



EXPANDING RURAL EMPLOYMENT IN UZBEKISTAN: EVIDENCE-BASED PATHWAYS THROUGH AGRIFOOD VALUE CHAINS, RURAL ENTERPRISE, SERVICES, AND INFRASTRUCTURE

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Abstract

Rural employment is a central development issue in Uzbekistan because almost half of the population lives in rural areas, while agriculture remains a major employer and informal work is widespread. The policy problem is not simply to increase the number of economically active people, but to generate stable, productive, and progressively formal employment outside as well as within primary agriculture. This study identifies the most defensible directions for expanding rural employment in Uzbekistan using only published, verifiable evidence and clearly separating observed results from modelled or expected outcomes. A structured secondary-data synthesis was conducted using official and institutional sources published between 2018 and July 2026. The evidence base included the National Statistics Committee of Uzbekistan, World Bank sector diagnostics and project results, a nationally representative 2025 informal-employment survey conducted by the Central Bank of Uzbekistan, the Center for Economic Research and Reforms, and UNDP, and peer-reviewed studies. Indicators were classified by geographic coverage, reference year, employment type, and evidence status. No causal effects were inferred where the underlying source reported only outputs or descriptive associations. In 2024, 49% of Uzbekistan's approximately 37 million residents lived in rural areas. Agriculture accounted for 23.9% of national employment in 2023. A completed horticulture project reported more than 34,500 permanent jobs, about 22,000 seasonal jobs, and an additional 5,000 jobs in packaging, storage, and distribution. By December 2025, rural enterprise investments across more than 2,850 subprojects had generated more than 12,000 jobs, over half held by women and young people. At the same time, the 2025 informal-worker survey found that 83% of respondents had no paid leave, 80% lacked pension contributions, and 73% worked without safety protocols. Agricultural research spending was only 0.06% of gross agricultural output in 2023, despite an internationally referenced 0.5% benchmark.

Keywords: rural employment; Uzbekistan; agrifood value chains; rural non-farm economy; informal employment; women and youth; agricultural innovation; job quality

Introduction

Rural employment policy in Uzbekistan faces a structural problem that cannot be solved by treating agriculture as the only source of rural livelihoods or by counting every short-term activity as a job. In 2024, 49% of the country's roughly 37 million residents





lived in rural areas (World Bank, 2025a). Agriculture continues to absorb a large share of labor: the World Bank's latest agriculture public expenditure review reports that the sector accounted for 23.9% of employment and 20.4% of exports in 2023 (World Bank, 2026a). Yet the rural labor market also includes processing, construction, transport, retail, tourism, home-based production, and other services. Many of these activities are small-scale and informal, which means that employment quantity can coexist with low productivity, unstable income, and limited social protection.

This distinction is central. Employment is not automatically equivalent to decent work. Uzbekistan's Decent Work Country Programme for 2021–2025 accordingly prioritized better employment opportunities for youth, women, and vulnerable groups (International Labour Organization, 2021). A nationally representative study of informal employment conducted in 2025 by the Central Bank of Uzbekistan, the Center for Economic Research and Reforms (CERR), and the United Nations Development Programme (UNDP) surveyed 481 employers, 461 self-employed persons, and 2,008 informal employees. Among informal employees, 83% reported no paid leave, 80% no pension contributions, and 73% no workplace safety protocols. Fifty-eight percent cited the absence of formal job opportunities as a reason for working informally, while 48% identified qualification gaps; only 14% cited tax avoidance (Central Bank of Uzbekistan, CERR, & UNDP, 2025). These national results are not a rural-only estimate, but they expose the failure of a policy metric that records work without measuring its security or quality.

Materials and Methods

The study used a structured secondary-data evidence synthesis. This design was selected because no single public dataset provides a complete, current, and consistently defined panel of rural employment, informality, earnings, job duration, and sectoral transitions for all regions of Uzbekistan. The unit of analysis was an employment-relevant indicator or program result. The analytical period was 2018–18 July 2026, although older peer-reviewed studies were retained where they established institutional or conceptual context that remains relevant.

The synthesis was descriptive and comparative. It did not estimate treatment effects, forecast employment, or pool incompatible indicators. Reported numbers were reproduced only when a source defined the reference year, population or project scope, and outcome category. When a source described an expected future result, the figure was labelled as a projection rather than an achievement.

Table 1 summarizes the principal empirical sources. The distinction between national and rural or project-specific coverage was retained throughout the analysis. This prevents a national unemployment, skills, or informality measure from being presented as a rural rate.





Table 1.
Principal evidence base and analytical use

Source	Reference period	Coverage	Main variables used	Evidence status
National Statistics Committee, SDG publication	Published 2025	National	Official labor and SDG context; indicator definitions	Official descriptive source
World Bank, horticulture results brief	Results reported in 2025; rural population reference 2024	National project/value chain	Permanent, seasonal, and auxiliary jobs; women's share; yields; sales; lending	Observed project results
World Bank, Third Agriculture Public Expenditure Review	Mainly 2020–2023; published 2026	National agriculture sector	Employment share; public expenditure; research and extension funding; climate-smart agriculture scenarios	Observed sector data plus modelled scenarios
World Bank, rural enterprise feature	To December 2025	Participating rural enterprises/subprojects	Number of subprojects and new jobs; women and youth	Observed project outputs/results
World Bank, services-led growth diagnostic	Mainly 2022–2023;	National services sector	GDP and employment shares; low-skill and knowledge-intensive	Descriptive sector evidence





Source	Reference period	Coverage	Main variables used	Evidence status
	published 2024		service employment; connectivity and skills	
World Bank, Poverty & Equity Brief	2021–2023	National, with rural–urban disaggregation	Rural and urban poverty change	Survey-based descriptive estimates
World Bank, Rural Infrastructure Development Program	Completed first phase to June 2026; second phase to 2031	Selected rural mahallas	Infrastructure outputs and beneficiaries; projected future jobs	Observed infrastructure outputs plus projections
Central Bank of Uzbekistan, CERR, and UNDP	Surveys conducted February–March 2025	Nationally representative employer, self-employed, and informal-employee samples	Informality drivers, contracts, payments, benefits, safety, skills	Primary survey results
Academic studies	2010–2022	International and Uzbekistan-specific	Rural non-farm economy, farm restructuring, gendered rural transformation	Peer-reviewed/archived evidence

Sector shares were used cautiously. For example, the 2026 agriculture public expenditure review reports agriculture at 24.3% of GDP in 2023, while the 2024 services





diagnostic reports agriculture at 20.6% and services at 43.9% for the same year. These figures may reflect different classifications, valuation bases, or data vintages. The study does not resolve the discrepancy by averaging them. It uses the employment share from the agriculture review and uses the services diagnostic only for the internal structure of services. This decision is reported because silent reconciliation would create false precision.

Results

The demographic scale is unambiguous. In 2024, approximately 49% of Uzbekistan's 37 million residents lived in rural areas (World Bank, 2025a). The agriculture public expenditure review reports that agriculture accounted for 23.9% of employment in 2023 (World Bank, 2026a). Rural residence and agricultural employment are not the same category, but the gap between the two indicates that a large rural population must obtain income from a mixed economy that extends beyond primary production.

Poverty data reinforce the importance of rural income growth while also warning against simplistic conclusions. Between 2021 and 2023, the national poverty rate declined by 7.8 percentage points in rural areas compared with 3.8 percentage points in urban areas; approximately 1.2 million rural residents and 0.4 million urban residents moved out of poverty (World Bank, 2024a). This is a major improvement, but poverty reduction is not a direct measure of employment creation. Wages, transfers, remittances, household production, and price changes can all affect poverty. Accordingly, the result supports the importance of rural income opportunities but cannot identify the employment intervention responsible for the decline.

Informality is the more severe quality constraint. In the 2025 national survey, 22.25% of surveyed employers acknowledged hiring workers informally. Among the 20.4% of firms that used seasonal labor, 73.5% did not formalize those workers. Among 2,008 surveyed informal employees, 91% were paid in cash, 83% had no paid leave, 80% had no pension contributions, and 73% worked without safety protocols. Moreover, 55% stated that they would formalize if viable options existed (Central Bank of Uzbekistan, CERR, & UNDP, 2025). Because the sample was nationally representative rather than rural-only, these figures cannot be labelled rural rates. Nevertheless, they establish a relevant national benchmark: job creation that reproduces cash-only, unprotected arrangements is not a sufficient policy success.

Table 2. Verified indicators relevant to rural employment in Uzbekistan

Indicator	Value	Reference year/status	Coverage and interpretation
Rural share of population	49% of about 37	2024	Rural population; demographic scale





Indicator	Value	Reference year/status	Coverage and interpretation
	million people		
Agriculture share of employment	23.9%	2023	National sector employment
Rural poverty decline	7.8 percentage points	2021–2023	Rural poverty, not a direct job measure
People leaving poverty in rural areas	About 1.2 million	2021–2023	Rural welfare outcome
Horticulture permanent jobs	More than 34,500; nearly 40% women	Reported 2025	Observed project result
Horticulture seasonal jobs	About 22,000; 75% women	Reported 2025	Observed but seasonal employment
Horticulture auxiliary jobs	About 5,000	Reported 2025	Packaging, storage, distribution, logistics
Rural enterprise subprojects	More than 2,850	To December 2025	Agriculture, aquaculture, construction, tourism, rural services
Rural enterprise jobs	More than 12,000; over half held by	To December 2025	Observed program result; duration not reported in source





Indicator	Value	Reference year/status	Coverage and interpretation
	women and youth		
Informal employees without paid leave	83%	Surveyed 2025	National informal-worker sample, N=2,008
Informal employees without pension contributions	80%	Surveyed 2025	National informal-worker sample, N=2,008
Agricultural research spending	0.06% of gross agricultural output	2023	National public expenditure; benchmark cited by source: 0.5%

The clearest documented rural employment results come from horticulture and its associated value chain. A World Bank-financed horticulture project reported more than 34,500 permanent jobs, nearly 40% of them held by women, and approximately 22,000 seasonal jobs, 75% held by women. A further 5,000 jobs were created in auxiliary activities such as packaging, storage, distribution, rural logistics, and transport (World Bank, 2025a). The distinction among permanent, seasonal, and auxiliary work is analytically important. Adding them produces more than 61,500 reported jobs, but that total should not be presented as 61,500 permanent positions.

The employment results were associated with a bundled intervention rather than credit alone. Participating producers adopted improved practices, better inputs, greenhouse technology, and post-harvest systems. The project reported crop-yield increases of 25–30%, a 35% increase in gross sales, more than USD 300 million in concessional loans, and support to over 5,000 enterprises. The source also reports that beneficiary profitability increased by more than 120% and emphasizes the combination of finance, technical training, market connections, cold storage, processing, and export facilities (World Bank, 2025a). This bundle provides a more credible pathway to sustained labor demand than isolated microcredit or stand-alone training.

The result supports a value-chain rather than farm-only employment strategy. Primary production created jobs, but auxiliary activities also absorbed labor and can operate for





longer periods than a harvest season. Packaging, cold-chain operations, quality control, transport, equipment maintenance, input distribution, and marketing create roles with different skill requirements and may reduce the need for rural workers to migrate to large cities. This is consistent with the earlier Uzbekistan Agri-Food Job Diagnostic, which argued that movement into the rural non-farm economy and secondary towns can be more poverty reducing than rapid migration to major cities (World Bank, 2020).

There are limits. The horticulture project relied on substantial concessional finance and selected participating enterprises. The published results brief does not provide a counterfactual, displacement effects, survival rates after financing, or the full distribution of wages. Some jobs may have replaced earlier informal or lower-productivity work rather than representing net additions. Accordingly, the evidence is strong enough to justify replication of the intervention package, but not to claim that the same job yield will occur in every crop, district, or financing environment.

Evidence from rural enterprise development shows that employment opportunities need not be confined to agriculture. As of December 2025, investments in more than 2,850 subprojects across agriculture, aquaculture, construction, tourism, and rural services had generated more than 12,000 new jobs, over half held by women and young people (World Bank, 2026b). The sectoral range is important because rural labor demand is seasonal and spatially uneven. A diversified local economy allows households to combine income sources and creates work for people who do not own agricultural land.

The enterprise evidence also shows why incubation and business capability matter. Early-stage entrepreneurs may obtain equipment or finance but still fail because they cannot manage cash flow, meet quality standards, identify customers, or use formal accounting and payment systems. The project's use of business incubators and advisory support addresses this failure mode. However, the reported job total does not specify how many positions were full-time, formal, permanent, or still active after twelve months. Future reporting should therefore add business survival, net employment change, median earnings, and social-insurance registration.

The national services sector offers scale but also a productivity challenge. The World Bank's services diagnostic reports that services accounted for 43.9% of GDP in 2023 and 50% of employment in 2022. Around 60% of service jobs were concentrated in lower-skill activities such as retail and transport, while knowledge-intensive "global innovator" services—including ICT, professional services, and finance—accounted for only 4% of service employment. Fourth-generation mobile coverage reached 92% in 2023, but only 15% of the population demonstrated basic digital competencies (World Bank, 2024b).

These national figures do not reveal the rural share of high-value service employment. They nevertheless identify the binding constraint: broadband coverage alone does not create rural digital jobs. Employment growth requires skills, reliable electricity and





connectivity, access to equipment and payments, demand from firms, and credible pathways from training to contracts. The most realistic near-term rural services are likely to be those linked to existing local demand and value chains: bookkeeping, e-commerce support, logistics coordination, repair services, agronomic data collection, tourism services, digital payments, and business-process tasks that can be delivered remotely. A generic coding course without employer demand or placement support is a weak employment policy.

Infrastructure as an enabling condition, not a sufficient job program

The first phase of Uzbekistan's Rural Infrastructure Development Program, launched in 2019 and completed in June 2026, financed more than 900 subprojects in 306 rural mahallas across Andijan, Ferghana, Namangan, Jizzakh, and Syrdarya regions. Outputs included more than 340 roads, 220 electricity systems, 160 water-supply systems, about 100 schools, 40 preschools, and 10 bridges. Approximately one million rural residents benefited, half of them women (World Bank, 2026c). These are observed infrastructure outputs and beneficiary counts; they are not observed permanent-job totals.

The second phase is expected to benefit approximately 1.2 million rural residents by 2031. Fifteen pilot Common Facility Centers are expected to create around 1,500 direct jobs, while the infrastructure program together with other agriculture and micro, small, and medium enterprise projects is expected to contribute to about 25,000 new and better-paid jobs across participating mahallas (World Bank, 2026c). These numbers are projections and must not be added to jobs already created by completed projects.

Infrastructure matters because unreliable roads, water, electricity, and social facilities raise business costs and reduce women's and young people's access to employment. Yet infrastructure can fail to generate durable jobs when it is disconnected from enterprise demand, maintenance funding, skills, or market access. The evidence supports sequencing: identify viable local value chains and enterprises; remove the specific infrastructure bottleneck; finance maintenance; and then measure changes in firm entry, sales, travel time, employment, and earnings. Counting kilometers of road or numbers of beneficiaries is not enough to demonstrate an employment impact.

Public expenditure, agricultural knowledge, and climate-smart employment

Uzbekistan's agricultural public expenditure is large, but its composition is not aligned with the strongest long-term employment drivers. Spending increased from UZS 24.9 trillion in 2020 to UZS 27.2 trillion in 2023 and amounted to 2.6% of GDP in 2023, placing Uzbekistan above several comparator countries. Nevertheless, the World Bank review concludes that recent expenditure did not appear to contribute significantly to agricultural





productivity growth. General support investments fell from UZS 11.6 trillion in 2020 to UZS 9.5 trillion in 2023, while support remained concentrated in variable inputs and selected commodities (World Bank, 2026a).

The underinvestment in knowledge is particularly severe. Public agricultural research spending was only 0.06% of gross agricultural output in 2023, compared with an internationally referenced benchmark of 0.5%. Extension services were described as fragmented, under-equipped, and insufficiently aligned with farmer needs (World Bank, 2026a). This matters for employment because better seeds, water management, crop diversification, quality systems, post-harvest technologies, and business practices require knowledge diffusion. Subsidizing inputs can temporarily lower costs, but it does not automatically build the capability needed for competitive, job-generating value chains.

Climate-smart agriculture presents both opportunity and uncertainty. A scenario reported in the agriculture expenditure review estimates 61,400 full-time jobs under moderate adoption and 96,000 under optimistic adoption of practices such as water-saving technologies and modernized orchards. The largest employment effects are expected in the Ferghana Valley and southern regions, with demand in orchard modernization, drip-irrigation installation, vineyard management, agrometeorology, and water-management services (World Bank, 2026a). These are modelled scenarios, not observed jobs. Their realization depends on finance, land-tenure security, water policy, vocational training, extension capacity, and market incentives.

Discussion

The evidence supports five linked directions, but they should not receive equal priority or be implemented as separate campaigns. The first priority is to scale competitive agrifood value chains that have demonstrated labor demand. Horticulture provides the strongest observed evidence because employment gains occurred in production and in post-harvest services. The minimum replicable package is finance plus technical extension plus storage or processing plus market access. Removing any one component creates a predictable failure: credit without capability increases repayment risk; production without logistics increases loss and price volatility; training without finance blocks adoption; and infrastructure without buyers produces idle capacity.

The second priority is rural non-farm enterprise tied to actual local demand. The rural enterprise program demonstrates that agriculture, aquaculture, construction, tourism, and services can jointly create employment. This is consistent with the broader rural non-farm literature (Haggblade et al., 2010) and Uzbekistan-specific evidence from Samarkand (Hasanov & Sanaev, 2018). The policy implication is not to subsidize every microbusiness. Support should target enterprises with a credible market, additional employment potential, and a pathway to formality. Selection should use transparent criteria, and support should





be partly conditional on verified payroll, job retention, and tax or social-insurance registration.

The third priority is to reallocate part of agricultural support from recurrent input subsidies toward public goods: research, extension, irrigation maintenance, market information, sanitary and phytosanitary capacity, and rural logistics. This is not a call for abrupt subsidy removal. A rapid withdrawal could reduce production and household income before alternative systems are ready. The defensible approach is a phased reallocation with published expenditure tracking, regional pilots, and outcome evaluation. The low 0.06% research intensity indicates that the present balance is too weak to support a knowledge-driven rural economy.

The fourth priority is market-linked skills and digitally enabled services. The services data show substantial national employment but a concentration in low-skill activities and limited basic digital competence. Rural training should begin with employer demand, not with course supply. Every publicly financed program should identify the target occupation, participating firms or clients, required equipment and connectivity, certification standard, placement mechanism, and expected wage range before enrollment begins. Payment to training providers should be partly linked to verified employment and retention at six and twelve months. Otherwise, completion certificates will be counted as jobs.

Conclusion

The available evidence does not support a single-sector or credit-only solution to rural employment in Uzbekistan. The strongest observed results come from bundled agrifood value-chain development: finance, technology, extension, post-harvest infrastructure, and market access produced permanent, seasonal, and auxiliary employment. Rural enterprise programs add a second proven direction by creating jobs across agriculture, construction, tourism, aquaculture, and services. Infrastructure, digital connectivity, and vocational education are necessary, but they generate employment only when connected to viable firms and markets.

The binding weakness is not a lack of public spending in agriculture; it is the composition and measurement of that spending. Research intensity of 0.06% of gross agricultural output, fragmented extension, and declining general support investment are inconsistent with a productivity-led rural transformation. A phased reallocation toward knowledge, irrigation maintenance, market systems, and climate resilience is more defensible than expanding recurrent input support.

Policy should use five outcome tests: additional full-time-equivalent jobs, real earnings, formal or socially protected status, retention, and inclusion. Permanent and seasonal employment must be reported separately, future projections must not be counted as achieved jobs, and women's or youth participation must be evaluated alongside job quality. Without these controls, employment policy will reward registrations and short-term





activity. With them, Uzbekistan can build a diversified rural economy that raises productivity while creating stable and progressively formal work.

References

1. Central bank of uzbekistan, center for economic research and reforms, & united nations development programme. (2025). *informal employment in uzbekistan*. undp uzbekistan. https://www.undp.org/sites/g/files/zskgke326/files/2025-10/report_informal_economy_eng.pdf
2. Djanibekov, n., van assche, k., bobojonov, i., & lamers, j. p. a. (2012). farm restructuring and land consolidation in uzbekistan: new farms with old barriers. *europa-asia studies*, 64(6), 1101–1126. <https://doi.org/10.1080/09668136.2012.691720>
3. Haggblade, s., hazell, p., & reardon, t. (2010). the rural non-farm economy: prospects for growth and poverty reduction. *world development*, 38(10), 1429–1441. <https://doi.org/10.1016/j.worlddev.2009.06.008>
4. Hasanov, s., & sanaev, g. (2018). *non-farm employment trends and policy in rural areas of samarkand region (uzbekistan)* (iamo discussion paper no. 176). leibniz institute of agricultural development in transition economies. <https://doi.org/10.22004/ag.econ.279145>
5. International labour organization. (2021). *decent work country programme for the republic of uzbekistan 2021–2025*. <https://www.ilo.org/sites/default/files/2024-04/dwcp%20uzbekistan.pdf>
6. Najjar, d., devkota, r., & feldman, s. (2022). feminization, rural transformation, and wheat systems in post-soviet uzbekistan. *journal of rural studies*, 92, 143–153. <https://doi.org/10.1016/j.jrurstud.2022.03.025>
7. National statistics committee of the republic of uzbekistan. (2025). *sustainable development goals in the republic of uzbekistan*. <https://nsdg.stat.uz/publication/2025/en.pdf>
8. World bank. (2020). *uzbekistan: agri-food job diagnostic*. <https://doi.org/10.1596/34526>
9. World bank. (2024a). *poverty & equity brief: uzbekistan, october 2024*. <https://documents1.worldbank.org/curated/en/099615401032512686/pdf/idu-5fb5edbd-99db-4afa-9ee6-36002a116500.pdf>
10. World bank. (2024b). *at your service? the promise of services-led growth in uzbekistan*. <https://www.worldbank.org/en/country/uzbekistan/publication/promise-of-services-led-growth>
11. World bank. (2025a, april 15). *from root to fruit: growing the horticulture sector in uzbekistan*. <https://www.worldbank.org/en/results/2025/04/15/from-root-to-fruit-growing-the-horticulture-sector-in-uzbekistan>





12. World bank. (2026a). *uzbekistan: third agriculture public expenditure review*. <https://doi.org/10.1596/44550>
13. World bank. (2026b, february 5). *entrepreneurs bring jobs and opportunity to rural uzbekistan*. <https://www.worldbank.org/en/news/feature/2026/02/05/entrepreneurs-bring-jobs-and-opportunity-to-rural-uzbekistan>
14. World bank. (2026c, june 17). *enhanced rural infrastructure in uzbekistan to improve living standards for 1.2 million people and expand access to jobs*. <https://www.worldbank.org/en/news/press-release/2026/06/17/uzbekistan-second-phase-of-the-rural-infrastructure-development-program>

