X-factor of rural development: role and place in ESG model of balanced growth

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Abstract. The X-factor of rural development as a concept reflecting the totality of external and intra-regional social components allows us to better understand the relationship between economic and social changes, and transformations in cultural values, behavioural norms, beliefs and communicative processes that give meaning and significance to people's actions and attitudes. Unfortunately, in the study and design of transformations in social systems, very little attention is paid to this relationship and the fact that social, economic, cultural and communicative-semiotic processes constitute a whole and that the results and nature of change are ultimately determined by the balance of interaction between these components is not fully realised. The aim of the study is to specify the role and significance of the X-factor of rural development in the ESG-model of balanced growth on the materials of local studies and to prove its ever-growing importance in the conditions of ongoing fundamental transformations in technology, economy, and society. The objectives of the study are to identify the problems that create the situation of X-inefficiency in rural development; to develop possible ways to overcome them, taking into account the processes of technological, economic, and cultural revival and approaches to their implementation when analysing the possibility and prerequisites for the transition to X-efficiency, which will contribute to the holistic and systemic nature of formulating and achieving the goals and objectives of the ongoing changes, providing the greatest synergistic and cumulative effect of them; to determine the role and place of X-factors of rural development in the ESG model of balanced growth.

1 Introduction

Since the early 2000s, our country has been implementing a policy of rural areas revival, according to which billions of rubles are allocated annually for their socio-economic development within the framework of various comprehensive and targeted programme.
Thus, according to official statistics, at present a quarter of the total population of our
country (25.3%, or approximately 36.9 million people) lives in rural areas. Their number is
constantly decreasing. Thus, in 1990 the number of rural residents was 39.2 million, in 2000
it was 38.9 million, and in 2010 it was 38.9 million. - 38.9 million, in 2010. - 37.5 million,
in 2020 - 37.1 million. - 37.1 million. [8]. Moreover, the number of people decreases due to
the reduction of people of working age and under working age. Over the last twenty years
there were 0.8 million more people over the working age. The overwhelming majority of the
able-bodied population, although officially registered in rural settlements, work either in
nearby cities or at various enterprises and organisations throughout the country on a rotational
basis. Rural areas are losing their human capital and, consequently, their future. At a high
rate, the country continues to lose not only rural residents, but also rural settlements
themselves. Every year about 300 villages disappear from the map of Russia, and of the total
number of existing settlements, more than a third (36%) are on the verge of extinction, with
no more than 10 people living in them.

The basis for the development of rural areas is the expanded reproduction of their local
economies, which manifests itself as a continuous process of growth and expansion of
production of goods and services, capital investment, added value and income of the
population. However, statistics shows that we cannot speak in general about expanded
economic reproduction in rural areas. Thus, the share of the main subjects of the local
economy - households and farms - in the structure of gross agricultural output has decreased
over the past twenty years from 54.8% to 41.5%. A significant reduction in their share is
also observed in the production of a number of major agricultural products. For example, in
the production of potatoes it decreased from 92.5% to 79.1%, in the production of livestock
and poultry for slaughter - from 59.8% to 19.3%, in the production of milk - from 52.7%
to 44.5%. The process of diversification of the local economy, which consists in the
development of new industries and spheres, in the transition to higher redistribution of
production and related activities with greater added value through deepening specialisation,
cooperation and clustering, is going at a slow pace and does not provide visible changes for
the better [2, 3].

For the successful implementation of the strategy of sustainable development of rural
areas, the state needs to include in its priorities, in our opinion, three most important
interrelated tasks, which are still largely outside its scope.

Task 1: Adoption and implementation of a set of measures for the development of local
economies aimed at the dynamic increase in the number of local economic entities, deepening
their connectivity through local markets by developing various forms of partnership and
cooperation, introducing innovative technologies and progressive forms of organisation of
economic and entrepreneurial activities. Without a widespread revival of local economies,
formed around key population centres (medium and small towns, large rural settlements) in
the form of increasingly complex self-organising network interactions of a constantly
growing number of economic entities, it is hardly possible to talk about sustainable
development of rural areas.

Task 2. Active involvement of rural residents and people who are not indifferent to the
future of the Russian village in real joint activities for the revival and development of rural
areas, cultivating and disseminating in society the relevant values, beliefs, attitudes and
motives. Without creating favourable conditions for the formation and strengthening of mass
economic and, in general, social activity and initiative from below, without relying firmly on
the counter-movement of the active part of the local population and true patriots of their small
homeland, it is difficult for us to calculate that the adopted state programmes and plans for
rural development will have the expected effect.

Task 3. Consolidation of society and creation of a financial, material and socio-cultural
basis for the revival of the Russian countryside, which is reproduced in a cumulatively
expanding mode, through the comprehensive and accelerated introduction of modern IT-technologies, digital platforms and intelligent systems into social and economic relations in rural areas, as well as into production, economic and communicative processes.

The development of the territory is ultimately conditioned by the actions and relationships of people, the means and results of their activities. The meaning and significance of these actions and relations, as well as the derived motives, goals and attitudes of people's activities, their moral, business and volitional qualities are formed in the course of communicative, cognitive and socio-cultural processes that are inextricably linked to people's interactions and determine their intensity and qualitative level.

If all other external and internal factors and conditions of development of several territories are equal, the result will be different due to differences in the nature of motivation and quality of interactions of their residents among themselves, as well as with government and business structures, investors, other people and organisations that influence the economic, social and cultural development of these territories. This situation, in relation to the problem of firms' efficiency, was investigated by the American scientist H. Leibenstein and put forward the concept of the X-factor.

He showed that the neoclassical theory of production, considering the volume of output only depending on the quantity and structure of resources used, expressed as a production function, does not take into account the nature of motivation of production participants, determined by the impact on them a whole set of factors and conditions. Thus, Leibenstein wrote that "for various reasons, people and organisations do not work as hard and efficiently as they could" [6, 17-18]. Differences in the nature of motivation and the quality of staff interaction, which he called the X-factor, can lead to different production efficiency with the same resource supply. He distinguished intra-organisational and external components of the X-factor, predetermining the level of readiness and ability of management and staff to make maximum efforts to achieve the goals of the organisation, showing high motivation and organised interaction.

To the intra-organisational components of the X-factor H. Leibenstein attributed the level of labour morality, fairness of the system of labour remuneration and income distribution, quality of labour contracts, qualification and motivation of managers, and a number of others. As external components of the X-factor he considered factors and conditions influencing organisational behaviour and motivation of personnel from outside. These are the market environment and government policies, actions of governing bodies, the public, market counterparties, partners, investors, etc., generating incentives and disincentives in the work of managers and staff of organisations.

The purpose of this paper is to specify the role and significance of the X-factor of rural development in the ESG model of balanced growth on the materials of local studies, to show its ever-growing importance in the conditions of the current cardinal transformations in technology, economy and society. The objectives of the study include: identification of problems that cause the situation of X-inefficiency in rural development; development of possible ways to overcome them; taking into account the processes of technological, economic and cultural revival and approaches to their implementation when analysing the possibility and prerequisites for the transition to X-efficiency, which will contribute to the holistic and systemic nature of formulating and achieving the goals and objectives of the ongoing changes, providing the greatest synergistic and cumulative effect from them; determining the most effective and efficient way to achieve the X-factor of rural development in rural areas.
2 Materials and Methods

The study is based on long-term participant observation combined with natural experiments, both initiated by the authors and their colleagues and initiated by the authorities and the public in the region. The former represent the creation and long-term implementation by the researchers and their colleagues of real joint economic projects involving other people - both relatives and non-relatives. Since the late 1990s, nine such pilot economic projects have been initiated, two of which continue to the present day, while the remaining seven have been phased out at the initiative of the researchers or the involved party.

The latter are related to programmes and projects implemented and being implemented on the initiative and/or with the support of regional or municipal authorities to increase the social and economic activity of the local population, the implementation of which the authors and their colleagues were able to observe by being directly involved in the real processes. At the regional level, these are the Local Initiatives Support Programmes (LISP) and the Agricultural Consumer Cooperation Programme. The first programme has been in place since 2014, the second since 2015. [5, 7].

The local level experiments include municipal and sub-regional programmes and projects, the developers of which included some of the authors and their colleagues. The most significant among them are the Small Business Development Programmes adopted for implementation in some municipal territories in the late 1990s, as well as the Medium-Term Integrated Programme of Economic Development of the Trans-Urals for 2011-2015 approved by the Government of the Republic of Bashkortostan on 24 February 2011, which included the rural municipal territories under study.

The scientific value and effectiveness of the above-mentioned experiments lies in the fact that researchers have the opportunity to observe how people actually behave, perceiving differently, due to socio-cultural and psychological differences, changing external conditions, new realities, opportunities, incentives, reacting to them in one way or another, and gradually changing internally or resisting changes. They also provide insights into how particular factors influence people's behaviour, taking into account a wide range of contextual conditions and phenomena. Tracking this interaction allows us to establish specific cause-and-effect relationships between the X-factor of rural development, on the one hand, and the nature and dynamics of socio-economic processes in these territories, on the other. The results of periodically conducted sociological surveys of rural residents are also used in the work, which makes it possible to verify the results obtained in point observations on a more extensive empirical material, allowing us to identify the extent of prevalence and sustainability of their manifestations in the studied territories.

3 Results

The intra-territorial X-factor of development is understood as the level of consolidation and social integration of the population, managers, investors and all those who have any relation to this territorial community, the culture of their relationships, the nature and structure of their motivational attitudes, the level of knowledge, skills and abilities necessary for the implementation of economic and other socially useful activities.

The external X-factors include political, socio-cultural and economic conditions established in society, created and supported by the state, which have a significant impact on the life attitudes of rural residents, functioning and development of local economic complexes in rural areas.

Development and changes in the territorial community are based on the perceptions, values, rules and norms of behaviour and the structure of relations rooted in public consciousness, culture and social practice. This explains the objectivity and predetermination
of the sequence of actions, time frames and other parameters of improving the socio-economic order and development of the local economic complex. If this circumstance is ignored, it is difficult for us to calculate not only the full realisation of all the available potential of socio-economic and cultural development, but also, in general, a positive scenario for changing the situation here. In this article we will consider, as an example, some of the internal basic components of the X-factor of rural development, which are essential in choosing its strategy, ways and methods of its implementation. We will also outline some directions for improving the X-efficiency of rural development through legal, financial, informational and other impact on it by the state and the general public [1, 10, 11].

To analyse the structure and dynamics of the motivational core of social actions and labour activity of residents in the rural areas under study, let us refer to the respondents' answers to a number of questions of the sociological survey conducted in different years.

4 Intrinsic motives (desires)

Table 1. Answers to the question: "What desires are most important to you in your life?" * (as a percentage of the number of answers)

<table>
<thead>
<tr>
<th>№</th>
<th>Response options to the question</th>
<th>2000</th>
<th>2013</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Desire to find mutual understanding and establish friendly relations with people around them, striving to avoid conflicts</td>
<td>34.0</td>
<td>39.5</td>
<td>49.5</td>
</tr>
<tr>
<td>2</td>
<td>The desire to be independent and self-sufficient, to have one's own household or one's own business, not to be subordinate to anyone, to solve all one's life problems independently</td>
<td>51.8</td>
<td>50.1</td>
<td>48.1</td>
</tr>
<tr>
<td>3</td>
<td>Willingness to communicate with people and receive interesting information from them about various spheres of life activities</td>
<td>41.4</td>
<td>36.7</td>
<td>29.9</td>
</tr>
<tr>
<td>4</td>
<td>The desire to achieve greater success and material wealth, to surpass other people</td>
<td>30.8</td>
<td>28.5</td>
<td>26.1</td>
</tr>
<tr>
<td>5</td>
<td>The desire to have power over people, to influence them and control their actions</td>
<td>8.1</td>
<td>7.4</td>
<td>6.5</td>
</tr>
<tr>
<td>6</td>
<td>Other</td>
<td>3.2</td>
<td>2.8</td>
<td>1.4</td>
</tr>
</tbody>
</table>

* Source. Authors' research.
The answers to this question are specified and clarified by the answers to a number of other questions that are logically related to each other and help to identify the stability of certain motives, values and norms, as well as trends in their evolution. For example, the answers to the question: "What is the most important for you in the work you do?" were distributed by year as follows: internal satisfaction with the work itself (to like the work, to be fascinated by its content, interesting and good results, importance for people, family, etc.) - 42.2 % and internal satisfaction with the work itself - 42.2 %. etc.) - 42.2 % and 52.3 %; satisfaction with remuneration for work (income, salary, bonuses, promotion, praise and recognition by superiors and relatives) - 32.6 % and 36.7 %; other - 10.7 % and 2.1 %; 14.5 % and 8.8 % found it difficult to answer.

As we can see, the motives of their economic and labour activity are mainly connected by the majority of respondents with internal satisfaction from the work itself, which Herzberg called "internal aspects of work" or "motivators", while the desire for material prosperity, high income and other external stimuli, which he called "external aspects of work" or "hygiene factors", are relegated to the background. Therefore, simply creating well-paid jobs through the active involvement of outside investment is unlikely to solve the key task of sustainable development of local territories - making them more attractive for people's livelihoods. Firstly, for outside investors, as a rule, the main interest is economic benefit, the rate of return. All other interests are derived from the main interest. Accordingly, in order to achieve this, it is important to create opportunities and conditions for their residents, especially young people, to more fully realise their ideas about the prestige and social significance of work, to satisfy the whole complex of needs and interests caused by the self-realisation and development of personality.

5 Co-operation (Joint Activities)

<table>
<thead>
<tr>
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<th>2013</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Purchase of shared equipment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Purchase of livestock for joint use</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Leasing of land for joint use</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Performing economic works (cultivation of land, sowing, haying, harvesting wood or firewood, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Product sales</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Rural beautification</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Construction and repair of public facilities</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source. Authors' research.

As it can be seen from Table 2, mutual assistance and cooperation are mainly limited to joint work on village improvement and implementation of seasonal or one-off economic works that require large labour inputs or short deadlines. Villagers are not particularly inclined to create jointly used production and financial assets, which can be explained by avoiding possible troubles related to irresponsibility and dishonesty of partners and...
Counterparties in the sphere of property relations. As our experiments show, such fears have good grounds.

Table 3. Answers to the question: "Which of the listed forms of joint economic activities of people in rural areas are of the greatest interest for your family?"*

<table>
<thead>
<tr>
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<th>2000</th>
<th>2013</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Informal mutual assistance based on tradition and verbal agreements</td>
<td>69.6%</td>
<td>58.5%</td>
<td>80.9%</td>
</tr>
<tr>
<td>2</td>
<td>Establishment of a production cooperative</td>
<td>12.0%</td>
<td>16.4%</td>
<td>10.2%</td>
</tr>
<tr>
<td>3</td>
<td>Establishment of a credit cooperative</td>
<td>6.4%</td>
<td>8.8%</td>
<td>2.5%</td>
</tr>
<tr>
<td>4</td>
<td>Establishment of a consumer cooperative for supply and sales</td>
<td>8.3%</td>
<td>8.6%</td>
<td>5.5%</td>
</tr>
<tr>
<td>5</td>
<td>Establishment of a service cooperative</td>
<td>3.7%</td>
<td>7.2%</td>
<td>0.7%</td>
</tr>
<tr>
<td>6</td>
<td>Other</td>
<td>0.0%</td>
<td>0.5%</td>
<td>0.4%</td>
</tr>
</tbody>
</table>

*Source. Authors' research.

Table 3 shows that the predominant form of joint activities is informal, based on traditions and verbal agreements (69.6% in 2000, 58.5% in 2013, 80.9% in 2020). At the same time, by 2020 the growth of positive answers to this question was 16%. The second most popular answer was "Creation of a production cooperative" (12.0% in 2000, 16.4% in 2013, 10.2% in 2020). In 2020, the number of positive answers decreased by 20% as compared to 2000. for the other answer options, a decrease is also observed due to an increase in positive answers in favour of performing joint works informally.

6 Trust

Sociological surveys confirm that the problem of trust and honesty of relations is really acute in rural areas.

To the question: "Do you trust the state?" 32.1% of respondents answered "Yes", "No" - 32.8%, "I find it difficult to answer" - 35.1%. The distribution of answers to a similar question about trust in local authorities is as follows: "Yes" - 42.4%, "No" - 26.1%, "Difficult to answer" - 31.5%.

According to the results of our periodically conducted surveys, the majority of respondents chose the following answers to the question "What is the basis for the well-being of your village?": "Trust between the authorities and population" - 49.7% of the respondents, "Fairness" - 49.3%, "Wise and competent leaders" - 44.4%, "Trust between people" - 30.1%, "Conscientious labour" - 28%.

7 Patriotism (affection for one's native land)

The overwhelming majority of respondents (41.2%) named "Love for their native land, land and nature" as the main reason keeping them in the locality, 26.4% of them pointed out their reluctance to change the existing way of life, 14.8% were not sure that they would find a job that would suit them in all respects, 12.7% were afraid of uncertainty and unpredictability of the future.

To the question "Do you think a person should be responsible for the well-being of the locality where he/she lives?", 70.8 per cent of respondents answered in the affirmative, 7.3 per cent answered in the negative, and 15.2 per cent found it difficult to answer.

The result of the conducted research is of particular interest in the context of the study of the role and place of the X-factor and its components in the ESG model of balanced growth of rural areas. ESG model, as a mechanism that ensures socio-ecological-economic balance of activities in rural areas and their sustainable development, accumulates the mutual
8 Discussion

Research related to territorial development has been conducted by the staff of the Centre for Systemic Research of Sustainable Territorial Development and Quality of Life of the Sibai Institute (branch) of Ufa University since 1994. The results of the research are discussed at scientific conferences, round tables, symposiums on the problems of sustainable territorial development and in other formats of interaction with the scientific community. Thus, at the international scientific-practical conference "Co-operation and Sustainable Development" we made a report "Managerial capital and its role in sustainable development" [16]; at the I International Forum on Sustainable Development and Innovation a report "Quality of life: the impact of digitalisation" [13]; at the conference "Sustainable Development of the Digital Economy: Global Challenges and Prospects for an Innovative Breakthrough" [19], at the conference "International Scientific Siberian Transport Forum - TransSiberian 2023" report "Interdisciplinary approach to the study of the capital of territories with unbalanced development: theoretical and methodological foundations" [20], at the International Forum on Sustainable Development and Innovation report "Assessment of the quality of life of the population: an integrated approach" [14]; at the international forum "Co-operation and Sustainable Development" report "Capital of Sustainable Development of Territory: Role and Importance of Co-operation" [15].

All these materials are available in the international citation database Scopus with their subsequent indexing. The research team has a lot of other works, which have received feedback from Russian and foreign scientific teams. The Centre plans to create an interregional Eurasian centre for research of territorial development problems based on the application of various approaches and models. The team is also actively working on grants from scientific foundations, including the Russian Science Foundation. Thus, the work is currently underway under the Russian Science Foundation grant 23-28-00893 "Capital in..."
9 Conclusions

Summarising the results of the conducted research allows us to formulate the opinion that factors of rural development can be taken into account when developing ESG models of their balanced growth. Such components of effectiveness of rural development as incentives or interests of the population living in rural areas or producers of products whose activities are related to rural areas, cooperation in various spheres or joint activities to perform work, provide services, purchase equipment and materials, respect for the native land, traditions and culture, patriotism and commitment to national interests are now becoming determining factors in choosing a long-term development strategy.

Undoubtedly, territories with unbalanced development require closer attention from all levels of government, including in terms of understanding the importance of integrated and balanced development of all territories, equalising the volume and scale of resource use and replenishment, improving the standard of living and quality of life of all Russian regions and their municipalities, saturating the structure of the local economy with a variety of industry and other components, which, in combination, will reduce the imbalance in the economic and social development of the region.

10 Acknowledgements

The study was funded by a grant no. 23-28-00893 from the Russian Science Foundation, https://rscf.ru//project/23-28-00893/

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