наук. співроб.
ДУ «Інститут ринку і економіко-екологічних досліджень Національної академії наук України»
Французький бульвар, 29, м. Одеса, Україна 65044
E-mail: t.neboha@gmail.com

ORCID: 0000-0002-5025-7299

ГОЛІКОВА О.С.
PhD in Economics,
наук. співроб.
ДУ «Інститут ринку і економіко-екологічних досліджень Національної академії наук України»
Французький бульвар, 29, м. Одеса, Україна 65044
E-mail: olga.iprei@gmail.com

ORCID: 0000-0001-7301-2430

ЗАСАДИ ЕКОЛОГІЗАЦІЇ СОЦІАЛЬНО ВІДПОВІДАЛЬНОГО БІЗНЕСУ

Актуальність. Сучасним трендом розвитку економіки є її соціально-орієнтована спрямованість на засадах становлення циркулярної моделі відтворення, де важливим аспектом виступає її екологічна спрямованість. Концепція сталого, соціально-економіко-екологічного розвитку тісно пов’язана з поняттям соціальної (корпоративної) відповідальності, а дискусії навколо актуальності провадження соціально відповідального бізнесу у новому тисячолітті зростають з кожним роком, залучаючи все більшу кількість вчених із різних напрямів економічної, управлінської та інших наукових сфер. Наведене актуалізує дослідження проблем розвитку бізнесу на засадах її соціальної відповідальності як ефективного цілеколоження в контексті становлення моделі циркулярної економіки з визначенням необхідних умов його екологічного розвитку.

Мета та завдання. Метою дослідження є визначення засад екологізації розвитку соціально відповідального бізнесу на засадах моделі циркулярної економіки.

Матеріали та методи. Основою дослідження стали такі інформаційні ресурси, як офіційні документи міжнародних організацій (ООН, OECD, Європейського парламенту, Світового банку), нормативно-правові акти України, аналітичні матеріали Державної служби статистики України, вагомі наукові праці українських та зарубіжних вчених, присвячені питанням екологічної відповідальності бізнесу в контексті вирішення завдань сталого розвитку. Авторами використані такі наукові методи як емпіричний (опис, порівняння), теоретичний (аналіз, синтез, узагальнення) і системний.

Результати. Результатом дослідження стало удосконалення підходів щодо визначення імперативів формування циркулярної моделі соціально відповідального бізнесу в Україні в умовах повоєнного відновлення, серед яких – взаємодія соціально-економічного зростання фінансової результативності та соціально відповідального бізнесу; баланс цілей компанії та дотримання принципів щодо провадження соціально відповідального бізнесу; зростання обсягів ринку екологічної продукції; вибудовування системи поводження з відходами на основі «попередження» їх виникнення; формування іміджевих та репутаційних вигід як чинника залучення інвестицій та формування кола лояльних клієнтів; прозорість провадження бізнесу та вирішення проблем асиметрії ринкової інформації. Крім того, розглянуто пропозиції щодо необхідності підтримки національного бізнесу у сфері циркулярної моделі поводження з відходами, який в умовах відновлення неспроможний у повному обсязі самостійно реалізувати соціальні ініціативи, опосередковано через систему податкових пільг, та безпосередньо – активною інституційною державною підтримкою на основі найкращих міжнародних практик.

Висновки. Формування імперативів екологічного розвитку соціально відповідального бізнесу є необхідною умовою становлення моделі циркулярної економіки. При цьому самі основи екологічного розвитку соціально відповідного бізнесу можна включати, по-перше, усвідомлення процесу максимізації прибутку як результату рационального використання ресурсів із створенням позитивного іміджу компанії, та, по-друге, усвідомлення дотримання чинного законодавства у частині бережливого ставлення та захисту навколишнього середовища. Орієнтування щодо подальшого розвитку соціально відповідального бізнесу в Україні в умовах відновлення потрібно відповідно до сформульованих умов стабільності інформованості суспільства про переваги такої моделі ведення бізнесу. Розробка дієвої стратегії.
GREENING BASIS OF THE SOCIALLY RESPONSIBLE BUSINESS

**Topicality.** The modern trend of economic development is its socially-oriented focus on the basis of a circular reproduction model formation, where its ecological orientation is an important aspect. The concept of sustainable, socio-economic-ecological development is closely related to the concept of social (corporate) responsibility, and discussions about the relevance of conducting socially responsible business in the new millennium are growing every year, attracting an increasing number of scientists from various areas of economic, management and other scientific fields. The above actualizes the study of the problems of business development on the basis of their social responsibility as effective goal setting in the context of the formation of a circular economy model with the determination of the necessary conditions for its ecological development.

**Aim and tasks.** The purpose of the study is to determine the principles of greening the development of socially responsible business based on the circular economy model.

**Materials and methods.** The research was based on such information resources as official documents of international organizations (UN, OECD, European Parliament, World Bank), regulatory and legal acts of Ukraine, analytical materials of the State Statistics Service of Ukraine, important scientific works of Ukrainian and foreign scientists, devoted to issues of environmental responsibility of business in the context of solving the problems of sustainable development. The authors used such scientific methods as empirical (description, comparison), theoretical (analysis, synthesis, generalization) and systematic.

**Research results.** The result of the study was the improvement of approaches to determining the imperatives of a circular model forming of the socially responsible business development in Ukraine in the conditions of post-war recovery, including the mutual influence of financial performance socio-economic growth and socially responsible business; balance of the company's goals and compliance with the principles of conducting socially responsible business; growth in the volume of the ecological products market; building a waste management system based on "prevention" of their occurrence; the formation of image and reputational benefits as a factor in attracting investments and forming a circle of loyal customers; transparency of business operations and solving the problem of market information asymmetry. In addition, proposals were developed regarding the need to support national business in the field of the waste management's circular model, which in the conditions of martial law is unable to fully implement social initiatives on its own, indirectly through the system of tax benefits, and directly through active institutional state support based on the best international practices.

**Conclusion.** The formation of ecological development imperatives for socially responsible business is a necessary condition for the formation of a circular economy model. At the same time, the very foundations of socially responsible business’ ecological development should include, firstly, awareness of the profit maximization process as a result of the rational resources use with the creation of a positive company image, and, secondly, awareness of compliance with
The guidelines for the further development of socially responsible business in Ukraine in the conditions of martial law and post-war recovery should be its systematic implementation and full awareness of society about the advantages of such a business model. The development of an effective strategy for conducting socially responsible business on the basis of greening in the country is envisaged with the inclusion of business representatives in its development. The result must be measurable, otherwise the implementation of the strategy will not take place. The result of the policy implementation of conducting socially responsible business on the basis of its greening should be progressive changes in the management system and the formation of the circular economy model foundations in the country.

**Key words:** sustainability; strategic development; circular economy model; corporate social responsibility; environmental responsibility; waste management; competitiveness of the company; post-war recovery.

**Problem statement and its connection with important scientific and practical tasks.** Today, one of the most fundamental problems of the world we live in is environmental pollution. The radical modernization of the production potential of various countries is characterized by an increase in production volumes in parallel with an increase in resource consumption. Such processes exacerbate the struggle for resources, displacement of labor from the production process, and widespread robotization, which leads to environmental degradation. In addition, various environmental problems, such as acid rains, agricultural food and drinking water contamination, GMO products, and global warming problems, which endanger the lives of both humans and all living beings through the interaction of all living organisms with air, water and soil (Zeynalova et al., 2022).

As a rule, the source of environmental problems can be various factors. Today, one of these main factors is human activity. In fact, when business activity and its results are taken into account, two main participants in the market should be considered – the consumer and the producer, since the decisions of one of these two participants influence and form the activity of the other. That is, both consumers and producers have a greater responsibility to reduce or prevent activities that exacerbate environmental problems (Zeynalova et al., 2022; Dolan, 2002; Webb, 2008; Wise, 2000).

Today's consumers may be more sensitive to environmental issues and may require companies to be aware of their responsibilities and implement practices that better protect the environment (Sharma, 2017; Picazao-Tadeo et al., 2012).

Increasing concern about environmental degradation and its impact on the environment has led many companies to adopt sustainable business models and environmental standards. Today, many companies are trying to solve environmental problems. According to the work of Antolin-Lopez et al. (Antolin-Lopez et al., 2014) it is about the emotional commitment of entrepreneurs to environmental issues and participation in ecological business practices.

A necessary condition for the development and effective functioning of a socially oriented market economy, ensuring a high quality of life for the population, creating a civil society and expanding the conditions for human development is the formation and implementation of social responsibility of all state entities. In today's complex conditions of the economic, political, demographic, and social development of Ukraine, it is social responsibility that can become a unifying national idea that will help find a way out of the protracted systemic crisis that has covered all aspects of social life.

The above actualizes the study of the business development problems on the basis of their social responsibility as effective goal setting in the context of the circular economy model formation with the necessary conditions determination for its ecological development.

**Analysis of recent publications of the problem.** In the domestic scientific literature, the works devoted to the issue of business’ envirornmental responsibility in the context of solving the sustainable development tasks (Danylyshyn et al., 2007); in article (Kostetska et al., 2021) is noted that the increase in the interdependence of the economic growth processes and ecological decline actualizes the task of scientific search for "motivated ways of transition of the traditional, extensive by its nature market economy, i.e. the entire economic system (both within the national framework and within the global economy), to a "green", ecologically safe economy"; social entrepreneurship is considered as a tool of interaction between institutions of public society and government on the basis of inclusiveness.

A significant contribution to the development of theoretical and methodological provisions, practical tools for greening the economy, ensuring conditions for sustainable economic growth was made by: J. Van den Bergh (Bergh, 2001), H. Daly (Daly et al., 1994), Y. Tunytsya (Tunytsya et al., 2011), N. Andreyeva (Andreyeva, 2006), I. Sinyakevich (Sinyakevich, 2003), O. Veklych (Veklych, 2011). The question of substantiation of sustainable development strategies adapted to the
in institutional conditions of the Ukraine’s economy is considered in the scientific studies of B. Burkynskyi, V. Stepanov, and S. Kharichkov (Burkynskyi et al, 1998), L. Hryniv (Hryniv, 2000), O. Polovyan (Polovyan, 2012).

Allocation of previously unsolved parts of the general problem. In the studies of the listed scientists, the issues of sustainable development, greening and corporate social responsibility are considered mainly on the fact that society recognizes the need for corporations as the main economy actors to bear responsibility to it, which goes beyond the scope of corporate obligations to their shareholders, as well as investors. At the same time, the ecological aspect of the socially responsible production development issues in context of the non-linear economic system’s development model has not been considered sufficiently, in our opinion.

Formulation of research objectives (problem statement). The purpose of the study is to determine the principles of greening the development of socially responsible business (SRB) based on the circular economy model.

Materials and methods. The study was conducted from October to December 2022 in the following stages:

1) essence analysis of the “corporate social responsibility” concept and the main elements of business’s environmental responsibility;
2) research the problems of greeningsocially oriented business in Ukraine;
3) determination of imperatives system elements of ecological socially responsible business development in Ukraine in the conditions of post-war recovery.

The basis of the research included such information resources as official documents of international organizations (UN, OECD, European Parliament, World Bank etc.), regulatory and legal acts of Ukraine, analytical materials of the State Statistics Service of Ukraine, important scientific works of Ukrainian and foreign scientists, devoted to issues of environmental responsibility of business in the context of solving the sustainable development problems.

The authors used such scientific methods as empirical (description, comparison), theoretical (analysis, synthesis, generalization) and systematic.

An outline of the main results and their justification. The modern trend of economic development is its socially-oriented focus on the basis of the reproduction circular model formation, where its ecological orientation is an important aspect. Thus, in the scientific literature there are approaches in which environmental problems are often associated with business practices (Dobers et al, 2000; De Clercq et al, 2011). The main reason for this is that enterprises continue their production using various resources obtained from the environment. Enterprises that attach great importance to environmentally responsible activities, respect nature and are sensitive to society have a good image in society (Cetindamar, 2007). Therefore, enterprises must strive to meet the expectations and needs of society, while making a profit from the goods or services they put on the market. Thus, companies must improve resource efficiency and reduce the impact of waste on the environment by focusing on cleaner production. To achieve this goal, companies need to identify, assess and manage the waste stream at the stage of process design and production planning before starting their operations (Melynk et al, 2000). In other words, companies should primarily prevent environmental pollution through activities that do not harm the environment.

There are various factors that push companies to implement environmental policies and transition to greening of entrepreneurship. We can summarize these factors as individual factors (Carlson et al, 2018) (customers, employees, shareholders, etc.), institutional factors (business environment, media, etc.) and legal factors (laws, international treaties, decisions of local self-government bodies, etc.) (Kirkwood et al, 2010). These factors are not clearly separated and independent from each other. For example, the influence of social media on consumers: focusing attention on the environmental activities of companies on social networks encourages consumers to take green actions (Huang, 2015). In this case, mass media influence the company's environmental activities through consumers.

Legal procedures are one of the main factors influencing the environmentally oriented activities of companies. Sometimes entrepreneurs use environmentally-oriented methods because they are mandatory, and required by laws or regulatory systems in the country. Today, increased information about the environment and continuous education have made people more aware of the issue. People's lifestyle began to change positively towards the consumption of ecologically clean products. As the demand for organic products has increased, many new green entrepreneurs have turned to this field.

The concept of sustainable, socio-economic-ecological development is closely related to the concept of social (corporate) responsibility, and discussions about the relevance of conducting
socially responsible business in the new millennium are growing every year, attracting an increasing number of scientists from various areas of economic, management and other scientific fields.

Let’s consider in more detail the essence of the concept of “corporate social responsibility”. Scientists determine that corporate social responsibility (CSR) in a broader meaning than the concept of sustainable development, emphasizing its importance from the management theory’s point of view. As noted in (OECD, 2015), responsible entrepreneurship means that business provides a positive contribution to economic, environmental and social progress in order to achieve sustainable development; avoids or eliminates adverse consequences of their own activities, prevents or mitigates adverse consequences directly related to their activities, products or services. At the same time, due diligence based on risk assessment is key to identifying, preventing and mitigating actual and potential adverse impacts of responsible entrepreneurship.

K. Davis and R. Blomstrom (Davis et al, 1966) in their book "Business and its environment" characterized social responsibility as "...a person's duty to consider the impact of his decisions and actions on the entire social system". Improvements occurred in the late sixties and seventies of the 20th century, when, under the influence of major social changes in Western society, definitions were established that paid less attention to the person of the manager and focused more on the interaction between the company and the social environment of the economic system. As confirmation of this transformation appears definition, which is based on Eilbert and Parket’s concept of good neighborliness: «...the best way to understand social responsibility is to think of it as good neighborliness» (Eilbert, 1973).

It includes two aspects. On the one hand, it means not doing things that harm the neighbors. On the other hand, it can be expressed as an independent commitment to solve neighborhood problems. Corporate social responsibility has many different aspects and dimensions (Buciova, 2008; Carroll, 1979; Dahlsrud, 2008; Jankalova, 2013; Kuldova, 2010; Lorinczy et al, 2015), but it is usually classified into three areas (Elkington, 1994): economic, social and environmental.

One of the basic program documents, on the principles of which the practice of business environmental responsibility is built, is the international standard ISO 26000 "Guidelines for Corporate Social Responsibility", which is an initiative of the International Organization for Standardization (ISO). The document states: since "sustainable development consists in focusing on economic, social and environmental goals common to all mankind, their achievement is possible under the condition of unification and meeting the expectations of various groups of society in the process of socially responsible business activity" (ISO, 2014). Therefore, the standard considers CSR as a set of practical tools for achieving the goals of sustainable development and environmental responsibility in particular.

Among other things, ISO 26000 consists of definitions, premises, principles and seven main topics of social responsibility. The seven core subjects are organizational governance, labor practices, human rights, the environment, fair labor practices, consumer issues, and community engagement and development. Main subjects have 37 related questions. ISO 26000 provides guidance on how a socially responsible enterprise or organization should work with the implementation of CSR principles, stakeholder engagement, due diligence and reporting on its achievements in the area of social responsibility. Companies that already have one or more management systems (for example, quality and environmental protection) can integrate them into the management system according to the standards of their country's regulations (ISO, 2014).

The necessity of conducting socially responsible business also affected the principles of stock market indices formation as indicators of the securities state market, namely the Dow Jones Sustainability Index. Since launching the world-renowned Dow Jones Sustainability Indices (DJSI) series in 1999, RobecoSAM has been driving innovation in environmental, social and corporate governance (ESG) investing. Built on accurate in-house analytics and research, they have pioneered the design, construction and application of indices specifically designed for use in the asset management industry and more broadly to drive ESG initiatives around the world. Each year, RobecoSAM asks 80 to 120 industry-specific questions to more than 3,900 registered organizations worldwide, focusing on economic, environmental and social factors that are critical to an organization’s success, but which are underexamined in regular financial analysis. This data, linked to investors’ sustainability and risk/return objectives, is used to create a portfolio of indices, including global indices, sub-indices and innovative products such as multi-factor ESG smart beta indices. The ESG equity indices are based on RobecoSAM's proprietary ESG database,
which covers over 600 ESG indicators for over 4,000 global companies.

The SA8000 standard is the leading social certification standard for factories and organizations around the world. It was founded by Social Accountability International in 1997 as a multi-stakeholder initiative. Over the years, the Standard has evolved into a common framework that helps certified organizations define their commitment to fair treatment of workers in various industries in any country. SA8000 measures social performance in eight areas important to social responsibility in workplaces through a management system element that ensures continuous improvement in all areas of the standard. It is used by brands and industry leaders for its precise approach to ensuring the highest quality of social compliance in their supply chains, without sacrificing business interests.

Currently, there are autonomous agencies (Dow Jones from Switzerland, Ethibel from Belgium, FTSE from Great Britain, Business in the Community from Great Britain, James Ethics Center from Australia, ECPI from Belgium, EIRIS from Great Britain, OEKOM Research AG from Germany) that have dealing with assessment of corporate social responsibility. Their improvement consists in the creation of their own indexes, with the help of which the effectiveness of socially responsible organizations is measured. The choice of which organizations can be included in these indexes depends on achieving the criteria of "socially responsible behavior", which are set by the agencies themselves.

The assessment of individual elements of corporate social responsibility has recently become a problem, despite the fact (Jankalova, 2013) that there are methods, standards and initiatives that allow measuring CSR (Dow Jones Sustainability Index, FTSE4Good Index, Business Excellence Models, DAXglobal Sarasin Sustainability Germany Index EUR, Ethibel Index, Global Challenges Index, MSCI World ESG Index, Global Challenges Index, principles of the UN Global Compact, STOXX Global ESG Leaders, STOXX Sustainability Indices, Dax Global Alternative Energy Index, Stoxx Europe Christian Index, Hang Seng Corporate Sustainability Index, Sullivan's Global Principles, OECD recommendations for multinational companies, Basic Code of the Ethical Trade Initiative, etc.). The problem is that not every approach can measure the state of CSR in every single area, that is, in the economic, environmental, social plane, in relation to stakeholders, etc.

In our opinion, corporate social responsibility comes from the fact that society recognizes the need for corporations as the main players in the economy to bear responsibility to it, which certainly goes beyond corporate obligations to their shareholders and investors. It concerns the interests of so-called third parties or stakeholders, such as consumers, employees, society as a whole, the state, and the environment. Social responsibility includes the economic, legal, environmental, ethical, philanthropic expectations of society from the corporation at a certain moment or period of time.

Despite the fact that the main responsibility for damages caused to society and third parties as a whole lies with large corporations, especially multinational companies, recently the idea of the need to expand the concept of "corporate social responsibility" to any organizations, regardless of their size, specifics of activity and form of ownership. That is, if it is about corporate social responsibility, then "everything must be taken into account".

The specificity of the social responsibility environmental side of polluting corporations is that an additional participant in economic and management relations appears – the surrounding natural environment, and the destructive consequences of economic activity are most clearly manifested in the environmental sphere.

In modern conditions, environmental responsibility is only one of the social responsibility components, but in the period of the latter formation, it was dominant. Increasing attention of society to the social component of responsibility is due to the general socialization of economic life, development of the human capital theory, human development and social capital concepts. There is no single approach to defining the nature of environmental responsibility. Environmental responsibility is interpreted in different ways by representatives of economic directions. According to the classical approach, environmental responsibility arose as a result of the impact of environmental legislation: in order to avoid sanctions, enterprises were forced to review their environmental policy and take measures to reduce the negative impact of their activities on the environment. According to the neoclassical approach, environmental responsibility is a consequence not only of regulatory and legal restrictions, but also of the moral responsibility of producers for causing damage to nature (Des Jardins, 1998).

In the work "Beyond the growth" (Pestel, 1988), a pessimistic forecast of the world economy development is presented and a conclusion is
drawn that the traditional model of management will face the problem of limited natural resources. The work indicates that the potential of society's development largely depends on the development of the "responsibility spirit" for the preservation of the natural, spiritual and moral wealth of humanity, which is "...the basis of further social and cultural progress". In 1991, at the Second World Conference in Rotterdam, dedicated to the problems of environmental management, was proposed a strategic concept of the organizations’ development to achieve the principles of sustainable development. The main component of this document was the environmental. In the report of the Prime Minister of Norway, it was emphasized that it is international corporations with minimal interference from the countries governments that should recognize their responsibility to society and nature. That is, the formation of social responsibility of business began precisely with the environmental aspect, which remains one of its most important dimensions (UN, n.d.). The concept of environmental responsibility organically combines the elements of the sustainable development concept and corporate social responsibility aspects.

Within the framework of the phenomenon formation on the global environmental responsibility, two trends are clearly distinguished. First, the world community came to the conclusion that there should be global responsibility for the state of the environment. This is emphasized in numerous international agreements and regulated by many agreements. Secondly, citizens, on the one hand, are more and more concerned about how an unfavorable environmental situation will affect their everyday life, and, on the other hand, they are interested in how they can contribute to solving environmental problems, and how their actions can improve the environmental situation. That is, we are talking about the birth of the concept of environmental responsibility in society.

In the writings of representatives of the Rome Club – H. Daly, J. Randers, D.J. and D.M. Meadows – the discourse on the need to introduce a culture of environmental responsibility as a tool for sustainable development was continued (Daly, 2002; Meadows et al, 2007).

The tasks and forms of environmental initiatives implementation defined by international documents have been actively developing in recent decades in the form of sustainable development strategies, or corporate social responsibility of business, part of which is environmental responsibility. The priority tasks of environmental responsibility programs for enterprises are amount optimization of natural resources used in production; application of energy- and resource-saving technologies; introduction of low-waste and zero-waste production technologies in order to reduce production waste; application of environmentally appropriate technologies and practices.

The essence of environmental responsibility, in our opinion, is manifested through three main functions: motivational, compensatory and preventive, and consists in maintaining a stable balance of economic and ecological interests in the process of economic activity based on the prevention, reduction and restoration of losses in the natural environment.

A manifestation of the motivational function is the presence of economic and legal incentives for environmental protection. The compensatory function of environmental liability consists in compensating for damages caused to the surrounding natural environment in monetary or in-kind terms. The preventive function is implemented in the form of coercive means of influence on the behavior of participants in environmental relations through the application of punishment and compensation for damages.

One of the most common approaches to defining an environmentally responsible company is an approach based on three criteria: compliance with environmental obligations, energy and raw material management, and effective stakeholder engagement.

At best, most Ukrainian enterprises recognize only legal environmental responsibility, that is, they organize their activities in accordance with domestic environmental legislation. However, the number of enterprises whose management is aware of the global environmental crisis severity and tries to contribute to the improvement of the environment is increasing year by year. The environmental component of social responsibility is one of the key requirements for Ukrainian companies to enter the world market. Export-oriented Ukrainian companies must manufacture products that meet European standards, in particular environmental, which are much stricter than domestic ones.

The main elements of environmental responsibility of business are (Hrishnova et al, 2011):

- introduction of corporate environmental policy. Companies that try to minimize the damage to nature caused by their activities usually adopt a system of environmental principles and standards. At a minimum, most such statements express the
company's respect for the environment at all stages of production, the company's compliance with environmental legislation is declared, and an open environmental policy is implemented, according to which employees, partners, members of the local community and other interested parties are informed about possible environmental damage from the company's activities. Usually, comprehensive information about organizations' environmental policies is provided on their websites;

- environmental audit. In order to develop the basic principles of environmental policy with a system of measures, to determine its main directions in both the long and short term, the company uses an environmental audit, the purpose of which is to determine the main resources necessary for the functioning of the organization and their consumption volumes, as well as in obtaining scientifically based conclusions about the degree of impact of the company's activities on the surrounding natural environment (atmospheric emissions, pollution of water bodies, processing waste, etc.);

- involvement of employees in environmental initiatives. A responsible attitude towards nature today is a guarantee of the existence of humanity in the future;

- "green supply". In order to ensure the environmental friendliness of goods and production processes, enterprises try to choose so-called "green suppliers". Such suppliers supply goods and provide services that are less harmful to the environment. That is, raw materials and materials must, firstly, meet the internal requirements of the company's environmental production standards, secondly, they must be extracted or manufactured using environmentally friendly technologies, thirdly, the most ecological transport schemes must be used for their delivery;

- production of "green" goods. Manufacturers are trying to make their products more environmentally friendly by using environmentally friendly materials, innovative waste processing technologies, and circular technologies.

The Environmental Management System became a special tool that allowed companies to clearly define the goals of environmental protection activities, achieve them and constantly improve environmental measures. This system is embodied in environmental management standards ISO 14000 (Environmental Management Standards), proposed by the International Organization for Standardization (ISO, 2015).

The standard ISO 14000 provisions for application of the environmental management as framework conditions when developing production greening programs for enterprises is important for determining such mandatory tools of the environmental responsibility program as environmental risk management, development of a product life cycle model taking into account the environmental consequences of its production and disposal, assessment of the production process impact on the environment, taking into account the principles of ecological efficiency and caution, the introduction of a sustainable procurement program.

Environmental legislation of Ukraine is represented by resource codes and laws that regulates certain issues of environmental protection, Decrees of the President of Ukraine and resolutions of the Cabinet of Ministers of Ukraine, as well as departmental regulatory and legal documents. The main legal act in the system of environmental legislation is the Law of Ukraine "On Environmental Protection". However, the provisions of this Law are not able to regulate all environmental protection relations. In the Land, Forest, Water Codes, Subsoil Code, etc. additions are set out in the laws, on the basis of which the specifics of the protection of the corresponding natural object are regulated. Thus, Ukraine has a number of regulatory documents that regulate environmental legal relations. That is, there is no single document that would clearly define the concept of sustainable development and the limits of environmental responsibility for committing environmental crimes.

The environmental responsibility program should be based on preventive and proactive measures to preserve the environment, and not act in an emergency mode. In the countries of the European Union (EU), the basic principle for the development of greening programs is the "polluter pays" statement, according to which the costs associated with environmental pollution caused by the company's activities should be reimbursed by the company itself, and not transferred to society (Society and Environment, 2018). In the Ukrainian practice, companies that have caused the deterioration of the environment are at best limited to fines that do not even partially cover the damage caused. Given the potential costs associated with the elimination of the accidents and environmental excesses consequences, companies focus on precautionary and preventive measures that reduce the risk of possible damage to natural ecosystems, rather than more costly measures to eliminate negative consequences. A preventive strategy (to prevent pollution and reduce negative externalities) involves changing the traditional cleaning method
"at the end of the pipe" with an approach that is focused on reducing emissions due to the introduction of more ecological production technology and equipment.

One of the effective preventive strategies of business greening is the establishment of a so-called circular economy model and circular production, which enables the reuse of used materials and waste.

Successful practices of European countries and individual enterprises can become a reference point for the development of environmental responsibility programs, circular production and waste recycling at Ukrainian enterprises.

At the same time, it should be taken into account that an important component of such programs should be not only the reuse of production waste, but also the comprehensive protection of the environment in which the enterprise operates, which involves the preservation and revitalization (reclamation) of natural areas. To ensure these tasks, the ISO 26000 standard recommends that enterprises carry out systematic monitoring of the organization's impact on the environment and measures to protect and restore destroyed ecosystems and biodiversity.

However, when planning certain measures of environmental responsibility, enterprises should take into account that the implementation of a sustainable or green economy model is quite expensive, as it requires a radical modernization of the entire production equipment system and technologies. The "expensiveness" of this model is quite often a barrier to its implementation. Therefore, when choosing certain areas of green modernization of business, emphasis should be placed on identifying and securing those economic effects that the implementation of environmental responsibility programs provides to companies, namely:

- costs reduction due to reduction of production's energy and resource intensity;
- environmental risks reduction (and corresponding costs);
- improvement of the company's reputation with the potential expansion of the company's customers, investors and partners.

The concept of a circular economy involves the observance of the so-called "9R" principles: refusal of excessive use of resources (refuse), repeated use of resources (reuse), reduction of use (reduce), extension of the term of use (repair), renewal of product composition (refurbish), product creation from obsolete products (remanufacture), change of purpose (repurpose), processing and secondary use (recycle), production of energy from materials (recover).

Based on the practical world experience of implementing the concept of circular economy and its principles, it is possible to distinguish 5 main circular business models (Baklanova et al., 2020; Flynn et al., 2019; Dankeieva et al., 2021; Korhonen et al., 2018):

1. **Circular suppliers** are a way to replace finite resources with renewable sources. The basis is the provision of fully recyclable resources or other resources that are subject to biological destruction (degradation).

2. **Resource recovery** is a model in which resources can be recovered and reused through innovation. This allows you to avoid the loss of resources and increase the profitability of production due to the reverse flow.

3. **Exchange platforms** are a model for exchanging or sharing goods or assets. Also provides interaction between users of the product.

4. **Extending the life of the product** – a model that extends the life cycle of the product due to modernization, restoration, renewal of the enterprise.

5. **Product as a service** – a model that provides an alternative way of purchasing products - their use in the form of "rental" with payment on the spot (through rent, concession, leasing, etc.). The ideas of conducting socially responsible business arose in the middle of the 20th century, and took different forms under the influence of public awareness of the negative impact of entrepreneurial activity on the environment. In the scientific literature, several models of CSR are distinguished, which reflect the main principles of the formation of the system of social responsibility of companies, the role of the state in the implementation of CSR, forms of business motivation, etc. Usually, European, American, British and Japanese (or Asian) models of SRB are distinguished (table 1).

In our opinion, the practice that introducing American and European models of socially responsible business can be useful for Ukraine, when the state provides support through a system of tax benefits (American model) and institutional support (European model). At the same time, the main thing should be the permanence trend of the business focus on the social initiatives implementation, taking into account the balance of public and private interests, that is, the interests of the company itself (Neboha&Golikova, 2022).

In Ukraine, the problems of the environmental component of socially oriented business are, unfortunately, exacerbated by the consequences of the full-scale war that began on February 24, 2022.
At the same time, the list and classification of hazardous waste and ways of handling it are expanding. Pollution from the extensive use of weapons, particularly in populated areas, and large amounts of waste from war, including destroyed military vehicles, pose a serious challenge to the country's cleanup.

### Table 1

<table>
<thead>
<tr>
<th>The name of the SRB model</th>
<th>The role of the state</th>
<th>Forms of business motivation</th>
<th>Tools of SRB</th>
<th>Target landmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>European model</td>
<td>Active role and support in maintaining the autonomy of companies and trade unions</td>
<td>Establishment of legislative norms and standards</td>
<td>Social insurance system. <em>The initiators</em> of the CSB are the state and the public; a high level of integration of social responsibility into the company's overall development strategy</td>
<td>SRB is a company's voluntary choice to do more than is legally established</td>
</tr>
<tr>
<td>American model</td>
<td>Minimal intervention, companies independently determine the need and degree of influence on solving social problems</td>
<td>Indirect incentives through the tax system; influence on the formation of the image in society through the creation of ratings of companies according to the level of their social responsibility</td>
<td>Patronage, sponsorship. <em>The initiators</em> of SRB are the business itself</td>
<td>SRB is the choice of the company and is determined only by its desire to form a positive reputation</td>
</tr>
<tr>
<td>British model (combines elements of American and European)</td>
<td>Active role and support, limited regulation</td>
<td>A system of preferential taxation for companies whose business is socially oriented</td>
<td>Social investments of companies. <em>The initiators</em> of SRB are the business itself</td>
<td>SRB – open and coordinated at the national level; most of the companies have special divisions with SVB with their own budgets; social reporting in annual reports.</td>
</tr>
<tr>
<td>Japanese (Asian) model</td>
<td>Active role</td>
<td>Establishing social and environmental standards; focused on the internal environment of the company</td>
<td>Legal regulation at the legislative level is not foreseen; governed by internal corporate directives. <em>The SRB initiative is determined by national traditions</em></td>
<td>SRB is focused on the internal environment of the enterprise and is manifested in the system of lifelong employment and the corresponding conditions of personnel management.</td>
</tr>
</tbody>
</table>

*Source: Compiled by the authors based on (Voronchak, 2018; Volynets, 2013; Hradyuk, 2011; Gordienko, 2014)*

Such pollution and waste found in combat zones are called toxic remnants of war (TRW). They are produced by combat herbicides, emissions from military bases, building debris generated during conflict, waste of war management such as incineration pits, disposal of munitions during and after conflict. In the words of one expert: "TRWs are also formed after the cessation of hostilities due to abandoned military equipment, use of critical infrastructure, use of industrial sites, military action in populated areas, governance collapse (which leads to a lack of control over environmental regulation), loss of assessment potential and collapse in waste
management” (World Bank, 2022). As a result of the war, more than 200,000 tons of hazardous waste and scrap metal have already been generated. As of June 1, 2022, the damage caused to the sectors covered (World Bank, 2022) is estimated at about 97 billion US dollars (see Table 2). The residential sector (40% of the total amount of damage), transport (31%), trade and industry (10%) was the most affected.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Damage caused</th>
<th>Damages</th>
<th>Recovery needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dwelling</td>
<td>39.2</td>
<td>13.3</td>
<td>69.0</td>
</tr>
<tr>
<td>Education</td>
<td>3.4</td>
<td>0.5</td>
<td>9.2</td>
</tr>
<tr>
<td>Health care</td>
<td>1.4</td>
<td>6.4</td>
<td>15.1</td>
</tr>
<tr>
<td>Social protection and provision of means of livelihood</td>
<td>0.2</td>
<td>4.5</td>
<td>20.6</td>
</tr>
<tr>
<td>Culture and tourism</td>
<td>1.1</td>
<td>19.3</td>
<td>5.2</td>
</tr>
<tr>
<td>Agriculture</td>
<td>2.2</td>
<td>28.3</td>
<td>18.7</td>
</tr>
<tr>
<td>Irrigation and water resources</td>
<td>0.2</td>
<td>0.1</td>
<td>7.5</td>
</tr>
<tr>
<td>Trade and industry</td>
<td>9.7</td>
<td>47.5</td>
<td>20.8</td>
</tr>
<tr>
<td>Financial sector and banking</td>
<td>0.03</td>
<td>8.1</td>
<td>8.0</td>
</tr>
<tr>
<td>Energy</td>
<td>3.0</td>
<td>11.7</td>
<td>10.4</td>
</tr>
<tr>
<td>Extraction of minerals</td>
<td>0.1</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>Transport</td>
<td>29.9</td>
<td>26.1</td>
<td>73.8</td>
</tr>
<tr>
<td>Telecommunications and digital technologies</td>
<td>0.7</td>
<td>0.6</td>
<td>3.3</td>
</tr>
<tr>
<td>Water supply and drainage</td>
<td>1.3</td>
<td>6.8</td>
<td>5.4</td>
</tr>
<tr>
<td>Municipal services, including waste management</td>
<td>2.3</td>
<td>4.3</td>
<td>5.7</td>
</tr>
<tr>
<td>Environmental protection, nature management and forestry</td>
<td>2.5</td>
<td>0.7</td>
<td>1.2</td>
</tr>
<tr>
<td>Emergency response and civil protection</td>
<td>0.1</td>
<td>0.2</td>
<td>0.7</td>
</tr>
<tr>
<td>Justice and public administration</td>
<td>0.1</td>
<td>0.03</td>
<td>0.2</td>
</tr>
<tr>
<td>Cleaning the territory of the country</td>
<td>-</td>
<td>73.2</td>
<td>73.2</td>
</tr>
<tr>
<td><strong>Together</strong></td>
<td><strong>97.4</strong></td>
<td><strong>252.0</strong></td>
<td><strong>348.5</strong></td>
</tr>
</tbody>
</table>

Source: built by the authors from the data (World Bank, 2022).

From the data in Table 2, it can be seen that the total losses amount to almost 252 billion US dollars. It should be noted that losses in one sector spill over and intersect with other sectors. For example, a reduction in agricultural production affects transportation needs, or a loss of electricity affects trade and industry in regions otherwise unaffected by the war. The structure of losses is dominated by clearing the country's territory (mining and disposal of explosive remnants of war) (29%), trade and industry (19%), agriculture (11%) and transport (10%). As for the rest of the losses, the sectors of culture and tourism (8%), housing (5%) and energy (5%) are significant. Total reconstruction and rehabilitation needs are estimated at more than $349 billion.  

All of these needs arise from a war that has covered a large geographic area (including urban areas) and is significant in scale – and meeting these needs will be critical to long-term post-war recovery. However, noting these needs does not mean that they can be met immediately. This will depend on the availability of funding, as well as the ability of the Ukrainian budget to absorb funds, line ministries, sub-national and implementing agencies, the willingness of the private sector to support capital investment, and the trajectory of the war.

Today's state of solid household and similar waste management (SHSWM) is characterized as follows:
- increase in the volume of formation of SHSWM (at the same time, the population in the country is rapidly decreasing);
- low level of processes of sorting, processing, re-use and utilization of SHSWM (at the same time, in the conditions of increasing level of
urbanization and post-war reconstruction, it is necessary to introduce greater opportunities for civilized waste management);
- lack of economic incentives in the field of waste management; the practical lack of a solution to the problem of collecting solid waste in rural areas;
- increase in the volume of waste disposal to open landfills and unauthorized landfills, etc.

At the same time, the domestic waste management market does not receive the necessary development due to the following obstacles: economic (deficit of the state budget due to the military invasion; insufficient financing of the sector as a guarantee of return on investment; insufficient regulation of tariffs related to waste, etc.); administrative (insufficient transparency of the functioning of the field of waste management; lack of a clear division of responsibility; imperfection of the public-private partnership mechanism in the field of waste management; outdated technologies and non-systematic implementation of environmental monitoring); cultural and informational (low level of environmental awareness; non-regulation of activities related to environmental education of the population, etc.) (Khumarova et al, 2020).

Fig. 1. Hierarchy of waste management in accordance with Directive 2008/98/EU
Source: developed by the authors based on (European Parliament, 2008).

The experience of the EU regarding "waste prevention" is may be interesting. Thus, Directive 2008/98/EU defines that "waste prevention" (Fig. 1) means the application of such measures in such a way that in the process of their production, consumption, use and recycling, as little waste as possible is created. (European Parliament, 2008).

Currently, the implementation of the socially responsible business principles of in Ukraine is affected by the negative conditions of the martial law, and is connected with the difficult economic situation in general: limited financial resources; weak institutional support and an imperfect system of motivation from the state.

Conclusions and perspectives of further research. The foundations formation of socially responsible business' ecological development is a necessary condition for the formation of a circular economy model. At the same time, the very basics of ecological development in a socially responsible business should include, firstly, awareness of the profit maximization process as a result of the rational resources use with the creation of the positive company image, and, secondly, awareness of compliance with current legislation in terms of frugality and environmental protection.

Summarizing, we note that, in our opinion, the future direction of socially responsible business development in Ukraine in the conditions of martial law and post-war recovery should be its systematicity and full awareness of society. The development of an effective strategy for conducting socially responsible business on the basis of greening in the country is envisaged with the inclusion of business representatives in its development. It is necessary to encourage demand for socially responsible business through transparency and public awareness of successful
socially oriented companies. For the success of strategy implementation, it is important to be able to measure its results. Consumers' interest in a safe and ecological environment also has a significant impact. The result of the implementation of the policy of conducting socially responsible business on the basis of its environmentalization should be progressive changes in the management system and the formation of the foundations of the circular economy model in the country.

REFERENCES


