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PUBLIC POLICY OF THE STATE SUPPORT FOR THE DEVELOPMENT OF BIOECONOMICS AND BIOTECHNOLOGIES IN UKRAINE

Abstract

In modern conditions, the climate agenda is one of the key in the international arena, as climate threats are already a «mass weapon» that destroys not only traditional sectors of the national economy, especially agriculture, but also the population, forcing countries to develop and implement policies of the balanced attitude to resources. The key concept in terms of sustainable development is the bioeconomy. The lack of theoretical basis and multi-vector of the bioeconomy, as well as the need for its development in Ukraine in the context of the European integration direction determine the relevance of research in this area.

***The purpose of the article** is to identify current problems facing domestic enterprises in the process of implementing biotechnology, as well as the organizational and economic mechanism of their support in the context of the implementation of state strategic management of bioeconomy in Ukraine.*

***The scientific novelty** is to provide recommendations for public management of bioeconomy development in Ukraine, taking into account the progressive world experience.*

***Conclusions.** Bioeconomy is the latest concept of the organization of human activity, based on a frugal attitude to resources in order to ensure sustainable development of society. Domestic enterprises face certain problems that limit their ability to implement biotechnologies, the negative impact of which can be minimized through the implementation of effective state regulatory policy.*

In order to develop the bioeconomy in Ukraine, a comprehensive state policy should be developed on strategic (formulation of strategic guidelines), legal (development of appropriate legal framework taking into account the recommendations of international organizations), instrumental (implementation of a set of economic methods, ways of direct and indirect influence, and also organizational and legal methods). Such a systematic approach to the development of the bioeconomy will contribute to the effective implementation of this concept in Ukraine.

***Key words:** bioeconomy, circular economy, biotechnologies, sustainable development, public policy, mechanisms of state regulation.*

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ПУБЛІЧНА ПОЛІТИКА ДЕРЖАВНОЇ ПІДТРИМКИ РОЗВИТКУ БІОЕКОНОМІКИ ТА БІОТЕХНОЛОГІЙ В УКРАЇНІ

Анотація

У сучасних умовах кліматична повістка є однією з ключових на міжнародній арені, оскільки кліматичні загрози вже мають характер «масової зброї», яка знищує не лише традиційні галузі національної економіки, передусім сільське господарство, але і населення, що змушує країни до розробки та реалізації політики зваженого відношення до ресурсів. Ключовою концепцією у розрізі забезпечення сталого розвитку є біоекономіка. Недостатність теоретичного підґрунтя та багатовекторність біоекономіки, а також необхідність її розвитку в Україні в контексті євроінтеграційного напрямку обумовлюють актуальність досліджень у цій сфері.

Метою статті є визначення сучасних проблем, які стоять перед вітчизняними підприємствами у процесі впровадження біотехнологій, а також організаційно-економічного механізму їх підтримки в контексті реалізації державного стратегічного управління розвитком біоекономіки в Україні.

Наукова новизна полягає у наданні рекомендацій щодо державного управління розвитком біоекономіки в Україні з урахуванням прогресивного світового досвіду.

Висновки. Біоекономіка – це новітня концепція організації людської діяльності, заснована на ощадливому ставленні до ресурсів з метою забезпечення сталого розвитку суспільства. Вітчизняні підприємства стикаються з певними проблемами, які обмежують можливості впровадження ними біотехнологій, мінімізувати негативний вплив яких можливо шляхом реалізації ефективної державної регуляторної політики. Задля розвитку біоекономіки в Україні має бути розроблена комплексна державна політика на стратегічному (формулювання стратегічних орієнтирів), нормативно-правовому (розробка відповідної нормативно-правової бази з урахуванням рекомендацій міжнародних організацій), інструментальному (реалізація комплексу економічних методів, способів прямого та опосередкованого впливу, а також організаційно-правових методів). Саме такий системний підхід до розвитку біоекономіки сприятиме ефективній реалізації цієї концепції в Україні.

Ключові слова: біоекономіка, циркулярна економіка, біотехнології, стійкий розвиток, публічна політика, механізми державного регулювання.

Statement of the subject. In the context of growing environmental, financial, social and other risks, the development of the national economy depends on the efficiency of the production system, its innovation and stability, coordination of relations between stakeholders, the formation of a new culture of consumption and more. Herewith the efficiency of the production system should be based not only on measuring profitability and other financial performance of enterprises, but also on the introduction of biotechnology, principles of social responsibility, which will provide them with unique competitive advantages in the long-term outlook, optimal use of natural, financial, human and other resources. Bioeconomics is the idea that will contribute to the implementation of these tasks. The experience of the world leading countries shows the prospects and profitability of the bioeconomy and smart technologies in agricultural and industrial production, service industries and more. Considering the potentialities, national enterprises will not stay away from the development of the global biotechnology market, despite the deterrents, minimizing the negative impact of which is possible through effective state regulation of the bioeconomy in Ukraine, creating normalized social, economic, organizational and legal conditions for the operations of national enterprises under the state support.

Analysis of recent research and publications. The concept of bioeconomics has been actively developed since the 70's of the XX century, in the studies of foreign researchers, in particular K. Birch [1–2], E. Tillica [3],

A. E. Toller [3], D. Tyfield [2], T. Vogelpohl [4]. In addition to this, the paradigm shift in global development in the XXI century, proclaimed by the UN, OECD and other international organizations, was reflected in the uprising studies on bioeconomics and biotechnology. Among the national scientists who have made a significant contribution to the development of theoretical foundations of bioeconomics and its implementation in Ukraine, we should mention A. Balian [5; 6], I. Gryshova [5; 6; 7], R. Gryshova [8], I. Myshchak [7], A. Proshchalykina [8], T. Shabatura [5; 6], M. Shcherbata [11]. Some aspects of the state regulation of the bioeconomy development are studied in the research papers of V. Butenko [12], O. Diachenko [13] and others. However, the interdisciplinary nature of biotechnology research complicates the development of a common concept of bioeconomics, there is no consensus among scientists on the classification of biotechnology, their implementation procedures by national enterprises and state support tools are still unresolved, which leads to the relevance of further research in this area.

The purpose of the article is to analyze the current issues national enterprises facing while implementing biotechnology, as well as to determine the organizational and economic procedures of their support in the context of implementation of the state strategic management of the bioeconomy in Ukraine.

Presentation of the main material. In recent years, the global biotechnology market has been characterized by significant growth (Fig. 1).

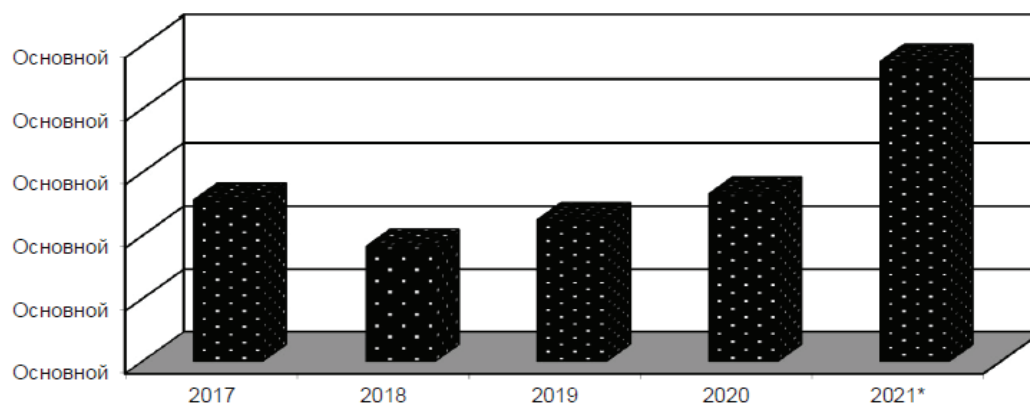


Fig. 1. Volume of the global biotechnologies profit, billions of US dollars *

* 2021 – forecast

Source: composed by the author with the use of [14]

Moreover, the COVID-19 pandemic was an additional catalyst for further development of the biotechnology market. The average growth rate of profits in the global biotechnology market was 0.9 % from 2016 to 2021 and in some years it exceeded the growth rate of the world economy as a whole. Global investment in biotechnology has also increased significantly. The countries of North America have the largest share of the global biotechnology market, especially the United States (44.19 % in 2020), but the most rapid development of biotechnology has been demonstrated by Asian countries since 2017. One of the leading

roles among such countries is played by China [11]. The development of biotechnology will ensure the sustainable development of the national economy in the long-term outlook. Biotechnologies are used widely and have a significant multiplier effect. Thus, the Convention on Biological Diversity defines biotechnology as «any technological device that uses biological systems, living organisms or their derivatives to manufacture or modify products or processes for specific uses» [15]. However, there is no common definition of bioeconomics either among foreign or national scientists (*Table 1*).

Table 1

Definitions of bioeconomics by some authors

Name	Definition of bioeconomics
A. Proshchalykina	High-tech part of the economy, which provides opportunities to increase energy efficiency, waste reuse, develop renewable energy based on biomass, make the industrial sector eco-friendly, increase the sustainability of agriculture, produce new food, develop medical technology.
V. Butenko	A set of industries that ensure the sustainable use of renewable agricultural, water and forest resources, waste and organic by-products, based on the use of biotechnology for biomass processing and production of various products, while reducing potential environmental damage, contributing to the innovative development of new competitive opportunities of respective sectors and ensuring the positive aspects of social and economic development.
T. Vogelpohl	A specific way to use, process, and market natural resources based on biotechnology and their commercialization.
E. Tillica	Separation of 2 theoretical concepts of bioeconomics. The first concept («bioeconomy») involves the development of new technological processes and improvement of existing ones that support biodiversity and promote sustainable development. The second («bioeconomics») concerns the relationship between biology and economics, based on the study of both economic processes and patterns of biological evolution.

Source: composed by the author with the use of [3; 4; 9; 12]

National scientists give reasons for the necessity of the bioeconomy development, especially for agriculture, industry, including pharmaceuticals. Non-compliance with modern market requirements, consumer needs, eco-friendly products will reduce the competitiveness of national enterprises in foreign markets [16].

In the Occident bioeconomics is considered as a conceptual model to develop not only certain sectors of the economy, but also the social sphere, supporting the development of the environment. It is also important to consider the development of service industries, in particular, tourism and finance in the context of the bioeconomy. According to the International Advisory Council on the Global Bioeconomy,

bioeconomics is the production, use and conservation of biological resources, including relevant knowledge, science, technology and innovation, providing solutions that contribute to the sustainable development of the global economy [17]. The specificity of the bioeconomy is its interdisciplinarity, as it covers the main sectors, such as agriculture, forestry, fisheries, as well as related (food, paper, textile, construction, service industries) and so on. Biotechnologies, information technologies, and innovations are also extremely necessary for the development of the bioeconomy.

Taking into account the definitions in *Table 1* we believe that the bioeconomy should be understood as a special type of economic

relations between stakeholders, based on the principles of environmental compatibility, optimal use of resource potential, innovation, manufacturability to ensure sustainable development of present and future generations. This definition emphasizes the important role of stakeholders, their need to reconcile their interests, which will contribute to the achievement of public welfare. Due to such definitions based only on the role of producers and optimized use of production factors other stakeholders are left aside, but their activities directly affect the implementation of the concept of bioeconomy, namely: the state acting as governing bodies, consumers, investors, people, etc. The low level of activity in the introduction of biotechnology by domestic enterprises is due to certain restrictions that can be solved through effective government support. Thus, A. V. Balian, I. Yu. Gryshova, T. S. Shabatura analyzing state regulation of the agricultural sector indicate the inconsistency, selectivity and inefficiency of such regulation, its inconsistency with modern requirements for innovation and environmental compatibility of products [5]. According to the survey of managers of tourism, transport and construction companies, the main deterrents on the introduction of biotechnology are presented in Fig. 2.

Most companies defined the high cost of biotechnology as a deterrent (the largest share among transport and construction

companies), lack of the state support for enterprises (focusing not only on legislation, but mainly on organizational and economic support for biotechnology), lack of the strategic vision (it was significant for enterprises of all three spheres of activity, it reveals the lack of understanding of the strategic goal of biotechnology implementation, tools and methods of implementation, and lack of skilled workers). Thus, in order to effectively implement the concept of bioeconomy in Ukraine, organizational, economic and regulatory state support is needed. M. Yu. Shcherbata analyzing China's experience in the development of the bioeconomy, specifies the priority of the country's economic policy, the necessity to ensure the connection of production, market and social sphere [11]. Without abandoning this idea, we believe that the progressive experience of leading countries in the development of the bioeconomy acknowledges the necessity of comprehensive regulation, the use of direct and indirect methods. More than 60 countries of the world pursue policies related to the bioeconomy, about 40 % of which have developed strategies for direct regulation of the bioeconomy (Austria, Germany, Japan, UK, etc.), 10 % of countries have focused on government regulation of particular elements of the bioeconomy (China – circular economy, Portugal – «blue bioeconomy», Canada – «forest bioeconomy»).

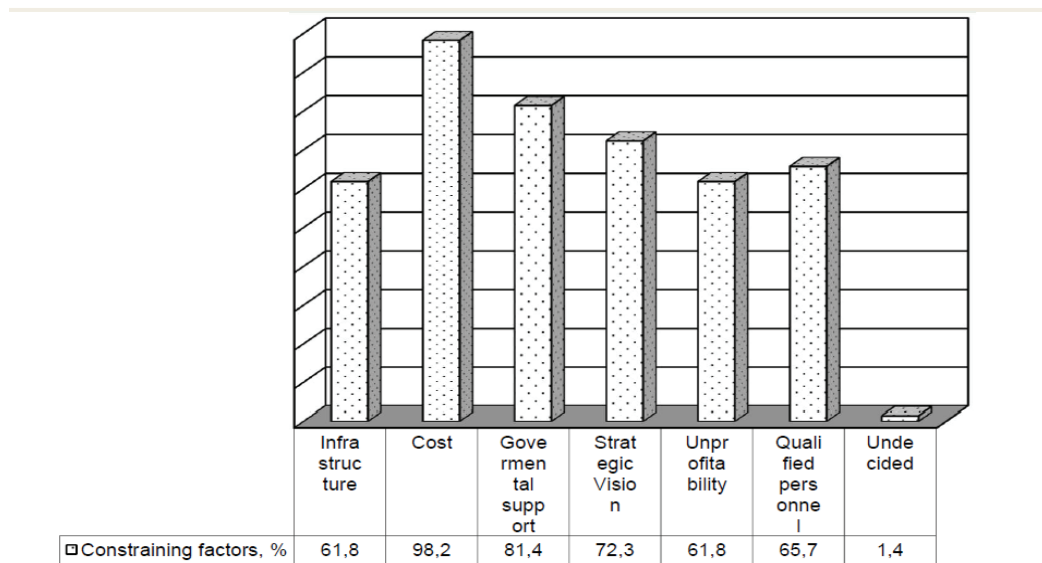


Fig. 2. Constraining factors for the introduction of biotechnology by domestic enterprises (according to the survey)

Source: composed by the author

Analyzing the general state policy of the aforesaid countries and others, we can identify current trends in the state regulation of bioeconomy:

1. Involvement of stakeholders in the discussion and implementation of projects.

2. Increasing number of public and private projects in the bioeconomy and development of smart cities, in particular.

3. Defining three main roles of the states in the bioeconomy regulation: promoter, facilitator, catalyst.

4. Methods formation of the systemic state support for the bioeconomy development.

5. Strengthening international cooperation in the bioeconomy regulation.

In order to determine the priority instruments of the bioeconomy state regulation in Ukraine, the strategic documents of particular countries from different regions on the bioeconomy development were analyzed. The analysis results are presented in the *Table 2*.

The *Table 2* shows that each country defines the bioeconomy differently in a strategic way. There is no common definition of the bioeconomy at the moment. It should also be noted that the more complicated today's challenges and environmental, social, and financial crises are, the more complicated approaches to define the bioeconomy will be. The bioeconomy definition as well as its regulation policy directly depend on the resource and technological potential of countries. Due to the interdisciplinary nature of bioeconomics as a science and its limited financial resources, most countries around the world choose certain details in the bioeconomy promotion and regulation. Thus, the United States allocate the lion's share of resources to the biopharmacy development, Costa Rica seeks to develop biodiversity and protect the ecosystem. In their turn, Norway, Thailand, and Latvia focus on the environmental compatibility of services in the state policy of the bioeconomy regulation.

Table 2

State regulation analysis of the bioeconomy in some countries

Country	Definition of the bioeconomy at the legislative level	Main directions of regulation	Main tools of regulation
<i>Costa Rica</i>	A broad understanding of the bioeconomy, including the full range of biological resources and knowledge for the production of goods and services in all sectors and industries within an economic system suitable for future generations.	Development of rural areas, virtual and eco-tourism, improvement of waste management policy, development of bio- and nanotechnologies, development of «green smart cities».	Establishment of the National Council for Bioeconomics, the Interministerial Commission for Bioeconomics, involvement of stakeholders, creation of incubators and platforms to support entrepreneurship, improvement of the environmental education system.
<i>USA</i>	The definition has been modified in recent years. Bioeconomics is an activity driven by research and innovation in the life sciences and biotechnology, and it is due to technological, computing and information sciences achievements.	Improving the health care system, genetic engineering development, bioinformatics, environmental compatibility of products.	Institutions and agencies provide grants for research projects in bioeconomics, a National Network System of Raw Materials is planned to be created on the principles of transparency and accessibility for stakeholders, education and public awareness of the bioeconomy benefits.
<i>Malaysia</i>	Economic activity covering production of renewable biological resources and their transformation into food, fodders, chemicals, energy and health products through innovative and efficient technologies.	Use of biofertilizers, biopesticides in agriculture, high-tech animal husbandry, high-tech aquaculture, genetically modified crops and organisms, new methods of plant breeding, development of biofuels, conservation of biodiversity.	Development of innovation clusters, conclusion of memoranda of cooperation with leading research institutes on bioeconomics, creation of biofactories (Segamat, Johor), functioning of BioAcademy, advanced training of farmers, Bioeconomy Day celebration, BioNexus award (additional benefits for winning companies).

France	The full range of activities related to the production, use and processing of bioresources.	Development of innovative partnerships between stakeholders, agriculture development on the principles of sustainability and environmental compatibility.	Establishment of the Strategic Committee on Bioeconomics, new National Research Institute of Agriculture, Food and Environment, increasing public and private investment in R&D, creation of bio-plants, alternative resources search (e.g., marine, forest, waste).
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Source: composed by the author with the use of [1; 3; 15; 17]

A significant contribution to the global bioeconomy development was made at the 2018 Summit, which communiqué formalized the definition of bioeconomy, that later became the basis for many definitions stipulated in national strategies.

All analyzed strategies pay attention to the necessity to change consumer behaviour, values of producers, consumers, and society as a whole.

During the Covid-19 pandemic, the world community recognizes the bioeconomy prospects as a new form of economic relations, able to ensure production efficiency, optimal use of resources, job creation, environmental protection. The concept of a circular economy plays an important role in modern bioeconomy development strategies, although the connection between them is blurred. For example, Italy

considers bioeconomy as a subsector of the circular economy. The United Kingdom, on the contrary, considers it as a tool for the circular economy development.

In general, the world experience of strategic planning implementation of the bioeconomy development proves that effective implementation of the strategy is impossible without clear goals, stages, deadlines, inventory resources, risk identification, and responsible authorities. It is also important to involve stakeholders in the development and implementation of the bioeconomy development strategies. It is possible to ensure the fulfillment of these conditions in Ukraine due to the systemic state policy implementation of the bioeconomy regulation, which organizational and economic procedures are introduced in Fig. 3.

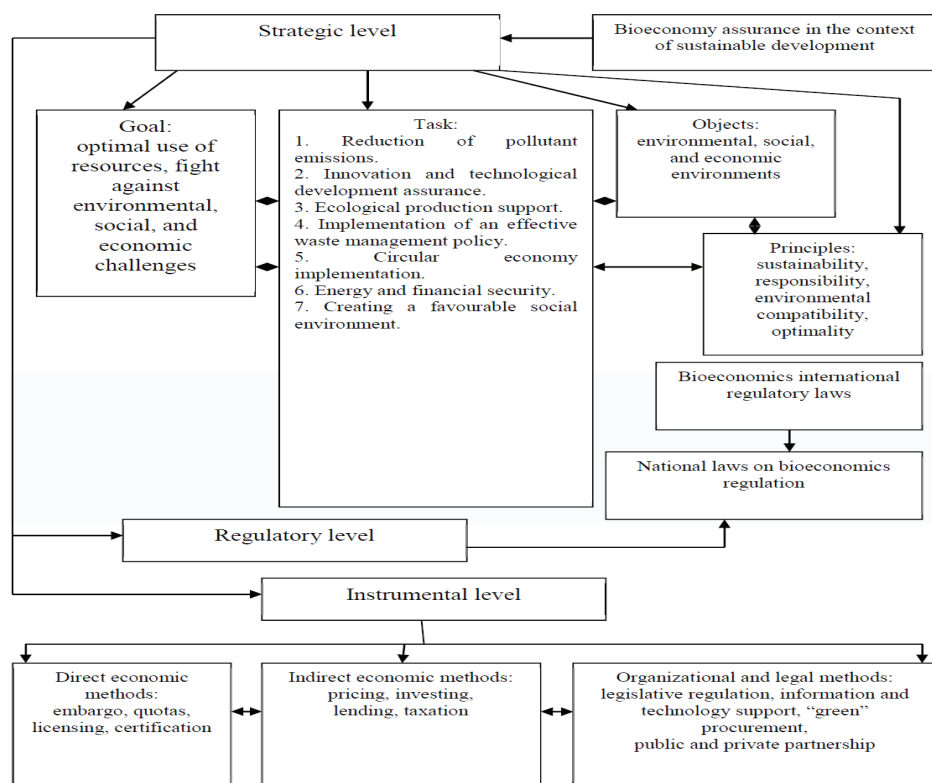


Fig. 3. Organizational and economic procedures of the state regulation of bioeconomy development in Ukraine

Source: composed by the author

Conclusions. The growing risks of the global ecological, social, and economic system demonstrates the urgent need for their transformation. Such radical transformation of the principles and methods of management, extraction and use of resources will ensure the long-term development of states, population welfare, natural regeneration. Bioeconomy is the key concept of a new transformation. There is no common definition of bioeconomy in scientific literature reviews, strategic documents of leading countries, and reports of international organizations. There are several approaches to define the bioeconomy. According to the first approach it is considered as any activity based on the use of biotechnology. Despite the growth of profits arising out of the biotechnology use in the world, national enterprises face many problems that hinder their implementation. To identify the restraining factors, interviewing of some managers of tourist, construction and transport enterprises was chosen. This choice of enterprises' activities is due to the fact that in national science and practice, all issues related to the bioeconomy are mainly considered in the context of agriculture and industry. Therefore, the survey results of enterprises in non-traditional industries were of interest for the bioeconomy.

The second approach defines the bioeconomy as a special way to use, process and market resources to ensure sustainable development. Also, the absence of sufficient theoretical reasons for the bioeconomy causes problems in the distinction between the concepts of «circular economy», «green economy», «sustainable economy». It is clear that the relevance and prospects for the bioeconomy implementation requires the development of its theoretical foundations.

There is an emphasis on the bioeconomy definition in the context of a new type of stakeholder relationship in the paper, because such an approach, in our opinion, will ensure the maximum protection of their interests on the basis of consensus and contributes to the balanced development of society.

The experience of the world's leading countries proves that the development of the bioeconomy should be provided by an active state support. Despite the growing interest in this issue, the number of countries that contribute to the development of the

bioeconomy remains insufficient in reality. Thus, it should be mentioned that Ukraine lags behind the EU countries regarding this, and the announced course of European integration requires, inter alia, the perception of European ideas, values, concepts and more. Therefore, the first step should be the strategic planning of bioeconomy development in accordance with a progressive global practice, development and implementation of organizational and economic procedures to support its development, and formation of governing bodies.

References:

1. Birch, K. (2016). Emergent policy imaginaries and fragmented policy frameworks in the Canadian bio-economy. *Sustainability*, 8(10), 1–16. <https://doi.org/10.3390/su8101007>.
2. Birch, K., Tyfield, D. (2013). Theorizing the Bioeconomy: Biovalue, Biocapital, Bioeconomics or ... What. *Science, Technology and Human Values*, (38), 299–327. DOI:10.2307/23474471.
3. Vogelpohl, T., Töller, A. E. (2021). Perspectives on the bioeconomy as an emerging policy field. *Journal of Environmental Policy & Planning*, 23(2), 143–151. <https://doi.org/10.1080/1523908X.2021.1901394>.
4. Tilica, E. (2021). Bioeconomy and Bioeconomics are they the same thing? *International Journal of Innovative Technologies in Economy*, 1(33). URL: <https://rsglobal.pl/index.php/ijite/article/view/1867> (Last accessed: 10.07.2021).
5. Balian, A., Hryshova, I., Shabatura, T. (2021). Publichna polityka ta derzhavna pidtrymka rozvytku ahrarnoho vyrobnytstva v Ukraini. *Naukovi zapysky Instytutu zakonodavstva Verkhovnoi Rady Ukrainy*, (2), 156–167. <https://doi.org/10.32886/instzak.2021.02.16> [in Ukrainian].
6. Balian, A., Hryshova, I., Shabatura, T. (2020). Derzhavni napriamy pidtrymky ta stymuliuvannia orhanichnoho vyrobnytstva. *Naukovi zapysky Instytutu zakonodavstva Verkhovnoi Rady Ukrainy*, (5), 129–141 [in Ukrainian].
7. Hryshova I. Yu., Nesterova K. S. (2021). Model tsyrkuliarnoi ekonomiky v konteksti stiikoho rozvytku. *Ekonomika APK*, (4), 88–94 [in Ukrainian].
8. Hryshova R. V., Nesterova K. S., Kurovska I. A. (2021). Problemy ta instrumenty

derzhavnoi orhanizatsiino-ekonomichnoi pidtrymky rozvytku tsyrkuliarnoi ekonomiky. *Ekonomika APK*, (5), 57. <https://doi.org/10.32317/2221-1055.202105057> [in Ukrainian].

9. Myshchak, I. M. (2018). Problemy i perspektyvy zakonodavchoho zabezpechennia innovatsiinoho rozvytku v Ukraini. *Naukovi zapysky Instytutu zakonodavstva Verkhovnoi Rady Ukrainy*, (6), 34–43. <https://doi.org/10.32886/instzak.2018.06.05> [in Ukrainian].

10. Proshchalykina, A. M. (2017). Ekonomichni y tekhnolohichni peredumovy formuvannia i rozvytku bioekonomiky v Ukraini. *Efektivna ekonomika*, (12). URL: <http://www.economy.nayka.com.ua/?op=1&z=5967> (Last accessed: 10.07.2021) [in Ukrainian].

11. Shcherbata, M. Yu. (2021). Rehionalna polityka Kytaiu v aharnii sferi: implementatsiia uspishnogo dosvidu dlia Ukrainy. *Zbiór artykułów naukowych z Konferencji Międzynarodowej NaukowoPraktycznej (online) zorganizowanej dla pracowników naukowych uczelni, jednostek naukowo badawczych oraz badawczych z państw obszaru byłego Związku Radzieckiego oraz byłej Jugosławii*. (30.04.2021). Warszawa, 11–14 [in Ukrainian].

12. Butenko, V. M. (2018). Formuvannia modeli derzhavnoho rehuliuвання rozvytku bioekonomiky. *Prychornomorski ekonomichni studii*, 26(1), 37–42 [in Ukrainian].

13. Rusan, V., Diachenko, O. (2019). Institutional frameworks for agrarian sector development in the context of ensuring the economic security of state. *Scientific Papers of the Legislation Institute of the Verkhovna Rada of Ukraine*, (2), 117–122. <https://doi.org/10.32886/instzak.2019.02.12> [in Ukrainian].

14. *Biotechnology Market Size, Share & Trends Analysis Report By Technology (DNA Sequencing, Nanobiotechnology), By Application (Health, Bioinformatics), By Region, And Segment Forecasts, 2021–2028*. URL: <https://www.grandviewresearch.com/industry-analysis/biotechnology-market> (Last accessed: 10.07.2021).

15. OECD. *The bioeconomy to 2030: Designing a policy agenda*. URL: <https://www.oecd.org/futures/longtermtechnologicalsocietalchallenges/42837897.pdf> (Last accessed: 10.07.2021).

16. Nesterova, K., Marchenko, V., Lazebnyk, I. and others. (2020). Identification and

assessment of external risks of the enterprise's foreign economic activity. *International Journal of Scientific and Technology Research*, 9 (2), 4672–4675.

17. International Advisory Council on Global Bioeconomy. Global bioeconomy policy report (IV). *A decade of bioeconomy policy development around the world*. URL: https://gbs2020.net/wp-content/uploads/2020/11/GBS-2020_Global-Bioeconomy-Policy-Report_IV_web.pdf (Last accessed: 10.07.2021).

Список використаних джерел:

1. Birch K. Emergent policy imaginaries and fragmented policy frameworks in the Canadian bio-economy. *Sustainability*. 2016. № 8 (10). P. 1–16.

2. Birch K., Tyfield D. Theorizing the Bioeconomy: Biovalue, Biocapital, Bioeconomics or ... What. *Science, Technology and Human Values*. 2013. № 38. P. 299–327.

3. Vogelpohl T., Töller A. E. Perspectives on the bioeconomy as an emerging policy field. *Journal of Environmental Policy & Planning*. 2021. № 23(2). P. 143–151.

4. Tilica E. Bioeconomy and Bioeconomics are they the same thing? *International Journal of Innovative Technologies in Economy*. 2021. № 1(33). URL: <https://rsglobal.pl/index.php/ijite/article/view/1867> (Дата звернення: 10.07.2021).

5. Балян А., Гришова І., Шабатура Т. Публічна політика та державна підтримка розвитку аграрного виробництва в Україні. *Наукові записки Інституту законодавства Верховної Ради України*. 2021. № 2. С. 156–167.

6. Балян А., Гришова І., Шабатура Т. Державні напрями підтримки та стимулювання органічного виробництва. *Наукові записки Інституту законодавства Верховної Ради України*. 2020. № 5. С. 129–141.

7. Гришова І. Ю., Нестерова К. С. Модель циркулярної економіки в контексті стійкого розвитку. *Економіка АПК*. 2021. № 4. С. 88–94.

8. Гришова Р. В., Нестерова К. С., Куровська І. А. Проблеми та інструменти державної організаційно-економічної підтримки розвитку циркулярної економіки. *Економіка АПК*. 2021. № 5. С. 57. <https://doi.org/10.32317/2221-1055.202105057>.

9. Мищак І. М. Проблеми і перспективи законодавчого забезпечення інноваційного розвитку в Україні. *Наукові записки*

Інституту законодавства Верховної Ради України. 2018. № 6. С. 34–43.

10. Прощаликіна А. М. Економічні й технологічні передумови формування і розвитку біоекономіки в Україні. *Ефективна економіка*. 2017. № 12. URL: <http://www.economy.nayka.com.ua/?op=1&z=5967> (Дата звернення: 10.07.2021).

11. Щербата М. Ю. Регіональна політика Китаю в аграрній сфері: імплементація успішного досвіду для України. *Zbiór artykułów naukowych z Konferencji Międzynarodowej NaukowoPraktycznej (online) zorganizowanej dla pracowników naukowych uczelni, jednostek naukowo badawczych oraz badawczych z państw obszaru byłego Związku Radzieckiego oraz byłej Jugosławii*. (30.04.2021). Warszawa, 2021. P. 11–14.

12. Бутенко В. М. Формування моделі державного регулювання розвитку біоекономіки. *Причорноморські економічні студії*. 2018. Вип. 26(1). С. 37–42.

13. Rusan V., Diachenko O. Institutional frameworks for agrarian sector development in the context of ensuring the economic security of state. *Scientific Papers of the Legislation Institute of the Verkhovna Rada of Ukraine*. 2019. № 2. P. 117–122.

14. Biotechnology Market Size, Share & Trends Analysis Report By Technology (DNA Sequencing, Nanobiotechnology), By Application (Health, Bioinformatics), By Region, And Segment Forecasts, 2021–2028. URL: <https://www.grandviewresearch.com/industry-analysis/biotechnology-market> (Дата звернення: 10.07.2021).

15. The bioeconomy to 2030: Designing a policy agenda / OECD. URL: <https://www.oecd.org/futures/longtermtechnologicalsocietalchallenges/42837897.pdf> (Дата звернення: 10.07.2021).

16. Nesterova K., Marchenko V, Lazebnyk I. and others. Identification and assessment of external risks of the enterprise's foreign economic activity. *International Journal of Scientific and Technology Research*. Vol. 9 (2). 2020. P. 4672–4675.

17. International Advisory Council on Global Bioeconomy. Global bioeconomy policy report (IV). *A decade of bioeconomy policy development around the world*. URL: https://gbs2020.net/wp-content/uploads/2020/11/GBS-2020_Global-Bioeconomy-Policy-Report_IV_web.pdf (Дата звернення: 10.07.2021).

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