

## DEVELOPING PUBLIC-PRIVATE PARTNERSHIP (PPP) MECHANISMS IN THE EFFECTIVE MANAGEMENT OF FREE ECONOMIC ZONES

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### **Abstract**

Free Economic Zones (FEZs) have emerged as vital instruments for accelerating economic development, attracting foreign direct investment, and fostering technological innovation in transitional and developing economies. This article examines the theoretical foundations and practical dimensions of Public-Private Partnership (PPP) mechanisms within the governance framework of FEZs, with particular emphasis on the experience of Uzbekistan. Drawing on comparative analysis of international best practices from China, Singapore, Poland, and the United Arab Emirates, the study proposes an integrated PPP governance model tailored to the institutional context of Uzbekistan's special economic zones. The paper identifies critical success factors, risk-sharing frameworks, and institutional prerequisites for sustainable PPP implementation. Empirical evidence demonstrates that well-structured PPP arrangements increase FEZ investment efficiency by 35-48%, reduce infrastructure development costs by up to 30%, and generate measurable spillover effects on the surrounding regional economies. The article concludes with a set of policy recommendations aimed at strengthening the legal-regulatory environment and organizational capacity required for effective PPP governance in Uzbekistan's free economic zones.

### **Keywords**

Free Economic Zone (FEZ), Public-Private Partnership (PPP), investment governance, economic development, Uzbekistan, special economic zones, institutional framework, risk allocation.

Free Economic Zones have become one of the most prominent policy instruments employed by governments across the globe to stimulate economic growth, attract foreign capital, and encourage industrial diversification. From the

export processing zones of East Asia to the technology parks of Eastern Europe and the logistics hubs of the Gulf region, FEZs represent laboratories of economic experimentation where preferential regulatory conditions converge with strategic infrastructure investments. Uzbekistan has made the development of FEZs a central component of its post-reform economic strategy. Since the adoption of the comprehensive economic reform agenda in 2017 under Presidential Decree No. UP-5273, the country has established more than 20 special economic and free industrial zones across its regions, aiming to leverage geographic position, natural resources, and a growing young labor force for export-oriented industrialization. However, the mere establishment of legal frameworks for FEZs does not automatically translate into economic dynamism. The quality of governance, the design of institutional mechanisms, and critically, the architecture of relationships between public authorities and private investors determine whether FEZs fulfill their developmental potential or remain underutilized administrative constructs. In this context, Public-Private Partnership mechanisms represent a transformative approach to FEZ governance that can align incentives, distribute risks efficiently, and mobilize resources that exceed the fiscal capacity of the state. This article addresses a gap in the existing literature on PPP implementation within FEZs in Central Asia, providing both a theoretical framework and evidence-based policy recommendations grounded in comparative international experience. The analysis proceeds in seven sections: conceptual foundations, global comparative analysis, Uzbekistan's current FEZ landscape, PPP models applicable to FEZs, risk-sharing frameworks, empirical performance assessment, and policy recommendations. Public-Private Partnership refers to a long-term contractual arrangement between a public authority and one or more private entities for the delivery of public infrastructure, services, or both, under which the private sector assumes significant responsibility for financing, design, construction, operation, and/or maintenance, while the public sector retains strategic oversight and ensures alignment with public interest objectives (World Bank, 2020). Within the FEZ context, PPP takes on particular significance because the zone itself is simultaneously a spatial-economic policy instrument and a governance unit requiring coordination across multiple stakeholders including central government ministries, regional administrations, zone management authorities, anchor investors, small and medium enterprises, logistics operators, and financial institutions.

**Table 1**

**Typology of PPP models applicable to free economic zone governance**

PPP Model	Key Features	Risk Allocation	Typical Duration	FEZ Application
Build-Operate-	Private builds &	Construction &	20-30 years	Industrial parks,

Transfer (BOT)	operates; transfers to government	demand risk to private		ports
Design-Build-Finance-Operate (DBFO)	Full project lifecycle private responsibility	High private risk, performance payments	25–35 years	Logistics hubs, tech zones
Concession	Private operates existing infrastructure	Commercial risk to concessionaire	15–25 years	Zone utility services
Joint Venture	Shared equity between public & private	Proportional to equity share	Open-ended	Zone management companies
Management Contract	Private manages public assets for fee	Operational risk to private operator	3–10 years	Administrative services
Service Contract	Specific services outsourced to private	Service delivery risk only	1–5 years	Maintenance, security, IT

*Source: Compiled by the author based on World Bank PPP Knowledge Lab (2021) and UNIDO FEZ Framework (2022)*

The economic rationale for PPP in FEZ management draws on multiple theoretical traditions. Transaction cost economics (Williamson, 1985) suggests that long-term relational contracting between public and private actors can reduce the transaction costs associated with repeated negotiation and opportunistic behavior when governance relationships are properly structured. Principal-agent theory highlights the importance of incentive alignment mechanisms that motivate private zone developers and operators to act in ways consistent with the public developmental mandate of the FEZ. New Institutional Economics, particularly the work of Ostrom (1990) on polycentric governance, provides theoretical support for multi-stakeholder zone governance models in which overlapping public and private authorities with different functional mandates create redundant oversight mechanisms that enhance institutional resilience. The concept of quasi-public goods and club goods is particularly relevant to FEZ infrastructure provision, where benefits are excludable but non-rival within the zone, making joint public-private provision economically efficient. International comparative analysis of ppp in free economic zones. A systematic comparison of FEZ governance models across leading jurisdictions reveals both universal principles and context-specific adaptations that must inform the design of PPP mechanisms in Uzbekistan's institutional environment.

**Table 2**

### International comparative analysis of ppp mechanisms in free economic zones

Country	FEZ Example	PPP Model	Private Share (%)	Key Outcomes
China	Shenzhen SEZ	Joint Venture + BOT	60-70%	GDP contribution >\$400B; 12M jobs created
Singapore	Jurong Island	DBFO + Concession	75-85%	\$35B investment attracted; zero-deficit operation
Poland	Katowice SEZ	Joint Venture	51% private	€8B FDI; 80,000 employment positions
UAE	Jebel Ali FZ	Concession + Management Contract	65%	7,500+ companies; \$100B+ annual trade
India	GIFT City	BOT + Service Contracts	55%	350 firms; \$5B asset management base
Kazakhstan	Khorgos SEZ	Joint Venture	49% private	Logistics volume +180% in 5 years

Source: UNCTAD World Investment Report (2023); World Bank FEZ Benchmarking Database (2022)

The analysis of leading FEZ jurisdictions reveals several consistent patterns: (i) successful PPPs are underpinned by transparent legal frameworks with clear dispute resolution mechanisms; (ii) risk allocation is structured to assign each risk category to the party best positioned to manage it; (iii) the public sector retains regulatory oversight and land ownership while delegating operational responsibilities; and (iv) long-term contractual stability is guaranteed through stabilization clauses that protect investors from adverse regulatory changes. Free economic zones in Uzbekistan: current landscape and challenges. Uzbekistan's FEZ system has expanded substantially since 2017. The legal foundation rests on the Law on Free Economic Zones (2019) and a series of presidential decrees establishing individual zones. As of 2024, Uzbekistan operates 23 special economic zones of various typologies, including industrial zones, tourist zones, information technology zones, and agricultural zones.

**Table 3**

#### Selected free economic zones in Uzbekistan - key performance indicators (2023)

FEZ Name	Region	Established	Investment (USD mn)	Enterprises	Employment
Navoi Industrial Zone	Navoi	2008	890	40+	12,500

Angren SIEZ	Tashkent	2012	1,240	85+	18,700
Jizzakh SIEZ	Jizzakh	2013	620	55+	9,200
Urgut Tourism Zone	Samarkand	2019	280	28+	3,400
IT Park Uzbekistan	Tashkent	2019	450	900+	22,000
Bukhara SIEZ	Bukhara	2020	310	35+	5,800
TOTAL (all 23 zones)	National	—	6,890	1,500+	125,000+

*Source: Ministry of Investments, Industry and Trade of the Republic of Uzbekistan (2024); Author's calculations*

Despite these achievements, several systemic challenges constrain the performance of Uzbekistan's FEZs. Infrastructure gaps remain significant, with energy supply reliability, logistics connectivity, and digital infrastructure lagging international benchmarks. The governance model remains predominantly state-centric, with zone management authorities operating as bureaucratic extensions of central ministries rather than as market-responsive entities capable of adapting services to investor needs. Private sector participation in zone governance is nascent and largely confined to service-level contracts rather than strategic co-governance arrangements. Proposed ppp governance model for uzbekistan's free economic zones. Architecture of the integrated ppp governance framework. Based on the comparative analysis and assessment of Uzbekistan's institutional context, this article proposes an Integrated PPP Governance Framework (IPGF) consisting of four hierarchical tiers: strategic, operational, transactional, and monitoring. Each tier has distinct functions, actor constellations, and accountability mechanisms.

**Table 4**

**Integrated PPP governance framework (IPGF) for free economic zones in Uzbekistan**

Governance Tier	Primary Actors	Key Functions	Decision Horizon	Accountability
Strategic	Ministry + Zone Authority Board	Policy setting, land allocation, regulatory oversight	10-20 years	Parliament, Presidential Council
Operational	Joint Management Company (PPP)	Infrastructure provision, investor services, marketing	5-10 years	Zone Authority Board
Transactional	Private Operators + Investors	Service delivery, investment deployment,	1-5 years	Management Company

		employment		
Monitoring	Independent Regulatory Body	Performance auditing, dispute resolution, benchmarking	Continuous	Multi-stakeholder oversight committee

*Source: Author's original framework, developed based on OECD PPP Guidelines (2021) and World Bank PPP Reference Guide (2020)*

**Risk allocation matrix. Effective PPP governance requires explicit allocation of the diverse risks inherent in FEZ development and operation. The following matrix provides a structured approach to risk distribution that reflects both international best practices and Uzbekistan's specific institutional capacities.**

**Table 5**

**Risk allocation matrix for PPP in free economic zones**

Risk Category	Risk Description	Public Sector	Private Sector	Shared
Political / Regulatory	Adverse regulatory changes	✓ (stabilization clause)	–	–
Land & Infrastructure	Land tenure, utility provision	✓	–	–
Demand / Commercial	Investor attraction, occupancy	–	✓	–
Construction	Cost overrun, time delays	–	✓	–
Operational	Service quality, maintenance	–	✓	–
Foreign Exchange	Currency fluctuation risk	✓ (partial hedge)	✓ (residual)	–
Force Majeure	Natural disasters, pandemics	–	–	✓
Environmental	Pollution, remediation	✓ (compliance)	✓ (operations)	–

*Source: Compiled by the author based on ADB PPP Risk Matrix (2021) and EBRD FEZ Risk Framework (2022)*

Empirical assessment of PPP performance in FEZ management. Quantitative performance indicators. The empirical literature on PPP performance in FEZ contexts reveals consistent patterns of superior outcomes when compared with purely state-managed zones. The following analysis synthesizes evidence from 47 FEZ case studies across 18 countries, drawing on data from the World Bank PPP Knowledge Lab, UNCTAD FEZ Monitor, and the author's primary research conducted in Uzbekistan and Kazakhstan.

**Table 6**

**Comparative performance indicators: state-managed vs. PPP-governed free economic zones**

Performance Indicator	State-Managed	PPP-Governed	Differential	Significance
FDI attraction rate (USD mn/year)	85-120	180-290	+85-145%	p < 0.01
Infrastructure cost efficiency	Baseline	-22 to -30%	-26% avg.	p < 0.05
Investor satisfaction score (1-10)	5.8	7.9	+36%	p < 0.01
Time-to-permit (business days)	45-90	12-25	-72%	p < 0.01
Employment multiplier (jobs/USD mn inv.)	8.2	13.7	+67%	p < 0.05
Zone occupancy rate (%)	42-58%	72-88%	+35 pp	p < 0.01
Return on public investment (%)	3.2%	6.8%	+112%	p < 0.01
Avg. investment retention (years)	4.1	9.3	+127%	p < 0.01

*Source: Author's analysis based on World Bank PPP Knowledge Lab Database (2022), UNCTAD (2023), n=47 FEZ cases*

**Assessment of PPP Readiness in Uzbekistan's FEZ System.** A structured assessment of Uzbekistan's institutional readiness for PPP-governed FEZs reveals both significant progress and persistent gaps. The assessment employs a multi-dimensional readiness index covering legal environment, institutional capacity, financial market depth, transparency and anti-corruption frameworks, and private sector capacity.

**Table 7**

**PPP readiness assessment for Uzbekistan's FEZ system (2024)**

Readiness Dimension	Score (1-5)	Benchmark	Gap	Priority
Legal & Regulatory Framework	3.6	4.5	0.9 (Moderate)	High
Institutional Capacity	2.9	4.3	1.4 (Significant)	Critical

Financial Market Depth	2.7	4.1	1.4 (Significant)	Critical
Transparency & Anti-Corruption	3.1	4.4	1.3 (Significant)	High
Private Sector Capacity	3.4	4.2	0.8 (Moderate)	Medium
International Connectivity	3.8	4.3	0.5 (Low)	Low
Composite PPP Readiness Index	3.25	4.30	1.05 (Moderate)	–

*Source: Author's assessment based on World Economic Forum Global Competitiveness Report (2023), Doing Business indicators, and expert interviews (n=24)*

Policy recommendations for strengthening ppp mechanisms in Uzbekistan's free economic zones. The findings of this study support a comprehensive reform agenda organized around four strategic priorities: legal-institutional strengthening, capacity development, financial innovation, and monitoring framework enhancement. The following recommendations are sequenced in order of implementation priority:

**Legal and Regulatory Reform.** The most fundamental prerequisite for effective PPP in FEZ governance is a robust legal framework that provides credible commitments to investors, clear contractual rights, and efficient dispute resolution. Uzbekistan should enact a dedicated PPP in FEZ Law that incorporates bankability provisions (allowing PPP contracts to serve as collateral for project financing), standardized contract templates aligned with UNCITRAL model law principles, and clear unsolicited proposal procedures to encourage innovative private sector initiatives.

**Institutional Capacity Development.** The creation of a specialized FEZ-PPP Unit within the Ministry of Investments, Industry and Trade with technical advisory support from multilateral development banks should be prioritized. This unit should develop and maintain a pipeline of bankable FEZ-PPP projects, coordinate across ministries to ensure inter-agency alignment, and build institutional knowledge through systematic lessons-learned documentation.

**Financial Market Development.** The development of a FEZ Infrastructure Bond market, supported by partial credit guarantees from the state-owned Uzbekistan Fund for Reconstruction and Development, would mobilize domestic long-term capital for FEZ infrastructure. Complementary reforms should include the creation of a PPP Guarantee Fund to cover political risks for foreign investors and the introduction of blended finance instruments that combine concessional public funding with commercial private capital.

**Performance Monitoring and Evaluation.** An independent FEZ Performance Observatory should be established as a multi-stakeholder body with representation from government, private investors, academia, and civil society. This body should publish annual FEZ Competitiveness Reports benchmarking Uzbekistan's zones against regional and international peers, conduct mid-term evaluations of PPP contract performance, and recommend contract renegotiations where performance deviates significantly from agreed benchmarks.

This article has demonstrated that Public-Private Partnership mechanisms represent an analytically sound and empirically validated approach to improving the governance effectiveness of Free Economic Zones in Uzbekistan. The comparative analysis of international experience from China, Singapore, Poland,

the UAE, and Kazakhstan reveals that well-designed PPP arrangements consistently outperform purely state-managed governance models across all key FEZ performance dimensions, including investment attraction, infrastructure efficiency, employment creation, and investor retention.

Uzbekistan's FEZ system has achieved significant quantitative expansion since 2017, but the transition from administrative governance to market-responsive co-governance requires deliberate institutional investments. The Integrated PPP Governance Framework proposed in this article provides a practical roadmap for this transition, structured around four governance tiers, a systematic risk allocation matrix, and phased implementation sequence.

The readiness assessment indicates that Uzbekistan scores above the critical threshold (3.0/5.0) on most dimensions, suggesting that the foundational conditions for PPP development exist, but that targeted interventions are needed in institutional capacity, financial market depth, and transparency frameworks. With appropriate policy support, Uzbekistan has the strategic potential to position its FEZ system as a regional leader in PPP-governed economic zones within the Central Asian context.

Future research should extend this framework through longitudinal case studies of specific FEZ-PPP projects in Uzbekistan, examine gender-differentiated employment outcomes of PPP-governed zones, and develop econometric models quantifying the causal impact of PPP governance quality on FDI attraction and spillover effects to surrounding regional economies.

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