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THE IMPACT OF INTER-MUNICIPAL COOPERATION OF TERRITORIAL COMMUNITIES ON LOCAL SUSTAINABLE DEVELOPMENT

The article confirms that inter-municipal cooperation is a factor influencing the determinants of sustainable local development. The relationship between the number of communities that have concluded agreements on inter-municipal cooperation and a set of indicators of the indicators of sustainable development of territorial communities is formalized based on the use of the correlation-regression analysis toolkit using the STATA software package.

There is a positive impact of increasing the number of communities that have concluded agreements on inter-municipal cooperation on the indicators of the economic component of sustainable development: gross regional product, agricultural output, exports of goods per capita; on the environmental component of sustainable development: reducing the growth rate of pollutant emissions from stationary sources of pollution and reducing the amount of fuel and energy resources consumed in the region. Regarding the indicators of the social component of sustainable development, there is a positive impact on the regional human development index, the share of graduates of secondary schools who received 160 points and above according to the results of external independent evaluation of Ukrainian language and literature, the planned capacity of outpatient clinics, average life expectancy at birth and reduction of a number of criminal offenses committed against human life and health.

Dissemination of inter-municipal cooperation is a promising area for the development of territorial economic systems. It is not only an alternative to the consolidation of communities but also an effective means of ensuring the economic viability of communities in the context of decentralization. Today, inter-municipal cooperation of territorial communities in Ukraine is one of the important directions of local self-government reform.

Keywords: decentralization; inter-municipal cooperation (IMC); cooperation; sustainable development; territorial communities; amalgamated territorial community (ATC).

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ВПЛИВ МІЖМУНІЦИПАЛЬНОГО СПІВРОБІТНИЦТВА ТЕРИТОРІАЛЬНИХ ГРОМАД НА СТАЛІЙ МІСЦЕВИЙ РОЗВИТОК

У статті доведено, що міжмуніципальне співробітництво є фактором, що впливає на детермінанти сталого місцевого розвитку. Формалізовано взаємозв'язок між кількістю громад, що уклали договори міжмуніципального співробітництва та набором показників сталості розвитку території на основі використання інструментарію кореляційно-регресійного аналізу зі застосуванням програмного комплексу STATA.

Підтверджено позитивний вплив збільшення чисельності громад, що уклали договори міжмуніципального співробітництва на показники економічної складової сталого розвитку: на валовий регіональний продукт, обсяг виробництва продукції сільського господарства, обсяг експорту товарів у розрахунку на одну особу населення; на екологічну складову сталого розвитку: зниження темпи зростання викидів забруднюючих речовин стаціонарними джерелами забруднення та зменшення обсягів паливноенергетичних ресурсів, спожитих у регіоні. Щодо показників соціальної складової сталого розвитку, то підтверджено позитивний вплив на індекс регіонального людського розвитку, частку випускників загальноосвітніх навчальних закладів, які отримали за результатами зовнішнього незалежного оцінювання з української мови та літератури 160 балів і вище, планову ємність амбулаторно-поліклінічних закладів, середню очікувану тривалість життя при народженні та на зниження кількості кримінальних правопорушень вчинених проти життя та здоров'я людини.

Ключові слова: децентралізація; міжмуніципальне співробітництво; кооперація; сталий розвиток; територіальна громада; об'єднана територіальна громада (ОТГ).

Problem setting

The strategic course of Ukraine at the current stage of development of society is the acquisition of full membership in the European Union. Having defined the European vector of development as its priority, Ukraine declared its intention to implement the principles of sustainable development. The Strategy for Sustainable Development of Ukraine 2020 became a document that reflects the priorities of state development. One of its priority tasks is the reform of decentralization and public administration. The aim of decentralization policy is to move away from the centralized model of governance, to ensure the capacity of local self-government, and to build an effective system of territorial organization of power in Ukraine.

As part of the decentralization reform, amalgamated territorial communities have been established, and various models of interaction between them are being developed.

However, the uneven socio-economic development of territorial communities and their lack of financial capacity led to the search for alternative tools to ensure quality services and the proper quality of life for inhabitants. The European experience of territorial organization of local government offers other solutions than amalgamation. One of such solutions is inter-municipal cooperation.

Recent publications analysis

The research of many domestic and foreign scientists is devoted to cooperation of territorial communities. Ukrainian scholars Burkinsky B.V., Laiko O.I., and Talpa V.P. study the tools of economic cooperation of communities as a means of ensuring the economic capacity of communities in terms of decentralization, as well as an alternative to the process of amalgamation of territorial communities [1]. Sirik Z.S. studied the effectiveness of mechanisms of horizontal cooperation of territorial communities in the context of decentralization [2]. Tolkanov V.V. studied the legislative, institutional, financial aspects of the IMC, as an innovative mechanism for local sustainable growth, and as one of the priorities of local government reform in Ukraine [3].

Many foreign scholars have studied inter-municipal cooperation as an effective tool in the field of public services. Bel G. and Warner M. [3], Baba H. and Asami Y. [4], Niaounakis T. [5] conducted parametric empirical research on the impact of inter-municipal cooperation on some aspects of community development.

Previously unsolved parts of the general problem to which the article is devoted

Despite the significant amount of research in the field of IMC of territorial communities, the mechanism of IMC as a tool for achieving sustainable development of territorial communities in the context of influencing certain determinants of sustainable development requires a comprehensive study. Researchers have looked at some aspects of the IMC's impact on some economic or social indicators, or studied the institutional aspect of the IMC from a management perspective, or the financial aspects of the IMC.

However, the IMC as a mechanism of sustainable development stimulation in the context of decentralization reform remains unresolved.

Formulation of the goals of the article

The aim of the article is to substantiate the impact of inter-municipal cooperation on the determinants of sustainable development of territorial communities.

Key research findings

Firstly, to study IMC as a form of cooperation of territorial communities, it is important to understand the context of the concept of inter-municipal cooperation. For the purposes of our study, 2019 year was chosen because we are interested in IMC as a form of cooperation in territorial communities, and as much as cooperation involves voluntary association to achieve common goals, we chose the period of the decentralization reform phase, during which voluntary amalgamation took place.

Inter-municipal cooperation is relations between two or more territorial communities, carried out on an agreement basis in certain forms in order to ensure socio-economic, cultural development of territories, improving the quality of services based on common interests and goals, effective implementation of local authorities [6]. Inter-municipal cooperation is the result of a conscious decision of local residents and authorities, and the nature of the association is mostly voluntary.

Sustainable development is a development that enables the needs of present generations to be met and allows future generations to meet their needs. It is a balanced development of the country and regions, in which economic growth, material production, and consumption, as well as other activities of society, occur within the limits determined by the ability of ecosystems to recover, absorb pollution and sustain present and future generations [7].

There are three integral components of sustainable development: economic growth, social progress, and environmental protection.

The Ministry of Regional Development monitors the implementation of state regional policy and monitors the socio-economic development of the regions by monitoring the list of relevant indicators according to the relevant Methodology. That is why the data of the database for monitoring the socio-economic development of the regions for 2019 were used to form a list of indicators that characterize sustainable local development [8, 9].

For the purposes of our study, indicators for monitoring the socio-economic development of regions were formed according to three main determinants of sustainable development: social, economic, and environmental, grouping was carried out according to the methodology for determining UN Sustainable Development Indicators. So explained variable presented in second columns of table 1, 2, and 3.

Since we are interested in the impact of IMC of territorial communities on sustainable local development, as an explanatory variable we chose the number of territorial communities used IMC. To form a list of exogenous variables, we used data from the Rural Development Monitor mountain, ATC for 2019 [10], which forms an indicative list of indicators of socio-economic development of the united territorial community according to the methodological recommendations of the Ministry of Regional Development.

Exogenous variables of model are The number of permanent residents aged 16–59 years; Natural increase (decrease) in population; Number of employed (working) population; Contingent in need of social support; Volume of capital investments per 1 person; Number of small and medium enterprises per 1,000 people; Number of cooperatives per 1,000 people; Total length of paved roads; Volume of funding for regional development projects implemented in the ATC; Revenues of the budget of the ATC (without transfers) per 1 person; Capital expenditures of the ATC budget (without transfers) per 1 person; Share of expenditures for the maintenance of the ATC financial resources; Level of budget subsidies; The share of development budget expenditures in total OTG expenditures (excluding own revenues of budgetary institutions); The amount of revenues to the ATC budget from personal income tax per capita; The amount of ATC budget revenues from fees for land per 1 person; The amount of revenues to the

budget of the ATC from the payment of a single tax per 1 person; The amount of revenues to the budget of the OTG from the payment of excise tax per 1 person; the amount of revenues to the budget of the OTG from the payment of real estate tax per 1 person; Share of local budget expenditures on financing benefits, social services; Number of general practitioners - family doctors per 1,000 population; Average occupancy of ATC preschool group; Average occupancy of secondary school classes; Proportion of households that have concluded credit agreements under the mechanisms of support for energy efficiency measures in the housing sector at the expense of the state; Share of settlements of the ATC in which agreements on solid waste disposal have been concluded between households and the service enterprise; Share of settlements agreements with service organizations for the removal of solid waste; Number of individual entrepreneurs per 1000 population.

We use correlation analysis to identify key factors influencing the determinants of sustainable local development. Correlation analysis will also eliminate multicollinearity between input indicators and will identify those that are most closely related to performance variables. The value of the correlation coefficient should not exceed 0.7. Thus, indicators with a high level of correlation: the amount of revenues to the OTG budget from personal income tax, land fees, single tax, excise tax, and real estate tax per 1 person and the share of settlements that have concluded agreements with service organizations for the removal of solid waste are removed from the model.

To establish the impact of IMC on indicators of sustainable local development, regression analysis is used by constructing multifactor spatial regression. The modeling is carried out, which representatively reflects its individual manifestations, but is characterized by limited statistics. The generalized smallest squares method was used for modeling. The model specification is as follows:

$$SD = b_0 + b_1x_1 + \dots + b_qx_q + \varepsilon \tag{1}$$

- де SD – indicators of sustainable local development;
- x_q – socio-economic indicators of territorial communities which affect sustainable local development;
- b_q – regression coefficient;
- ε – random error.

The results of modeling the impact of IMC on the economic component of sustainable development are shown in Table 1.

Table 1

Impact of the IMC on the economic determinant of sustainable local development

Hypothesis	Indicators to test the hypothesis	Coef.	R2	P	t	The result of the hypothesis test
1. Contributes to economic growth	Impact of the number of communities that concluded an IMC agreement on Gross regional Product	280.5667	0.8736	0.003	4.12	Confirmed **
2. Contributes to the growth of agricultural production	Impact of the number of communities that concluded an IMC agreement on the Agricultural Production Index	0.0180	0.6790	0.56	0.61	not Confirmed
	Impact of the number of communities that concluded IMC on the volume of agricultural production per 100 hectares of agricultural land	1.5329	0,8486	0,046	2,24	Confirmed *
3. Contributes to improving the investment climate	Impact of the number of communities that concluded an IMC agreement on Volume of capital investments (except investments from the state budget) per capita, UAH	-62.3126	0,8860	0,108	-1,84	not Confirmed
	Impact of the number of communities that concluded an IMC agreement on Volume of foreign direct investment per capita, USD USA	-1.7467	0,8923	0,134	-1,65	not Confirmed
4. Contributes to the improvement of foreign trade relations	Impact of the number of communities that concluded an IMC agreement on The volume of exports of goods per capita, USD USA	2.2044	0,8562	0,076	1,94	Confirmed +

Note: Coef. - estimates of the coefficients b obtained by MNCs; R2 - coefficient of determination; P - the level of significance of the t criterion; t - t statistics.

Probability of error: + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

Sources: developed by the authors

The results of the analysis empirically confirmed the hypothesis of a positive impact of IMC on economic growth: there is a positive statistically significant relationship between the number of communities that concluded IMC agreements with the level of gross regional product with a probability of error of 1%. The hypothesis of an increase in agricultural production was partially confirmed (with a probability of error of 4.6%), the hypothesis of improved foreign trade relations was confirmed with a probability of 92.4%.

Thus, an increase in the number of communities concluded IMC agreements by 1 lead to:

- growth of GRP per person by 280.57 UAH;
- an increase in the volume of agricultural production (per 100 hectares of agricultural land) by UAH 1.53 thousand;

- an increase in the volume of exports of goods per person by \$ 2.2. USA.

The hypothesis of contributing to the improvement of the investment climate has not been confirmed, due to the fact that a significant part of IMC agreements is concluded for the provision of municipal services related to social, educational, and medical spheres. This shows a significant underestimation of the IMC mechanism to improve the investment attractiveness of territories.

The results of assessing the impact of IMC on the ecological determinant of sustainable local development are presented in the table 2.

Table 2

Impact of the IMC on the ecological determinant of sustainable local development

Hypothesis	Indicators to test the hypothesis	Coef.	R2	P	t	The result of the hypothesis test
1. Contributes to the separate collection of solid and household waste	Impact of the number of communities that concluded an IMC agreement on The share of settlements in which separate collection of solid household waste has been implemented	-0.018	0.7198	0.419	-0,84	not Confirmed
2. Contributes to sustainable use of natural resources and environmental quality: control of air pollution levels	Impact of the number of communities that concluded an IMC agreement on Growth (reduction) of pollutant emissions from stationary sources of pollution per capita	-0.191297	0.6515	0.063	-2.03	Confirmed +
	Impact of the number of communities that concluded an IMC agreement on Growth (reduction) of pollutant emissions from mobile sources of pollution per capita	0.0320	0.8032	0.167	1.52	not Confirmed
3. Contributes to the efficient use of fuel and energy resources	Impact of the number of communities that concluded an IMC agreement on Volumes of fuel and energy resources consumed in the region during the reporting period per capita of the region, tons of oil equivalent	-0.009963	0.8997	0.036	-2.59	Confirmed *
4. Contributes to the spread of alternative or renewable energy sources	Impact of the number of communities that concluded an IMC agreement on The share of heat produced in the region from alternative fuels or renewable energy sources for the reporting period, the percentage of total heat produced in the region for the reporting period,%	-0.0967	0.8304	0.153	-1.65	not Confirmed

Note: Coef. - estimates of the coefficients b obtained by MNCs; R2 - coefficient of determination; P - the level of significance of the t criterion; t - t statistics.

Probability of error: + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

Sources: developed by the authors

The results of the regression analysis partially confirmed the positive impact of the increase in the number of IMC on environmental quality indicators and efficient use of fuel and energy resources. Thus, increasing the number of communities that concluded IMC agreements by 1 leads to:

- reduction of growth rates of pollutant emissions from stationary sources of pollution per capita by 0.19% compared to the previous year;

- reduction of the volume of fuel and energy resources consumed in the region, for the reporting period per capita of the region by 0.009963 tons of oil equivalent.

These results are associated with the optimization of the use of fixed assets of the communal and social sphere of the territorial communities. After all, one of the main forms of IMC in Ukraine is the joint maintenance of utilities and the formation of common infrastructure facilities, medical institutions, and schools.

This result indicates that in the framework of the inter-municipal cooperation project, not enough attention is paid to joint projects of communities on the introduction of alternative fuels. Due to the European experience, it can become an effective direction for the development of IMC in Ukraine.

The results of regression analysis for the third determinant of sustainable development are presented in table 3.

Thus, the number of communities concluded IMC agreements is a statistically significant factor that contributes to the level of human development of territories, improves the level of educational services, activation leads to improved security and quality of educational services. IMS is a driver of social development of territories, with the growing number of communities that concluded a contract IMC on 1:

- The regional human development index increases by 0.0007547 points (with a probability of 95.6%);

- proportion of graduates of secondary schools who received 160 points and above according to the results of external independent evaluation of Ukrainian language and literature increases by 0.0153% (with a probability of 97.3%);

- the planned capacity of outpatient clinics per 10 thousand people increases by 0.5503 visits per shift (1% confidence interval);

- life expectancy at birth increases by 0.0364 years;

- The number of criminal offenses committed against the life and health of a person decreases by 0.1082 per 10 thousand population.

Table 3

Impact of the IMC on the social determinant of sustainable local development

Hypothesis	Indicators to test the hypothesis	Coef.	R2	P	t	The result of the hypothesis test
1. Contributes to human development	Impact of the number of communities that concluded an IMC agreement on Index of regional human development	0.0007547	0.7339	0.044	2.22	Confirmed *
2. Helps to increase employment	Impact of the number of communities that concluded an IMC agreement on The level of employment of the population aged 15-70 years (according to the methodology of the International Labor Organization), the percentage of the economically active population of the relevant age,%	0.0153	0.0602	0.332	1.03	not Confirmed
3. Helps to improve the level of educational services	Impact of the number of communities that concluded an IMC agreement on Proportion of graduates of secondary schools who received 160 points and above according to the results of external independent evaluation of Ukrainian language and literature, percent of the total number of students who took tests in Ukrainian language and literature,%	0.0243	0.8302	0.027	2.55	Confirmed *
4. Helps to improve the level of health services	Impact of the number of communities that concluded an IMC agreement on Planned capacity of outpatient clinics per 10 thousand people, visits per shift	0.5503	0.8834	0.003	4.82	Confirmed **
	Impact of the number of communities that concluded an IMC agreement on Average life expectancy at birth, years	0.0364	0.8049	0.098	1.82	Confirmed +
5. Helps to improve the level of public safety	Impact of the number of communities that concluded an IMC agreement on Number of criminal offenses committed against the life and health of a person per 10 thousand population, units	-0.1082	0.9442	0.04	- 2.52	Confirmed *

Note: Coef. - estimates of the coefficients b obtained by MNCs; R2 - coefficient of determination; P - the level of significance of the t criterion; t - t statistics.

Probability of error: + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

Sources: developed by the authors

Conclusions from this study and prospects for further exploration in this direction

Summing up the results of the study, we note that the expected result of changes in the level of sustainable local development in the context of decentralization from the spread of cooperation in the form of IMC should be predicted over a longer period of time. However, it should be noted that the overall effect is positive, which indicates the effectiveness of the IMC instrument. In view of these results, recommendations for the dissemination of IMC practices should be reflected in strategies of the territorial community's development.

The processes of voluntary formation of amalgamated territorial communities and decentralization of the administrative-territorial system in Ukraine did not bring the expected growth of economic development of local territorial economic systems. This necessitates the formation of a comprehensive policy to promote the economic development of local areas.

A promising direction for the development of territorial economic systems is to support economic cooperation in communities. The development of inter-municipal cooperation is not only an alternative to the consolidation of communities but also an effective means of ensuring the economic capacity of communities in the context of decentralization. Inter-municipal cooperation projects as a tool to pool resources to improve public service delivery and achieve a clearly defined goal can continue to be the basis for optimizing the administrative and territorial structure of the country, overcoming the depression of individual territories, and creating effective growth centers.

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Література

1. Буркинський Б. В. Податкові інструменти забезпечення економічного розвитку і співробітництва територіальних громад / Б. В. Буркинський, О. І. Лайко, В. П. Талпа. // Економічні інновації. – 2020. – № 2 (75). – С. 7–16.
2. Сірик З. О. Ефективність використання механізмів співробітництва територіальних громад в умовах децентралізації влади / З. О. Сірик // Регіональна економіка. – 2020. – № 2. – С. 17–32.
3. Толканов В. В. Співробітництво територіальних громад (міжмуниципальне співробітництво – ММС) як інноваційний інструмент для забезпечення місцевого економічного розвитку та муніципальної консолідації / В. В. Толканов // Науковий вісник Полісся. – 2017. – № 1(9). ч. 2. – С. 76–80.
3. Bel G. Factors explaining inter-municipal cooperation in service delivery: a meta-regression analysis / G. Bel, M. Warner // Journal of Economic Policy Reform. – 2016. – № 19 (2). – P. 91–115.

4. Baba H. Municipal Population size and the benefits of inter-municipal cooperation: panel data evidence from Japan / H. Baba, Y. Asami // *Local Government Studies*. – 2020. – № 46(3). – P. 371–393.
5. Niaounakis T. Inter-municipal cooperation, economies of scale and cost efficiency: an application of stochastic frontier analysis to Dutch municipal tax departments / T. Niaounakis, J. Blank // *Local Government Studies*. – 2017. – № 43(4). – P. 533–554.
6. Про співробітництво територіальних громад [Електронний ресурс] : Закон України від 17.06.2014 р. №1508-VII. – Режим доступу : <http://zakon4.rada.gov.ua/laws/show/1508-18>.
7. Про Стратегію сталого розвитку України до 2030 року [Електронний ресурс] : Проект Закону України. – Режим доступу : http://search.ligazakon.ua/l_doc2.nsf/link1/JH6YF00A.html.
8. Моніторинг соціально-економічного розвитку регіонів за 2019 рік [Електронний ресурс]. – Режим доступу : <https://www.minregion.gov.ua/wp-content/uploads/2020/05/rejtyngova-oczinka-za-2019-rik-prezentacijni-materialy-2.pdf>.
9. Розрахунок індексу регіонального людського розвитку за 2019 рік [Електронний ресурс]. – Режим доступу : <https://www.minregion.gov.ua/wp-content/uploads/2020/10/rozrahunok-indeksu-regionalnogo-lyudskogo-rozvytku-za-2019-rik.pdf>.
10. Інформація про моніторинг розвитку сільських територій (гірських, ОТГ). Інформація щодо показників соціально-економічного розвитку об'єднаних територіальних громад у 2018-2019 роках [Електронний ресурс]. – Режим доступу : <https://www.minregion.gov.ua/napryamki-diyalnosti/derzhavna-rehional-na-polityka/monitorynh/informatsiya-pro-monitoring-rozvitku-silskih-teritoriy-girskih-otg/informatsiya-pro-monitoring-rozvitku-silskih-teritoriy-girskih-otg-2/>.

References

1. Burkynskiy B. V. Podatkovi instrumenty zabezpechennia ekonomichnoho rozvytku i spivrobitnytstva terytorialnykh hromad / B. V. Burkynskiy, O. I. Laiko, V. P. Talpa. // *Ekonomichni innovatsii*. – 2020. – № 2 (75). – S. 7–16.
2. Siryk Z. O. Efektyvnist vykorystannia mekhanizmiv spivrobitnytstva terytorialnykh hromad v umovakh detsentralizatsii vlady / Z. O. Siryk // *Rehionalna ekonomika*. – 2020. – № 2. – S. 17–32.
3. Tolkanov V. V. Spivrobitnytstvo terytorialnykh hromad (mizhmunitsypalne spivrobitnytstvo – MMS) yak innovatsiyni instrument dlia zabezpechennia mistsevoho ekonomichnoho rozvytku ta munitsypalnoi konsolidatsii / V. V. Tolkanov // *Naukovyi visnyk Polissia*. – 2017. – № 1(9). ch. 2. – S. 76–80.
3. Bel G. Factors explaining inter-municipal cooperation in service delivery: a meta-regression analysis / G. Bel, M. Warner // *Journal of Economic Policy Reform*. – 2016. – № 19 (2). – P. 91–115.
4. Baba H. Municipal Population size and the benefits of inter-municipal cooperation: panel data evidence from Japan / H. Baba, Y. Asami // *Local Government Studies*. – 2020. – № 46(3). – P. 371–393.
5. Niaounakis T. Inter-municipal cooperation, economies of scale and cost efficiency: an application of stochastic frontier analysis to Dutch municipal tax departments / T. Niaounakis, J. Blank // *Local Government Studies*. – 2017. – № 43(4). – P. 533–554.
6. Про співробітництво територіальних громад [Електронний ресурс] : Закон України від 17.06.2014 р. №1508-VII. – Режим доступу : <http://zakon4.rada.gov.ua/laws/show/1508-18>.
7. Про Стратегію сталого розвитку України до 2030 року [Електронний ресурс] : Проект Закону України. – Режим доступу : http://search.ligazakon.ua/l_doc2.nsf/link1/JH6YF00A.html.
8. Моніторинг соціально-економічного розвитку регіонів за 2019 рік [Електронний ресурс]. – Режим доступу : <https://www.minregion.gov.ua/wp-content/uploads/2020/05/rejtyngova-oczinka-za-2019-rik-prezentacijni-materialy-2.pdf>.
9. Розрахунок індексу регіонального людського розвитку за 2019 рік [Електронний ресурс]. – Режим доступу : <https://www.minregion.gov.ua/wp-content/uploads/2020/10/rozrahunok-indeksu-regionalnogo-lyudskogo-rozvytku-za-2019-rik.pdf>.
10. Інформація про моніторинг розвитку сільських територій (гірських, ОТГ). Інформація щодо показників соціально-економічного розвитку об'єднаних територіальних громад у 2018-2019 роках [Електронний ресурс]. – Режим доступу : <https://www.minregion.gov.ua/napryamki-diyalnosti/derzhavna-rehional-na-polityka/monitorynh/informatsiya-pro-monitoring-rozvitku-silskih-teritoriy-girskih-otg/informatsiya-pro-monitoring-rozvitku-silskih-teritoriy-girskih-otg-2/>.

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