

## Assessment and Economic Factors for Improving the Quality of Life: Theoretical Foundations, Methodological Approaches, Strategic Priorities



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**Abstract:** Purpose: The purpose of this study was to identify the key aspects of assessing and improving the quality of life, as well as to use foreign practices to develop more effective strategies. Methodology: The study employed the methods of analysing models, statistical indices, and comparative data analysis, which enabled a greater understanding of the aspects of quality of life and its interrelationships in the context of Kyrgyzstan and other countries such as Kazakhstan, Turkmenistan, Azerbaijan, Uzbekistan, Tajikistan, Armenia. Findings: The study identified key factors affecting the quality of life of the population of Kyrgyzstan, among which the critical factors are economic development, social policy, environmental sustainability, and citizen engagement. The study was found that the creation of new jobs in sectors such as agriculture and tourism substantially increase the level of income and well-being of the population. Access to quality education and healthcare was also found to be critical to improving living conditions, especially in remote and rural areas. The study confirmed that environmental sustainability is a critical aspect, with modernisation of wastewater treatment systems and adoption of environmentally friendly technologies playing a significant role in ensuring the health of the population. Originality: As a result of the analysis, the study concluded that an integrated approach is required, which would consider the interaction of the above factors to improve the quality of life at all levels, thus necessitating the active engagement of both the state and society in joint initiatives.

**Keywords:** resource management; economic factors of quality of life; social aspects; environmental sustainability; citizen engagement.

**JEL Classification:** I31; O15; Q56; H53.

### Introduction

Quality of life is a multifaceted concept that encompasses a wide range of aspects such as health, education, income, social ties, and environmental conditions. These elements are interrelated and influence each other, creating a holistic picture of the well-being of individuals and society as a whole. For example, a person's health may depend not only on health services, but also on living standards, nutrition, and environmental factors such as clean air and water.

In the modern context, where society faces a variety of challenges such as economic crises, social inequalities and environmental problems, the need to assess and improve quality of life becomes particularly relevant. Economic crises can lead to higher unemployment rates and lower incomes, which can negatively affect the overall standard of living (Bashtannyk *et al.*, 2020; Makhazhanova *et al.*, 2024). Social inequalities create gaps between different population groups, limiting access to education, healthcare, and other necessary resources. Environmental issues such as pollution and climate change also seriously affect the quality of life. Recent cross-

national evidence links perceived economic inequality to lower well-being via status anxiety and lower social trust, reinforcing the centrality of social factors in quality-of-life policy (García-Sánchez *et al.*, 2024).

The health of the population depends on the state of the environment, and therefore sustainable development and environmental protection become major priorities for improving the quality of life (Buribayev *et al.*, 2020; Hari *et al.*, 2024). Research in this area aims to identify factors that substantially influence perceptions of quality of life and to develop effective strategies to help improve it. This may include not only economic initiatives, but also social programmes aimed at improving access to education and health care, as well as environmental measures that contribute to a sustainable environment for future generations.

The relevance of quality-of-life assessment is related to many issues such as social inequality, access to education and healthcare, and environmental challenges. López-Ruiz *et al.* (2021) noted the relationship between economic growth and quality of life, noting that an increase in personal income did not always lead to an improvement in the overall perception of life. The researchers also emphasised that it is essential to account for the distribution of income in the population to better assess its impact on well-being. Khan, Krishnan, and Arayankalam (2022) emphasised the significance of social factors such as access to education and healthcare in improving the well-being of citizens. The researchers noted that quality educational services and affordable healthcare can greatly improve the lives of the population. Omri *et al.* (2022) argued that environmental sustainability is critical to quality of life because environmental degradation can adversely affect the health and well-being of the population. The researchers also considered the effects of pollution on the mental health of citizens. Bell and Reed (2022) investigated the role of active citizen engagement, arguing that involving citizens in the decision-making process facilitated a better response to their needs and demands. The researchers emphasised that such initiatives increased the level of trust between the public and government agencies.

Birkmann *et al.* (2022) were engaged in comparative analyses of international quality of life indices, which allowed identifying best practices and adapting them in different regions. The researchers also emphasised the need to consider cultural and social contexts when using these indices. Karuppiyah *et al.* (2021) stressed the significance of an integrated approach that combines economic, social, and environmental aspects, highlighting the need to integrate different strategies to achieve sustainable development. The researchers believed that without such an approach it is impossible to solve the current problems related to quality of life. Costa *et al.* (2021) also emphasised that quality of life is not a static variable and requires continuous monitoring and adaptation of approaches in response to changing conditions. The researchers noted that regular updating of data and strategies enabled a better response to the challenges of the times. Giannico *et al.* (2021) identified the role of cultural aspects in the perception of quality of life, demonstrating that culture and identity can considerably influence citizens' satisfaction levels. Their findings revealed that cultural activities and access to the arts positively affected the well-being of the community. Ferreira *et al.* (2021) emphasised the need to analyse the psychological factors affecting quality of life, noting that emotional well-being and social ties played a key role in shaping overall levels of happiness. The researchers argued that community support and psychological support could greatly enhance life satisfaction.

Despite existing research, gaps in understanding the interaction between economic, social and environmental factors remain and require further study. In particular, the relationship between human resource management and economic growth remains under-researched in the context of developing countries and countries with economies in transition. Previous studies have focused primarily on resource management at the organisational level, analysing its impact on employee productivity, motivation and innovation. However, there is still limited evidence on how resource management mechanisms, such as workforce development, education and equal access to employment, affect overall economic performance and quality of life at the national level. This study fills this gap by demonstrating how investments in human capital and sectoral employment policies contribute not only to economic growth but also to the overall well-being of the population. Thus, this study expands the existing literature on human resource management by integrating it with macroeconomic and social development perspectives, showing that human capital is a fundamental driver of sustainable growth.

The purpose of the present study was to identify the more significant aspects of quality of life and find ways to optimise them.

The objectives of this study were as follows:

1. To investigate the relationship between economic and social factors affecting the quality of life.
2. To analyse various approaches to assessing the quality of life, including methods of quantitative and qualitative analysis.
3. To assess the role of environmental sustainability in the development of the general level of well-being of the population.

4. To develop practical recommendations for improving the quality of life of the population based on the findings obtained.

## 1. Materials and Methods

The methodological framework of this study combines theoretical modelling with quantitative and comparative analysis. It integrates the concept of the triple balance and the Human Development Index (HDI) as analytical bases for assessing the quality of life, while also incorporating digital and sustainability dimensions. This approach makes it possible to examine the interaction of economic, social, and environmental indicators in the context of Kyrgyzstan's national development strategy.

The empirical material of the study was derived from official and publicly accessible sources to ensure transparency and comparability of results. Data were obtained from the United Nations Development Programme (2025), which provided information on the Human Development Index and its core components such as life expectancy, education indicators, and income per capita. Complementary information was drawn from the OECD Papers on Well-Being and Inequalities (Fleischer and Stokenberga, 2023), which were used for regional comparison and contextual validation. The Decree No. 221 "On the National Strategy of Development of the Kyrgyz Republic on 2018-2040" (2018) served as the key policy reference for identifying national priorities and sustainability benchmarks. Additionally, the empirical study of Sharipova and Kudebayeva (2023) was used as a comparative reference to reflect well-being trends in Central Asia. The analysis covered the period 2018-2025 and included seven countries: Kyrgyzstan, Kazakhstan, Turkmenistan, Azerbaijan, Uzbekistan, Tajikistan and Armenia. The compiled dataset comprised approximately 210 country-year entries across the principal indicators. All data were verified for consistency, checked for duplicates, and adjusted for unit uniformity; minor gaps (less than 5 percent) were resolved by interpolation using adjacent-year averages. The study employed six principal indicators representing the economic, social, and environmental dimensions of the quality of life (Table 1).

Table 1. Key Indicators Representing the Dimensions of Quality of Life

Variable	Definition	Unit of measurement	Theoretical expectation
Income	Average monthly income per capita	Kyrgyz som (KGS)	Higher income improves living standards
Employment rate	Share of employed population aged 15-64	%	Greater employment increases welfare
Education access	Percentage of children enrolled in education	%	Higher access enhances social well-being
Health access	Number of healthcare facilities per 10 000 inhabitants	count	Better access improves well-being
Air pollution	Concentration of pollutants in ambient air	mg/m <sup>3</sup>	Higher pollution lowers life quality
Digital access	Internet users per 100 inhabitants	%	Digital inclusion raises social participation

Source: compiled by the authors.

Given the nature of the data, the study employed descriptive and comparative analysis. The analytical procedure included the compilation of national and regional indicators into unified datasets, the calculation of average annual values, and normalisation according to international standards. Comparative evaluation across countries was performed to identify proportional imbalances and development asymmetries. Contextual interpretation of observed disparities was based on official strategic documents and prior empirical research in the field of human development.

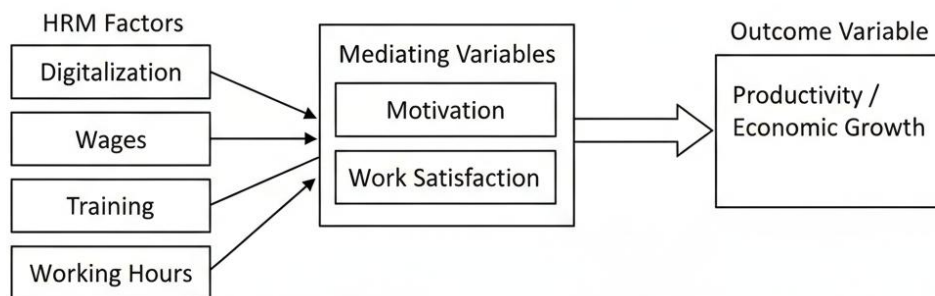
To ensure the reliability of results, sensitivity analysis was carried out by comparing indicators across multiple consecutive years from 2018 to 2025. This allowed testing the stability of the findings and minimising the effect of short-term fluctuations. Where possible, data from different sources such as the United Nations Development Programme (2025) were cross-checked to ensure consistency and credibility.

This study integrates digitisation into the productivity and quality-of-life assessment paradigm, a methodological innovation. This research incorporates digital data flows and technology-driven variables like access to digital infrastructure, ICT penetration, and population digital competencies into the analytical framework, unlike conventional approaches that use only statistical and comparative indicators. This integration allows a holistic assessment of economic productivity, social, and environmental dimensions through digital transformation. Digital measurements in the productivity model allow the study to assess how technological advancement influences

economic growth, environmental sustainability, and human well-being. This technique extends quality-of-life analysis models and provides a foundation for other developing economies undergoing digital transition.

To illustrate the theoretical logic underpinning the study, a conceptual framework was developed (Figure 1).

Figure 1. Conceptual Framework Linking HRM Factors to Productivity and Economic Growth



Source: compiled by the authors.

Figure 1 reflects the assumed relationships between key HRM factors, digitalization, wages, training, and working hours, and the mediating mechanisms of motivation and work satisfaction, which in turn determine productivity and economic growth. This model provides the analytical basis for the empirical assessment presented in the subsequent section.

## 2. Results

Quality of life is a complex category that includes many aspects of human activity and conditions of existence. Its study requires the integration of multiple approaches, as the term covers both objective and subjective parameters of well-being. An essential approach to assessing the quality of life is the triple-balance model, which includes three core elements: economic, social, and environmental aspects (Decree No. 221, 2018). The economic component is related to income, employment, access to material goods and opportunities. In countries with a high standard of living, such as Sweden, Norway, and Canada, this aspect is fundamental to the well-being of the population, but economic growth alone is not sufficient to improve the quality of life comprehensively (Tvaronavičienė *et al.*, 2022). The social dimension includes parameters such as access to education, healthcare, equality of opportunity, and social justice. It emphasises the need to create conditions that foster better social connections and opportunities for every citizen, regardless of their position in society.

The environmental aspect is equally significant as the state of the environment directly affects the health and well-being of people (Fleischer and Stokenberga, 2023). Recent global burden estimates attribute ~6.5 million deaths annually to air-pollution-related exposures, with PM<sub>2.5</sub> the dominant driver (Pozzer *et al.*, 2024). Clean air, access to clean water, absence of pollution, and conservation of natural resources are factors that are crucial in shaping a high quality of life in the long term. Environmental sustainability is becoming an increasingly critical element in the modern world, where global environmental issues such as climate change can adversely affect the well-being of entire nations (Işık *et al.*, 2025b; Bilan *et al.*, 2017). The triple-balance model proposes that quality of life should be considered as the outcome of the interaction of economic, social, and environmental factors, providing a comprehensive assessment of the state of society. The model also emphasises that development in one of these areas should not come at the expense of the others. For example, economic growth cannot be sustainable without preserving social justice and environmental protection. On the contrary, environmental degradation or lack of access to important social services can undermine economic gains.

Table 2 presents the key indicators characterising the quality of life in Kyrgyzstan. These factors are key indicators of the socio-economic condition of the population and reflect their well-being. The level of income, employment, access to education and health services, and the level of air pollution are essential components that influence the overall perception of the quality of life of citizens. Average monthly income and employment rate are directly related to the financial status and opportunities of citizens, while access to education and healthcare determines the level of social protection and public health. The level of air pollution also plays a critical role as it affects the health and well-being of citizens. By analysing the data from the table, it is possible to identify existing problems and outline solutions to improve the overall standard of living in the country (Akunova and Soyuzova, 2024).

Table 2. Fundamentals of Quality of Life in Kyrgyzstan

Factor	Measured parameter	Value
Income level	Average monthly income (KGS)	15,000
Employment rate	Employment rate (%)	56%
Access to education	Percentage of children enrolled in education (%)	90%
Access to health services	Number of healthcare facilities per 10,000 inhabitants	4
Air pollution level	Level of pollutants (mg/m <sup>3</sup> )	0.05

Source: compiled by the authors of this study based on Sharipova and Kudebayeva (2023).

Since quality of life encompasses both objective and subjective aspects, both qualitative and quantitative methods are used to investigate it, as well as mixed approaches that combine elements of both approaches (Table 3). Each of these methodologies has its advantages and limitations, and therefore it is vital to combine them properly to obtain a comprehensive and reliable assessment. Table 3 presents key quantitative indicators reflecting the level of quality of life in Kyrgyzstan. These data allow assessing the socio-economic situation in the country and identifying the major problems that require attention. The Human Development Index serves as an essential indicator of the overall well-being of citizens and reflects the balance between economic, social, and environmental factors (Giannias and Sfakianaki, 2024). Poverty levels, access to education and healthcare, and air pollution levels are critical indicators that affect the lives of the population. Analysing these indicators helps to understand which areas need improvement and where efforts should be focused to improve the quality of life. Thus, this table provides a basis for developing strategies to improve the social and economic situation in Kyrgyzstan.

Table 3. Data on Quality of Life in Kyrgyzstan

Indicator	Value	Year
Human Development Index (HDI)	0.638	2021
Poverty rate (%)	20.1%	2021
Access to education (%)	94%	2021
Access to healthcare (%)	75%	2021
Air pollution level (µg/m <sup>3</sup> )	45	2021

Source: compiled by the authors of this study based on Decree No. 221 "On the National Strategy of Development of the Kyrgyz Republic on 2018-2040" (2018).

For a better understanding of this issue, Table 4, which presents the basics of quality of life in different countries, is provided.

Table 4. Basics of Quality of Life in Different Countries

Country	Income level (average monthly income, USD)	Employment rate (%)	Access to education (% of children enrolled)	Access to health services (number of facilities per 10,000 inhabitants)	Air pollution level (mg/m <sup>3</sup> )
Kazakhstan	550	65%	97%	5	0.07
Turkmenistan	450	62%	94%	3	0.08
Azerbaijan	500	58%	95%	4	0.06
Uzbekistan	400	60%	96%	3	0.09
Tajikistan	350	57%	91%	2	0.10
Armenia	480	63%	96%	4	0.05

Source: compiled by the authors of this study based on United Nations Development Programme (2025).

After analysing the data presented in Table 4, several conclusions can be drawn regarding the state of the quality of life in the Central Asian countries. Kazakhstan, Azerbaijan, and Armenia have the highest average incomes among the countries of the region, which may reflect a greater level of economic development in these countries than in the others. Uzbekistan and Tajikistan, albeit with somewhat lower incomes, show positive trends in economic growth, especially in recent years. Employment rates are relatively high in all countries of the region, but Kazakhstan and Armenia have the strongest rates, which may be indicative of more jobs and more effective labour policies. Tajikistan and Uzbekistan have lower employment rates, which may be related to a lack of economic diversification. In terms of access to education, all countries show high enrolment rates, suggesting a positive trend in the availability and quality of education. Kazakhstan and Azerbaijan are in the lead due to the development of education systems and significant investment in the sector. In the healthcare sector, Kazakhstan, Azerbaijan, and Armenia have the greatest number of medical centres per capita, which may indicate better accessibility and quality of medical services. In contrast, Turkmenistan, Uzbekistan, and Tajikistan require more efforts to improve the healthcare infrastructure, especially in remote areas. The environmental situation in these countries varies: air pollution levels are greater in Turkmenistan and Tajikistan due to industrial and agricultural pressures, as well as weaker regulation of environmental standards. Kazakhstan and Armenia have lower levels of air pollution, suggesting stricter environmental measures and availability of infrastructure for air purification. Thus, while there are common trends in Central Asian countries to improve the quality of life, there is considerable variation in certain indicators, requiring country-specific strategies to improve these aspects.

Qualitative methods form an integral part of research aimed at exploring people's subjective perceptions of quality of life (Larsen *et al.*, 2021). These methods include interviews, focus groups, and observations that enable researchers to develop a deeper understanding of individual experiences and perceptions of well-being. The significance of these methods lies in their ability to identify subjective aspects of life that are not easily quantified, such as personal feelings of happiness, life satisfaction, or the impact of social relationships on well-being. Interviews, for instance, allow people to describe how they evaluate their lives, what factors are meaningful to them, and what they think improves or worsens their quality of life. Focus groups, on the other hand, allow discussing key topics in a group setting, which helps researchers to understand collective perceptions and identify shared problems that may be specific to certain communities or social groups. However, qualitative methods also have their limitations. Since they focus on individual experiences, the results of such studies can be challenging to compare or generalise. Each person perceives their life uniquely, and while interviews and focus groups provide in-depth insights into individual cases, they do not always allow for the assessment of general trends and dynamics in large populations. Furthermore, these methods are often time- and resource-intensive, making them less suitable for use in large studies.

Quantitative methods, in contrast, provide objective data that can be easily measured, analysed, and compared across different groups or regions. One of the most popular tools in this area is the HDI developed by the United Nations (UN), which includes indicators such as life expectancy, educational attainment, and per capita income (Homayuni *et al.*, 2021). This index provides an overall picture of the level of well-being in various countries and regions, revealing inequalities and progress towards achieving a high quality of life. In addition to the HDI, there are other quantitative indicators such as gross domestic product (GDP) per capita, unemployment rates, access to basic social services (education, healthcare) and even indicators such as crime rates or pollution levels. These data enable large-scale studies and models to predict changes in quality of life based on economic and social indicators.

The principal advantage of quantitative methods is their objectivity and reproducibility. Data from these studies can be analysed using statistical methods and compared between various countries or regions, making them indispensable for global and national development reports. However, quantitative methods also have their limitations. They often do not reflect individual feelings and perceptions, which is particularly significant when assessing subjective well-being. For example, two people with the same level of income may have differing perceptions of their lives, which is not always captured when using statistical data alone. Therefore, quantitative methods, while essential for understanding objective living conditions, cannot fully capture the complexity of human experience and perception. Mixed methods, which combine qualitative and quantitative approaches, compensate for the shortcomings of each of these approaches and provide a more complete picture of quality of life (Manullang *et al.*, 2024). This methodological approach involves the use of both statistical data to identify general trends and interviews or focus groups to analyse people's perceptions of their well-being in greater depth. For instance, a study may start by analysing quantitative data, such as income levels or life expectancy, and then be complemented by qualitative methods to understand how people actually assess their living conditions. This allows not only to assess

objective indicators but also to incorporate subjective feelings such as life satisfaction, psychological well-being, and social ties.

Mixed methods are becoming increasingly popular in quality-of-life research as they allow for more comprehensive results. One example might be using quantitative data to assess the level of access to healthcare in various regions and then interviewing local residents to ascertain their perceptions of the accessibility and quality of healthcare services. This leads to a better understanding of what aspects of healthcare are actually valuable to people and how they assess their ability to receive the care they need. Improving the quality of life in Kyrgyzstan requires a comprehensive and strategic approach. With the country facing various economic, social, and environmental challenges, it is necessary to focus on key strategies that can create conditions for sustainable development. Key priorities include economic development, social policy, environmental sustainability, and active citizen engagement. Each of these strategies plays a unique role in improving the living conditions of the population and requires coordinated efforts by all stakeholders.

Economic development is the most significant factor affecting the quality of life of the population (Tleubayev *et al.*, 2024; Shahini and Shahini, 2025). In Kyrgyzstan, this area requires special attention, as the creation of new jobs can substantially affect the level of income and well-being of citizens. The level of employment in the country is directly linked to economic indicators, and effective economic development strategies can greatly improve living conditions (Hamelin and Bhatti, 2023). One of the most promising areas is agriculture, which historically has been at the centre of the country's economy. Agriculture provides not only food security, but also employment for a large part of the population, especially in rural areas. It is therefore crucial to modernise this sector by introducing the latest technologies that will help increase productivity and resilience to climate change. For example, the use of new seed varieties, drip irrigation systems, and organic fertilisers can greatly increase yields. This will enable farmers to earn more income and improve the quality of their produce. It is also necessary to train farmers in modern farming methods, which will enable them to adapt to new conditions and increase their competitiveness in the market. Furthermore, the development of tourism can become a powerful engine of economic growth. Kyrgyzstan has unique natural and cultural resources that attract tourists from all over the world. The country has picturesque mountain landscapes, historical monuments, and a rich culture, which creates tremendous opportunities for the development of the tourism industry.

This requires the development of infrastructure such as roads, hotels, and tourist routes. Improved transport links, comfortable accommodation, and safe travelling routes contribute to the influx of tourists (Li *et al.*, 2025; Işık *et al.*, 2025a). In addition, training the local population in service and tourism industries can create new jobs and attract foreign investment. The next key priority is social policy, which aims to ensure equal access to quality education and healthcare. Social conditions in Kyrgyzstan require special attention, especially in the context of remote and rural areas where access to vital services is often limited. This creates major difficulties for the local population, leading to inequalities in opportunities and a deterioration in the quality of life. Improving the quality of education requires a comprehensive modernisation of educational institutions. This includes not only upgrading infrastructure and facilities but also ensuring access to modern learning materials and technologies. It is vital to develop teacher training programmes so that teachers can use new educational methods effectively. The creation of distance education programmes is becoming a relevant solution to expand access to quality education for all segments of the population, especially those living in remote parts of the country.

Furthermore, it is necessary to introduce innovative approaches to learning, such as the use of multimedia technologies and interactive platforms that make the learning process more engaging and effective. Educational initiatives aimed at developing critical thinking and practical skills help to prepare young people for the demands of the modern labour market, which in the long term positively affects the country's economic development (Abduvalieva *et al.*, 2024; Kozub *et al.*, 2025). In terms of healthcare, there is a need to focus on improving access to health services, which is also critical to ensuring the health of the population. The establishment of mobile medical teams can be one of the key solutions to serve remote regions, where local residents often face a shortage of medical facilities and qualified personnel. Mobile teams can provide basic medical services, including preventive check-ups and vaccinations. Furthermore, the introduction of telemedicine is becoming a valuable tool that enables medical consultations to be conducted remotely. This not only increases access to health services but also enables patients to receive qualified care without having to travel long distances. Such technologies are particularly relevant in environments where access to conventional healthcare facilities is limited. Providing quality treatment and prevention programmes is a major step towards improving the overall health of the population. Disease prevention, education campaigns about healthy lifestyles, and access to health services can significantly reduce morbidity and increase life expectancy (GBD 2021 Risk Factors Collaborators, 2024). This improves the quality of life and creates a healthy society.

Environmental sustainability is an essential aspect in the context of improving quality of life (Table 5). In Kyrgyzstan, where natural resources play a key role in the economy and well-being of the population, combating air and water pollution is critical for the health of citizens and the future development of the country. Environmental problems, such as water pollution in rivers and lakes, as well as deteriorating air quality in cities, require a comprehensive approach and urgent measures.

Table 5. Role of Environmental Sustainability in Shaping the Welfare of the Population in Kyrgyzstan

Indicator	Description	Value
Air purity	Atmospheric pollution level	0.05 mg/m <sup>3</sup> (2023)
Water resource quality	Accessibility and cleanliness of water bodies	74% (access to clean water)
Natural resource conservation	Sustainable use of forests and lands	24% forest land
Biological diversity	Presence of diverse types of flora and fauna	4,500 plant species, 530 animal species

Source: compiled by the authors of this study based on Suprpto, Sumaryoto, and Saleh (2022).

Measures are necessary to reduce pollutant emissions and protect water resources, which play a vital role in ensuring food security and public health. This includes modernising wastewater treatment systems, which will help prevent pollution of natural water bodies and improve the quality of drinking water. Controlling emissions from industrial plants is also an essential area that requires the implementation of strict environmental regulations and standards. To achieve sustainable development, it is also necessary to adopt environmentally friendly technologies that reduce the effects on the environment (Bulatov *et al.*, 2024; Bulatov, 2025). This may include switching to renewable energy sources such as solar and wind power, which will not only reduce carbon emissions but also reduce the country's dependence on fossil fuels. The application of the latest technologies in agriculture, such as precision farming and the use of organic fertilisers, can also greatly enhance environmental sustainability and improve product quality (Liu, Jay, and Chen, 2021). Environmental education programmes can play a key role in raising public awareness of the significance of nature protection and sustainable resource use. Education helps to develop citizens' responsible attitude towards the environment and awareness of their role in its preservation. For instance, programmes to recycle waste, clean water bodies, and protect natural areas can bring local communities together and increase their responsibility for the environment.

Joint initiatives aimed at restoring ecosystems and protecting biodiversity can considerably improve the environmental situation in the country (Dankevych *et al.*, 2024; Apasov and Karabaev, 2022). The establishment of nature reserves and protected areas will contribute to the preservation of unique ecosystems and the sustainability of natural resources. It is also significant to involve young people in environmental initiatives, which will help to raise a new generation that recognises the value of sustainable development. Active engagement of citizens in decision-making processes is becoming a key element for improving the quality of life in Kyrgyzstan. When the population is engaged in resource management and participation in public discussions, it allows considering the interests of citizens and making governance more transparent and effective. It is necessary for citizens to feel their significance in the decision-making process, which contributes to strengthening democracy and increasing trust in public institutions.

Creating platforms for dialogue between the state and citizens, such as local councils and community initiatives, helps the population to be more involved in the processes affecting their lives (Dziundziuk *et al.*, 2024; Adamkulova *et al.*, 2025). These platforms enable citizens to discuss current problems and propose solutions that can lead to an improved quality of life. For example, through such initiatives, residents can share their ideas for improving infrastructure, education, healthcare, and the environment, making governance more inclusive. Furthermore, citizens who are actively involved in policy making can make suggestions to improve living conditions and monitor the implementation of social programmes. This engagement not only increases the government's accountability to citizens but also strengthens the public's confidence that their voice matters. In this way, public participation serves as an effective mechanism for monitoring the performance of the authorities, which helps to identify and address weaknesses in governance.

Citizen engagement creates a sense of responsibility and belonging to the community, which contributes to social stability and trust in public institutions. When citizens see that their opinions are respected and their proposals are implemented, it bolsters their commitment to society and increases engagement in public life. Furthermore, public engagement can reduce corruption and increase the effectiveness of public programmes, as citizens will be

more interested in controlling the use of public resources. It is also vital to develop programmes to train citizens in skills necessary for active political participation, such as public debate, legal education, and project management. This will not only help to increase public engagement but also strengthen critical thinking and active citizenship skills. Thus, to improve the quality of life in Kyrgyzstan, it is necessary to focus on four key strategic priorities: economic development, social policy, environmental sustainability, and citizen engagement. These strategies are interrelated and can considerably affect the overall well-being of the population. An integrated approach to implementing these priorities will create a sustainable and equitable system that meets the needs of all segments of society. Successful implementation of these strategies requires concerted action on the part of government, business and civil society, which will lead to long-term positive results and improved quality of life for all citizens of Kyrgyzstan.

### 3. Discussions

The study analysed the dependence of the level of quality of life in Kyrgyzstan on various factors. Economic development, particularly job creation and income growth, was found to significantly affect the overall well-being of citizens. Improving employment conditions in sectors such as agriculture and tourism was found to be one of the key drivers of improved living standards. These findings emphasise the significance of supporting these areas of the economy for long-term improvements in living conditions. Studies with comparable findings by various researchers confirm the link between economic development and quality of life. For example, Walker, Druckman, and Jackson (2021) found that economic development is directly related to the improvement of living standards as economic growth leads to an increase in the income and wealth of citizens. At the same time, the cited study emphasised the positive aspects of economic growth, while the present study pointed to the need for a comprehensive approach that addresses the specifics of individual sectors, such as agriculture and tourism. This is particularly relevant for Kyrgyzstan, where these sectors play a significant role in economic development.

Aman *et al.* (2022) also emphasised the significance of job creation as a key factor in improving the quality of life. New jobs reduce unemployment and provide stable sources of income, which improves the welfare of the population. In contrast to the current study, Aman *et al.* focused on working conditions and safety at workplaces, emphasising their significance for sustainable economic growth and quality of life. Therewith, economic development can lead to unequal distribution of benefits, which negatively affects the quality of life of certain social groups and regions. In a growing economy, social and economic gaps emerge, with some regions or segments of the population benefiting more than others. Fitrianto *et al.* (2023) confirmed that without adequate social policy measures, economic growth can increase inequality. These findings are consistent with current research that emphasises the significance of designing policies to distribute economic benefits evenly.

Social policies aimed at increasing access to basic services such as healthcare and education play a key role in generating a high standard of living. It was found that access to quality education and health services in remote areas is severely limited, which creates further hardship for the population. These findings emphasise the need to modernise educational institutions and introduce modern technologies in the healthcare system to ensure equal opportunities for citizens regardless of geographical location (Le *et al.*, 2024). Fitrianto *et al.* (2023) highlighted the necessity of effective social programmes to support vulnerable groups, which helps to reduce inequalities and meet the basic needs of citizens. These findings are consistent with the results of the current study, however, Fitrianto *et al.* focused on the programmes already in place, while the current analysis focused on the identified gaps and the need for social policy reform.

Yao *et al.* (2021) showed that modernisation of the education and healthcare system is a vital element of social policy aimed at improving the overall standard of living. Unlike the current study, which focused on problems in Kyrgyzstan, S. Yao *et al.* emphasised the introduction of innovative practices that can be a valuable complement to existing policies, especially in healthcare and education services. Environmental sustainability is an essential aspect of analysing factors affecting quality of life (Hussain *et al.*, 2022; Hadasik *et al.*, 2025). The findings of the present study revealed that environmental pollution negatively affects the health of the population, which reduces the quality of life. These findings are supported by the studies of Zhang and Dong (2023), who emphasised the relationship between environmental protection and the level of population health. However, their study did not address the specific regional features, which is of significant relevance for Kyrgyzstan, considering the climatic and environmental conditions. Sheehy and Farneti (2021) emphasised the need to introduce environmentally friendly technologies and develop sustainable strategies that address global challenges such as climate change. This aspect coincides with the current findings, however the cited study emphasised international aspects while the present study focused on national green initiatives.

These findings are consistent with the findings outlined in the previous section, emphasising that environmental sustainability is an integral part of public policy and is necessary not only to protect the environment but also to preserve public health. Active engagement of citizens in the decision-making process is a major factor contributing to the improvement of the quality of life. New international case study by Nguyen, Drejer, and Marques (2024) show that co-designing services and structured citizen panels measurably improve innovation outcomes and legitimacy. The study found that citizen involvement in resource management and participation in public discussions contributes to more transparent and efficient management. This helps to recognise the interests of diverse populations and develop more inclusive initiatives. Tran and La (2022) confirmed that active citizen engagement in governance is key to ensuring transparency and accountability of public institutions. Unlike the findings of the current study, which focused on the problems of lack of citizen engagement, Tran and La focused on positive examples of effective civic engagement in advanced democracies. Casero-Ripollés (2021) also pointed out the significance of creating platforms for dialogue between public authorities and citizens, which enable the exchange of opinions and collaborative problem-solving. The researcher highlighted the need for such platforms for active citizen engagement and social justice, which confirmed the findings of the current study on the need to create conditions for dialogue.

Based on the analysis of the study findings, an integrated approach involving the coordinated interaction of all aspects of governance is necessary to improve the living standards of citizens. It is essential to consider the interrelationship between economic, social, and environmental factors as they influence each other. The development of integrated strategies aimed at sustainable development of all areas can greatly improve the quality of life of the population. Brinkhof *et al.* (2021) argued that an integrated approach to problem solving involves recognising the interrelationship of the various factors that influence quality of life. Their study highlighted the necessity of analysing the interrelationship of economic, social, and environmental aspects, which is essential for sustainable development. However, their study did not address the cultural factors, which is a prominent aspect for Kyrgyzstan. Zhang *et al.* (2022) found that integrated strategies for sustainable development become a necessary tool for achieving harmony between economic growth and environmental conservation. Such strategies provide synergies between distinct sectors, enabling the implementation of joint projects that accommodate the interests of all stakeholders. As a result, an integrated approach promotes more holistic and balanced development, which ultimately improves the quality of life and creates a sustainable society.

Thus, the findings of the present study provided valuable data on the state of the quality of life in Kyrgyzstan and identified the principal areas requiring attention. The need to further study the influence of cultural and historical factors on the perception of quality of life stays relevant. It is necessary to continue to improve the living conditions of citizens by focusing on economic development, social policy, environmental sustainability, and active engagement of the population in governance. This will create conditions for sustainable and comprehensive growth of welfare and improvement of the quality of life in the country.

## Conclusions

The study found that the quality of life in Kyrgyzstan depends on various theoretical frameworks and methodological approaches that should be considered when developing strategies to improve it. Theoretical models, such as the triple balance model, emphasise the significance of the interaction of economic, social, and environmental factors. Analyses of these components revealed that increasing income levels and job creation are paramount to improving the overall well-being of citizens. This is because a stable income enables basic needs such as food, shelter, and healthcare to be met, which then affects the overall perception of quality of life.

Methodological approaches, incorporating both qualitative and quantitative methods, provided a comprehensive picture of the current state of quality of life. This data is critical for the formulation of effective social policies aimed at eliminating existing disparities.

The results suggest that governments and policymakers should prioritise inclusive economic initiatives that promote employment in important industries, particularly tourism and agriculture, while maintaining regional equity. The Human Development Index can be considerably raised by making wise investments in renewable energy, infrastructure, and education. In order to increase social trust and accountability, governments should also provide procedures for citizen participation in decision-making. The report provides managers and company executives with advice on how to match corporate plans with social and environmental goals. By implementing sustainable manufacturing methods, making investments in worker welfare, and assisting with community development projects, businesses operating in Kyrgyzstan and comparable environments can increase their competitiveness. In addition to enhancing public perception, corporate social responsibility initiatives and the prudent management of natural resources support long-term economic stability. The report draws attention to the expanding prospects in

industries associated with sustainable development for investors. Modern agricultural systems, ecotourism, clean technology, and renewable energy investments are anticipated to produce both financial gains and favourable social effects. In line with ESG principles, promoting green innovations and socially conscious businesses would also aid in luring in foreign investment.

Thus, an integrated approach that incorporates all these aspects is a prerequisite for sustainable development and improved quality of life in the country. Public involvement, transparency of processes, and cooperation between the state and citizens can lead to a more favourable social environment and long-term changes for the better.

### Limitations and Future Research

Because it only includes Kyrgyzstan and a few surrounding Central Asian nations, leaving out other pertinent economies with comparable socioeconomic patterns, the study's sample makeup is one of its limitations. Accordingly, future studies should broaden their geographic focus by incorporating more nations from other regions in order to facilitate more comprehensive comparison analyses and to find more broadly applicable trends in the factors that influence quality of life. Another drawback is the lack of comprehensive microeconomic data, which might offer more profound understandings of economic inequality and welfare dynamics within the populace. Examples of such data include consumption patterns, household-level income distribution, and individual labour market indicators. Such data would enable a more sophisticated understanding of the relationship between economic growth and personal well-being in future research. Additionally, not enough research has been done on how organisational culture may affect how people perceive their quality of life. The impact of organisational ideals, managerial styles, and institutional norms on employee satisfaction, productivity, and general quality of life should be the focus of future research, especially in the public sector. A more thorough and multifaceted model of quality-of-life assessment in the framework of sustainable socioeconomic development would result from future research that addresses these issues.

### Declarations

#### Credit Authorship Contribution Statement:

**Asmat Oruntaeva:** Conceptualization, Investigation, Methodology, Formal analysis, Writing – original draft, Data curation, Writing – review and editing;

**Elmira Djumaliyeva:** Conceptualization, Investigation, Methodology, Project administration, Formal analysis, Writing – original draft, Writing – review and editing.

**Declaration of Competing Interest:** The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

**Declaration of use of generative AI and AI-assisted technologies:** The authors declare that they have not used generative AI and AI-assisted technologies during the preparation of this work.

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