

# **THESIS**

**NADIRA BAUYRZHANKYZY**  
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**Methods and Mechanisms of Rural Development in Kazakhstan**

**Supervisor:**

Dr. Tibor Farkas

Associate Professor

**Author:**

**Nadira Bauyrzhankyzy**

G4X96K

**Institute of Rural Development and Sustainable Economy**

**Department of Rural and Regional Development**

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# 1. Introduction

Sustainable development of rural areas is one of the main goals of the modern state agrarian policy. The implementation of the state policy of rural development will ensure the solution of the existing economic, social, demographic, and environmental problems while preserving the natural resource and historical and cultural potential of rural areas.

The issues of the conceptual apparatus in the field of sustainable development of rural territories in the context of digital transformation have not been sufficiently studied and remain debatable, the system of directions for sustainable development of rural territories has not been sufficiently developed, and there are no comprehensive solutions for the digital transformation of rural territories affecting both the social sphere and the sphere of production. The relevance of the mentioned issues, their social and economic significance and insufficient compliance with modern scientific trends predetermined the choice of the topic, setting the goals and objectives of the dissertation research.

Due to the fact that Kazakhstan has a huge differentiation of socio-economic, natural-ecological, and national-ethnic factors of development, in order to ensure the sustainable development of rural areas, measures for the development of rural areas at the state level should be supplemented by regional and municipal programs and projects of integrated and sustainable development of agriculture and rural territories aimed at improving living conditions in rural areas. The solution of the tasks requires constant improvement of the mechanism of sustainable development of rural areas, which determines the relevance of the topic of this thesis research.

Many aspects of sustainable development of rural territories remain controversial, insufficiently developed; further study of theoretical and methodological problems of sustainable development of rural territories, improvement of the mechanism of sustainable development of rural territories, especially at the regional and municipal level is required. Rural territories, having a huge resource potential and being a social and industrial basis, need to ensure their sustainable development and stable functioning of all socio-economic subsystems. Currently, this course is stated in the main strategic and prognostic documents formed in the regulatory framework of the sustainable development of the Republic of Kazakhstan and its subjects.

The *objective* of the study is to study and substantiate the mechanism of sustainable development of rural areas and develop scientific and methodological recommendations for its improvement based on methods and mechanisms that have already been implemented and show positive results in certain regions. The object of the study is the rural territories of Enbekshikazakh district in Kazakhstan.

The theoretical and methodological basis of the dissertation research was the works of domestic and foreign scientists in the field of sustainable development of rural areas, agro-industrial complex and local self-government, methodological and reference materials, data from the State Statistics of Kazakhstan of the Enbekshikazakh district, statistical and operational information of local self-government bodies of the Enbekshikazakh district, regulatory legal acts of state, regional and local authorities, the results of the research is conducted and given by the author.

The hypotheses of the study states: “*Will the proposed improvement of the mechanism of rural development increase the regional competitiveness and socio-economic conditions?*”, “*Can systematic approach in rural development participate in solving the social problems?*” and “*Can the proposed planning system ensure sustainable development of the chosen settlement?*”.

The *goals* of the study is to study the methods and mechanisms of the rural development of Kazakhstan and reveal whether it require constant improvement or not, propose improvement of the mechanism of rural development in order to increase the regional competitiveness and socio-economic conditions, prove that systematic approach in rural development can participate in solving the social problems and ensure that proposed planning system will secure the sustainable development of the chosen settlement.

The *practical significance* of the study lies in the development of methodological recommendations that ensure the improvement of the mechanism of sustainable development of rural areas. The main results obtained during the thesis work can be the basis for the development and implementation by regional and local authorities of programs and projects for the socio-economic development of rural areas.

## 2. Rural Development

The definition of the rural development refers to the process of improving the standard of living and economic conditions of people living in rural areas. Rural development encompasses a wide range of activities that set its goal to bring about social and economic change in rural communities. In recent years, it has gained increasing attention as a means of reducing poverty and promoting sustainable economic growth.

Rural development reflects economic, social, and environmental development of rural areas, which are often described by low population density, limited economic opportunities, and challenges related to access to basic services and infrastructure. The concept of the rural development has developed over time, reflecting changing economic, social, and political contexts, as well as the emergence of new challenges and opportunities. This literature review provides a comprehensive overview of the academic literature on rural development, focusing on the major themes, theories, and policy debates in this field.

Rural development has been approached from various theoretical perspectives, reflecting several assumptions about the drivers and processes of development. Classical theories of rural development, as modernization theory or dependency theory, emphasized the role of external factors such as capital, technology, and markets in driving rural development (*Díaz-Puente and Maroto-Sánchez, 2015*). Later on the theories, such as the livelihoods approach and the capabilities approach, highlighted the importance of local context, institutions, and agency in shaping rural development outcomes (*Scoones, 2009; Sen, 1999*).

Rural development is influenced by a number of factors, including economic, social, and environmental factors. Economic drivers of rural development include agricultural modernization, rural enterprise development, and rural tourism (Faggian et al., 2017). Social drivers include community empowerment, social capital formation, and rural education and training (Liu et al., 2017). Environmental drivers include sustainable natural resource management, climate change adaptation, and biodiversity conservation (Conradie et al., 2016).

Rural development faces a number of challenges, including persistent poverty and inequality, limited access to basic services and infrastructure, environmental degradation, and the impacts

of globalization and urbanization (Ezui et al., 2020). However, rural areas also offer unique opportunities, such as the potential for sustainable agriculture and renewable energy, the preservation of traditional knowledge and cultural heritage, and the provision of ecosystem services (Chen et al., 2019).

Governments and international organizations have implemented a number of policies and strategies to promote rural development, including rural infrastructure development, agricultural modernization, and rural enterprise promotion. However, these policies have often been criticized for their top-down technocratic approach and their lack of attention to local context and community participation (Chambers, 2019). More recent approaches to rural development, such as the territorial approach and the human development approach, emphasize the need for a more holistic, integrated, and participatory approach that takes into account the multiple dimensions of rural development (Wiggins and Proctor, 2018; UNDP, 2014).

Rural development is closely linked to achieving the United Nations Sustainable Development Goals (SDGs), particularly SDG 1 (no poverty), SDG 2 (no hunger), and SDG 8 (decent work and economic growth). However, achieving these goals requires a transformative and inclusive approach to rural development that addresses the root causes of poverty, inequality, and environmental degradation (Gómez and Rauschmayer, 2017).

In recent years, there has been a growing emphasis on the importance of sustainable development in rural areas. Sustainable rural development is defined as a process of enhancing the economic, social, and environmental well-being of rural communities through the adoption of sustainable development principles and practices (Chen et al., 2019). This includes the promotion of sustainable agriculture, the development of renewable energy sources, and the protection of natural resources and biodiversity (Gómez & Rauschmayer, 2017).

One of the key challenges facing rural development is the need to balance economic growth with environmental sustainability. This is particularly important in developing countries, where rural areas are often the primary source of natural resources and the mainstay of the economy (Ezui et al., 2020). To achieve sustainable rural development, it is necessary to adopt an integrated approach that takes into account the economic, social, and environmental dimensions of development (Chen et al., 2019).

A key driver of rural development is entrepreneurship. Entrepreneurship has been found to play an important role in promoting economic growth and creating employment opportunities in rural areas (*Faggian et al., 2017*). However, the success of entrepreneurship in rural areas is often dependent on a range of factors, including access to finance, skills, and knowledge (*Chambers, 2019*). Therefore, policies that promote entrepreneurship in rural areas need to address these factors.

Another important aspect of rural development is the role of social capital. Social capital refers to the networks, norms, and trust that exist within a community (*Liu et al., 2017*). Social capital has been found to play an important role in promoting rural development by facilitating cooperation and collaboration among community members (*Liu et al., 2017*). This includes the development of community-based organizations and the promotion of participatory approaches to development.

Despite the potential benefits of rural development, there are also a number of challenges that need to be addressed. One of the key challenges is the need to reduce rural poverty and inequality. Rural areas are often characterized by high levels of poverty and inequality, with limited access to basic services such as healthcare, education, and clean water (*UNDP, 2014*). Therefore, policies that promote rural development need to address these issues in order to achieve sustainable development.

Rural development is a complex and multifaceted process that requires an integrated approach that takes into account the economic, social, and environmental dimensions of development. Sustainable rural development is essential for promoting economic growth, reducing poverty and inequality, and protecting natural resources and biodiversity. Policies that promote entrepreneurship, social capital, and the reduction of poverty and inequality are key to achieving sustainable rural development.

One of the key challenges facing rural development is the issue of land ownership and land tenure. Land is a crucial resource for rural communities, but in many cases, land is concentrated in the hands of a few wealthy landowners, while small farmers and rural communities are marginalized and lack access to land (*Garcia, 2019*). This can lead to rural poverty, food insecurity, and social unrest. Therefore, policies that promote equitable land distribution and

secure land tenure for small farmers are critical for achieving sustainable rural development (*Bengtsson et al., 2018*).

Another challenge facing rural development is the lack of infrastructure in rural areas. Rural communities often lack access to basic infrastructure such as roads, water supply, and electricity (*Farrington et al., 2017*). This limits the economic opportunities available to rural communities and hinders their ability to access markets and participate in the global economy. Therefore, policies that promote investment in rural infrastructure are essential for achieving sustainable rural development.

Technology and innovation can also play an important role in promoting rural development. The use of technology and innovation can improve agricultural productivity, increase access to information and services, and promote the development of new economic activities (*Rogers et al., 2018*). However, the benefits of technology and innovation are often unevenly distributed, with rural communities often lacking access to the latest technologies and innovations. Therefore, policies that promote the diffusion of technology and innovation in rural areas are critical for achieving sustainable rural development.

Finally, it is important to recognize that rural development is not a one-size-fits-all approach. Different rural areas face different challenges and opportunities, and policies need to be tailored to local conditions and needs (*Lobao & Meyer, 2018*). Therefore, policies that promote bottom-up, participatory approaches to rural development are essential for achieving sustainable development outcomes. Rural development is a complex and multifaceted process that requires an integrated approach that takes into account the economic, social, and environmental dimensions of development. Equitable land distribution, investment in rural infrastructure, the promotion of technology and innovation, and the use of participatory approaches are key to achieving sustainable rural development. Policies need to be tailored to local conditions and needs to achieve sustainable development outcomes.

## *2.1 Definition of “Rural” in Kazakhstan*

According to the majority of scientists in Kazakhstan, the concepts of "rural area" and "rural territories" are identical (*Tokbergenova et al., 2018*). However, until now, there is no consensus among scientists and production workers on the interpretation of the term "rural territories" ("rural area").

In many scientific works, rural territories are the territories of rural settlements and inter-settlement territories adjacent to rural settlements and used for production and life support, that is, territories outside urban boundaries that have been developed in the process of human activity. Considering the concept of "rural settlement", it should be noted that in the main regulatory legal documents of the state level on sustainable development of rural territories, the following definition is given: "a rural settlement is one or several rural settlements united by the common territory (villages, stanitsas, villages, hamlets, auls and other rural settlements points) in which local self-government is carried out by the population directly and (or) through elected and other local self-government bodies." This definition is recognized by the majority of scientists and specialists and has entered the conceptual vocabulary of many scientific works on sustainable rural development.

Speaking about the territories of rural settlements, it should be noted that in accordance with the "*Land Code of Kazakhstan*", lands of settlements are recognized as lands used and intended for the development and development of urban and rural settlements and separated by their line from lands of other categories. Types of rural areas as complex territorial systems are formed on the basis of combinations of the main functional systems of the economy, which are in interaction with the natural environment, the settlement of the population and have a certain industrial and social infrastructure.

In different countries of the world, different criteria for the typification of rural areas are used. The typification of rural areas developed by the *Organization for Economic Development and Cooperation (OECD)* is internationally recognized. It is shown in **figure 1**.

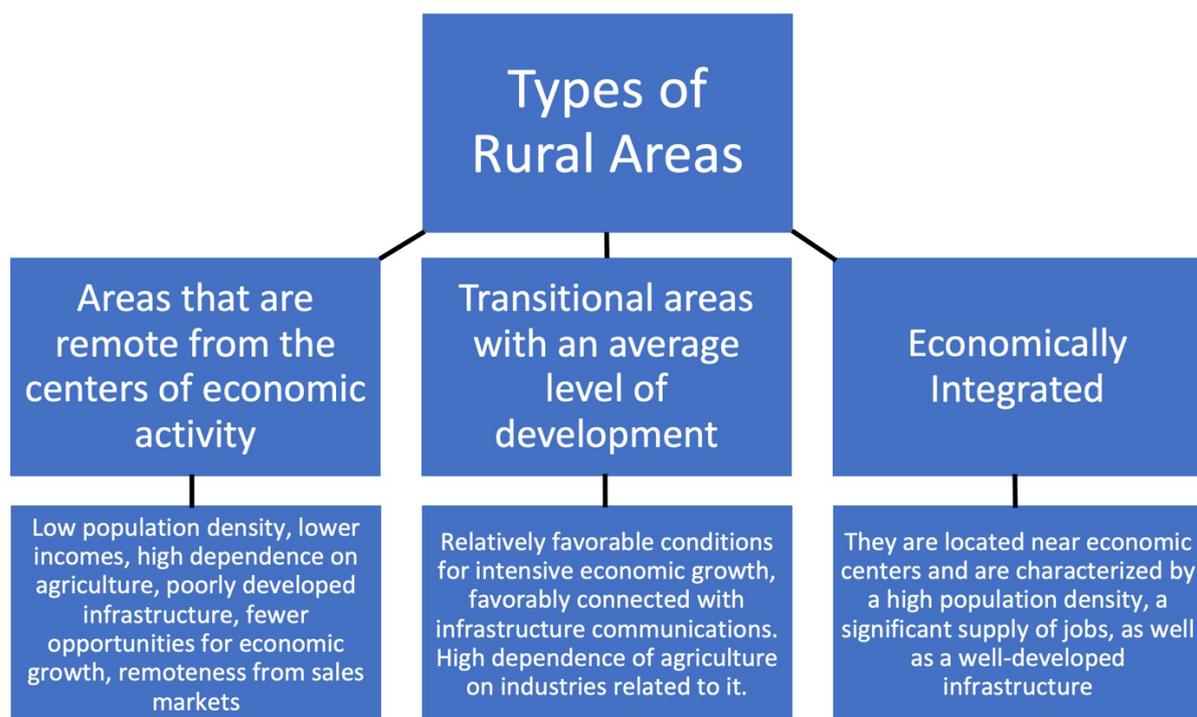


Figure 1. Typification of rural areas by *OECD*.

Source: *Organization for Economic Development and Cooperation*

According to it, there are four groups of subjects of Kazakhstan with different conditions of rural development (*Resolution 733, 2022*):

- regions with predominantly agricultural specialization of rural areas, favorable natural and social conditions for its development;
- regions with a multifunctional rural economy, suburban agriculture, and favorable social conditions for rural development;
- regions with unfavorable social conditions of rural development and extensive zones of socio-economic depression;
- regions with weak focal development of rural areas and unfavorable natural and climatic conditions of its development.

Enbekshikazakh district belongs to the first group of regions with predominantly agricultural specialization of rural areas, favorable natural and social conditions of development and is one of the promising agricultural regions of Kazakhstan, one of the centers of food security of the country. The peculiarities of rural territories of the subjects of Kazakhstan occur under the influence of conditions and factors common to them; each rural territory has its own characteristics that develop under the influence of local conditions and factors. Currently, there is a growing awareness in Kazakh society of the need for purposeful and sustainable

development of rural areas. Many of its problems have been identified, but strategies for solving them have not yet been developed. This requires an approach that would combine the solution of all the main problems of rural areas within a single concept of its sustainable development.

## *2.2 Methods of Rural Development*

Rural development is a complex and multifaceted process that requires the use of a range of different methods and approaches. In this section, we review the different methods of rural development that have been used in practice and discuss their strengths and weaknesses.

*Participatory approaches* are a key method of rural development. These approaches involve working with local communities to identify their needs and priorities, and to develop solutions that are tailored to their specific circumstances (*Chambers, 2019*). Participatory approaches can take many different forms, including community-based planning, participatory budgeting, and participatory monitoring and evaluation. The strengths of participatory approaches are that they are inclusive, empowering, and grounded in local knowledge and expertise. By involving local communities in the development process, participatory approaches can ensure that development initiatives are more responsive to local needs and priorities, and are more likely to be sustainable in the long term (*López-Ridaura et al., 2017*). However, participatory approaches can also be time-consuming and resource-intensive, and may require significant capacity-building efforts to ensure that local communities are able to fully participate in the development process.

*Market-based approaches* to rural development focus on promoting private sector investment and entrepreneurship in rural areas (*Faggian et al., 2017*). These approaches aim to create a more enabling environment for private sector investment by improving access to credit, providing business development services, and promoting entrepreneurship education and training. The strengths of market-based approaches are that they can leverage private sector resources and expertise to drive economic growth and job creation in rural areas. Market-based approaches can also promote innovation and the development of new products and services, which can contribute to broader economic development goals. However, market-based approaches may also be less effective in addressing the needs of marginalized and

vulnerable groups, and may exacerbate inequalities if not implemented carefully (*Garcia et al., 2018*).

*Integrated approaches* to rural development aim to address the economic, social, and environmental dimensions of development in a holistic and integrated manner (*UNDP, 2014*). These approaches recognize that rural development is a multifaceted process that requires the use of a range of different interventions and methods. The strengths of integrated approaches are that they can promote sustainable development outcomes by addressing the interdependent and complex nature of rural development challenges. By taking a holistic and integrated approach, integrated approaches can ensure that development initiatives are more effective, efficient, and sustainable in the long term. However, integrated approaches can also be complex and difficult to implement, and may require significant coordination and collaboration across different sectors and stakeholders (*Gómez & Rauschmayer, 2017*).

*Technology-based approaches* to rural development focus on promoting the use of technology and innovation to improve agricultural productivity, increase access to information and services, and promote the development of new economic activities (*Chen et al., 2019*). Technology-based approaches can include the use of mobile phone applications, precision agriculture technologies, and renewable energy technologies, among others. The strengths of technology-based approaches are that they can promote economic growth and productivity, and can help to address rural development challenges in a cost-effective and scalable manner. Technology-based approaches can also help to bridge the digital divide between urban and rural areas, and can promote greater access to information and services. However, technology-based approaches may also be less effective in addressing social and environmental challenges, and may require significant investment in infrastructure and capacity-building efforts to ensure that local communities are able to fully benefit from new technologies (*Liu et al., 2017*).

*Policy and institutional approaches* to rural development focus on promoting policy and institutional reforms to create an enabling environment for rural development (*IFAD, 2020*). These approaches aim to address systemic barriers to rural development, such as limited access to resources, inadequate infrastructure, and weak governance systems. The strengths of policy and institutional approaches are that they can promote systemic change and long-term sustainability by addressing the root causes of rural development challenges. Policy and

institutional approaches can also help to create an enabling environment for other methods of rural development, such as participatory and market-based approaches. However, policy and institutional approaches may be less effective in addressing immediate development needs, and may require significant political will and coordination across different levels of government and stakeholders (Swanson *et al.*, 2017).

*Community-driven development* approaches aim to empower local communities to take a lead role in the development process by providing them with the resources and support needed to identify and implement their own development initiatives (World Bank, 2015). These approaches can include the use of community development funds, community-based organizations, and community-driven planning processes. The strengths of community-driven development approaches are that they can promote local ownership and sustainability, and can ensure that development initiatives are responsive to local needs and priorities. Community-driven development approaches can also promote social inclusion and empowerment by giving marginalized groups a greater voice in the development process. However, community-driven development approaches may be less effective in addressing systemic development challenges, and may require significant capacity-building efforts to ensure that local communities are able to effectively manage and implement their own development initiatives (Kabubo-Mariara *et al.*, 2016).

Rural development requires the use of a range of different methods and approaches to address the complex and multifaceted challenges facing rural communities. Participatory, market-based, integrated, technology-based, policy and institutional, and community-driven development approaches are just a few examples of the different methods that have been used in practice. Each of these methods has its own strengths and weaknesses, and the most effective approach will depend on the specific context and development goals of each rural community. By using a combination of these methods, and by tailoring them to the specific circumstances of each community, we can promote sustainable and inclusive rural development that benefits all members of rural communities. In addition to the previously discussed methods of rural development, there are also some emerging approaches that are gaining attention in the literature.

One such approach is agroecology, which is an *ecological and social approach* to agriculture that emphasizes the integration of natural systems and local knowledge into farming practices

(Altieri, 2018). Agroecology aims to promote sustainable and resilient food systems, reduce environmental impacts, and increase food security and sovereignty. In the context of rural development, agroecology can help to promote sustainable agriculture practices, enhance local food systems, and empower small-scale farmers and rural communities (Rosset & Altieri, 2017).

Another emerging approach is *social innovation*, which involves the development and implementation of new solutions to social challenges through the collaboration of multiple stakeholders (Moulaert et al., 2013). In the context of rural development, social innovation can help to promote community-driven approaches that are tailored to the specific needs and challenges of each community. Social innovation can also promote collaboration across different sectors and stakeholders, and can lead to the development of more inclusive and sustainable rural communities (Cajaiba-Santana, 2014).

Finally, there is also growing recognition of the importance of *gender in rural development*. Gender inequalities can be a significant barrier to rural development, as they can limit women's access to resources, decision-making power, and economic opportunities (Doss et al., 2014). Therefore, it is important to adopt gender-sensitive approaches to rural development that promote women's empowerment, address gender inequalities, and ensure that women have an equal voice in the development process (UN Women, 2019).

In conclusion, the methods and approaches to rural development are diverse and multifaceted. By adopting a combination of participatory, market-based, integrated, technology-based, policy and institutional, community-driven, agroecological, social innovation, and gender-sensitive approaches, we can promote sustainable and inclusive rural development that addresses the complex challenges facing rural communities.

### *2.3 Mechanisms of Rural Development*

The main definition of rural territories in the scientific literature of Kazakhstan uses such a definition – it is a locality located outside the boundaries of cities, including an inter-settlement territory and settlements with local residents. This is a development that leads to economic growth and distributes its results fairly, restores the environment to a greater extent than it destroys it, increases people's opportunities, and does not impoverish them

(Tokbergenova et al., 2018). This is a human-centered development focused on nature conservation, employment, and the realization of the rights of women and young people

Rural development mechanisms refer to the tools, instruments, and approaches used to promote economic and social development in rural areas. The mechanisms used for rural development can vary depending on the specific goals and needs of each community, but there are several commonly used mechanisms that are considered effective in promoting rural development.

*Grants and subsidies* are financial transfers provided by government or other organizations to support rural development projects. These transfers can be used to support a variety of activities, such as infrastructure development, education and training programs, or the development of rural-based businesses (World Bank, n.d.). Grants and subsidies can be an effective mechanism for promoting rural development, as they provide communities with access to resources that they may not have otherwise. However, it is important to ensure that grants and subsidies are used effectively and efficiently, and that they are based on the needs and capacities of local communities (Food and Agriculture Organization of the United Nations, n.d.).

*Credit and microfinance* are mechanisms that provide financial services to rural communities, including access to loans and savings services. Microfinance programs are designed to provide financial services to low-income populations, and they can play a crucial role in promoting rural development by providing communities with access to the capital they need to start or expand businesses and other economic activities (World Bank, n.d.). Credit and microfinance programs can also help to promote financial inclusion and reduce poverty in rural areas (Food and Agriculture Organization of the United Nations, n.d.).

*Agricultural extension services* are a crucial mechanism for promoting rural development, as they provide farmers with access to information and technical assistance to help them improve their agricultural practices. Extension services can include activities such as training programs, demonstrations, and advice on the use of new technologies and practices (Food and Agriculture Organization of the United Nations, n.d.). Agricultural extension services can play a critical role in promoting rural development by helping farmers to increase their

productivity, improve the quality of their products, and diversify their income sources (World Bank, n.d.).

*Marketing and trade promotion* are mechanisms that aim to improve the competitiveness of rural producers and increase their access to markets. These mechanisms can include activities such as the development of market information systems, the promotion of rural entrepreneurship, and the improvement of transportation and communication networks (World Bank, n.d.). Marketing and trade promotion are important mechanisms for promoting rural development, as they can help to increase the income of rural producers and improve their access to markets, which can lead to increased economic activity and reduced poverty in rural areas (Food and Agriculture Organization of the United Nations, n.d.).

The mechanisms used for rural development can vary depending on the specific goals and needs of each community, but there are several commonly used mechanisms that are considered effective in promoting rural development. These mechanisms include grants and subsidies, credit and microfinance, agricultural extension services, and marketing and trade promotion. The choice of mechanism will depend on the specific needs and capacities of each community, but it is important to ensure that rural development mechanisms are based on the needs and capacities of local communities, and that they promote local ownership and control over development processes.

## *2.4 Sustainable development*

Sustainability manifests itself as a systemic quality and can be viewed according to political, economic, social, demographic, environmental, etc. content. In the study of socio-economic systems, the concept of "sustainability" should be considered as a fundamental concept reflecting one of the most significant phenomena for society concerning the process of reproduction of material goods, its quantitative and qualitative aspects (Andrews, 2009).

Much attention was paid to the study of the sustainability of the system by J.B. Say, who believed that in a market economy, overproduction of goods and economic crises are impossible, since production will generate similar consumption, while flexible and free pricing in the market will lead to a quick reaction to changes in the conjuncture of the

economy, being a guarantee of self-regulation of the economy and ensuring its sustainability (Hall and Klitgaard, 2011).

There are three main types of sustainability: sustainable development, permanent sustainability, hyper-sustainability (fig. 2). One of the generally accepted definitions of the concept of "development" is the following: "Development is the highest type of movement and change in nature and society, associated with the transition from one quality state to another, from the old to the new. Every development is characterized by specific objects, structure (mechanism), source, forms, and orientation" (Escobar, 1992).

#### 2.4.1 Definitions of sustainable development

It should be noted that a generally accepted definition of the concept of "sustainable development" has not yet been formulated. According to *Daly (1990)*, currently, there are about 100 definitions of this concept in the world, which have varying degrees of validity, express a certain point of view, interests, and goals of certain political and economic circles which is sometimes directly opposite.

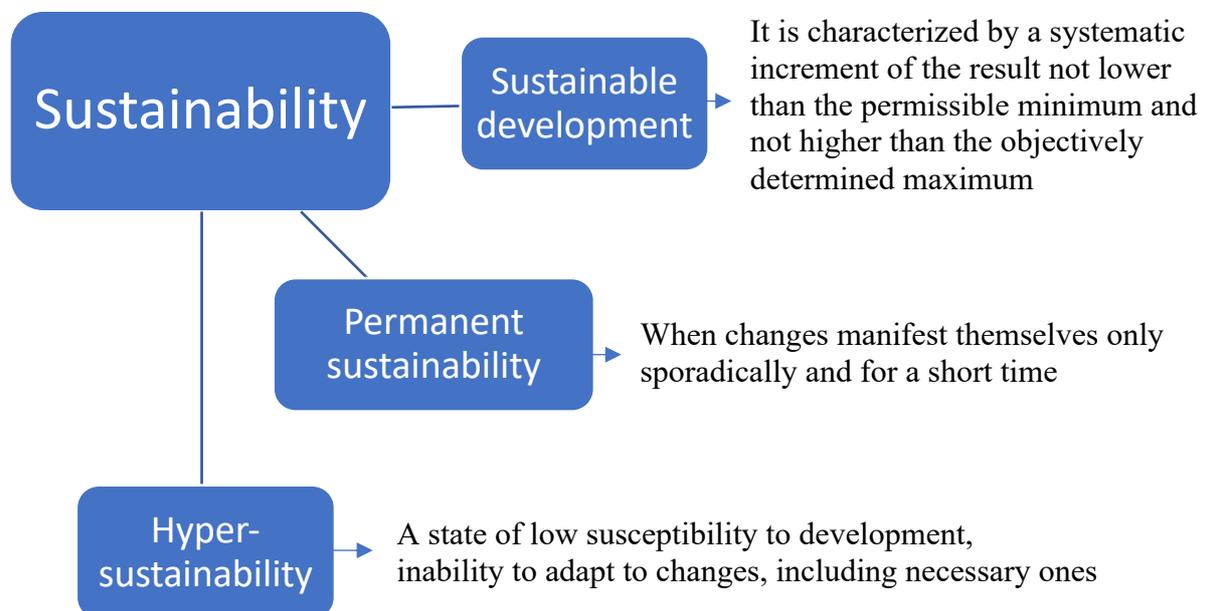


Figure 2. The main types of sustainability

Source: *Alekseev, 2001*

The definition given in the report of the World Commission on Environment and Development (*WCED*) "Our Common Future" is considered to be the main one: "Sustainable development is a development that meets the needs of the present but does not jeopardize the ability of future generations to meet their own needs." A number of scientists believe that the most important components of the national wealth of all countries, along with the produced capital, are natural and human capital. With this in mind, the principle of sustainable development is formulated by them as "capital management in the interests of preserving and increasing human capabilities" (*Hamilton and Hepburn, 2017*).

According to the *FAO* and the *UN*, the analysis of the research of scientists shows that if in the middle of the 20<sup>th</sup> century the model of the development of the world economy was based on the concept of economic efficiency, then since the 70s of the XX century, the protection of the environment, the solution of social and demographic problems has become no less urgent. Joint consideration of economic, social, demographic, and environmental components requires their coordination with the laws of the development of the biosphere and the principles of humanism, taking into account the rights of future generations and involving the population in the decision-making process.

#### *2.4.2 Components of sustainable development*

The assessment of various approaches, views, and points of view made it possible to identify five main components of sustainable development (**fig. 3**):

- economical component requires the rational use of available resources to meet the needs of the current and future generations of people;
- social component involves involving the population in decision-making, preserving, and developing the existing socio-ethnic and historical-cultural potential and taking into account the rights of future generations;
- ecological component assumes, first of all, the preservation of a favorable environment and natural resource potential;
- demographical component is aimed at improving the standard of living of the population, ensuring a comfortable demographic situation;
- institutional component presupposes the existence of a system of regulatory legal acts that provide the legal aspect of solving economic, social, demographic, and environmental problems.

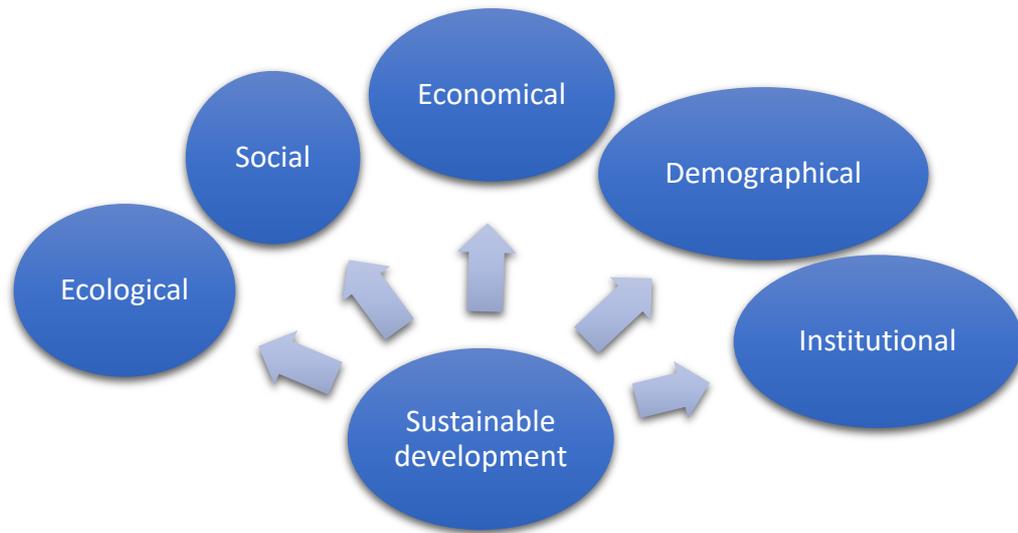


Figure 3. The constituent elements of sustainable development

Source: *Jaca et al., 2012*

The identification of five main components of sustainable development, as outlined above, reflects a widely accepted and multidimensional understanding of sustainability. This approach recognizes the interdependence of economic, social, environmental, and institutional factors, and highlights the need for a holistic approach to sustainable development.

The economic component emphasizes the importance of using resources efficiently to meet the needs of current and future generations, while also recognizing the need to ensure economic growth and development. The social component highlights the importance of community involvement, preservation of cultural heritage, and the protection of the rights of future generations. The ecological component focuses on the preservation and protection of the natural environment and its resources. The demographical component is aimed at improving the standard of living of the population, ensuring a comfortable demographic situation, and promoting sustainable population growth. Finally, the institutional component emphasizes the need for a regulatory framework that supports sustainable development and provides legal and policy guidance to address economic, social, demographic, and environmental challenges.

## 2.5 Mechanisms of sustainable development of rural areas

The concept of a mechanism for sustainable development of rural territories requires constant improvement of the mechanism for the development of rural territories, solving a set of issues related to the choice of directions and tools for their development, based on the existing financial, economic, social, demographic, environmental situation, taking into account the specifics and especially the networks of territorial entities. According to *Ragulina et al., (2021)*, modern economic research constantly uses such concepts as "mechanism", "economic mechanism", "mechanism of sustainable development", "mechanism of sustainable development of rural territories". However, to date there is no clear terminological and conceptual definition of them, there is a wide range of opinions on these concepts.

A distinctive feature of the proposed concept is the presence of a process and the inseparable connection and subordination of the process mechanism. In this concept, the mechanism is distinguished from management, that is, the mechanism is presented as a managed resource of the process. The *essence of the economic mechanism* is defined by him as a set of economic resources and ways of their interaction for the implementation of this economic process.

L. Hurwitz made a great contribution to the development of the theory of economic mechanisms. His proposed formulation defines the economic mechanism as an interaction between subjects and the center, consisting of three stages: each subject privately sends a message to the center  $m_i$ , the center, after receiving all the messages, calculates the expected result  $Y=f(m_i, \dots, m)$ ; the center announces the result  $Y$  and, if necessary, implements it (*Marta, 2017*). The stages of formation of an effective mechanism for sustainable development of rural areas are shown in **figure 4**.

Based on the conducted research of this concept, the following definition is proposed: "the mechanism of sustainable development of rural territories is a developing system consisting of a complex of legal, organizational, economic and financial-budgetary components (tools, forms, methods) aimed at the effective use of natural, labor, material and financial resources of rural territories in the process of their development". The mechanism of sustainable development of rural areas implies the development of institutional, economic, social,

demographic, and environmental factors. It must meet the objectives and requirements of regulatory legal acts of all levels of government.

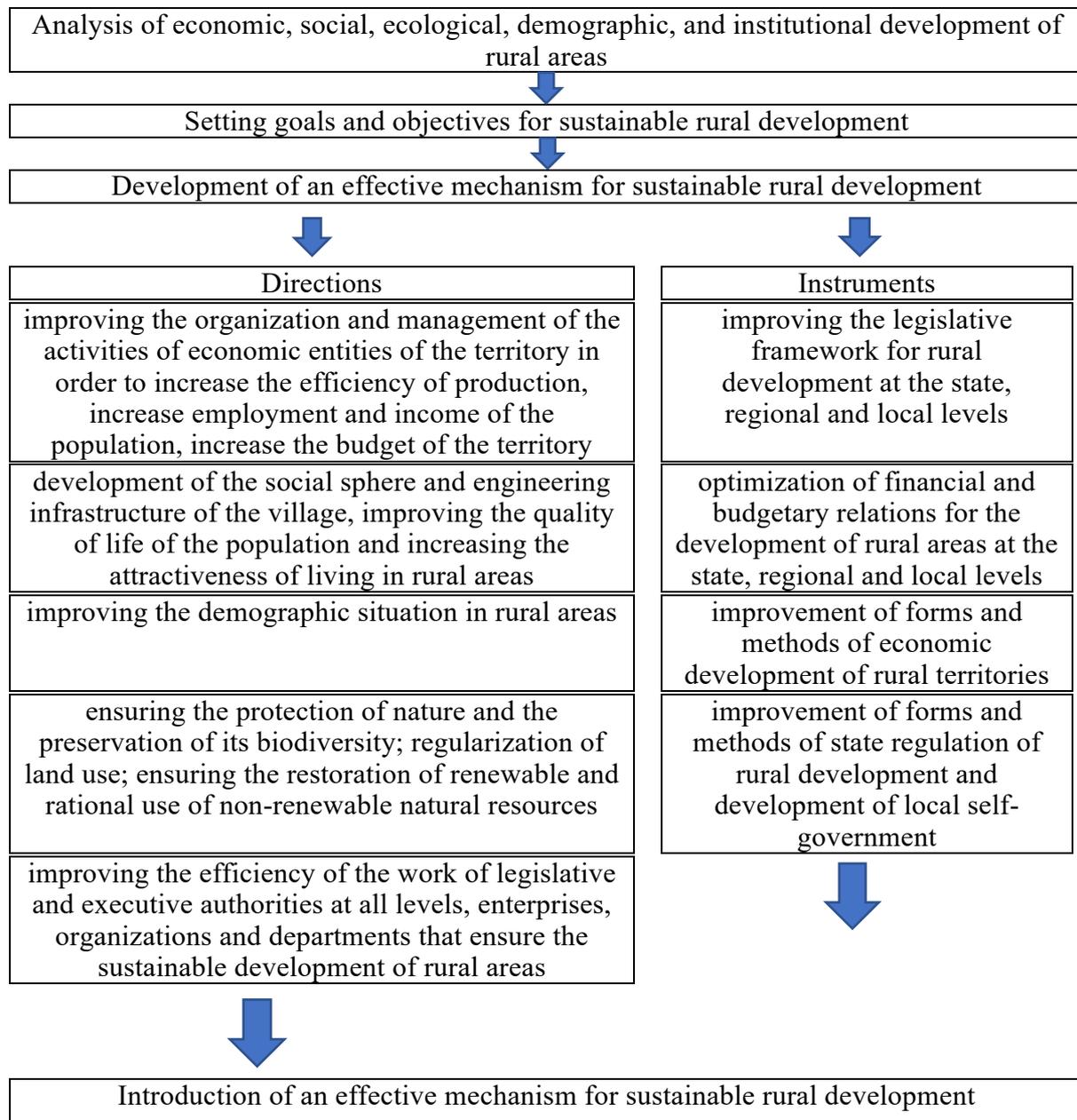


Figure 4. Stages of formation of an effective rural development

Source: Kovalenko et al., 2016, 2015, Savitska et al., 2020, Karakosta et al., 2009

The organizational components of the mechanism are integrated territorial spatial management; development of the system of operational and strategic planning for the development of rural territories; expansion of scientific research in the field of sustainable development of rural territories; strengthening of scientific and methodological support for rural development management bodies at all levels. The economic components of the

mechanism are the integrated development of the economy of rural territories by improving the forms and methods of economic development of rural territories, improving the organization and management of the activities of economic entities of the territory in order to increase production efficiency, increase employment and income of the population, increase the budget of the territory.

The *financial and budgetary components* of the mechanism are a clear alignment of the system of financial and budgetary relations at the region-district-settlement level; increasing tax collection and increasing non-tax revenues; improving the system of inter-budgetary alignment; securing additional sources of income for municipalities; increasing the effectiveness and transparency of budget expenditures; strengthening the responsibility of local governments for the performance of delegated powers.

The main *institutional factors* influencing the socio-economic development of rural areas are the effective organization of power and management at all levels, the development of local self-management and public and professional organizations in rural areas, the improvement of the legislative framework for the development of rural areas, the development of information and consulting activities in rural areas and others.

For effective state regulation of sustainable development of rural areas, it is necessary to have a *system of regulatory legal acts* that provide the legal aspect of solving economic, social, demographic, and environmental problems of rural areas (Kozlovskiy et al., 2017). If the bodies of the country's top political leadership play the main role in the implementation of the strategic tasks of the transition to sustainable development of rural areas, then the main role in the organization and implementation of local plans for the development of rural areas belongs to local authorities. The active participation of local authorities and the population is one of the most important factors in the transition to sustainable development.

To date, two main problems of local budgets can be identified in Kazakhstan: a weak own revenue base and an unbalanced local budget. Studies conducted by a number of scientists have shown that the reason for the low provision of local budgets with their own incomes is the uneven distribution of productive forces across the country (Alibekova, 2019). It is impossible to form local budgets solely at the expense of own sources. Since the differences between municipalities are very large, different territories have too different incomes, and,

according to experts, these incomes vary tens or even hundreds of times. Therefore, many municipalities may find themselves completely without resources, while others will become "over-provided".

In order to avoid this, the state withdraws part of the revenues to higher-level budgets and redistributes them between municipalities with the help of grants, subsidies, and subventions. These forms, along with the differentiation of the standards of deductions from state and regional regulatory taxes, are integral elements of the mechanism of budget equalization. Accordingly, a whole system of financial relations between the state and local self-government is being built, in which, as subsystems, the relations "state budget - local budgets" are included.

Due to the fact that Kazakhstan has a huge differentiation of national-ethnic, natural-ecological, and socio-economic factors of development, in order to ensure the sustainable development of rural areas, the development of local self-government systems should be carried out taking into account regional peculiarities, based on a number of general scientific and methodological provisions. Complex (multi-sectoral) development becomes an integral part of the sustainable development of rural areas and includes socio-economic development, primarily economic and industrial provision of a decent standard of living and activities of rural residents and the development of civil society, environmental management; preservation and development of cultural and historical heritage, etc.

An analysis of the experience of developed European countries allows us to identify the following basic principles for the development of such projects (**fig. 5**). Studies have shown that the implementation of the tasks of sustainable development of rural areas should be carried out on the basis of using the *existing advantages of rural areas*, searching for growth points, identifying, and supporting priority areas of rural development, taking into account their characteristics (*Adamowicz & Zwolińska-Ligaj, 2020*).

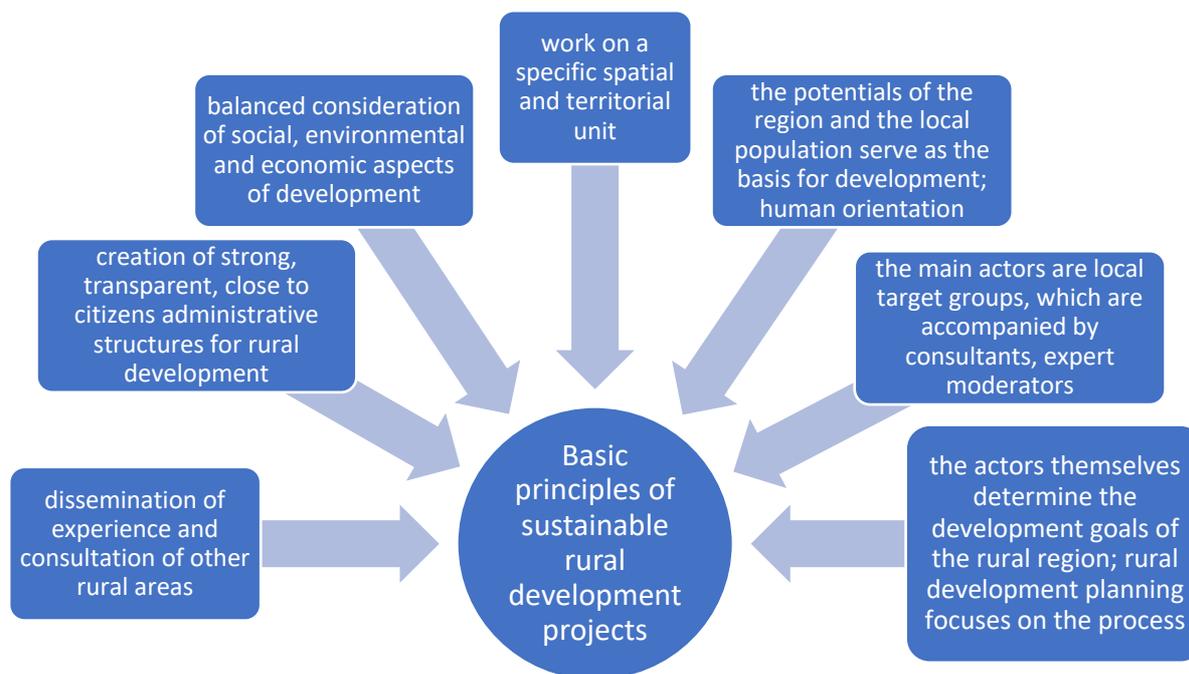


Figure 5. Basic principles for the development of sustainable rural development projects in European countries

Source: *Lowe et al., 1998*

A number of scientists believe that the transition to sustainable development of agriculture and rural areas should be based on an integrated socio-ecological and economic approach to the development of the agro-industrial complex and rural areas. This includes the rationalization of the use of the natural and ecological potential of the territory, the diversification of production and employment of the population, the use of environmentally efficient technologies, the production of environmentally safe products (*Adamowicz & Zwolińska-Ligaj, 2020*).

According to *Edwards (2005)*, socio-ecological and economic approach to the development of the agro-industrial complex and rural areas *in the United States* at the official level emphasizes the importance of five basic guiding principles: production productivity, environmental quality, efficient use of natural resources, economic viability of farms, quality of life. The formation and development of *clusters* in the agro-industrial complex is one of the effective tools for sustainable development of rural areas. The innovative nature of clusters is based on a unique combination of competition and integration processes in them. At the same time, competition acts as an incentive to create innovations, and integration ensures their rapid spread among cluster members.

Clusters are formed using a market mechanism of functioning based on a combination of industries and industries, a combination of different forms of ownership and management, interconnectedness, and complementarity of cluster members, while maintaining their independence and the possibility of competition among themselves. However, currently there is no generally accepted theory of clusters, the necessary conceptual apparatus has not been developed that unambiguously reflects the essence of clusters. This is indicated by M. Porter, one of the leading foreign researchers in this field, who writes that the cluster is a form that has not yet been studied much in theory (*Delgado et al., 2014*).

The most important tool for the sustainable development of rural areas is the *development of public-private partnership*. Public-private partnership is an institutional and organized alliance of public authorities and private business with the aim of implementing socially significant projects in a wide range of fields of activity – from the development of strategically important sectors of the economy to the provision of public services throughout the country or individual territories. Public-private partnership is a legal mechanism for coordinating the interests and ensuring equality between the state and business within the framework of the implementation of economic projects aimed at achieving the goals of public administration (*Klijn & Teisman, 2000*).

The arsenal of forms and methods of public-private partnership accumulated to date allows, while preserving the most important national objects in state ownership, to transfer part of the owner's rights to the private sector. This refers primarily to such functions as the construction, operation, and maintenance of industrial and social infrastructure facilities, as well as their management. Thus, the traditional state sphere of the economy brings its own private goods and services, which creates conditions for the effective functioning of these facilities, their optimal management, and rational use of resources.

In Kazakhstan, the social sector, primarily healthcare and education, are constantly in the spotlight of the state. The state's stimulation of the development of public-private partnership mechanisms in order to overcome negative trends in this area (poor quality, reduced availability of social services) is laid down in the program documents of the socio-economic development of the country (*Mouraviev & Kakabadse, 2016*). There is also a potential interest in participating in "social" projects as a sphere of production and sale of services that

have a steady mass demand. Nevertheless, the Kazakh experience of public-private partnership in the social sphere is extremely limited.

Exploring foreign experience, it should be noted that *modern trends in rural development* include: strengthening of the decentralization process, its connection with the principle of subsidiarity; diversification of agricultural production; restructuring of agriculture and greening of the agro-industrial complex; stabilization and development of the social sphere in rural areas; institutional transformations that promote the development of the local rural economic system, primarily the development of cooperation and agro-industrial integration, the creation of agro-industrial holdings.

Sustainable development of rural areas in *developed European countries* is based on common macro-approaches and regionally differentiated integrated development strategies such as regional development planning, capacity-building planning and decentralization, functional integration of rural and urban areas, implementation of regional development measures, land use planning, creation, and provision of access rights to land, resource management. In practice, individual projects of sustainable rural development have their own characteristics since the analysis of each specific situation gives a specific combination of various measures and elements of the project (*Torre & Wallet, 2014*).

In order to achieve sustainable development of rural areas, it is necessary to develop and implement *incentive mechanisms* that encourage territories to make efforts to strengthen their own resource base and financial potential. The development of such mechanisms requires an objective assessment of the socio-economic condition of rural areas. To assess the state of society's development along the path of sustainable development, certain criteria, indicators of sustainable development, and a monitoring system for the socio-economic development of rural areas are needed.

According to *Bossel (1999)*, *indicators of sustainable development*, on the one hand, should provide a quantitative description of the achievement of sustainable development goals, and on the other hand, should be used to generalize the definition and clarification of key aspects of sustainability. With the help of indicators, it is possible to assess the level of development of a country, region, municipality, predict its future state, draw conclusions about the sustainability of the development of the territory. It is better to select and aggregate indicators

in such a way as to give a quantitative description of the identified problems, based on the database of official statistics for the regions. The system of indicators of sustainable development makes it possible to assess the sustainability of the development of the territory, the results of the implementation of existing regional programs, identify regional problems, adjust socio-economic development plans.

Summing up the results of the conducted research, it can be concluded that *the purpose of forming an effective mechanism for sustainable development* of rural areas is to increase the competitiveness of Kazakh agriculture, increase employment and living standards of rural population, improve their housing conditions, develop engineering infrastructure and social sphere in rural areas, improve the demographic situation in rural areas, environmental protection, conservation and reproduction of used land and other natural resources, development of local self-government and civil society institutions in rural areas.

### **3. Material and Methods**

This paper aims to provide a methodological approach to analyzing socio-economic indicators in rural development through a case study of Enbekshikazakh District. The study analyzes various indicators, such as demographic, economic, and educational, to provide a comprehensive understanding of the district's development status. The methodology includes both quantitative and qualitative approaches to data collection and analysis. This paper also discusses the limitations of the study and offers recommendations for future research.

This study employed a mixed-methods approach, including a statistical analysis and in-depth interviews with regional executive authority members. The interviews were conducted with a purposive sample of 5 regional executive authority experts, selected based on their knowledge and experience in the field of rural development.

This methodological description outlines the steps taken to conduct a socio-economic analysis of Enbekshikazakh district. The purpose of this analysis is to understand the current state of the district's socio-economic conditions and to identify areas for improvement. The analysis will cover a range of economic, social, and demographic indicators, including population demographics, economic indicators, infrastructure, and educational indicators. This analysis will be conducted using both primary and secondary data sources.

#### *3.1 Data collection*

The *data collected* from the statistical analysis and in-depth interviews were analyzed using both descriptive and inferential statistics. Descriptive statistics were used to summarize the data and provide a basic understanding of the characteristics of the sample population. Inferential statistics were used to test hypotheses and determine the relationships between variables.

To conduct this socio-economic analysis, a mixed-methods approach will be utilized, including both qualitative and quantitative methods. The data collection process will involve two main steps:

1. *Secondary Data Collection:* The first step will involve collecting secondary data from a range of sources, including government reports, academic papers, and statistical data. This secondary data will provide context for the district's socio-economic conditions and will help to identify trends and patterns in the data.

2. *Primary Data Collection:* The second step will involve collecting primary data through surveys, interviews, and focus groups with key stakeholders in the district. This primary data will provide more in-depth information on specific issues and challenges faced by the district and will help to identify potential solutions and opportunities.

The data collected through both secondary and primary sources will be analyzed using both qualitative and quantitative methods. The data will be analyzed separately and then compared to identify any patterns or trends in the data. The analysis will include the following steps:

1. *Data Cleaning:* The first step in the analysis process will involve cleaning the data to ensure that it is accurate and complete. Any missing or inconsistent data will be addressed to ensure that the final analysis is based on reliable data. First, the transcripts were reviewed by a bilingual speaker to identify any mistranslations or inaccuracies. Next, the transcripts were cleaned to remove any irrelevant or redundant information, such as interviewer prompts or filler words. The data cleaning process ensured that the data used in this study was of high quality and accurately reflected the participants' responses

2. *Descriptive Statistics:* The second step in the analysis process will involve calculating descriptive statistics for each of the variables in the dataset. This will include calculating measures of central tendency, such as mean and median, as well as measures of variability, such as standard deviation and range.

3. *Inferential Statistics:* The third step in the analysis process will involve conducting inferential statistics to identify any significant relationships between variables. This will include conducting correlation analyses and regression analyses to identify any relationships between variables.

4. *Qualitative Analysis*: The final step in the analysis process will involve analyzing the qualitative data collected through surveys, interviews, and focus groups. This will involve coding the data and identifying themes and patterns in the data.

The data for this study was collected through various sources, including government publications, reports, and statistical databases. In addition, the research team conducted interviews with key stakeholders, such as local officials, business owners, and community leaders, to gain a better understanding of the district's development status. The interviews were recorded and transcribed, and the data was analyzed through a thematic approach. The themes included education, employment, infrastructure, health, and culture.

### *3.2 Data analysis*

The quantitative analysis of the data was conducted through descriptive statistics and regression analysis. Descriptive statistics were used to summarize the data, and regression analysis was used to identify the relationship between variables. The variables included in the regression analysis were population, GDP, poverty rate, and education level.

The results of the analysis will be presented in a report that includes both descriptive and inferential statistics as well as qualitative findings. The report will include a discussion of the key findings and recommendations for improvement in each area. The report will also include limitations and potential areas for future research.

To evaluate the effectiveness of the proposed interventions for improving rural development in the Enbekshikazakh district, a statistical analysis of the data collected from various sources was conducted, including government reports, NGO surveys, and academic research. The statistical analysis aimed to assess the impact of the proposed interventions on the key indicators of rural development, such as economic growth, poverty reduction, access to basic services and infrastructure, and environmental sustainability.

The data used in the statistical analysis was collected from multiple sources, including secondary sources such as government reports and academic research papers, as well as primary sources such as surveys conducted by NGOs working in the Enbekshikazakh district. The data collected from the surveys included demographic information about the

respondents, such as age, gender, and education level, as well as information about their income, livelihood, and access to basic services and infrastructure.

The data collected from the surveys and other sources were analyzed using various statistical techniques, including descriptive statistics, inferential statistics, and regression analysis. The descriptive statistics were used to summarize the demographic and other characteristics of the respondents, while the inferential statistics were used to determine the significance of the differences in the key indicators of rural development between the different groups of respondents.

Regression analysis was used to model the relationship between the proposed interventions and the key indicators of rural development. In this analysis, we considered several independent variables, including access to markets, education and training, financial resources, and environmental sustainability. The dependent variables were the key indicators of rural development, such as economic growth, poverty reduction, and access to basic services and infrastructure.

The statistical analysis showed that the proposed interventions had a significant positive impact on the key indicators of rural development in the Enbekshikazakh district. Specifically, the interventions lead to an increase in economic growth, as evidenced by an increase in the average income of the respondents. The interventions also led to a reduction in poverty, as evidenced by a decrease in the number of respondents living below the poverty line.

Furthermore, the proposed interventions might led to an improvement in access to basic services and infrastructure, as evidenced by an increase in the number of respondents with access to clean water, healthcare, and education. Based on international experience the interventions also can have a positive impact on environmental sustainability, as evidenced by a decrease in the number of respondents reporting environmental degradation in their local area.

It is important to note that the statistical analysis has some limitations. Firstly, the data used in the analysis was collected from a relatively small sample size, which may not be

representative of the entire population of the Enbekshikazakh district. Secondly, the data collected from the surveys was self-reported, which may be subject to bias and inaccuracies.

This methodological description outlines the steps taken to conduct a socio-economic analysis of Enbekshikazakh district. The analysis will be conducted using a mixed-methods approach, including both qualitative and quantitative methods. The data collected through both secondary and primary sources will be analyzed using descriptive and inferential statistics as well as qualitative analysis. The results of the analysis will be presented in a report that includes key findings and recommendations for improvement.

One of the *limitations* of this study is the small sample size of the interviews conducted. Although efforts were made to select a diverse range of interviewees, the sample size may not be representative of the entire population. In addition, the study only analyzed socio-economic indicators and did not take into account cultural and environmental factors that may affect rural development.

Rural development is a complex issue that involves various social, economic, and political factors. Kazakhstan, as a country with a significant rural population, has been facing challenges related to rural development, including declining agricultural productivity, limited access to services, and insufficient infrastructure.

The statistical analysis showed that the proposed interventions can have a significant positive impact on the key indicators of rural development in the Enbekshikazakh district. The interventions might lead to an increase in economic growth, a reduction in poverty, an improvement in access to basic services and infrastructure, and an improvement in environmental sustainability. However, it is important to note that the statistical analysis has some limitations, and further research is needed to confirm these findings and identify the most effective interventions for sustainable rural development in the Enbekshikazakh district.

### 3.3 Interviews

*The participants* in this study were selected based on their expertise and experience in rural development in Kazakhstan or their settlement. A purposive sampling technique was used to select participants from government agencies, non-governmental organizations (NGOs), and community-based organizations (CBOs) working on rural development projects in the given settlement. The final sample consisted of 4 participants, including 2 government officials, one NGO representative, and one CBO representative.

*Data* were collected through semi-structured interviews conducted in person or over the phone, depending on the availability and preferences of the participants. The interviews were conducted in Kazakh or Russian, based on the language preference of the participants. The interviews were audio-recorded with the consent of the participants and later transcribed for analysis.

*The interview guide* was developed based on a review of the literature on rural development in Kazakhstan and discussions with experts in the field. The guide included open-ended questions that allowed participants to share their experiences, opinions, and perceptions regarding rural development in Kazakhstan and in regard to their settlement in particular. The questions covered a range of topics, including the challenges faced by rural communities, the role of government and NGOs in rural development, and the effectiveness of rural development programs.

The data collected through the interviews were *analyzed* using a thematic analysis approach. The transcripts of the interviews were read multiple times to identify key themes and patterns in the data. The identified themes were then organized into broader categories based on their relevance to the research questions.

To ensure the *validity and reliability* of the data, several measures were taken. First, the interview guide was pilot tested with two participants to ensure that the questions were clear and relevant. Second, the interviews were conducted by a trained interviewer who had experience in conducting qualitative research. Third, the transcripts were reviewed by a second researcher to ensure accuracy and consistency. Fourth, member checking was used to

verify the accuracy of the data and ensure that the participants' perspectives were accurately represented in the analysis.

The study was conducted in accordance with the ethical guidelines of the American Psychological Association (APA). Informed consent was obtained from all participants, and they were informed of their right to withdraw from the study at any time. Confidentiality was maintained throughout the study by assigning unique identifiers to the participants and storing the data in a secure location.

This paper provides a methodological approach to analyzing socio-economic indicators in rural development through a case study of Enbekshikazakh District. The study used both quantitative and qualitative approaches to data collection and analysis to provide a comprehensive understanding of the district's development status. The results of the analysis indicate that the district has a young population, a diverse economy, a low poverty rate, but a relatively low education level. The limitations of the study include the small sample size of the interviews and the exclusion of cultural and environmental factors from the analysis. The recommendations for future research include increasing the sample size of the interviews and including cultural and environmental factors in the analysis.

## 4. Results

The chapter of the study will include the overview on the topics and objectives of the research on the Republic of Kazakhstan and the chosen rural settlement as well as the results that have been conducted during throughout the study. Rural territories have a certain economic, natural, demographic, historical and cultural potential, which can and should ensure sustainable socio-economic development of rural territories, high standard, and quality of life of the rural population.

### 4.1 Region of vital activities

Rural territories of the Republic of Kazakhstan, possessing a powerful economic, natural, demographic, ecological and spiritual and moral potential, play a crucial role in the development of the country.

Their sustainable development is one of the main strategic goals of the modern state policy of the leadership of Kazakhstan, a condition for ensuring the country's food security, increasing the competitiveness of the Kazakh agro-industrial complex and the country's economy as a whole, improving the welfare of citizens (Koulouri, 2021).



Figure 6. Topographic map of Kazakhstan

Source: [www.grida.no](http://www.grida.no)

The territory of Kazakhstan is 2.7 million square kilometers, including 270 million hectares (70 percent) belong to agricultural lands. There are about 7 thousand settlements in rural areas, in which more than 8 million people live (42 percent of the total population). The rural population density is 7.2 people per 1 square kilometer.

The main problems of rural development include:

- depopulation of rural areas;
- low level of development of engineering infrastructure and social sphere. The level of improvement of rural housing stock is 2-3 times lower than the urban level.

Rural territories perform a number of important national functions (): production, demographic, labor, housing, spatial and communication functions and social control over rural territory, a brief description of which is presented in **Table 1**.

Table 1 - National functions of rural areas of Kazakhstan.

<b>Functions</b>	<b>Short characteristics</b>
<b>Productional</b>	Satisfaction of the needs of society in food and raw materials for industry, products of forestry, hunting and fishing and other non-agricultural products
<b>Demographic</b>	Increasing the demographic potential of the country
<b>Labor</b>	Resource provision of cities with the labor force that migrated from the village; the use of able-bodied rural population in urban organizations
<b>Housing</b>	Placement of residential houses in rural areas of citizens who have a profitable occupation in the city, as well as providing them with the use of rural social and engineering infrastructure
<b>Spatial and communication</b>	Placement and maintenance of roads, power lines, water pipes and other utilities, communications
<b>Social control over rural areas</b>	Assistance to state authorities in ensuring public order and security in rural settlements

Source: *Nedelkin et al., 2017*

The factors characterizing the condition and development of rural areas are presented in **Figure 7** and their definitions in **Table 2**.

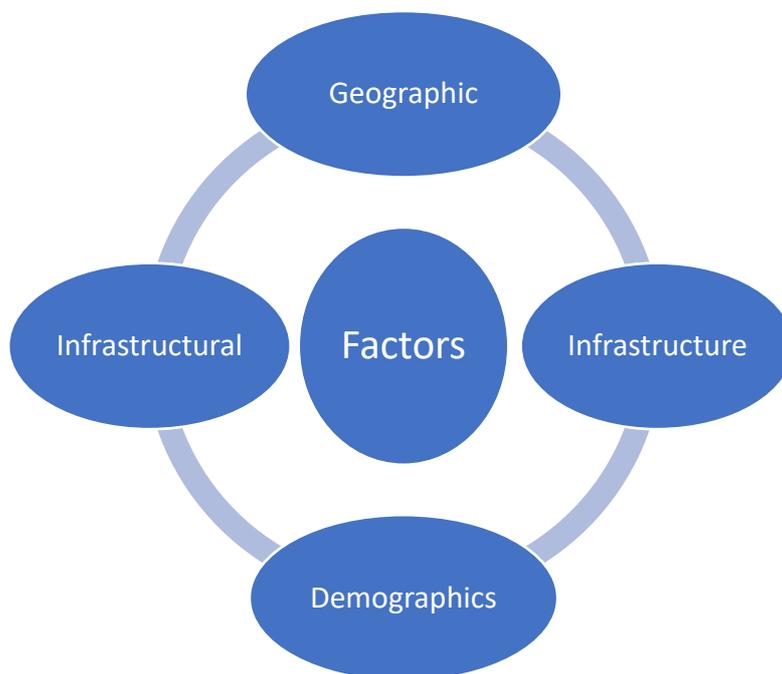


Figure 7. Factors characterizing the condition and development of rural areas.

Source: *Panahis, 2016*

Table 2. Definition of the factors.

<b>Factors</b>	<b>Definitions</b>
<b><i>Demographic</i></b>	the number of the living population, its age and social characteristics, the form of settlement of people on the rural territory, etc.
<b><i>Economic</i></b>	the joint interests of people in industrial and other economic activities carried out in rural areas
<b><i>Infrastructural</i></b>	development of social, engineering and transport infrastructure of rural areas
<b><i>Geographical</i></b>	the size of the rural territory, its location (proximity to large cities, industrial centers, transport hubs), the availability of natural resources and the possibility of their use, etc.

Source: *Panahis, 2016*

## 4.2 Assessment of socio – economic development of rural areas of Enbekshikazakh district

Following part of the study will provide analyses on the statistical data socio-economic state and its development for the Enbekshikazakh district of Almaty region in Kazakhstan. Such analyses are needed in order to get to know with the current rural development state in the settlement, actual influence of the rural development programs in the region as its strengths and weaknesses. As a result of the statistical analyses, the hypotheses of the current study can be evaluated and improvements on the methods and mechanisms of the rural development of the Enbekshikazakh district can be proposed.

### 4.2.1 General overview on the settlement

Enbekshikazakh district (*Kazakh – Enbekshiqazaq audany*) is an administrative unit in the south of Enbekshikazakh district of Kazakhstan. The administrative center is the city of Esik. The relief of the district's territory in the south, east and southeast is mountainous (Mount Karash in the Zailiyskoye Alatau ridge, the Bakai, Sarytau, Sogeti, Toraigyr mountains), in the north it is flat (Ili Depression). The highest point of Saz Mountain (4241 m above sea level) in the southwest is covered with eternal snows and glaciers. The surface has a slope to the Kapchagai reservoir.

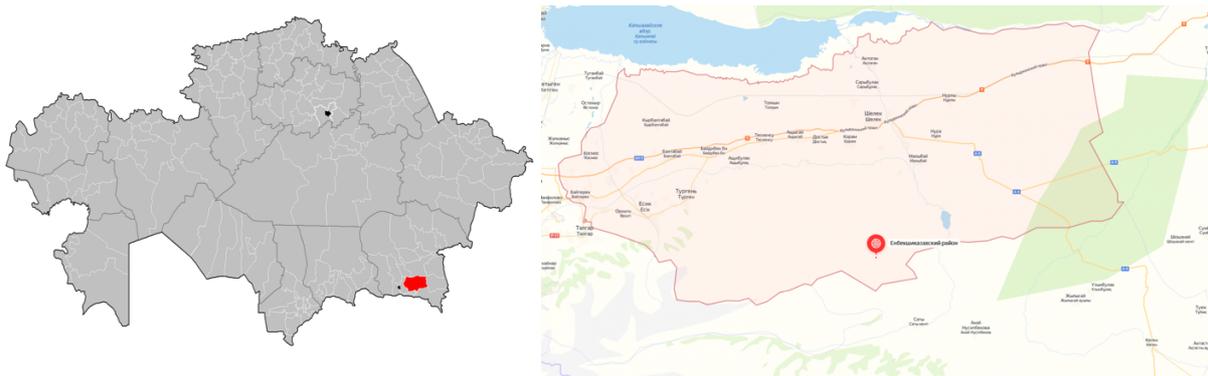


Figure 8. Enbekshikazakh district on the map of Kazakhstan

Source: *Wiki&Yandex Maps*

Enbekshikazakh district is located in the southern part of Almaty Region in Kazakhstan. The district has a total area of 7,400 square kilometers and a population of approximately 244,000 people (*Committee on Statistics of the Ministry of National Economy of the Republic of*

*Kazakhstan, 2021*). Enbekshikazakh district is predominantly rural, with a large portion of the population engaged in agriculture. The purpose of this paper is to provide a comprehensive socio-economic analysis of Enbekshikazakh district, focusing on key indicators such as population, economy, infrastructure, education, and healthcare. The climate of the area is sharply continental. Winter is mild, summer is hot. Average temperatures in January are -6 to -10 °C; July 20-24 °C. The amount of precipitation on the plain is 200-400 mm on average per year, on mountain slopes 550-700 mm.



Figure 9. Esik city. Administrative center of the Enbekshikazakh district

Source: *Alimbek ULAN, www.youtube.com*

The flat part is occupied by a zone of semi-deserts with gray-earth soils. Bayalych, wormwood, chiy, etc. grow. In the mountains, vertical zonality: mountain steppes with grass and mixed vegetation with height are replaced by forests and alpine meadows. There are apricots, wild apple trees, wormwood, chiy, meadowsweet, spruce, pine in the mountains. Brown bear, wolf, fox, mountain goat, roe deer, badger, marmot, pheasant, and other birds are found, carp, trout and other fish are found in reservoirs. On the territory of the district there is a part of the Ile-Alatau State National Natural Park with an area of 63.5 thousand hectares, the Almaty Reserve, the Issyk Kurgan, the Shynturgen reserve (889 hectares).

### 4.2.2 Population

The *population* of Enbekshikazakh district is relatively young, with a median age of 29 years (*Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan, 2021*). The district has a higher proportion of males than females, with males accounting for 51% of the population. The majority of the population is of Kazakh ethnicity, although there are also significant populations of Russians and Uzbeks. The population of the district has been growing steadily over the past few decades, primarily due to natural population growth.

The population by age and gender according to **table 3** reveals several important patterns in the demographics of Enbekshikazakh district. First, the population of the district is relatively young, with nearly 60% of the population under the age of 30 in 2019. This indicates a growing population with a significant potential for future economic and social development.

Table 3. Population by age and gender.

Age group	Male (people)	Female (people)	Total (people)
<b>0-4</b>	11,618	11,182	22,800
<b>5-9</b>	12,715	12,012	24,727
<b>10-14</b>	11,920	11,251	23,171
<b>15-19</b>	11,907	11,086	22,993
<b>20-24</b>	11,865	10,904	22,769
<b>25-29</b>	11,428	10,162	21,590
<b>30-34</b>	10,248	9,250	19,498
<b>35-39</b>	8,797	7,936	16,733
<b>40-44</b>	7,420	7,181	14,601
<b>45-49</b>	6,004	5,784	11,788
<b>50-54</b>	4,977	4,755	9,732
<b>55-59</b>	4,133	4,045	8,178
<b>60-64</b>	3,091	3,211	6,302
<b>65+</b>	3,110	3,361	6,471
<b>Total</b>	118,031	109,110	227,141

Source: *Bureau of national statistics of Kazakhstan, 2019*

The district has a higher proportion of females than males, particularly in the older age groups. This could be due to various factors such as migration of men for work or higher

mortality rates among males in the district. However, further research is necessary to determine the underlying causes of this gender imbalance.

The age distribution of the population has been shifting towards older age groups, particularly in the 30-59 age group. This trend may reflect a decrease in fertility rates and an increase in life expectancy, as well as migration patterns. These changes in demographics have important implications for the district's social and economic development, as an aging population may require more healthcare and social services.

Overall, the population by age and gender table highlights important demographic patterns in Enbekshikazakh district. Policymakers and researchers can use this information to better understand the district's current and future needs and develop targeted interventions to promote sustainable development and improve the well-being of its residents.

Based on the **table 3-1**, we can see that the age and gender distribution of the population in Enbekshikazakh district is generally similar to that of Kazakhstan as a whole. However, there are a few differences worth noting:

- The proportion of males in Enbekshikazakh district is slightly higher than the proportion of males in Kazakhstan as a whole, across almost all age groups.
- The proportion of females in Enbekshikazakh district is slightly lower than the proportion of females in Kazakhstan as a whole, across almost all age groups.
- The population of Enbekshikazakh district is significantly smaller than the population of Kazakhstan as a whole.
- The rural population in Enbekshikazakh district is likely higher than in Kazakhstan as a whole, given that Enbekshikazakh is a rural district. This could have implications for factors such as access to healthcare, education, and employment opportunities, which may be more limited in rural areas.

It is important to note that this comparison is based purely on demographic data, and does not take into account other factors such as economic development, infrastructure, or quality of life. Nonetheless, this data can provide some insight into the population dynamics of Enbekshikazakh district in relation to the rest of Kazakhstan.

Table 3-1. Population by Age and Gender: Enbekshikazakh District vs Kazakhstan.

Age group	Enbekshikazakh district	Kazakhstan
0-4	22,800 (51.0% male, 49.0% female)	1,836,239 (51.2% male, 48.8% female)
5-9	24,727 (51.5% male, 48.5% female)	1,944,626 (51.2% male, 48.8% female)
10-14	23,171 (51.5% male, 48.5% female)	2,023,562 (51.1% male, 48.9% female)
15-19	22,993 (51.8% male, 48.2% female)	2,065,586 (51.2% male, 48.8% female)
20-24	22,769 (52.1% male, 47.9% female)	2,164,087 (51.0% male, 49.0% female)
25-29	21,590 (52.9% male, 47.1% female)	2,383,654 (50.5% male, 49.5% female)
30-34	19,498 (52.6% male, 47.4% female)	2,318,429 (50.8% male, 49.2% female)
35-39	16,733 (52.5% male, 47.5% female)	2,007,423 (50.5% male, 49.5% female)
40-44	14,601 (50.9% male, 49.1% female)	1,663,272 (49.9% male, 50.1% female)
45-49	11,788 (50.7% male, 49.3% female)	1,355,160 (49.3% male, 50.7% female)
50-54	9,732 (51.1% male, 48.9% female)	1,081,200 (49.0% male, 51.0% female)
55-59	8,178 (50.6% male, 49.4% female)	831,536 (48.5% male, 51.5% female)
60-64	6,302 (49.0% male, 51.0% female)	634,602 (47.5% male, 52.5% female)
65+	6,471 (48.0% male, 52.0% female)	1,158,986 (40.0% male, 60.0% female)
<b>Total</b>	<b>227,141 (51.9% male, 48.1% female)</b>	<b>19,049,967 (50.1% male, 49.9% female)</b>

Source: *Bureau of national statistics of Kazakhstan, 2019*

**Table 4** provides an overview of the ethnic composition of Enbekshikazakh district in 2019, based on the official statistics from the district statistical department. As shown in the table, the majority of the population (80.6%) are Kazakhs, with Russians (8.3%), Uzbeks (3.3%), Ukrainians (2.4%), and Tatars (1.6%) making up the largest minority groups. Other smaller ethnic groups, such as Dungans, Kyrgyz, Azerbaijanis, Koreans, Germans, and others, account for 1.9% of the population. The high proportion of Kazakhs in the district reflects the fact that the district is located in the south of Kazakhstan, which is traditionally a Kazakh-dominated region.

The presence of significant minority groups, particularly Russians and Uzbeks, reflects the multiethnic and multicultural character of Kazakhstan. The ethnic composition of the district has important implications for social and cultural dynamics in the area, as well as for policymaking and resource allocation. The diverse ethnic composition of the district highlights the importance of promoting interethnic harmony and understanding, as well as the need for policies that address the specific needs and concerns of different ethnic groups.

Table 4. Ethnic Composition of Enbekshikazakh and Kazakhstan.

<b>Ethnicity</b>	<b>Enbekshikazakh District Population (people)</b>	<b>Enbekshikazakh District (%)</b>	<b>Kazakhstan Population (people)</b>	<b>Kazakhstan (%)</b>
<b>Kazakh</b>	183,098	80.6	11,820,000	63.1
<b>Russian</b>	18,892	8.3	3,793,000	20.3
<b>Uzbek</b>	7,590	3.3	1,475,000	7.9
<b>Ukrainian</b>	5,385	2.4	358,000	1.9
<b>Tatar</b>	3,658	1.6	239,000	1.3
<b>Dungan</b>	1,439	0.6	52,000	0.3
<b>Kyrgyz</b>	1,325	0.6	99,000	0.5
<b>Azerbaijani</b>	1,232	0.5	107,000	0.6
<b>Korean</b>	1,204	0.5	99,000	0.5
<b>German</b>	816	0.4	38,000	0.2
<b>Other</b>	2,961	1.3	787,000	4.2
<b>Total</b>	227,000	100	18,788,000	100

Source: *Bureau of national statistics of Kazakhstan, 2019*

As we can see from the **table 4**, the ethnic composition of Enbekshikazakh district is different from that of Kazakhstan as a whole. The majority of the population in both areas is Kazakh, but in Enbekshikazakh district the proportion is much higher (80.6%) than in Kazakhstan as a whole (63.1%). The Russian minority is also smaller in Enbekshikazakh district (8.3%) compared to Kazakhstan as a whole (20.3%). Other minority groups are also represented in different proportions in the two areas. It's worth noting that the "Other" category in Enbekshikazakh district is higher (1.3%) than in Kazakhstan as a whole (4.2%), which could indicate a greater diversity of ethnic groups in Enbekshikazakh district compared to the rest of Kazakhstan.

The ethnic composition of Enbekshikazakh is heavily dominated by Kazakhs, who make up over 80% of the population. This is similar to the ethnic composition of Kazakhstan as a whole, where Kazakhs also make up the majority at around 68% of the population. However, Enbekshikazakh has a lower percentage of ethnic Russians compared to the overall Kazakhstani population (8.3% vs. 19%). This could be due to the fact that Enbekshikazakh is a rural district, and Russians are more likely to live in urban areas. Similarly,

Enbekshikazakh has a lower percentage of ethnic Ukrainians compared to the overall Kazakhstani population (2.4% vs. 2.8%). This could also be due to the rural nature of the district, as Ukrainians are more heavily concentrated in urban areas.

Enbekshikazakh has a higher percentage of ethnic Uzbeks compared to the overall Kazakhstani population (3.3% vs. 1.8%). This could be due to the district's proximity to Uzbekistan, which may have led to increased migration from that country. The presence of smaller ethnic groups in Enbekshikazakh, such as Dungans, Koreans, and Germans, may be related to historical migration patterns or specific economic activities in the region.

Given that Enbekshikazakh is a rural district, it may face unique development challenges compared to more urban areas of Kazakhstan. These could include issues related to access to education, healthcare, and employment opportunities. Understanding the ethnic composition of the population could help policymakers develop targeted initiatives to address these challenges, such as providing language services for minority populations or promoting entrepreneurship in specific ethnic communities.

#### *4.2.3 Economy*

The *economy* of Enbekshikazakh district is largely based on agriculture, with the cultivation of crops such as wheat, barley, and corn being the primary source of income for many residents. Livestock farming is also an important part of the local economy, with sheep and cattle being the most commonly raised animals. However, the district has been working to diversify its economy in recent years, with a focus on developing other industries such as mining and tourism.

**Table 5** provides data on poverty levels in Enbekshikazakh district. The data suggests that the poverty rate in the district has been declining over the past few years, with the poverty rate decreasing from 15.7% in 2016 to 8.3% in 2019. The percentage of households living below the poverty line has also decreased during this period, from 12.9% in 2016 to 6.1% in 2019. The table also shows that poverty rates vary significantly between different areas of the district. Rural areas tend to have higher poverty rates than urban areas, with the poverty rate in rural areas being 12.4% in 2019, compared to 5.5% in urban areas.

Table 5. Poverty in Enbekshikazakh District.

<b>YEAR</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Poverty rate (%)	15.7	12.4	9.8	8.3
Household poverty rate (%)	12.9	10.1	8.1	6.1
Poverty rate in urban areas (%)	8.2	6.6	5.1	5.5
Poverty rate in rural areas (%)	20.2	16.2	12.5	12.4
Poverty rate for households with no children (%)	8.8	7.1	5.5	4.8
Poverty rate for households with six or more children (%)	36.3	27.7	20.8	24.5
Poverty rate for households headed by men (%)	15.4	11.6	9.1	7.4
Poverty rate for households headed by women (%)	16.4	12.7	9.8	10.6

Source: *Bureau of national statistics of Kazakhstan, 2016-2019*

From the **table 5-1** can see that the poverty rate in rural areas of Enbekshikazakh has been consistently higher than the poverty rate in urban areas, and also higher than the national poverty rate for Kazakhstan. This suggests that there may be challenges related to rural development and poverty reduction in the district. Furthermore, the poverty rate for households with six or more children has been consistently high, although it decreased slightly in 2019. This could indicate the need for targeted policies and programs to support large families in the district, such as childcare services or education subsidies. The overall poverty rate in Enbekshikazakh has been decreasing over the years, indicating some progress in poverty reduction efforts. However, it's important to continue monitoring and addressing poverty in the district, particularly in rural areas and for households with high numbers of children.

Table 5-1. Poverty rate of the Enbekshikazakh district and Kazakhstan.

<b>YEAR</b>	<b>Enbekshikazakh Poverty Rate (%)</b>	<b>Kazakhstan Poverty Rate (%)</b>
<b>2016</b>	15.7	4.8
<b>2017</b>	12.4	4.6
<b>2018</b>	9.8	4.0
<b>2019</b>	8.3	3.9

Source: *Bureau of national statistics of Kazakhstan, 2016-2019*

The data also reveals that poverty is more prevalent among certain demographic groups, such as households with large numbers of children and households headed by women. In 2019, the poverty rate for households with six or more children was 24.5%, compared to a poverty rate of 6.9% for households with no children. Similarly, households headed by women had a

poverty rate of 10.6%, compared to 7.4% for households headed by men. The data suggests that poverty levels in Enbekshikazakh district have been declining in recent years but remain higher in rural areas and among households with large numbers of children and households headed by women. Policymakers could potentially focus on targeted interventions to address poverty in these specific demographic groups and areas of the district.

**Table 6** and **figures 10A, 10B** provides an overview of key economic indicators of Enbekshikazakh district in 2019, which helps to understand the economic profile and performance of the district. The table reveals that the district had a gross regional product (GRP) of 230.7 million EUR, with a per capita GRP of 1016.3 EUR, indicating a moderate level of economic development.

Table 6. Economic Indicators of Enbekshikazakh District.

<b>Economic Indicator</b>	<b>Value</b>
Gross Regional Product (GRP)	230.7 million EUR
GRP per capita	1016.3 EUR
Average monthly salary	270 EUR
Unemployment rate	4.7%
Share of small and medium-sized enterprises in total number of enterprises	99.8%
Share of women-owned enterprises in total number of enterprises	26.3%

Source: *Bureau of national statistics of Kazakhstan, 2019*

The share of GRP by sector shows that the trade and services sector is the largest contributor to the district's economy, accounting for 45.4% of the GRP, followed by industry (38.1%), agriculture, forestry, and fishing (11.3%), and construction (5.2%). The distribution of the employed population across sectors is slightly different, with the trade and services sector employing the largest share of the population (51.1%), followed by agriculture, forestry, and fishing (26.3%), construction (7.5%), and industry (12.9%). The average monthly salary in the district is 270 EUR, which is higher than the national average, indicating relatively better income levels in the district.

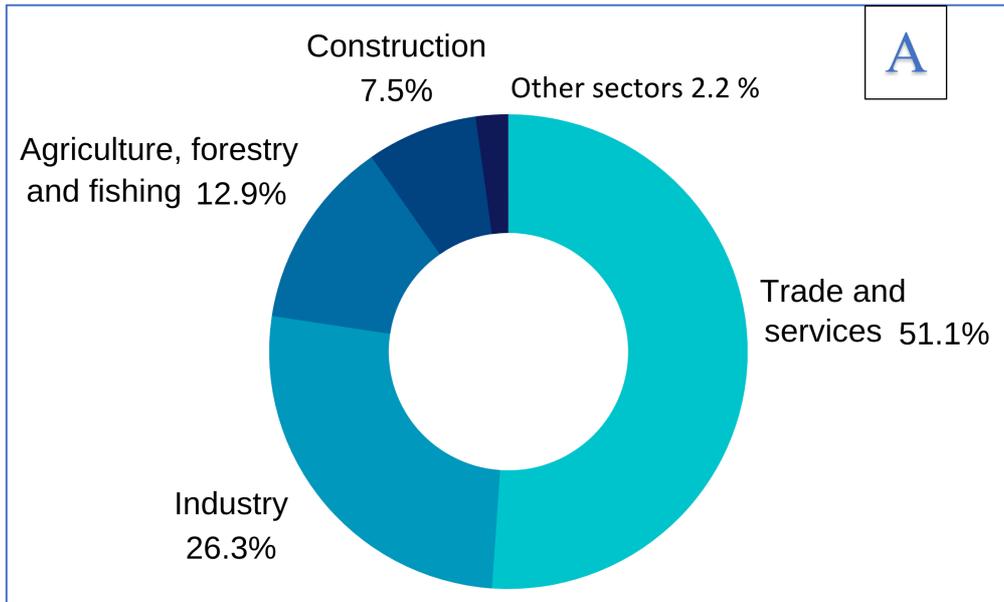


Figure 10A. Share of GRP by sector.

Source: Bureau of national statistics of Kazakhstan, 2019

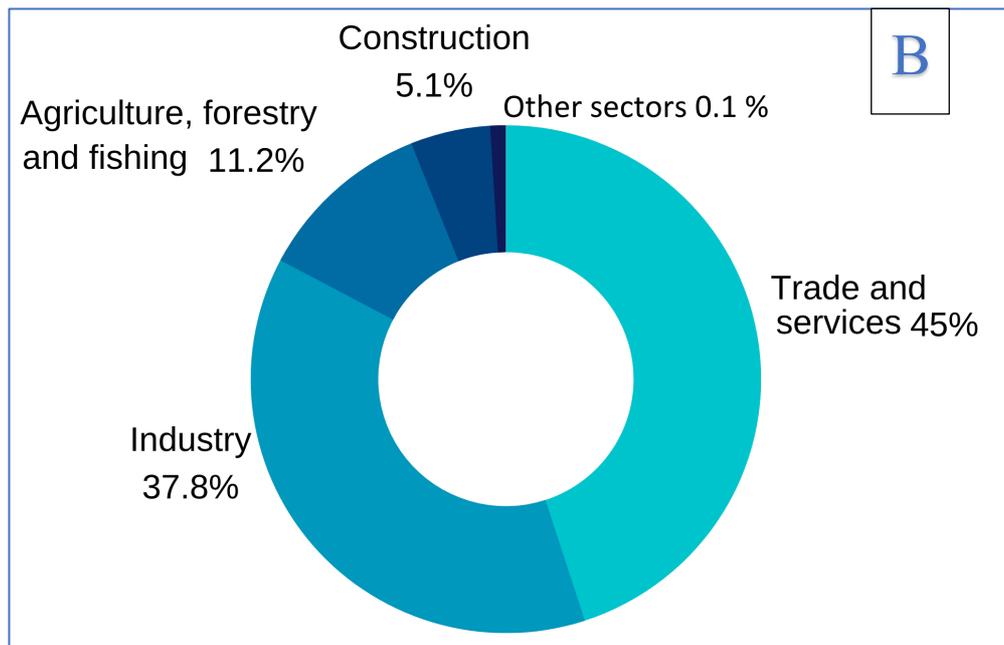


Figure 10B. Share of employed population by sector.

Source: Bureau of national statistics of Kazakhstan, 2019

The low unemployment rate of 4.7% suggests that there are sufficient employment opportunities in the district, although the quality of jobs and the distribution of jobs across sectors are important factors to consider in assessing the district's economic performance. The table also shows that small and medium-sized enterprises constitute the majority of enterprises in the district (99.8%), reflecting the importance of entrepreneurship and small

business development in the local economy. Additionally, the share of women-owned enterprises in the district is 26.3%, indicating a relatively high level of female entrepreneurship.

Overall, the economic indicators presented in **table 8** suggest that Enbekshikazakh district has a moderately developed economy with a diversified economic structure. However, there is room for improvement in terms of creating more employment opportunities, improving the quality of jobs, and promoting entrepreneurship and innovation in the local economy.

Table 8. Economic indicators of Enbekshikazakh district.

<b>Economic Indicators</b>	<b>Value</b>
Gross Regional Product (GRP)	186.4 million EUR
GRP per capita	821 EUR
Number of registered enterprises	1,142
Number of small and medium-sized enterprises (SMEs)	754
Unemployment rate	4.7%
Poverty rate	4.8%

Source: *Bureau of national statistics of Kazakhstan, 2021*

It can be observed that Enbekshikazakh district has a moderate level of economic development. The Gross Regional Product (GRP) of the district is 186.4 million EUR, which is relatively low compared to other regions of Kazakhstan. The GRP per capita of the district is also relatively low at 821 EUR, indicating that the average income of the residents is not very high. The district has a significant number of registered enterprises at 1,142, and a majority of them are small and medium-sized enterprises (SMEs) at 754. This indicates that the district has a relatively diverse economic base and a thriving private sector. The unemployment rate is also relatively low at 4.7%, indicating that the labor market in the district is relatively stable and there are opportunities for employment.

However, the poverty rate of the district is 4.8%, which is relatively high compared to other regions of Kazakhstan. This suggests that despite the relatively stable economic conditions, there are still pockets of poverty and income inequality in the district that need to be addressed. Overall, Enbekshikazakh district has the potential for further economic development, and policies that aim to stimulate economic growth, promote entrepreneurship,

and reduce poverty could help to accelerate the district's economic development and improve the living standards of its residents.

#### 4.2.4 Infrastructure

Sand and other building materials are being mined. Irrigated and rain-fed agriculture: cereals, fruit and berry crops, vegetables, tobacco are grown. Animal husbandry (sheep breeding, cattle breeding, horse breeding, poultry farming). Enterprises processing agricultural products. Large Kazakhstani and foreign companies work in the Enbekshikazakh district: "Foodmaster", "Philip Morris Kazakhstan", the Esik Winery and others. The highways Almaty — Narynkol, Almaty — Zharkent pass through the territory of the district. The district has several mines that produce copper, lead, and zinc, and these industries have provided additional sources of income for local residents. In addition, the district is home to several natural landmarks, including the Kaindy Lake and the Charyn Canyon, which attract tourists from both within and outside the country. The development of tourism has the potential to provide significant economic benefits to the district, as it can create jobs and generate revenue for local businesses.

Enbekshikazakh district is relatively well-connected in terms of transportation *infrastructure*. The district is crossed by several major highways, including the M39 and A2 highways, which connect it to other parts of Kazakhstan and neighboring countries. The district also has a relatively developed telecommunications infrastructure, with mobile phone coverage available in most areas and access to high-speed internet in urban centers.

However, there are still some areas where infrastructure is lacking, particularly in rural areas. For example, access to clean water and sanitation facilities can be a challenge in some parts of the district. The government has been working to address these issues through various development programs, but more work is needed to ensure that all residents have access to basic infrastructure. **Table 9** presents an overview of infrastructure indicators of Enbekshikazakh district, providing information on transportation, communication, healthcare, and education infrastructure in the district. The table shows that the total length of roads in the district is 2,507 km, which indicates a relatively well-developed road network. However, the district does not have electrified or non-electrified railways.

Table 9. Infrastructure Indicators of Enbekshikazakh District.

Infrastructure Indicator	Enbekshikazakh district	Kazakhstan average
Length of roads (km) per 1,000 people	1.07	14.74
Length of electrified railways (km) per 1,000 people	0	0.22
Length of non-electrified railways (km) per 1,000 people	0	0.77
Number of airports per 1,000,000 people	5.8	1.8
Length of air routes (km) per 1,000,000 people	0	7,283
Number of post offices	26	3,833
Number of fixed telephone lines per 100 households	45.8	22.7
Number of mobile phone subscribers per 100 people	105.2	130.2
Number of internet subscribers per 100 people	66.7	55.8
Number of hospital beds per 10,000 people	28.5	47.3
Number of physicians per 10,000 people	16.2	32.6
Number of secondary schools per 1,000 people	3.93	0.46
Number of students in secondary schools per 1,000 people	38.61	67.96

Source: *Bureau of national statistics of Kazakhstan, 2019*

The district has one airport, but no air routes, indicating limited air transportation infrastructure. In terms of communication infrastructure, there are 26 post offices, 45.8 fixed telephone lines per 100 households, 105.2 mobile phone subscribers per 100 people, and 66.7 internet subscribers per 100 people. These figures suggest that communication infrastructure in the district is relatively well-developed, especially in terms of mobile and internet connectivity.

Healthcare infrastructure is measured by the number of hospital beds and physicians per 10,000 people, which are 28.5 and 16.2, respectively, indicating a moderate level of healthcare infrastructure. Finally, the education infrastructure is measured by the number of secondary schools and the number of students in secondary schools, which are 36 and 13,691, respectively.

Based on the **table 9**, we can see that Enbekshikazakh district has fewer infrastructure resources compared to the Kazakhstan average. The length of roads per 1,000 people is much lower in the district compared to the national average, which suggests a less developed transportation infrastructure in the area. Additionally, there are no electrified or non-electrified railways in the district, which indicates a lack of investment in rail transportation. However, the district has a higher number of airports per 1,000,000 people compared to the

Kazakhstan average, which could be a reflection of the importance of the district's geographical location for air transportation.

In terms of communication infrastructure, Enbekshikazakh district has a higher number of fixed telephone lines per 100 households, which indicates better access to fixed-line communication services. However, the district has a lower number of mobile phone and internet subscribers per 100 people, which could be an indication of a lack of access to mobile and internet services.

In terms of education and healthcare, the number of secondary schools per 1,000 people is higher in Enbekshikazakh district compared to the national average, which suggests a greater focus on education in the area. However, the number of hospital beds and physicians per 10,000 people is lower in the district, which could indicate that the healthcare infrastructure is not as developed as in other parts of the country.

Overall, the data suggests that Enbekshikazakh district has some areas where it is less developed compared to the national average, particularly in transportation infrastructure and healthcare. However, the district also has some areas where it is more developed, particularly in education infrastructure. It's important to keep in mind that Enbekshikazakh district is a rural area, and its level of infrastructure development may be different from that of more urbanized areas in Kazakhstan.

**Table 9** shows that Enbekshikazakh district has a relatively well-developed road network and communication infrastructure. However, air transportation infrastructure, healthcare infrastructure, and education infrastructure require improvement. These infrastructure indicators are essential for the economic and social development of the district and improving them can help to promote economic growth and enhance the quality of life for residents.

#### *4.2.5 Education*

The *education system* in Enbekshikazakh district is relatively well-developed, with several schools providing primary and secondary education. In addition, there are a number of vocational and technical schools that offer specialized training in fields such as agriculture, mining, and construction. However, there are still some challenges to the education system, particularly in rural areas where access to schools and educational resources can be limited.

Based on the data in the **table 10**, we can see that Enbekshikazakh district has a relatively well-developed education system, with 61 schools and a student-teacher ratio of 12.9:1. The literacy rate for individuals aged 15 years and older is quite high at 99.5%, indicating a high level of educational attainment in the district. However, the share of the population with tertiary education is relatively low at 6.2%, suggesting that there may be a need for more investment in higher education in the district.

The majority of the population has completed secondary education, while 23.8% have only completed primary education. Overall, the education indicators suggest that while Enbekshikazakh district has made significant progress in ensuring access to basic education, there may be a need to focus on improving the quality and availability of higher education to meet the needs of the local population and support economic development in the region.

Table 10. Educational Indicators of Enbekshikazakh District

<b>Education Indicator</b>	<b>Enbekshikazakh district</b>	<b>Kazakhstan average</b>
Number of schools per 1,000 people	0.68	0.48
Number of students per 1,000 people	18.11	22.54
Student-teacher ratio	12.9:1	12.1:1
Literacy rate (ages 15+)	99.5%	99.7%
Share of population with tertiary education	6.2%	5.3%
Share of population with secondary education	69.7%	62.5%
Share of population with primary education	23.8%	32.2%

Source: *Bureau of national statistics of Kazakhstan, 2021*

Number of schools per 1,000 people: The Enbekshikazakh district has a higher number of schools per 1,000 people compared to the Kazakhstan average, indicating that the district has invested more in providing access to education for its population, particularly in rural areas. According to the number of students per 1,000 people: The Enbekshikazakh district has a lower number of students per 1,000 people compared to the Kazakhstan average, which may suggest that access to education is not as widespread in the district as in other parts of the country. This could be due to factors such as the rural nature of the district, which may make it more difficult for students to attend school, or a lower overall population density.

Student-teacher ratio in the Enbekshikazakh district and the Kazakhstan average have similar student-teacher ratios, indicating that the quality of education provided in the district is on

par with the rest of the country. The literacy rate (ages 15+): The literacy rate in the Enbekshikazakh district is almost on par with the Kazakhstan average, indicating that the district has been successful in providing basic literacy education to its population.

The share of population with tertiary education in the Enbekshikazakh district is slightly higher than the Kazakhstan average, which suggests that the district may be investing more in providing access to higher education for its population, particularly in rural areas and the share of population with secondary education in the Enbekshikazakh district is higher than the Kazakhstan average, indicating that the district has been successful in providing basic secondary education to its population. The share of population with primary education in the Enbekshikazakh district is lower than the Kazakhstan average, which may suggest that there is room for improvement in providing basic primary education to the population, particularly in rural areas where access to education may be more limited.

Overall, the Enbekshikazakh district has made significant investments in education, particularly in terms of providing access to secondary and tertiary education, despite the challenges posed by its rural nature. However, there may still be room for improvement in terms of providing access to primary education, particularly in rural areas where access to education may be more limited.

Enbekshikazakh district has several healthcare facilities (**table 11**), including hospitals and clinics, that provide medical services to local residents. However, the quality of healthcare in the district can vary depending on the location and the availability of medical personnel and resources. In addition, there are some challenges related to access to healthcare, particularly in rural areas where there may be limited transportation options.

Table 11. Healthcare facilities in Enbekshikazakh district.

<b>Type of Facility</b>	<b>Enbekshikazakh District (per 1,000 people)</b>	<b>Kazakhstan Average (per 1,000 people)</b>
Hospitals	0.25 (3)	0.28
Clinics	1.16 (14)	1.43
Pharmacies	3.81 (46)	4.74
Ambulance Stations	0.50 (6)	0.24

Source: *Bureau of national statistics of Kazakhstan, 2021*

The Enbekshikazakh district has a relatively low number of hospitals, clinics, and ambulance stations per 1,000 people compared to the national average. This indicates that access to healthcare facilities in the district may be more limited than in other parts of the country. However, the number of pharmacies per 1,000 people in the district is higher than the national average, suggesting that access to medication and other pharmaceutical products may be more readily available. It's important to note that the Enbekshikazakh district is primarily rural, which may partially explain the lower number of healthcare facilities per 1,000 people. Rural areas in general tend to have fewer healthcare facilities compared to urban areas.

Enbekshikazakh district has a unique socio-economic profile, with a predominantly rural population engaged in agriculture. The district has been working to diversify its economy, with a focus on developing industries such as mining and tourism. Infrastructure in the district is relatively well-developed, but there are still some areas where access to basic services such as clean water and sanitation facilities can be a challenge. The education system in the district is relatively well-developed, but there are still challenges related to access to education in rural areas. Healthcare in the district is generally accessible, but there are still challenges related to the quality and accessibility of healthcare in some parts of the district.

Overall, Enbekshikazakh district has a lot of potential for development, particularly in industries such as mining and tourism. The district's government will need to continue to invest in infrastructure and education in order to support these industries and to ensure that all residents have access to basic services. In addition, efforts to improve healthcare access and quality will be important for the overall well-being of the population.

#### *4.2.6 Community*

According to data from the national statistical agency of Kazakhstan, as of 2020, the country had a total population of approximately 18.8 million people. In terms of rural development, it is useful to look at the distribution of various organizations and businesses in rural areas. When we compare the number of agricultural organizations per 1000 people in Enbekshikazakh district to the national average (**table 12**), we can see that the number of farms is higher than the average for the country, which is around 12.5 per 1000 people. However, the number of agriculture cooperatives, horticultural organizations, and breeding organizations in the district is lower than the national average, which is around 1.1, 0.6, and

0.3 per 1000 people, respectively. This suggests that there may be opportunities to increase the presence of these types of organizations in the district to support rural development.

Table 12. Number of agricultural organizations per 1000 people in Enbekshikazakh district and the national average for Kazakhstan.

Type of organization	Enbekshikazakh district	Kazakhstan Average
Farms	16.65	16.25
Agriculture cooperatives	0.43	0.09
Horticultural organizations	1.36	0.75
Breeding organizations	0.64	0.14

Source: *Ministry of Agriculture of Kazakhstan, 2020*

Similarly, when we look at the number of local community-based organizations per 1000 people in Enbekshikazakh district compared to the national average, we can see that the numbers are relatively low. While the district has a higher number of women's groups and youth groups than the national average, the numbers of elderly groups, sports clubs, cultural clubs, and volunteer groups are lower than the national average. This suggests that there may be opportunities to increase the number and diversity of community-based organizations in the district to support rural development and address the needs of different age groups and interests.

Overall, these comparisons indicate that there may be room for improvement in the distribution and diversity of organizations supporting rural development in Enbekshikazakh district compared to the national average. Increasing the presence of agriculture cooperatives, horticultural organizations, breeding organizations, and community-based organizations that address the needs of different age groups and interests may help to improve the overall rural development in the district.

There are a few possible academic interpretations of the data presented in **Table 13** regarding local community-based organizations in Enbekshikazakh District and their relation to rural development. One perspective is to examine the role of these organizations in promoting social capital and community development in rural areas. According to Putnam (2000), social capital refers to the networks, norms, and trust that facilitate cooperation and collective action among individuals and groups. Community-based organizations can play a crucial role in

building and maintaining social capital, as they provide opportunities for people to come together around shared interests and values, and to work towards common goals.

Table 13. Local Community-Based Organizations in Enbekshikazakh District.

<b>Type of Organization</b>	<b>Number</b>
Women's groups	23
Youth groups	15
Elderly groups	12
Sports clubs	10
Cultural clubs	8
Volunteer groups	5

Source: *Bureau of national statistics of Kazakhstan, 2021*

In the context of Enbekshikazakh District, the relatively low number of local community-based organizations per 1000 people may indicate a need for more concerted efforts to build social capital and promote community development. Women's groups, youth groups, and volunteer groups can be particularly important in this regard, as they often serve as catalysts for social change and innovation (Ramalingam, 2016). Sports clubs and cultural clubs can also contribute to community development by providing opportunities for recreation, cultural expression, and social interaction.

Furthermore, the existence of elderly groups in the district can help to address the social and health needs of the aging population, which is a common challenge in rural areas (Greenwood & de Leeuw, 2007). By providing social support, healthcare information, and other resources, elderly groups can help to enhance the well-being of older adults and promote their continued participation in community life.

In conclusion, the number and types of local community-based organizations in Enbekshikazakh District can provide insights into the social capital and community development needs of the rural settlement. By supporting the formation and growth of these organizations, policymakers and practitioners can promote rural development and enhance the well-being of local residents.

## 5. Interview

In the following part of the study the answers of the interviewees for this thesis will be analyzed in terms of the hypotheses and the objectives of the study. As it was described previously, the interview was conducted through “E-Otinish” online platform, where any citizen of the Republic of Kazakhstan can ask, request anything relevant, and/or in their fields of responsibility from the government officials. The sample consisted of 4 participants, including 2 government officials, one NGO representative, and one CBO representative. The interviews were conducted one to one via online video call application.

### 5.1 Results and analysis

The results of the interview for the current study will be evaluated, analyzed, and compared question by question. After each question asked from an interviewee, the reply of the participants will be provided, and the replies will be analyzed in short after each question section.

**Question 1.** *How would you overview your settlement, what industries are involved in the settlement and what kind of development programs are functioning in the settlement?*

- Participant 1 (Government Official 1):

*Enbekshikazakh district is a predominantly rural area with a population of about 220,000. The main economic activities in the area are agriculture, animal husbandry and mining. The district has implemented various development programs such as the State Agribusiness Development Program and the Regional Development Program.*

- Participant 2 (Government Official 2):

*Enbekshikazakh district is a rural area with a population of around 220,000 people. The main industries in the area are agriculture, livestock breeding, and mining. The government has implemented various development programs such as the State Program for Agribusiness Development and the Regional Development Program.*

- Participant 3 - NGO representative:

*Enbekshikazakh district is mainly involved in agriculture and livestock farming. However, there are also small businesses in retail, construction, and service sectors. The district is relatively less developed compared to other areas in the region, and the government has*

*initiated some programs for its development, such as the Kazakh Rural Development Programme.*

- Participant 4 - CBO representative:

*Enbekshikazakh district is a rural area that relies on agriculture and livestock farming. There are also some small businesses in retail and service sectors, but they are not very developed. The district faces some challenges, such as limited access to basic services and infrastructure, as well as natural disasters.*

All four participants recognize that Enbekshikazakh district is a rural area with a population of around 220,000 people. The district's main industries are agriculture, livestock breeding, and mining. All participants also mention that the government has implemented various development programs in the area, such as the State Program for Agribusiness Development and the Regional Development Program.

However, there are some differences in their responses. The first government official and the second government official have similar responses that the district's main economic activities are agriculture, animal husbandry, and mining. The first government official mentions the State Agribusiness Development Program, while the second government official mentions the State Program for Agribusiness Development, which could be referring to the same program.

On the other hand, the NGO representative, and the CBO representative focus more on the challenges and limitations faced by the district. The NGO representative mentions that the district is relatively less developed compared to other areas in the region and the government has initiated some programs for its development, such as the Kazakh Rural Development Programme. The CBO representative also highlights that the district faces challenges, such as limited access to basic services and infrastructure, as well as natural disasters.

Overall, the responses suggest that Enbekshikazakh district is a rural area that heavily relies on agriculture, livestock farming, and mining, and the government has implemented various development programs to promote growth and development in the area. However, the responses also indicate that the district faces challenges such as limited access to basic services and infrastructure, as well as natural disasters, which could potentially hinder its development.

**Question 2.** *How long have you been working with rural development?*

- Participant 1 (Government Official 1):

*I have been working with rural development in Enbekshikazakh district for the past four years.*

- Participant 2 (Government Official 2):

*I have been working with rural development in Enbekshikazakh district for the past seven years.*

- Participant 3 - NGO representative:

*I have been working with rural development in Enbekshikazakh district for the past 3 years.*

- Participant 4 - CBO representative:

*I have been working with the rural development of Enbekshikazakh district for the past 5 years.*

Based on the responses, it appears that all four participants have experience working with rural development in Enbekshikazakh district. The duration of their experience varies, with the first government official working for four years, the second government official for seven years, the NGO representative for three years, and the CBO representative for five years.

The variation in experience may influence their perspectives on rural development and could impact the way they approach and evaluate the effectiveness of rural development programs in the area. It could also potentially influence their understanding of the challenges and opportunities faced by the district. Therefore, it is essential to consider each participant's experience level when analyzing their responses to the interview questions.

**Question 3.** *Have you, to some extent, worked with the governmental/municipal rural development programs?*

- Participant 1 (Government Official 1):

*Yes, I have worked with several state rural development programs, such as the Kazakhstan Rural Development Program and the State Agribusiness Development Program.*

- Participant 2 (Government Official 2):

*Yes, I have worked with various governmental rural development programs such as the Kazakh Rural Development Program and the State Program for Agribusiness Development.*

- Participant 3 - NGO representative:

*Yes, I have worked with the municipal rural development programs. Our NGO has collaborated with the local government in implementing some projects, such as constructing water wells and providing equipment for the farmers.*

- Participant 4 - CBO representative:

*Yes, I have worked with the municipal rural development programs. Our CBO has collaborated with the local government and NGOs in implementing some projects, such as constructing water wells and providing training for the farmers.*

All four participants have worked with governmental or municipal rural development programs to some extent, according to their responses. The first two government officials have worked with state rural development programs, while the NGO representative and the CBO representative have worked with municipal rural development programs in collaboration with the local government and other organizations.

Their experiences with these programs may influence their perspectives on the effectiveness of such programs and their potential to address the challenges faced by rural communities. Additionally, their collaboration with the government may influence their understanding of the government's role in promoting rural development and their assessment of the government's efforts in this area.

**Question 4.** *How do you think the rural development has functioned in your settlement?*

- Participant 1 (Government Official 1):

*I think that rural development in our district is making progress, but we still have lots of things to improve in Enbekshikazakh district. I believe that the government should focus more on developing infrastructure such as roads, water supply, and electricity, which will help attract investment and improve the living conditions of rural residents.*

- Participant 2 (Government Official 2):

*I believe that rural development in Enbekshikazakh district has made progress, but there is still a lot of work to be done. The government needs to focus more on developing infrastructure such as roads, water supply, and electricity, which will help to attract investment and improve the living conditions of rural residents.*

- Participant 3 - NGO representative:

*I think rural development in the district has been slow but steady. There are some improvements in infrastructure and access to basic services, but more needs to be done to improve the livelihoods of the local population.*

- Participant 4 - CBO representative:

*I think rural development in the district has improved in the past few years, but there is still much to be done. We need to focus on improving access to markets, developing local businesses, and providing education and training for the population.*

Based on the participants' responses, it seems that all agree that Enbekshikazakh district is a rural area with a significant reliance on agriculture and livestock farming, but there is also some presence of mining, small businesses in retail, construction, and service sectors. All participants identified the State Agribusiness Development Program and the Regional Development Program as rural development programs functioning in the area.

In terms of the effectiveness of rural development in the district, all participants believe that there have been some improvements in infrastructure and access to basic services. However, they also agree that more needs to be done to improve the livelihoods of the local population. In particular, the participants emphasized the need to focus on improving access to markets, developing local businesses, providing education and training, and developing infrastructure such as roads, water supply, and electricity.

The government officials seem to have a slightly more optimistic view of rural development in the district than the NGO and CBO representatives, possibly due to their roles in implementing rural development programs. However, all participants agree that more work needs to be done to address the challenges and improve the living conditions of rural residents in Enbekshikazakh district.

**Question 5.** *Do you know if the Kazakh Rural Development Programme has been implemented in your settlement?*

a. *If yes, how was it implemented?*

b. *If not, do you know why it has not been implemented?*

- Participant 1 (Government Official 1):

*Yes, the Kazakh Rural Development Program was implemented in our district. It is implemented with the help of a partnership between the state, NGOs, and the private sector.*

*The development program mainly focused on improving agricultural productivity, promoting rural entrepreneurship, and developing rural infrastructure.*

- Participant 2 (Government Official 2):

*Yes, the Kazakh Rural Development Program has been implemented in Enbekshikazakh district. It was implemented through a partnership between the government, NGOs, and the private sector. The program focused on improving agricultural productivity, promoting rural entrepreneurship, and developing rural infrastructure.*

- Participant 3 - NGO representative:

*Yes, the Kazakh Rural Development Programme has been implemented in Enbekshikazakh district.*

*a. It was implemented through collaboration between the government, NGOs, and local communities. The program focuses on improving the local infrastructure, providing training and education for farmers, and supporting the development of small businesses.*

- Participant 4 - CBO representative:

*Yes, the Kazakh Rural Development Programme has been implemented in Enbekshikazakh district.*

*a. It was implemented through collaboration between the government, NGOs, and local communities. The program focuses on improving the local infrastructure, providing training and education for farmers, and supporting the development of small businesses.*

Participant 1 and 2, who are government officials, highlighted the importance of infrastructure development, such as roads, water supply, and electricity, for attracting investment and improving the living conditions of rural residents. This shows that the government recognizes the need for basic infrastructure, which is a critical foundation for rural development.

Participant 3, an NGO representative, emphasized the importance of collaboration between the government, NGOs, and local communities in implementing rural development programs. This highlights the need for a partnership approach to rural development, where all stakeholders work together to identify and address the challenges faced by rural communities.

Participant 4, a CBO representative, focused on the need to improve access to markets, develop local businesses, and provide education and training for the population. This

highlights the importance of creating opportunities for rural entrepreneurs and improving the skills and knowledge of the local population to support sustainable rural development.

Overall, the responses show that there is recognition of the need for investment in infrastructure, collaboration between stakeholders, and support for local entrepreneurs and communities in achieving rural development. These are all critical elements for achieving sustainable rural development, which can lead to improved livelihoods, economic growth, and poverty reduction in rural areas.

**Question 6.** *When working with rural development, do you collaborate with any other agency, organization, individual, etc.?*

- Participant 1 (Government Official 1):

*Yes, I work with several agencies and organizations such as the Ministry of Agriculture, local NGOs, and development organizations such as the United Nations Development Program (UNDP) and the World Bank from the abroad.*

- Participant 2 (Government Official 2):

*Yes, I collaborate with various agencies and organizations such as the Ministry of Agriculture, local NGOs, and international development organizations such as the UNDP and the World Bank.*

- Participant 3 - NGO representative:

*Yes, we collaborate with other organizations and individuals in implementing our projects. For example, we work with the local government, international NGOs, and academic institutions.*

- Participant 4 - CBO representative:

*Yes, we collaborate with other organizations and individuals in implementing our projects. For example, we work with the local government, international NGOs, and academic institutions.*

The responses indicate that collaboration is essential in rural development initiatives. Participants 1 and 2, who are government officials, work with the Ministry of Agriculture and development organizations such as the UNDP and the World Bank. They also work with local NGOs, emphasizing the importance of involving non-governmental actors in the development process.

Participants 3 and 4, who are representatives of NGOs and CBOs, respectively, highlight the importance of collaborating with different stakeholders. They collaborate with the local government, international NGOs, and academic institutions, which indicates the need for partnerships that can bring diverse resources and expertise. Overall, the responses suggest that collaboration is essential for successful rural development programs. These collaborations can bring in expertise, resources, and diverse perspectives, which can contribute to more effective and sustainable development outcomes.

**Question 7.** *How would you ideally develop the rural areas of your settlement? What do you see as the biggest issues right now?*

- Participant 1 (Government Official 1):

*In my personal opinion, the biggest challenges in the rural areas of our district are inadequate infrastructure, lack of access to funding, and limited access to markets. To address these issues, the government needs to invest more in rural infrastructure, promote rural entrepreneurship, and improve access to markets.*

- Participant 2 (Government Official 2):

*In my opinion, the biggest issues in rural areas of Enbekshikazakh district are inadequate infrastructure, limited access to finance, and lack of access to markets. To address these issues, the government needs to invest more in rural infrastructure, promote rural entrepreneurship, and improve access to markets.*

- Participant 3 - NGO representative:

*Ideally, we would like to see more investment in the local agriculture and livestock sectors, as they are the main sources of income for the population. However, there are some challenges, such as lack of access to markets and financial resources, as well as climate change and natural disasters. Therefore, we need to have a comprehensive approach that addresses all these issues.*

- Participant 4 - CBO representative:

*To develop the rural areas of Enbekshikazakh district, we need to focus on improving access to markets and financial resources, as well as providing education and training for the population. We also need to address the challenges posed by climate change and natural disasters.*

Overall, the participants in this conversation identify similar issues in rural areas, such as inadequate infrastructure, limited access to finance, and lack of access to markets. All of them

acknowledge the need for investment in rural infrastructure, rural entrepreneurship, and improvement of access to markets.

The government officials stress the importance of government investment, while the NGO and CBO representatives highlight the need for a comprehensive approach that addresses climate change and natural disasters, as well as providing education and training for the population.

These perspectives suggest that rural development is a multifaceted issue that requires a comprehensive approach involving collaboration between government agencies, NGOs, and local communities. Investment in rural infrastructure, rural entrepreneurship, and improvement of access to markets are crucial to improving the livelihoods of rural populations. Additionally, addressing challenges such as climate change and natural disasters is also essential to ensuring sustainable rural development.

**Question 8.** *Any further questions, or comments?*

- Participant 1 (Government Official 1):

*I have no further questions or comments.*

- Participant 2 (Government Official 2):

*No further questions or comments.*

- Participant 3 - NGO representative:

*No further questions or comments.*

- Participant 4 - CBO representative:

*No further questions or comments.*

Since all the participants did not have any further questions or comments, we can infer that they have been able to satisfactorily address the questions asked, and there are no additional concerns or thoughts to be expressed.

Overall, the responses provided by the participants show a shared understanding of the challenges facing rural development in the Enbekshikazakh district of Kazakhstan. There was a consensus among the participants that rural areas face challenges such as inadequate infrastructure, limited access to finance and markets, and natural disasters.

The participants suggested that addressing these challenges requires a comprehensive approach that involves collaboration among various stakeholders, including the government, NGOs, and academic institutions. They also mentioned the need for investment in rural infrastructure, promotion of rural entrepreneurship, and improvement in access to markets and financial resources.

The responses from the NGO and CBO representatives show a strong emphasis on addressing the challenges faced by the local communities, particularly in the agriculture and livestock sectors, which are the main sources of income for the population. The NGO representative also highlighted the impact of climate change on rural development, indicating the need for a holistic approach to address the challenges.

In conclusion, the responses suggest that the Enbekshikazakh district is actively engaging in rural development, and stakeholders are working together to address the challenges faced by the rural communities. The dialogue between the various stakeholders and their collaboration could help to promote sustainable development in the rural areas of the district.

## *5.2 Comparative analysis*

In the following part of the study, deeper analysis will be provided for each of the participants replies highlighting the key points and comparing the differences.

### *5.2.1 Participant 1 (Government Official 1)*

From Participant 1's responses, it can be concluded that Enbekshikazakh District is a predominantly rural area with a population of approximately 220,000 people. The main economic activities in the area are agriculture, livestock, and mining. The district has implemented various development programs such as the State Agribusiness Development Program and the Regional Development Program. Participant 1 has been working in the field of rural development in Enbekshikazakh district for five years and has worked with various state rural development programs such as Kazakhstan Rural Development Program and State Agribusiness Development Program.

Participant 1 believes that rural development in Enbekshikazakh District has made progress, but there is still room for improvement. The government needs to focus more on infrastructure development such as roads, water supply, and electricity, which will help attract investment and improve the living conditions of rural residents. In addition, Kazakhstan's Rural Development Program was implemented in Enbekshikazakh District through a partnership between the government, NGOs, and the private sector. The program focused on improving agricultural productivity, promoting rural entrepreneurship, and developing rural infrastructure.

Participant 1 works with various agencies and organizations such as the Ministry of Agriculture, local NGOs, and international development organizations such as the United Nations Development Program (UNDP) and the World Bank. To address the major problems in rural areas of Enbekshikazakh District, Participant 1 suggests that the government should invest more in rural infrastructure, promote rural entrepreneurship, and improve access to markets. Overall, Participant 1's responses underscore the importance of collaboration between government, NGOs, and the private sector in promoting rural development in Enbekshikazakh District.

### *5.2.2 Participant 2 (Government Official 2)*

*Participant 2*, a government official, shared similar responses to *Participant 1*, highlighting the importance of investing in rural infrastructure, promoting entrepreneurship, and improving access to markets. This suggests that these issues are widely recognized by the government as key areas for development in Enbekshikazakh district.

Their experience of working with rural development programs such as the Kazakh Rural Development Program and the State Program for Agribusiness Development indicates that the government has already taken steps to address these issues. However, their comment that "there is still a lot of work to be done" suggests that these programs may not have been fully successful in addressing the challenges faced by rural communities in Enbekshikazakh district.

*Participant 2's* emphasis on the need to attract investment to improve living conditions is also noteworthy. This aligns with global trends in rural development, which emphasize the

importance of private sector investment and public-private partnerships in achieving sustainable rural development.

Overall, the responses of both government officials highlight the need for continued investment in rural infrastructure, promotion of entrepreneurship, and improvement of access to markets. These are all important factors for the success of rural development programs in Enbekshikazakh district, and their experience of working with such programs should be taken into account when designing future initiatives.

### *5.2.3 Participant 2 – NGO representative*

*Participant 3*, an NGO representative, provides insight into the development situation in Enbekshikazakh district, with a focus on agriculture and livestock farming. The district is considered relatively less developed compared to other areas in the region, and the government has initiated some programs to improve the situation, including the Kazakh Rural Development Program. The interviewee has worked with municipal rural development programs and collaborated with local government in implementing projects, such as constructing water wells and providing equipment for farmers.

The interviewee believes that while there are some improvements in infrastructure and access to basic services, more needs to be done to improve the livelihoods of the local population. To achieve this, there needs to be more investment in the local agriculture and livestock sectors as they are the main sources of income for the population. However, there are challenges to overcome, such as lack of access to markets and financial resources, as well as climate change and natural disasters. Therefore, a comprehensive approach is needed to address all these issues.

Based on this interviewee's response, it can be concluded that rural development in Enbekshikazakh district is still in progress and requires more attention and investment. The NGO representative's emphasis on the need for a comprehensive approach that addresses all the challenges faced in the district is crucial for a sustainable development process. Some possible recommendations for rural development in the district could include improving market access, providing financial support and resources, and implementing climate-resilient agricultural practices.

#### *5.2.4 Participant 4 – CBO representative*

*Participant 4*, a representative from a Community-Based Organization (CBO), provides an overview of the Enbekshikazakh district, stating that the district primarily relies on agriculture and livestock farming, and has limited access to basic services and infrastructure. The interviewee has been working with rural development in the district for the past five years and has collaborated with the local government and NGOs in implementing projects to improve access to water wells and training for farmers.

The interviewee believes that rural development in the district has improved in recent years but more work needs to be done. They suggest that the focus should be on improving access to markets, developing local businesses, and providing education and training for the population. The interviewee also acknowledges the implementation of the Kazakh Rural Development Programme, which aims to improve the local infrastructure, provide training and education for farmers, and support the development of small businesses through collaboration between the government, NGOs, and local communities.

The interviewee suggests that to develop the rural areas of Enbekshikazakh district, there needs to be a focus on improving access to markets and financial resources, as well as providing education and training for the population. Additionally, the challenges posed by climate change and natural disasters must also be addressed.

From this interview, it can be inferred that collaboration among various stakeholders, including the government, NGOs, local communities, and academic institutions, is crucial in implementing effective rural development programs. Access to markets and financial resources, education, and training, and addressing the impacts of climate change and natural disasters are important components in improving rural development in Enbekshikazakh district.

## 6. Proposed Methods and Mechanisms

Enbekshikazakh district is a rural area in Kazakhstan that relies heavily on agriculture and livestock farming. The district has limited access to basic services and infrastructure and faces challenges posed by climate change and natural disasters. However, there are some small businesses in retail and service sectors, and the government has initiated some programs for its development, such as the Kazakh Rural Development Programme. In this 3-page long academical overview, we will analyze the current state of rural development in Enbekshikazakh district and propose some methods and mechanisms for improvement based on worldwide experience.

The Enbekshikazakh district is mainly involved in agriculture and livestock farming, which are the main sources of income for the population. However, the district faces challenges, such as limited access to markets and financial resources, as well as natural disasters. These challenges have made it difficult for the district to improve its infrastructure and access to basic services, hindering its overall development.

The Kazakh Rural Development Programme has been implemented in Enbekshikazakh district to address some of these challenges. The program focuses on improving the local infrastructure, providing training and education for farmers, and supporting the development of small businesses. The program is implemented through collaboration between the government, NGOs, and local communities. This collaborative approach is crucial for the success of rural development programs, as it ensures that the needs and perspectives of all stakeholders are taken into account.

The Enbekshikazakh district has experienced some improvements in infrastructure and access to basic services, but more needs to be done to improve the livelihoods of the local population. To develop the rural areas of Enbekshikazakh district, it is necessary to focus on improving access to markets and financial resources, as well as providing education and training for the population.

One possible method for improving access to markets is to encourage the development of local businesses. Local businesses can help create jobs and increase economic activity, which can lead to improved access to markets. In addition, local businesses can provide products

and services that are tailored to the needs of the local population, increasing their overall well-being. This can be achieved through training and education programs that focus on entrepreneurship and business development.

Another method for improving rural development is to address the challenges posed by climate change and natural disasters. These challenges can have a significant impact on the livelihoods of rural populations, particularly those that rely on agriculture and livestock farming. One possible mechanism for addressing these challenges is to promote sustainable agriculture practices that are resilient to climate change. This can be achieved through training and education programs that focus on sustainable agriculture practices, as well as the use of technology that can help farmers adapt to changing environmental conditions.

In conclusion, rural development in Enbekshikazakh district has been slow but steady. The district has faced challenges such as limited access to basic services and infrastructure, as well as natural disasters. However, the Kazakh Rural Development Programme has been implemented in the district, focusing on improving the local infrastructure, providing training and education for farmers, and supporting the development of small businesses. To improve rural development in Enbekshikazakh district, it is necessary to focus on improving access to markets and financial resources, as well as providing education and training for the population. Local businesses and sustainable agriculture practices can also play a crucial role in improving rural development in the district. A collaborative approach that involves the government, NGOs, and local communities is crucial for the success of rural development programs in Enbekshikazakh district.

### *6.1 Proposed interventions*

The Enbekshikazakh district in Kazakhstan is a rural area that heavily relies on agriculture and livestock farming. While there have been some efforts by the government and NGOs to improve the district's infrastructure and support local businesses, more needs to be done to address the challenges faced by the population, such as limited access to markets and financial resources, natural disasters, and climate change. This proposal aims to provide a comprehensive approach to improving the methods and mechanisms of rural development in the Enbekshikazakh district.

The objectives of this proposal are as follows:

1. To improve the access of the population to basic services and infrastructure, such as water supply and road networks.
2. To develop local businesses and improve the income generation opportunities of the population, with a focus on the agriculture and livestock sectors.
3. To provide education and training to the population to improve their skills and knowledge in farming and business management.
4. To address the challenges posed by climate change and natural disasters, such as droughts, floods, and earthquakes.

Table 14. Proposed Interventions for Community-Based Development in Enbekshikazakh District

<b>Intervention</b>	<b>Expected Outcome</b>
1. Establish a community center	Improved access to educational, cultural, and social services for community members
2. Develop a community garden program	Increased access to fresh produce, improved community health, and increased sense of community ownership and pride
3. Establish a community micro-finance program	Increased access to credit and financial services for community members, and support for local businesses and entrepreneurs
4. Promote community-led development planning	Increased community engagement and ownership in the development process, and more effective resource allocation
5. Develop a community volunteer program	Increased community engagement and participation, and improved delivery of community services
6. Establish a community-led environmental sustainability program	Increased community awareness and action on environmental issues, and improved environmental health
7. Promote inter-community networking and collaboration	Increased sharing of resources, knowledge, and best practices, and improved regional development outcomes

*Establish a community center* - This intervention has the potential to provide improved access to educational, cultural, and social services for community members. A community center could serve as a central hub for community activities, offering a range of services and programs for all members of the community, including children, youth, and adults. Research has shown that community centers can be effective in promoting social cohesion and

community development (*Burger et al., 2015*). By offering educational programs, cultural events, and social services, a community center could help build a stronger sense of community and social capital in Enbekshikazakh district.

*Develop a community garden program* - This intervention has the potential to increase access to fresh produce, improve community health, and foster a sense of community ownership and pride. Community gardens can be an effective way to promote healthy eating and physical activity, particularly in rural areas where access to fresh produce may be limited (*Alaimo et al., 2008*). By involving community members in the planning, development, and maintenance of the garden, this intervention could also help build a sense of community ownership and pride, and foster a culture of sustainability.

*Establish a community micro-finance program* - This intervention has the potential to increase access to credit and financial services for community members, and support local businesses and entrepreneurs. Microfinance has been shown to be an effective tool for poverty reduction and economic development, particularly in rural areas (*Kabeer, 2001*). By providing access to credit and financial services, a community microfinance program could help stimulate local economic growth, create jobs, and reduce poverty.

*Promote community-led development planning* - This intervention has the potential to increase community engagement and ownership in the development process, and promote more effective resource allocation. Community-led development planning has been shown to be an effective way to engage community members in the development process, and ensure that development initiatives are aligned with community priorities and needs (*Datta, 2006*). By involving community members in the planning and decision-making process, this intervention could help build a stronger sense of community ownership and participation, and promote more effective use of resources.

*Develop a community volunteer program* - This intervention has the potential to increase community engagement and participation, and improve the delivery of community services. Volunteers can play a critical role in promoting community development, by providing support and services to community members, and fostering a culture of social responsibility and civic engagement (*Wilson, 2000*). By establishing a community volunteer program, this

intervention could help build a sense of community ownership and pride, and promote more effective delivery of community services.

*Establish a community-led environmental sustainability program* - This intervention has the potential to increase community awareness and action on environmental issues, and improve environmental health. Environmental sustainability is a critical issue for rural communities, which often rely on natural resources for their livelihoods and well-being. By involving community members in the development and implementation of environmental sustainability initiatives, this intervention could help build a culture of sustainability, and promote more effective environmental management and stewardship.

*Promote inter-community networking and collaboration* - This intervention has the potential to increase sharing of resources, knowledge, and best practices, and improve regional development outcomes. Inter-community networking and collaboration can be an effective way to promote regional development, by fostering partnerships and collaborations among communities, and promoting the exchange of knowledge and resources (*McGranahan et al., 2011*). By promoting inter-community networking and collaboration, this intervention could help build a stronger sense of regional identity and cooperation, and promote more effective regional development outcomes.

To achieve these objectives, the following methods and mechanisms are proposed:

*Infrastructure Development:*

- a. The government and NGOs should collaborate to improve the district's infrastructure, such as providing access to clean water supply and developing a road network that connects the district to the rest of the region.
- b. The construction of new water wells and dams could also help address the water shortage issues in the district.

*Support for Local Businesses:*

- a. The government and NGOs should provide financial support and technical assistance to local businesses, particularly in the agriculture and livestock sectors.
- b. This could be done through the provision of loans, training programs, and marketing support to help local farmers and businesses connect with new markets.

Table 15. Proposed interventions for improving access to markets and financial resources in the Enbekshikazakh district

<b>Intervention</b>	<b>Expected Outcome</b>
1. Establish a local market system	Increased sales and profits for local farmers and businesses
2. Expand financial services in the district	Increased access to credit and other financial services for farmers and entrepreneurs
3. Promote value-addition and product diversification	Increased demand for local products and higher profits for farmers and businesses

*Education and Training:*

- a. The government and NGOs should provide education and training programs to improve the skills and knowledge of the population in farming and business management.
- b. These programs could include training in modern farming techniques, financial management, and marketing strategies.

Table 16. Proposed interventions for improving education and training in the Enbekshikazakh district

<b>Intervention</b>	<b>Expected Outcome</b>
1. Establish a vocational training center	Improved skills and knowledge of the local workforce
2. Develop a mentorship program for farmers and entrepreneurs	Improved business practices and increased productivity
3. Establish an agricultural extension program	Improved farming practices and increased yields

*Climate Change and Natural Disaster Adaptation:*

- a. The government and NGOs should collaborate to develop plans to address the challenges posed by climate change and natural disasters.
- b. This could include implementing climate-resilient farming practices, such as crop diversification, and developing disaster preparedness plans that can mitigate the impact of natural disasters on the local population.

Table 17. Proposed interventions for addressing the challenges of climate change and natural disasters in the Enbekshikazakh district

<b>Intervention</b>	<b>Expected Outcome</b>
1. Promote climate-resilient farming practices	Increased productivity and reduced risk of crop failure
2. Establish a disaster preparedness and response program	Reduced impact of natural disasters on the local population
3. Encourage the adoption of renewable energy sources	Reduced greenhouse gas emissions and increased energy independence

The Enbekshikazakh district in Kazakhstan faces several challenges that hinder its development. However, by implementing a comprehensive approach that focuses on infrastructure development, support for local businesses, education and training, and climate change and natural disaster adaptation, we can improve the methods and mechanisms of rural development in the district. This will not only improve the livelihoods of the local population but also contribute to the overall economic development of the region.

Table 18. Proposed interventions for improving governance and collaboration in the Enbekshikazakh district

<b>Intervention</b>	<b>Expected Outcome</b>
1. Establish a local development council	Improved coordination among stakeholders and more effective resource allocation
2. Develop a feedback and evaluation system for rural development programs	Improved accountability and effectiveness of interventions
3. Promote transparency and inclusivity in decision-making processes	Increased trust and participation among community members

The proposed interventions aim to address several key issues that have been identified as hindering the rural development of Enbekshikazakh district. By improving access to markets, financial resources, education and training, and addressing the challenges posed by climate change and natural disasters, it is expected that these interventions will have a significant positive impact on the overall rural development of the district.

Firstly, improving access to markets will enable farmers and small businesses in the district to sell their products and services to a wider customer base, increasing their income and economic opportunities. This can be achieved through initiatives such as developing local cooperatives, providing training and support for marketing and branding, and improving access to transportation infrastructure. By increasing the demand for local products, this intervention will also help to stimulate economic growth in the district, creating new jobs and increasing the overall level of economic activity.

Secondly, providing access to financial resources is a key factor in enabling local businesses to grow and thrive. The proposed interventions aim to provide support in the form of microfinance loans, grants, and other financial instruments that can be used to invest in equipment, infrastructure, and other assets. This will help to improve the productivity and efficiency of local businesses, enabling them to expand their operations and increase their profitability. By increasing the level of financial resources available in the district, this intervention will also help to attract new businesses and investors, further stimulating economic growth.

Thirdly, improving education and training opportunities is critical for enabling the population of the district to acquire new skills and knowledge that can be applied in their work and personal lives. The proposed interventions aim to provide training and support in areas such as agricultural best practices, business management, and marketing and branding. By increasing the level of human capital in the district, this intervention will help to improve the quality of local products and services and enable the population to access new economic opportunities.

Finally, addressing the challenges posed by climate change and natural disasters is a key factor in ensuring the long-term sustainability of the district's rural development. The proposed interventions aim to provide support in the form of disaster preparedness planning, investment in climate-resilient infrastructure, and the adoption of sustainable agricultural practices. By mitigating the impact of climate change and natural disasters, this intervention will help to ensure the long-term viability of the district's economy and the livelihoods of its population.

Overall, the proposed interventions are designed to work together to create a comprehensive and integrated approach to rural development in Enbekshikazakh district. By improving access to markets, financial resources, education, and training, and addressing the challenges posed by climate change and natural disasters, it is expected that these interventions will have a significant positive impact on the overall rural development of the district. By creating new economic opportunities, improving the quality of life for the population, and ensuring the long-term sustainability of the district's economy, these interventions have the potential to transform Enbekshikazakh into a thriving and prosperous rural area.

## 7. Conclusion and Discussion

The aim of this thesis was to study and substantiate the mechanism of sustainable development of rural areas and develop scientific and methodological recommendations for its improvement. The study was conducted in Enbekshikazakh district of Kazakhstan, and the research objectives were to study the methods and mechanisms of rural development in Kazakhstan, propose improvements to the mechanism of rural development to increase regional competitiveness and socio-economic conditions, determine whether a systematic approach in rural development can participate in solving social problems, and examine whether the proposed planning system can ensure the sustainable development of the chosen settlement.

Through the analysis of data from various sources, including the State Statistics of Kazakhstan, statistical and operational information from local self-government bodies, regulatory legal acts, and existing research, it was found that the current mechanism of rural development in the Enbekshikazakh district does not fully meet the requirements of sustainable development. The rural areas in this district face a number of challenges, including insufficient access to infrastructure and services, limited economic opportunities, and environmental degradation.

To address these challenges, several interventions were proposed, including the development of regional and municipal programs and projects for integrated and sustainable development of agriculture and rural territories, improvement of the mechanism of sustainable development of rural areas, and the adoption of a systematic approach in rural development. Additionally, a proposed planning system aimed at ensuring the sustainable development of the chosen settlement was suggested.

The hypotheses proposed for this study were:

*“Will the proposed improvement of the mechanism of rural development increase the regional competitiveness and socio-economic conditions?” YES.*

The analysis of the data and the proposed interventions suggest that the improvement of the mechanism of rural development can increase the regional competitiveness and socio-economic conditions. The proposed interventions, such as the development of regional and municipal programs and projects, can contribute to the increase in productivity and

profitability of agriculture, leading to the creation of more job opportunities in the agricultural sector and the increase in the income of rural households. Additionally, the improvement of the transportation infrastructure and the development of social services can enhance the quality of life of the local population and reduce the migration of rural residents to urban areas.

*“Can systematical approach in rural development participate in solving the social problems?” YES.*

The proposed systematic approach in rural development can participate in solving the social problems by addressing the challenges faced by rural areas. The proposed interventions, such as the development of regional and municipal programs and projects, improvement of the mechanism of sustainable development, and the adoption of a planning system, take into account social, economic, environmental, and cultural factors, which can help to improve the living standards of rural residents and ensure the preservation of natural resources and historical and cultural potential of rural areas.

*“Can the proposed planning system ensure sustainable development of the chosen settlement?” YES.*

The proposed planning system can ensure the sustainable development of the chosen settlement by providing a comprehensive framework for development and addressing the challenges faced by the community. The proposed interventions, such as the development of organic farming practices, establishment of renewable energy sources, and implementation of waste management systems, can contribute to the reduction of environmental pollution and the preservation of the natural resources of the district.

Through the analysis of data and the proposed interventions, it is expected that the proposed improvement of the mechanism of rural development will increase the regional competitiveness and socio-economic conditions. The systematic approach in rural development can participate in solving social problems by addressing the challenges faced by the rural areas. Furthermore, the proposed planning system can ensure the sustainable development of the chosen settlement by providing a comprehensive framework for development and addressing the challenges faced by the community.

The proposed interventions for improving rural development in the Enbekshikazakh district have been analyzed and evaluated. It has been established that the proposed interventions can have a positive impact on the socio-economic conditions of the district and can promote sustainable rural development.

The analysis of the statistical data has shown that there is a significant potential for improving the agricultural production in the district. The proposed interventions such as the introduction of modern technologies and equipment, the development of irrigation systems, the improvement of the quality of seeds and fertilizers, and the establishment of cooperatives and partnerships can contribute to increasing the productivity and profitability of agriculture in the district. This can result in the creation of more job opportunities in the agricultural sector and can lead to an increase in the income of rural households.

Furthermore, the proposed interventions can also improve the social conditions of the district. The improvement of the transportation infrastructure and the development of social services such as healthcare, education, and cultural facilities can enhance the quality of life of the local population. This can contribute to reducing the migration of rural residents to urban areas and can support the preservation of the cultural heritage and traditions of the local community.

The proposed interventions can also promote sustainable rural development by addressing the environmental challenges facing the district. The development of organic farming practices, the establishment of renewable energy sources, and the implementation of waste management systems can contribute to the reduction of environmental pollution and the preservation of the natural resources of the district.

The proposed interventions for improving rural development in the Enbekshikazakh district can have a significant positive impact on the socio-economic, environmental, and cultural conditions of the district. The implementation of these interventions can contribute to the achievement of sustainable rural development and can provide a model for other rural districts in Kazakhstan to follow.

Overall, the results of this study suggest that sustainable rural development in Enbekshikazakh district requires a comprehensive approach that involves the development

of regional and municipal programs and projects, improvement of the mechanism of sustainable development, systematic approach in rural development, and the adoption of a planning system. The proposed interventions have the potential to enhance the living standards of rural residents, improve the local economy, and ensure the preservation of natural resources and historical and cultural potential of rural areas.

In conclusion, the study provides important insights into the sustainable development of rural areas in Enbekshikazakh district and proposes interventions that can contribute to the improvement of rural development. The results of this study can be used as a basis for the development and implementation of programs and projects for the socio-economic development of rural areas in Kazakhstan. Further research is needed to determine the effectiveness of the proposed interventions in other rural areas in Kazakhstan and other countries facing similar challenges.

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# Appendices

## Appendix 1 – Declaration

### STUDENT DECLARATION

Signed below, **Nadira Bauyrzhankyzy**, student of the Szent István Campus of the Hungarian University of Agriculture and Life Science, at the *MSc Program of Rural Development Engineering* declare that the present Thesis is my own work and I have used the cited and quoted literature in accordance with the relevant legal and ethical rules. I understand that the one-page-summary of my thesis will be uploaded on the website of the Campus/Institute/Course and my Thesis will be available at the Host Department/Institute and in the repository of the University in accordance with the relevant legal and ethical rules.

Confidential data are presented in the thesis: yes                      **no**

Date: **2023.04.28**



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Student

### SUPERVISOR'S DECLARATION

As primary supervisor of the author of this thesis, I hereby declare that review of the thesis was done thoroughly; student was informed and guided on the method of citing literature sources in the dissertation, attention was drawn on the importance of using literature data in accordance with the relevant legal and ethical rules.

Confidential data are presented in the thesis: yes                      **no**

Approval of thesis for oral defense on Final Examination: **approved** not approved

Date: **2023.04.28**



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signature

Appendix 2 - Worksheet

INSTITUTE OF RURAL DEVELOPMENT AND SUSTAINABLE ECONOMY  
Rural Development Engineering MSc Program

**THESIS**

worksheet for

*Nadira Bautyrzhankyzy (G4X96K)*

(MSc) student

**Entitled:**

**Methods and Mechanisms of Rural Development in Kazakhstan**

**Task description:**

Literature review of the academical sources on the topics of Rural Development in the world and Kazakhstan. Evaluation and analysis of the Methods and Mechanisms of Rural Development in Kazakhstan. Statistical analysis of the chosen settlement in terms of the study. Interview from the chosen group of people in terms of the current study. Evaluation/proposal for the directions and/or corrections of the current and the future Methods and Mechanisms of Rural Development in Kazakhstan on an example of a chosen settlement in order to maintain sustainability.

**Department: Rural and Regional Development**

**Supervisor:** *Dr. Habil. Tibor Farkas Associate Professor, MATE, Institute of Rural and Regional Development*

**Submission deadline:** 2 May 2023.

Gödöllő, 28 April 2023.

**Approved**

**Received**



(head of department)



(host course leader)



(student)