

**THE PARADOX OF PROGRAM-BASED REGIONAL DEVELOPMENT IN
UZBEKISTAN: ANALYSIS OF REGIONAL PROGRAMS EFFECTIVENESS IN THE
CONTEXT OF «UZBEKISTAN-2030» STRATEGY IMPLEMENTATION**

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Abstract

The article analyzes the effectiveness of 99 regional development programs adopted in the Republic of Uzbekistan during 1992-2025. The study revealed a paradoxical result: a 19.7-fold increase in the number of programs did not lead to a reduction in regional disparities, but rather intensified them. The coefficient of variation of GRP per capita increased from 41.3% in 2010 to 71.0% in 2024, which is 20 percentage points above the critical threshold of 50% established by the OECD. Critical analysis of 138 strategic documents identified systemic problems: 97.8% lack financial calculations, 87.7% have no monitoring system. The example of the Republic of Karakalpakstan is particularly illustrative: with 14 programs, the region remains the least developed. The study substantiates the need for a radical transformation of the regional programming paradigm in the context of implementing the «Uzbekistan-2030» Strategy.

Keywords

regional development, strategic planning, «Uzbekistan-2030» Strategy, regional disparities, program effectiveness, territorial development, cluster analysis.

INTRODUCTION

The relevance of the research topic is determined by the strategic objectives set in the Decree of the President of the Republic of Uzbekistan dated September 11, 2023 No. PF-158 "On the Strategy «Uzbekistan-2030»" [1]. The Strategy identifies reducing regional disparities as one of the key priorities for the country's socio-economic development until 2030. However, analysis of regional indicators over the past 15 years demonstrates a paradoxical trend: despite unprecedented programmatic impact on territorial development, interregional inequality continues to deepen.

During 2017-2025, Uzbekistan created a multi-level strategic planning system comprising 138 general strategic documents, 99 regional programs of various levels, and 14 comprehensive regional development programs for 2022-2026 [2]. The system includes special support programs for 49 pilot and model territories with combined funding exceeding 8 trillion soums and 1.25 billion US dollars. This system represents an unprecedented attempt at state regulation of territorial development in the history of independent Uzbekistan.

The purpose of this study is to identify the causes of low effectiveness of regional development programs and develop recommendations for improving the strategic planning system for territorial development. The scientific novelty lies in identifying the "program development paradox" - an inverse relationship between the number of adopted programs and the effectiveness of regional policy.

LITERATURE REVIEW

The theoretical foundation of the study comprises fundamental works in the field of strategic planning for territorial development. The concept of strategizing, developed by Academician V.L. Kvint, defines strategy as a system of searching for and developing a doctrine that ensures long-term competitive advantage [3]. This approach allows viewing regional development not as mechanical accumulation of program documents, but as purposeful formation of territorial competitive advantages.

B.S. Zhikharevich in his studies of territorial strategic planning emphasizes that the effectiveness of strategies is determined not by the number of documents, but by the quality of their integration into the management system [4]. A.G. Granberg in his fundamental work on regional economics substantiated the critical threshold of regional differentiation at 50% coefficient of variation, exceeding which indicates systemic problems in territorial development [5].

I.V. Manaeva in her work on the methodology of strategizing spatial development of cities emphasizes the need for a differentiated approach to different types of territories [6]. V.E. Seliverstov substantiated the principles of transition from directive to indicative planning in regional policy [7]. V.V. Klimanov and K.V. Budaeva studied the evolution of regional strategic planning documents in Russia, identifying a trend toward formalization of program documents [8].

Regarding Uzbekistan, a significant contribution was made by S.Sh. Mirziyoeva, who developed methodological foundations for strategizing the socio-economic development of the republic [9]. A.M. Sadykov substantiated the need for forming a unified concept of territorial development as a basic document of the regional planning system [10]. K.Kh. Abdurrakhmanov studied employment and human development issues in the context of Uzbekistan's regional policy [11].

International experience demonstrates that successful regional development models are based on the principles of "smart specialization" developed by D. Foray [12]. P. Krugman in his works on new economic geography showed the mechanisms of regional disparity formation and possibilities for their regulation [13]. M. Porter substantiated the role of the cluster approach in enhancing regional competitiveness [14].

RESEARCH METHODOLOGY

The study is based on a comprehensive methodology including quantitative and qualitative methods of analysis. The empirical base consisted of: official statistical data from the Statistics Agency under the President of the Republic of Uzbekistan for 2010-2024; 99 regional development programs adopted during 1992-2025; 138 general strategic documents from the National Legislation Database of the Republic of Uzbekistan.

The coefficient of variation was used to assess regional disparities, calculated as the ratio of standard deviation to the mean value of the indicator. According to OECD methodology, a coefficient of variation above 50% indicates a critical level of interregional differentiation requiring systemic government intervention [15]. This approach is also confirmed by World Bank recommendations for assessing regional disparities in transition economies [16].

Cluster analysis of 14 regions was conducted using the k-means method across four indicators: GRP per capita, per capita monetary income, unemployment rate, and per capita fixed capital investment. Qualitative assessment of strategic documents was performed according to OECD criteria: availability of financial calculations, monitoring system, adjustment mechanisms, and linkage to resource provision [15].

ANALYSIS AND DISCUSSION OF RESULTS

The Program Development Paradox.

Analysis of gross regional product dynamics for 2010-2024 revealed a persistent trend toward increasing regional differentiation [16]. The coefficient of variation of GRP per capita increased from 41.3% in 2010 to 71.0% in 2024, which exceeds the critical threshold of regional inequality of 50% established by international organizations by more than 20 percentage points [5, 15]. Key indicators of regional differentiation are presented in Table 1.

Table 1. Dynamics of Regional Differentiation Indicators (2010-2024)

Indicator	2010	2015	2020	2024	Change
Max/min GRP per capita gap (times)	3.0	2.7	5.0	5.8	+2.8 times
Coefficient of variation of GRP per capita (%)	42.9	38.2	62.8	70.7	+27.8 p.p.
Share of top-3 regions in GDP (%)	27.7	28.1	34.9	37.5	+9.8 p.p.
Share of 7 least developed regions in GDP (%)	29.5	28.7	25.8	24.5	-5.0 p.p.
Number of regions below average level	8	8	9	9	+1 region

Source: compiled by the author based on data from the Statistics Agency under the President of Uzbekistan

The periodization of regional differentiation processes allows identifying three waves of polarization. The first wave of moderate divergence (2010-2016): the coefficient of variation ranged between 39-43%, corresponding to a moderate level of differentiation. The second wave of relative stabilization (2017-2020): after the start of large-scale reforms, the coefficient of variation increased from 43% to 63%. The third wave of sharp intensification of disparities (2021-2024): the coefficient of variation increased from 63% to 71%, despite the implementation of 14 comprehensive regional development programs.

The gap between the most and least developed regions increased from 4.6 times in 2010 to 8.9 times in 2024. Three leading regions (Tashkent city, Navoi region, Bukhara region) concentrate 37.5% of the republic's total GRP while having only 18.3% of the population. This trend confirms P. Krugman's theoretical propositions about cumulative mechanisms of spatial polarization [13].

Cluster Analysis.

The conducted clustering of regions revealed the formation of three stable groups of territories with low inter-cluster mobility [14]. Clustering results are presented in Table 2.

Table 2. Comprehensive Clustering of Uzbekistan's Regions (2024)

Cluster	Regions	Population Share	GDP Share	GRP per capita (thous. soums)
A (highly developed)	Tashkent city, Navoi region	15%	28%	99,742.6
B (moderately developed)	Tashkent, Bukhara, Samarkand, Andijan, Fergana, Kashkadarya, Namangan, Surkhandarya regions	60%	52%	27,214.9
C (underdeveloped)	Karakalpakstan, Jizzakh, Syrdarya, Khorezm regions	25%	20%	26,684.6

Source: compiled by the author based on k-means cluster analysis

During 2010-2024, not a single case of a region transitioning from one cluster to another was recorded, indicating the structural nature of regional disparities [11].

Critical Analysis of Regional Programs.

Over a thirty-three-year period, 99 regional programs were adopted in Uzbekistan in the absence of a unified national concept of territorial development [10]. The number of programs increased 19.7-fold after 2016: while 5 programs were adopted in 1992-2016, 94 programs were adopted in 2017-2025.

Analysis of 138 strategic documents according to OECD criteria revealed critical systemic deficiencies [15]: 135 out of 138 documents (97.8%) do not contain financial calculations with clear sources and funding volumes; 121 documents (87.7%) lack a system of indicators with target values and time parameters. All 14 regional programs for 2022-2026 are built according to a single template with identical priorities without consideration of the specific competitive advantages of territories, which contradicts the principles of a differentiated approach [6, 8].

The Karakalpakstan Paradox.

The most illustrative example is the Republic of Karakalpakstan. Presidential Decree dated February 8, 2019 No. UP-5644 "On the Concept of Comprehensive Socio-Economic Development of the Republic of Karakalpakstan" [17] provided for large-scale measures to accelerate the region's development. During 2020-2025, three programs with overlapping implementation periods were adopted for Karakalpakstan, creating institutional chaos in development management. Despite having 14 programs (the maximum among all regions), Karakalpakstan remains in the cluster of underdeveloped territories with GRP per capita 2.3 times below the national average.

The Coordination Problem.

Presidential Resolution dated January 18, 2019 No. PP-4102 "On Measures to Radically Improve the Activities of District and City Khokimiyats" [18] was aimed at strengthening regional governance coordination. However, analysis showed that scaling of pilot programs occurs on average within 6 months instead of the 12-18 months recommended by international practice [15], leading to replication of untested mechanisms.

The Problem of Overstated Target Indicators.

A systematic problem of overstating target indicators was identified: the average target indicator for service growth across 14 regions is 2.97 times over a five-year period, corresponding to an average annual growth rate of approximately 24.4%. This indicator is 2-2.5 times higher than historical growth rates even in countries with rapidly growing economies [16]. For comparison, in China during the period of most dynamic growth (2000-2010), the average annual growth rate of the services sector was 11-12%.

European Union experience shows that effective regional policy requires mandatory assessment of program impact on territorial development (Regional Impact Assessment) [19]. This approach is enshrined in the European Spatial Development Perspective and involves systematic monitoring of the impact of all sectoral policies on regional disparities [20].

CONCLUSIONS AND RECOMMENDATIONS

The conducted research allows formulating the following conclusions:

1. The "program development paradox" was identified: a 19.7-fold increase in the number of regional programs after 2016 was accompanied not by a reduction, but by an intensification of interregional disparities [2]. The coefficient of variation of GRP per capita increased from 41.3% to 71.0%, indicating systemic ineffectiveness of the current regional programming model.

2. Critical analysis of 138 strategic documents revealed the predominance of quantitative parameters over qualitative results: 97.8% of documents lack financial calculations, 87.7% have no monitoring system [4, 8], which transforms programs into universal declarations instead of differentiated strategies.

3. Cluster analysis showed the structural nature of regional disparities: over 15 years, not a single case of a region transitioning from one cluster to another was recorded [11], indicating the inability of current programs to change the development trajectory of territories.

In the context of implementing the «Uzbekistan-2030» Strategy [1] and based on international experience [12, 19, 20], the following is proposed:

- adopt a basic Law "On Strategic Planning" creating a unified methodological framework for all program documents [7];
- develop a Concept of Territorial Development of the Republic of Uzbekistan as a basic document defining spatial development priorities until 2040 [10];
- transition from a universal "one size fits all" approach to a differentiated strategy considering the cluster affiliation of regions and the specifics of their competitive advantages [6, 14];
- introduce mandatory assessment of program impact on regional disparities (Regional Impact Assessment) analogous to European Union practice [19, 20];
- increase the scaling period for pilot projects to 12-18 months in accordance with international standards [15].

Implementation of the proposed measures will allow transforming the regional programming paradigm from mechanical accumulation of documents to purposeful formation of territorial competitive advantages [3], which corresponds to the strategic development goals of New Uzbekistan.

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