these extremes remain subject to substantial uncertainty.

⁵ <https://climateknowledgeportal.worldbank.org/country/kyrgyz-republic/vulnerability-and-risk-profile> Kyrgyz Republic - Country Overview | Climate Change Knowledge Portal

⁶ IPCC (2021), WGI Chapter 2, Section 2.3.1 and WGI Chapter 4, Section 4.3.1.

<https://www.ipcc.ch/report/ar6/wg1/>

⁷ Kyrgyz Republic - Country Overview | Climate Change Knowledge Portal; Tajikistan - Country Overview | Climate Change Knowledge Portal

⁸ Sorg, A., et al. 2012. Climate change impacts on glaciers and runoff in Central Asia. *Nature Climate Change*, 2, 725–731.

⁹ UNEP (2025). Atlas of Environmental Change for the Kyrgyz Republic.

¹⁰ [Public EM-DAT platform](#)

¹¹ [15814-WB Kyrgyz Republic Country Profile-WEB.pdf](#)

<https://climateknowledgeportal.worldbank.org/country/kyrgyz-republic/vulnerability-and-risk-profile>

¹² Chen, M., Chen, Y., Fang, G. et al. Risk assessment of glacial lake outburst flood in the Central Asian Tianshan Mountains. *npj Clim Atmos Sci* 7, 209 (2024)

¹³ Emmer, A., et al. 2022. Glacial lake outburst flood hazard in Central Asia under climate change. *Natural Hazards and Earth System Sciences*, 22, 1885–1905

¹⁴ [Tajikistan - Country Overview | Climate Change Knowledge Portal](#)
https://climateknowledgeportal.worldbank.org/country/tajikistan/climate-data-projections?utm_source=chatgpt.com

¹⁵ IPCC (2021), WGI Chapter 2, Section 2.3.1 and WGI Chapter 4, Section 4.3.1.

¹⁶ World Bank Group & Asian Development Bank. *Climate Risk Country Profile: Tajikistan*. Climate Change Knowledge Portal (World Bank Group and Asian Development Bank, 2021)

The impact of global warming on Central Asian precipitation suffers from huge uncertainties, yet their origins remain largely unidentified¹⁷.

Hazard	Kyrgyz Republic – Observed Impacts	Kyrgyz Republic – Projected Trends	Tajikistan – Observed Impacts	Tajikistan – Projected Trends
<i>Heat & Temperature Extremes</i>	~14,000* people affected ¹⁸	Mean temperature +3°C by mid-century; +6°C by 2100; max temperatures +4-8 °C ¹⁹	1.7 million children regularly experience heatwaves ²⁰	Mean temperature +3°C by mid-century; max +2–3°C; >2× increase in >35°C days ²¹
<i>Drought & Water Scarcity</i>	~2.0 million* people affected ²²	SPEI decline of – 0.5 to –1.0 by mid-century; < –1.5 by late-century; rising frequency of multi-year droughts ²³	~1.9 million* people affected; ~USD 57 million* damage ²⁴	Severe drought frequency projected to increase 2-3× by mid-century; declining SPEI ²⁵
<i>Floods</i>	\$73.3 million ²⁶	Higher flood hazard due to heavier precipitation; high uncertainty in extremes ²⁷ ; 1.6–2.6 mm increase in monthly precipitation by 2040-2059 ²⁸	\$60.8 million ²⁹	Increasing flash-flood risk under heavier rainfall; high uncertainty in extremes ³⁰
<i>Mass Movements (Mudflows/Landslides)</i>	~11,000 people* affected; ~USD 37,000* damage ³¹	Increased sediment mobilization is expected under high-intensity	~30,000 people* affected; ~USD 202,000 * damage ³⁴	Rising mudflow risk linked to extreme

¹⁷ Yao, M., Tang, H., & Huang, G. (2024). Inter-model uncertainty in projecting precipitation changes over Central Asia under global warming. *Geophysical Research Letters*, 51(24), e2024GL111989.

¹⁸ [Public EM-DAT platform](#)

¹⁹ [Kyrgyz Republic - Country Overview | Climate Change Knowledge Portal](#)

²⁰ UNICEF. How climate change is affecting a nation of children. *UNICEF Europe and Central Asia* (15 November 2024)

²¹ [Tajikistan - Country Overview | Climate Change Knowledge Portal](#)

²² [Public EM-DAT platform](#)

²³ [Kyrgyz Republic - Country Overview | Climate Change Knowledge Portal](#)

²⁴ [Public EM-DAT platform](#)

²⁵ [Tajikistan - Country Overview | Climate Change Knowledge Portal](#)

²⁶ Ulatov, S., Tsukarev, T., Lemba, K. & Korotkikh, O. Assessment of the potential impact of natural hazard events on debt sustainability of Armenia, Kyrgyzstan, and Tajikistan. *EFSD Working Paper WP/24/1* (2024).

²⁷ IPCC (2021), WGI Chapter 2, Section 2.3.1 and WGI Chapter 4, Section 4.3.1.

<https://www.ipcc.ch/report/ar6/wg1/>

²⁸ [Kyrgyz Republic - Country Overview | Climate Change Knowledge Portal](#)

²⁹ Ulatov, S., Tsukarev, T., Lemba, K. & Korotkikh, O. Assessment of the potential impact of natural hazard events on debt sustainability of Armenia, Kyrgyzstan, and Tajikistan. *EFSD Working Paper WP/24/1* (2024).

³⁰ IPCC (2021), WGI Chapter 2, Section 2.3.1 and WGI Chapter 4, Section 4.3.1.

<https://www.ipcc.ch/report/ar6/wg1/>

³¹ [Public EM-DAT platform](#)

³⁴ [Public EM-DAT platform](#)

		rainfall events, with debris-flow triggering in the northern Tien Shan commonly observed from ~22–28 mm/day ³² . Limited high resolution projections ³³		rainfall and slope instability ³⁵
<i>Cryosphere Change & GLOFs</i>	~300–400 potentially dangerous glacial lakes ³⁶	>16% glacier area loss; runoff inflows – 19% by 2050; GLOF risk projected to increase up to ~3× by 2100 ³⁷	250–350 potentially dangerous lakes ³⁸	Rapid glacier retreat in Pamirs; expanding glacial lakes; GLOF hazard up to ~3× higher by 2100 ³⁹

*estimated maximum per year

Table 2: Summary table of hazards

The impact of climate change hazards on Kyrgyz and Tajik water systems

17. Municipal water supply systems and last mile irrigation infrastructure - critical for human health and well-being, and economic activity – are often located in close proximity to, and directly dependent on, dynamic river channels and catchment inflows. Droughts typically evolve over weeks to months; however, when water demand persistently exceeds available supply, prolonged drought conditions culminate in acute water shortages⁴⁰. At the opposite extreme, floods, mudflows, and GLOFs can rapidly elevate raw-water turbidity beyond treatment thresholds, damage system infrastructure⁴¹. For example, floods are estimated to incur USD 73.3 million of annual expected losses in the Kyrgyz Republic, and USD 60.8 million in Tajikistan⁴². When disruptions occur, water system operators face immediate expenditures to restore damaged assets and manage emergency response measures. At the same time, households

³² [Shahgedanova, M., Saidaliyeva, Z., Mussina, A. et al. Debris flows in the northern Tien Shan, Central Asia: regional database, meteorological triggers, and trends. *npj Natural Hazards* 1, 49 \(2024\).](#)

³³ IPCC AR6 WG1 Ch. 12 / WG2 Ch. 10

³⁵ [Shaw, R. et al. Asia. In: *Climate Change 2022: Impacts, Adaptation and Vulnerability* 1457–1579 \(Cambridge University Press, 2022\).](#) Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, Chapter 10: Asia

³⁶ [United Nations Development Programme. Early warning system in the Kyrgyz Republic: Real-time risk monitoring. UNDP Kyrgyzstan \(27 June 2025\).](#)

³⁷ [United Nations Environment Programme. Climate change is reshaping the Kyrgyz Republic, finds new UNEP Atlas. UNEP \(26 March 2025\).](#)

³⁸ [UNESCO. Reducing vulnerabilities of populations in the Central Asia region from glacier lake outburst floods in a changing climate. Adaptation Fund Regional Project/Programme Proposal \(2019\)., page 2](#)

³⁹ [International Cryosphere Climate Initiative. Global assessment highlights increasing risks of glacial lake outburst floods. ICCI \(28 May 2024\).](#)

⁴⁰ Becher, O., Smilovic, M., Verschuur, J. et al. The challenge of closing the climate adaptation gap for water supply utilities. *Commun Earth Environ* 5, 356 (2024).

⁴¹ De Marines, F., Cosenza, A., Capodici, M., Torregrossa, M., Viviani, G. and Corsino, S.F., 2025. A novel methodological approach for the assessment of drinking water treatment plant robustness under challenging turbidity scenarios. *Journal of Water Process Engineering*, 75, p.107971.

⁴² [Ulatov, S., Tsukarev, T., Lemba, K. & Korotkikh, O. Assessment of the potential impact of natural hazard events on debt sustainability of Armenia, Kyrgyzstan, and Tajikistan. EFSD Working Paper WP/24/1 \(2024\).](#)

and businesses incur significant social and economic losses, including the need to purchase water from alternative sources and lost income due to service interruptions⁴³.

18. In the Kyrgyz Republic and Tajikistan, high exposure to climate hazards is compounded by a high vulnerability, driven by the poor state of physical water supply infrastructure and weak institutional capacity. Physical water losses commonly exceed 40–50% due to deteriorated networks, while service reliability remains low, with intermittent supply in many cities. Institutional fragmentation, weak tariff frameworks and constrained municipal fiscal space reduce utilities' capacity to respond. A survey of individual utilities/cities concludes that most pressing / observable direct impacts include drought and flooding (see Figure 1. below). Floods, mudslides and landslides have been one of the frequent events faced by Kyrgyz Republic. Floods occurred in Osh, Jalal-Abad in 1998, 2005, 2007, 2012. Mudslide and landslide cause damage to water infrastructures, connectivity, power lines, water and heating supply, and sewerage system networks. In Osh city, the Vodokanal stated that, in addition to an underground source, it also receives drinking water from an open source, the Ak-Buura River. After every episode of heavy rains and landslides, the banks of the river are washed out and eroded. Due to mudflows and cloudy water, the Vodokanal has to cut off water supply to the urban population for several hours or days. In such cases, the Mayor's Office has to prioritise the supply of water for residents, which leads to additional burdens on the local budget and creates inconvenience for residents.⁴⁴

City	Drought	Flooding	Frost	Groundwater Rise	Rain Storms / Strong wind	Rain Storms / Mud Flow	Landslide
Balykchy							
Batken							
Cholpon-Ata							
Jalal Abad							
Kara Balta							
Kara-Suu							
Karakol							
Kyzyl-Kiya							
Mailyy-Suu							

⁴³ Jenkins, K., Dobson, B., Decker, C. and Hall, J.W., 2021. An Integrated Framework for Risk-Based Analysis of Economic Impacts of Drought and Water Scarcity in England and Wales. *Water Resources Research*, 57(8), p.e2020WR027715.

⁴⁴ SIWI case study report for EBRD, 2022

Naryn							
Osh							
Talas							
Tokmok							
Toktogul							
Uzgen							

Figure 1: Climate impacts reported by water companies (SIWI case study report for EBRD, 2022)

19. The study⁴⁵ also identified an inter-dependency climate driven risk, specifically related to climate exposed **power supply**. Power supply interruptions can occur as a result of power shortages (increasingly frequent as both Kyrgyz Republic and Tajikistan are heavily hydropower dependent), but also other localised causes of power disruption driven by climate change including strong winds that destroy power lines, after which electricity is cut off. This leads to a pump stop, frequent shutdowns, and pump malfunction. In addition, hydraulic shocks occur when water is forced to stop or change its direction abruptly due to frequent power interruptions. Particularly when there is an earthquake, power lines get disconnected, and water supply is affected, as highlighted by Uzgen and Jalalabad Vodokanals.
20. A comprehensive assessment of climate hazards is included in the Annex 2: Feasibility Study, including site specific information on advanced pipeline projects.

Framework for climate change impacts

21. Following the resilience framework articulated by **Krueger et al. (2019)**, the impacts of climate change on municipal water systems and last-mile irrigation infrastructure can be categorized as *incremental impacts* and *systemic impacts*.
22. **Incremental impacts** reflect climate-driven performance degradation within an otherwise functioning system. The incremental impacts of climate change result in more frequent service interruptions (primarily driven by increased hydrological variability and seasonal water scarcity)⁴⁶, infrastructure damage (due to more frequent and intense extreme events such as floods, mudflows, landslides, and freeze–thaw cycles)⁴⁷, reduced water quality (resulting from higher temperatures, reduced dilution during low-flow periods, spikes in sediment and pollutant loads during extreme rainfall, and intrusion of contaminated groundwater into aging networks)⁴⁸ and higher rates of leakage (as a result of accelerated asset deterioration caused by temperature extremes, ground movement, and pressure fluctuations in stressed networks)⁴⁹. These impacts result in increased O&M costs for the operators, lost revenue, and economic impacts on households (time, health) and businesses (lost revenue). Such impacts can be addressed through conventional adaptation measures, including asset rehabilitation, efficiency improvements, and climate-informed engineering design.
23. **Systemic impacts** arise when cumulative climate stress erodes system resilience to the point that critical thresholds are crossed. At this stage, water utilities risk entering an undesirable regime characterised by

⁴⁵ SIWI, 2022

⁴⁶ https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_Chapter04.pdf

⁴⁷ <https://documents1.worldbank.org/curated/en/099124511122431814/pdf/IDU1fa8a4c3a1fd8c14810194851fb785b73d02d.pdf>

⁴⁸ <https://www.mdpi.com/2073-4441/17/21/3108>

⁴⁹ <https://www.mdpi.com/2073-4441/16/11/1534>

persistent service failure, emergency repairs, revenue collapse, deferred maintenance, institutional overload, and escalating vulnerability. Krueger et al. (2019) emphasise that such regime shifts are non-linear, path-dependent, and costly to reverse, leading to long-term economic and social losses that exceed incremental annual damages. Figure 2 illustrates this process, showing the increasing risk of system failure under climate change: chronic exposure erodes the capacity to recover, ultimately triggering tipping points beyond which the delivery of water services cannot be reliably maintained.

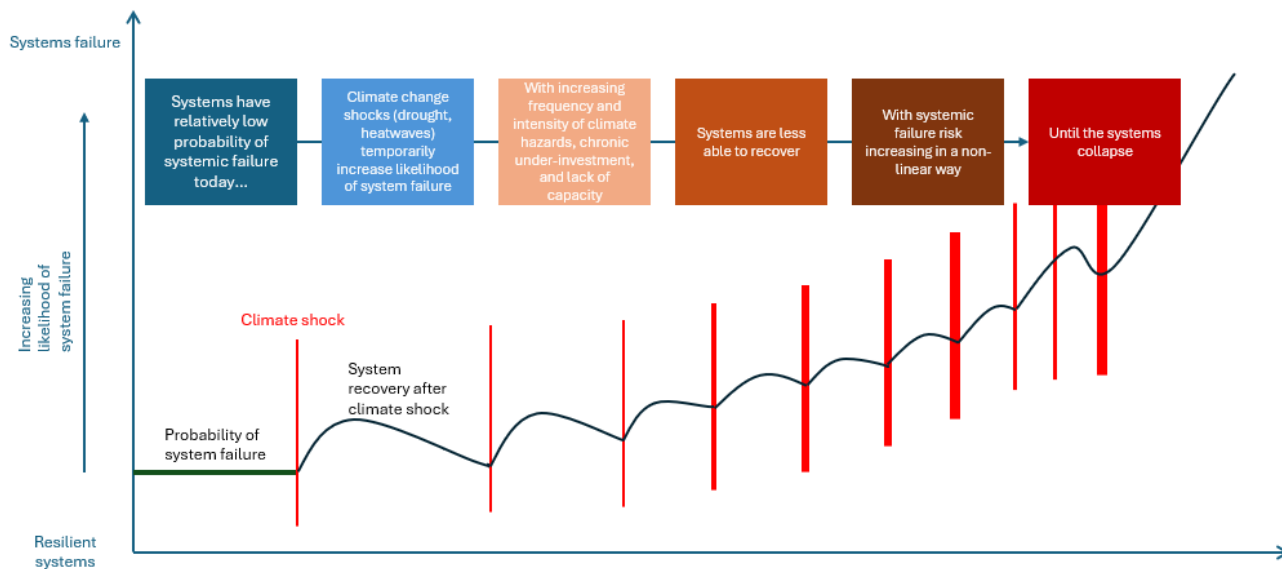


Figure 2: Probability of water system failure under the impacts of climate change, adapted by EBRD from Krueger et. Al. (2019)

24. **Inter-dependency impacts** are not captured by Krueger et Al (2019), but is another distinct impact channel for Kyrgyz Republic and Tajikistan water systems. This is driven by a strong inter-dependency of the water system on other systems – primarily the power system, which faces high climate risks including water scarcity (which reduces hydropower production, the main power source in both countries that is facing frequent disruption) but also direct risks such as damage to power lines.
25. Site-specific assessments following the above framework for advanced sub-projects are included in the Annex 2. Feasibility Study.

Link between programme and addressing hazards/impacts

26. The Programme explicitly targets **incremental**, **systemic**, and **inter-dependency** impacts. The programme reduces the incremental impacts (disruption, damage, quality, degradation) through targeted adaptation investments, with direct climate resilience outcomes with a present value of 500 million EUR⁵⁰. In addition, the programme targets broader levers that literature has identified as critical to reduce the probability of systemic impacts, as well as tackling inter-dependency impacts. It does so by applying a **deep adaptation approach** that strengthens multiple dimensions of resilience simultaneously—robustness, redundancy and diversity, adaptive capacity, and response and recovery—thereby raising the system's resilience trajectory. For example, incorporation of additional water storage or dedicated power generation capacities to address inter-dependency risks from power supply disruption. **Examples for investments under these deep adaptation pathways are discussed in the Feasibility Study (Annex 2) as part of the indicative pipeline of projects.**

⁵⁰ See Economic Assessment annex

27. In this way, the Programme moves beyond only incremental fixes and instead supports a long-term resilience transition, ensuring that municipal water systems and last-mile irrigation infrastructure remain functional, financially viable, and socially inclusive under progressively worsening climate conditions.

Related projects/interventions

28. This Programme builds upon a series of EBRD led interventions and projects supported targeting climate resilience over the last decade. In the early GEF supported project “Improving the Climate resilience of water supply systems in Kyrgyzstan (GEF 5115)” the focus was on rehabilitation of water supply systems in major urban centres Bishkek and Osh, as well supporting core institutional reforms. In Tajikistan, under the GEF project “Increasing Climate Resilience through Drinking Water Rehabilitation in North Tajikistan” support was provided for rehabilitation/upgrading of water supply networks in 7 cities (Chkalovsk, Isfara, Karaikkum, etc.). These GEF funded initiatives laid a foundation for engagement with national authorities on policy and institutional reforms for climate resilient water systems across both countries. It also piloted adaptation pathway approaches via “Rapid Adaptation Pathway Assessments” (RAPAs). The Programme will leverage these foundations in order to scale and transform water systems across both countries. In the Kyrgyz Republic for example, the Bank has supported the Government through technical assistance to develop the national tariff reform action plan, which has been formally endorsed. The action plan includes the development of a standardised PSC, implementation of the tariff methodology and social support plan. The reform activities proposed under this programme build on this plan and continue rolling out the tariff methodology, standardised PSCs and a standardised social support mechanism. This proposed Programme benefits from an enabling framework provided through earlier assistance, however implementation of this programme is not dependent on the achievement of milestones under other projects.
29. The Programme is designed to be complementary to other initiatives at both the regional and national levels. There is a rich landscape of water resilience initiatives, including World Bank’s CAWEP (USD 8.76 million, 2019) and ADB’s CAREC Water Pillar (USD 39.2 billion 2001–2020). Complementary donor programmes include [OECD’s Water-Energy-Land Use Linkages](#) project, [IKI-EBRD’s Central Asia Nature Partnership](#) and [GCF-ADB’s ‘Glacier-to-Farms’ Initiative \(G2F\)](#). The GCF-ADB G2F initiative focuses predominantly on bulk water infrastructure, irrigation, or energy systems, with relatively limited attention to municipal and peri-urban water systems.
30. Knowledge management will serve as an integrated, cross-cutting function that supports all program areas by capturing, sharing, and applying lessons learned and best practices. This will be achieved i.a. through Climate Transition Platforms, international dissemination of best practice and peer-to-peer learning and operational improvements. This effort on utility-level knowledge management will be supported by a parallel initiative that EBRD is pursuing with the Global Water Operator Alliance Partnership, a global network facilitated by UN-HABITAT, under which pilot Water Operator Partnerships (WOPs) are being explored in the country. The programme is designed for replication and scaling across Central Asia, aligning with the mitigation and adaptation priorities outlined in NDCs, supporting the development of NAPs.

Multi-hazard climate risk (interacting droughts, floods, glacier retreat) (IPCC, 2022; Reyer et al., 2017; Sorg et al., 2012)	Water supply services face growing multihazard climate risks because water supply and irrigation systems are located in close proximity to, and directly dependent on, dynamic river channels and catchment inflows (Becher et al., 2023). Slowonset droughts can escalate into severe water shortages when demand outstrips supply, while rapidonset hazards - such as floods, mudflows, and GLOFs - can abruptly push turbidity beyond treatment limits and physically damage critical infrastructure (De Marines et al., 2025).	Component 1: Public service contracts with embedded climate resilience, national standard for Climate Risk and Vulnerability Assessments; Component 2: Vodokanal -level multi-hazard risk baselining and adaptation pathway development	Integrated climate risk screening allows utilities to anticipate interacting hazards and plan resilient investments.
Rising mean temperature (+0.8–1.2 °C observed; +≈3 °C mid-century) (IPCC, 2021; Chen et al., 2016; Lioubimtseva & Henebry, 2009)	Higher temperatures increase evapotranspiration, reducing reservoir inflows and surface water availability (IPCC, 2021). Extreme temperatures also drive higher peak water demand, increased stress on freshwater systems (Huss & Hock, 2018). Elevated temperatures also increase the risk of electrical equipment overheating where cooling systems are inadequate (Howard et al., 2016).	Component 3: Water efficiency upgrades, leakage reduction, storage optimisation.	Reduced physical losses and improved storage increase effective water availability under higher evaporative demand.
Increased drought frequency (declining SPEI; glacier retreat >16% area loss) (Vicente-Serrano et al., 2015; Sorg et al., 2012; Huss & Hock, 2018) (IPCC, 2021; Donat et al., 2016; Kundzewicz et al., 2014)	Drought reduces river discharge and groundwater recharge, causing seasonal water scarcity, declining system pressure and intermittent water supply (Vicente-Serrano et al., 2015; Sorg et al., 2012). Water utilities may experience intake failure during low-flow conditions, requiring emergency abstraction or rationing.	Component 3: Intake protection, alternative abstraction, storage reinforcement, digital monitoring, network rehabilitation.	Diversified supply sources and improved operational control reduce exposure to low-flow thresholds.
	Water quality deterioration during drought: reduced river flows intensify nutrient and contaminant concentrations, increasing treatment costs (Van Vliet et al., 2008). This deterioration also contributes to chronic water stress, through additional water requirements for dilution (Van Vliet et al., 2013).	Component 3: Wastewater treatment improvements and pollution load reduction.	Increased water availability thanks to reduced freshwater dilution requirements.
Intensified extreme precipitation and floods (IPCC, 2021; Donat et al., 2016; Kundzewicz et al., 2014)	Extreme rainfall increases sediment transport and runoff, causing turbidity spikes in source waters that exceed treatment thresholds (IPCC, 2021). Floods may damage intake structures, treatment plants, pipelines and pumping stations, leading to multi-day service disruptions (UNDRR, 2019). Flood-induced landslides and debris flows can also block intakes and damage conveyance infrastructure.	Component 3: Wastewater treatment capacity expansion and upgrades; flood-resilient infrastructure; nature-based solutions to address sediment influx.	Hardening of assets and sediment management reduce service disruption probability.
	Floodwater infiltration into sewer systems can cause sewer overflows, groundwater contamination and public health risks (Howard et al., 2016).	Component 3: Wastewater network rehabilitation; drainage and stormwater management (including SuDS).	Reduced infiltration and overflow to protect urban infrastructure and groundwater.
Glacial lake outburst floods (GLOFs) and mass movements (Shugar et al., 2020; Emmer & Cochachin, 2013)	Glacier retreat in Central Asia has increased the number and size of glacial lakes, raising the risk of glacial lake outburst floods, which can destroy water intakes, pipelines and bridges (Shugar et al., 2020; Emmer et al., 2022). Landslides triggered by heavy rainfall or glacier melt can rupture pipelines and disrupt water conveyance networks.	Component 3: Asset relocation, structural reinforcement, elevation of critical infrastructure.	Infrastructure relocated or reinforced outside high-risk corridors reduces catastrophic loss.
Climate–energy interdependency (hydropower variability; storms damaging power lines) (Gaudard et al., 2014; Turner et al., 2017; van Vliet et al., 2016)	Water utilities depend heavily on electricity for pumping and treatment. In Central Asia, hydropower variability during drought can reduce electricity availability, while storms and landslides can damage transmission lines and cascading system outages (IEA, 2020; World Bank, 2020). Energy disruptions propagate through water systems, causing pressure loss and service interruptions.	Component 3: Energy-efficient pumps; backup power; water network redundancy.	Reduced dependence on continuous grid power decreases systemic vulnerability.

Table 3 Hazard–Impact–Response Matrix

B.2 (a). Theory of change narrative and diagram (max. 1500 words, approximately 3 pages plus diagram)

Problem Statement

31. Water systems in the Kyrgyz Republic and Tajikistan face climate change driven incremental, systemic and inter-dependency impacts, undermining the quality and reliability of water supply across many communities. The state of the water sector has evolved as a result of under investment, constrained by financial and institutional barriers, and the compounding effects of climate change that exacerbate the vulnerability of these systems. As water system behaviour increasingly departs from historical norms, conventional approaches are no longer sufficient to prevent breaches of system resilience thresholds. This context necessitates forward-looking, deeply adaptive strategies grounded in robust, multi-hazard risk analysis to ensure water systems and the communities they serve can withstand accelerating climatic and operational uncertainties.

Programme Objective

32. In the context of increasingly uncertain and extreme hydrology, the Programme will build upon previous engagements to catalyse and scale a fundamental shift in how water-system operators in the Kyrgyz Republic and Tajikistan manage and safeguard essential services. Its core objective is to define and operationalise deep adaptation pathways for water services, enabling a transition from reactive, project-by-project interventions toward system-level, multi-hazard, risk-based planning and investment. Deep adaptation pathway development begins with strengthening institutional governance and sector reforms, creating an enabling environment for climate-resilient decision-making. This then flows into utility-level climate-risk assessment and adaptation prioritisation, ensuring that physical infrastructure needs are identified systematically and based on multi-hazard risk. Priority measures are subsequently advanced for financing and implementation, creating a coherent pipeline of resilient investments. Through successful execution of these steps, the programme will equip water utilities and sector institutions to manage interconnected climate risks more strategically, allocate resources more effectively, and build long-term resilience across entire water systems rather than isolated assets.

Theory of Change

33. Water service resilience in the Kyrgyz Republic and Tajikistan can only be secured through *deep adaptation pathways*: long-term, sequenced, and climate-informed strategies that enable systems to withstand the hydrological conditions projected for 2030–2050 and beyond. **IF** deep adaptation pathways for priority water systems are developed and implemented in each country, which shift the sector towards a combined approach of strategic and context-specific physical adaptation measures with the strengthening of the enabling environment, **THEN** water systems will be more climate resilient as the likelihood of climate-induced service collapse will be reduced, essential water supply and sanitation functions for secondary cities including most climate vulnerable populations will stabilise, women's time poverty will be reduced and women's voice in service planning and engagement strengthened and utilities and institutions will be able to avoid a progressive decline in resilience and prevent systems from crossing critical tipping points where failures become widespread and irreversible, **BECAUSE** the capacity of national and local institutions to anticipate, absorb, and adapt to accelerating climatic uncertainties over the long term will be strengthened, and the resilience of water services will be raised above the climate-risk threshold through structural reforms, targeted investments, operational improvements, and innovation.

Project Activities

34. By directly linking activities with measurable outputs, outcomes, and co-benefits, the Programme ensures that each intervention contributes to the overarching goal of defining and operationalising deep adaptation pathways for water services across the Kyrgyz Republic and Tajikistan. The integrated design ensures that improvements in national governance frameworks, utility intervention planning, and

infrastructure financing collectively reinforce the resilience of water systems and the communities that depend on them.

35. Deep adaptation pathways aim to alter the trajectory of resilience for systems, facilitating a shift from reactive, project-by-project interventions toward integrated institutional reforms, multi-hazard risk based planning, and strategic investment, thereby reversing the downward resilience trajectory of water systems under climate change and exposure to inter-dependency risks.
36. The deep adaptation pathway approach promotes risk-based prioritisation of adaptation interventions across multiple dimensions: capital investments (climate-proofed infrastructure and nature-based solutions), demand-side measures (metering, leakage reduction), and institutional reforms (asset management, tariff reforms, governance). Prioritisation is informed by multi-hazard risk analysis over decision-relevant timescales, enabling anticipatory planning that moves beyond simply restoring past service levels to achieving higher resilience aligned with projected 2030–2050 hydrological regimes⁵¹ and identified inter-dependencies with other systems. Building resilience thus requires coordinated, integrated action across infrastructure, operational management, and governance.
37. Deep adaptation pathway development begins with strengthening institutional governance and sector reforms, creating an enabling environment for climate-resilient decision-making. **Component 1 (National-level Water Sector Reforms and Climate Resilience Transition Platforms)** activities advance this foundational step by generating **Output 1.1 (National legal and regulatory reforms supported)**, **Output 1.2 (Guidance and tools for water system operators on climate resilience and inclusion responsiveness developed)**, and **Output 1.3 (Water sector CRTP(s) established)** enhancing institutional capacity and readiness to respond to emerging hydrological risks. Building on this foundation, **Component 2 (Utility-level climate resilience baselining and technical support for adaptation pathway development)** conducts climate-risk assessments and prioritizes adaptation measures at the utility level. This activity produces **Output 2.1 (Adaptation pathways for priority systems developed)**, **Output 2.2 (Enhanced adaptive capacity of water utilities through implementation of corporate development support)**, and **Output 2.3 (Implementation of water project supported)** providing utilities with actionable roadmaps that integrate national policy and regulatory changes from Component 1, systematically identify infrastructure needs, and strengthen adaptive capacity, operational robustness (including reduced water losses), and response to climate extremes, as well as implementation support for climate-resilient infrastructure sub-projects to be implemented and financed under Component 3. Finally, **Component 3 (Catalyse climate investments for the implementation of adaptation pathways)** delivers **Output 3.1 (Priority water systems deliver enhanced, climate resilient water services)**, translating priority measures identified under Component 2 into tangible investments. Together, these linked components create a coherent pipeline from governance reform through utility-level adaptation to infrastructure implementation, directly improving service reliability, ensuring equitable access, strengthening women's empowerment, reducing vulnerability to extreme climate events, and enhancing the long-term resilience of water and wastewater systems.
38. Knowledge management will serve as a cross-cutting activity embedded throughout the Programme. The Programme will generate, package, and disseminate lessons learned. This will facilitate replication across Central Asia and encourage the adoption of deep adaptation approaches in other risk-prone contexts.

⁵¹ <https://pubmed.ncbi.nlm.nih.gov/24080616/> <https://pubmed.ncbi.nlm.nih.gov/24080616/> Hall J, Borgomeo E. Risk-based principles for defining and managing water security. Philos Trans A Math Phys Eng Sci. 2013 Sep 30;371(2002):20120407. doi: 10.1098/rsta.2012.0407. PMID: 24080616; PMCID: PMC3785948.

39. These outputs, in turn, will lead to **Outcome 1 (Strengthened enabling environment of the water sector at the national level providing the boundary conditions for climate resilient and gender-responsive water service provision)**, **Outcome 2 (Strengthened institutional capacity of water utilities to provide resilient and inclusive water services and integrate climate risk into their strategic planning)**, and **Outcome 3 (Improved water security via climate-resilient infrastructure investments)**. As these outcomes materialize, they will contribute to the long-term impact of improved water security, reduced exposure to climate hazards, and more resilient water systems capable of withstanding anticipated climate change impacts in 2030-2050 and beyond.
40. Expected **Co-Benefits** are:
1. **Economic:** Enhanced financial sustainability of water operators and improved welfare of customers, resulting from improved institutional capacity, cost-reflective pricing, adaptive management, and greater participation of vulnerable groups (Outputs 1.1, 1.2, 2.1, 2.2, 3.1). Indicative programme examples include reduced water losses and emergency Operation and Maintenance (O&M); avoided outage and repair costs; improved utility cost recovery without regressive tariff shocks; time savings for households (especially for women).
 2. **Environmental:** Improved water quality, management, and infrastructure, enhanced ecosystem services (e.g., via NBS), and pollution reduction leading to greater water security, reduced exposure to climate hazards, and lower energy intensity of supply systems (Outputs 1.3, 2.1, 3.1).
 3. **Social & Gender:** Improved health and service experience through more reliable, accessible and safer water services, reduced time poverty burdens linked to coping strategies for intermittent supply (particularly for women), strengthened women's voice in service planning and customer engagement, and improved equality of opportunity through targeted capacity building and utility-level gender action plans (Outputs 1.1, 1.2, 2.2, 3.1).
41. There are likely to be some **climate mitigation co-benefits** however they are not listed here, given (i) the primary objective of the programme is climate adaptation, (ii) the low carbon-intensity of the electricity grids in Tajikistan and Kyrgyz Republic (hydro dominated) yield marginal carbon savings from energy efficiency gains and (iii) the likely relatively small contribution of methane and nitrous oxide avoidance from improved wastewater management to the overall economic rationale for the programme.
42. The Theory of Change diagram below illustrates how activities at the base flow upward through outputs and outcomes to achieve the Programme's overall impact at the top. It highlights how key barriers and risks are addressed at each stage, while also showcasing the associated assumptions and resulting co-benefits to be achieved.

Impact	IF: The Resilient Water Systems for All Programme successfully defines and implements deep adaption pathways for priority water systems in each country THEN: water systems will be more climate resilient as the likelihood of climate-induced service collapse will be reduced, essential water supply and sanitation functions for secondary cities including most climate vulnerable populations will stabilise, women's time poverty will be reduced and women's voice in service planning and engagement strengthened and utilities and institutions will be able to avoid a progressive decline in resilience and prevent systems from crossing critical tipping points where failures become widespread and irreversible BECAUSE: the capacity of national and local institutions to anticipate, absorb, and adapt to accelerating climatic uncertainties over the long term will be strengthened will be strengthened, and the resilience of water services will be raised above the climate-risk threshold through structural reforms, targeted investments, operational improvements, and innovation						
Co-benefits	Economic (Enhanced financial sustainability of water operators and improved welfare of customers)		Environmental (Improved water quality, management, and infrastructure, enhanced ecosystem services (e.g., via NBS), and pollution reduction)		Social & Gender (Improved health, enhanced access and water quality, reduced women's time poverty and improved women's participation and leadership in service planning)		
Outcomes	1. Strengthened enabling environment of the water sector at the national level providing the boundary conditions for climate resilient and gender -responsive water service provision			2 Strengthened institutional capacity of water utilities to provide resilient and inclusive water services and integrate climate risk into their strategic planning		3. Improved water security via climate -resilient infrastructure investments	
Outputs	1.1 National legal and regulatory reforms supported	1.2 Guidance and tools for water system operators on climate resilience and inclusion responsiveness developed	1.3 Water sector Climate Resilience Transition Platform(s) established	2.1 Adaptation pathways for priority systems developed	2.2 Enhanced adaptive capacity of water utilities through implementation of corporate development support	2.3 Implementation of water projects supported	3.1 Priority water systems deliver enhanced, climate resilient water services
Project activities	1.1.1 Structural reform for the water sector to enable long-term resilience, including relevant data collection, monitoring and reporting 1.1.2 Mainstreaming climate adaptation and social inclusion in water services	1.2.1 Develop national guidance and knowledge products on climate resilient water service delivery 1.2.2 Develop national toolkit for scalable community engagement programmes to promote water efficiency at the customer level 1.2.3 International knowledge sharing on best practices for climate resilient and inclusive water services	1.3.1 Design and establishment of Climate Resilience Transition Platform (CRTP) for the water sector 1.3.2 Operation of Climate Resilience Transition Platforms, including gender considerations	2.1.1 Conduct baselining and adaptation pathway development for sub-systems 2.1.2 Provision of detailed project preparation support for priority investments	2.2.1 Increase adaptive capacity of water utilities through corporate development support, including gender considerations and relevant data collection, monitoring and reporting 2.2.2 Implement community engagement programmes to promote water efficiency at the customer level	2.3.1 Support provided for sub-projects to be implemented under Component 3	3.1.1 Implementation of prioritised climate resilience investments at utility level
Barriers/risks (activities addressing them)	Governance and regulation gaps (1.1.1) Lack of inclusive decision -making processes and gender disparities 1.1.2)	Insufficient institutional capacity to develop and sustain commercially viable, climate -resilient water and irrigation services (2.1.1/2, 2.3.1) Absence of climate risk and inclusion considerations in the investment planning process (2.1.1/2, 2.1.1 , 2.3.1)	Insufficient technical skills to identify, assess and manage climate -related risks and gender gaps(2.2.1/2/3, 2.3.1)		Ageing infrastructure contributes to significant water losses and energy inefficiencies (3.1.1) High upfront investment costs, revenue gap, and affordability constraints limit the implementation of comprehensive climate resilience investment programmes (3.1.1)		Water systems are frequently not built to withstand current and future climate stresses (3.1.1)
Assumptions	Governments, local authorities and water system operators will remain committed to, and actively engaged in, the activities proposed in the Programme to ensure the sustainability of interventions			Governments and local authorities will act upon the technical support received and sufficient internal expertise will be in place to implement the activities proposed and contribute to institutional strengthening and sustaining an enabling environment			

Figure 3: Theory of Change Diagram

43. The Programme aims to address a range of institutional, technical, and financial barriers that currently limit the climate resilience of water services in the Kyrgyz Republic and Tajikistan. **Institutional barriers** include gaps in governance frameworks, low cost-recovery, and underdeveloped regulatory systems, which constrain effective decision-making and long-term planning. Water operators often have limited capacity to establish commercially oriented, financially sustainable, and climate-resilient services. Additionally, there is generally low awareness and understanding of climate-related hazards and the factors that enhance resilience among water infrastructure managers, which hampers proactive adaptation and risk-informed management. In addition, gender and social inclusion barriers, including women's time poverty linked to coping with intermittent services, limited representation in local decision-making and engagement, and gaps in sex-disaggregated service and workforce data, can constrain equitable participation and reduce the responsiveness of service planning and reform. **Technical barriers** stem from inherent uncertainty about how critical water systems will be exposed to climate impacts, as well as the physical vulnerability of existing infrastructure, under climate change. Many systems lack climate-resilient design standards, and aging assets contribute to high water losses, energy inefficiency, and operational fragility. Together, these weaknesses limit utilities' capacity to provide reliable service during droughts, floods, and other extreme events, while constraining the effectiveness of incremental adaptation measures. **Financial and economic barriers** further constrain resilience-building efforts. High investment costs, coupled with affordability constraints, limit the capacity of utilities and governments to implement priority adaptation measures. While there is international support for climate resilience initiatives in the water sector, opportunities for coordinated financing and cooperation remain underutilized, reducing the potential scale and impact of adaptation investments.

44. The Programme also considers a range of risks and underlying assumptions to ensure realistic planning and mitigation strategies. Key **risks** include foreign exchange and interest rate fluctuations and political risk, which are mitigated through due diligence by the Bank's sound banking approach and the governments' borrowings from EBRD with specified use-of-proceeds, underscoring their strong commitment to the Programme. Environmental and social risks are mitigated through comprehensive

Environmental and Social Action Plans (ESAPs). Implementation and procurement risks are addressed through dedicated technical assistance and oversight by independent consultants.

45. The Programme operates under critical **assumptions** that governments, local authorities and water system operators will remain committed to, and actively engaged in, the activities proposed in the Programme to ensure the sustainability of interventions; and that governments and local authorities will act upon the technical support received, with sufficient internal expertise in place to implement the activities proposed and contribute to institutional strengthening and a sound enabling environment.
46. Finally, the Programme fully aligns with the GCF's Updated Strategic Plan 2024-2027 by contributing to the following targeted result areas:
 - Target 1: The Programme directly supports implementation of national climate commitments by operationalising adaptation priorities embedded in countries' NDCs, NAPs and longterm strategies through the water sector. It translates highlevel commitments on climate resilience, water security, and inclusive service provision into policies, regulatory reforms, utility-level planning tools, and investable pipelines. By embedding climate risk into sector regulation, tariff methodologies, and public service contracts, and by institutionalising adaptation planning through deep adaptation pathways, the Programme bridges the gap between national climate policy and on-the-ground implementation.
 - Target 6: The Programme strengthens climate-resilient infrastructure by shifting from reactive rehabilitation to system-level, pathway-based investment in water supply, wastewater, conveyance, and associated energy-water interdependencies. Investments are explicitly designed to perform under increasing climate variability and multiple hazards, while reducing structural inefficiencies that undermine resilience. Crucially, infrastructure investments are paired with governance reform, operational improvements, and financial sustainability measures, ensuring that resilience gains are durable, scalable, and maintained over asset lifecycles rather than eroded over time.
 - Target 9: The Programme advances locally-led adaptation by positioning utilities, municipal institutions, and communities at the centre of adaptation planning and delivery. Utility-level deep adaptation pathways are co-developed based on local climate risks, service constraints, and user needs, while customer engagement, demand management, and affordability mechanisms strengthen household-level adaptive capacity. By building local institutional and technical capacity, embedding learning, and enabling iterative decisionmaking under uncertainty, the Programme ensures that adaptation actions are contextspecific, socially inclusive, and led by the actors responsible for longterm service provision.

B.2 (b). Outcome mapping to GCF results areas and co-benefit categorization

Outcome number	GCF Mitigation Results Area (MRA 1-4)				GCF Adaptation Results Area (ARA 1-4)			
	MRA 1 Energy generation and access	MRA 2 Low-emission transport	MRA 3 Building, cities, industries, appliances	MRA 4 Forestry and land use	ARA 1 Most vulnerable people and communities	ARA 2 Health, well-being, food and water security	ARA 3 Infrastructure and built environment	ARA 4 Ecosystems and ecosystem services
Outcome 1: Strengthened enabling environment of the water sector at the national level providing the boundary conditions for climate resilient and gender-responsive water service provision	☐	☐	☐	☐	☒	☒	☒	☐
Outcome 2: Strengthened institutional capacity of water utilities to provide resilient and inclusive water services and integrate climate risk into their strategic planning	☐	☐	☐	☐	☒	☒	☒	☐
Outcome 3: Improved water security via climate-resilient infrastructure investments	☐	☐	☐	☐	☒	☒	☒	☐
Co-benefit number	Co-benefit							
	Environmental	Social	Economic	Gender	Adaptation	Mitigation		
Co-benefit 1: Enhanced financial sustainability of water operators and improved	☐	☐	☒	☐	☐	☐		

welfare of
customers

Co-benefit 2:

Improved water
quality,
management,
and
infrastructure,
enhanced
ecosystem
services (e.g.,
via NBS), and
pollution
reduction



Co-benefit 3:

Improved
health, access
to and quality of
water supply
and gender
equality



B.3. Project/programme description (max. 2500 words, approximately 5 pages)

47. The Programme delivers three outcomes as follows:

Outcome 1: Strengthened enabling environment of the water sector at the national level providing the boundary conditions for climate resilient and gender-responsive water service provision,

Outcome 2: Strengthened institutional capacity of water utilities to provide resilient and inclusive water services and integrate climate risk into their strategic planning, and

Outcome 3: Improved water security via climate-resilient infrastructure investments

These will be achieved through three associated components, resulting in seven outputs. The programme outlined below is structured based on scale: national level (Component 1), utility (Component 2) and asset (Component 3).

Component 1: National-level Water Sector Reforms and Climate Resilience Transition Platforms

48. Component 1 enables a systemic transition in the water sectors of Kyrgyz Republic and Tajikistan through national reforms, institutional capacity building and CRTP in each country that coordinate stakeholders and scale existing efforts and best practice. This leads to a **strengthened enabling environment of the water sector at the national level providing the boundary conditions for climate resilient and gender-responsive water service provision (Outcome 1)**.

49. This component addresses key constraining factors in the enabling environment of the respective national water sectors:

- Governance and regulation gaps, as well as mandate definition. While different actors, including various international supporters, are supporting climate resilience and inclusiveness objectives in the water sector, opportunities for enhanced collaboration are missing.
- Decision-making processes are in place, but they lack inclusiveness and consolidate gender disparities.

50. Over several years EBRD's investments in the water and irrigation sectors in the Kyrgyz Republic and Tajikistan had been delivered alongside a comprehensive programme to advance sector reforms focused on strengthening institutional frameworks, regulatory clarity and accountability, enhancing operational efficiency and cost recovery through tariff methodology reform and gradual adjustments, automation and commercialisation of utilities.

51. This track record provides an ideal platform for the proposed GCF Programme to deliver not only the necessary capital investments that the water sector requires, but to first engage the national governments in a way that explicitly and robustly addresses the climate change challenge.
52. Component 1 delivers three main outputs. They are designed to strengthen the national institutions in their roles and responsibilities, as well as defining the framework for the adaptation pathways developed under Component 2.

Output 1.1: National legal and regulatory reforms supported

53. Under Output 1.1, the programme will further promote the inclusion of climate into the centre of the national water sector agenda. It operationalises reforms that improve governance, accountability and financial sustainability. The activities include:

54. Activity 1.1.1: Structural reform for the water sector to enable long-term resilience, including relevant data collection, monitoring, and reporting

- Support implementation and consolidation of national reforms in the water sectors
- Includes an assessment of the existing tariff setting methodology, under the Tariff Methodology and Social Support Programme. As part of this component, a transparent social support programme is developed to address affordability constraints for vulnerable groups, as well as develop a clear road map of eliminating possibilities for cross-subsidization.
- Scale and institutionalise water sector and irrigation tariff adjustments, by putting into action the revised tariff methodologies through regulatory updates
- Operationalise tariff methodology updates and staged tariff adjustments, and develop simplified tariff application tools and regulator training curricula.
- Finalise, legally adopt and roll out standardised Public Service Contracts (PSCs) with clear climate-resilience Key Performance Indicators (KPIs) and performance incentives.
- Deploy embedded reform support teams. These teams will provide continuous hands-on support for reform rollout, capacity building, including for data collection, monitoring, and reporting, coordination across institutions and development of supporting legislation and regulations, including in the water supply and sanitation legal framework.

55. Activity 1.1.2: Mainstreaming climate adaptation and social inclusion in water services Design and integrate climate resilience KPIs into the respective national PSC standards, which govern the quality of water service delivery in both countries, to facilitate climate-resilient investment planning.

- Advance reform of social support mechanisms by developing social support programme standards and guidance for equitable transition in the water sectors, to ensure affordability for vulnerable households while preserving cost recovery and financial viability.
- Update practices in decision-making bodies in participating water sector institutions to promote women's representation and participation and track its progress via relevant KPIs for annual monitoring and reporting

Output 1.2: Guidance and tools for water system operators on climate resilience and inclusion responsiveness developed

56. This output will produce the blueprints for adaption pathways development at the utility level. It will ensure that the knowledge and experience generated is disseminated beyond the programme. The activities include:

57. Activity 1.2.1: Develop national guidance and knowledge products on climate resilient water service delivery

- Define the national standards for climate-risk screening (CRVA) aligned to international good practice and adapted to the countries' hydrology, exposure and data availability. This ensures a consistent approach to climate risk considerations in the adaptation pathway development.
- Develop country and water sector specific guidance for mainstreaming CRVA outcomes into engineering design criteria. The guidance will bridge the gap between climate analysis and engineering practice, supporting the consideration of climate risks into design aspects such as sizing, materials selection, redundancy or safety factors.

58. Activity 1.2.2 Develop national toolkit for scalable community engagement programmes to promote water efficiency at the customer level

- Develop a practical toolkit of technical measures and incentive mechanisms (rainwater harvesting, reuse options, water-saving appliances, tariff-linked incentives), including potential for private sector participation, and a roll-out plan for piloting in selected utilities (refer to Activity 2.2.2).

59. Activity 1.2.3: International knowledge sharing on best practices for climate resilient and inclusive water services

- Produce a policy brief, a practical guide for practitioner and short webinar series, showcasing the lessons learned and best practice developed, both regarding the enabling environment at the national level (Component 1) and the service delivery at the utility level (Component 2).
- Organise a workshop and develop a knowledge piece to share best practices and lessons learned on mainstreaming gender equality and inclusivity in the water sector to an international audience.

Output 1.3: Water sector Climate Resilience Transition Platform(s) established

60. Under Output 1.3, the setup and operation of CRTPs ensures that climate resilient water services are embedded into the institutional landscape, as a place that align and coordinates efforts across water sector stakeholders. The activities include:

61. Activity 1.3.1: Design and establishment of CRTP for the water sector

- Design and setup the CRTPs in each country. The CRTPs will align efforts across water sector stakeholders, identify synergies and mobilise additional resources for climate-resilient water service delivery. It will define the boundary conditions for CRTP operation, including its formal mandate, governance structure, vision and milestones.
- CRTP will be supported through external technical expertise to inform the platform design and setup.

62. Activity 1.3.2: Operation of Climate Resilience Transition Platforms, including gender considerations

- Facilitate sharing and replication of good practice across individual, utility-level interventions.

- Operate as knowledge manager for national guidance and knowledge products on climate resilient water service delivery, delivered under Activity 1.2.1
- Consolidate a shared sector-wide adaptation pathway and inform efforts on the national legal and regulatory reform activities (Output 1.1) on an ongoing basis.
- Develop guidance and toolkit on adopting gender and equal opportunities action plans (incl. GBVH prevention policies) for utilities to implement, including utilities covered under the programme (under Activity 2.2.1)

Component 2: Utility-level climate resilience baselining and technical support for adaptation pathway development

63. Building on the improvement of the enabling environment at the national level (Component 1), Component 2 focuses on the water utilities as the ultimate providers of climate resilient and inclusive water services. It does this through the development of adaptation pathways, investment preparation support, project implementation support, corporate development and peer-to-peer learning. This will result in **strengthened institutional capacity of water utilities to provide resilient and inclusive water services and integrate climate risk into their strategic planning (Outcome 2)**.
64. Component 2 addresses a set of interrelated capacity barriers in the water sector. These include:
- Absence of climate risk and inclusion considerations in the investment planning process, as well as insufficient technical skills to identify, assess and manage climate-related risks and gender gaps.
 - Insufficient institutional capacity to develop and sustain commercially viable, climate-resilient water and irrigation services.
65. Similar to EBRD's experience at the national level, Component 2 builds upon EBRD's track record of longstanding support to water utilities to address climate resilience and inclusivity enhancements in both Kyrgyz Republic and Tajikistan (pre-and post- signing to water infrastructure investment projects). Component 2 delivers three main outputs. They are designed to mainstream climate-driven decision making and gender equality into investment decisions and utility operation (adaptation pathways) and provide preparation and implementation support to the priority investments implemented under Component 3.

Output 2.1: Adaptation pathways for priority systems developed

66. Output 2.1 combines the need to embed climate risk into decision-making processes (adaptation pathways) with investment preparation support. Activities include:
67. Activity 2.1.1: Conduct baselining and adaptation pathway development for sub-systems
Support water utilities in their development of adaptation pathways. In line with GCF "Water Project Design Guidelines", the approach recognises that adaptive management analysis is useful where advanced management systems are in place, with access to comprehensive and reliable data sets. As these are not readily available here, measures will be assessed and prioritised through a multi-criteria assessment applying "robustness" and "flexibility" considerations. Specific scope items of this TA include:
- Quantifying multi-hazard physical climate risk to customers and utilities under present day and future (2030-2050) climate conditions.
 - Developing a longlist of adaption interventions, including nature-based solutions opportunities, reforms and digital tools.

- Quantifying and prioritising each interventions' role in enhancing adaptive capacity, accounting for distributional impacts on vulnerable communities

Each adaptation pathway will integrate governance and financial reform instruments such as PSCs and CDPs (Activity 2.1.2) as appropriate to ensure sustained institutional resilience and improved cost recovery, alongside the necessary infrastructure upgrades (Component 3). Each pathway will identify improvements in resilience, enabling transparent tracking of progress over time and providing data for replication and policy learning through the CRTPs (Output 1.3).

68. Activity 2.1.2: Provision of detailed project preparation support for priority investments

Under Activity 2.1.2 TA support will be utilised to conduct full technical, environmental and financial due diligence on the infrastructure measures that were prioritised by the adaption pathway development. In collaboration with the respective water utilities, the activity will closely define and justify the elements of the priority investment programme and ensure that the investment aligns with EBRD's policies. The scope of work will entail all critical elements to structure a bankable infrastructure project including project design, financial and economic analyses, environmental and social impact assessments, procurement and contracting, as well as a thorough client assessment and overall analysis of risks. Importantly, the TA support ensures that appropriate climate expertise is available for project preparation, demonstrating that water security risks are clearly linked to climate change, and that the proposed adaptation approach reduces vulnerability to the climate risks.

Output 2.2: Enhanced adaptive capacity of water utilities through implementation of corporate development support

69. Output 2.2 strengthens the institutional capacity of water utilities to provide climate resilient and inclusive water services. EBRD has a strong track record in turning around water utilities, in line with water sector reforms promoted at the national level. Acknowledging the critical role that the water users play in this objective, this output also includes new ways to engage with the utility customer base. Activities include:

70. Activity 2.2.1: Increase adaptive capacity of water utilities through corporate development support, including gender considerations and relevant data collection, monitoring, and reporting

Corporate development support provides post-investment TA support for utilities to adopt improved financial management, governance and operational practices, including data collection, monitoring, and reporting, aligned with the new regulatory framework. Such support will continue in current participating cities and be extended to additional utilities through future investment pipelines. The final scope will be influenced by the output of the respective utility adaption pathways and client maturity levels. The specific scope items include:

- Review and in-depth analysis of the water companies' operational and financial performance. Implementation of the Financial and Operational Performance Improvement Programme (FOPIP).
- Provide recommendations and support the implementation of Management Information Systems (MIS).
- Develop and sign PSCs between the water utilities and the city administration. Facilitate implementation of tariff methodologies, developed at the national level, by individual utilities.
- The utility support includes a Corporate Development Programme (CDP). This envisages developing a strategic business plan and budget and an investment programme. The business plan will outline the actions, initiatives, and resources required to achieve the strategic objectives. It will also include the development and implementation of gender and equal opportunities action plans at the utility level and

build capacity through trainings to enhance understanding and implementation of the action plans and how to deliver inclusive and gender-responsive water services.

- Develop and implement a Stakeholder Participation Programme (SPP). The SPP will raise customers' and stakeholders' awareness through education and information campaigns, facilitate dialogue between all sector stakeholders to explain the importance of introduction of the developed corporate reform and its impact on quality of services and service provision and water companies' operation, including through organising thematic events (i.e., workshops and stakeholders' meetings).

71. Activity 2.2.2: Implement community engagement programmes to promote water efficiency at the customer level

- Assess customer level water saving potential by quantifying baseline consumption across user categories. Apply water efficiency toolkit (Activity 1.2.2) to define technical solutions under the engagement programme.
- The engagement programme will be implemented with support through the corporate development support (Activity 2.2.1).

Output 2.3: Implementation of water projects supported

72. Activity 2.3.1: Support provided for sub-projects to be implemented under Component 3 This activity includes implementation support for the sub-projects benefitting from climate-resilient infrastructure investments under Component 3, and includes:

- Support for procurement of goods, works and services
- Design and engineering supervision
- Support of the implementation of ESAP and annual E&S reporting

Component 3: Catalyse climate investments for the implementation of adaptation pathways

73. Component 3 delivers **improved water security via climate-resilient infrastructure investments (Outcome 3).**

74. This component comprises the GCF capital expenditure grants supporting the investments in climate-resilient infrastructure projects. These investments will be financed by EBRD's commercial loans as indicated in section C.1 and illustrated under Figure 5. It addresses key structural barriers to climate-resilient water service delivery in the water utilities' asset base:

- High upfront investment costs, revenue gap, and affordability constraints limit the implementation of comprehensive climate resilience investment programmes.
- Ageing infrastructure contributes to significant water losses and energy inefficiencies.
- Water systems are frequently not built to withstand current and future climate stresses.

75. Where GCF grant proceeds are used to procure durable assets or equipment, these will typically become the property of the respective municipality or utility. Following project completion, the assets will be operated and maintained by the participating utility as part of its regular service delivery responsibilities. Additionally, following project completion the operations and maintenance (O&M) costs will be covered by the cashflow of the participating utility. Where necessary, this may be supplemented by municipal budget support in line with existing sector practices.

76. Component 3 comprises of a single output, the delivery of water system investments for climate resilience.

Output 3.1: Priority water systems deliver enhanced, climate resilient water services

77. Output 3.1 delivers the required capital investments, based on the prioritisation of the adaptation pathways. Following the GCF's guidance for programmatic funding proposals for a single accredited entity, this Programme presents an indicative set of investments at different stages of maturity, which will continue to be developed throughout the programme implementation. **Refer to the Feasibility Study (Annex 2, 5.10 Indicative pipeline of investments) for detailed background on this indicative project pipeline, including the site-specific climate rational.** Here, GCF's additionality is required where investment choices move beyond BAU service provision to explicitly address climate-driven risks and vulnerabilities and provide system-level adaptation benefits (refer to Section B.5).

78. Activity 3.1.1: Implementation of prioritised climate resilience investments at utility level

- This activity comprises the signing of sovereign loan and grant agreements between EBRD and the respective governments in Kyrgyz Republic and Tajikistan. The GCF grants will co-finance climate resilient features of infrastructure investments is proposed to be provided under this component. In line with its own policies and procedures, EBRD will only approve and fund sub-projects that meet EBRDs Paris Agreement alignment requirements⁵² and Green Finance requirements specifically for adaptation⁵³ that set clear and comprehensive methodologies and requirements on adaptation finance eligibility. Going beyond these standard provisions, the subprojects will be based on the multi-hazard physical climate risk to customers and utilities under Activity 2.1.1, including demonstration of a change in the hazards between the baseline and future climate conditions. A set of approved programme-specific eligibility criteria is proposed. These criteria cover both technical eligibility criteria of the investment, as well as pre- and post-signing commitments by the water utilities, and ensure that GCF grant funding is enabling climate adaptation measures proportional to size of the GCF contribution. The eligibility criteria are listed below:

(a) The sub-project falls within one or more of the following investment archetypes:

- 1) Climate-resilient water supply systems, including expansion, rehabilitation and modernization of infrastructure;
- 2) Climate resilient wastewater networks and treatment rehabilitation, new construction and expansion;
- 3) Climate-resilient rehabilitation and modernisation of water conveyance and distribution infrastructure, including multi-purpose irrigation systems; and/or
- 4) Nature-based solutions for improved urban climate risk management

(b) An adaptation pathway approach is developed as part of the scope of the sub-project.

(c) Each Sub-project needs to demonstrate clear use of GCF proceeds for climate action. To do so, the total climate adaptation finance share of the Sub-project, calculated by applying the EBRD Green Finance methodology Climate Adaptation principles on each disaggregated asset type in the Sub-project capex plan and aggregating to the sub-project level, is to be at least equal to the GCF grant contribution for each Sub-project. The Climate Adaptation principles as set out in the EBRD Green Finance methodology⁵⁴ as applied to this project result in the following approach and maximum thresholds for asset types, which are to be confirmed on each sub-project on a case by case basis:

⁵² [Methodology used to align EBRD investments with the Paris Agreement](#)

⁵³ [Methodology to determine the green finance attribution of EBRD investments](#)

⁵⁴ [Methodology to determine the green finance attribution of EBRD investments](#)

- Each item in the sub-project capex plan that is to be considered for climate adaptation finance will first clearly demonstrate that it meets the three step requirements set out in sections 4.25 to 4.29 of EBRD Green Finance methodology's Climate Adaptation Principles:
 - Step 1. Context of vulnerability: The context of climate change vulnerability will be clearly set out for the activity using a robust evidence base. Project documents may refer to existing analyses and reports or to original, bespoke analyses. The establishment of sub-project-level adaptation baselines, including identification of target beneficiary populations, should be consistent with the GCF adaptation requirements applicable to the Programme, as reflected in B.29/01 and B.33/12.
 - Step 2. Statement of intent: The project documentation will set out the explicit intention to address the context-specific and location-specific climate change vulnerabilities (and potential opportunities) identified.
 - Step 3. Clear and direct link between climate change vulnerability and project activities: Adaptation finance is allocated for specific project activities that are clearly linked to an identified context of climate vulnerability. Adaptation finance is attributed only to the activities that clearly respond to the context of climate change vulnerability. Each project activity can then be assessed as either an adaptation activity or not relevant for adaptation.
- In line with 4.36 to 4.39 of EBRD Green Finance methodology's Climate Adaptation principles, Climate adaptation finance may then be estimated. The following two categories of activity are considered: (i) activities that are adapted to anticipate the impacts of climate change and (ii) activities that enable adaptation in a wider system:
 - *Activities that are adapted.* Activities that integrate measures to manage physical climate risks and ensure that the project's intended objectives are realised despite these risks. These activities include adjustments or improvements required to ensure that the project performs well against experienced and anticipated impacts of climate change. Adaptation is not the primary objective of the activity.
 - *Activities that enable adaptation.* Activities that directly reduce physical climate risk and/or build the adaptive capacity of the system within which the activity takes place and activities that contribute to reducing the underlying causes of vulnerability to climate change at the systemic level and/or removing barriers to adaptation (knowledge, capacity, technological and other barriers). These activities are typically identified based on a robust understanding of the system within which the project is taking place and the physical climate risks it faces. Furthermore, these types of activity support adaptation beyond their immediate scope. They are themselves adjusted to cope with the experienced and anticipated impacts of climate change. Adaptation is either the primary objective or one of the objectives of the activity.
- Once three step requirements are fulfilled and the adaptation category ("adapted" / "enabling adaptation") is determined, the **climate adaptation finance share** for the line item in the CAPEX plan is to be confirmed.
 - Estimating climate adaptation finance for activities that enable adaptation: The range of climate adaptation finance that can be attributed for activities that enable adaptation is either 25 per cent, 50 per cent or 100 per cent.
 - For measures that have a primary objective to adapt to climate change, 100% can be attributed
 - For measures that have a specific objective to adapt to climate change, 50% can be attributed.
 - For measures that deliver a system-wide co-benefit of adaptation, 25% can be attributed.

- For activities that are adapted, the adaptation focus is on enhancing climate resilience at the project or asset level. In such activities, adaptation is not the primary objective. Adaptation finance is attributed at 10 per cent when it has satisfied the 3 steps above and is expected to deliver a physical climate resilient outcome that can be clearly described.
 - Where the project documentation demonstrates that a dedicated climate risk and vulnerability assessment has been undertaken, referencing relevant international standards and guidance, going beyond the level of assessment that the Bank routinely conducts (either standalone or integrated into other project preparation documents), an additional 5 per cent of climate adaptation finance is attributed.
 - Where the client has shown a commitment to assess and manage physical climate risks on an ongoing basis (using tools such as corporate climate governance, climate risk monitoring and response plans, flexible adaptation approaches, and so on) and this commitment is reflected in project documentation, an additional 10 per cent of climate adaptation finance is attributed.
 - Where the activity delivers a significant CRO(s) (for example, a CRO-to-total project value ratio of 10 per cent or greater) that has(have) been identified, quantified and valorised, an additional 10 per cent climate adaptation finance is attributed
 - The range of climate adaptation finance that can be attributed for activities that are adapted is between 10 per cent and 35 per cent.
- An ex-ante application of the Climate Adaptation principles of the EBRD Green Finance Methodology to asset types is set out in the table below, and is considered a ceiling for the GCF contribution for each asset type.

Asset class / line item	Typical measures	Type	Ceiling for GCF contribution
Raw-water reliability and source protection	Borehole rehabilitation to drill deeper wells due to dropping water tables and upgrading pump stations that increase water lift, intake rehabilitation and source protection works that explicitly address more extreme weather conditions, emergency abstraction measures	Enabling – Primary Objective	Up to 100%
Storage and buffering assets	New/expanded reservoirs, covered storage, balancing tanks, emergency storage, water towers where they increase resilience to drought/outages	Enabling – Primary Objective	Up to 100%
Nature-based solutions and catchment protection	Slope stabilisation, riparian buffers, small retention / sediment control features, source-area protection, flood attenuation	Enabling – Primary Objective	Up to 100%
Water treatment and disinfection resilience	Turbidity handling, treatment process redundancy, plant hardening for climate variability	Enabling – Primary Objective	Up to 100%
Bulk conveyance / primary canals / multi-purpose irrigation systems	Primary canal rehabilitation, conveyance losses reduction, control structures, cross-drainage, trunk mains, pressure	Adapted	Up to 35%

	regulation where serving multiple users		
Wastewater resilience and stormwater management	Flood-resilient sewers, stormwater separation, emergency storage, wet-weather flow handling, treatment upgrades for low-dilution or storm conditions	Adapted	Up to 35%
Energy resilience for critical nodes	Backup power, transformer substations, hybrid backup for intakes, pumps, or treatment plants specifically responding to climate related outages	Enabling – Primary Objective	Up to 100%
	Flood and heat proofing of critical energy supply infrastructure	Adapted	Up to 35%
Digital monitoring and climate-responsive operational control	SCADA, telemetry, sensors, turbidity monitoring, bulk flow measurement, early warning, hydraulic control systems	Adapted	Up to 35%
Distribution network rehabilitation in climate-stressed zones	Replacement of pipes to reduce water losses, replacement of burst-prone pipes, pressure management, selective rehabilitation of exposed or failure-prone sections	Adapted	Up to 35%
Digital tools	Smart meters, DMA pilots, leak detection tools, billing platforms, NRW control systems	Adapted	Up to 35%
Operations, maintenance and emergency response equipment	Specialized maintenance vehicles. Works vehicles such as excavators and cranes. Generators for emergency repair response	Enabling – co-benefits	Up to 25%

Table 4 Ceilings for GCF Contribution to Water-Sector Asset Types

- (d) There is a commitment to engage on incrementally closing the cost recovery gap.
- (e) There is a commitment to engage in corporate development that enhances climate resilience

The climate rationale of the investment archetypes are summarised in the table below.

Investment archetype	Contribution to climate resilience and programme outcomes
Type 1: Climate-resilient water supply systems, expansion, rehabilitation and modernization of infrastructure 	Addresses the programme's core climate vulnerability: unreliable and inefficient water supply systems exposed to drought, heat, glacier retreat and power outages and operating with very high NRW. These investments strengthen system robustness, redundancy and operational flexibility, reducing the frequency and duration of climate-induced service disruptions. At programme level, Type 1 delivers measurable reductions in vulnerability, avoided climate-related losses and improved service continuity under projected 2030–2050 hydrological conditions, directly supporting strengthened adaptive capacity and resilience of basic services.
Type 2: Climate resilient wastewater networks and treatment rehabilitation, new construction and expansion 	Reduces systemic public health and environmental risks arising from flooding, extreme rainfall, groundwater level fluctuations and poor sanitation, which amplify climate impacts by contaminating water sources and triggering cascading failures during shocks. By safeguarding water quality and preventing pollution during climate extremes, Type 2 investments protect both human and ecosystem health and prevent maladaptive outcomes. Type 2 also alleviates drought and water stress conditions, where circular economy principles are applied (wastewater reuse, groundwater recharge). At programme level, they strengthen resilience of essential services and reduce downstream climate vulnerability.
Type 3: Climate-resilient rehabilitation and modernisation of water conveyance and distribution infrastructure, including multi-purpose irrigation systems 	Addresses hydroclimatic variability, sediment loads and single point failures in bulk conveyance and distribution systems. These investments stabilise flows, reduce losses and enable adaptive allocation under increasingly variable drought–flood regimes. At programme level, Type 3 enhances systemwide resilience, supports the water–energy–food nexus and reduces exposure of livelihoods and food security to climate shocks, contributing to cross-sectoral adaptation.
Type 4: Nature-based solutions for improved urban climate risk management 	Manages residual and compounding climate risks, namely urban flooding, heat stress, runoff contamination and sediment mobilisation, that cannot be fully addressed through grey infrastructure alone. NbS provide low regret, scalable measures that buffer extremes, enhance infiltration and moderate temperatures. At programme level, Type 4 amplifies the effectiveness and durability of Types 1-3, increases adaptive capacity under uncertainty and delivers co-benefits for aspects like climate mitigation and biodiversity.

Table 5 Investment Archetypes

Indicative pipeline of sub-projects

79. Following the programmatic approach adopted, the Programme is structured around an indicative, scalable pipeline of climate-resilient sub-projects as described in the Feasibility Study Annex 2. The pipeline comprises sub-projects at different levels of readiness and allows for the continuous identification, preparation and implementation of investments over the Programme period.
80. The Feasibility Study identified a set of advanced sub-projects, for which preliminary technical, institutional, financial and climate analyses have been undertaken, alongside a broader set of indicative sub-projects that will be further prepared during implementation through utility-level deep adaptation pathways supported under components 1 and 2. This approach recognizes that climate risks, institutional capacity and investment readiness vary across locations, and that a pathway-way, adaptive approach is required to avoid a progressive decline in resilience and prevent systems from crossing critical tipping points where failures become widespread and irreversible. Indicative advanced sub-projects have been assessed within the Feasibility Study Annex 2 for the Kyrgyz Republic and Tajikistan.

Country	Sub-project name	Investment archetype	Description / scope	Estimated sub-project value	Status
Kyrgyz Republic	Sub-project 1	Type 1	Climate resilient rehabilitation of water supply and sanitation systems	EUR 5 million	Feasibility study including development of adaptation pathway launched in November 2025.
Kyrgyz Republic	Sub-project 2	Type 1	Climate resilient rehabilitation of water supply and sanitation systems	EUR 5 million	

Kyrgyz Republic	Sub-project 3	Type 1	Climate resilient rehabilitation of water supply and sanitation systems	EUR 5 million	
Kyrgyz Republic	Sub-project 4	Type 1	Climate resilient rehabilitation of water supply and sanitation systems	EUR 5 million	
Tajikistan	Sub-project 5	Type 2	Climate resilient waste water system	EUR 21 million	Feasibility study launched in February 2026
Kyrgyz Republic	Sub-project 6	Type 1 and Type 2	Climate resilient rehabilitation of water supply and sanitation systems	EUR 14.5 million	FS prepared but outdated (2015). New FS to be launched.
Kyrgyz Republic	Sub-project 7	Type 1 and Type 2	Climate resilient rehabilitation of water supply and sanitation systems	EUR 11 million	FS prepared but outdated. New FS to be launched.
Kyrgyz Republic	Sub-project 8	Type 3	30km rehabilitation of the multi-purpose Great Chui Channel (GCC) + drip irrigation	EUR 25 million	FS to be prepared
Kyrgyz Republic	Sub-project 9	Type 1 and Type 2	Climate resilient rehabilitation of water supply and sanitation systems	EUR 8.5 million	FS to be updated
Tajikistan	Sub-project 10	Type 1	Climate resilient rehabilitation of water supply and sanitation systems	EUR 8 million	FS to be prepared
Tajikistan	Sub-project 11	Type 2	Climate resilient waste water system	EUR 10 million	FS to be prepared
Tajikistan	Sub-project 12	Type 3	Rehabilitating pumping stations and ancillary infrastructure	EUR 25 million	FS to be prepared

Table 6 Indicative pipeline of sub-projects

81. All sub-projects to be financed by the GCF Investment Grants must adhere to the eligibility criteria as defined above in Activity 3.1.1, noting that the selection and sequencing of sub-projects will be guided by utility-level adaptation pathways, developed under component 2. Only sub-projects that meet the Programme's eligibility criteria, will be advanced for financing under Component 3. This ensures that the Programme delivers scalable, system-level climate resilience rather than isolated asset-level interventions. It should be noted that the GCF contribution to each sub-project will not exceed the cumulative climate adaptation tagged CAPEX as defined in eligibility criteria 3.1.1c.

Example application of eligibility criteria to pipeline "sub-project 2"

82. In order to illustrate how the programme eligibility criteria are applied to each sub-project, the sub-project 2 (see Annex 2, 9.2 for full details) preliminary screening against the eligibility criteria is shown below. Where a specific future action is required in order to be eligible (e.g. incorporating a specific design feature to ensure climate resilience) these will be incorporated as legal undertakings in the loan documentation for each sub-project.

Sub-project eligibility criteria 1: The investment falls within one or more of the investment archetypes.

83. The project falls under “Climate-resilient water supply systems, including expansion, rehabilitation and modernization of infrastructure”

Sub-project eligibility criteria 2: An adaptation pathway approach is developed as part of the investment formulation.

84. The proposed investments are based on an initial assessment of key climate change vulnerabilities of the existing system and the adaptation pathway required to address them. As part of the feasibility study, a better defined adaptation pathway is being developed and will inform the priority investment plan.

85. The adaptation pathway approach is particularly critical for this sub-project due to low baseline service coverage, limited operational capacity, and strong exposure to compound climate and non-climate hazards. The proposed investments are therefore sequenced to first stabilise core system functionality (storage, treatment, leakage reduction, power resilience) and subsequently address systemic vulnerabilities through expanded wastewater management, redundancy, and institutional strengthening.

Sub-project eligibility criteria 3: The total climate adaptation finance share, calculated in line with the EBRD Green Finance methodology on each individual asset type in the sub-project capex plan, is at least equal to the GCF grant contribution to each individual sub-project.

86. An interim priority investment plan (PIP) in line with adaptation pathway principles has been developed for the sub-project 2 in the Kyrgyz Republic. The total PIP value is approximately EUR 5.06m. Each asset type and associated investment cost is describe below, with an assessment of climate finance eligibility for adaptation in line with Climate Adaptation principles set out in the EBRD Green Finance methodology, as set out above. The adaptation finance share is estimated at EUR 2.16m, or 43%, of the total PIP. The GCF contribution to the sub-project cannot exceed this amount.

No.	Area	Description	Climate Risk and Adaptation-aligned design that will be specified as legal requirements	Contribution to climate resilience	Climate finance eligibility (%)	Justification of climate finance share
1	Water Intake sites	Rehabilitation of boreholes, replacement submersible pumps *including logging of boreholes and installation of water meters	Drought: Critically low groundwater levels may render existing wells dry, requiring deepening. Flooding: Severe physical damage to pump stations from inundation and debris. Install energy-efficient, climate-resilient pumps sized for variable demand; include monitoring of groundwater levels and abstraction performance; improve redundancy and maintenance access.	Improves reliability of abstraction under drought and peak demand; enables better groundwater management and early warning of stress; reduces failure risk during extreme conditions.	Enabling – Primary Objective 100%	Securing intakes is a key adaptation measure: Critical to secure water availability, especially under drought conditions. Additionally, climate-relevant share relates to improved efficiency, resilience to variable demand, and groundwater monitoring to manage drought stress.

2	Disinfection system	Construction of chlorination units	Standard facility (no specific climate adaptation features assumed).	Indirect support only; no direct contribution to climate resilience outcomes.	No link: 0%	Conservatively treated as non-climate: enabling but not directly linked to climate adaptation outcomes.
3	Water Reservoir	Construction of new reservoirs	Flooding: Physical damage to tank structures (foundations undermined). Covered, compartmentalised storage with level monitoring and operational control; designed for temperature extremes and outage resilience.	Provides critical buffering against drought, peak demand, and power outages; improves system capacity to absorb shocks and maintain continuity.	Enabling – Primary Objective 100%	Storage is a key adaptation measure: buffers drought, outages, and variability. Majority of value is climate resilience (beyond minimum service level).
4	Water Meters and billing system	D up to 25 mm	Install meters compatible with digital systems; enable demand monitoring, leakage detection, and consumption-based billing.	Improves efficiency under water scarcity and peak demand conditions.	Adapted – 35%	Metering supports supply efficiency and demand management, which is critical under water scarcity; However, part is standard commercial improvement, leading to split attribution.
5	Water Supply Network	D 50-100 mm - 22 km, PE100 SDR17 PN10 D 100-150 mm - 6 km, PE100 SDR17 PN10 D 200 mm - 2 km, PE100 SDR17 PN10 D 315 mm - 5 km, PE100 SDR17 PN10	Flooding: Pipe breaks and bursts from scouring, high flows, and debris impact. Replace high-loss sections using durable materials; include pressure management, isolation valves, and maintenance access; transition from highly fragmented system to an integrated / interconnected system.	Improves supply reliability through improved robustness and flexibility. This especially applies to extreme events to reduce the risk of cascading failures.	Adapted – 35%	Bulk of cost is asset renewal and network redesign. While critical for ambitious loss reduction targets in context of drought risk, renewal is also key to robustness and flexibility for climate adaptation: a) Reduced losses and disruption from pipe failure (robustness). b) Reduced disruptions through improved network design, allowing service areas to be fed by multiple sources to avoid single points of failure turning into cascading effects (flexibility). Expanding supply coverage from 90% to 100% will largely benefit marginalized communities.
6	Institutional Development - Supply component	(1) Following equipment is needed: Specialized	Equip utility for rapid fault detection and repair; link with SOPs	Reduces downtime and improves response to	Enabling - Co-benefits: 25%	Primarily operational; climate share linked to improved response to extreme events and

		emergency and maintenance vehicle (SAMV) Excavator	and trained staff for emergency response.	climate-related disruptions (floods, bursts, outages).		reduced downtime after shocks.
7	Institutional Development - Works component	(1) Administrative and office building	Standard facility (no specific climate adaptation features assumed).	Indirect support only; no direct contribution to climate resilience outcomes.	No link: 0%	Conservatively treated as non-climate: enabling but not directly linked to climate adaptation outcomes.

Table 7 Illustration of interim priority investment plan for sub-project 2

Sub-project eligibility criteria 4: There is a commitment to engage on incrementally closing the cost recovery gap.

87. The district government and service delivery organisations have expressed their support for the proposed investments and are willing to engage in a progressive increase in tariffs to cover the full operational cost of the service based on improved service delivery and improved resilience of the system.

Sub-project eligibility criteria 5: There is a commitment to engage in corporate development that enhances climate resilience

88. The district government and service delivery organisations have indicated their willingness to engage in a programme of corporate development which both strengthens the operational capacity of the service delivery organisation and builds system sustainability through ensuring that explicit actions are taken to improve system resilience against the potential negative impacts of climate-change.

89. This commitment is particularly relevant in this context, where fragmented operations, limited permanent staffing, and weak data availability significantly constrain climate resilience and service reliability, making corporate development and institutional strengthening a prerequisite for effective and sustainable climate adaptation.

B.4. Implementation arrangements (max. 1500 words, approximately 3 pages plus diagrams)

GCF and EBRD:

90. Following the approval by the GCF Board, the EBRD and GCF will, based on the Accreditation Master Agreement (AMA), enter into a Programme-specific legal agreement (the “Funded Activity Agreement” or the “FAA”). The FAA will outline, among other aspects, the project archetypes and scope (the “Mandate”) of the proposed EBRD/GCF Programme.

91. The GCF funds will be placed in the dedicated GCF Special Fund (the “Special Fund”), and such funds will benefit from the same privileges and immunities as the EBRD’s resources. The EBRD will be solely responsible for the management and administration of GCF resources and will carry out such management and administration in accordance with its policies, procedures and practices, and with at least the same degree of care as it uses in the administration of its own funds or other donor funds, pursuant to the provisions of AMA.

Implementation arrangement:

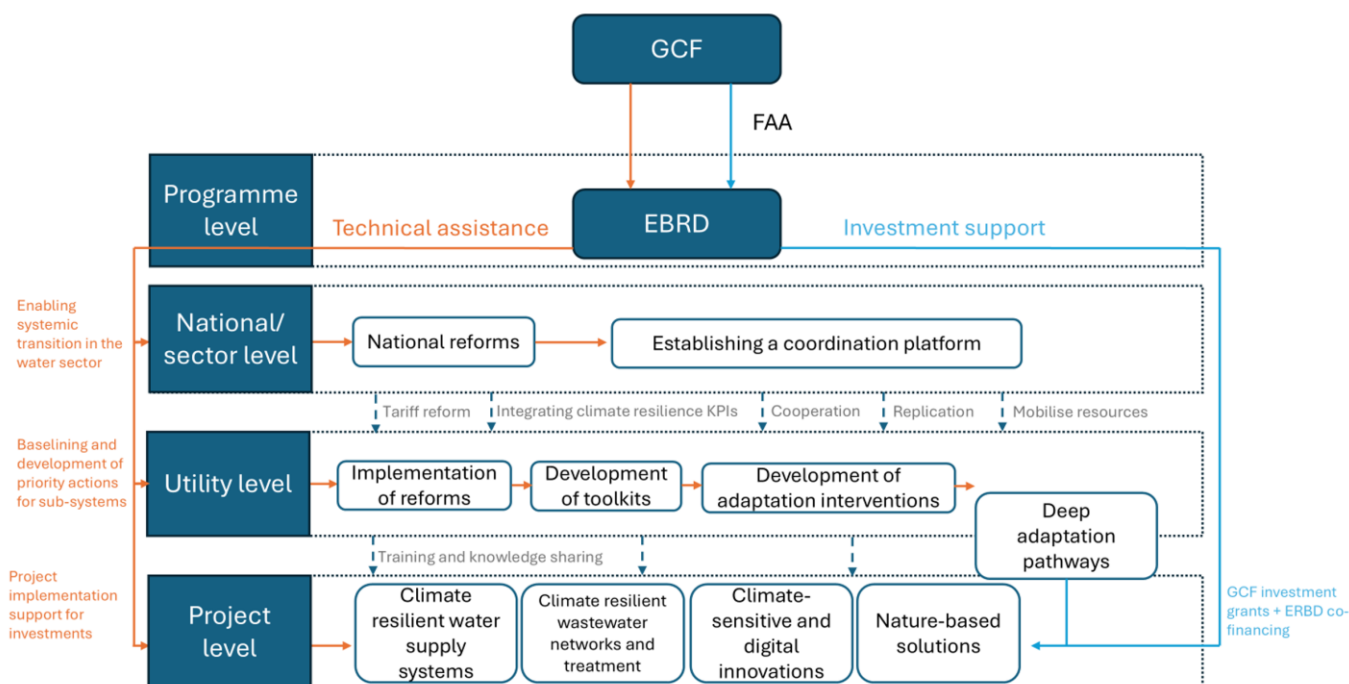


Figure 4: Implementation arrangement

92. The governance and implementation arrangements of the Programme: The Program establishes clear responsibilities for fund management, legal agreements, and oversight of sub-projects. The EBRD will act as both Accredited Entity (AE) and Executing Entity (EE). As AE, EBRD will approve sub-project loans (EBRD's co-financing) and GCF investment grants under Component 3 in line with the EBRD internal approval procedures and the FAA, and manage/oversee technical assistance activities under Components 1 and 2, as relevant, (as illustrated in Figure 5 – Flow of funds). In addition to EBRD, the Programme will involve the following Executing Entities: the Ministries of Finance, acting as the Borrowers of the EBRD sovereign loans and GCF investment grants, and implementing partners, which include relevant government agencies, municipalities, and utility companies.

93. All Executing Entities will operate under implementation arrangements defined in the legal agreements as clarified in Annex 9 (loan agreements, TA grant agreements, investment grant agreements and project agreements), and will be overseen by EBRD.

EBRD (Accredited Entity and Executing Entity)

94. EBRD will act as the Accredited Entity (AE) and will also serve as an Executing Entity (EE).

95. EBRD will approve sub-project loans and GCF investment grants under Component 3, following eligibility criteria consistent with EBRD's internal approval requirements and the FAA.

96. EBRD has a robust system of internal controls to ensure correct application of the eligibility criteria. EBRD Banking and Climate Strategy Teams within the Client Services Group prepare a project which

will include a specific annex describing how the project meets the specified eligibility criteria, with all necessary calculations and documentation. This is reviewed by the Environment and Social Department (ESD) and the Donor Partnerships (DP) team, who act as internal control function to ensure compliance with the conditions set out in the FAA. ESD and DP sign-off is required prior to allocation of any GCF resources for a specific sub-project. GCF will be presented with details on each sub-project and alignment with eligibility criteria as part of the regular annual reporting cycle.

97. EBRD will sign loan and investment grant agreements with the Kyrgyz Republic and the Republic of Tajikistan, represented by their respective Ministries of Finance. The loan and GCF Grant Agreements will define the project's objectives, the amount and terms of the financing, and the respective roles, responsibilities, and commitments of each party for successful project implementation.

98. Applicable EBRD lending terms

EBRD's standard sovereign lending terms apply across the Programme.

As sub-projects will be developed and approved on a rolling basis, the detailed loan terms for each sub-project will be confirmed at the final approval stage of the respective sub-project.

For Component 3, EBRD will also enter into a project agreement with implementing partners which include relevant government agencies, municipalities, and utility companies. This agreement will formalize their roles in facilitating project execution and ensuring adherence to EBRD standards, including environmental and social compliance, reporting obligations, provision of operational inputs, and access to data and sites required for implementation.

99. EBRD will sign TA grant agreements, as relevant, with the implementing partners, who are the beneficiaries of Components 1 and 2. In addition, the EBRD will directly contract consultants, as required, to deliver TA under Components 1 and 2 in accordance with the procurement plan. EBRD will also manage and oversee implementation of TA under Components 1 and 2, including project preparation, capacity building, institutional strengthening, and overall project implementation support.

GCF

100. The GCF will provide investment grant funding to the EBRD under Component 3 to finance sub-projects alongside EBRD co-financing loans. It will also provide TA grants to the EBRD in support of Components 1 and 2.

Borrowers (Executing Entity)

101. The Ministries of Finance of the Kyrgyz Republic and the Republic of Tajikistan will act as Borrowers and Executing Entities. They will enter into Loan and GCF Investment Grant Agreements with EBRD; assume sovereign obligations associated with the financing; and sign legal agreements with implementing partners, who are the beneficiaries of the investments, as required.

Implementing Partners / Beneficiaries (Executing Entities)

102. Implementing partners, comprising relevant government agencies, municipalities, and water utilities will act as Executing Entities and be responsible for implementation of sub-projects under Component 3, and for selected TA activities under Components 1 and 2.

103. Under Components 1, 2, and 3, implementing partners will enter into contractual arrangements with suppliers, contractors, and consultants for goods, works, and TA services required for project implementation.

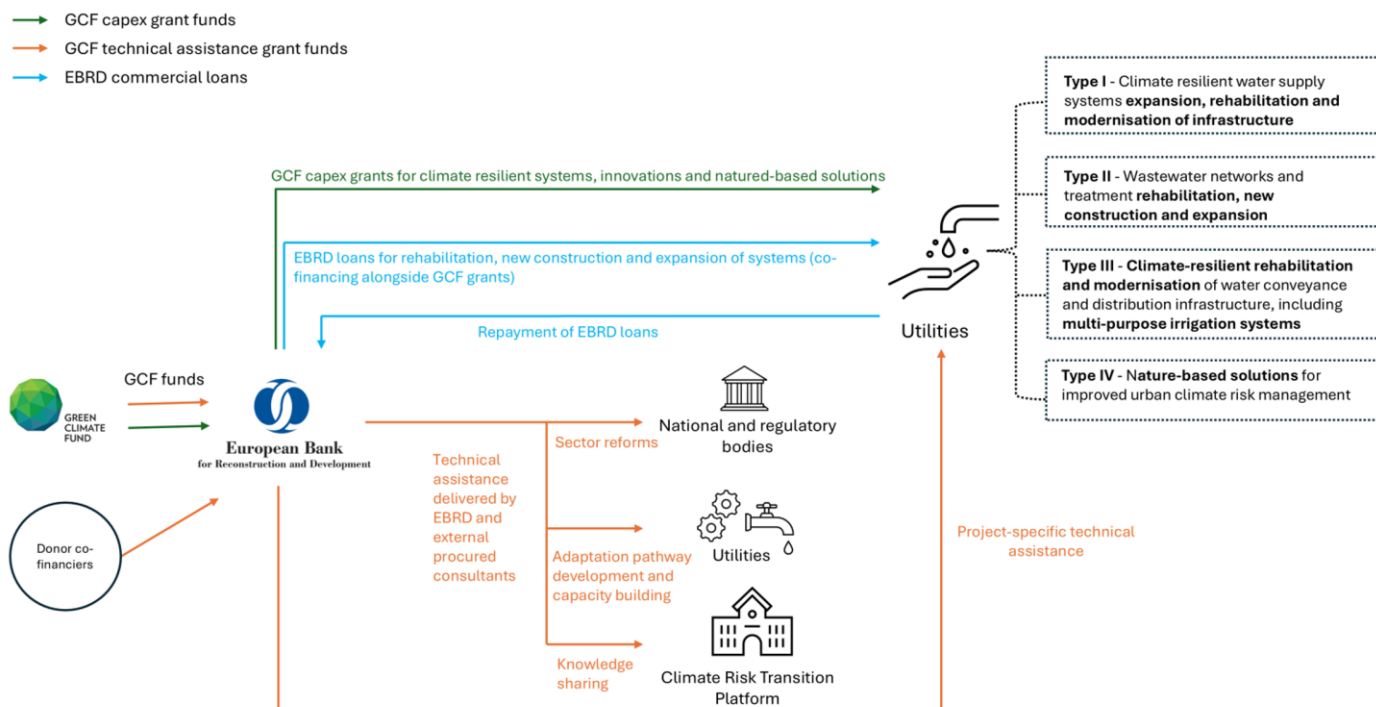


Figure 5: Flow of funds

EBRD project review and approval process

104. The EBRD investment life cycle provides a rigorous process for identifying, assessing, and approving investments financed by the Bank, with or without additional support from donors such as the GCF. The approval process incorporates a structured methodology for evaluating and prioritising projects that can deliver transformational impact across the EBRD's regions of operation. Central to this is the Bank's mandate to advance sustainable, market-oriented development - referred to as "Transition Impact"- through a combination of investment, policy dialogue and targeted technical assistance. **Figure 6** outlines the step-by-step approval process applied to EBRD investment projects.

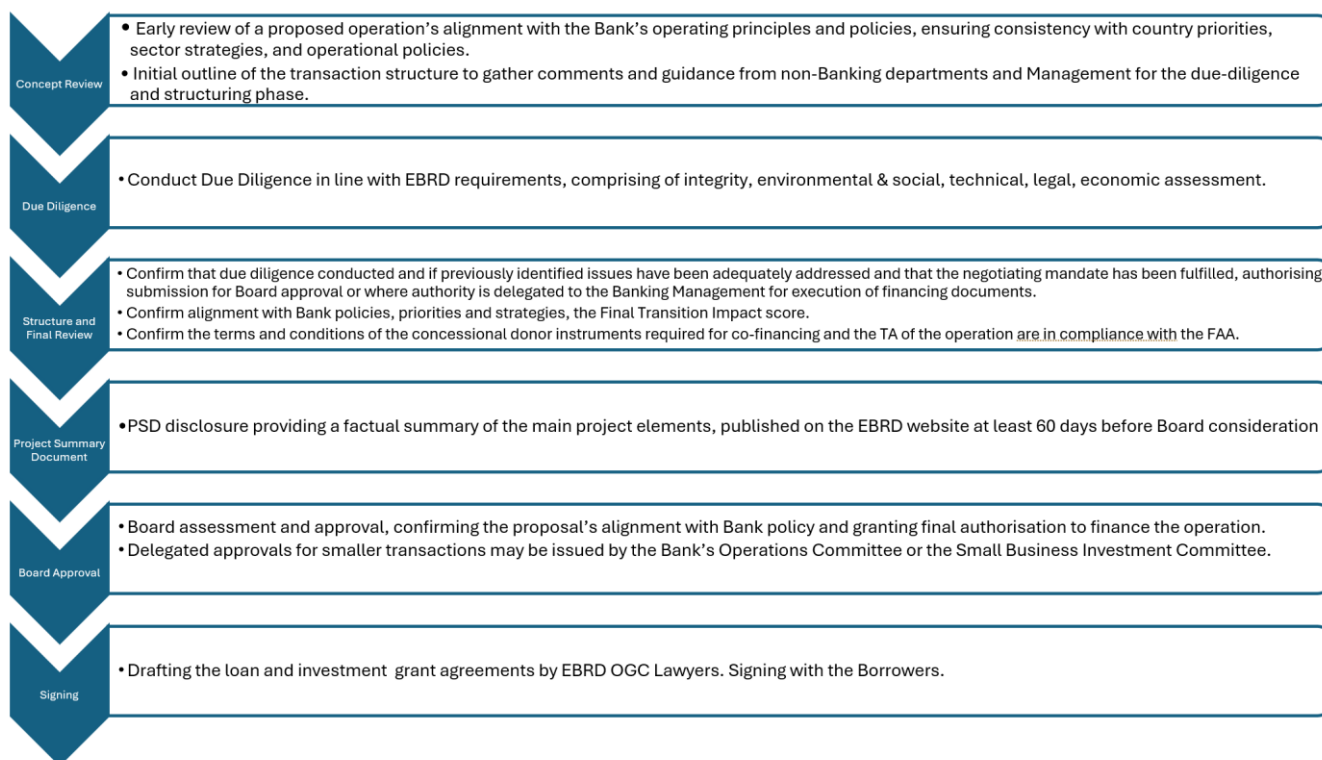


Figure 6: EBRD project review and approval process

105. The EBRD conducts robust and thorough due diligence assessments for all new operations in accordance with the EBRD Operations Manual. All investments, EBRD loans and co-financing investment grants are reviewed by the EBRD's Investment Committee (OpsCom) or the Small Business Investment Committee (SBIC) (together "Committees"), followed by the EBRD Board or are otherwise approved under delegated authority from the EBRD Board to Bank management. The Committees include representatives from Banking teams, the Risk Department, the Office of the General Counsel (OGC), Impact, the Office of the Chief Compliance Officer (OCCO), and the Environmental and Social Department (ESD). Additional departments contribute advice to the Committees on an as-needed basis. For associated technical assistance grants—supporting investment preparation and implementation, policy dialogue, reform processes, and institutional capacity building—the EBRD applies a dedicated grant review procedure, which is conducted in parallel with the approval of the related investment projects.

EBRD's delivery track record

106. EBRD currently possesses strong implementation capacity across the water sector in both the Kyrgyz Republic and Tajikistan. It is concurrently managing seven corporate development engagements in the Kyrgyz Republic and leading the turnaround and consolidation of four major utilities in Tajikistan, already achieving measurable improvements in operational efficiency and organisational performance. The Bank is effectively delivering a comprehensive national-level institutional reform programme - refining tariff methodologies, designing social support mechanisms, developing public service contracts, and rolling out new tariff and benchmarking tools now being implemented in pilot cities.

107. Through embedded experts and close government partnerships, EBRD is advancing key legislative improvements and steering complex tariff reforms in both water and irrigation sectors, while also developing a nationwide capacity-building programme on modern, climate-resilient water technologies. These efforts build on over a decade of sustained engagement, during which EBRD has invested more than EUR 2 billion across 450 projects in the two countries and provided extensive policy, technical and operational support.
108. As both AE and EE, EBRD brings deep sector expertise, long-standing relationships with governments and utilities, and robust experience coordinating with IFIs, donors, private sector stakeholders and civil society - ensuring effective, inclusive and climate-resilient programme delivery aligned with GCF standards. Delivery of these programs is entrusted to Climate, Strategy and Delivery and Policy, Strategy and Delivery departments at EBRD, which bring together expertise in sector regulatory reforms, climate transition, gender and economic inclusion to support implementation of policy programs alongside EBRD's investment operations.

B.5. Justification for GCF funding request (max. 1000 words, approximately 2 pages)

109. The Programme requires concessional GCF support as last-mile water system operators in the Kyrgyz Republic and Tajikistan face a demonstrable revenue shortfall that constrains the delivery of a comprehensive, climate-resilient water investment programme. Furthermore, public authorities are unable to fund and lack the capacity to engage in comprehensive public good structural reforms and capacity building.
110. **Components 1 and 2** address critical information, institutional, and policy gaps by financing CRVAs, their translation into engineering standards and procurement specifications, and sustained technical assistance to utilities and authorities on tariff reform, performance-based public service contracts incorporating climate KPIs, asset management, and the design of affordability and social protection mechanisms. These activities reduce technical and implementation risk, establish standardised methodologies, and enable the downstream mobilisation of capital for climate resilience, yet constitute non-commercial public goods that require grant financing to be politically and financially feasible. Ongoing EBRD engagement has highlighted constraints related to institutional capacity, technical competence, costs, and the absence of standardised CRVA requirements as key barriers to reform.
111. **Component 3** finances physical investments that deliver climate-resilient water services and generate wider public benefits, including reduced climate-related damage and service disruption, and improved water availability in a context of increasing water stress. On the technical side, GCF additionality is required to realign the water sector onto a climate resilient trajectory through deep adaptation pathways (refer to Section B.3, Component 2), which encompass institutional support, as well as the infrastructure dimension.
112. This programmatic approach is built on an indicative pipeline of sub-projects (see Table 6 in section B.3), which cannot be implemented under a BAU approach without GCF investment grants, which will only be provided to sub-projects that meet the eligibility criteria defined in section B.3 under component 3. This integrated, programmatic structure ensures that GCF resources enable system-level adaptation outcomes, rather than isolated asset-level rehabilitation, whereas the following table provides examples where GCF additionality is required for the physical water systems to go beyond BAU, to both climate proof assets and provide system-level adaptation benefits.

Key High: primary or material contribution Medium: enabling or indirect contribution Low: limited or context dependent contribution					
System	Infrastructure component	Asset-level climate adaptation ("Adapted infrastructure")	System-level climate adaptation ("Enabling adaptation of the wider system")	NBS Potential	Adaptation rationale
Drinking water supply	Raw water abstraction (surface & groundwater intakes)	Medium-High	Medium	Low (grey/enabling for conventional) High under catchment management and aquifer recharge	Enables diversification of sources under drought stress; resilience depends on source protection and redundancy rather than emissions reduction
	Water treatment plants (DWTPs)	Medium	High	n/a	Treatment safeguards water quality under climate-driven variability (turbidity, contamination);
	Storage (reservoirs, tanks)	High	High	Medium (storage with environmental flow management for large impound infrastructure)	Critical buffering against seasonal variability, droughts, shocks and emergencies;
	Distribution networks (pipes, pumping stations)	Medium	High	n/a	Leakage reduction lowers abstraction needs; network redundancy and pressure management improve service continuity during shocks
	Metering & pressure management	High	Medium-High	n/a	Core demand-side adaptation tool; Improves financial and operational resilience
Wastewater	Sewer networks (collection & conveyance)	High	Medium	n/a	Climate-resilient design reduces flood-related overflows and pollution risks from exfiltration
	Wastewater treatment plants (WWTPs)	High	High	Low	Protect receiving waters under extreme events; enables reuse
	Tertiary treatment / reuse systems	High	High	High (constructed wetlands for treatment or polishing)	Provides climate-resilient alternative water source for irrigation/industry, reducing pressure on scarce freshwater resources
	Sludge management	Low	Medium	High (sludge safely returned to land for nutrients, soil conditioning)	Improved management safeguards water quality, energy generation and circular economy outcomes
	Safe effluent discharge & outfalls	Medium	Medium	High under managed aquifer recharge	Reduces ecosystem vulnerability under climate stress (low flows, higher temperatures)
Irrigation	Irrigation canals & pipelines	High	High	Low	Lining, pressurisation and modernisation reduce losses and improve reliability under hotter, drier climates
	Storage & regulation structures	High	High	High (storage with watershed management)	Seasonal and inter-annual buffering is central to climate-resilient agriculture
	Control, metering & automation	High	High	n/a	Enables precision irrigation, drought response and system recoverability after shocks

Table 8 Examples of GCF additionality in projects

113. However, these investments would not be implemented under a business-as-usual scenario, as existing tariff revenues are insufficient to cover the costs of a comprehensive climate resilient investment programme.
114. A disaggregated assessment of current tariffs across the candidate utilities indicates an average shortfall of approximately 35% between existing tariff revenues and the cost-recovery levels required to finance climate-resilient service provision and associated public-good enabling functions. This financing gap cannot be closed through commercial lending or municipal budgets alone without triggering regressive tariff shocks, undermining affordability, or breaching debt-sustainability thresholds. The identified gap corresponds broadly to the proposed GCF grant contribution and reflects a financial viability gap. The economic value of the programme, which includes significant positive externalities related to water security, public health, and climate resilience, far exceeds the GCF contribution as indicated in Annex 3a Economic assessment annex.. Additional constraints arise from IMF programme requirements, which necessitate a high degree of concessionality for any new financial obligations assumed by the authorities.
115. The concessionality provided through GCF grant financing will accrue directly to end users by avoiding rapid or inequitable tariff increases, while enabling investments that enhance climate resilience in a context of increasing climate variability and extremes. The proposed grant represents the minimum targeted concessionality required to make the Programme viable, consistent with DFI blended-finance guidance and GCF concessionality principles.
116. Utility level financial modelling was undertaken to demonstrate the impacts of climate change as well as importance of grant financing. The financial model assesses the combined impact of multiple climate hazards on the utility's financial performance, including service interruptions leading to revenue losses, increased operations and maintenance costs, asset impairment and casualty losses, and accelerated asset depreciation. Under a business-as-usual scenario without the investment, the model indicates that over the next 18 years these climate impacts would materially weaken the utility's financial position.
117. Sensitivity analysis further demonstrates the utility's high vulnerability to financing terms.
118. In addition, the model indicates that the tariff required to achieve full cost recovery for the planned comprehensive climate-related investment programme – even when accounting for the proposed GCF grant – significantly exceeds the current tariff level. Specifically, the cost-recovery level for is estimated at **KGS 39 (EUR 0.39)/m3 in 2030**, significantly exceeding the current tariff level of **KGS 17 (EUR 0.17)**. The gap is substantial, well above 40%, once the investment component is fully incorporated into the model. At the same time, the modelling shows that with the GCF grant at the proposed level, the resulting tariff adjustments would remain broadly within acceptable affordability thresholds for households.
119. To mitigate affordability impacts, particularly for lower income households, EBRD supports the development of a Social Support Reform Plan (SSRP). The SSRP is designed to provide targeted, sustainable and efficient protection for vulnerable households affected by tariff adjustments for water supply and wastewater services, and forms an integral part of the programme's affordability mitigation

framework.

120. The SSRP combines short-term measures to protect vulnerable users during the tariff transition with longer-term system improvements (over a 3–10 year horizon), including improved beneficiary identification, greater use of digital tools, sustainable budget based financing, and integration with broader social protection systems.
121. However, in the absence of the GCF grant, the affordability burden would rise sharply. The affordability ratio would surpass 5% for many low-income households for several years, levels that are generally considered unacceptable and socially unsustainable.
122. See Annex 2 and Annex 3 for more details and sensitivity scenarios and analysis.
123. These results illustrate that, absent sufficient grant financing, the investment programme would not be financially viable and would not be implemented, reinforcing the case for concessional support to ensure affordability, debt sustainability, and climate-resilient service provision.
124. A high-level aggregated financial model has been prepared as an indicative, programme-level tool to demonstrate the feasibility of implementing the proposed climate-related investment programme and to provide context for overall financial dynamics, affordability constraints, and minimum concessionality under conservative, policy-based assumptions. Given its aggregated and high-level nature, the model is not intended to capture detailed climate or utility-specific impacts, but rather to establish a coherent programme-wide framework for tariff reform, affordability, and sovereign support.

The aggregated analysis demonstrates that the programme can progress toward sector-level financial sustainability while maintaining affordability and applying the minimum necessary concessionality.

B.6. Exit strategy (max. 500 words, approximately 1 page)

125. The Programme is designed to embed climate resilience within the institutional, financial, and operational DNA of water systems, ensuring that adaptation outcomes are sustained beyond GCF support. Sustainability is achieved through three mutually reinforcing mechanisms.
126. First, the CRTP institutionalises coordination between ministries, regulators, utilities, and development partners. This ensures continued pipeline development, policy alignment, and access to future climate finance beyond the initial investment cycle. The platform's governance structure and technical working groups will be formally anchored in existing national adaptation frameworks and sector ministries.
127. Second, financial sustainability will be gradually secured through tariff reform and PSC that embed climate-related performance indicators and lifeline protections. As utilities reduce water losses, enhance metering, and improve collection efficiency, their operating cost recovery improves, allowing reinvestment into resilience measures without perpetual subsidy.
128. Third, the Programme's knowledge, digital tools, and asset management systems will be open-source and locally maintained, enabling replication and iterative learning. This creates a self-sustaining cycle of capacity and adaptation that can expand nationally and regionally.

129. By the end of the Programme, national institutions will be capable of independently maintaining, implementing, and scaling the resilience measures introduced. GCF's concessional role will thus have catalysed a lasting shift toward climate-resilient water management and sustainable municipal services in Kyrgyz Republic and Tajikistan.

C. FINANCING INFORMATION						
C.1. Total financing						
(a) Reques ted GCF funding (i + ii + iii + iv + v + vi + vii)	Total amount			Currency		
	55,000,000			million euro (€)		
GCF financial instru ment	Amount	Tenor	Grace period	Pricing		
(i) Senior loans	<u>Enter amount</u>	<u>Enter</u> years	<u>Enter</u> years	<u>Enter</u> %		
(ii) Subordin ated Loans	<u>Enter amount</u>	<u>Enter</u> years	<u>Enter</u> years	<u>Enter</u> %		
(iii) Equity	<u>Enter amount</u>			<u>Enter</u> % equity return		
(iv) Guarante es	<u>Enter amount</u>	<u>Enter</u> years				
(v) Reimbur sable grants	<u>Enter amount</u>					
(vi) Grants	55,000,000					
(vii) Results- based payment	<u>Enter amount</u>					
(b) Co-financin g informat ion	Total amount			Currency		
	105,000,000			million euro (€)		
Name of institutio n	Financ ial instru ment	Amount	Currency	Tenor & grace	Pricing	Seniori ty
EBRD	<u>Seni or Loa ns</u>	<u>100,000,000</u>	<u>EUR</u>		<u>Enter</u>	<u>senior</u>
Donor co- financing	<u>Gra nt</u>	<u>5,000,000</u>	<u>EUR</u>	<u>Enter</u> years <u>Enter</u> years	<u>Enter</u> %	<u>Options</u>
Click here to enter text.	<u>Opti ons</u>	<u>Enter amount</u>	<u>Options</u>	<u>Enter</u> years <u>Enter</u> years	<u>Enter</u> %	<u>Options</u>

(c) Total financing (c) = (a)+(b)	Amount	Currency
	<u>160,000,000</u>	<u>EUR</u>
(d) Other financing arrangements and contributions (max. 250 words, approximately 0.5 page)	Please explain if any of the financing parties including the AE would benefit from any type of guarantee (e.g. sovereign guarantee, MIGA guarantee). Please also explain other contributions such as in-kind contributions including tax exemptions and contributions of assets. Please also include parallel financing associated with this project or programme (refer to the co-financing policy).	
	130. The financing is provided for direct sovereign lending to the Kyrgyz Republic and the Republic of Tajikistan. Guarantees of any kind are not provided for sovereign lending. 131. In line with the EBRD's cost-sharing policy dated 1 January 2021, it is expected that cash contributions will not be provided considering the Beneficiaries' publicly owned status and lack of sufficient funds to make such contribution. The Beneficiaries are to be exempt from paying VAT or other indirect taxes, hence no parallel cost-sharing will be applied. The borrower shall be exempt from taxes (including, without limitation, VAT, customs duties and any other duties) all goods, works (including civil and installation works) and services (including consultancy services), procured by each AE and financed from the proceeds of the Loan, the Grant Financing and the TC Grant.	

C.2. Financing by component

Component	Output	Indicative cost EUR (€)	GCF financing		Amount EUR (€)	Co-financing	
			Amount EUR (€)	Financial Instrument		Financial Instrument	Name of Institutions
Component 1 - National-level Water Sector Reforms and Climate Resilience Transition Platforms	<u>1.1</u>	<u>1,167,143</u>	<u>729,643</u>	<u>Grants</u>	<u>437,500</u>	<u>Grants</u>	<u>Donor co-financing</u>
	<u>1.2</u>	<u>1,329,135</u>	<u>954,135</u>	<u>Grants</u>	<u>375,000</u>	<u>Grants</u>	<u>Donor co-financing</u>
	<u>1.3</u>	<u>1,123,282</u>	<u>810,782</u>	<u>Grants</u>	<u>312,500</u>	<u>Grants</u>	<u>Donor co-financing</u>
Component 2 - Utility-level climate resilience baselining and technical support for adaptation pathway development	<u>2.1</u>	<u>1,800,000</u>	<u>675,000</u>	<u>Grants</u>	<u>1,125,000</u>	<u>Grants</u>	<u>Donor co-financing</u>
	<u>2.2</u>	<u>2,380,440</u>	<u>1,005,440</u>	<u>Grants</u>	<u>1,375,000</u>	<u>Grants</u>	<u>Donor co-financing</u>
	<u>2.3</u>		<u>825,000</u>	<u>Grants</u>	<u>1,375,000</u>	<u>Grants</u>	<u>Donor co-financing.</u>
		<u>2,200,000</u>					

<u>Component 3</u>	<u>3.1</u>	<u>50,000,000</u>	<u>Grants</u>	<u>100,000,00</u>	<u>Senior</u>	<u>EBRD</u>
= Catalyse				<u>0</u>	<u>Loans</u>	
climate		<u>150,000,0</u>				
investments		<u>00</u>				
for the						
implementatio						
n of adaptation						
pathways						
				-		
Click here to enter text.						
Indicative total cost (USD)	160,000,00	<u>55,000,000</u>		<u>105,000,000</u>		

C.3 Capacity building and technology development/transfer (max. 250 words, approximately 0.5 page)

C.3.1 Does GCF funding finance capacity building activities?	Yes ☒ No ☐
C.3.2. Does GCF funding finance technology development/transfer?	Yes ☒ No ☐

132. The Programme places strong emphasis on capacity building and technology development and transfer as core enablers of climate-resilient water service delivery in the Kyrgyz Republic and Tajikistan. These activities are embedded across Components 1 and 2 and are closely linked to the preparation and implementation of climate-resilient investments under Component 3.

133. Capacity-building activities focus on strengthening national institutions, regulators, and water utilities to manage climate risks in a systematic and sustained manner. At the national level, the Programme supports policy dialogue, regulatory reform, and institutional strengthening, including the development of climate-resilience guidance, decision-support tools, and the establishment of Climate Resilience Transition Platforms to coordinate stakeholders and disseminate knowledge. At the utility level, capacity building includes climate-risk baselining, multi-hazard assessments, development of deep adaptation pathways, corporate development programmes, and training in climate-informed planning, asset management, financial management, and performance monitoring. Peer-to-peer learning and operator-to-operator exchanges are used to reinforce practical uptake.

134. Technology development and transfer are integral to these activities and focus on the adoption and operationalisation of climate-resilient and climate-smart solutions. This includes the transfer of methodologies for climate-risk screening and adaptation pathway planning, deployment of digital tools for monitoring, data management, and early warning, and support for climate-resilient engineering design, efficiency improvements, and nature-based solutions. Grant resources are used to de-risk the introduction of these technologies and adapt them to local institutional and hydrological contexts.

135. The EUR 3 million of the requested GCF funding allocated to components 1 and 2 have some degree of capacity building, technology development, and transfer activities.

D. EXPECTED PERFORMANCE AGAINST INVESTMENT CRITERIA

This section refers to the performance of the project/programme against the investment criteria as set out in the GCF's [Initial Investment Framework](#).

D.1. Impact potential (max. 500 words, approximately 1 page)

136. The Programme will increase the climate resilience of the water sector in the Kyrgyz Republic and Tajikistan, by implementing deep adaptation pathways across priority utilities and locations integrated with mainstreaming of climate considerations into water sector reforms (e.g., PSCs, tariff reforms, and CDPs). In the water supply sector alone, the Programme will reach an estimated 621,100 direct beneficiaries via households served by target utilities in sub-project areas. A further one million indirect beneficiaries are estimated through affiliated users, adjacent communities and downstream catchments. The Programme will prioritize climate-vulnerable communities, namely those groups that are most vulnerable to water insecurity and climate hazards, including women and low-income households, especially those outside of the main urban centres (gender-disaggregated targets are set to reach at least 50% women). Women and low-income households are explicitly understood to be disproportionately affected by water insecurity and rural and peri-urban areas often lack redundancy in water systems and have relatively limited adaptive capacity. By targeting these communities, the Programme will directly support the most climate-vulnerable populations and communities. The Programme addresses the key climate hazards identified in Section B (multi-year water stress, flash floods/mudflows, GLOF-driven turbidity spikes, freeze–thaw stress) through i) institutional and regulatory reforms that codify and safeguard resilience gains into the medium- to long-term; ii) targeted utility support to establish climate baselines and design adaptation pathways that establish concrete and fit-for-purpose resilience actions at the municipal level; and iii) climate-proofed and resilient investments in the water sector system (e.g., water loss reduction, diversification of intakes, improved treatment, increased storage capacity, digital O&M) that provide reliable last-mile infrastructure and support the implementation of adaptation pathways.
137. Alongside targeted utility-level support and climate-resilient infrastructure investments, the Programme will deliver structured capacity building measures for both utilities and communities. This will contribute to scaling up relevant and effective water-related regulations and practices as well as enhance local knowledge and experience. Community engagement programmes will promote demand-side conservation measures including household-level water efficiency and resilience behaviors. There will also be training programs for utility staff, which will contribute to long-term sustainability and resilience of the water sector by increasing and internalizing sectoral expertise. Reinforcing the utility and community-level support, the Programme will support governments on national-level regulatory changes that enhance the resilience of the water sector (e.g., climate resilience KPIs into national PSC standards; tariff methodologies and social support programmes; national CRVA standards). These pieces of work are synergistically and mutually reinforcing; the national reforms actions influence the operations at the utility-level and the bottom-up changes (utility and consumer-level support) aggregate and upswell to become common practice nationally, ultimately ensuring true integrated system-level change.
138. Together, these interconnected components of the Programme will help transform the countries' respective water sectors, driving greater system-level resilience and ensuring that targeted water systems maintain safe, reliable service into the future, even amidst hydrological extremes. The Programme measures will increase reliability of the system in terms of water quality and quantity, i.a. by reducing service disruptions and minimizing contamination risks, ultimately protecting communities and water users, especially the most climate-vulnerable groups (peri-urban and low-income communities, women-led households). Overall, this Programme will lead to strong adaptation outcomes with impacts that will transcend far beyond the bounds of the individual sub-projects, contributing to the climate

resilient and low-carbon trajectory of the water sector in the Kyrgyz Republic and Tajikistan and bolstering water security.

D.2. Paradigm shift potential (max. 500 words, approximately 1 page)s

139. The Programme is **deliberately structured to trigger a systemic transformation** within the water sector of the Kyrgyz Republic and Tajikistan by simultaneously targeting how water services are planned, financed, and managed under accelerating climate uncertainty and impacts. The Programme's deep adaptation pathways approach **replaces project-by-project rehabilitation with a systemic model that puts water systems onto a long-term forward-looking trajectory**. This model treats resilience as a dynamic system property under progressive stress and recognises that climate change creates systemic risks and uncertainty, which requires **paradigm-shifting transformational change**. The corresponding Programme implementation thereby necessarily works across the water sector system, combining technical, financial and governance measures – rather than one-off incremental fixes – to trigger long-term resilience. The deep adaptation pathway approach integrates the critical elements for system-change in the water sector, including institutional reforms, climate-risk analytics, resilient engineering design, demand-side management, digitalisation and targeted capital investment. This creates a coherent set of interventions that will collectively raise the resilience of targeted municipal water systems. Climate resilience becomes not a collection of add-on features, but the **organising principle of water-sector decision-making**.
140. The Programme design intentionally creates **multiple entry points for scaling and replication**: institutional, technical and financial. The **adaptation pathway approach is replicable by design**. It provides a structured process that utilities can follow to identify climate risks, prioritize adaptation measures and sequence investments. Once issued as national guidance, the approach can become the default planning approach for additional municipalities, countries and contexts.
141. Through structured national platforms (i.e., CRTPs) and tailored technical assistance, the programme will facilitate robust stakeholder engagement, peer-to-peer learning, and knowledge exchange. Together, these mechanisms **embed new practices directly within utilities, strengthening their institutional capacity and technical capabilities, ultimately accelerating replication and scalability**. Producing widely accessible technical Programme outputs (e.g., CRVA-to-design standards, PSC template clauses for climate resilience) **lowers barriers for others to adopt or co-finance similar resilience interventions, enabling replication** by eliminating the need for recreating entire technical products. **Early visible progress** (e.g., improved service continuity, reduced water losses) also creates **political momentum for expansion**; these results are easily communicated and **can be scaled nationally** through CRTPs.
142. Supporting the creation of enabling environments and policy transformation is critical for paradigm shift, and core to EBRD's business model – and this Programme. The Programme supports governments to adopt climate- and gender-responsive and cost-reflective policy updates and frameworks, e.g., through tariff methodologies, regulatory guidance. It introduces PSCs that embed efficiency and resilience into their contractual and regulatory arrangements, which will also help establish an effective **enabling environment for climate resilient water sector investment**. The establishment of CRTPs provides a mechanism for consistent stakeholder engagement and alignment on adaptation pathway development, investment prioritization and pipeline development. By institutionalizing this climate-risk governance mechanism, CRTPs help **safeguard continuity well beyond donor project cycles**.

143. Through its combined institutional, technical and financial innovations, the Programme **sets both countries on course for long-term climate-resilient development**, translating NDC priorities into operational practice and laying the foundations for a self-sustaining resilience transition of the water sector

D.3. Sustainable development (max. 500 words, approximately 1 page)

144. The Programme will deliver strong environmental benefits and advance multiple SDGs in in Tajikistan and the Kyrgyz Republic, countries highly vulnerable to climate change impacts such as water stress and insecurity. By investing in climate-resilient water systems and institutional capacity, the Programme will accelerate progress toward **SDG13: Take urgent action to combat climate change and its impacts**, through concrete adaptation measures that strengthen resilience in critical water sectors and mainstream adaptation into the sector for the long-term.

145. Beyond SDG 13, the Programme will contribute to SDG 3 (Good Health and Well-being), SDG 5 (Gender Equality), SDG 6 (Clean Water and Sanitation), SDG 9 (Industry, Innovation, and Infrastructure), and SDG 11 (Sustainable Cities and Communities) while advancing GCF's adaptation objectives. Programme components and respective contributions to GCF Results Areas and SDGs are summarised in Table 9 below

PROGRAMME COMPONENTS	GCF RESULTS AREAS	RELEVANT SDGS	CLIMATE RESILIENCE AND ADAPTATION CONTRIBUTIONS
1. National-level Water Sector Reforms and Climate Resilience Transition Platforms	ARA 1 – Most vulnerable people and communities	SDG 5 - Achieve gender equality and empower all women and girls SDG 6 – Ensure availability and sustainable management of water and sanitation for all SDG 9 – Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation SDG 13 – Take urgent action to combat climate change and its impacts	Builds institutional and human capacity for climate-informed and gender-responsive decision-making, enabling systemic adaptation through policy reform, governance strengthening, and project pipeline development. Establishes CRTPs for structured coordination and knowledge sharing, enabling greater scalability and replication of deep adaptation pathways.

2.Utility level climate resilience baselining and technical support	ARA 1 – Most vulnerable people and communities ARA-2 – Health, well-being, food & water security ARA-3 – Infrastructure & built environment	SDG 3 - Ensure healthy lives and promote well-being for all at all ages SDG 5 - Achieve gender equality and empower all women and girls SDG 6 – Ensure availability and sustainable management of water and sanitation for all SDG 13 – Take urgent action to combat climate change and its impacts SDG 9 – Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	Develops resilience baselines and deep adaptation pathways for water utilities, integrating gender responsiveness, climate risk assessments and digital tools. Supports utilities in planning and implementing deep adaptation measures to reduce climate vulnerabilities, mainstream adaptation, enhance resilience, and improve service reliability as well as deliver reliable, clean and safe water to communities.
3.Climate investment to implement deep adaptation pathways	ARA 1 – Most vulnerable people and communities ARA-2 – Health, well-being, food & water security ARA-3 – Infrastructure & built environment	SDG 3 - Ensure healthy lives and promote well-being for all at all ages SDG 6 – Ensure availability and sustainable management of water and sanitation for all SDG 9 – Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation SDG 11 - Make cities and human settlements inclusive, safe, resilient and sustainable SDG 13 – Take urgent action to combat climate change and its impacts	Invests in climate-resilient water supply and wastewater infrastructure, including modernization, digitization, and energy-efficient technologies. Enhances ecosystem resilience, reduces energy intensity, increases reliability of safe, clean water supply, improves water security, especially vulnerable populations, and garners greater sector-wide climate resilience.

Table 9: RWS4All Contributions to SDGs and GCF Results Areas

The Programme will also realise several co-benefits, including:

- **Economic:** Enhanced financial sustainability of water operators and improved welfare of customers, resulting from improved institutional capacity, cost-reflective pricing, adaptive management, and greater participation of vulnerable groups (Outputs 1.1, 1.2, 2.2, 3.1). Indicative programme examples include reduced water losses and emergency O&M; avoided outage and repair costs; improved utility cost recovery without regressive tariff shocks due to targeted social support; time savings for households (especially for women).
- **Environmental:** Improved water quality, management, and infrastructure, enhanced ecosystem services (e.g., via NBS), and pollution reduction leading to greater water security, reduced exposure to climate hazards, and lower energy intensity of supply systems (Outputs 1.3, 2.1, 3.1).
- **Social & Gender:** Improved health, access to and quality of water supply, gender equality, and institutional capabilities achieved through targeted capacity building and technical support to embed climate considerations into decision-making and water-sector governance. Increased adaptive capacity of utilities and communities to respond to climate-induced drought and water stress also supports reaching these co-benefits (Outputs 1.1, 1.2, 2.1, 2.2, 3.1).

D.4. Needs of recipient (max. 500 words, approximately 1 page)

146. The needs of the recipients in both the Kyrgyz Republic and Tajikistan are well understood by the EBRD, building from many years of on-the-ground experience engaging with stakeholders, building relationships, implementing programmes, and delivering investments. Further, in addition to this deep contextual understanding, this Programme has been designed in close consultation with stakeholders in both the Kyrgyz Republic and Tajikistan (see Annex 7) and accordingly reflects their priorities, concerns and needs. These consultations reaffirmed the urgent need for climate-resilient water systems, given their **high climate exposure** (hydrological variability, cryosphere decline, flood/mudflow risk), and increasing vulnerabilities. These countries are experiencing accelerating glacier retreat, greater hydrological variability, heat and freeze–thaw stress, and higher sediment and debris loads. These factors directly impact intakes, pumping stations, distribution networks and wastewater facilities. Climate-induced stresses compound existing challenges, including **ageing municipal and infrastructure systems**, high water losses, limited metering, and **institutional constraints**, including e.g., tariff limits and fragmented governance. Further, the high exposure to climate risks in the Kyrgyz Republic and Tajikistan has substantial cascading impacts on water security, public health, and livelihoods. Climate-vulnerable groups, particularly women, rural and peri-urban households, and low-income populations, bear disproportionate risks from service failures and contamination, exacerbating social inequities.
147. Municipal utilities are also operating under considerable fiscal and structural limitations and are often constrained by tariff frameworks that restrict cost recovery and limit the ability to finance capital investments. **Debt sustainability** and IMF concessionality rules limit sovereign capacity to finance the incremental costs of comprehensive climate resilient investment programmes. As a result, critical adaptation measures, including climate risk assessments, policy reforms, and the critical infrastructure investments, are not undertaken and do will not proceed without concessional grant support. This makes **grant finance essential to unlock the resilience transition today**: even though tariff reforms are slowly leading to improved cost-recovery, the trajectory is gradual (to avoid affordability concerns in most vulnerable groups), and does not keep pace with the impacts of climate change. Capacity gaps in climate risk management and planning create further systemic barriers to resilience.
148. GCF resources will therefore be critical to deliver adaptation enablers (e.g., CRVAs, policy reforms, CRTPs, PSCs with climate KPIs, demand-side management programmes, nature-based solutions (NBS) design). These interventions create an **amenable enabling environment for system-level transformation to integrate climate resilience** across the water sector. In addition, GCF finance in conjunction with EBRD loans are crucial for the delivery of comprehensive climate resilience investment. This approach ensures **more equitable access to resilient services** and prioritizes medium/small cities and peri-urban areas that are often bypassed.
149. By addressing both structural vulnerabilities and institutional capacity gaps, the Programme responds directly to urgent adaptation needs of Tajikistan and the Kyrgyz Republic, delivering benefits to climate-exposed vulnerable populations, supporting long-term water security, providing critical infrastructure upgrades, and promoting sector-wide resilience.

D.5. Country ownership (max. 500 words, approximately 1 page)

150. The Kyrgyz Republic and Tajikistan demonstrate strong ownership and commitment to implementing the Programme through established national climate strategies and active engagement of their NDAs. Both NDAs have reviewed the Programme Funding Proposal and expressed their support.
151. **In the Kyrgyz Republic**, the Ministry of Water Resources, Agriculture and Processing Industry (MWRAPI) is the lead counterpart, supported by the Central Project Implementation Unit for the EBRD water projects, both entities have provided letters of support. Coordination will also involve the State Agency for Drinking Water Supply and Wastewater Management and Water Resources Services. The programme is **fully aligned with Kyrgyz Republic's updated NDC 3.0, which prioritizes adaptation in the water resources sector** and sets a sector-specific goal to strengthen water management, reduce vulnerabilities, and ensure long-term water security. Outdated irrigation and water infrastructure are identified as critical barriers to adaptation, which the Programme directly addresses. Stakeholder consultations with the NDA and Climate Finance Centre were held in June and November 2025, ensuring participatory design and national endorsement, and the NDA submitted their non-objection letter for this Programme as attached in Annex 1.
152. **In Tajikistan**, water governance is shared between KMK, a national level utility services operator, and the Agency for Land Reclamation and Irrigation. These agencies, alongside the Ministry of Finance will be key programme counterparts. Stakeholder consultations, including a major meeting in Dushanbe in July 2025 and formal consultation in January 2026, confirmed strong support for the programme and its national alignment, especially for rehabilitating pumping stations and irrigation canals. **Tajikistan's NDC identifies water resources and agriculture as priority sectors for adaptation** due to their vulnerability and development importance, **areas directly addressed through the Programme**. The Programme also addresses water scarcity and resilience through improved management and infrastructure, areas of critical importance to national adaptation planning processes and national climate strategies (i.e., NDC).
153. EBRD has a proven ability to design and deliver large-scale technical assistance programmes that translate directly into operational improvements. In the Kyrgyz Republic, the Bank is simultaneously implementing seven corporate development assignments, while in Tajikistan it is leading a major turnaround and consolidation effort across four key utilities. These programmes are already producing measurable gains in performance, cost-effectiveness, and organisational capability.
154. Building on this momentum, EBRD has rolled out a comprehensive institutional development programme to address systemic regulatory gaps. Since late 2024, mobilised experts have been refining tariff methodologies, developing a climate-resilient standard PSC, and designing social support mechanisms. Pilot cities are now applying tariff action plans using EBRD-developed benchmarking and Excel-based tariff tools- demonstrating rapid, on-the-ground uptake. More cities will join as EBRD supports utilities in applying the new tariff methodology, justifying costs, preparing climate-resilient investments, and operationalising PSCs.
155. The social support reform plan has been endorsed and is advancing through inter-ministerial review. In parallel, EBRD's Reform Support Teams continue to drive policy progress, including inputs

to the draft Drinking Water Supply and Wastewater Law.

156. In the irrigation sector, EBRD is steering tariff reform in the Kyrgyz Republic. Procurement is nearing completion for the development and rollout of a transparent, formula-based tariff methodology with phased adjustments and targeted protection for vulnerable groups. A core focus is strengthening Water Resource Services' institutional systems - budgeting, cash management, and regulatory autonomy. Alongside this, EBRD, WRS and DTI are preparing a sector-wide capacity-building programme on smart metering, automation, and modern irrigation technologies, with training expected to begin this year.
157. Together, these interventions reflect EBRD's ability not only to design reforms but to deliver them - strengthening institutions, improving regulation, and building resilience to climate risks. With GCF support, the Bank is well positioned to scale up this implementation-centred approach across the sector.
158. The EBRD will serve as both AE and EE, leveraging its proven capacity to deliver climate-resilient investments and policy support. The Programme builds upon over a decade of water sector reform engagement and EBRD's strong track record in Tajikistan and Kyrgyzstan, where it has invested more than EUR 2 billion across 450 projects. This includes extensive experience and expertise in water supply, sanitation, and municipal water projects, complemented by technical assistance, policy development, and capacity building.
159. EBRD's long-standing relationships with governments, municipal companies, private sector actors, IFIs, and donors will ensure effective coordination and efficient implementation. Civil society organizations, women, and vulnerable groups are recognized as key stakeholders, and EBRD will apply its established gender-responsive and inclusive engagement practices to ensure equitable benefits and participation, in line with GCF's Gender Policy and Environmental and Social Safeguards
160. The Programme is clearly demarcated from ADB's G2F initiative, which focuses on longer term supply considerations (e.g., glacial dynamics) and agricultural components (e.g., farming). This Programme targets municipal water supply, wastewater, and demand-side interfaces, as well as low-risk water and energy efficiency gains for multi purpose irrigation systems. Overlap risk is minimal and will be managed between the AEs, and the proposed CRTP will provide a structured mechanism for coordination among development partners, ensuring complementarity and maximizing impact.

D.6. Efficiency and effectiveness (max` . 500 words, approximately 1 page)

161. The Programme is structured to deliver maximum climate-resilience impact at the lowest feasible cost while ensuring long-term financial sustainability for utilities and affordability for end-users. The financial package of EUR 160 million—comprising EUR 100 million in EBRD commercial loans, EUR 55 million in GCF grants, and EUR 5 million in additional donor cofinancing—has been carefully designed to address systemic sector bottlenecks, mitigate affordability constraints, and ensure that transformative adaptation investments can proceed in the context of existing fiscal pressures and vulnerable communities. By addressing critical financial, institutional, and market barriers, the programme aims to secure long-term viability and paves the way forward to catalyse additional public and private investment through laying robust institutional and regulatory foundations to achieve long term sustainability of climate-resilient investments in the water sector.

162. Both Kyrgyzstan and Tajikistan face high debt distress, narrow economic bases, and strict IMF concessionality requirements, which mandate a **minimum 35% grant element** in public borrowing. The GCF grant is essential to enable transformational adaptation projects and unlock co-financing from institutions such as EBRD, which can only provide non-concessional financing. Without the GCF grant, utilities in Kyrgyzstan and Tajikistan would be unable to recover capital and operating costs through tariffs. Current tariff levels cover, on average, **only 60% of the revenue required to reach cost recovery, leaving a 40% shortfall**. Without grant support, this gap would need to be fully passed on to households—**resulting in tariff increases** that would exceed internationally accepted affordability thresholds. For lower income and vulnerable communities, cost recovery tariffs would rise above the commonly referenced 5% affordability benchmark for essential services. The grant and specifically the grant-to-loan ratio requested for investments directly fills this structural revenue gap, enabling these essential climate resilient investments that would otherwise be financially unviable and safeguarding equitable access to essential services to already vulnerable users facing severe affordability constraints.
163. The GCF grant therefore plays an essential enabling role and aligns with prevailing financing patterns in the region, where loans are often blended with grants covering one third to one half of investment needs consistent with the IMF's Debt Sustainability Analysis, resulting in **62–73% concessionality in Kyrgyzstan and full grant financing in Tajikistan**.
164. The economic analysis indicates that the economic rate of return of the programme is strongly positive, driven by avoided service disruptions, reduced emergency repairs, energy savings, and increased agricultural productivity in addition to lower health costs associated with contaminated water. Financially, the programme is not viable without the requested grants: the financial rate of return with GCF support remains modest but acceptable for public service provision under cost recovery constraints, whereas the FRR without GCF becomes sharply negative due to unaffordable tariff increases that would exceed the 5% affordability threshold and reach 10% or more for vulnerable households. This further strengthens the case for concessional financing to avoid imposing hardship on the population while enabling urgent climate resilient infrastructure upgrades.
165. Blended concessional financing in public sector projects is also justified as a lever for systemic policy reform. Concessional financing enables ambitious policy changes that would not be achievable under purely commercial terms. Continuous engagement in critical water supply and sanitation and irrigation investments in Kyrgyzstan and Tajikistan—sectors suffering from chronic underinvestment and affordability constraints—creates a platform for a legal and regulatory reform agenda.
166. The Programme advances EBRD's efforts to establish effective water supply and sanitation and irrigation markets, focusing on **cost-reflective tariffs** and **commercialisation of utilities**. Concessional finance is essential because these investments cannot be structured on commercial terms due to the **viability funding gap**. This programme can serve as a **pilot showcasing how blended concessional financing can drive governance and policy reform**, providing additionality and justifying concessional resources to advance national development priorities.
167. The Programme also demonstrates technical efficiency, using best available technologies and international good practice: climate resilient design standards, digital monitoring systems, advanced

leak detection and automation systems. These innovations reduce lifecycle costs, improve system reliability, and enhance scalability and replicability across Central Asia.

168. Overall, the financing structure and technical design ensure that the programme delivers significant resilience outcomes while safeguarding affordability, strengthening governance, and enabling transformative, long-lasting climate action in two highly vulnerable countries.

E. LOGICAL FRAMEWORK

E.1. Project/Programme Focus

Reduced emissions (mitigation)

☒ Increased resilience (adaptation)

E.2. GCF Impact level: Paradigm shift potential (max 600 words, approximately 1-2 pages)

Assessment Dimension	Current state (baseline)		Potential target scenario (Description)	How the project/programme will contribute (Description)
	Description	Rating		
Scale	Fragmented, asset-focused investments with limited climate-proofing; utilities lack resilience planning and digital tools; adaptation measures are ad hoc and donor-driven.	<u>Low</u>	Integrated climate-resilient water sector systems with embedded adaptation pathways; PSCs with climate KPIs adopted; utilities operate digital asset management; national guidance and frameworks mainstreaming climate adaptation are applied.	Establishes CRTPs that enable capacity building, knowledge sharing, and learning across utilities; issues national guidance and policy reforms that integrate climate resilience; embeds resilience KPIs into PSCs; finances climate resilient assets and utility digitalisation; supports tariff reform.

Replicability	No structured model for climate-resilient water sector development, planning, and investment.	<u>Low</u>	Deep-adaptation pathway model replicated across additional utilities and sharable regionally; regional learning platforms institutionalized	CRTPs serve as hubs for knowledge exchange and management; operator toolkits are developed; national guidance is developed and made available; sequencing of climate resilient investments demonstrated.
Sustainability	Climate adaptation measures are short-term and donor-dependent; weak cost recovery; utilities lack financial and institutional capacity for continued resilience investments.	<u>Low</u>	Climate resilience mainstreamed into sector governance, decision-making, and investment frameworks; maintain project pipelines e.g., through CRTPs, PSCs and tariff reforms are deployed and ensure financial viability.	Regulatory and contractual anchors are deployed via e.g., PSCs and national guidance, capacity building provided to utilities, and blended finance for investments is structured to sustain results post-Programme.

E.3. GCF Outcome level: Reduced emissions and increased resilience (IRMF core indicators 1-4, quantitative indicators)

GCF Result Area	IRMF Indicator	Means of Verification (MoV)	Baseline	Target		Assumptions / Note
				Mid-term	Final ⁵⁵	
Total Programme adaptation beneficiaries without overlaps	Core 2: Direct and indirect adaptation beneficiaries	Ex-post analyses and surveys	0	Direct: 310,550 people; Indirect: 600,000	Direct: 621,100 (50% women); Indirect: 1,200,000	Totals per Section A; disaggregation per Annex 11 methodology; indirect beneficiaries counted once per household/network area.

⁵⁵ The final target means the target at the end of project/programme implementation period. However, for core indicator 1 (GHG emission reduction), please also provide the target value at the end of the total lifespan period which is defined as the maximum number of years over which the impacts of the investment are expected to be effective.

ARA1 Most vulnerable people and communities	Core 2: Direct and indirect beneficiaries reached	Ex-post analyses and surveys	0	Direct: 310,550 people; Indirect: 600,000	Direct: 621,100 (50% women); Indirect: 1,200,000	Totals per Section A; disaggregation per Annex 11 methodology; indirect beneficiaries counted once per household/network area.
ARA2 Health, well-being, food and water security	Core 2: Direct and indirect beneficiaries reached	Ex-post analyses and surveys	0	Direct: 310,550 people; Indirect: 600,000	Direct: 621,100 (50% women); Indirect: 1,200,000	Totals per Section A; disaggregation per Annex 11 methodology; indirect beneficiaries counted once per household/network area.
ARA3 Infrastructure and built environment	Core 2: Direct and indirect beneficiaries reached	Ex-post analyses and surveys	0	Direct: 310,550 people; Indirect: 600,000	Direct: 621,100 (50% women); Indirect: 1,200,000	Totals per Section A; disaggregation per Annex 11 methodology; indirect beneficiaries counted once per household/network area.
ARA1 Most vulnerable people and communities	Supplementary 2.3: Beneficiaries (female/male) with more climate-resilient water security	Continuity-of-service and compliance information; water quality tests; outage records	0	310,550 people (≥50% women)	621,100 people (≥50% women)	Defined as the water utility consumers/beneficiaries experiencing improved continuity, quality compliance, and service retention amidst climate/disaster events vs baseline.
ARA2 Health, well-being, food and water security	Supplementary 2.3: Beneficiaries (female/male) with more climate-resilient water security	Continuity-of-service and compliance information; water quality tests; outage records	0	310,550 people (≥50% women)	621,100 people (≥50% women)	Defined as the water utility consumers/beneficiaries experiencing improved continuity, quality compliance, and service retention amidst climate/disaster events vs baseline.

ARA3 Infrastructure and built environment	Supplementary 2.3: Beneficiaries (female/male) with more climate-resilient water security	Continuity-of-service and compliance information; water quality tests; outage records	0	310,550 people (≥50% women)	621,100 people (≥50% women)	Defined as the water utility consumers/beneficiaries experiencing improved continuity, quality compliance, and service retention amidst climate/disaster events vs baseline.
ARA1 Most vulnerable people and communities	Core 3: Value of physical assets made more resilient to the effects of climate change	EBRD Board documents	0	EUR 60m	EUR 150m	For the purposes of this reporting framework, an asset is defined as a physical infrastructure component such as e.g., wastewater treatment facility, water supply network, or major public building, etc.
ARA2 Health, well-being, food and water security	Core 3: Value of physical assets made more resilient to the effects of climate change	EBRD Board documents	0	EUR 60m	EUR 150m	For the purposes of this reporting framework, an asset is defined as a physical infrastructure component such as e.g., wastewater treatment facility, water supply network, or major public building, etc.
ARA3 Infrastructure and built environment	Core 3: Value of physical assets made more resilient to the effects of climate change	EBRD Board documents	0	EUR 60m	EUR 150m	For the purposes of this reporting framework, an asset is defined as a physical infrastructure component such as e.g., wastewater treatment

						facility, water supply network, or major public building, etc.
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E.4. GCF Outcome level: Enabling environment (IRMF core indicators 5-8 as applicable)

Core Indicator	Baseline context (description)	Rating for current state (baseline)	Target scenario (description)	How the project will contribute	Coverage
Core Indicator 5: Degree to which GCF investments contribute to strengthening institutional and regulatory frameworks for low emission climate-resilient development pathways in a country-driven manner	Fragmented mandates; climate not systematically embedded in sector regulation; PSCs lack resilience KPIs; tariff/social-support frameworks not climate-responsive.	<u>low</u>	National PSC standards include climate KPIs; tariff methodology + social-support guidance operational; CRVA-to-design standards issued and used; periodic regulatory reporting on resilience.	Output 1.1 reforms; Output 1.2 guidance/tools; embedded reform teams; legal adoption and roll-out of PSCs; regulator training curricula.	<u>Multi-countries</u>
Core indicator 8: Degree to which GCF investments contribute to effective knowledge generation and learning processes, and use of good practices, methodologies and standards	No sector platform for climate-resilient water sector knowledge; limited operator-to-operator exchange on adaptation and resilience + best practice.	<u>low</u>	CRTPs in both countries operational; public guidance, webinars, policy briefs; KM plan delivering replication.	Outputs 1.2 & 1.3 (CRTP design/operations; national guidance); programme-wide KM and dissemination	<u>Multi-countries</u>

E.5. Project/programme specific indicators (project outcomes and outputs)

Project/pro gramme results (outcomes / outputs)	Project/ progra mme specific Indicat or	Means of Verification (MoV)	Baseline	Target		Assumptions / Note
				Mid-term	Fina l	
Component 1: National-level Water Sector Reforms and Climate Resilience Transition Platforms						
Outcome 1: Strengthened enabling environment of the water sector at the national level providing the boundary conditions for climate resilient and gender-responsive water service provision	Policy recommendations (e.g., tariff methodology; climate-resilient PSCs, CRVA standards) accepted by relevant authorities and stakeholders (Y/N)	Published national standards and regulations; associated project documentation; government	No	-	Yes	
Output 1.1: National legal and regulatory reforms supported	Number of recommended strategies agreed	Published national standards and regulations; associated project documentation; government	0		3	Minimum of 6 Assuming a minimum of implementation of updated tariff methodology; climate resilience integration in PSCs, and CRVA standards in both countries.

	by authorities						
	Number of public service contracts signed and implemented	Project documentation; PSC documentation	0	4	Minimum of 8		Assuming a minimum of 8 CDPs and targeted utility-level support.
	Number of clients reporting tariffs reaching target levels	Client and project reporting; programme documentation.	0	4	Minimum of 8		Assuming a minimum of 8 CDPs and targeted utility-level support.
Output 1.2: Guidance and tools for water system operators on climate resilience and inclusion responsiveness developed	Number of knowledge products disseminated	Project documentation	0		2	Minimum of 4	National guidance on water service delivery in both countries; toolkit
Output 1.3: Water sector Climate Resilience Transition Platform(s) established	Policy dialogue platform, CRTP, is operational (Y/N)	ToR or similar for CRTP formation and management; member lists; meeting agendas, attendees, and minutes; distribution lists of knowledge products and platforms etc.	0	1	2		CIIP lead (TJ) and nominated KR lead confirmed; annual workplans.
Component 2: Utility-level climate resilience baselining and technical support for adaptation pathway development							

Outcome 2: Strengthened institutional capacity of water utilities to provide resilient and inclusive water services and integrate climate risk into their strategic planning	Practice s of the relevant stakeholder improved (i.e., climate resilience practices)	Programme documentation; targeted water utilities procedure and process documentation; planning processes	No	Yes	Yes		
Output 2.1: Adaptation pathways for priority systems developed	Policy framework, Deep Adaptation Pathway , approved by relevant authority and stakeholder (Y/N)	Adaptation pathway documentation, i.e., baselining and action plan for prioritized interventions completed and approved.	0	4		8	Pathways include prioritised measures, CRVA basis and sequencing. Ready for financing under Component 3.
Output 2.2: Enhanced adaptive capacity of water utilities through implementation of corporate	Number of clients implemented performance or action plan (i.e., CDP)	Performance or Action Plan implemented; Implementation of CDPs and their recommendations by selected WSS clients; signed PSCs; CDP completion certification.	0	4		8	PSCs include resilience KPIs; CDPs include MIS rollout.

development support								
Output 2.3: Implementation of water projects supported	Number of project implementation support delivered, ensuring compliance with all financing requirements, including procurement, disbursement, covenants, and project reporting	Client/ Consultant reports.	0	4		8		Assuming 8 sub-projects supported with the implementation of the investment programs in line with required standards.
Component 3: Catalyse climate investments for the implementation of adaptation pathways								
Outcome 3: Improved water security via climate-resilient infrastructure investments	Number of priority investment programmes funded	Final Client /Consultants Reports	0	4	8	Investments signed and implemented through the Programme		
Output 3.1: Priority water systems deliver enhanced, climate resilient water services	Number of priority investments by archetype	Final Clients / Consultants Reports	0		Minimum 2 of 4 different	Minimum 4 of 4 different archetypes	At the Programme level, there is at least one investment for each of the four archetypes (as described in Section B3).	

					archetypes		
Project/programme co-benefit indicators							
Environmental	Annual water savings (m3/year)	Ex-ante project assessments; programme documentation	0		3,000,000	At least 6,000,000	This figure only contains water savings from physical water loss reduction.
	Annual energy savings (GJ/year)	Ex-ante project assessments; programme documentation	0		6,000	At least 13,000	Estimated from water savings, using typical energy intensity of supply systems (0.6 kwh/m3)
	Volume of wastewater treated (m3/year)	Ex-ante project assessments; programme documentation	0		4,500,000	At least 9,000,000	Conservative estimate of 50l/ppd, based on wastewater projects in indicative pipeline.
	Volume of safe and clean water provided (m3/year)	Ex-ante project assessments; programme documentation	0		15,000,000	At least 30,000,000	Based on water supply projects in indicative pipeline.
	Number of customers with access to improved WSS services	Ex-ante project assessments; programme documentation	0		75,000	At least 150,000	Derived from the direct beneficiaries, assuming an average household size of 4.
Social & Gender	Updated stakeholder	Ex-post surveys and analyses; programme documentation	No	NA	Yes		

	practices on women's representation in decision-making bodies					
	% of women in decision-making bodies in participating water sector institutions	Ex-post surveys and analyses; programme documentation	Baseline assessed during programme inception	NA	NA	Year-on-year maintenance and/or improvements will be tracked throughout programme implementation
	Annual programme-level consolidated gender results summary produced using aggregated sub-project reporting	Programme documentation (distributed knowledge products), completed gender action plans, ex-post surveys and analyses	0	NA	NA	1

Number of workshop and knowledge pieces delivered	Programme documentation (workshop agendas and attendee lists; distributed knowledge products)	0	1	2	
% of women participating in workshop (Baseline established during programme inception, Target to be set according to baseline either maintenance or improvement)	Programme documentation (workshop agendas and attendee lists; distributed knowledge products)	Baseline assessed during programme inception	NA	Target to be set according to baseline either maintenance or improvement	
Guidance and toolkit on gender and equal	Programme documentation; completed gender action plans submitted for approval	No	NA	Yes	

opportunities action plans developed in each country					
Number of gender action plans developed and implemented	Programme documentation; completed gender action plans submitted for approval	0	4	8	
Sub-project level analysis conducted to establish gender-related outcome (benefit) indicators	Programme documentation; completed gender action plans submitted for approval	No	NA	Yes	
Tailored training/capacity building programme to enhance understanding	Programme documentation; completed gender action plans submitted for approval	No	NA	Yes	

anding and implem entation of the action plans and how to deliver inclusiv e and gender- respons ive water services develop ed and implem ented					
Number of capacity building initiative s complet ed at water utility level	Programme documentation; attendance records as relevant	0	4	8	
Number of individu als enhanci ng their skills as a result of training	Programme documentation; attendance records as relevant, pre/post training assesments, short learning checks	0	NA	Target to be set during programme inception	

(improved understanding of gender-responsive service delivery and/or GBVH-related obligations based on pre/post training assessment or short learning check)					
% of women participating in capacity building initiatives for water utilities (Baseline established during programme inception,	Programme documentation; attendance records as relevant	Baseline assessed during programme inception	NA	Target to be set according to baseline either maintenance or improvement	

	Target to be set according to baseline either maintenance or improvement)				
Economic	Reduction in water losses (% losses)	Programme and sub-project documentation; client reporting and records	Assessed at sub-project level.		Targets will be based on assessments of baselines conducted at sub-project level.
	Improved utility cost recovery (% increase)	Programme and sub-project documentation; client reporting and records	Assessed at sub-project level.		Targets will be based on assessments of baselines conducted at sub-project level.

E.6. Project/programme activities and deliverables

Activities	Description	Sub-activities	Deliverables
Activity 1.1.1: <u>Structural reform for the water sector to enable long-term resilience, including relevant data collection, monitoring, and reporting</u>	These activities support the implementation of national-level reforms in the water sector that concretely target climate adaptation and resilience benefits.	1.1.1.1: Support implementation and consolidation of national reforms, including operationalizing water sector tariff methodology and associated tools and curricula 1.1.1.2 Adopt and roll out standardised PSCs with clear climate resilience KPIs and performance incentives 1.1.1.3 Deploy embedded reform support units within designated country-counterparts' teams	Development and delivery of water sector tariff adjustments Implementation of standardised PSCs with climate resilience KPIs Delivery of embedded reform support units in designated organisational counterparts
Activity 1.1.2: Mainstreaming climate adaptation and social inclusion in water services	These activities facilitate climate-resilient investment planning and supports social support standards	1.1.2.1 Design and integrate climate resilience KPIs into respective national PSC standards 1.1.2.2 Develop social support programme standards and guidance for equitable water sector transition 1.1.2.3 Review and update practices on promoting women's representation in decision-making bodies in participating water sector institutions	Climate resilience KPIs for PSCs Social support programme standards and guidance developed

Activity 1.2.1: Develop national guidance and knowledge products on climate resilient water service delivery	This activity will develop national standards and guidance for CRVA tailored to country-specific context and aligned to international good practice and	1.2.1.1 Define national standards for CRVA 1.2.1.2 Develop country and water specific guidance for mainstreaming CRVA outcomes into engineering design criteria	National CRVA standards developed and associated operationalization guidance prepared Guidance for country and water sector mainstreaming of CRVA outcomes into engineering design criteria
Activity 1.2.2 Develop scalable community engagement programmes to promote water efficiency at the customer level	These activities develop and deploy measures and community engagement programmes to support greater water efficiency at the customer level	1.2.2.1 Development of a toolkit for technical measure and incentive mechanisms for water efficiency 1.2.2.2 Development of a roll-out plan for piloting water efficiency measures in selected utilities	Toolkit for water efficiency technical measures developed Implementation/roll-out plan for pilot-testing water efficiency and incentive mechanisms in selected utilities
Activity 1.2.3: International knowledge sharing on best practices for climate resilient water services	This activity will produce knowledge products/guidance highlighting lessons learned and best practices in deploying climate resilience water services	1.2.3.1 Develop e.g., a policy brief, practical guide for practitioners, and short webinar series to showcases best practices and lessons learned in 1.2.3.2 Share best practices and lessons learned in form of at least one workshop and policy brief on mainstreaming gender equality and inclusivity in the water sector to an international audience	Knowledge products (e.g., policy brief, webinar series, practitioner practical guide) developed
Activity 1.3.1 Design and establishment of Climate Resilience Transition Platform (CRTP)	This activity will conduct the preparatory design work as well as the operational set-up of country CRTPs	1.3.1.1 Conduct all design and operational set-up related tasks for the launch of CRTPs (e.g., kick-off meetings, design document and TORs, stakeholder consultations etc.)	CRTP prepared and launched

for the water sector			
Activity 1.3.2: Operation of Climate Resilience Transition Platforms (CRTPs)	This activity comprises the implementation of country CRTPs	1.3.2.1 Implementation of CRTPs including project management, facilitation of knowledge sharing, stakeholder engagement, and dissemination of information 1.3.2.2 Develop guidance and toolkit on adopting gender and equal opportunities action plans (incl. GBVH prevention policies) at the utility-level in each country	Annual CRTP progress reports Final gender and equal opportunities guidance and toolkits
Activity 2.1.1: Conduct baselining and adaptation pathway development for sub-systems	These activities cover the development of the utility-level adaptation pathways	2.1.1.1 Completion of baseline analyses and assessments, including e.g., quantification of multi-hazard physical climate risk 2.1.1.2 Creation, quantification, and prioritisation of recommended adaptation interventions, including NBS opportunities, reforms, digital tools etc. 2.1.1.3 Development of adaptation pathway recommendations/priority actions	Final adaptation pathways for targeted utilities
Activity 2.1.2: Provision of detailed project preparation support for priority investments	This activity covers technical assistance support for detail project preparation for targeted investments for utilities	2.1.2.1 Completion of full technical, environmental, and financial due diligence on prioritized infrastructure measures captured in the adaption pathway development	Completed due diligence documentation
Activity 2.2.1: Increase adaptive capacity of water utilities through corporate development support, including gender considerations and <u>relevant data</u>	This activity encompasses capacity-building for utilities to strengthen institutional capabilities to adopt improved financial management, governance and operational practices	2.2.1.1 Review and in-depth analysis of companies' operational and financial performance 2.2.1.2 Provide recommendations and support the implementation of Management Information Systems (MIS) 2.2.1.3 Develop and signing of PSCs 2.2.1.4 Provision of a CDP to targeted utilities 2.2.1.5 Develop and implement a SPP	Sicp Completed CDPs Developed SPPs Developed social support programme Gender action plans

<u>collection, monitoring, and reporting</u>	aligned with new adopted regulatory frameworks	2.2.1.6 Assessment of the existing tariff setting methodology and development of a social support programme 2.2.1.7: Development of gender assessments for beneficiary water utilities and further development and implementation of gender analyses and action plans for sub-projects (incl. GBVH prevention policies, updating data collection and data-driven planning practices)2.2.1.8: Training conducted to relevant personnel to build capacity to enhance understanding and implementation of the action plans and how to deliver inclusive and gender-responsive water services	Trainings facilitated
Activity 2.2.2: Develop scalable community engagement programmes to promote water efficiency at the customer level	These activities support community engagement efforts to increase water efficiency at the consumer level	2.2.2.1 Assessment of customer-level water saving potential 2.2.2.2 Application of water efficiency toolkit	Water efficiency toolkit applied in pilot utilitites
Activity 2.3.1 Support provided for sub-projects to be implemented under Component 3	This activity supports the delivery of project implementation, ensuring compliance with all financing requirements, including procurement, disbursement, covenants, and project reporting	2.3.1.1 Support the implementation of sub-projects/clients to successfully implement the joint EBRD–GCF investment programme	Project implementation support delivered
Activity 3.1.1: Implementation of prioritised climate	This activity covers the delivery of the required capital	3.1.1.1 Signing of sovereign loan and investment grant agreements between EBRD and respective governments in Kyrgyz Republic and Tajikistan	Loan and investment grant agreements signed

resilience investments at utility level	investments to support the implementation of the adaptation pathways		Loan and investment grant activities completed
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E.7. Monitoring, reporting and evaluation arrangements (max. 500 words, approximately 1 page)

Monitoring

169. Monitoring for the Programme will be in line with EBRD's policies and the terms of the AMA/FAA. Specifically, the implementation of each sub-project under the Programme will be managed and monitored at both the sub-project and Programme level by EBRD's staff, project management units, procured international and local consultants, as relevant. As per usual practice, EBRD has dedicated staff in its sectors team, risk departments and regional presence that will conduct due diligence, monitor sub-project risks, and prepare mitigation measures throughout the Programme's lifecycle. The logical frameworks will be aligned at the Programme and sub-project level, and the same outcome indicators will be applied across the Programme portfolio.

Reporting

A. Implementation consultants reporting to the EBRD

170. The procured consultants will report to the EBRD based on the following arrangements. Prior to the launched of the Programme, a team of international and local experts is established to inform and report to the EBRD Programme managers on the initial implementation stage of M&E activities, including the establishment of country-specific monitoring frameworks, the definition of processes and procedures in consultation with the direct beneficiaries and other stakeholders, jointly with the methodology for data collection for the different activities, indicators, and outputs of the Programme. As indicated in Annex 11, data for the indicators are collected through different means of verification, with defined frequencies and collection tools. In a second phase, once the Programme has been launched, the consultant team will communicate with the EBRD managers on the progress of the Programme and report on a regular basis throughout the Programme lifetime. At completion date, the operational team will prepare a completion report at Programme-level.

B. EBRD reporting to the GCF

171. Once the EBRD receives reporting from the implementation consultants, the EBRD will perform quality assurance checks and reconcile the data. Based on this, the EBRD will provide a Programme-level report to the GCF. The EBRD will provide to the GCF a) annual activity performance reports on the status of GCF funded activities throughout the relevant reporting period, b) a mid-term evaluation report at the midpoint of the implementation period of the Programme and c) final evaluation report at the end of the implementation period.

Evaluation

172. As part of the overall project implementation, two evaluations are planned: one interim independent evaluation following year 7 of Programme implementation and one final independent summative evaluation focusing on the impact of the Programme within 12 months upon completion date. EBRD will oversee the preparation and implementation of these evaluations, carried out by experienced procured consultants. Evaluations will be conducted in compliance with the GCF Evaluation Policy.

F. RISK ASSESSMENT AND MANAGEMENT

F.1. Risk factors and mitigations measures (max. 3 pages)

Selected Risk Factor 1: Economic Risk

Category	Probability	Impact
<u>Other</u>	<u>Medium</u>	<u>Medium</u>
Description		

173. Macro-economic risks such as those of general shocks and downturns have been rising in the aftermath of the pandemic and the war on Ukraine, including construction cost volatility and inflationary cost effects on commodities, energy, and raw materials. The persistence of adverse economic conditions could affect project scope, O&M affordability, and tariff pathways.
174. Beneficiaries may face risks associated with currency fluctuation since part, or all, of the EBRD loans may be denominated in hard currency, while beneficiaries collect revenues in local currency. In this regard, the burden of making payments to the EBRD may be significantly affected by foreign exchange (FX) fluctuations. Tajikistan and the Kyrgyz Republic face moderate foreign exchange risk due to ongoing currency volatility driven by external factors, including fluctuations in remittance inflows, commodity prices, and exchange-rate movements in key partner economies. Both countries' currencies (TJS and KGS) are sensitive to shifts in foreign currency availability, and periodic central bank interventions highlight underlying market pressures. This volatility may affect project costs and cash-flow planning during implementation.
175. Credit risk may arise from the recipients that fail to perform and meet the contractual obligation to service the loans. This may result in financial loss, due to credit events, and affect the profitability of the investment under the Programme.

Mitigation Measure(s)

176. EBRD's presence and processes will ensure adequate risk management of the Programme. Early detection of emerging challenges will be facilitated by EBRD's strong local presence in the two targeted countries. In addition, the ex-ante feasibility studies can assess broader macroeconomic risks affecting the affordability and debt sustainability of the respective country. The Programme also envisages a paradigm-shift model by supporting governments to adopt climate-responsive policy frameworks through cost-reflective tariff methodologies, regulatory guidance and mainstreaming resilience into PSC contractual and regulatory arrangements.
177. The EBRD's comprehensive due diligence and technical support will mitigate the risk that beneficiaries may experience difficulties in servicing loans due to insufficient operating cash flow to meet debt service obligations. In this regard, sovereign borrowing remains the only viable financial structure at this stage, with reliance on sovereign creditworthiness helping to mitigate foreign exchange risk. Beneficiaries' sensitivities to increases in interest rates and local currency devaluation, as well as mechanisms to address potential exposure to higher costs associated with foreign exchange risks, will be evaluated and monitored on a project-by-project basis. In addition, while FX and interest rate risks associated with EBRD financing are contractually borne at the sovereign level, these risks are managed in practice through a combination of established government risk sharing arrangements and upstream sector reforms supported by the Bank. In KGZ and TJK, like other IFIs' sovereign financing, EBRD sovereign loans are integrated into the government's public debt management framework, with debt service obligations met through budgetary allocations. This sovereign risk assumption is complemented

with targeted institutional development support to the water sector through the reform of water tariff policies and methodologies, to ensure that utilities progressively move towards cost reflective tariffs. This approach strengthens the operating cash flows of utilities, improves their financial sustainability, and enhances their capacity to meet their contractual obligations under on lending arrangements, thereby reducing the likelihood that macroeconomic shocks translate into operational stress or payment delays at the utility level.

178. This dual layered approach (sovereign assumption of market risks combined with sector level financial strengthening) is consistent with EBRD precedent across sovereign water operations in KGZ and TJK. EBRD supports governments and regulators in adopting transparent, predictable tariff setting with targeted social protection mechanisms to safeguard affordability. By enabling utilities to recover efficient operating costs and gradually contribute to capital expenditure needs, these reforms improve debt servicing capacity at the utility level and provide an important buffer against adverse macroeconomic and financial conditions, including exchange rate volatility and higher interest rates.

Selected Risk Factor 2: Political Risk

Category	Probability	Impact
<u>Other</u>	<u>Medium</u>	<u>Medium</u>
Description		

179. Water infrastructure investments improve service and the sustainability of supply but can be accompanied by a cost burden to the end user. Changes in tariffs and user fees can prove politically challenging for municipal and national governments to adopt. This may increase the risks related to inconsistent water, land, tariff and environmental regulations, as well as permitting delays. In the long-term, political context can, in turn, defer regulatory reforms on tariff methodology, water legislation and PSC frameworks that depend on multi-year institutional consistency.

Mitigation Measure(s)

180. The EBRD is primarily driven by the sound banking principles, with thorough due diligence processes covering angles related to political and policy risks. The EBRD has trusted relationships with the programme beneficiaries and monitors closely the respective country's political cycle and its impacts on the viability of the Programme. The EBRD would also build on its well-established relationships, policy support and dialogue activities with the local governments and relevant stakeholders to support alignment of political agenda with the broad objectives of the Programme.

Selected Risk Factor 3 – Environmental and Social Risk

Category	Probability	Impact
<u>Other</u>	<u>Low</u>	<u>Low</u>
Description		

181. Beneficiaries might present limited experience to comply with national regulations and/or EBRD and GCF environmental and social policy requirements.

Mitigation Measure(s)

182. ESAPs will be developed during projects' feasibility studies, and the plans' implementation will be covenanted in the relevant legal agreements and monitored during the Programme implementation by the EBRD. Each sub-project will be subject to EBRD's Environmental and Social Management Framework (ESMF) for the Programme (see Annex 6), and will be appropriately appraised and structured to meet EBRD's Environmental and Social Requirements (ESRs). This includes land ownership and access rights, where applicable. In line with EBRD's ESR5, all land-related permissions and legal rights

will need to be secured prior to implementation. For projects involving land-related impacts a Resettlement Framework will be developed during the due diligence, followed by a more comprehensive Resettlement Plan to be developed and implemented by the respective beneficiaries in line with ESR5.

Selected Risk Factor 4 – Project Implementation Risk

Category	Probability	Impact
<u>Technical and operational</u>	<u>Medium</u>	<u>Medium</u>

Description

183. Beneficiaries might present limited capacity and/or experience to implement water infrastructure and related projects, as well as promote institutional reforms in the water sector. The successful deployment of the Programme will require significant efforts and dedicated resources to originate, execute, and monitor the technical assistance activities delivered to the government and designated national authorities. In addition, the possible lack of commitment from the beneficiaries of the Programme, including the selected water utilities, may require additional resources to support them in more climate awareness raising activities. On the same line, national authorities may fail to coordinate effectively on reform implementation, climate resilience planning, and investment prioritisation. This may result in fragmented efforts, duplicated work, delays in policy reforms.
184. Extreme weather and climate-related hazards, including floods, freeze–thaw cycles, and variability in glacier-fed flows, may disrupt construction schedules, damage infrastructure assets, and increase maintenance and rehabilitation costs. These risks could delay implementation and reduce the operational reliability of water infrastructure if not adequately addressed through climate-resilient design and planning.
185. Beneficiaries may have limited familiarity with the EBRD's and GCF's PP&Rs and may fail to comply with those requirements.

Mitigation Measure(s)

186. The comprehensive technical assistance package will focus on mitigating the implementation risk, with extensive training in contractual monitoring to be applied. Experienced project implementation experts will support the beneficiaries with the overall project administration. Detailed legal and technical due diligence will be carried out to develop robust and sustainable transition measures and milestones throughout the implementation of the TA activities. In addition, the CDPs will help the beneficiaries implement the expected reforms effectively, and the CRTP will be established to facilitate knowledge sharing and coordinate reform agendas.
187. The Programme aims, in principle, to strengthen climate resilience in the water sector by supporting long-term, adaptation pathways for critical water infrastructure in the Kyrgyz Republic and Tajikistan. Achieving this vision builds on the previous work and engagement of the EBRD in the water sector in Central Asia with relevant stakeholders and institutions responsible for water management and climate planning.

188. The Programme will include comprehensive assistance throughout the procurement process, including training, to mitigate the procurement risk. EBRD will ensure compliance with its PP&R and other policies that contribute to minimise this risk. The Bank's Procurement Operations & Delivery Department and Procurement Policy and Advisory Department develop and update procurement policies, rules, and methods, and are responsible for maintaining a procurement quality assurance system. Regarding the tracking and usage of funds, EBRD has prepared new guidance and processes when dealing with GCF funds (in terms of sanctions, AML, and other checks). In addition, in line with EBRD's institutional risk framework, a tailored risk assessment covering [AML/CFT](#), PP, [bribery and corruption](#), and eventual conflict of interests will be part of the Bank's [due diligence process](#) once project implementation begins.
189. The project implementation in Kyrgyz Republic will also be supported by the Central PIU for the water sector established as an independent entity under the Ministry of Finance of the Kyrgyz Republic to coordinate activities under all the sub-projects to ensure a harmonised approach and economies of scale. As usual practice, EBRD will confirm that overall framework, including the sources, flow of funds, and the legal instruments governing such co-financing, is in place. The project specific financing arrangements will be concluded once the fund activity is effective, with EBRD retaining overall decision-making authority and fiduciary responsibility for the entire duration of the Programme.

G. GCF POLICIES AND STANDARDS

G.1. Environmental and social risk assessment (max. 750 words, approximately 1.5 pages)

190. The Programme presents medium to high E&S risks due to its infrastructure-heavy nature and geographic scope. Key environmental risks may include potential impacts from construction and rehabilitation of water and wastewater systems, including impacts on local ecosystems, pollution during construction, and risks associated with the treated wastewater reuse and sludge management. However, these risks would be mitigated by the EBRD's own requirement to follow national and EU standards for wastewater treatment, by integrating nature-based solutions and blue-green infrastructure. Social risks include labour and contractor management, land acquisition and land use, temporary displacement or disruption during the construction stage of the infrastructure upgrades, affordability concerns if costs are passed to consumers, and challenges in stakeholder engagement, particularly in rural and peri-urban areas. Each sub-project will be subject to EBRD's Environmental and Social Management Framework (ESMF) for the Programme (see Annex 6), and will be appropriately appraised and structured to meet EBRD's Environmental and Social Requirements (ESRs).
191. The Programme is expected to fall under Category B as per the GCF's Revised Environmental and Social Policy, due to the moderate scale of infrastructure interventions, the potential for site-specific, reversible impacts that can be addressed and mitigated through the appropriate measures and established procedures. The inclusion of the capacity building and institutional reform component will help to reduce systemic risks associated with the low E&S capacity of the clients. The Programme is not expected to involve any high-risk sectors, any large-scale resettlement or significant biodiversity impacts.
192. The Programme will mainstream gender and will be gender responsive, as it targets rural and peri-urban populations, where women are disproportionately affected by water insecurity. As a result of gender analysis the activities will be defined and will include (i) review of policies of the municipalities to integrate gender equality principles; (ii) adoption of gender / equal opportunities action plans and GBVH policies (including regional visibility events); (iii) capacity-building to enhance understanding and implementation of the action plans and inclusive and gender-responsive water services; (iv) awareness-raising activities to engage wider audience and (v) inclusive stakeholder engagement ensuring meaningful participation of women and women's organisations in decisions related to water utility governance and service delivery.
193. The Programme has a moderate SEAH risk due to its engagement with vulnerable populations, infrastructure works, and multiple implementing partners. Potential mitigants that will be utilised include institutional strengthening and governance reforms, training and awareness-raising on SEAH, establishment of grievance mechanisms and monitoring systems, and inclusion of SEAH safeguards in PSCs and CDPs.
194. The Programme will have substantial positive impacts on the local population through improved quality of water and wastewater services, water access, ecosystem services, and climate resilience.

G.2. Gender assessment and action plan (max. 500 words, approximately 1 page)

195. This GAAP (Annex 8) sets out how the Programme will deliver gender-responsive water investments in Tajikistan and the Kyrgyz Republic by addressing the most material gender gaps affecting resilience, service continuity, and equitable access. The Programme's aim is to reduce gender-differentiated burdens from water scarcity and disruptions, strengthen inclusive governance in the water sector, and ensure benefits are shared fairly, supported by gender indicators in programme M&E and disaggregated data (at minimum by sex and location).
196. The gender analysis was developed at proposal stage through a structured desk-based review of available national and sector evidence. The analysis informed prioritisation and design across all Programme components and was translated into a Gender Action Plan with defined actions, responsibilities and monitoring requirements. No stakeholder consultations or primary data collection have taken place at this stage. These will be conducted during implementation to validate assumptions and refine actions and targets.
197. The key gender risks and opportunities for the Programme are: (1) access and affordability pressures under scarcity and disruptions, which can exclude low-income and vulnerable households but can be mitigated; (2) women's and girls' time poverty driven by coping strategies for intermittent services (collection, queuing, storage, household water management), which can be reduced through improved reliability and demand-side engagement; (3) health and care burdens linked to unsafe water and service interruptions, addressable through stronger water safety, treatment performance, and risk communication; (4) low female representation and occupational segregation in utilities, which can be tackled through recruitment, workplace measures, and skills pathways aligned with the investment programme; and (5) weak women's representation in municipal and utility decision-making, where stronger representation and inclusive governance can improve accountability and service responsiveness. The Programme will promote women's representation and meaningful participation so that service planning, reform design, and investment choices reflect differentiated needs and constraints of affected groups and improve responsiveness. This will be reinforced through the development and implementation of Gender Action Plans at participating utility level, supported by capacity building, so that staff can apply gender-responsive approaches in customer engagement, service delivery, and operational planning (instead of ad hoc). Utilities will also be expected to strengthen routine collection and use of sex-disaggregated data (and other agreed disaggregation where feasible) to track access, affordability and service experience. Finally, the Programme will institutionalise knowledge sharing to capture lessons and to ensure this learning informs future planning, replication, and policy dialogue in Tajikistan, the Kyrgyz Republic, and beyond.
198. Addressing vulnerabilityvulnerability is treated as a prerequisite for equal participation and benefit sharing, ensuring affordable service design, accessible engagement channels and disaggregated monitoring are used to reduce exclusion risks for low-income and rural households, children & youth, elderly people, people with disabilities, migrants, households with insecure tenure and other groups.
199. Implementation will be embedded in overall programme governance with defined roles across the EBRD Gender and Economic Inclusion team, implementing clients and utilities. Accountability will be

maintained through project-specific reporting timelines and an annual consolidated review aligned to work planning. Monitoring and evaluation will integrate gender indicators into programme-level reporting.

G.3. Financial management and procurement (max. 500 words, approximately 1 page)

200. The Programme will select consultants and contractors in accordance with EBRD's Corporate Procurement Policy and with the *PP&R for public sector operations*. The EBRD and Implementing Partners, where relevant and applicable for each Component, will publish specific Terms of Reference (ToR) or tender documents for each TA assignment or investment component as per procurement plan targeted at a specific country, region, project, including a description of the tasks and scope of works to be performed, deliverables, time-schedules, and reporting requirements. Participating consultancy, contractors or suppliers respond by submitting the specified technical and financial proposal for the relevant Component of the assignment together with details of the expert(s) proposed to carry out the work. Selection will be done in line with the PP&R.
201. Procurement under the Programme for Component 1 and 2, where the Bank is a contracting party, will be conducted in accordance with the EBRD's Corporate Procurement Policy. The EBRD will assign a dedicated Operation Leader who will be responsible for the design and implementation for each TA.
202. Procurement under Component 1, 2 and 3, where the implementing partners (i.e. government agencies, municipalities, and water utilities) are the contracting party, will be conducted in accordance with the EBRD's Procurement Policies and Rules (PP&R) applicable to public sector operations. In line with standard EBRD sovereign operations practice, the procurement and contracting of suppliers, contractors, and consultants for Components 1, 2 (where a TA grant agreement is envisaged), and 3 will then be carried out by the implementing partners. Upon delivery of goods, works, or services, the Borrower or implementing partner will review and authorize contractors' invoices for submission to EBRD. Upon delivery of goods, works, or services, the Borrower or implementing partner will review and authorize the contractor's invoices for submission to EBRD. Following EBRD's determination that the goods, works, or services have been delivered to a satisfactory standard, the Bank will make payment directly to the contractor, supplier, or consultant. These practices ensure the transparent and appropriate use of EBRD and GCF resources in line with fiduciary and oversight requirements.

G.4. Disclosure of funding proposal

- ☐ No confidential information: The accredited entity confirms that the funding proposal, including its annexes, may be disclosed in full by the GCF, as no information is being provided in confidence.
- ☒ With confidential information: The accredited entity declares that the funding proposal, including its annexes, may not be disclosed in full by the GCF, as certain information is being provided in confidence. Accordingly, the accredited entity is providing to the Secretariat the following two copies of the funding proposal, including all annexes:
- full copy for internal use of the GCF in which the confidential portions are marked accordingly, together with an explanatory note regarding the said portions and the corresponding reason for confidentiality under the accredited entity's disclosure policy, and
 - redacted copy for disclosure on the GCF website.

The funding proposal can only be processed upon receipt of the two copies above, if containing confidential information.

H. ANNEXES

H.1. Mandatory annexes

- ☒ Annex 1 NDA no-objection letter(s) ([template provided](#))
- ☒ Annex 2 Feasibility study - and a market study, if applicable
- ☒ Annex 3 Economic and/or financial analyses in spreadsheet format
- ☒ Annex 4 Detailed budget plan ([template provided](#))
- ☒ Annex 5 Implementation timetable including key project/programme milestones ([template provided](#))
- ☒ Annex 6 E&S document corresponding to the E&S category (A, B or C; or I1, I2 or I3):
 - ☐ Environmental and Social Impact Assessment (ESIA) or
 - ☐ Environmental and Social Management Plan (ESMP) or
 - ☒ Environmental and Social Management Framework (ESMF)
 - ☐ Others (please specify – e.g. Resettlement Action Plan, Resettlement Policy Framework, Indigenous People's Plan, Land Acquisition Plan, etc.)
- ☒ Annex 7 Summary of consultations and stakeholder engagement plan
- ☒ Annex 8 Gender assessment and project/programme-level action plan ([template provided](#))
- ☒ Annex 9 Legal due diligence (regulation, taxation and insurance)
- ☐ Annex 10 Procurement plan ([template provided](#))
- ☒ Annex 11 Monitoring and evaluation plan ([template provided](#))
- ☒ Annex 12 AE fee request ([template provided](#))
- ☒ Annex 13 Co-financing commitment letter, if applicable ([template provided](#))
- ☒ Annex 14 Term sheet including a detailed disbursement schedule and, if applicable, repayment schedule

H.2. Other annexes as applicable

- ☐ Annex 15 Evidence of internal approval ([template provided](#))
- ☒ Annex 16 Map(s) indicating the location of proposed interventions
- ☒ Annex 17 Multi-country project/programme information ([template provided](#))
- ☐ Annex 18 Appraisal, due diligence or evaluation report for proposals based on up-scaling or replicating a pilot project
- ☐ Annex 19 Procedures for controlling procurement by third parties or executing entities undertaking projects financed by the entity
- ☐ Annex 20 First level AML/CFT (KYC) assessment
- ☐ Annex 21 Operations manual (Operations and maintenance)
- ☐ Annex 22 Assessment of GHG emission reductions and their monitoring and reporting (for mitigation and cross cutting-projects)⁵⁶
- ☒ Annex 23 Methodological note on beneficiary calculation
- ☒ Annex 24 Limited distribution Annex

* Please note that a funding proposal will be considered complete only upon receipt of all the applicable supporting documents.

⁵⁶ Annex 22 is mandatory for mitigation and cross-cutting projects.