

Reasonable Prospects for the Establishment of Local Subregional Tourism and Recreational Clusters in Line with the Specificities of Regional Spatial Development

Koroleva E.N.

Regional Economy and Development Department
Samara State University of Economics
Samara, Russia
korol388@mail.ru

Kurnikova M.V.

Regional Economy and Development Department
Samara State University of Economics
Samara, Russia
mvkurnikova@gmail.com

Abstract—The paper is aimed at grounding the prospects for tourism and recreational clusters development at the subregional level with regard to the characteristics of regional spatial development. The methodology proposed for the study was used to define tourism and recreational clusters on the peripheral territories of the Samara Region outside the largest Samara-Togliatti agglomeration based on rankings. The study resulted in the recommendations on the development of seven tourism and recreational clusters at the municipal level of the Samara Region. The practical importance of the research is in the prospective use of its results by government officials and local authorities of the Samara Region aiming at improving management of tourism and recreational cluster development based on the cluster approach.

Keywords—regional economy; tourism; spatial development; cluster approach; rankings.

I. INTRODUCTION

Academics and practitioners usually explain the ongoing Russia's approach to economic clustering by the need to transform the economic space of the country in search for management tools aimed at improving the efficiency of regional social and economic development.

The Samara region is one of the forerunners in this respect. Already in 2006, the Strategy for the social and economic development of the Samara region until 2020 [1] recognized the formation of a regional tourism and recreational cluster as a priority area for the sustainable development of the region. This initiative was supported at the federal level. In accordance with the ruling of the Russian government dated August 2, 2011 "On the Federal Target Programme "The development of internal and entrance tourism in the Russian Federation for 2011-2018", the comprehensive development of tourism and infrastructure of tourism and recreational clusters and the creation of a network of camping clusters was designated to address the priority task of developing national tourism and recreational complex [2].

Every Russian region has its specifics of spatial development largely determined by whether or not it has agglomerations on its territory.

Recently held sporting mega-events have become essential for the development of tourism clusters in Russian largest agglomerations. Government support for the projects aimed at the creation of sporting and event tourism clusters was provided to the agglomeration centres in the Republic of Tatarstan (Kazan) and the Republic of Mordovia (Saransk), the Nizhny Novgorod Oblast (Nizhny Novgorod), the Sverdlovsk Oblast (Yekaterinburg), the Samara Oblast (Samara and Togliatti), the Krasnodar Krai (Sochi and Krasnodar), etc.

In respond to the priorities of the Strategy for the spatial development of the Russian Federation until 2025, the cluster approach is becoming even vital in managing the development of tourism in Russian regions. In this regard, the overriding policy challenge is to enhance the development of tourism and its infrastructure in rural areas and promote their resources in national and global markets [3].

In practice however, the cluster approach at the subregional level covers only highly urbanized territories without affecting out-agglomeration peripheral rural municipal areas. Thus, these low-developed areas either have recognized tourism potential or may build their capacities in tourism.

The research is aimed at developing a methodology toolbox for reasoning the prospects for the development of subregional tourism and recreational clusters (at the subregional or municipal levels) taking into account the specificities of regional spatial development.

II. LITERATURE REVIEW

In general, the science of economics has achieved a common understanding of the essence and specifics of clusters. Author's approaches to defining clusters of various kinds are different depending on focusing the attention on a

specific feature of this economic phenomenon important for their research [4].

In general, two approaches can be identified to the definition of a tourism cluster. Firstly, a tourism cluster is seen as a tourism and recreational special economic zone [5]. Secondly, it is defined as a geographically localized group of businesses (firms) interacting in the tourism and recreational sphere [6-8].

In our view, the most comprehensive classification of numerous approaches to the definition of a tourism cluster was developed by A. Bol'shakov [9].

The definitions of a regional tourism cluster are much less frequent in scientific literature [10, 11]. In our research we use a clarified concept of a tourism and recreational regional cluster based on the definition by O. Bakumenko [12]. We understand a regional tourism and recreational cluster as a system of institutes (businesses, officials, academia, public organizations) in tourism industry and related activities sharing regional tourism resources for the formation, promotion and distribution of its tourism product in order to satisfy recreational needs and improve their competitiveness and the one of the regional economy.

However, the practical implications of cluster strategies aimed at the development of regional tourism and recreational complexes are found in the researches [13, 14]. Thus, there is little study of spatial aspects of the cluster approach efficient use at the subregional level. Also worthy of emphasis in this connection is the research by Zh. Yermakova and Yu. Kholodilina [15] defined promising tourism and recreational clusters at the level of the Orenburg Oblast municipalities. However, this research does not have any objective methodology for substantiating subregional clusters.

III. RESEARCH METHODOLOGY

In this study the authors developed and realized the methodology for justifying the prospects for developing tourism and recreational clusters at the subregional level involving the use of rankings.

The developed methodology based on the assessment of municipalities involves the implementation of subsequent stages.

- 1) The ranking of tourism and recreational complex of the municipalities under analysis.
- 2) The grouping of the municipalities according to the development level of the tourism and recreational complex.
- 3) The analysis of tourism development priorities and the mechanisms of their implementation in strategic planning documents of a Russian subject and its municipalities.
- 4) Preparation of recommendations on tourism and recreational clusters development at the subregional level.

On its first stage, the ratings application implies the following procedures.

1) *Raw data collection and verification:* The authors have collected the data sets and indicators characterizing the tourism

and recreational complex of a municipality consistent with the availability of official statistical information (see Table 1).

TABLE I. THE LIST OF INDICATORS CHARACTERISING MUNICIPAL TOURISM AND RECREATIONAL COMPLEX TO BE USED FOR RANKINGS COPY^A

Components	Indicators	Unit of measure
Tourism and recreational resources	Objects of historical and cultural heritage;	EA
	objects of archaeological heritage;	EA
	number of institutions of the culture-and-leisure type;	EA
	number of pollutants by stationary sources	EA
Tourism industry	Number of objects of retail trade and catering;	EA
	number of places in catering facilities;	EA
	the length of public highways with paved surface;	km
	number of sports facilities	EA
Tourism infrastructure	Collective accommodation;	EA
	number of places in collective accommodation	EA

^A. Worked out by the authors

2) *The construction of the indicator scoreboard (A).* These indicators may be integer or fractional, positive or negative. In addition, the indicators are arranged in ascending or descending order. The scoreboard A has M rows (equal to the number of municipalities) and N columns (equal to the number of indicators). A weighting factor is calculated for each indicator which leads to the scoreboard row H.

3) *The calculation of rankings according to the equations (1)-(6)* [16].

a) the integer rank C_{ij} is equal to the position (from 1 to M) occupied by this raw at a specified streamline. If some variants have the same indicators, their integer rank will be calculated as the arithmetic average of their positions;

b) the total integer rank. The sum of all integer ranks is calculated for each raw.

$$Sc_i = \sum_{j=1}^M C_{ij} \tag{1}$$

Thereafter, the integer rank is calculated for a sum column (arranged in ascending order). This operation will result in the total integer rank.

c) the total integer rank with regard to the weighting factors. The sum of all integer ranks is calculated for each raw.

$$Sc_i = \sum_{j=1}^M C_{ij} \cdot H_j \tag{2}$$

Thereafter, the integer rank is calculated for a sum column (arranged in ascending order). This operation will result in the total integer rank with regard to the weighting factors.

d) the fractional rank D is calculated according to the equations:

$$D_w = 1 + (Y - \text{Min}) \cdot (N - 1) / (\text{Max} - \text{Min}) \quad (3)$$

$$D_u = N + 1 - D_w = N - (Y - \text{Min}) \cdot (N - 1) / (\text{Max} - \text{Min}) \quad (4)$$

where DN is a fractional rank arranged in ascending order and DU is a fractional rank arranged in descending order.

e) the total fractional rank. The sum of all fractional ranks is calculated for each row.

$$Sd_i = \sum_{j=1}^M D_{ij} \quad (5)$$

Thereafter, the fractional rank arranged in ascending order is calculated for the sum column. This operation will result in the total fractional rank.

f) the total fractional rank with regard to the weighting factors. The sum of all fractional ranks is calculated for each row.

$$Sd_i = \sum_{j=1}^M D_{ij} \cdot H_j \quad (6)$$

Thereafter, the fractional rank arranged in ascending order is calculated for the sum column of ranks. This operation will result in the total fractional rank with regard to the weighting factors.

4) *The analysis of the results and the development of the conclusion on the choice of the best ‘object’ – a municipality in our case.*

IV. RESULTS

The methodology proposed for the study was used to define tourism and recreational clusters on the peripheral territories of the Samara Region outside the largest Samara-Togliatti agglomeration (STA):

1) *The analysis of the STA composition.* STA has an important place in the all-Russian resettlement system being still the third most urbanized behind the Moscow and St Petersburg agglomerations. The STA consists of 8 urban areas and 9 municipalities.

2) *The formation of the indicator scoreboard for 18 municipalities outside the agglomeration based on the official statistical data for 2017.*

3) *The calculations* have used Microsoft Office 2016 Professional Plus (Excel) packaged applications and resulted in the rankings of the tourism and recreational complexes levels of the municipalities outside the STA agglomeration: only 2 urban districts and 18 municipalities of the Samara region are outside the agglomeration. The results of integer and total fractional ranks with regard to the weighting factors were more preferable as they considered the importance of an indicator in the comprehensive assessment.

4) *All the research municipalities were arranged in two groups based on the calculations* (see Table 2):

- Group 1 – the municipalities with the high-level municipal tourism and recreational complex (the positions from 1 to 9);
- Group 2 – the municipalities with the low-level municipal tourism and recreational complex (the positions from 10 to 18).

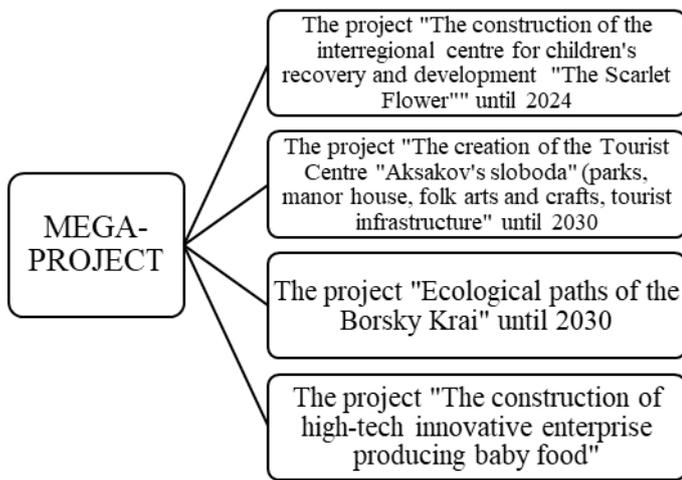
TABLE II. THE CLASSIFICATION OF THE MUNICIPALITIES OUTSIDE THE STA BASED ON THE RANKINGS^a

(1) The municipalities of Group 1	Positi on in the rating	The municipalities of Group 2	Positio n in the rating
Sergievsky	1	Isaklinsky	10
Kinel-Cherkassky	2	Pestravsky	11
Koshkinsky	3	Chelno-Vershinsky	12
Neftegorsky	4	Bogatovsky	13
Bol'shechernigovskiy	5-6	Shentalinsky	14
(1) Khvorostyansky	5-6	Yelkhovskiy	15
Bol'sheglushitsky	7	Alexeevskiy	16
Pohvistnevskiy	8	Kamyshlinsky	17
Borsky	9	Klyavlinsky	18

^b. Worked out by the authors

5) The study of relevant documents of strategic planning and programs of tourism development in the Samara region had established that all program and project initiatives aimed at the creation of a tourism and recreational cluster are mainly located on the territories of municipalities forming the Samara and Togliatti nuclei of the STA.

6) On the contrary, the analysis of the municipal strategic planning documents from Group 1 (the municipalities with the high-level tourism and recreational complex) revealed that all municipal strategies have strategic orientations (priorities, goals, objectives) in any way associated with the outlook for municipal tourism complex [17]. We will analyse the Borsky municipality as an example. The strategy is centred around the megaproject “Literary and cultural heritage and natural complex as a driver for the balanced social and economic development of the Borsky municipality” [18] that is a set of subprograms and projects in the sphere of tourism (see Fig. 2).



Compiled by the authors according to <https://www.adm-borraion.ru/2018-09-14-06-02-03>

Fig. 1. The megaproject “Literary and cultural heritage and natural complex as a driver for the balanced social and economic development of the Borsky municipality”

7) The megaproject activities are aimed at the creation of technology-intensive sectors service sector of regional importance within the Samara Region and potentially of interregional importance (within the Orenburg Region and other Russian subjects) whose purpose is to restore the cultural heritage of the well-known author A.G. Aksakov, upbringing and health care of children. This megaproject with its synergetic effect could become a catalyst of the balanced social and economic development of the Borsky municipality and raise living standards of the Borsky population.

8) The research made recommendations on the development of seven tourism and recreational clusters at the municipal level of the Samara Region (the Sergievsky, Otradnensky, Neftegorsky, South, North-Eastern, Borsky, Koshkinsky) (see Table 4). We should note that the question on the inclusion of some out-agglomeration municipalities (the Khvorostyansky, Chelno-Vershinsky, Shentalinsky municipalities) into a specific cluster remains open and needs further research.

TABLE III. THE COMPOSITION AND SPECIALIZATION OF TOURISM AND RECREATIONAL CLUSTERS OUTSIDE THE STA^a

The name of the cluster	The composition of the cluster	Priority tourism
Sergievsky	The Sergievsky municipality, the Isaklinsky municipality	cultural, active, health, ecological
Otradnensky	The Kinel-Cherkassky municipality, the Otradny urban area	cultural, active, health, ecological
Neftegorsky	The Neftegorsky municipality, the Bogatovsky municipality	cultural, active, ecological
Southern	The Bol'shechernigovskiy municipality, the	cultural, active, ecological

The name of the cluster	The composition of the cluster	Priority tourism
	Bol'sheglushitsky municipality, the Pestravsky municipality	
North-Eastern	The Pohvistnevsky municipality, the Pohvistnevo urban area, the Kamyshlinsky and Klyavlinsky municipalities	cultural, active, ecological
Borsky	The Borsky municipality, the Alexeevsky municipality	cultural, active, health, ecological
Koshkinsky	The Koshkinsky municipality, the Yelkhovskiy municipality	cultural, ecological

^c Worked out by the authors

The practical importance of the research is in the prospective use of its results by government officials and local authorities of the Samara Region aiming at improving management of tourism and recreational cluster development based on the cluster approach.

V. DISCUSSION

The study confirmed that the use of the cluster approach is currently acquiring a new relevance for the development of regional tourism with tourism clusters being now a specific object of regulation and an instrument of tourism development on a territory. That is because clusters offer some advantages: a comprehensive analysis and inclusion of tourist needs; the integration of businesses and stimulation of their innovative activities; achieving competitive advantages and improving competitiveness of both businesses and the regional system as the whole [19].

The federal acceptance of the spatial development Strategy until 2025 has given further impetus to the use of the cluster approach to regional tourism development management.

The research revealed that most strategies of the urban districts and municipalities of the Samara Region outside the STA have sound goals and objectives aimed at the priority development of tourism at the non-agglomeration territories.

As part of a study, the authors developed the methodology of grounding the prospects for the development of tourism and recreational clusters at the subregional level based on rankings. This methodology was tested on the municipalities of the Samara Region outside the STA which resulted in the recommendations toward the formation of seven municipal tourism and recreational clusters. These recommendations take into account both the current principles of spatial development – the comprehensive approach to the territorial social and economic development, contribution to the development of interregional and intermunicipal cooperation [20] and the principle of preponderance of the priority kinds of tourism in Russia (cultural, active, health, ecological) [21].

The use of cluster strategies as a driving force for the innovative development of internal and entrance tourism will ensure a multiplier effect of the innovative milestones formation for regional economic growth [22] and a positive

impact of municipal clusters on the development mechanisms of regional competitive environment.

VI. CONCLUSIONS

Thus, the authors achieved the goal of grounding the prospects for tourism and recreational clusters development at the subregional level with regard to the characteristics of regional spatial development:

- the features and problems in the use of the cluster approach have been eliminated considering modern aspects of the spatial development of Russian regions;
- the methodology for grounding the prospects of tourism and recreational clusters development at the municipal level based on rankings has been worked out and tested;
- the recommendations for the development of tourism and recreational clusters of the municipal level situated on the non-agglomeration territories of the Samara Region have been suggested.

The conclusions presented and methodological guidance could be aimed at any other Russian subjects.

References

- [1] The Strategy of the social and economic development of the Samara Oblast until 2020, available at <http://economy.samregion.ru>.
- [2] Russian Government Resolution No. 644 dated 02.08.2011 "On the Federal Target Programme "The development of internal and entrance tourism in the Russian Federation for 2011-2018".
- [3] The Decree of the Russian Government "On the approval of the Strategy of spatial development until 2025" No. 207-p dated February 13, 2019.
- [4] G.R. Khasaev, O.G. Isaev, and M.Yu. Sadovenko, *An Economic Cluster: Study Methodology, Problems and Tasks*, Samara: Samara State University of Economics Publishing, 2016, 138 pp.
- [5] Federal Law of the Russian Federation No.365- Φ3 dated 30 November 2011 "On Amendments to the Federal Law "On special economic zones in the Russian Federation" and certain legislative acts of the Russian Federation".
- [6] A.B. Rodrigues, *Turismo Rural: Práticas e Perspectivas*, Sao Paulo: Contexto, 2003.
- [7] M. Beni, *Globalização do Turismo: Megatendências do Sector e a Realidade Brasileira*, Editora Aleph, São Paulo, 2003.
- [8] S.K.D. Cunha, and C.D.C. Joao, "Tourism cluster competitiveness and sustainability: proposal for a systemic model to measure the impact of tourism on local development", *Brazil: ANPAD*, 2005, Vol. 2 (2): 47-62. Available at: http://www.anpad.org.br/bar/vol_02/dwn/bar_v2_n2_skc.pdf.
- [9] A.I. Bol'shakov, "Modern approaches to defining tourism clusters", *Service in Russia and abroad*, 2012, No.6(33), pp. 50-58.
- [10] T.P. Levchenko, K.K. Kulyan, and M.K. Kulyan, "Cluster approach to the sustainable development of tourist destinations", *Sochi Journal of Economy*, 2012, No.2(20).
- [11] E.N. Koroleva, and Ya.V. Koroleva, "A tourism and recreational cluster: definition, role and priorities in the strategies of regional development", *Proceedings of the 2nd International Conference "International cross-border cooperation and tourism potential by events at the global level*, Issue 1, Samara, 2017, pp. 37-41.
- [12] O.A. Bakumenko, "The classification of tourism clusters", *Proceedings of the International Conference "Patterns and trends of science development in modern society"*, 2013, Ufa, Russia, pp. 30-34.
- [13] M.Ye. Komarova, "Tourism clusters as the basis for regional tourism development", *Service in Russia and abroad*, 2016, pp. 16-29.
- [14] O.P. Kuznetsova, A.A. Kuzmenko, and E.A. Yumaev, "Co-Opetition (Coexisting Competition and Competitive Coexistence) in the Tourism Field in Siberian Regions", *Economy of Region*, 2017, 13, pp. 237-248. DOI: 10.17059/2017-1-22.
- [15] Zh.A. Yermakova, and Yu.E. Kholodilina, "Spatial organization of tourism activity", *Bulletin of the Orenburg State University*, 2015, No. 8 (183), pp. 46-53.
- [16] V.A. Tsybatov, and D.V. Dubrovin, *Methods, models and Systems of Regional Development Prognosis*, Samara: Samara State University of Economics Publishing, 2003, pp. 131-134.
- [17] M.V. Kurnikova, E.N. Koroleva, and A.G. Timofeev, "The model of municipal strategic planning in the context of digital economy", 2019, pp. 1469-1482. 10.15405/epsbs.2019.03.149.
- [18] The Strategy of the social and economic development of the Borsky municipality until 2030, available at <https://www.adm-borraion.ru/2018-09-14-06-02-03>.
- [19] A.V. Bubnov, and A.S. Kuskov, *Cluster Development of Tourism in Russia in the context of globalization: legal, economic and managerial aspects*, Moscow: Ruscience, 2018, 202 pp.
- [20] R. Capello, "Entrepreneurship and spatial externalities: theory and measurements", *The Annals of Regional Science*, 2002, V. 36, pp. 387-402.
- [21] Russian Government Resolution No. 872-p dated May 5, 2018 "On the approval of the outline of the federal special-purpose programme "The development of internal and entrance tourism in the Russian Federation (2019-2025)".
- [22] O.G. Lebedinskaya, A.G. Timofeev, and M.V. Kurnikova, "Developing the mechanism to identify directions of innovative activities for further development", *European Proceedings of Social and Behavioural Sciences*, 2019, Vol. 59, pp. 198-205. 10.15405/epsbs.2019.04.23
- [23] Aleksandr S. Kuznetsov. Russian Professor's meeting. *Russian Journal of Physical Education and Sport*. Pp. 2019, 14(1), 17-22. DOI: 10.14526/2070-4798-2019-14-1-18-2