

**INNOVATIVE MECHANISMS AND
PRIORITY DIRECTIONS FOR DEVELOPING
THE LEASING SERVICES MARKET IN THE
REPUBLIC OF KARAKALPAKSTAN:
EVIDENCE FROM MARKET STATISTICS AND
REGIONAL INVESTMENT STRUCTURE**

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***Abstract:** Leasing is widely recognized as a practical form of asset-based finance that can expand investment for small and medium-sized enterprises (SMEs) and municipalities when traditional collateral and long-term credit are constrained. This study develops an evidence-based set of innovative mechanisms and priority directions for strengthening the leasing services market in the Republic of Karakalpakstan—an autonomous region of Uzbekistan that faces significant infrastructure and climate-resilience needs in the Aral Sea area. The research uses a desk-based methodology combining: (i) analysis of Uzbekistan’s legal framework for leasing, (ii) national market statistics reported by the Leasing Association of Uzbekistan, (iii) official regional investment statistics identifying the financing structure of fixed-capital formation in Karakalpakstan, and (iv) benchmarking against international guidance on leasing-sector development and sustainable investment policy. Results highlight two important signals for regional policy design: Uzbekistan’s leasing market has expanded in transaction volume and portfolio size from 2023 to 2024, and Karakalpakstan’s fixed-capital investment is dominated by foreign investment and loans, while the share of domestic bank borrowing remains limited. Based on these findings, the paper proposes a practical mechanism package for Karakalpakstan centered on digital underwriting, vendor partnerships, municipal leasing programs,*

risk-sharing instruments, and targeted green leasing for climate-resilient and productivity-enhancing assets.

Keywords: *leasing market; Karakalpakstan; asset-based finance; SMEs; municipal infrastructure; green leasing; Uzbekistan*

Introduction

For developing regions, leasing can function as a bridge between investment demand and financing constraints, because the leased asset itself serves as a core risk mitigant. International guidance emphasizes that a well-designed leasing sector can support SME growth, technology upgrades, and productive investment when conventional lending is limited or when borrowers lack acceptable collateral. [5,6]

In Uzbekistan, leasing is regulated by the Law “On Leasing,” which defines the rights and obligations of the parties and sets a legal basis for leasing operations. [1] Recent market statistics also show that leasing has become a sizable channel of investment finance nationally: the Leasing Association of Uzbekistan reports that in 2023 lessors concluded more than 7,500 new leasing transactions worth almost UZS 4 trillion, with the total leasing portfolio reaching almost UZS 7.4 trillion. [2] By the end of 2024 the Association reports more than 11 thousand new transactions with a volume of UZS 4.6 trillion, and a total portfolio exceeding UZS 8.8 trillion. [3]

Karakalpakstan’s development agenda includes upgrading municipal services, transport and utility fleets, water-management infrastructure, and productive equipment in agriculture and construction. These priorities are shaped by the Aral Sea environmental context and by the practical need to improve reliability of basic services and create employment. The World Bank highlights that sand, dust and

salt transport from the dried Aral seabed creates significant environmental pressures across Central Asia, reinforcing the importance of climate-resilient investment choices. [9] In parallel, recent UNDP programming in Karakalpakstan focuses on green and inclusive development in vulnerable districts, signaling policy relevance for investment mechanisms that accelerate equipment renewal and service delivery. [10]

The objective of this paper is to translate these national market trends and regional investment signals into a set of innovative, implementable mechanisms for developing the leasing services market in Karakalpakstan, with clear priority directions suitable for municipal and SME needs.

Materials and Methods

The study applies a desk-based research design. First, a legal and institutional review was carried out using Uzbekistan's legislation on leasing. [1] Second, national leasing-market indicators (transaction counts, transaction volumes, portfolio size, and the number of market participants) were collected from official publications of the Leasing Association of Uzbekistan for 2023 and 2024, including the first half of 2024. [2,3] Third, to anchor the analysis in Karakalpakstan's investment context, regional fixed-capital investment statistics were extracted from the National Statistics Committee's press release on fixed capital investments for January–September 2025, including the regional breakdown of financing sources. [4] Fourth, the policy and mechanism design was benchmarked against international guidance on leasing-sector development (the World Bank/IFC leasing toolkits and guidelines)

and against recent policy analysis on sustainable investment reforms in Uzbekistan. [5,6,7]

Analytically, the paper uses descriptive statistics and comparative interpretation. The ‘results’ section reports the core national and regional indicators and visualizes key trends. The ‘discussion’ section then translates those signals into a structured package of mechanisms, specifying (i) responsible actors, (ii) enabling policy instruments, and (iii) measurable implementation outputs appropriate for municipal planning and regional economic development practice.

Results

Table 1. Uzbekistan leasing market snapshot reported by the Leasing Association of Uzbekistan (selected indicators).

Period	New deals (count)	New deals volume (trn UZS)	Total portfolio (trn UZS)	Market players (approx.)	Active lessors (approx.)
2023 (year-end)	7500	4.00	7.40	150	40
2024 H1	7500	2.00	7.40	155	36
2024 (year-end)	11000	4.60	8.80	155	37

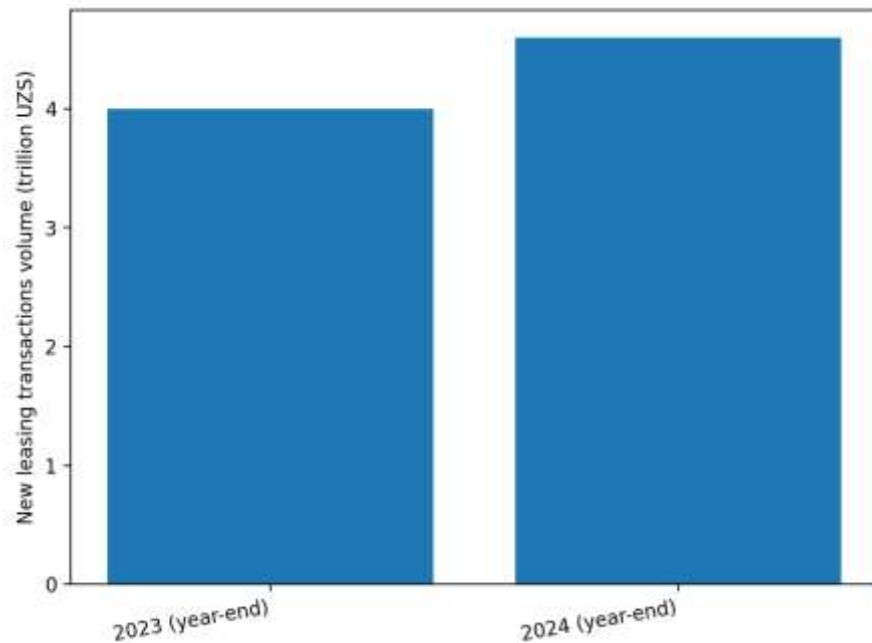


Figure 1. New leasing transactions volume in Uzbekistan: 2023 vs 2024 (trillion UZS). Source: [2,3].

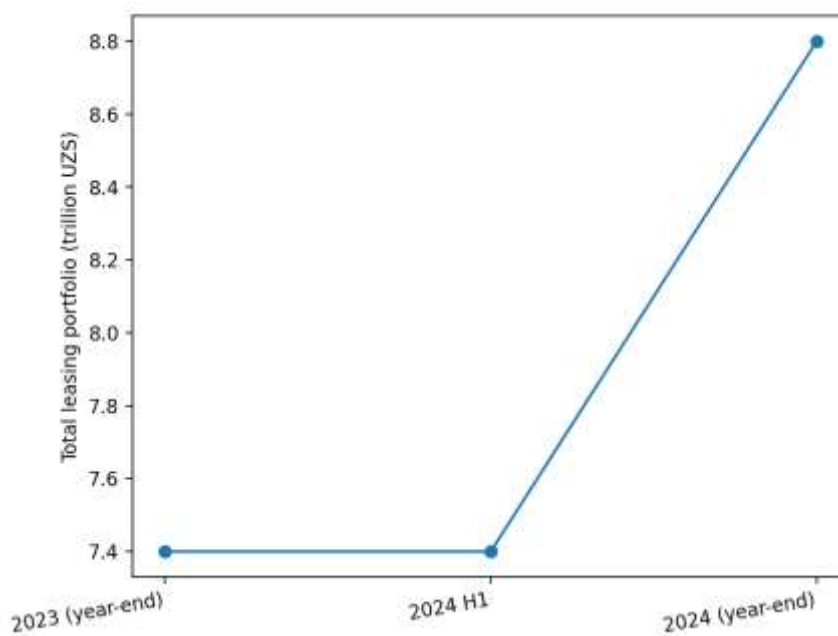


Figure 2. Total leasing portfolio reported in 2023, 2024 H1, and 2024 (trillion UZS). Source: [2,3].

Table 2. Karakalpakstan fixed-capital investment financing structure (Jan–Sep 2025). Total: 17,612.8 bln UZS. Source: [4].

Source	Share (%)	Amount (bln UZS)
Republican budget	3.9	686.9
Enterprises and organizations' funds	12.4	2184.0
Population funds	7.2	1268.1
Foreign investment and loans	73.0	12857.3
Water Supply & Sewerage Systems Development Fund	0.2	35.2
Reconstruction and Development Fund	0.0	0.0
Commercial bank loans and other borrowed funds	3.3	581.2

Karakalpakstan: investment financing structure (Jan-Sep 2025)

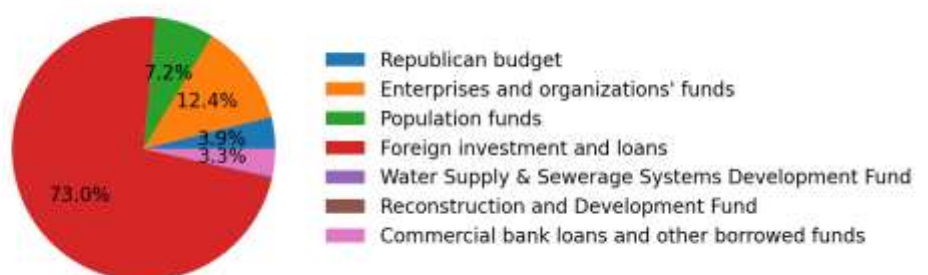


Figure 3. Karakalpakstan investment financing structure (Jan–Sep 2025). Source: [4].

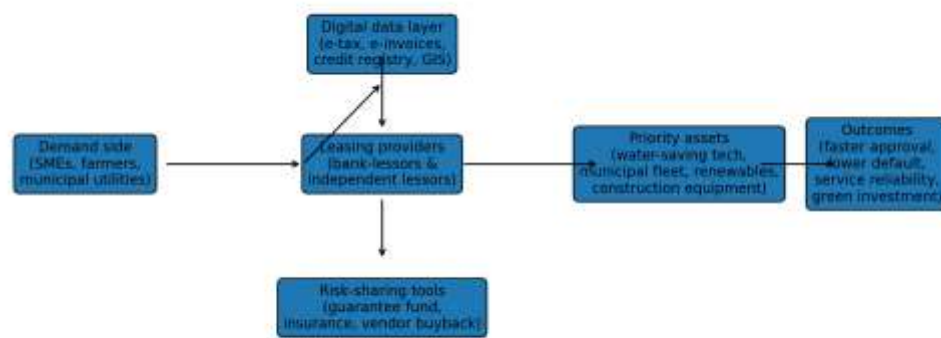


Figure 4. Proposed mechanism architecture for scaling leasing in Karakalpakstan (conceptual figure developed in this study).

Two empirical signals from the compiled statistics are particularly relevant for regional policy. First, the national leasing market increased in both new-transaction volume and portfolio size between 2023 and 2024, suggesting expanding provider capacity and demand. [2,3] Second, Karakalpakstan's investment financing structure shows a high share of foreign investment and loans (73.0%) and a comparatively small contribution from commercial bank loans and other borrowed funds (3.3%). [4] This pattern points to a gap where asset-based financing instruments—especially leasing products adapted to local conditions—could complement existing investment channels for SMEs and municipal utilities.

Discussion

International leasing-sector guidance stresses that successful market development typically depends on (I) a clear legal framework, (II) predictable tax and accounting treatment, (III) robust risk management and asset recovery processes, and (IV) product design aligned with SME cash flows and vendor ecosystems. [5,6] Uzbekistan has a dedicated

leasing law, and national market statistics suggest growing market depth. [1–3] The challenge for Karakalpakstan is therefore less about ‘creating’ leasing from zero and more about regionalizing the market: ensuring that products, underwriting, and distribution reach firms and municipalities outside the national core.

Based on the regional investment signal (foreign finance dominance and low domestic borrowing share) and on the practical needs of the Aral Sea region, the following priority directions are proposed for Karakalpakstan:

Table 3. Priority directions and innovative mechanisms for developing leasing in Karakalpakstan (policy and implementation view).

Priority direction (Karakalpaksta)	Why it matters locally	Innovative mechanism	Measurable outputs (examples)
Municipal fleet and utility equipment leasing	Improves reliability of water supply, sanitation, waste services, and public transport in dispersed settlements.	Municipal leasing programs via e-procurement; service-based contracts; standardized technical specs and maintenance bundles.	Fleet renewal rate; downtime reduction; cost per service unit.
Green leasing for climate-resilient assets	Addresses environmental stress and supports adaptation investments in the Aral Sea region.	Green eligibility criteria; concessional lines; vendor discounts; monitoring of energy/water savings.	Share of ‘green’ leases; verified savings; emissions reduction proxies.
Vendor and dealer-based leasing for SMEs	Reduces distribution costs and accelerates adoption of machinery and	Vendor leasing, buyback agreements, and bundled	Approval time; SME uptake; default rate by sector.

	equipment by SMEs and farmers.	insurance; digital onboarding.	
Digital underwriting and monitoring	Enables scaling outside major cities and reduces information asymmetry for thin-file borrowers.	Use of e-invoices/tax data, remote ID, GPS/IoT for high-value assets; automated reminders and restructuring options.	Cost-to-serve; NPL ratio; early warning hit rate.
Risk-sharing instruments for regional projects	Mitigates higher perceived risk and supports long-tenor leases for infrastructure and productive assets.	Regional guarantee facility, co-insurance, and portfolio risk-sharing; aligned with green investment policy reforms.	Leverage ratio of public support; private capital mobilized; portfolio at risk.

Digitalization is a cross-cutting enabler. The Central Bank's recent annual reporting highlights the rapid expansion of online financial services and transaction volumes, which lowers the operational barrier to serving remote districts through digital channels. [8] At the same time, Uzbekistan's policy debate on sustainable investment emphasizes the importance of aligning finance with green growth and climate resilience—an agenda directly relevant to the Aral Sea region and therefore to Karakalpakstan's asset priorities. [7,10]

From a municipal planning perspective, the key advantage of leasing is the ability to transform large upfront capital costs into predictable payments tied to service budgets. For example, municipal leasing for refuse trucks, street maintenance machinery, or water pumps can be combined with maintenance and performance requirements, reducing lifecycle costs and service interruptions. For SMEs and farms,

vendor leasing can reduce transaction costs and improve screening, because suppliers possess valuable information about equipment operation and after-sales service. These mechanisms are consistent with the market-development approaches emphasized in the World Bank/IFC toolkits. [5,6]

Conclusion

This study developed an IMRAD-structured, evidence-based set of innovative mechanisms and priority directions for developing the leasing services market in the Republic of Karakalpakstan. National market statistics demonstrate that leasing in Uzbekistan has grown between 2023 and 2024 in both new-transaction volume and portfolio size, while official regional statistics show that Karakalpakstan's fixed-capital investment is heavily financed by foreign investment and loans, with a limited share of domestic bank borrowing. These signals support the case for scaling asset-based financing instruments in the region through: (I) municipal leasing programs for infrastructure and service equipment, (II) green leasing for climate-resilient assets, (III) vendor-based leasing for SME technology upgrades, (IV) digital underwriting and monitoring to reduce information frictions, and (V) risk-sharing facilities to extend tenors and reach underserved districts.

Future research should extend the analysis using firm-level regional data (e.g., lease uptake by sector and district), evaluate default behavior under different risk-sharing designs, and pilot a small municipal leasing program in Nukus or selected districts with clear performance indicators and transparent procurement.

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