

Transformation of employment in the agricultural sector of Kyrgyzstan: Challenges and prospects

Nurzhamal Parpieva*

PhD in Economic Sciences, Associate Professor
Kyrgyz National Agrarian University named after K.I. Skryabin
720005, 68 Mederov Str., Bishkek, Kyrgyz Republic
<https://orcid.org/0000-0003-1151-5176>

Abstract. The article explored the transformation of rural employment in the Kyrgyz Republic as a crucial factor of socio-economic development and food security. The relevance of the research is due to the fact that the agricultural sector remains the primary employer in rural areas, yet its progress is constrained by contradictions: limited labour efficiency, widespread informal practices, and large-scale migration of the working-age population. The aim of the study was to determine trends and promising directions of employment transformation in Kyrgyz agriculture. The methodological framework relied on systemic and comparative approaches, statistical data, and materials from international organisations. The application of SWOT analysis made it possible to classify internal and external factors affecting the sustainability of the labour market. The conditions influencing employment have been analysed, including fragmented landholding, insufficient mechanisation, weak cooperative integration, and institutional barriers. Social and demographic disparities have been identified, particularly the outflow of young people and persistent gender imbalances. It was emphasised that agriculture continues to play a stabilising role, offsetting the shortage of jobs in other sectors. Based on the results, measures have been proposed to improve employment: strengthening cooperative organisations, introducing digital solutions, diversifying rural activities through processing and agritourism, and expanding government support programs. The practical value of the study lies in the opportunity to use the findings for designing employment policies, reducing poverty, and reinforcing the role of the agricultural sector in the national economy

Keywords: labour migration; cooperation; digitalisation; sustainable development; modernisation; infrastructure; innovation

Introduction

Agriculture has traditionally played a key role in the socio-economic development of the Kyrgyz Republic, forming the basis of food security, providing employment for a significant part of the population and making a significant contribution to the country's gross domestic product. According to NSCKR (2025), more than half of the republic's population lives in rural areas, which determines the high dependence of the living standards and social well-being of rural households on the state of the agro-industrial complex. Consequently, changes in the structure of employment in the agricultural sector are not only an economic but also a

social factor in sustainable development. A number of studies note that in the second half of the 20th century, most countries around the world saw a steady decline in the number of workers employed in agriculture, accompanied by a significant increase in the efficiency and productivity of agricultural labour (Naumov *et al.*, 2022). In the Kyrgyz Republic, however, the decline in employment in the agricultural sector has not been accompanied by a commensurate increase in productivity, which indicates structural imbalances and limited investment opportunities in the sector. In this regard, identifying key trends in the evolution of employment

Suggested Citation: Parpieva, P. (2025). Transformation of employment in the agricultural sector of Kyrgyzstan: Challenges and prospects. *Bulletin of the Kyrgyz National Agrarian University*, 23(3), 64-73. doi: 10.63621/bknau./3.2025.64.

*Corresponding author



Copyright © The Author(s). This is an open access article distributed under the terms of the Creative Commons Attribution License 4.0 (<https://creativecommons.org/licenses/by/4.0/>)

in the agricultural sector of the Kyrgyz Republic and substantiating promising areas for its development is of particular importance for achieving sustainable development goals.

Employment issues in the agricultural sector have traditionally been a central focus of research on the socio-economic development of rural areas. Classic approaches to the study of agricultural employment focus on its specific characteristics, such as seasonality, dependence on natural and climatic conditions, and a high rate of hidden unemployment. As modern international studies show, the agricultural sector in developing countries continues to play a key role in employment, compensating for limited employment opportunities in industry and services. Thus, according to T. Herzfeld & Z. Akhmediyeva (2021), agriculture remains the most important source of employment, providing jobs for millions of people even in conditions of low productivity and structural constraints. The United Nations (2021) emphasised that in countries with high levels of rural employment, it is the agricultural sector that acts as a stabilising element, mitigating the social consequences of crises and job losses in other sectors. At the same time, recent studies indicate that changes in agricultural employment are directly linked to the processes of production modernisation and digitalisation. According to the World Bank (2021), increasing agricultural labour productivity is a key factor in reducing poverty in countries with economies in transition. The report by FAO (2024) noted that diversifying employment in rural areas – through the development of agro-processing, agrotourism and family entrepreneurship – is a prerequisite for the sustainable development of rural areas.

In the post-Soviet space, employment issues in the agricultural sector are mainly considered in the context of social stability and food security. Thus, Russian researchers Yu. Kabanov & A. Chugunov (2021) and T. Gელა & E. Shumilina (2025) emphasise the need for a comprehensive approach that includes state support for agriculture, rural infrastructure development and mechanisation of production. In Kazakhstani studies by E. Kydyrbaeva *et al.* (2021) pay particular attention to the impact of labour migration on employment dynamics and the redistribution of labour between rural and urban areas. In Kyrgyzstan, the issue of employment in agriculture is analysed in close connection with the issues of poverty, migration and sustainable development. According to the national voluntary review of the Sustainable Development Goals (SDGs) presented in 2025, the issues of full and productive employment (SDG 8) and poverty eradication (SDG 1) remain among the priority tasks of the state's socio-economic policy (Office of the Government..., 2025). Research by A. Murzakulova (2020) shows that the agricultural sector of the Kyrgyz Republic operates under a set of interrelated constraints. The most significant of these are limited labour efficiency, the dominance of small-scale

farms with low potential for scaling up, insufficient technical equipment and weak investment support. The paper also emphasises that limited opportunities for labour deployment, hidden agricultural overpopulation, and the high dependence of rural employment on the migration of the economically active population exacerbate the instability of rural workers. Similar results were obtained in a study by D. Sakkarava & M. Kumashev (2024), where similar structural problems were identified based on surveys of small and medium-sized farm owners. These include a shortage of affordable credit resources, insufficiently effective management mechanisms, and the need to expand agricultural processing as a key area for increasing added value.

Thus, the works of contemporary researchers reveal a common trend: recognition of the complex, systemic and interrelated nature of the processes taking place in the agricultural sector. However, despite the existence of a significant body of scientific research, certain aspects of this issue remain insufficiently explored. First of all, further analysis is needed of the interaction between economic, social and institutional conditions, as well as the impact of technological changes that determine the current structure of rural employment and its dynamics in the Kyrgyz Republic. The aim of this study was to identify key patterns in the development of rural employment and to determine directions for its modernisation based on a comprehensive analysis of socio-economic, institutional and technological prerequisites.

Materials and Methods

The methodological basis of the study was based on systematic, comparative and descriptive-analytical approaches, which ensured a comprehensive and reproducible examination of employment processes in the agricultural sector of the Kyrgyz Republic. The application of these approaches was necessitated by the need for a comprehensive study of the transformations taking place in the socio-economic structure of rural employment. The empirical basis of the study was provided by official data from the NSCKR (2024a; 2024b; 2024c; 2025). Information on the number of people employed in agriculture, the structure of gross domestic product, labour productivity, income levels and population migration was used. For international comparisons, materials from the United Nations (2021), the World Bank (2021; 2023) and the FAO (2024) were used.

A systematic approach was used to analyse rural employment as a multi-level socio-economic system functioning under the influence of interrelated factors:

- the economic block included indicators of efficiency, access to credit resources and investment activity;
- the social block was characterised by the scale of labour migration, income levels and demographic characteristics of workers;
- the technological block reflected the level of mechanisation and the introduction of digital solutions;

● the institutional block covered the development of cooperation, the effectiveness of state support measures and the state of infrastructure.

This structure made it possible to identify the interdependence of factors and assess their impact on the sustainability of the rural labour market. A comparative approach was used to compare employment trends in the Kyrgyz Republic with similar processes observed in Central Asian countries and other developing economies. The criteria for comparison were the share of people employed in agriculture, the structure of GDP and labour productivity dynamics. The use of international databases ensured the reliability of comparisons and made it possible to identify both universal and country-specific patterns in the evolution of rural employment. A descriptive and analytical approach was used for quantitative and qualitative interpretation of the information. The use of descriptive statistics made it possible to track employment dynamics, structural shifts and key trends in the development of the agricultural labour market. The assessment of indicators in relative and absolute terms ensured the comparability of data and the objectivity of conclusions, which contributed to the analytical accuracy of the results.

To summarise and systematise the factors affecting employment, a SWOT analysis was used to classify the internal and external conditions of the agricultural sector. Internal factors (S, W) include small land holdings, the level of mechanisation, the potential for cooperation and infrastructure constraints. External factors (O, T) include climatic risks, migration processes, international support programmes, and market conditions. The classification was based on expert assessment of official statistical data and analysis of scientific publications. Table 2 reflects the results of the SWOT classification, and Table 3 reflects the strategic directions (SO, WO, ST, and WT strategies) formed based on the analysis results. Taken together, the methods used ensured

the scientific comprehensiveness, reproducibility and reliability of the results, allowing for a comprehensive characterisation of rural employment processes and the identification of directions for their adaptation to contemporary socio-economic challenges.

Results and Discussion

The results of the study confirmed that the agricultural sector of the Kyrgyz Republic remains strategically important for the country's socio-economic development. Despite structural transformation processes and a gradual decline in its share of gross domestic product, agriculture remains one of the largest employers. According to NSCKR (2024a), in 2023-2024, this sector provided employment for a significant part of the economically active population, while its contribution to GDP remained at 10-12% (Fig. 1). This disproportion between the high share of employed people and the relatively low level of labour productivity indicates a systemic imbalance in the agricultural economy. For comparison, it is worth noting that similar processes are occurring with varying intensity in Central Asian countries. According to the World Bank (2021) and FAO (2024), the share of people employed in agriculture in Kazakhstan and Uzbekistan is 18-20%, while in the Kyrgyz Republic it fell to about 16% in 2024. At first glance, this may indicate higher rates of structural transformation and a reduction in the economy's dependence on the agricultural sector. However, this trend is largely due not so much to the modernisation of agriculture as to increased external labour migration, insufficient development of rural infrastructure and limited opportunities for creating new jobs in non-agricultural activities. Thus, the decline in employment in the agricultural sector in Kyrgyzstan reflects the forced nature of the rural population's adaptation rather than a sustainable diversification of the economy (UNDP, 2022).

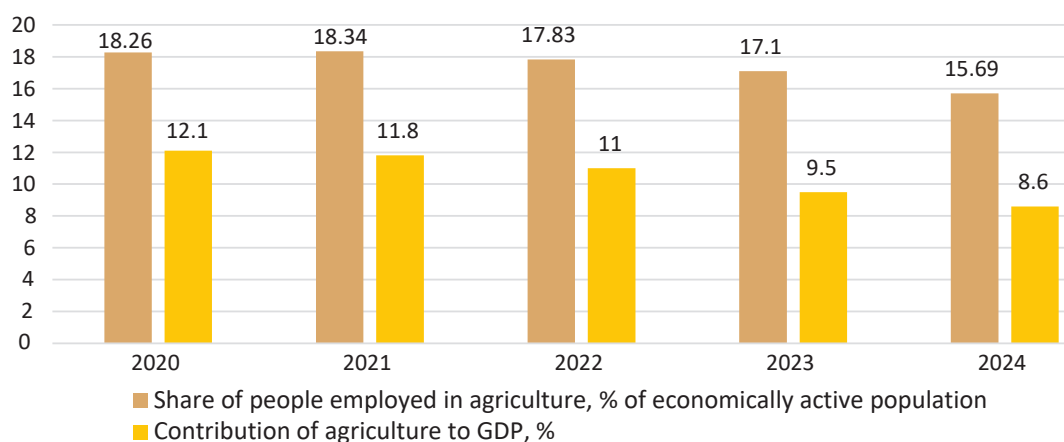


Figure 1. Share of employment and contribution of agriculture to the GDP of the Kyrgyz Republic in 2020-2024, %

Source: compiled by the author based on NSCKR (2024a; 2024b; 2024c)

An analysis of the dynamics of the number of workers in agriculture for 2020-2024 (Fig. 2) shows a gradual decline in the number of workers, which is largely due to urbanisation, the expansion of the service sector and large-scale labour migration, especially among young people. Nevertheless, the agricultural sector

continues to function as a kind of “buffer” employer, absorbing surplus labour during periods of economic instability. The significant proportion of self-employed and family farm workers confirms the stability of traditional forms of employment characteristic of rural areas of the country.

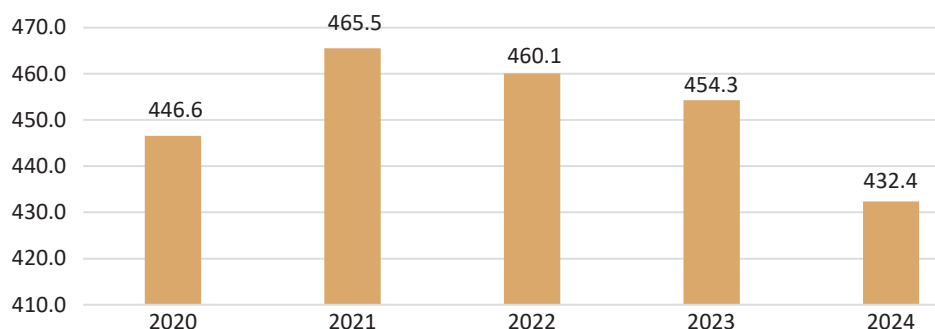


Figure 2. Dynamics of the number of people employed in agriculture in the Kyrgyz Republic, thousand people
Source: compiled by the author based on NSCKR (2024b; 2024c)

As emphasised by the World Bank (2023), the quality of jobs in the rural economy of Kyrgyzstan remains low, leading to high migration mobility among the working-age population. According to NSCKR (2025), in 2024, the share of those employed in the informal sector was 65%, with the vast majority of these workers being in the agricultural sector. This situation indicates that many rural residents do not have official employment status or access to social guarantees, including pensions, which increases the socio-economic vulnerability of households and limits the possibilities for long-term rural development. Structural imbalances in the rural labour market are evident in both regional and socio-demographic terms. In the southern regions of the republic, the scale of labour migration is creating a labour shortage, while in the mountainous regions, there is still a high proportion of seasonal and low-productivity employment. In social terms, the imbalance is reflected in the outflow

of young people from the agricultural sector and the continued high proportion of women and older workers in informal employment, which limits the modernisation potential of agriculture.

According to Belarusian researchers O. Pashkevich & V. Lyovkina (2023), the labour shortage in rural areas is largely due to young people's lack of motivation to work in the agricultural sector and structural imbalances between regional labour supply and demand. These conclusions are fully consistent with the Kyrgyz context, where migration and underdeveloped social infrastructure exacerbate the outflow of young people from rural areas and hinder the formation of a sustainable labour force. The transformation of employment in the agricultural sector of the Kyrgyz Republic is developing under the influence of a complex of interrelated economic, social, technological, institutional and global challenges that determine the direction and pace of its further development (Table 1).

Table 1. Factors influencing the transformation of employment in the agricultural sector of the Kyrgyz Republic

Group of factors	Main manifestations	Consequences for employment
Economic	Low profitability, predominance of small farms, limited access to credit, underdeveloped agricultural insurance, dependence on imports	Persistent low labour productivity; income instability; limited opportunities for employment expansion
Social	Brain drain, low income levels, job shortages, ageing population	Outflow of labour resources; decline in innovation potential; growth of informal employment
Technological	Low mechanisation, weak implementation of innovative practices	High labour intensity of agricultural work; slow renewal of employment; limited demand for skilled labour
Institutional	Limited state support, weak cooperation, imperfect regulatory framework	Lack of incentives for modernisation; preservation of fragmented farm structure; weak integration of employment
Global	Climate change, price volatility in global markets, competition from imported products	Seasonal job instability; increased risk of poverty; intensified migration processes

Source: compiled by the author based on World Bank (2021; 2023), FAO (2024), NSCKR (2024a; 2024b; 2024c)

As can be seen from Table 1, economic constraints perpetuate low labour productivity and income instability, social factors exacerbate the outflow of labour resources, technological backwardness hinders the creation of new jobs, and institutional barriers impede modernisation and the development of cooperation. Global challenges such as climate change and price volatility in world markets further exacerbate seasonality and increase the risk of poverty in rural areas. The underdevelopment of agricultural insurance systems increases the financial vulnerability of rural households and reduces their willingness to invest. As highlighted by the FAO (2024), the lack of affordable insurance products in developing agricultural economies significantly

limits farmers' ability to adapt to climate change and market volatility. An additional risk is the high dependence on imports of food and agricultural machinery, which makes the agricultural sector extremely sensitive to external economic fluctuations. According to D. Zholbolduyeva *et al.* (2024), the structure of agriculture in the Kyrgyz Republic is largely determined by its dependence on imports of key resources, including food and agricultural machinery, which creates additional vulnerability in the sector. Systematising the identified factors in a SWOT format made it possible to identify the internal strengths and weaknesses of the sector, as well as the external opportunities and threats affecting the transformation of the labour market (Table 2).

Table 2. SWOT analysis of employment in the agricultural sector of the Kyrgyz Republic

Strengths	Weaknesses
High proportion of the population involved in agriculture (significant source of employment)	"Low productivity trap"
Preservation of traditional forms of employment (self-employment, family farms)	High level of informal employment (65% in 2024)
Potential for cooperation and integration of farms	Limited access to credit and insurance instruments
Existence of domestic markets (food security)	Small land holdings (on average up to 3 hectares per farm), hindering mechanisation and innovation
Young population with labour potential	Dependence on remittances from migrants
Opportunities	Threats
Development of agricultural cooperatives and agribusiness	Large-scale external labour migration, outflow of young people
Introduction of digital technologies and agricultural innovations	Climate change, increasing seasonality of employment
Diversification of employment (agritourism, processing, family entrepreneurship)	Dependence on imported equipment and food
Increased state support and participation in international programmes (FAO, WB, UNDP)	Price volatility in global markets, currency risks
Opportunity to improve employment quality and reduce poverty through SDGs (1, 2, 8)	Persistent gender and age imbalances in rural employment

Source: developed by the author based on analysis of data from the World Bank (2021; 2023), FAO (2024), NSCKR (2024a; 2024b; 2024c)

Kyrgyzstan faces not only problems common to developing countries – technological backwardness, informal employment, poor access to finance and low mechanisation – but also specific national issues. In particular, external labour migration affects a significant proportion of the working-age population, which reduces demographic pressure on the rural labour market but at the same time leads to a loss of human capital and household dependence on remittances (World Bank, 2023). Another feature is the predominance of small peasant farms with limited land area (and limited access to large resources), which limits

the ability to innovate and take advantage of technology (Azarov *et al.*, 2024). Thus, the SWOT analysis confirms that the transformation of employment in the agricultural sector of Kyrgyzstan requires comprehensive measures combining technological modernisation, institutional reforms and social support aimed at improving the quality and sustainability of rural employment. Based on the results of the SWOT analysis, strategic directions for the development of rural employment were identified, reflecting key economic, social, technological and institutional priorities. The results are summarised in Table 3.

Table 3. Prospects for the transformation of employment in the agricultural sector of the Kyrgyz Republic

Direction of transformation	Promising measures	Expected effect on employment
Economic environment	Support for cooperation, subsidies for mechanisation, expansion of agricultural leasing and credit guarantees	Increased labour productivity, creation of new jobs in cooperatives and agricultural service structures
Social sphere	Development of non-agricultural employment in rural areas (processing, services, logistics), youth employment programmes	Reducing labour outflow, increasing the attractiveness of rural work

Table 3. Continued

Direction of transformation	Promising measures	Expected effect on employment
Technological base	Investment in precision farming, digital platforms, irrigation and agricultural technology	Raising qualification requirements for workers, creating new high-tech jobs
Institutional environment	Developing the legal framework for agricultural insurance, encouraging cooperatives and integration clusters	Stabilisation of incomes, growth in formal employment, reduction in the proportion of unstable jobs
Global challenges	Introduction of climate-resilient technologies, diversification of exports, development of local agricultural clusters	Reducing seasonality and instability of employment, strengthening long-term employment in rural areas

Source: developed by the author based on the results of the SWOT analysis

An analysis of the prospects for employment transformation in the agricultural sector shows that comprehensive modernisation of agriculture is a key condition for increasing the efficiency and sustainability of employment. The economic aspect of these transformations is linked to the need to transition from a small-scale commodity model to cooperative and integrated forms of production organisation. At the same time, economic transformations have a direct impact on the social sphere. Social factors manifest themselves in mass labour migration, low income levels and limited employment opportunities in rural areas. These imbalances can be reduced by stimulating non-agricultural activities, developing processing and services, and introducing programmes for young people. Thus, social measures are becoming an important condition for the effective implementation of economic strategies.

The effectiveness of economic and social transformations is largely determined by the level of technological development. Technological modernisation, including the digitisation of agricultural processes, the introduction of precision farming and the renewal of technical equipment, creates the conditions not only for increased efficiency but also for the creation of new, more skilled jobs. This, in turn, contributes to the retention of labour resources in rural areas and a reduction in migration pressure. This conclusion is consistent with the findings of other researchers, who also emphasise that the dynamics of rural employment are closely linked to the processes of technological modernisation, digitalisation and institutional reforms that determine the quality and sustainability of employment in rural areas. Thus, according to M. Petukhova *et al.* (2022), a key direction for improving the efficiency of rural labour is the introduction of digital solutions that ensure growth in productivity, income and employment. At the same time, as noted by G. Ostaev & B. Khosiev (2024), digitalisation does not eliminate the need for human labour, but transforms its content, which requires a balance between technological innovation and job preservation. E. Klimentova *et al.* (2022) emphasise the need for state participation in the formation of a sustainable model of rural employment based on institutional reforms and the development of mechanisation and automation of production. According to

A. Volchenkova & E. Lovchikova (2024), comprehensive state support measures aimed at increasing productivity and the social attractiveness of agricultural labour contribute to retaining skilled personnel and reducing migration risks.

One promising area for the development of rural employment is remote working. Researchers note that the digitalisation of rural life is contributing to an increase in the proportion of people working online, but the scale of this phenomenon remains limited: for example, in the Russian Federation in 2022, the number of remotely employed rural residents was 262,800, which is almost half the number in urban areas (Mamonkina, 2023). For the Kyrgyz Republic, this trend points to the need to actively promote online employment and accelerate the development of digital infrastructure in rural areas. Institutional support for the rural population is also important. As highlighted in a study by R. Kazaryan (2023), the incomes of rural households in developed countries are supported not only by the market, but also by agricultural policy mechanisms, including subsidies, tax breaks and social protection programmes. This experience demonstrates the need to strengthen the support system for rural households in Kyrgyzstan, where incomes in the agricultural sector remain extremely unstable and dependent on external factors.

The implementation of technological initiatives is impossible without the appropriate institutional conditions. Institutional reforms aimed at developing agricultural insurance, supporting cooperation and improving the regulatory framework ensure income stability and reduce informal employment. They form the regulatory and organisational basis without which technological and social modernisation cannot deliver long-term results. Finally, internal changes must be adapted to external conditions. Global challenges, including climate change, price volatility in world markets and increasing competition from imported products, reinforce the need to transition to sustainable technologies and form local agricultural clusters. This direction of development will reduce the vulnerability of rural employment to external economic and natural and climatic risks, ensuring its long-term stability. Overall, the results confirm the systemic nature of the transformation of employment in the agricultural sector of the Kyrgyz Republic. The

comprehensive application of comparative, systemic and SWOT analysis methods has made it possible to identify internal patterns in the development of rural employment and to determine priority areas for its modernisation, taking into account national specificities and international trends.

Conclusions

The study showed that employment in the agricultural sector of the Kyrgyz Republic remains of key importance to the national economy, remaining the most important source of income and social stability for the rural population. It was found that the structure of rural employment is characterised by low efficiency, a high level of informality and significant regional differences. The analysis identified a set of interrelated factors that determine the dynamics of the rural labour market. The most significant of these are limited production resources, insufficient financial support for rural farms, the outflow of the working-age population, and the slow introduction of innovations. These circumstances create a vicious circle of low productivity and weak workforce renewal in the agricultural sector. SWOT analysis has made it possible to structure the internal and external factors that determine the state of employment. The strengths include the availability of labour resources, the potential for cooperation and the existence of domestic demand for food. Weaknesses include small land holdings, insufficient mechanisation, and the dependence of rural households' incomes on remittances from migrants.

Opportunities include the development of agribusiness, digitalisation, and state support for cooperation, while threats are shaped by climate risks, price instability, and external economic fluctuations.

Based on a summary of the results, priority areas for strengthening the sustainability of rural employment have been identified: the development of cooperative forms of management, the promotion of non-agricultural activities, the expansion of the agricultural insurance system, and the modernisation of the technical base of production. The implementation of these measures creates the conditions for labour productivity growth, formalisation of employment and the creation of new jobs. Prospects for further research are linked to assessing the impact of digital transformation on the quality of rural employment, analysing the effectiveness of state support programmes and studying the socio-demographic consequences of migration. In the long term, the development of a rural employment monitoring system aimed at increasing the sustainability and competitiveness of the agricultural sector in the Kyrgyz Republic remains a pressing task.

Acknowledgements

None.

Funding

None.

Conflict of Interest

None.

References

- [1] Azarov, A., Sidle, R.C., Darr, D., Verner, V., & Polesny, Z. (2024). A proposed typology of farming systems for assessing sustainable livelihood development pathways in the Tien Shan Mountains of Kyrgyzstan. *Land*, 13(2), article number 126. doi: [10.3390/land13020126](https://doi.org/10.3390/land13020126).
- [2] Food and Agriculture Organization of the United Nations (FAO). (2024). *The state of food and agriculture 2024 – value-driven transformation of agrifood systems*. Rome: FAO. doi: [10.4060/cd2616en](https://doi.org/10.4060/cd2616en).
- [3] Geleta, T.V., & Shumilina, E.A. (2025). Modern methods of state support for agriculture at the regional level. *Innovative Economy: Information, Analytics, Forecasts*, 3, 146-151. doi: [10.47576/2949-1894.2025.3.3.019](https://doi.org/10.47576/2949-1894.2025.3.3.019).
- [4] Herzfeld, T., & Akhmadiyeva, Z. (2021). Agricultural labour in transition: An update. *Journal of New Economy*, 22(3), 144-160. doi: [10.29141/2658-5081-2021-22-3-8](https://doi.org/10.29141/2658-5081-2021-22-3-8).
- [5] Kabanov, Yu.A., & Chugunov, A.V. (2021). [Human potential development, social policy, and e-citizens' participation in Russian regions](https://doi.org/10.29141/2658-5081-2021-22-3-8). *Journal of Social Policy Studies*, 19(1), 101-114.
- [6] Kazaryan, R.T. (2023). Aspects of agrarian policy in developed countries on regulating employment, income, and migration in rural areas in the context of social protection of seasonal workers. *News of the Timiryazev Agricultural Academy*, 6, 125-142. doi: [10.26897/0021-342X-2023-6-125-142](https://doi.org/10.26897/0021-342X-2023-6-125-142).
- [7] Klimentova, E.A., Kuznetsov, A.D., & Mezhonova, A.A. (2022). [Features of the use of labor resources in agricultural production](https://doi.org/10.26897/0021-342X-2023-6-125-142). *Science and Education*, 5(2).
- [8] Kydyrbaeva, E.O., Baidybekova, S.K., & Shomshekova, B.K. (2022). Personnel potential of the agricultural sector of the Republic of Kazakhstan: Assessment of the current situation. *Problems of AgriMarket*, 4, 190-196. doi: [10.46666/2022-4.2708-9991.20](https://doi.org/10.46666/2022-4.2708-9991.20).
- [9] Mamonkina, E.V. (2023). Problems of employment and income of the rural population in the context of digital transformation of the economy. *Bulletin of NGIEI*, 12(151), 104-112. doi: [10.24412/2227-9407-2023-12-104-112](https://doi.org/10.24412/2227-9407-2023-12-104-112).
- [10] Murzakulova, A. (2020). [Rural migration in Kyrgyzstan: Drivers, impact and governance](https://doi.org/10.24412/2227-9407-2023-12-104-112). Bishkek: University of Central Asia.

- [11] National Statistical Committee of the Kyrgyz Republic (NSCKR). (2025). *Employment statistics*. Retrieved from <https://stat.gov.kg/ru/statistics/zanyatost/>.
- [12] National Statistical Committee of the Kyrgyz Republic (NSCKR). (2024a). *Statistical yearbook of the Kyrgyz Republic 2024*. Retrieved from <https://stat.gov.kg/en/publications/statisticheskij-ezhegodnik-kyrgyzskoj-respubliki/>.
- [13] National Statistical Committee of the Kyrgyz Republic (NSCKR). (2024b). *Employment and unemployment in the Kyrgyz Republic*. Retrieved from <https://stat.gov.kg/ru/news/podgotovlena-k-pechati-godovaya-publikaciya-zanyatost-i-bezrobotica-itogi-integrirovannogo-vyborochnogo-obsledovaniya-byudzhetrov-domashnih-hozyajstv-i-rabochej-sily-v-2023-godu/>.
- [14] National Statistical Committee of the Kyrgyz Republic (NSCKR). (2024c). *Agriculture of the Kyrgyz Republic*. Retrieved from <https://stat.gov.kg/en/publications/sbornik-selskoe-hozyajstvo-kyrgyzskoj-respubliki/>.
- [15] Naumov, A.S., Potapova, A.A., & Topnikov, M.A. (2022). Changes in employment in agriculture in countries and regions of the world at the late XX – beginning of the XXI century. *Contours of Global Transformations: Politics, Economics, Law*, 15(1), 128-150. doi: 10.23932/2542-0240-2022-15-1-6.
- [16] Office of the Government of the Kyrgyz Republic & Ministry of Economy and Commerce of the Kyrgyz Republic. (2025). *National voluntary review of the Sustainable Development Goals of the Kyrgyz Republic 2025*. Bishkek: Government of the Kyrgyz Republic.
- [17] Ostaev, G.Ya., & Khosiev, B.N. (2024). Digital transformation of the agricultural economy. *Education. Science. Scientific Personnel*, 3, 178-183. doi: 10.24412/2073-3305-2024-3-178-183.
- [18] Pashkevich, O.A., & Lyovkina, V.O. (2023). *National and European experience in attracting personnel to agriculture: Current trends*. *Economic Issues of Agricultural Development of Belarus*, 51, 169-181.
- [19] Petukhova, M.S., Rudoy, E.V., & Orlova, N.V. (2022). Assessing the impact of innovation activities in agricultural production on the standard of living of the rural population. *International Agricultural Journal*, 2, 111-115. doi: 10.55186/25876740_2022_65_2_111.
- [20] Sakkaravaeva, D., & Kumashev, M. (2024). Analysis of the agro-industrial sector of the Kyrgyz Republic. *Ekonomika APK*, 31(2), 41-50. doi: 10.32317/2221-1055.202402041.
- [21] United Nations Development Programme (UNDP). (2022). *Analysis of the impact of adaptation and mitigation measures on the socio-economic situation in the Kyrgyz Republic*. New York: UNDP.
- [22] United Nations. (2021). *World social report 2021: Reconsidering rural development*. New York: United Nations.
- [23] Volchenkova, A.S., & Lovchikova, E.I. (2024). *Strategy for increasing agricultural labor productivity in the context of implementing state programs*. In *Problems and challenges of the regional economy in the context of globalization: X national scientific and practical conference* (pp. 132-137). Comrat: A&V Poligraf.
- [24] World Bank. (2021). *World development report 2021: Data for better lives*. Washington: World Bank.
- [25] World Bank. (2023). *The Kyrgyz Republic. Comprehensive country assessment. Update. From vulnerability to resilience*. Washington: World Bank.
- [26] Zholbolduyeva, D.Sh., Askarova, A.K., Murzaliyeva, E.I., & Omurzakova, U.M. (2024). Analysis of the current state and features of agriculture in the Kyrgyz Republic. *International Journal of Humanities and Natural Sciences*, 1-4(88), 94-98. doi: 10.24412/2500-1000-2024-1-4-94-98.

Кыргызстандын агрардык сектордо эмгек менен камсыз кылуунун трансформациясы: чакырыктар жана перспективалар

Нуржамал Парпиева

Экономика илимдеринин кандидаты, доцент

К.И. Скрябин атындагы Кыргыз улуттук агрардык университети

720005, Медеров көч., 68, Бишкек ш., Кыргыз Республикасы

<https://orcid.org/0000-0003-1151-5176>

Аннотация. Макалада Кыргыз Республикасындагы агрардык сектордо эмгек менен камсыз кылуунун трансформациясынын өзгөчөлүктөрү талданып, анын социалдык-экономикалык өнүгүүнүн жана азык-түлүк коопсуздуктун негизги фактору катары мааниси белгиленет. Изилдөөнүн актуалдуулугу айыл чарба тармагы айыл жеринде негизги иш берүүчү болуп кала бергени менен, анын өнүгүүсү эмгектин төмөн натыйжалуулугу, бейрасмий жумуштардын көп үлүшү жана эмгекке жарамдуу калктын миграциясы сыяктуу көйгөйлөр менен чектелип жаткандыгына байланыштуу. Изилдөөнүн максаты – айыл чарбадагы эмгек менен камсыз кылуунун өзгөрүү тенденцияларын аныктоо жана аны модернизациялоонун келечектүү багыттарын сунуштоо. Методологиялык негиз системалуу жана салыштырма талдоого, улуттук статистикалык маалыматтарга жана эл аралык уюмдардын материалдарына таянат. SWOT-талдоо колдонулуп, эмгек рыногунун туруктуулугуна таасир этүүчү ички жана тышкы факторлор структуралаштырылган. Изилдөөдө эмгек рыногунун абалына таасир этүүчү шарттар системалуу түрдө каралган: жер ээлөөнүн майда болушу, техникалык камсыздоонун жетишсиздиги, кооперациянын өнүкпөгөндүгү жана институционалдык тоскоолдуктар. Ошондой эле социалдык жана демографиялык дисбаланстар аныкталган, анын ичинде жаштардын жапырт чет өлкөгө кетиши жана гендердик теңсиздиктин уланышы. Ошол эле учурда айыл чарба башка тармактардагы жумуш орундарынын жетишсиздигин толуктап, стабилдештирүүчү функцияны аткарып келет. Жыйынтыктардын негизинде бир катар чаралар сунушталды: айыл чарба кооперативдерин өнүктүрүү, санариптик технологияларды киргизүү, айыл жериндеги эмгек ишмердүүлүгүн кайра иштетүү, агротуризм жана кызмат көрсөтүүлөр аркылуу диверсификациялоо, ошондой эле мамлекеттик жана институционалдык колдоону кеңейтүү. Изилдөөнүн практикалык мааниси алынган натыйжаларды эмгек саясатын өркүндөтүүдө, жакырчылыкты азайтууда жана агрардык сектордун улуттук экономикадагы ордун чыңдоодо колдонууга мүмкүндүк берет.

Негизги сөздөр: эмгек миграциясы; кооперация; санариптештирүү; туруктуу өнүгүү; модернизация; инфраструктура; инновация

Трансформация занятости в аграрном секторе Кыргызстана: вызовы и перспективы

Нуржамал Парпиева

Кандидат экономических наук, доцент

Кыргызский национальный аграрный университет им. К.И. Скрябина

720005, ул. Медерова, 68, г. Бишкек, Кыргызская Республика

<https://orcid.org/0000-0003-1151-5176>

Аннотация. В статье рассмотрены особенности трансформации сельской занятости в Кыргызской Республике как ключевого фактора социально-экономического развития. Актуальность исследования связана с тем, что аграрный сектор продолжает оставаться основным, но его развитие сдерживается противоречиями: ограниченной результативностью труда, высоким уровнем неформальной занятости и значительной миграцией трудоспособного населения. Цель исследования состояла в определении тенденций и перспективных направлений изменения занятости в аграрной сфере Кыргызстана. Методологическая база опиралась на системный и сравнительный подход, статистические данные и материалы международных организаций. Применение SWOT-анализа позволило классифицировать внутренние и внешние факторы, влияющие на устойчивость рынка труда. Проанализированы условия, влияющие на занятость: фрагментированная структура землевладения, слабая техническая оснащенность, недостаточная кооперация и институциональные барьеры. Выявлены социальные и демографические диспропорции, проявляющиеся в оттоке молодежи и сохранении неравномерного распределения труда. Подчеркнуто, что сельское хозяйство сохраняет стабилизирующую роль, компенсируя нехватку рабочих мест в других секторах. По результатам исследования предложены меры по совершенствованию занятости: развитие кооперативных объединений, внедрение цифровых решений, диверсификация сельских видов деятельности через переработку продукции и агротуризм, расширение программ государственной поддержки. Практическая значимость работы состоит в возможности использования выводов для проектирования политики занятости, снижения уровня бедности и укрепления позиций аграрного сектора в национальной экономике

Ключевые слова: трудовая миграция; кооперация; цифровизация; устойчивое развитие; модернизация; инфраструктура; инновация