Electronic scientific and practical journal INTELLECTUALIZATION OF LOGISTICS AND SUPPLY CHAIN MANAGEMENT





WWW.SMART-SCM.ORG ISSN 2708-3195 DOI.ORG/10.46783/SMART-SCM/2021-6





Electronic scientific and practical publication in economic sciences

ISSN 2708-3195

DOI: https://doi.org/10.46783/smart-scm/2021-6

Released 6 times a year

№ 6 (2021) April 2021 Founder: Viold Limited Liability Company

Editor in Chief: Hryhorak M. Yu. – Doctor of Economics, Ass. Professor.

Deputy editors-in-chief: Koulyk V. A. – PhD (Economics), Professor.

Marchuk V. Ye. – Doctor of Tech. Sci., Ass. Professor.

Technical editor: Harmash O. M. – PhD (Economics), Ass. Professor. **Executive Secretary:** Davidenko V. V. – PhD (Economics), Ass. Professor.

Members of the Editorial Board:

SWIEKATOWSKI Ryszard – Doctor of Economics, Professor (Poland);

POSTAN M. Ya. – Doctor of Economics, Professor;

TRUSHKINA N. V. – PhD (Economics), Corresponding Member of the Academy;

KOLOSOK V. M. – Doctor of Economics, Professor;

ILCHENKO N. B. – Doctor of Economics, Ass. Professor;

SOLOMON D. I. – Doctor of Economics, Professor (Moldova);

ALKEMA V. H. - Doctor of Economics, Professor;

Henryk DŹWIGOŁ – PhD (Economics), Professor (Poland);

SUMETS O. M. - Doctor of Economics, Ass. Professor;

STRELCOVÁ Stanislava – PhD (Economics), Ass. Professor, (Slovakia);

RISTVEJ Jozef (Mr.) PhD (Economics), Professor, (Slovakia);

ZAMIAR Zenon – Doctor of Economics, Professor, (Poland);

SMERICHEVSKA S. V. – Doctor of Economics, Professor;

GRITSENKO S. I. – Doctor of Economics, Professor;

KARPENKO O. O. – Doctor of Economics, Professor;

PATKOVSKYI S. A. – Business practitioner.

The electronic scientific and practical journal is registered in international scientometric data bases, repositories and search engines. The main characteristic of the edition is the index of scientometric data bases, which reflects the importance and effectiveness of scientific publications using indicators such as quotation index, h-index and factor impact (the number of quotations within two years after publishing).

In 2020, the International Center for Periodicals (ISSN International Center, Paris) included the Electronic Scientific and Practical Edition "Intellectualization of Supply Chain Management" in the international register of periodicals and provided it with a numerical code of international identification: ISSN 2708-3195 (Online).

Recommended for dissemination on the Internet by the Academic Council of the Department of Logistics NAU (No. 7 of February 26, 2020). Released 6 times a year. Editions references are required. The view of the editorial board does not always coincide with that of the authors.

t.me/smart_scm facebook.com/Smart.SCM.org twitter.com/ScmSmart

DOI: https://doi.org/10.46783/smart-scm/2021-6

e-mail: support@smart-scm.org

тел.: (063) 593-30-41 https://smart-scm.org

Contents

INTRODUCTION	5
SAVCHENKO L.V. PhD of Technical Sciences, Associate Professor, Associate Professor of Logistics Department of National Aviation University (Ukraine), SEMERIAHINA M. M. , Senior Lecturer of Logistics Department, National Aviation University (Ukraine), SHEVCHENKO I.V. PhD of Economic Sciences, Associate Professor of higher mathematics department of the National Aviation University (Ukraine) MODELING OF REGIONAL FREIGHT FLOWS OF ROAD TRANSPORT IN UKRAINE	6 – 22
GAMELIAK I.P. Doctor of Technical Science (s), professor, Head at the Department of Airports, National Transport University (Ukraine), DMYTRYCHENKO A.M. Candidate of Engineering Sciences, associate professor of department transport law and logistic, National Transport University (Ukraine), VAKARCHUK I.M. Ph.D in Technical Science, Associate Professor at the Department of Airports, National Transport University (Ukraine) PHILOSOPHY OF APPLIED RELIABILITY AND SAFETY OF UKRAINE NEW TRANSPORT INFRASTRUCTURE	_. 23 – 36
GRITSENKO S.I. Doctor of Economics, Professor, Professor of Logistics Department of National Aviation University (Ukraine), DRACH N.S. Students of Logistics Department National Aviation University (Ukraine)	
LOGISTICAL SUPPORT FOR SUSTAINABLE DEVELOPMENT OF THE REGION	37 – 47
CHEREDNICHENKO K.V., Master degree, PhD student, Assistant at Department of aviation works and services, National Aviation University (Ukraine), MIROSHNIKOVA Ju.O. Students of aviation works and services, National Aviation University (Ukraine) <i>MODELING OF TERRITORIAL DIFFERENTIATION BY TRANSPORT INFRASTRUCTURE</i>	
LEVEL OF DEVELOPMENT	48 – 54
DAVYDENKO V.V., PhD of Economics, Associate Professor, Associate Professor of Logistics Department of National Aviation University (Ukraine), HARMASH O.M., PhD of Economics, Associate Professor, Associate Professor of Logistics Department of National Aviation University (Ukraine), OVDIIENKO O.V., PhD student, Assistant of Logistics Department of National Aviation University (Ukraine)	
CIRCULAR PROCUREMENT MANAGEMENT IN THE CIRCULAR ECONOMY SYSTEM	55 – 62

37-47 v.6 (2021) https://smart-scm.org

DOI: https://doi.org/10.46783/smart-scm/2021-6-3

UDC 332.1 JEL Classification: C51, F64, L91, O44, R11.

Received: 12 March 2021

Gritsenko S.I. Doctor of Economics, Professor, Professor of Logistics Department of National Aviation University (Ukraine)

ORCID - 0000-0002-3322-3986

Researcher ID – Scopus author id: –

Drach N.S. Students of Logistics Department National Aviation University (Ukraine)

ORCID – Researcher ID – Scopus author id: –

LOGISTICAL SUPPORT FOR SUSTAINABLE DEVELOPMENT OF THE REGION

Sergiy Gritsenko, Mykyta Drach. "Logistical support for sustainable development of the region".

The purpose of the study is to develop recommendations for sustainable development of infrastructure in the region. The article considers the role of logistical support for sustainable development of the region. The object of the study is the process of logistical support for sustainable development of the region through investment, as a system of public-private relations for the development of sustainable infrastructure. Public-private relations will promote global demand and activity in the short term, lay the foundations for sustainable long-term growth. The research methods are: comparative economic analysis - to study the current situation in Ukraine, assess the contribution of different companies to the sustainable development of infrastructure and support it in the regions where they are based, to summarize the advantages and disadvantages; cartographic analysis to clearly illustrate current trends in the functioning of international transport corridors that pass through the territory of Ukraine. The strengths and weaknesses of Ukraine's sustainable development have been identified. Substantiated legal and organizational procedures of public-private relations in the region. The key advantages and risks of the state and enterprises during public-private relations are identified. The main tasks of logistical support and sustainable development of the region are revealed, the logistic infrastructure of the regions is assessed. The potential development of transport infrastructure as one of the main factors of formation of sustainable development of the region is substantiated. National goals for creating sustainable development of regions are highlighted. The scientific novelty of the obtained results is to determine a rational form of interaction between companies and local authorities to create conditions for sustainable infrastructure development in the regions.

Keywords: logistical support; sustainability; public-private relations; transport infrastructure; national strategy goals.

Сергій Гриценко, Микита Драч. «Логістична підтримка сталого розвитку регіону». Метою дослідження є розробка рекомендацій щодо забезпечення сталого розвитку інфраструктури регіону. У статті розглянуто роль логістичної підтримки сталого розвитку регіону. Об'єктом дослідження виступає процес логістичної підтримки сталого розвитку регіону за рахунок

інвестицій, як системи державно-приватних відносин для розвитку сталої інфраструктури. Державно-приватні відносини сприятимуть глобальному попиту та короткостроковій перспективі, закладуть основи для сталого довгострокового зростання. Методами дослідження є: порівняльно−економічний аналіз - для вивченні поточної ситуації в Україні, оцінки внеску різних компаній в сталий розвиток інфраструктури та підтримки її в регіонах, де вони базуються, для узагальнення переваг та недоліків; картографічного аналізу – для наочної ілюстрації сучасних тенденцій функціонування міжнародних транспортних коридорів, які проходять територією України. Визначено сильні і слабкі сторони сталого розвитку України. Обґрунтовані нормативно-правові та організаційні процедури державно-приватних відносин в регіоні. Визначені ключові переваги та ризики держави і підприємств під час державно-приватних відносин. Розкрито основні завдання логістичної підтримки та сталого розвитку регіону, здійснено оцінку логістичної інфраструктури регіонів. Обґрунтовано потенційний розвиток транспортної інфраструктури, як одного з головних факторів формування сталого розвитку регіону. Виділено національні цілі по створенню сталого розвитку регіонів. Наукова новизна одержаних результатів полягає в визначенні раціональної форми взаємодії компаній та місцевої влади для створення умов сталого розвитку інфраструктури в регіонах.

Ключові слова: логістична підтримка; сталий розвиток; державно-приватні відносини; транспортна інфраструктура; національні цілі стратегії.

Сергей Гриценко, Никита Драч. «Логистическая поддержка устойчивого развития **региона».** Целью исследования является разработка рекомендаций относительно обеспечения устойчивого развития инфраструктуры региона. В статье рассмотрена роль логистической поддержки устойчивого развития региона. В качестве объекта исследования выступает процесс логистической поддержки устойчивого развития региона за счет инвестиций, как системы государственно-частных отношений для развития устойчивой инфраструктуры. Государственночастные отношения будут способствовать глобальному спросу и активности в краткосрочной перспективе, заложат основы для постоянного долгосрочного роста. Методами исследования являются: сравнительно-экономический анализ - для изучении текущей ситуации в Украине, оценки вклада разных компаний в устойчивое развитие инфраструктуры и поддержки ее в регионах, где они базируются, для обобщения преимуществ и недостатков; картографического анализа - для наглядной иллюстрации современных тенденций функционирования международных транспортных коридоров, которые проходят территорией Украины. Определены сильные и слабые стороны устойчивого развития Украины. Обоснованы нормативно-правовые и организационные процедуры государственно-частных отношений в регионе. Определены ключевые преимущества и риски государства и предприятий во время государственно-частных отношений. Раскрыты основные задачи логистической поддержки и устойчивого развития региона, осуществлена оценка логистической инфраструктуры регионов. Обосновано потенциальное развитие транспортной инфраструктуры, как одного из главных факторов формирования устойчивого развития региона. Выделены национальные цели по созданию устойчивого развития регионов. Научная новизна полученных результатов заключается в определении рациональной формы взаимодействия компаний и местной власти для создания условий устойчивого развития инфраструктуры в регионах.

Ключевые слова: логистическая поддержка; устойчивое развитие; государственно-частные отношения; транспортная инфраструктура; национальные цели стратегии.

Introduction. At the present stage of globalization, logistical support for sustainable development of the regions is one of the leading drivers of economic stability through multilevel ties and cooperation. Sustainable infrastructure is at the heart of the three challenges facing the global

community: restoring global growth, achieving sustainable development goals, and protecting the future of the planet. The factors of infrastructural content that provide innovative development of the economy become of priority importance [1, p. 22]. Analysis of the state and problems of logistics

infrastructure shows that it, as one of the most important components of the national logistics system, must ensure the movement of material, human, information, financial and service flows between cities and regions in a timely manner and in full, requires significant financial resources and integrated approach to planning and management of innovative development [2, p. 349]. Consolidated transportation schemes between the regions of Ukraine can demonstrate savings in transport costs, as well as reduce the harmful impact on the environment and transport infrastructure [3, p. 143]. The use of marketing and logistics tools within the threefold component of management levels in Ukraine: economic regions, regional logistics clusters, industrial parks will create a system of effective management of material and related flows, track daily changes in demand, technology, legislation in Ukraine and the world. transport capacity and inventories, which in general will contribute to the revival and sustainable development of the regions [4, p. 279].

The subject of research - theoretical, methodological and organizational and economic aspects of logistical support of sustainable infrastructure, which is important for achieving sustainable development goals due to the opportunities it creates for inclusive growth and access to basic services.

Kyiv is currently the administrative center, and the development of production is concentrated in the regions. Global corporations support the regions where their production is located, while the state helps corporations in the form of subsidies such as MHP Kyiv region, Astarta LLC Poltava region.

One of the main factors is socio-economic relations in the regions. Each region has its own characteristics and specifics that affect the formation of a single model for building a sustainable infrastructure for further development of the region in the future.

Another significant problem is the decline of some regions, due to the decline of industries based in these regions. Due to this factor and the inability of local authorities to

solve problems independently, there is a need for cooperation with private enterprises, which allow to solve both the goals of eliminating problems and create a new opportunity to create conditions for new industries in these regions. It should be borne in mind that the benefits of working with private companies pose risks that can only worsen the situation.

The choice of infrastructure development and planning is long-term and complex, and is aimed at overcoming the effects of carbon impact, irrational use of land and water resources, which in the long run will form a sustainable model of future development.

The innovative nature of sustainable development of the region's economy is an important means of improving the quality of life, which will increase productivity and lay the foundation for future development prospects.

The aim of the study. Development of recommendations for sustainable development of infrastructure in the region.

In accordance with this goal, the following tasks were set and solved:

- to study the interaction of public-private development of relations to create the infrastructure of the region;
- analyze the country's national strategy for sustainable development in the regions;
- to determine the influence of corporations on the formation of the region's infrastructure.

The main material and results of the study. Sustainable development is development that meets the needs of today without affecting the ability of future generations to meet their own needs. Today we can divide the sustainable development of the regions of Ukraine into strengths and weaknesses. Strengths:

- Ukraine is one of the most natural resources in Europe.
- The middle location of Ukraine between the countries of East and West creates the potential for its successful development as a transit state. The main thing in this aspect is the following: transport logistics, mediation in

the assimilation, transformation and further retransmission of the best achievements of neighbors - knowledge, know-how, innovation [5].

Weaknesses of sustainable development of Ukraine:

- Ukraine has the most centralized system of government among Eastern European countries and is characterized by a low level of decentralization compared to developed countries in Europe and the world.
- The oligarchic structures of Ukraine have taken control of the regions, turned them into an instrument of self-interest, which is the greatest danger the innovative to development of the region with man-made pressure, as the profits of business owners are rental income from natural resources, redistribution of state property, creation of artificial monopolies. The presence of poorly structured managerial influences in the conditions of huge natural resources of Ukraine instead of providing competitive advantages, turns into a brake on the development of Ukraine's economy.
- Lack of energy market (gas, electricity, water) for enterprises in the region; high level of pollution in the cities of Kamyanske, Kryvyi Rih, Dnipro, Mariupol, Zaporizhia [6].

Weak innovative development during the crisis of 2014-2017 became a brake on the economic development of Ukraine and its regions. It is explained by inefficient interaction of science and production, reckless state policy in the field of innovation innovative economy, development of venture financing and real stimulation of entrepreneurship, as well as the reasons for the escalation of the Russian conflict military in eastern Ukraine. annexation of Crimea [7].

Normalization of the business climate is a prerequisite for increasing innovation activity in Ukraine. In addition, such general economic measures as competition and antitrust policy are an important condition for the formation of innovative (digital) economy.

Adherence to the above conditions, which were mentioned above, will allow the

emergence of advanced development of the infrastructure of the regions. The availability of free capacity will allow the formation of new enterprises in the regions, which will lead to the development of an effective regional socio-economic system.

With all the positive aspects of the creation and development of infrastructure in the regions of Ukraine, a significant remark is the high capital intensity of infrastructure facilities. At the same time, a significant part of infrastructure structures, in particular social infrastructure facilities, can be unprofitable. And production infrastructure facilities may not reach the payback level for a long time, especially during the commissioning of the main production facilities.

In this regard, a special task in the direction of modernization and development of socio-economic infrastructure of the region is to find sources of financing for the construction and operation of infrastructure. A common practice around the world is public funding for the construction of infrastructure, and their use by state or "public" organizations. However, without attracting funds from private investors it is impossible to do [8, p. 155-156].

The mismatch between investment resources and the needs of the region, the country has led primarily to the emergence of projects with public-private relations (PPP).

In the regions of Ukraine, the private sector is increasingly becoming a valuable source of new technologies, quality management, investment capital, which makes it possible to involve it in a number of problematic projects and invest in modern technologies and equipment.

All this indicates that in most cases, large-scale and expensive projects that ensure the introduction of new scientific technologies and developments. However, such projects involve high risks that private business never takes, due to equivalences in the profitability of other less risky investments. Such facilities are usually financed by public funds of different levels (state, regional), but public funds are limited, and the available

opportunities to raise loans are not effective. In this regard, the state structures must ensure the creation of favorable conditions for attracting investment, which, in turn, provide for the solution of many previously unresolved legal issues: stable and reasonable taxation; rational customs policy; positive changes in the credit sphere; fight against corruption, non-economic factors slowing down development, bureaucratic arbitrariness, etc.

In other words, a full-fledged infrastructure for normal economic development must be created, which ensures adequate partnerships between the state and private business. To achieve these goals, in our opinion, it is reasonable to turn to the foreign experience of public-private relations (PPR) in the implementation of various, including investment projects [9].

For the development of WFD in the region it is necessary to conduct the following regulatory and organizational procedures:

- development of a common understanding and strategy for forming a partnership between the state and business structures;
- improvement of the regulatory and legislative framework for the creation of a package of regulations and bylaws;
- creation of an institutional organizational framework that will require the formation of various elements of the institutional environment;
- formation of a certain economic environment for the creation of partnerships;
- training of specialists in the field of partnership;
- creating a favorable public opinion for the implementation of the partnership;
- ensuring transparency of activities within the partnership.

Advantages of public-private relations:

Local authorities can involve private enterprises in the creation of socially significant projects, which in turn will provide an opportunity to develop public-private relations, as well as invest in the projects of this organization for infrastructure development.

For the private sector, the advantage is that by involving local authorities in the project, the company gets the opportunity to reduce the cost of creating the project and gain access to infrastructure, which will speed up the task.

The advantages on a practical basis include the cooperation of companies "Kernel", "Astarta", "Ukrlandfarming". Each of these companies helps to develop the regions where their branches are located. Kernel supports social projects with its foundation, charitable Astarta runs educational programs for the population, and Ukrlandfarming invests a portion of its income through charitable foundations to support people of retirement age and develop infrastructure for them. In turn, companies receive support and support from the public, which also further affects relations with local authorities, and the example of Astarta also provides an opportunity to prepare future staff for their organization.

Risks that may arise during public-private relations:

State risks - is to attract even more resources than expected at the beginning of the project, which could lead to a budget deficit.

The risks that can befall companies are, first of all, the lack of trust in Ukraine, which leads to corruption schemes in the state system, as well as the possibility of terminating the contract, which may depend on the success of the company [11, p. 140-141].

Risks on a practical basis include the development of biogas production by MHP. In 2011, the company began to develop this area, but did not receive support from the authorities and currently continues to develop this area on its own [12].

Also in the formation of public-private relations should not forget about the transport infrastructure of the region, which can significantly affect the implementation of

plans to create joint projects, so we see it as one of the key elements in creating an effective multimodal transport and logistics system. This is important for Ukraine's comprehensive economic growth. Ukraine's geographical location in the center of Eastern Europe is a very favorable environment for the development of international trade.

Ukraine is also a global supplier of food products and a leading exporter of agricultural products, playing a vital role in ensuring food safety in the world. Given the importance of international trade and the impact of geopolitical developments on transport routes and costs, logistics will play an increasingly important role in the country's sustainable development.

Building an efficient logistics system provides an opportunity to develop not only foreign markets where Ukraine will be present, but also domestic markets. In domestic markets, there is potential for the emergence and development of private enterprises, which in turn will lead to the

formation of public-private relations for the implementation of future projects.

Exports, imports and transit of goods take place in the transport and logistics system of Ukraine, which is dominated by railways for bulky long-distance goods and transportation. The country has 21,700 km of railways (of which more than 47% are electrified), 169,500 km of roads, 2,200 km of inland waterways (WWH) with 13 seaports (not including 5 in the Crimea) and 10 river ports, numerous warehouses (750 certified grain warehouses) and logistics centers to facilitate the production, storage and transportation of goods. This capacity allows to transport 1 billion tons of cargo by rail and 160 million tons through seaports per year. Ukraine is part of several international transport corridors, such as Corridors 3, 5, 7 and 9. of the Trans-European Transport Network (TEN-T), Corridors 3, 4, 5, 7, 8 and 10 of the Railway Cooperation Organization (RAO), and also part of the corridor Europe -Caucasus - Asia (TRACECA) (Fig.1.1) [13, p. 114-116].



Figure 1.1 - Scheme of ITC passage through the territory of Ukraine [13]

But such capacity is not fully utilized, and logistics companies are dealing with underdeveloped infrastructure, which is reflected in high logistics costs.

To improve the transport sector, it is necessary to attract, adapt and implement the experience of European countries, which will improve the state of transport in the transport infrastructure of the regions.

The general objectives should be as follows:

- elimination of administrative, technical, cross-border and other obstacles to international trade;
- development of a national transport flow modeling system and a program for the implementation of the National (priority) transport network of Ukraine;
- development of intermodal and multimodal services with the help of an efficient logistics system and timely solutions related to the interaction on the operation of tracks of different widths and other technical standards;
- updating the national strategy and program to improve road safety and continuing the implementation of planned measures.

The National Economic Strategy of Ukraine for the period up to 2030 was approved by the resolution of the Cabinet of Ministers of Ukraine dated 03.03.2021 № 179 [14].

The strategy envisages the gradual achievement of the goal of improving the welfare of the population. The first stage is the formation of competitive conditions for business and investment, as well as the restoration of confidence in state institutions. This will make it possible to win the competition for capital on the world market and, as a result, attract investment to modernize sectors of the economy.

Transformed and highly productive sectors of the region's economy will be able to compete effectively in the international market of goods and services with foreign

countries, which will contribute to the growth of tax revenues and incomes.

A large domestic consumer market and an increase in tax revenues will contribute to the development of services and improve the quality of life of citizens in terms of education, health, environment, national security, culture and social security. This will contribute to the development of human potential - the main and most important potential in the XXI century, which Ukraine must systematically develop [14].

Therefore, this task is not easy. Successful implementation of this strategy requires fiscal, regulatory, institutional and organizational changes, as well as changes in the public sector. It also means changes in public-private relations. An important point for the implementation of this strategy is to improve skills and competence, as well as the involvement of private enterprises to help implement the strategy.

Solving problematic issues one by one will not bring effective changes, but will only provide an opportunity to improve the situation for a while. Therefore, Ukraine must implement a national strategy for sustainable development of the regions to address the complex tasks that will be identified in the main objectives to create conditions for sustainable development of regional infrastructure:

- Develop high-quality, reliable, sustainable and affordable infrastructure based on the use of innovative technologies, including environmentally friendly modes of transport.
- Ensure the expansion of the use of electric vehicles and the relevant infrastructure network.
- Ensure the availability of road transport infrastructure based on the use of innovative technologies, in particular through the expansion of forms of state participation in various infrastructure projects.
- To promote the accelerated development of high- and medium-tech sectors of the processing industry, which are

formed on the basis of the use of chains "education - science - production" and a cluster approach in the areas of: development of innovation ecosystem; development of and telecommunication information technologies (ICT); application of ICT in agriculture, energy, transport and industry; high-tech mechanical engineering; creation development new materials: bioengineering pharmaceutical and industries.

- Create a financial and institutional system (innovation infrastructure) that will ensure the development of research and scientific technical (experimental) developments.
- Ensure Internet access, especially in rural areas.
- Ensure increased participation of young people in research.
- Ensure sustainable GDP growth through modernization of production, development of innovations, increasing export potential, introduction to foreign markets of products with a high share of value added.
- To increase the efficiency of production on the basis of sustainable development and the development of high-tech competitive industries.
 - To increase the level of employment.
- Reduce the share of young people who do not work, study or acquire professional skills.
- Promote the provision of reliable and safe working conditions for all workers, in particular through the use of innovative technologies in the field of labor protection and industrial safety.
- Create institutional and financial opportunities for self-realization of the potential of the economically active part of the population and the development of the creative economy [15].

Conclusions. Ukraine has significant problems in creating the conditions and implementing the construction of infrastructure, which does not allow the regions to function as elements of the system that could ensure the development of the

country now and rapid development in the future.

Public-private relations are one of the key elements for building a sustainable infrastructure of a region or regions. Local authorities need to build a mechanism for integrating a private enterprise into the region's infrastructure so that the enterprise's activities do not destroy both possible future plans for cooperation on projects and enable business development.

It also becomes clear that the country relies on the construction of transit corridors, due to the convenient geographical location, but forgets that if you build a large number of roads, you must not forget about the constant maintenance of roads, ie you need to abandon potholes, and replace all problem area, as well as creating conditions for the emergence of infrastructure near transit corridors for comfortable movement on them.

In order to achieve sustainable infrastructure development in the regions, it is necessary to implement the National Economic Strategy at an accelerated pace, taking into account the interests of each region, so that people can see what is a priority goal for the state. The country faces the task of choosing the optimal ratio of open economy and protection of its own markets. Local authorities need to create conditions for higher cooperation with education institutions to train staff to address the challenges of the strategy, both present and future.

People who are going to start their own business in the region need:

- to establish social relations with the local population;
- to establish contacts of fruitful cooperation with local authorities;
- create economic opportunities for the local population;
- to create conditions for the operation of the enterprise in this area;
- support the existing regional infrastructure and improve it;

- after the creation of socio-economic relations, start training future staff for their own company;
- development of projects for the implementation of both cooperation with local authorities and promotion of its own brand in the region, etc.

The problem for the company may be the reluctance of local authorities to cooperate. For example, the introduction of biogas technologies by MHP [12]. In such cases, there are two options - to continue to implement the technology yourself or keep the technology for refinement, but then the company may lose the opportunity to be the first company to introduce this technology and get only losses or lower profits than it expected.

The main essence of the problem is the reluctance to introduce innovative technologies that the country has and can implement, but it does not happen: through monopolization, through laws, or through political factors. These factors are secondary, but not the main ones, leading to a slowdown

in the development of the region first, and then the whole country. It is necessary to give the regions the opportunity to develop more independently, so that local authorities have clearly spelled out all possible solutions.

Another important aspect for the logistical support of sustainable development of the region is the improvement of three main elements: economic growth, social integration and environmental protection. These elements are complex and interdependent.

Creating conditions for learning and working in the field in all their forms and at all levels is a prerequisite for sustainable development. To achieve this, it is necessary to promote sustainable, inclusive and equitable economic growth that creates greater opportunities for all, reduces inequalities, raises basic living standards, improves logistics infrastructure, promotes equitable social development, and integrated and sustainable management of natural resources and ecosystems.

Список літератури

- 1. Гриценко С.І. Забезпечення конкурентоспроможності країни в контексті стратегії інновацій та модернізації промисловості на основі об'єднань по співпраці. Вісник економічної науки України. 2017. №2 (33) С. 22-27.
- 2. Григорак М.Ю. Інтелектуалізація ринку логістичних послуг: концепція, методологія, компетентність: монографія. К.: Сік Груп Україна, 2017. 516 с.
- 3. Савченко Л.В., Гриценко С.І. Аналіз та класифікація можливих схем консолідованої доставки LTL вантажів. Вісник економічної науки України. 2020. № 2 (39). С. 139-144.
- 4. Гриценко С.І. Розвиток регіонів України з урахуванням конкурентних переваг раціонального використання ресурсів в межах транспортно-логістичних кластерів: монографія. Strategic Management: Global Trends and National Peculiarities. Collective monograph. Poland: Publishing House «Baltija Publishing», 2019. 712 р. (Р 267-280).
- 5. Стратегічні виклики XXI століття суспільству та економіці України : монографія: у 3 т./за ред. В.М. Гейця, В.П. Семиноженка, Б.Є. Кваснюка; Ін-т економіки та прогнозування Нац. акад. наук України, Укр. форум. К. : Фенікс, 2007. т. 3. 555 с.
- 6. Дослідження техніко-економічних показників гірничо-добувних підприємств України та ефективності їх роботи в умовах змінної кон'юнктури світового ринку залізорудної сировини : монографія / [Є.К. Бабець, І.Є. Мельникова, С.Я. Гребенюк, С.П. Лобов] ; за ред. Є.К. Бабця / НДГРІ ДВНЗ «КНУ». Кривий Ріг : Вид. Р.А. Козлов, 2015. 319 с.

- 7. Хорольський В.П., Хорольський К.Д., Квітка Т.В. Формування інноваційної системи сталого розвитку регіону на засадах інтеграції в економіку країн Європейського Союзу. // Вісник Хмельницького національного університету. Економічні науки: наук. журнал. − 2019. №2. С. 255-262.
- 8. Шилепницький П.І. Державно-приватне партнерство як інструмент реалізації стратегії «зеленого» зростання // Сталий розвиток в умовах глобальних викликів: матеріали Всеукраїнської наук.-практ. Інтернет конф., Харків 7-8 квітня, 2017 р. / Харків. нац. ун-т міськ. госп-ва ім. О.М. Бекетова та ін. Харків: ХНУМГ ім. О.М. Бекетова, 2017. 333 с. С. 155-157.
- 9. Щодо розвитку державно-приватного партнерства як механізму активізації інвестиційної діяльності в Україні : [аналітична записка] / Національний інститут стратегічних досліджень при Президентові України. URL: http://www.niss.gov.ua/articles/816/
- 10. Офіційний сайт компанії UkrLandFarming. URL:http://www.ulf.com.ua/ua/sustainability/regions_relations/
- 11. Державно-приватне партнерство як основний механізм розвитку інфраструктури регіону / Т. М. Кришталь // Сталий розвиток економіки. 2013. № 3. С. 137-141.
- 12. МХП розпочав впровадження біогазових технологій ще у 2012 році. Сайт «Ukrinform»: веб-сайт. URL: https://cutt.ly/dcbbM3f
- 13. Приймук О.Р. Транспортна інфраструктура як ефективний елемент сталого розвитку країни: праці V Міжнародної науково-практичної конференції «Study of modern problems of civilization», 19-23 жовтня 2020 року, Осло, Норвегія. С. 114-116.
- 14. Про затвердження Національної економічної стратегії на період до 2030 року: Постанова Кабінету Міністрів України від 03.03.2021 р. №179. URL: https://www.kmu.gov.ua/npas/pro-zatverdzhennya-nacionalnoyi-eko-a179
- 15. Цілі сталого розвитку України. Сайт United Nations Ukraine: веб-сайт. URL: https://cutt.ly/Xcbbev0.

References

- 1. Gritsenko S.I. Zabezpechennya konkurentospromozhnostI kraYini v kontekstI strategIYi InnovatsIy ta modernIzatsIYi promislovostI na osnovI ob'Ednan po spIvpratsI. VIsnik ekonomIchnoYi nauki UkraYini. 2017. #2 (33) S. 22-27.
- 2. Grigorak M.Yu. IntelektualIzatsIya rinku logIstichnih poslug: kontseptsIya, metodologIya, kompetentnIst: monografIya. K.: SIk Grup UkraYina, 2017. 516 s.
- 3. Savchenko L.V., Gritsenko S.I. AnalIz ta klasifIkatsIya mozhlivih shem konsolIdovanoYi dostavki LTL vantazhIv. VIsnik ekonomIchnoYi nauki UkraYini. 2020. # 2 (39). S. 139-144.
- 4. Gritsenko S.I. Rozvitok regIonIv UkraYini z urahuvannyam konkurentnih perevag ratsIonalnogo vikoristannya resursIv v mezhah transportno-logIstichnih klasterIv: monografIya. Strategic Management: Global Trends and National Peculiarities. Collective monograph. Poland: Publishing House «Baltija Publishing», 2019. 712 p. (P 267-280).
- 5. StrategIchnI vikliki HHI stolIttya suspIlstvu ta ekonomItsI UkraYini : monografIya: u 3 t. / za red. V.M. Geytsya, V.P. Seminozhenka, B.E. Kvasnyuka; In-t ekonomIki ta prognozuvannya Nats. akad. nauk UkraYini, Ukr. forum. K. : FenIks, 2007. t. 3. 555 s.

6. DoslIdzhennya tehnIko-ekonomIchnih pokaznikIv gIrnicho-dobuvnih pIdpriEmstv UkraYini ta efektivnostI Yih roboti v umovah zmInnoYi kon'yunkturi svItovogo rinku zalIzorudnoYi sirovini : monografIya / [E.K. Babets, I.E. Melnikova, S.Ya. Grebenyuk, S.P. Lobov] ; za red. E.K. Babtsya / NDGRI DVNZ «KNU». – Kriviy RIg : Vid. R.A. Kozlov, 2015. – 319 s.

- 7. Horolskiy V.P., Horolskiy K.D., KvItka T.V. Formuvannya InnovatsIynoYi sistemi stalogo rozvitku regIonu na zasadah IntegratsIYi v ekonomIku kraYin Evropeyskogo Soyuzu. // VIsnik Hmelnitskogo natsIonalnogo unIversitetu. EkonomIchnI nauki: nauk. zhurnal. 2019. #2. C. 255-262.
- 8. Shilepnitskiy P.I. Derzhavno-privatne partnerstvo yak Instrument realIzatsIYi strategIYi «zelenogo» zrostannya // Staliy rozvitok v umovah globalnih viklikIv: materIali VseukraYinskoYi nauk.-prakt. Internet konf., HarkIv 7-8 kvItnya, 2017 r. / HarkIv. nats. un-t mIsk. gosp-va Im. O.M. Beketova ta In. HarkIv: HNUMG Im. O.M.Beketova, 2017. 333 s. S. 155-157.
- 9. Schodo rozvitku derzhavno-privatnogo partnerstva yak mehanIzmu aktivIzatsIYi InvestitsIynoYi dIyalnostI v UkraYinI : [analItichna zapiska] / NatsIonalniy Institut strategIchnih dosIIdzhen pri PrezidentovI UkraYini. URL: http://www.niss.gov.ua/articles/816/
- 10. OfItsIyniy sayt kompanIYi UkrLandFarming. URL:http://www.ulf.com.ua/ua/sustainability/regions_relations/
- 11. Derzhavno-privatne partnerstvo yak osnovniy mehanIzm rozvitku Infrastrukturi regIonu / T. M. Krishtal // Staliy rozvitok ekonomIki. 2013. # 3. S. 137-141.
- 12. MHP rozpochav vprovadzhennya bIogazovih tehnologIy sche u 2012 rotsI. Sayt «Ukrinform»: veb-sayt. URL: https://cutt.ly/dcbbM3f
- 13. Priymuk O.R. Transportna Infrastruktura yak efektivniy element stalogo rozvitku kraYini: pratsI V MIzhnarodnoYi naukovo-praktichnoYi konferentsIYi «Study of modern problems of civilization», 19-23 zhovtnya 2020 roku, Oslo, NorvegIya. C. 114-116.
- 14. Pro zatverdzhennya NatsIonalnoYi ekonomIchnoYi strategIYi na perIod do 2030 roku: Postanova KabInetu MInIstrIv UkraYini vId 03.03.2021 r. #179. URL: https://www.kmu.gov.ua/npas/pro-zatverdzhennya-nacionalnoyi-eko-a179
- 15. TsIII stalogo rozvitku UkraYini. Sayt United Nations Ukraine: veb-sayt. URL: https://cutt.ly/Xcbbev0.