

RECOVERY OF THE ECONOMY OF UKRAINE AFTER THE WAR: PROBLEMS AND PROSPECTS OF “GREEN” FINANCING

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Annotation. The peculiarities of “green” financing of the reconstruction of Ukrainian economy after the cessation of Russian aggression against our country were considered; the directions of possible financing of this reconstruction by international financial organizations and individual countries were identified; the features of implementing public orders during the reconstruction period in Ukraine were analyzed, taking into account the experience of EU countries; the peculiarities of the realization of the principles of the European Green Course and its possible influence on the financing of reconstruction processes in Ukraine were investigated.

Key words: consequences of Russian war against Ukraine, “green” financing, “green” economy, “green” finance, public orders, European Green Course, European Union, USA, Ukraine.

1. Introduction.

Statement of the problem in a general form and its connection with important scientific and practical problems. In order to overcome the global environmental crisis, the Paris climate agreement was adopted in 2015, which should stop the progressive climate warming, which threatens the existence of humanity. At the same time, the social and economic mechanism for the realization of this agreement has not met the goals set in them yet, which necessitates the search for new approaches to reducing greenhouse gas emissions. The difficulty of realization of this agreement in Ukraine is explained by Russia’s war against Ukraine and the significant human and material losses that our country suffered as a result of this aggression. All this requires significant assistance to our country from the international community in order to rebuild the Ukrainian economy on «green» principles. Increasing the role of business and financial institutions in the formation of a «green» economy in our country can become one of them. There are already similar examples in developed countries, which is important for Ukraine to borrow as well. In addition, it is important to change approaches to public procurements in Ukraine, using the experience of the European Union countries for this. In general, in order to become a member of the EU in the future, our country should make maximum use of the experience of the European Union regarding the use of «green» finance in modern conditions during rebuilding the economy.

2. Analytical framework.

Analysis of the latest studies, in which the solution to the problem was started. Such Ukrainian scientists as: O. Boyko [1], O. Vlasyuk [11], V. Zadvornyi [7], A. Kalina [8], O. Lyashenko [13], V. Malolityneva [4], V. Oleiko [13], D. Plakhta [12], O. Sokhatska [13], R. Starchuk [5], and others made a significant contribution to the study of various aspects of the influence of the state, business and financial institutions on the development of the “green” economy in Ukraine. Such Ukrainian and foreign scientists as: B. Ahengrin, T. Becker, B. Veder di Mario, Yu. Horodnichenko, S. Guriyev, S. Johnson, T. Mylovanov, K. Rogoff and others are engaged in the development of a mechanism for foreign investment (in particular, “green” investment) in Ukraine during the reconstruction period. At the same time, there is still a lack of research on the complex impact of the principles of “green” financing on business and financial institutions in order to comply with the requirements of the “green” economy in the conditions of reconstruction

of the economies of countries affected by the war. First of all, this concerns Ukraine, which in 2022 is forced to fend off Russia's aggression on Ukrainian territory, which destroyed a significant part of our country's economic potential and exacerbated Ukraine's environmental problems to the limit as a result of constant bombing of environmentally dangerous objects in our country.

3. The purpose of the article is to reveal the features of the use of "green" financing in the reconstruction of the economy of Ukraine during and after the war with Russia and to clarify the role of international structures, the Ukrainian state, its regions and territorial communities, entrepreneurial structures and public organizations in this process. At the same time, during the reconstruction of our country's economy, emphasis should be placed on compliance with the principles of the European Green Course, since Ukraine wants to receive the status of a candidate for EU accession as early as 2022 and the corresponding financial assistance from it. In addition, important attention should be paid to new approaches to the implementation of public procurements in Ukraine, which would speed up their implementation, ensure their higher efficiency and aim to comply with "green" criteria.

4. Presentation of the main material.

The Russian war against Ukraine in 2022 led to significant human and material losses for our country. According to various estimates, by the middle of May 2022, Russian troops destroyed almost 100 billion US dollars worth of Ukrainian infrastructure facilities, and the total damage to our country is estimated at more than 600 billion US dollars. The reconstruction of Ukraine after the war with Russia on the principles of a social market economy requires, in particular, compliance with the ecological order, which means, among other things, the preservation of the environment, the use of alternative renewable energy sources, etc. At the same time, what comes to the fore is not the further elimination of environmental damage caused by Russia's aggression against Ukraine, but the change of production and consumer processes in such a way that such damage is not caused at all, which cannot be achieved without the financial assistance of democratic countries of the world. The leading countries of the world and many international organizations announced financial assistance to Ukraine to overcome the consequences of this war. In particular, the European Union has already announced its intentions to support Ukrainians in their recovery after the war with Russia. For this purpose, the European Council will create a special Trust Fund for solidarity with Ukraine. The USA, Great Britain, Sweden, Spain, Denmark and other countries also declared their readiness to financially support the reconstruction of our country. It is important for Ukraine to use these funds not only as effectively as possible, but also to take into account the environmental requirements of the EU for the reconstruction of certain industrial and infrastructure facilities. To do this, as it is suggested by leading Ukrainian investment experts, it is necessary to create an observation council made up of representatives of donor countries in order to block possible corrupt actions of Ukrainian officials, to manage foreign investments involved in the reconstruction of Ukraine. In order to encourage foreign investments in Ukraine during the reconstruction period, according to a number of international experts [3], it is necessary to create certain prerequisites. For example, governments and international institutions (EIB, EBRD, WB, etc.) can provide subsidies to companies that will invest in Ukraine (tax reductions for them, subsidized loans, access to export-import loans, etc.). The government and investors can use the EU legal field to resolve disputes to minimize the risks of expropriation, corruption, etc.

For our country, a new source of funds for the development of the «green» economy could be the creation of the Green Investment Fund of Ukraine (GIFU). The sources of filling this fund should be: 1) a certain part of funds from the implementation of privatization, since the one-time sale of state-owned objects makes it necessary to direct these funds primarily to environmental projects, the implementation of which will have a positive impact on the sustainable development of Ukraine for decades; 2) funds from the gradual reduction of VAT refunds to Ukrainian exporters of raw materials and semi-finished products (the saved amount of VAT refunds must go to the specified fund). We suggest an annual reduction of the VAT refund at a rate of 1% in order to stop this practice after 20 years, since the specified exporters have high profitability, which is hidden by taking profits offshore; grant funds of international financial organizations and individual countries, etc.

The Concept of Economic Recovery of Ukraine was recently published by the Office of the President of Ukraine and the Government of our country. It is important that the central idea of the reconstruction of the Ukrainian economy in this Concept is conducting climate modernization, which meets the requirements of the European Green Course. Accordingly, all new industrial capacities in metallurgy, food processing and energy will be built on the principles of the «green» economy. That is, they will produce a minimal carbon footprint and minimally depend on fossil fuels, for which significant «green» financial resources will be allocated by Ukraine's foreign partners. At the same time, it is not yet clear how climate requirements will be taken into account during the reconstruction of existing Ukrainian enterprises, which before the war with Russia were characterized by significant greenhouse gas emissions, water and land pollution, accumulation of significant waste, etc. Therefore, it is important to find an answer to this question right now. One of the options could be the creation of joint ventures with EU countries that adhere to higher environmental standards on the basis of enterprises relocated to Western Ukraine. In addition, it would allow to quickly receive foreign investments for such enterprises.

The experience of many countries with business greening of their production shows that it takes a long time and is impossible without financial assistance from the state. Business cannot solve this problem on its own, especially after the war. Thus, in 1952, the suggestion of the chairman of the Ruhr Territorial Planning Association, which was for the industry to independently install filters for air purification at its own expense, was not supported by either the government or business. Corresponding changes in legislation were adopted in Germany only in the early 1970s. The greatest effectiveness of environmental policy began to be observed in Japan only in the 1960–1970s, thanks to joint financing of environmental protection measures by the private sector and the state. Israel was able to launch a full-fledged natural resource management program based on its combination with economic development only in 1973 [3]. EU countries are allocating more than one trillion euros for the implementation of the Green transition in the following years, since European business alone cannot fulfill the conditions of the European Green Course.

When applying for grants from EU funds by Ukrainian enterprises, it is necessary to take into account the fact that state financial assistance to individual enterprises is prohibited in the European Union, so as not to undermine the basis of market competition in this organization. At the same time, EU legislation allows the use of state financial support for those enterprises that are engaged in activities aimed at environmental protection. It is important to use this fact for Ukrainian enterprises, which are currently moving to Western Ukraine, and to create joint enterprises with enterprises from EU countries, which will introduce advanced environmental standards, in accordance with the requirements of the European Green Course. A similar approach should be used when implementing new changes to the law on localization, where during public procurement, goods produced by producers from Ukraine and the EU, whose level of localization is 60%, will benefit. To some extent, this will help such enterprises to compete with enterprises – manufacturers of similar goods from China and Turkey.

A survey by the European Business Association has shown that Ukrainian business largely shares the UN sustainable development goals, but the problem is that the more Ukrainian companies invest in their achievement (in particular, in environmental projects), the more they experience regulatory barriers from the state, which do not allow the business to fully realize its potential. Therefore, it would be expedient for the Ukrainian state to create favorable conditions under which Ukrainian companies will be ready to increase financing of sustainable development projects, in particular, «green» projects. First of all, this concerns the improvement of the state regulatory framework. In addition, state advisory assistance is also needed for those Ukrainian businesses that do not yet understand why they should invest in sustainable development projects, including in the «green» economy. Many of them will realize this when they try to export their goods to the EU, where from 2023 a new carbon tax will be levied on the so-called carbon footprint of goods that are produced outside the EU. Accordingly, the price of their products will increase, and they will become uncompetitive on the markets of the European Union.

The adoption of Resolution № 1060 of the Cabinet of Ministers of Ukraine dated October 11, 2021 «On approval of criteria for assessing the admissibility of state aid to business entities for the protection of the natural environment» was a positive step in the state regulation of the financing of environmental protection measures by business. Now companies of any industry can apply for state aid for capital

investments and additional investment costs, soft loans for the application of new environmental standards in production and early adaptation to them, reduction of greenhouse gas emissions, etc. The amount of state aid can reach 100% of the necessary funds. At the same time, there are more and more cases when state aid, the providers of which are state authorities at the central and public levels, is recognized as illegal [2]. Therefore, business is still quite cautious about this instrument of state regulation. In addition, clear criteria for assessing the admissibility of state aid to businesses for “green” modernization have not yet been developed. First of all, this concerns the life cycle assessment criteria for holding public procurement, although some EU countries are actively helping Ukraine in this matter.

Solving the problem of increasing the environmental friendliness of public procurement has significantly accelerated the introduction of so-called “green procurement” in the European Union. The European Commission defines the latter as a process during which customers purchase goods, works and services with a limited impact on the environment throughout the entire life cycle compared to goods, works and services of the same functional purpose [4], which is also important to target Ukrainian customers when conducting tenders after the end of the war with Russia, since the tenders were stopped with the beginning of this war. Among the types of goods, the following are most actively promoted within the concept of “green” purchases in the EU: energy-efficient equipment; office furniture from ecological materials; recycled paper; cars with an electric drive; electricity obtained from renewable sources [5]. Slovakia has achieved significant success in conducting green public procurement (GPP) among the new EU member states. It was one of the first countries among the new member states of the European Union, which developed a legal and regulatory framework for the introduction of GPP. Methods such as life cycle costing, specification of ecological production processes, as well as the use of criteria for the availability of ecological certificates help representatives of Slovak authorities to identify contractors that better take into account ecological criteria.

During the war with Russia, the Ukrainian authorities decided to cancel holding tenders in public procurement, which, in our opinion, should have been done only for defense procurement. As a result, shadow schemes, kickbacks, and other financial violations that lead to higher prices have increased sharply during public procurement. The reason for this was the lack of competition between tender participants. In general, during the war period (until May 9, 2022), 228,000 contracts were concluded directly, that is, without competition and without prior publication of a procurement announcement by the state. As a result, a significantly smaller saving of public funds was obtained than in the corresponding period of the previous year, and a significantly smaller number of companies that could offer their goods or services to the state and local self-government bodies took part in tenders. In addition, according to the calculations of the analysts of SE “Prozorro”, contracts for the main goods of critical demand were concluded at significantly inflated prices. So, in March 2022, this was typical for 55% of contracts for A-95 gasoline, for 77% of egg purchases, and for many contracts for sugar and pasta [6]. Therefore, we support the managers of the “Prozorro” State Enterprise, who are advocating the need to return transparency in the conduct of public procurement (except for defense orders), since the secrecy of information about them gives a lot of room for abuse and procurement at inflated prices [6].

In the near future, while the war is going on, as well as during the reconstruction period, it is necessary to improve the conditions for conducting public procurement so that the latter do not slow down this process. First of all, it is necessary to shorten their terms (no more than two weeks), raise the bar for simplified procurement (at least to the level of UAH 500,000), sharply increase the fee for unfounded complaints about the conduct and results of tenders. Regarding the latter, we suggest setting this fee at the level of the value of the tender offer. Only in this way, in our opinion, the delay in tenders can be stopped. Small and medium-sized businesses should be more actively involved in public procurement (especially “green” procurement), which will help them survive in the conditions of war and reconstruction. We must also take into account the fact that after the war the question of price will in many cases no longer play a primary role, as it does now. The importance of other criteria, in particular “green” components in determining the winners of tenders, which have not yet been properly formulated, will increase.

Purchases that are financed or co-financed by EU funds should be subject to mandatory control, following the example of Poland. In general, the EU has the most developed public procurement system,

which serves as a benchmark for many countries in the world, including Ukraine. At the same time, the governing bodies of the EU state that corruption in the field of public procurement among the countries of the European Union annually absorbs about 2 billion euros [8, p. 18]. Therefore, it is important for Ukraine to study the experience of the new EU member states in the fight against corruption in this area, which is primarily served by their use of electronic public procurement. In particular, in the Czech Republic, in order to participate and submit proposals, any economic operator must be registered either on the Tender Procurement Portal (NEN) or on one of the five private electronic platforms. In Hungary, since 2018, customers must make purchases through the online platform Electronic Procurement Portal "EKR", which is managed by the Office of the Prime Minister of the country. Information about the signing of contracts, procurement plans and all open current procurements is published there. Since 2018, the Public Procurement Office of Slovakia has launched a modernized e-procurement information system (ISEVO), which is used for electronic communication and information exchange in public procurement. At the same time, in addition to it, there are a number of paid electronic resources.

Among the directions of public procurement in the new member states of the European Union, such a new form as innovative partnership [4, p.90] is beginning to develop, which must be taken into account in Ukraine during rebuilding its economy. According to paragraph 49 of the Preamble of the EU Directive 2014/24 on public procurement, innovative partnership can be applied only in the event that the customer has a need to purchase an innovative product, service or work that is not yet on the market and which requires conducting scientific research and the establishment of a long-term partnership for their development. Customers in the EU are making the first attempts at applying such a procedure, albeit on the EU Ted electronic platform several dozen such orders have already been placed. In addition, today the provisions on innovative partnership are provided for by the legislation of a number of EU countries, in particular, Poland [10]. It would be expedient to apply a similar approach in Ukraine as well, which would help Ukrainian manufacturers of innovative products to strengthen their competitive positions on the domestic and foreign markets after the end of the war with Russia.

"Green" modernization of the Ukrainian economy before the war with Russia, according to experts' calculations, could cost our country several hundred billion US dollars. After the end of the war, this amount will increase significantly. Therefore, in the structure of "green" finances in Ukraine, an important place should be occupied not only by public funds and investments of the Ukrainian private sector, but also by the finances of foreign investors. For the latter, it is necessary to provide significant financial benefits, primarily tax benefits. At the same time, it is important to strengthen not only state control over the realization of "green" projects for foreign investments (both at the state level and at the level of regions and territorial communities), but also public control, since the level of corruption in state environmental services is quite high. This is primarily important in order to prevent the inflow of so-called ecologically toxic foreign investments into Ukraine during the reconstruction period. And they can go to Ukraine, given the current surplus of labor supply over demand.

It is important to attract not only investors from the EU, USA, Great Britain and other democratic countries, but also Chinese, Turkish and Arab investors for the reconstruction of the Ukrainian economy, since our country needs hundreds of billions of US dollars for its reconstruction. In addition, there is currently a mass transfer of Ukrainian enterprises from the eastern and southern regions of our country to Western Ukraine in order to protect them from aggressive actions of Russia. Accordingly, for the establishment and development of these enterprises, it is necessary to attract funds from Chinese investors who are interested in having joint enterprises with Ukraine on the borders with the EU. This is explained by the fact that similar enterprises in Russia and Belarus no longer have opportunities to cooperate with the European Union as a result of sanctions imposed on these countries by the EU, so China has lost economic interest in such cooperation with Russia and Belarus. At the same time, it is necessary to strengthen environmental control over Chinese investments in Ukraine, since Chinese investors do not always and not everywhere follow the standards of the "green" economy. As a result, several dozen Asian and African countries have terminated investment agreements with the PRC. Ambassador Extraordinary and Plenipotentiary of Ukraine to the USA O. Markarova draws attention to similar risks of cooperation with China.

The lack of funds in the Ukrainian state in conditions of rebuilding the economy of our country for the development of the "green" economy of Ukraine determines the development of public-private

partnerships in this sector. In particular, as of January 1, 2016, 177 projects were implemented in our country on the basis of public-private partnership, the main areas of which were waste disposal, water treatment and water supply, development of transport infrastructure [11, p. 8]. It is important to involve the newly created territorial communities more widely in such activities, which will significantly increase the effectiveness of such a partnership. In terms of increasing the role of territorial communities in building a "green" economy in Ukraine, the use of the so-called participation budget deserves comprehensive support. It represents a share of the budget of the city or other territorial community, which can be used directly by the city community to implement the initiatives of its residents. This resource should be directed to projects that are most important to residents. At the same time, the problem is the activation of the residents of a specific community regarding the adoption of this or that local initiative [12]. Analysis of the practice of adoption and implementation of participatory budgets shows that a significant part of them is aimed at the implementation of environmental projects. In particular, this is evidenced by the results of the annual contest "Let's make Volyn better", which is held for students of the Volyn region by Lesya Ukrainka Volyn National University and a number of public organizations in Volyn.

In order to speed up the reconstruction of Ukraine after stopping Russia's aggression on the principles of a "green" economy, it is important to more actively use the potential of our country's non-traditional and renewable energy sources. On the basis of the norms of its use that are developed by Ukrainian scientists, they suggest using in different regions the types of sources of such energy suitable for these regions [13]. In particular, it is advisable to place solar collectors in Odessa, Mykolaiv-Kherson and Central-Volyn agglomerations. It is expedient to install small hydroelectric power plants in the Drohobych agglomeration. In the Central Luhansk agglomeration, it is advisable to implement projects on the use of soil energy and groundwater. Projects that are aimed at using the thermal energy of wastewater will be the most attractive for such agglomerations as: Northern Donbas, Innovative Donbas, Drohobych and Kyiv agglomerations. It is advisable to introduce technologies for using the potential of wood in the Kyiv agglomeration; using the biogas – in the Central Volyn conurbation, in the Drohobych agglomeration; using the plant biomass – in Northern Donbas, Innovative Donbas, Mykolaiv, Kherson and Odessa agglomerations; using other renewable energy carriers – in the Central Luhansk agglomeration. It is clear that this will become possible after the liberation of some of these territories captured by Russia in 2014 and in 2022.

To ensure the use of alternative energy sources in the regions, it is important to create appropriate business incubators, technology parks, technopolises, etc. in them, which will speed up the implementation of projects on the use of renewable energy sources. For the Volyn region, it would be expedient to create such structures on the basis of the National University of Water and Environmental Engineering (Rivne), Lesya Ukrainka Volyn National Technical University, the Volyn National University (Lutsk) and the Donetsk National Polytechnic University, that was relocated from Pokrovsk to Lutsk in 2022.

In order to preserve the environment during the reconstruction period, it is important for our state and local self-government bodies to stimulate the development of local energy cooperatives. Thousands of such cooperatives operate in various countries of the European Union, as well as in other developed countries. In particular, there are 700 units of communities that have united in energy cooperatives in Germany. Among them there are both small cooperatives and powerful cooperatives that own solar, wind and biogas power plants. Members of such cooperatives are not only individual citizens, but also farms and companies. This trend is supported at the official level in the EU. Energy cooperatives play an important role in the US energy industry as well. More than 42 million of their members jointly own networks of more than 900 energy cooperatives. These networks cover 75% of the US territory and distribute about 11% of all electricity in the country. First of all, they are common in rural areas, where it is not very profitable for large energy companies to work.

5. Conclusions and prospects for further research.

The reconstruction of Ukraine after the war with Russia on the principles of a social market economy requires, in particular, compliance with the ecological order, which means, among other things, the preservation of the environment, the use of alternative renewable energy sources, etc. At the same time,

the focus is not on further elimination of environmental damage caused by Russia's aggression against Ukraine, but on changing production and consumption processes in such a way that such damage is not caused at all. It is important to realize the latter by following the principles of the European Green Course, for which it is possible to obtain appropriate financial resources.

In the near future, while the war is going on, as well as during the reconstruction period, it is necessary to improve the conditions for conducting public procurement so that the latter do not slow down this process. First of all, it is necessary to shorten their terms (no more than two weeks), raise the bar for simplified procurement (at least to the level of UAH 500,000), sharply increase the fee for unfounded complaints about the conduct and results of tenders. Regarding the latter, we suggest setting this fee at the level of the value of the tender offer. Only in this way, in our opinion, can the delay in tenders be stopped.

An important place should be occupied not only by public funds and investments of the Ukrainian private sector, but also by the finances of foreign investors in the structure of «green» finances in Ukraine. It is necessary to provide significant financial benefits, primarily tax benefits. At the same time, it is important to strengthen not only state control over the realization of «green» projects for foreign investments (both at the state level and at the level of regions and territorial communities), but also public control, since the level of corruption in state environmental services is quite high.

It is important for Ukraine to use foreign investments not only as effectively as possible, but also to take into account the environmental requirements of the EU for the reconstruction of certain industrial and infrastructure facilities. To do this, as it is suggested by leading Ukrainian investment experts, to manage foreign investments involved in the reconstruction of Ukraine, it is necessary to create an observation council that should be made up of representatives of donor countries in order to prevent possible corrupt actions of Ukrainian officials.

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