Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development
Vol. 19, Issue 3, 2019
PRINT ISSN 2284-7995, E-ISSN 2285-3952

INCLUSIVE DEVELOPMENT OF THE AGRI-FOOD SYSTEM AS A DRIVER FOR SUSTAINABLE GROWTH IN THE REGION'S ECONOMY

Elena DERUNOVA, Natal'ya KIREEVA, Olesya PRUSCHAK

Saratov Socio-Economic Institute (branch) of Plekhanov Russian University of Economics, 89, Radisheva, 410003, Saratov, Russia,
Phone: +78452211802, Mobile:+79873093797 Email: ea.derunova@yandex.ru;
Phone: +78452211723, Mobile:+79272217354 Email: natalkireeva1@yandex.ru
Phone: +78452211723, Mobile:+7 9093412927 Email: o.pruchak@yandex.ru

Corresponding author: ea.derunova@yandex.ru

Abstract

The article substantiates the need to change the paradigm of socio-economic development of the agri-food system, which will give new impetus to the steady growth of Russian territories. The priority of inclusive development, aimed not only at ensuring economic growth, but at solving social and environmental problems, strengthening the potential of both regions and the state is substantiated. It has been proved that as GDP growth slows down, a new source of economic development of the food and food market can be social, spatial, technological inclusion. The problems of the development of regional agri-food systems (spatial and social differentiation, technological complexity, inconsistency with the criteria of food safety) are identified. The possibilities of inclusive development of the agri-food system are shown: uniform and fair government support for all agricultural producers, employment growth and activation of the reproduction of the rural population, preservation of rural areas, solving environmental problems of depletion of natural capital and ecosystem exploitation.

Key words**:** *region, agri-food system, food security, sustainable growth, inclusive development*

INTRODUCTION

The modern development of the Russian economy is taking place in the context of numerous external economic and geopolitical challenges. The much-needed provision of economic growth is complicated by the many risks of technical-technological and socio-economic nature. These include the systemic crisis and the unsustainable post-crisis recovery of the national economy; decrease in real incomes of the population against the background of low rates of economic growth; high unemployment and poverty; the growth of social polarization and the leakage of creative strata of the population; financial sector instability and investment policy inefficiency; a serious backlog of the national innovation system; inefficiency of government institutions [11].

This actualizes the choice of the vector of modernization - from evolutionary to radical revolutionary.

The problems of sustainable economic growth are devoted to the activities of international organizations that continuously monitor its rates, sources, and the achievement of target parameters for sustainable development goals. FAO reports have repeatedly stressed the need to develop policies that address the interests of the poor and promote inclusive and sustainable agriculture, diversify income sources, create decent jobs, access to social protection and empower the rural population [13,27].

Inclusive development makes it possible to manage global risks: social, environmental, geopolitical [15]. The study of the relationship between inclusive growth and the digital transformation of the economy deserves attention. Digital technologies expand economic opportunities and open up new previously impossible paths [17].

The study of realities and the search for drivers of regional economic development is usually assumed within the framework of the well-known strategy of sustainable socio-economic development [8]. Sustainable development can be interpreted as a process that preserves the essential characteristics of

the territorial system and ensures the balance of social, economic and environmental processes. At present, the situation associated with economic growth in combination with depletion of natural capital and the degradation of ecosystems is unacceptable. And even the growth of the welfare of the population does not cause optimism against the background of the growth of environmental threats [4,12,28].

MATERIALS AND METHODS

The methodological basis of the study is the work of foreign and Russian economists in the field of research on the problems of agriculture and the agro-industrial complex, which have made a significant contribution to the scientific development of the problems of economic development of economic entities. At present, there is a need to search for new drivers of sustainable economic growth in order to strengthen the potential of self-development of territories and improve people's lives. Such a model of economic growth, which as a criterion is focused on the interests of the person, becomes relevant. It is from this point of view that economic, social, and political transformations in the life of the territory should be evaluated. This implies a transition to an inclusive model of regional socio-economic development, which not only ensures high rates of economic growth, but also draws into circulation all available resources, ensuring the development of institutions and technical-technological structures, as well as the comprehensive development of a person, regardless - economic situation [14, 18].

It follows that socio-economic development cannot be limited only by the sustainability parameter, but requires the addition of an inclusiveness parameter. At the same time, the importance of inclusive development increases with a slowdown in GDP growth rates.

The key concept in the inclusive development of the agri-food system is the concept of “inclusiveness”, the essence of which is described in the works of well-known modern economists Robinson and Acemoglu who use the terms - extractive and inclusive [1].

The methodology, based on evolutionary, institutional and logical approaches to the study of inclusive growth, allows to evaluate the interaction of extractive and inclusive institutions. Extractive economic institutions are characterized by a lack of law and order, difficulties in securing property rights, high barriers to entering business, over-regulation of markets, which are the most acute problems of the Russian agrarian economy.

Inclusive development (French inclusif - including, from the Latin. Include - conclude, include) is designed to minimize the negative effects of uneven international development and contribute to the movement of the state along the path of progress. In inclusive economies, property rights are protected, the functioning of the market is supported and regulated by state institutions. The opening of new businesses is simplified, but the incentives to execute contracts are strong. An important feature of inclusive economies is the access of the majority of the population to education and various types of activities. The use of these opportunities of the inclusive development model will make it possible to substantiate the strategic directions of the modern agri-food policy.

In accordance with the definition of the Organization for Economic Cooperation and Development, inclusive growth is interpreted as economic growth, creating opportunities for all segments of the population and more equitably distributing public goods, both monetary and non-monetary. The organization of economic cooperation and development within the framework of the concept of inclusivity proposed a whole system of such monetary and non-monetary characteristics: income and wealth, employment, professional skills and education, health, environmental quality, personal safety, infrastructure and housing conditions [6].

Since people are in the focus of inclusive development, the priority areas are social aspects, maintaining social harmony and stability, the innovative nature of economic growth, raising the material and cultural level

of all segments of the population. Inclusive development provides equal opportunities for the realization of human potential, regardless of socio-economic conditions, gender, place of residence and ethnic roots. It is the growth of incomes of the population, together with the growth of its economic opportunities, level of protection and quality of life, should be recognized by countries as the main goal of economic development.

Inclusive social development models create social harmony and stability, inclusive economic growth relies mainly on scientific and technological progress, increasing the material and cultural level of all segments of the population and the innovative nature of management work [9].

. The formation of this concept has become a kind of response of the developing world to the challenges, threats and achievements of globalization [7].

Models of inclusive development are promising not only for developing countries, they are actively used in economically developed countries. Such models are also relevant for Russia, which is looking for hidden reserves of economic growth. For developing countries, inclusive development is, first of all, the abandonment of the model of catch-up development based on imitation, copying, localization of external samples as the main motor of such a model [2].

It should be noted that the term "inclusive development" is widely used in economic, social and environmental aspects by many international organizations. The inclusive development of national economic systems is often considered in the context of the processes of disintegration of the global economy and finance, sanctions against a number of countries of the world, signs of the start of trade wars in global markets, etc.

Key indicators of inclusive economic development and the rating of countries on the inclusive development index were discussed at the World Economic Forum (WEF). The basic indicators of inclusive development include: growth and development; inclusion; justice and sustainability between generations. WEF calculates indicators from: GDP growth, labor force participation and life expectancy; average household income, poverty and two inequality measures; adjusted net savings (including natural depletion of capital and investment in human capital).

Analysis of various points of view revealed that researchers do not differ in the unity of views on the main provisions of the concept of inclusive development. At the macro level, inclusive development implies [5, 22].

- increase in the average standard of living of the population, growth in the average real income per capita;
- equal access of all segments of the population to public goods;
- reducing the degree of property stratification;
- reducing extreme poverty.

At the same time, a number of problems of inclusive growth at the meso and micro level still remain unresolved. This can be fully attributed to the issues of inclusive development of territorial agri-food systems. The transition to the inclusive growth model implies a shift in the priorities of the agri-food policy. To assess its effectiveness, measure the degree of growth inclusiveness.

The most important constraint for inclusive growth of the agrarian economy is unsustainable growth, and the uneven territorial distribution of opportunities (population, climatic and economic conditions). The elimination of restrictions on the path of sustainable economic development, which are an anti-incentive for potential entrepreneurs and investors, is a prerequisite for inclusive growth.

The recognition of the need for the inclusive nature of the sustainable development of regional agri-food systems requires a revision of the principles of sustainable development of the region. It is necessary to clarify the principles of the current stage of sustainable development of the region, taking into account compliance with the implementation of the inclusive development model, consistent with the global goals of sustainable development 2030 [16].

The concept of inclusive growth is a new economic model aimed at improving the well-

being of all segments of the population. The main purpose of inclusive growth is to expand human capabilities in order to include all members of society in socio-economic processes. To determine the degree of development of inclusive processes proposed key and institutional performance indicators [19].One of the key institutional indicators of inclusive development is also considered human capital and potential, the formation of which requires the presence of an educational system and a developed infrastructure, access to healthcare and to another, vital infrastructure [3].

RESULTS AND DISCUSSIONS

Sustainable growth of the regional economy is impossible without a corresponding development of the agri-food system, which is a complex subsystem of the economy, whose strategic goal is to ensure food security in the region [24].

The socio-economic importance of the functioning of the agri-food system is to provide the population with affordable and high-quality food in the required amount. Among the most important functions of the regional agri-food system are: economic, social, informational, innovative and environmental functions [29].

The agri-food system makes a significant contribution to the Russian economy: the share of agricultural products in GDP is close to 8%. At the same time, the share of people employed in agriculture is about 10%. It should be noted that over a quarter of Russia's population lives in rural areas (Table 1).

Table 1. Main indicators of the development of the agrofood system of the regions of the Russian Federation

Regions	Population per 1 km^2 of territory, people	Products of agriculture per capita, thousand rubles	Rural population ,%	Share of farmland in total area,%	The share of agricultural products in the GRP,%
Russian Federation	**8.6**	**34.8**	**25.70**	**13.00**	**7.95**
Central Federal District	60.3	33.1	17.90	51.20	5.72
Northwestern Federal District	8.2	16.1	15.70	4.00	3.22
Southern Federal District	36.7	54.3	37.60	75.30	20.10
North Caucasus Federal District	57.4	44.6	50.90	71.00	25.07
Volga Federal District	28.6	40.5	28.30	53.10	12.30
Ural federal district	6.8	25.9	18.80	9.00	3.45
Siberian Federal District	3.8	29.9	27.00	11.00	9.37
Far Eastern Federal District	1.0	26.4	24.30	1.30	4.57

Source: Rosstat data.

For the modern stage of development of the agri-food system, a whole range of problems is characteristic. First, the technological backwardness of this sector of the economy remains, which has led to a deterioration of the material and technical base, the degradation of agricultural land, a low level of labor productivity and labor skills, a critical dependence on imports of means of production, etc. Despite some positive trends, insufficient investment remains an unsolved problem. Secondly, the principle of equal conditions for multi-structured development of agriculture has been violated. Currently, large integrated structures receive the main state support, and small and medium agribusiness is almost cut off from it. Thirdly, the differentiation of the urban and rural population is significant in almost all parameters of social development (accessibility of social infrastructure, standard of living, employment, etc.). Fourth, the achievement of the target parameters of food security leads to the solution mainly of the task of food independence.

To assess the relevance of the trajectory of the inclusive development of the agri-food system, it is advisable to study the following structural components (growth and development, technological and social

inclusion, food security). Let us consider some indicators characterizing the degree of inclusiveness of the development of the agri-food system. The study revealed the main instability factors of the agri-food sector in the country: volatility of agricultural production (24% contribution to the reduction of physical accessibility of food), instability of agricultural policy (21.3% contribution) and corruption (36.5% contribution) [26].

Indeed, the themes of agricultural growth are characterized by high volatility due to the influence of natural and climatic factors [25]. There is a decrease in the share of gross agricultural output in GDP, labor productivity in the agricultural sector is lower than in the economy as a whole. The employment rate of agriculture has decreased in the last two years to 56%, while for the economy as a whole, this figure is 61% (Fig. 1).

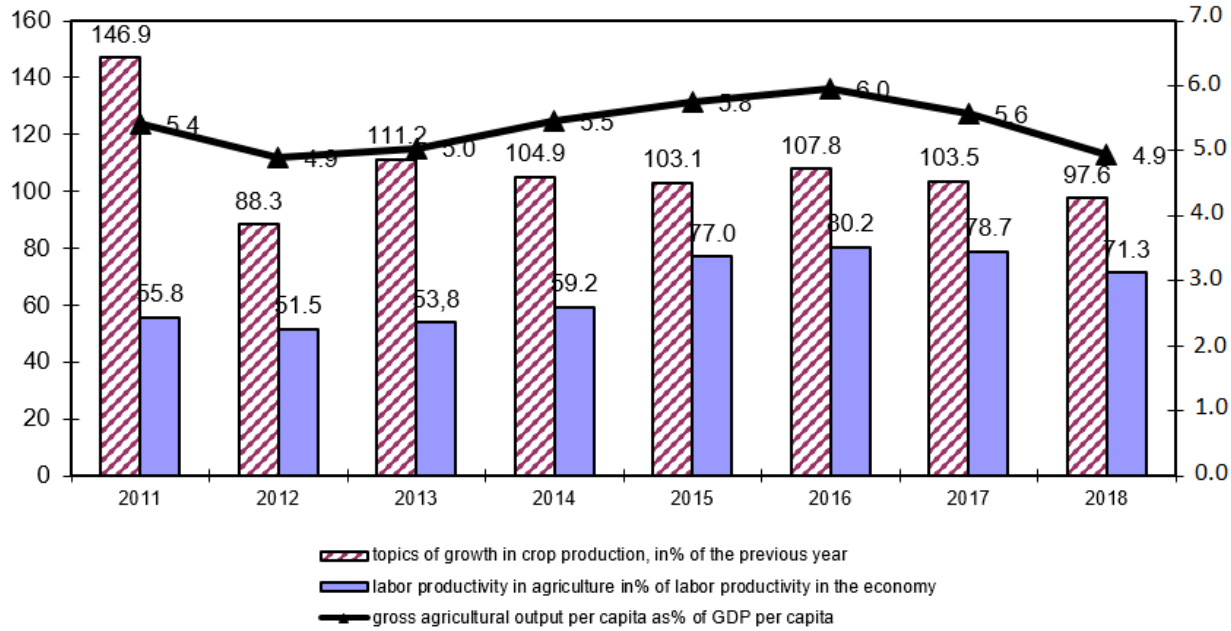

Fig. 1. Dynamics of indicators characterizing the development of agriculture in the Russian Federation

It should be noted the inequality of employment opportunities of the urban and rural population, which is reflected in the preservation of the gap in the level of their employment (Fig. 2).

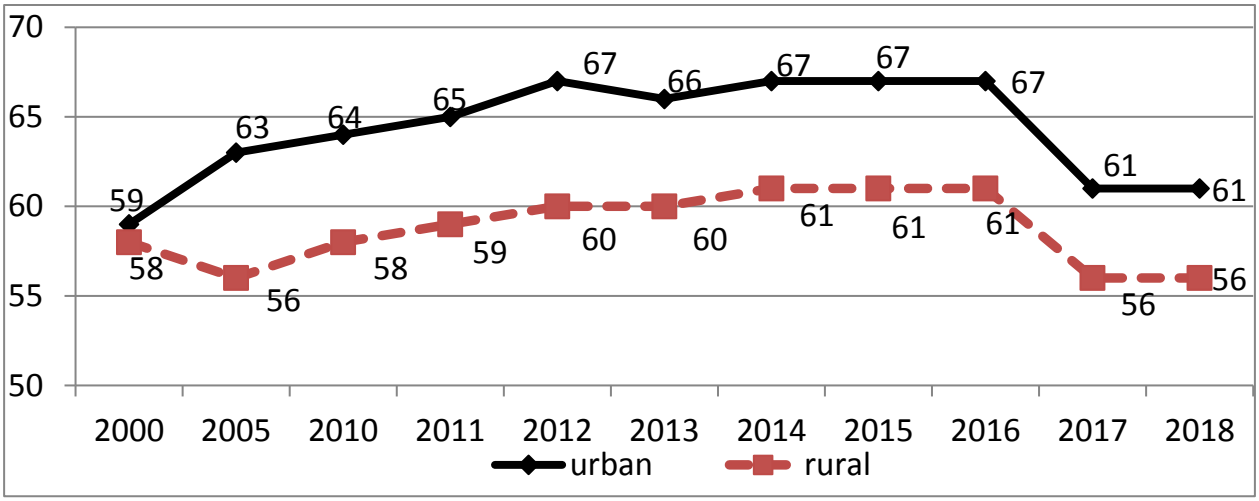

Fig. 2. Employment rate of urban and rural population aged 15-72 years, %
Source: Own determination.

At the same time, a double gap in the unemployment rate of the urban and rural population can be noted (Fig. 3). Increasing the employment of the rural population will allow the use of the concept of inclusive development.

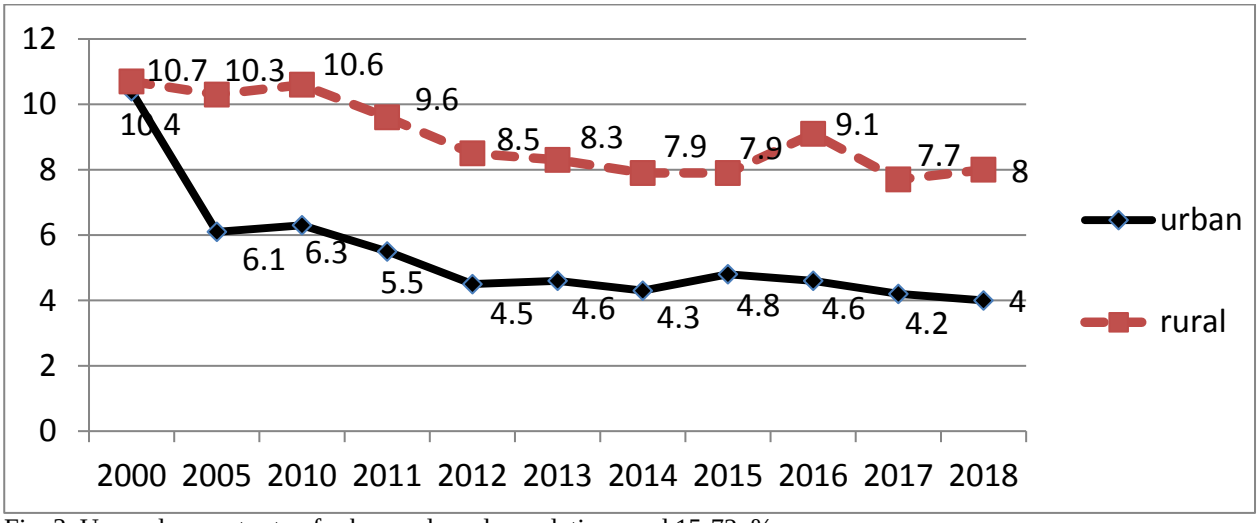

Fig. 3. Unemployment rate of urban and rural population aged 15-72, %
Source: Own determination.

The currently implemented model of socio-economic development still does not solve the social problems of the village. The differentiation of the standard of living of the urban and rural population is significant. The number of poor households living in rural areas makes up 52.2% of all poor households; the share of the population with incomes below the subsistence minimum in rural areas is more than three times higher than in the city. In 2017, the average monthly nominal accrued wages in agriculture accounted for 65% of the average for the economy, and the cash expenditures of households living in rural areas are a third less than those living in urban areas (Table 2).

Table 2. The average monthly nominal accrued wages and cash expenditures of households, depending on the place of residence in the Russian Federation in 2011-2017

	2011	2012	2013	2014	2015	2016	2017
Average monthly accrued nominal wage							
total economics, rub.	23,369	26,629	29,792	32,495	34,030	36,709	39,167
in agriculture, rub.	12,464	14,129	15,724	17,724	19,721	22,915	25,671
in agriculture,% of the average for the economy	53.34	53.06	52.78	54.54	57.95	62.42	65.54
Household cash expenses per month							
in urban areas, rub.	16,180.5	17,908.5	20,431.5	21,788.8	21,503.2	24,114.8	24,589.6
in rural areas, rub.	9,424.8	10,733.7	11,383.7	12,693.1	13,313	14,941.1	15,886.7
in rural areas,% of expenses in urban areas	58.25	59.94	55.72	58.26	61.91	61.96	64.61

Source: Own determination.

Household spending on food in urban areas amounted to 29.1% of all expenses in 2017, while living in rural areas was 32.8%, while rural residents were more dependent on food receipts from households (in urban areas, they account for 1.3% of all expenditures, in rural areas -7.3%).

Despite the implementation of state programs for the sustainable development of rural areas, problems with equal access of rural residents to social, in-road road infrastructure have not been resolved, this is especially true for the "rural hinterland".

One of the indicators of equal access to food for regional subsystems is the level of food independence. The analysis revealed a significant gap in the levels of self-sufficiency in basic foodstuffs in the subjects of the Russian Federation. Only six subjects of the Russian Federation (the Republic of Mordovia, Belgorod, Bryansk, Astrakhan, Kursk, Tambov regions) have the best indicators of food self-sufficiency. In 36 subjects of the Russian Federation, the self-sustainment potential is low and these subjects depend on external resources for filling the food market [10,20].

The regional differentiation of the physical availability of food is significant. Thus, in meat and meat products per capita consumption varies by constituent entities of the Russian Federation 2.61 times, for milk and dairy products - 3.38 times, for potatoes - 4.2 times, for vegetables - 7.69 times.

The energy value of food as an indicator of the quality of food also varies greatly in the subjects of the Russian Federation: the minimum value of this indicator is noted in the Khabarovsk Territory (2,146 kcal), and the maximum - in the Republic of Ingushetia (3,556 kcal). At the same time, the minimum proportion of animal products in the diet was recorded in the Kamchatka Krai (19.9%), and the maximum - in the Republic of Ingushetia (40.1%).

The characteristic of the economic affordability of food is the proportion of the cost of buying food in consumer expenditures of households. This figure differs more than twice by regions of the Russian Federation: from 29.3% in the Khabarovsk Territory to 61.8% in the Republic of Ingushetia.

One of the most important structural components of the inclusive development of the Russian food system is the technological component. Agriculture remains the sphere of the economy, poorly involved in technological development. In 2017, investments in information and communication technologies in the agricultural sector amounted to 3.6 billion rubles, which did not exceed 0.5% of investments in fixed assets. This is significantly inferior to the level of investment in other sectors and hinders the digitalization of the agri-food system. This represents a visible barrier to the modernization of the Russian agricultural and food system, which can be neutralized, provided that an inclusive development model is used.

CONCLUSIONS

Given the spatial and social differentiation of territorial agrofood systems, as well as their technological complexity, inclusive development can:

- to provide a more uniform and fair government support for all agricultural producers;
- increase employment and prevent the degradation of human capital in the countryside;
- intensify the reproduction of the rural population and preserve the rural territories;
- to overcome anti-sustainable trends of depletion of natural capital and the exploitation of ecosystems, as well as to solve the problems of greening production.

It should be noted that the inclusive development of the agri-food system should not be limited only to the autarkic model associated with almost complete food independence and self-sufficiency of the society [21,23].

Inclusive development does not exclude traditional sources of economic growth. The development of territorial agri-food systems should be based on increasing the productivity of labor, which is one of the sources for implementing the concept of inclusive development. At the same time, inclusive development is a multidimensional concept, involving a large number of participants in a mixed agrarian economy. Inclusive development transforms the model of economic development by optimizing and modernizing the economic structure, ensuring a coordinated solution of economic, social and environmental problems. Inclusive development relies on the involvement of all resources, contributes to the intensification of

investment and innovation processes. Considering that the peculiarity of the current stage of economic growth is the exhaustion of its capabilities, the potential of digitalization of the agri-food system of Russia as an engine for the inclusive development of the agricultural and food system, including the use of modern innovative digital business models and online platforms. The inclusive development model is a rejection of production growth at any cost. Inclusion will minimize the consequences of the uneven development of the agri-food system and provide hidden reserves for economic growth to achieve sustainable development goals.

ACKNOWLEDGEMENTS

The reported study was funded by the Russian Foundation for Basic Research according to the Research Project № 18-010-01129 «Development of methodology and assessment and forecasting tools for monitoring the innovative development of the agro-industrial complex».

REFERENCES

[1]Acemoglu D., Robinson J.A. Economics versus Politics: Pitfalls of Policy Advice // Journal of Economic Perspectives. 2013 Vol. 27 № 2: 173–192.

[2]Agarwal, B., Dorin, B., 2019, Group farming in France: Why do some regions have more cooperative ventures than others?Environment and Planning, 51(3):781-804.

[3]Akhmetshin E.M., Sharafutdinov R.I., Gerasimov V.O., Dmitrieva I.S., Puryaev A.S., Ivanov E.A., Miheeva N.M. (2018) Research of human capital and its potential management on the example of regions of the Russian Federation. Journal of Entrepreneurship Education. 21(2): 96.

[4]Akpoti, K., Kabo-bah, A.T., Zwart, S.J., 2019, Agricultural land suitability analysis: State-of-the-art and outlooks for integration of climate change analysis. Agricultural Systems.№ 173, pp. 172-208.

[5]Avdeeva, I.L.,2017, Digitalization in ensuring inclusive economic growth//Industrial policy in the digital economy- problems and prospects: Proceedings of a Scientific and Practical Conference with International Participation/ ed. Dr. Econ. Sciences, Prof. A.V. Babkin. - SPb.: Polytechnical University, pp.16-22.

[6] Avdokushin, E.F, Ivanova, V. N., 2014, Inclusive development: main directions, basic prerequisites and possible limitations. Questions of a new economy. 2014. № 3 (31). pp.4-13.

[7]Biryukova M.E, Ovchinnikova A.Yu. Trends and factors of inclusive development in the global world // Future of Science-2017 Collection of scientific articles of the 5th International Youth Scientific Conference, Vol 4: 75-79

[8] Derunova, E., Andryushenko, S., Gerchikova, E., Firsova, A., Derunov, V., 2018, Monitoring of innovative activities effectiveness in agriculture. Scientific Papers. Series Management, Economic Engineering in Agriculture and rural development, Vol. 18(3): 89-100.

[9] Derunova, E., Kireeva, N., Pruschak, O., 2019, Assessment and relationships between physical and economic accessibility of food: status and forecast. Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development, Vol. 19 (1):147-160.

[10] Derunova, E., Kireeva, N., Pruschak, O., 2019, Tipology of regions according to the level of food security: methodological approaches and solutions. Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development, Vol. 19 (1):135-146.

[11] Derunova, E., Ustinova, N., Derunov, V., Semenov, A., 2016, Modeling the diversification of the market as a basis for sustainable economic growth. Economic and Social Changes: Facts, Trends, Forecast, 6(48): 91- 109.

[12] Dumont, A.M., Baret, P.V., Vanloqueren, G., Stassart, P.M., 2016, Clarifying the socioeconomic dimensions of agroecology: between principles and practices. Agroecology and Sustainable Food Systems. 40(1):24-47.

[13] FAO's strategic work on rural poverty alleviation, http://www.uni-sz.bg/wp-ontent/uploads/biblioteka/file/TUNI10015715.pdf, Accessed on May 7, 2019

[14] Gliessman, S., 2016, A milestone for food system sustainability. Agroecology and Sustainable Food Systems. 40(10):1041-1042.

[15] Global risks, 2015, http://www3.weforum.org/docs/WEF_Global_Risks_2015_Report15.pdf, Accessed on April 28, 2019.

[16] Goals for sustainable development 2030 - electronic resource - access mode: http://kg.one.un.org/content/unct/kyrgyzstan/ru/home/SDG/ Accessed on May 17, 2019

[17]Hsu, J.W., 2019, Digital technology a must for inclusive growth: report. https://www.alizila.com/digital-technology-must-for-inclusive-growth-luohan/, Accessed on May 10, 2019

[18]Hvitsand, C., 2016, Community supported agriculture (CSA) as a transformational act—distinct values and multiple motivations among farmers and consumers. Agroecology and Sustainable Food Systems. 40(4): 333-351.

[19]Ibrahim D. R., Kazeem O.I., Abdulfatai A. A. (2018). Inclusive growth, human capital development

and natural resource rent in SSA. Econ Change Restruct. 51: 29–48,
[20]Kireeva, N.A., Prushchak, O.V., Sukhorukova, A.M., 2018, Agri-food system of the region: evolution, problems, development prospects. Saratov: Saratov Social and Economic Institute (branch) of the PRUE. G.V. Plekhanov, 216 p.
[21] Liefert, W.M., Serova, E., Liefert, O., 2010, The growing importance of the former USSR countries in world agricultural markets. Agricultural Economics. 41(1): 65.
[22] Nurlanova, N., Brimbetova, N., 2017, Inclusive development in a spatial perspective: features, problems and opportunities of Kazakhstan. Societies and Economics. No. 9. pp.67-83.
[23] On Food Security of Russia / Report of the Izborsky Club Expert Group under the guidance of Academician of the Russian Academy of Sciences S.Yu. Glazyev. http://www.dynacon.ru/content/articles/1725/, Accessed on April 23, 2019.
[24]Popescu, A., 2014, Research on profit variation depending on marketed milk and production cost in dairy farming, Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development Vol. 14(2):223-230.
[25]Popescu, A., 2016, The milk market concentration and competition thresholds in Romania, Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development, Vol.16(2):247-253.
[26]Sabelnikova, M.A., Abdrakhmanova, G.I., Gokhberg, L.M., Yu, O., Dudorova *et al*, 2018, Information Society in the Russian Federation. 2018: statistical collection; Rosstat; Nat Researches University "Higher School of Economics". M .: HSE, 2018. 197 p.
[27] The UN Sustainable Development Goals and Russia. Human Development Report in the Russian Federation Analytical Center for Government of the Russian Federation, 2016, http://ac.gov.ru/, Accessed on May 12, 2019.
[28] Wezel, A., Casagrande, M., Brives, H., Dufour, A., Vandenbroucke, P., 2016, Agroecology territories: places for sustainable agricultural and food systems and biodiversity conservation. Agroecology and Sustainable Food Systems. 40(2):132-144.
[29] Yakovenko, N.A., Rodionova, I.A., Ivanenko, I.S., Kireeva, N.A., Sukhorukova, A.M., 2018, Export potential as the competitiveness indicator of the agri-food complex. International Journal of Engineering and Technology (UAE). Vol. 7(4.38): 654-658.