The Project name: Methodology of analysis and optimization of the rural county socio-economic model (based on the materials of the Northern Kazakhstan)
IRN: AP09259525

Relevance: systematic research on the optimization of socio-economic relations in rural counties of Northern Kazakhstan has not been carried out until now. Ways and means of integrating human, agroecological, social and market factors to form optimal socio-economic models of rural territorial systems, taking into account the current conditions of Kazakhstan, require rethinking.

The practical significance of the expected results is to develop recommendations for the formation of optimal economic models of rural counties, regional socio-economic programs that contribute to improving the standard of living in rural areas, reducing unemployment and social tension, and optimizing migration flows.

The main problem addressed is the increase and alignment of the level of well-being of the rural population.

Purpose: to develop a methodology for analysis and measures to form an optimal socio-economic model of rural counties.

Results expected:1) methodological tools for calculating the resource availability of the rural county population; 2) methodological tools for calculating the level and evenness of income distribution among the population of a rural county; 3) methodological tools for integrated assessment of rural county resources based on a mathematical model; 4) optimal economic model of a rural county (with a brand product(s), a form of business organization that maximizes the synergetic effect of interaction between economic entities of the county, the leader-organizer), which would assure the most efficient use of resources, sustainable earnings growth and alignment of wealth distribution in a rural area;5) recommendations for permanent monitoring of the level of income and evennessof the income distribution among the population of a rural county.

On the base of the research results, 3 scientific articles will be published in scientific journals, including 1 article in a peer-reviewed scientific publication with a CiteScore percentile in the Scopus database of at least 35 (thirty-five), 2 articles in peer-reviewed foreign and (or) domestic publications recommended by the CSQSES.

Results achievedin 2021:
1) a database of primary data has been formed for two groups of economic elements of Novomarkovsky and Damsinsky rural districts: households (a total of 1,372 farmsteads) and commercial agricultural formations (a total of 7 formations) on the territory of the districts. The data includes information on the qualitative and quantitative parameters of natural, material, financial and labor (age structure, level of education, including special education) resources available in the district. The data is structured and presented in the form of spreadsheets;
2) methodological tools have been developed for calculating the resource availability of rural districts:
a) the methodology of multi-criteria ranking and selection of social objects. The methodology combines objective and subjective components of the ranking and selection process, conduct a comparative analysis and evaluation of criteria, calculate their weights and carry out the selection process in a single quantitative format. The methodology allows to maximize the scientific validity of the selection of objects for the implementation of socio-economic programs; the methodology is used for the selection of basic objects for the project;
b) methodological techniques and procedures for calculating the resource availability of rural districts. The developed techniques and procedures allow us to calculate the average indicators (weighted average, mode and median), the degree of uniformity /unevenness of the

distribution of specific agricultural resources of crop and livestock properties among households in rural districts.

Members of the research group:

- Project manager - Talgat Kussaiynov, Doctor of Economics, Professor. The H-Index is 3 https://www.scopus.com/authid/detail.uri?authorId=56200205600. Position and role in the project – supervisor, project administration; development of questionnaires for household surveys on indicators of well-being, resource availability; calculation of the level and evenness of income distribution among the population of the rural county; development of a set of regression equations to describe the relationship and quantify the impact of resource availability characteristics on the level of household well-being; calculation of the optimal economic model of the rural county and development of recommendations for increasing and aligning the level of well-being of the rural countypopulation; formation of a group of highly qualified specialists and development of instructions for post-project support of the developed methodological tools;

- Gulnara Mussina, Master of Economics. Position and role in the project- senior researcher-assistant manager, development of questionnaires for household surveys on indicators of well-being, resource availability; calculation of the level and evenness of income distribution among the population of a rural county; development of a set of regression equations to describe the relationship and quantify the impact of resource availability characteristics on the level of household well-being; calculation of the optimal economic model of the rural county and development of recommendations for increasing and aligning the level of well-being of the population of the county;

- Aliya Shaimerdenova, PhD. Position and role in the project- senior researcher, study of household resource availability for livestock farming in the rural county (survey of households on resource availability indicators, collection and formation of a database on livestock farming, statistical data processing, assessment of the relationship between resource availability and livestock productivity in households); development of recommendations for improving the resource supply of livestock and crop production in households;

- Zhanna Bulkhairova, PhD. H-index – 2 https://www.scopus.com/authid/detail.uri?authorId=57203804842. Position and role in the project- senior researcher, study of the state of individual entrepreneurship in the rural county, the market of household products, development of recommendations for the selection of effective forms of organization of individual entrepreneurship and cooperation at the level of rural county households;

- Sandugash Tokenova, PhD. Position and role in the project– senior researcher, study of the state of grasslands and their availability to households, crop production in the rural county (survey of households on indicators of economic resource availability; collection and formation of a database on crop production, statistical data processing); development of recommendations for improving the provision of grassland resources to households;

- Toleibergenova, ZhannaSultanovna, rural county statistician. Position and role in the project- researcher, analysis of the economic activity of the rural county; survey of households on indicators of well-being, availability of resources; collection and formation of a database on the state of grasslands. Candidate selection criteria: higher education, work experience in the sector – at least 5 years, including in the selected county – at least 2 years, communication skills, knowledge of MS Office and communication technologies;

- Kurbanaliev, Shavkat Babyrzhanovich, MSc student. Position and role in the project – junior researcher, household survey on indicators of well-being, availability of resources; calculation of the level and evenness of income distribution among the population of the rural county; testing of the economic model of the rural county. Candidate selection criteria: communication skills, knowledge of MS Office and communication technologies.

List of publications and patents published under this project (with links to them):

1. Kussaiynov, T.A. Methodology of selection of objects for social research// *ECONOMIC Series of the Bulletin of the L.N. Gumilyov ENU*. – 2021. – №3. – C.35-48(recommended by the CSQSES of the MES of the RK).
https://bulecon.enu.kz/article/archive/view?id=representativeness-and-methods-of-selecting-objects-for-social-research-2

Information for potential users: dissemination of the results of the work among potential users, the community of scientists and the general public will be carried out through the Extension system of S. Seifullin Kazakh Agrotechnical University and by highlighting the project results in the mass-media.

For post-project support of the developed methodological tools and their implementation in practice, a group of highly qualified specialists will be formed and appropriate documentation (instructions) will be developed.

Additionalinfo: