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SUSTAINABLE DEVELOPMENT OF UKRAINE AS AN INNOVATIVE APPROACH TO ITS POST-WAR RECOVERY

Introduction. *The main purpose of international economic cooperation while achieving the goals of sustainable development is to solve global problems related to overcoming poverty, saving the planet, and developing economy as a whole.*

Problem Statement. *Additional research is needed to assess Ukraine's achievements and to outline its opportunities in implementing the goals of sustainable development as an innovative approach to its post-war recovery that is relevant for attracting impact investments as an innovative investment tool.*

Purpose. *The purpose of this research is to assess achievements and to outline opportunities of Ukraine in the implementation of economic, social, and environmental goals of sustainable development in the conditions of post-war recovery.*

Materials and Methods. *The research is based on the concept of sustainable development. Empirical (observation, description) and theoretical (analysis, synthesis, abstraction, generalization, induction, deduction, and explanation) methods have been used to study the current state of Ukraine's achievements in the sphere of sustainable development and to outline the post-war prospects.*

Results. *The analysis of the social and environmental goals of sustainable development in Ukraine has shown positive dynamics until 2022 and illustrated a high potential for achieving the goals of sustainable development. From 2022, there has been reported a crisis in all components of sustainable development. Because of the war, population migration and unemployment, and mortality have increased rapidly, while the birth rate and the economic indicators of the country's development have decreased. The worst situation in Ukraine has been reported in the implementation of environmental goals.*

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Conclusions. *For the post-war recovery of Ukraine, it is necessary to create conditions for attracting investments, especially impact investments that should prevail. To this end, it is necessary to regulate impact investing at the legislative level, to promote the disclosure of information by enterprises about their social and environmental activities in the corporate reporting, as well as to form intermediary platforms for investors who wish to invest in sustainable development.*

Keywords: economy, ecology, social responsibility, sustainable development, sustainable development goals, impact investing.

The economy growth on an international scale is based on sustainable development, as declared in the Sustainable Development Agenda until 2030. Ukraine has joined international cooperation to achieve the goals of sustainable development and undertaken to promote the sustainable development of its economy and industry to create greater added value and income, to provide resources, as well as to preserve ecosystems.

Country's achievements in pursuing the goals are determined with the use of the Sustainable Development Goals Index (SDG). According to the Sustainable Development Report for 2019, the top five leaders by this index include: Denmark (85.2), Sweden (85.0), Finland (82.8), France (81.8), and Austria (81.1), while Ukraine took the 41st place with 72.8 points [1]. According to the Sustainable Development Report 2022, in 2021, Ukraine ranked the 37th [2], which indicated positive dynamics in achieving the goals of sustainable development. However, the situation has deteriorated critically after the beginning of a full-scale invasion of the territory of Ukraine. Therefore, it is relevant to study the achievements of Ukraine in pursuing the goals of sustainable development and to outline the prospects for the implementation of the concept in the future for the recovery of Ukraine in the post-war period with the aim of ensuring decent living conditions for the population and economic development of the country, reducing the level of pollution of the natural environment and counteracting changes in climatic conditions.

The issues of sustainable development have been discussed by G. Daly [3], L. V. Deineko [4], V. M. Zhuk [5], V. V. Evdokymov [6], I. V. Zamula [7], N. G. Kornienko [8], M. M. Ladyka, V. M. Starodubtsev [9], D. Meadows [10], L. G. Melnyk [11], O. I. Furdychko [12], M. A. Khvesyk [13], V. O. Shevchuk [14], and others.

I. Podorycheva has investigated the problems of restoring the country after a war or military conflict, as well as the European experience of restructuring the economy after the Second World War [15].

The influence of military actions on the state of the natural environment has been studied by U. C. Jha, N. Solomon, E. Birhane, C. Gordon, M. Haile, F. Taheri, H. Azadi, J. Scheffran, F. A. M. Garzon, I. P. Valanszky, and P. Hough.

U. C. Jha [16] has emphasized the need to improve the legal regime of environmental protection during armed conflicts in order to minimize degradation and preserve environment. P. Hough [17] has analyzed the legal essence of ecocide and its place in the system of crimes under international criminal law. It has been proven that ecocide is an international crime, causing public danger due to infringement of public order and creating a threat to the life of the population of a specific territory, humanity as a whole, destroying either the entire environmental complex or its individual components. The author has emphasized the need to develop international regulations regarding the prevention and responsibility for illegal actions caused to the surrounding natural environment.

In research by N. Solomon, E. Birhane, C. Gordon, M. Haile, F. Taheri, H. Azadi, and J. Scheffran [18], the impact of military actions on the state of the environment in Africa has been investigated. The researchers have emphasized that the armed conflict affects the internal migration of the population, leads to scarcity of resources, and is one of the causes of climate change.

F. A. M. Garzon and I. P. Valanszky [19] have studied the problems of assessing the environmental consequences of armed conflicts in areas affected by them, by remote sensing methods.

In order to assess the consequences of military conflicts on the state of the surrounding natural environment, the authors have suggested considering the following factors: biome, the influence on forest cover, the scale and sensors of satellite images in order to determine the relationship between the driving forces of war and the geographical location assessed by remote sensing methods.

The influence of the Russian-Ukrainian war on the state of the environment has been studied by S. A. Shevchuk, V. I. Vyshnevskyi, O. P. Bilous, M. Ladyka, V. Starodubtsev, O. Trofymchuk, V. Vyshnyakov, N. Shevyakina, V. Klymenko, S. Slastin, O. Shumilova, K. Tockner, A. Sukhodolov, V. Khilchevskyi, L. De Meester, S. Stepanenko, and P. Gleick.

S. A. Shevchuk, V. I. Vyshnevskyi, and O. P. Bilous in [20] have identified the features of using remote sensing data to track the impact of Russian-Ukrainian aggression and the state of water and forest resources. O. Trofimchuk, V. Vyshnyakov, N. Shevyakina, V. Klymenko, and S. Slastin [21] have considered the problems of assessing the consequences of fires caused by the war in Ukraine, using methods of remote sensing of the Earth.

The state of water resources and water infrastructure in the conditions of the war in Ukraine has been considered by M. Ladyka, V. Starodubtsev [22], as well as O. Shumilov, K. Tockner, A. Sukhodolov, V. Khilchevsky, L. De Meester, S. Stepanenko and P. Gleick [23]. The authors have emphasized that the continuation of the conflict will have numerous negative consequences for sustainable development not only in Ukraine, but also on a global scale, hindering access to clean water and sanitation, conservation and sustainable use of water resources, as well as threatens energy and food security.

The review of scholarly research works has shown that there are currently no comprehensive studies on the impact of military conflicts on the state of the environment in the regions of Ukraine. Additional research is needed to assess Ukraine's achievements and to outline its opportunities in realizing the goals of sustainable development as an innovative approach to post-war recovery that is relevant for attracting impact investments as an innovative investment tool.

The purpose of the study is to assess the achievements and to outline the opportunities for Ukraine in the implementation of economic, social and environmental goals of sustainable development as an innovative approach to its post-war recovery.

IMPLEMENTING THE CONCEPT OF SUSTAINABLE DEVELOPMENT IN UKRAINE

The overexploitation of natural resources in the 20th century has caused the degradation and pollution of land and water resources, excessive deforestation, irrational use of mineral resources, pollution of the atmosphere with greenhouse gases and emissions of harmful substances. This has led to a depletion of natural resources, a decrease in the supply of drinking water, and a deterioration of its quality characteristics, and also has caused a change in the climatic conditions on the Earth.

Due to the awareness of global problems and their solution in the 1970s, the researchers started working on the main theoretical foundations of the concept of sustainable development that was aimed at preserving limited resources for future generations and reducing anthropogenic impact on natural ecosystems. The basic axiom of this concept is to stop the irrational use of natural resources through the introduction of environment friendly technologies. According to the concept of sustainable development, only those activities of economic entities, which allow obtaining the greatest economic benefits, under the condition of the least negative impact on the natural environment, may be considered productive ones.

The priority of the planet development based on sustainable development is caused by the rapid growth of the population to 8 billion people. and the need to provide them with resources for a normal life. In addition, ecosystems have been

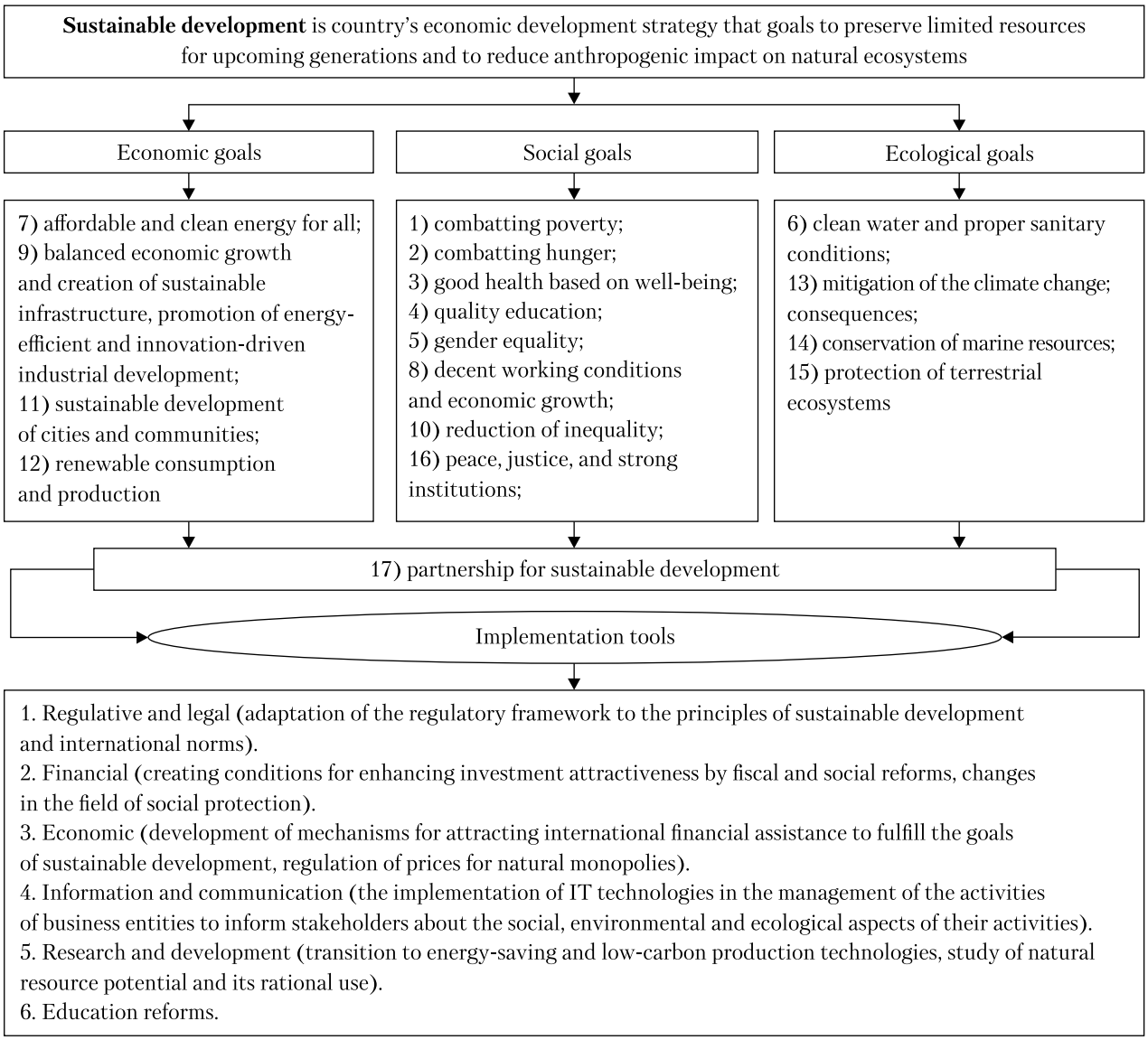

Fig. 1. 17 Goals of Sustainable Development of Ukraine and Means for Their Implementation

Source: prepared by the authors, based on [25].

depleted due to their extensive use, changes in water systems, soil degradation, etc.

In 2015, at the UN Summit in New York, the Sustainable Development Agenda until 2030 was approved. It covers the priority areas of world development, which are grouped into 17 Sustainable Development Goals [24]. Ukraine joined the global trends in 2018, which was legalized in the Law on the Strategy of Sustainable Development of Ukraine until 2030 (Fig. 1) [25].

For the transition of Ukraine to the principles of sustainable development, the government policy should be aimed at the effective use of all types of resources, structural and technological modernization of production facilities, comprehensive development of the nation's human potential.

ASSESSMENT OF UKRAINE'S ACHIEVEMENT OF SUSTAINABLE DEVELOPMENT GOALS

Ukraine's economy has been recessing because of the military aggression of the Russian Federation. In the conditions of hostilities, business entities are unable to work at full capacity, which caused the economy to fall by 30%, in 2022 (Fig. 2).

From 2018 to 2021, there was a positive trend in the growth of both nominal and real GDP, which indicated the growth of the country's economic potential. However, with the beginning of the full-scale war, the situation worsened sharply, as the rate of GDP decline reached 25.5%.

Industrial development is the ninth goal of sustainable development. The dynamics of the sales of industrial products in Ukraine for 2018—2021 is shown in Fig. 3.

So, in 2018—2021, the sales of industrial products increased by UAH 1,633,706.1 million or by 53.70%. The highest growth rates were recorded in 2021 (44.57%). In 2022, with the beginning of the war, the output of industrial products fell by 36.9% as compared with 2021. The most notable drop that exceeded 60% of the level of 2021 has been reported in the production of construction materials, metallurgy, chemical industry, mining of metal ores [20]. The mentioned sectors of the economy are mostly located in the occupied territories of Ukraine or in the territories under active hostilities.

The land market is an integral feature of the economic development of advanced economy. Land is a key resource for agricultural production that is well-developed in Ukraine. The data on the land fund of Ukraine are given in Table 1.

In 2019—2021, the area of agricultural land increased by 0.4 million ha or by 0.96%, due to an increase in the area of arable land by 0.25 million ha (0.77%), pastures by 0.1 million ha (1.89%), hayfields by 0.1 million ha (4.35%), fallow land by 0.05 million ha (25.00%). In the given period, the area under perennial plantations decreased by 0.1 million ha or by 10.00%.

In 2019—2021, the structure of the agricultural land was dominated by arable land, in particular, its

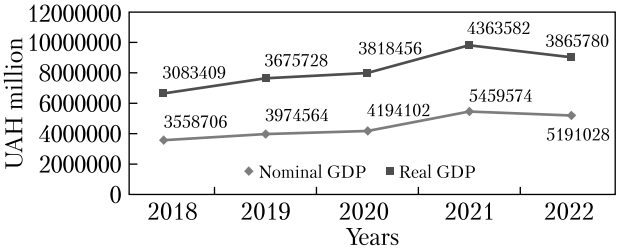

Fig. 2. Ukraine GDP dynamics in 2018—2022

Source: based on [26].

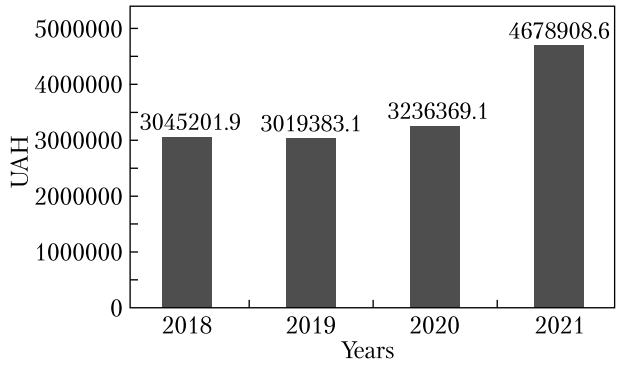

Fig. 3. Sales of industrial products in 2018—2021

Source: prepared by the authors, based on [27].

share accounted for 78.55%, in 2019, and 78.40%, in 2021. The smallest share in the land structure (0.24%) was occupied by other lands. The structure of the land fund has not changed significantly.

As of June 1, 2023, about 30% of the territory of Ukraine, namely 174 km^2, has been potentially contaminated with explosive substances. In addition, about 470,000 ha agricultural land has been contaminated with mines [30].

The explosion of the Kakhovska HPP on June 06, 2023, has resulted in an ecological disaster that affect the soil conditions in the southern part of Ukraine. In particular, the overflowing Dnieper River has flooded part of the land fund. After the water outflow, these land will need to be decontaminated and rehabilitated. The ruined irrigation system and the rising groundwater table have adversely affected the fertility of agricultural land. This threatens the world food security. The land

damage caused by the Russian-Ukrainian aggression has been estimated at UAH 12 billion [30].

The war in Ukraine triggered a global energy and food crisis that has contributed to a sharp rise in inflation, a cost-of-living crisis and pressure on the poorest and most vulnerable strata of society. The deteriorating economic conditions have created additional risks that may negatively affect people and communities.

Goal 7 of sustainable development (affordable and clean energy) provides for the modernization of networks to ensure optimal energy supply

Table 1. **Dynamics of the Land Fund of Ukraine in 2019–2021**

Indicator	Year						Difference 2021 vs 2019	
	2019		2020		2021			
	Area, million ha	Share, %	Area, million ha	Share, %	Area, million ha	Share, %	Absolute, million ha	Relative, %
Agricultural lands, in particular	41.5	100.00	41.4	100.00	41.9	100.00	0.4	0.96
arable	32.6	78.55	32.7	78.99	32.85	78.40	0.25	0.77
pastures	5.3	12.77	5.3	12.80	5.4	12.88	0.1	1.89
hayfield	2.3	5.54	2.3	5.56	2.4	5.73	0.1	4.35
perennial plantations	1.0	2.42	0.9	2.17	0.9	2.15	–0.1	–10.00
fallows	0.2	0.48	0.2	0.48	0.25	0.60	0.05	25.00
Other lands	0.1	0.24	—	—	0.1	0.24	—	—

Source: prepared by the authors, based on [29].

Table 2. **The Dynamics and Structure of Electricity Generation in Ukraine in 2018–2022**

Indicator	Year									
	2018		2019		2020		2021		2022	
	Billion Kw · h	Share, %	Billion Kw · h	Share, %	Billion Kw · h	Share, %	Billion Kw · h	Share, %	Billion Kw · h	Share, %
Total electricity generation	159.4	100.00	154.0	100.00	148.9	100.00	156.5	100.00	113.5	100.00
TPP	47.8	30.00	44.9	29.16	39.6	26.60	38.5	24.60	39.9	35.15
CHP and cogeneration plants	11.1	6.96	10.9	7.08	12.8	8.60	10.1	6.45	22.8	20.09
HPP	10.4	6.52	6.5	4.22	6.0	4.02	6.3	4.03	7.9	6.96
Pumped-storage hydroelectricity	1.6	1.00	1.3	0.84	1.6	1.07	1.8	1.15	2.3	2.03
NPP	84.4	52.95	83.1	53.96	76.2	51.18	82.4	52.65	31.8	28.02
Module stations	1.5	0.94	1.8	1.17	1.8	1.21	1.2	0.77	0.9	0.79
Alternative energy sources	2.6	1.63	5.5	3.57	10.9	7.32	16.2	10.35	7.9	6.96

Source: prepared by the authors, based on [27, 31].

based on the implementation of innovation technologies. The transition to renewable energy sources is one of the priority tasks for ensuring sustainable development. In Table 2, the dynamics and structure of electricity production in Ukraine for 2018—2022 have been analyzed.

Table 2 shows a decrease in the electricity production in Ukraine, as in 2021, it accounted for 98.18% of the level of 2018. In 2022, the situation worsened because of regular massive attacks on critical infrastructure facilities, which led to a decrease in the production by 27.48% as compared with 2021. In addition, Ukraine was forced to suspend the export of electricity and to import it from EU countries to meet the needs of the population and business. It is critical that more than 20% of the capacities of renewable energy sources are located in the occupied territories, which makes access to these sources impossible. The destroyed Kakhovska HPP and the Zaporizhzhia NPP that has been under threat of destruction, have create environmental problems on large adjacent territories.

In order to maintain a competitive position in the market, business entities invest significant funds in innovation projects that involve the introduction of the cutting-edge technologies into the production process. In 2021, Ukraine ranked 57th in the World Innovation Index according to Bloomberg, which was 14 positions lower than in 2018 [2].

The data from the Monitoring Report on achieving the goals of sustainable development in Ukraine for 2021 have shown that the share of implemented innovation products in the industrial products demonstrated a positive growth trend from 0.8%, in 2018, to 1.9%, in 2020 [32]. However, this is 2.63 times lower than the estimated value for 2020, which indicates a low percentage of product innovation.

As a positive trend in 2018—2020, we have noted an increase in Internet access from 52 to 62 subscribers per 100 people [32], i.e. by 19.23%.

There have been also positive changes in the transport infrastructure, namely:

1) renewal of vehicles in the transport, warehousing, postal and courier services, which has led to a decrease in their wear rate from 62.9%, in 2018, to 48.1%, in 2020;

2) an increase in the share of electric transport in domestic traffic from 62.6%, in 2018, to 63.2%, in 2020 [32].

During the war, it is important to form an effective innovation policy to ensure the profitable operation of domestic enterprises, to raise the efficiency of the use of material and labor resources. Effective operation of an industrial enterprise is impossible without innovation technologies that allow to expand business. This requires the introduction of new forms and methods of managing innovation costs. Therefore, there arises the problem of forming an effective innovation policy to ensure increasing cost efficiency and growing revenues.

Ukraine's achievements in the implementation of the twelfth goal (responsible consumption and production) are insignificant, in particular, in 2018—2020, the energy intensity of GDP was reduced from 95.3% to 88.2%, the carbon intensity of GDP lowered from 83.8% to 77.9%, while the water intensity of GDP decreased from 95.2 to 91.7%. However, there has been reported a negative trend towards an increase in material intensity from 97.2% to 100.5% and in waste intensity of GDP from 104.0% to 126.2% [32].

Thus, in 2018—2022, the low dynamics of achieving the economic goals of sustainable development in Ukraine were observed.

A key problem in the social sphere, the solution of which is aimed at the goals of sustainable development, is a reduction in the population in advanced economies. This trend may also be observed in Ukraine (Fig. 4).

Figure 4 shows a trend towards a decrease in the population of Ukraine by 9.53%, within the period from 2013 to 2022. The reasons are a low birth rate and a high mortality rate because of a high poverty. The data from the Monitoring Report on the achievement of sustainable development goals in Ukraine for 2021 have shown that

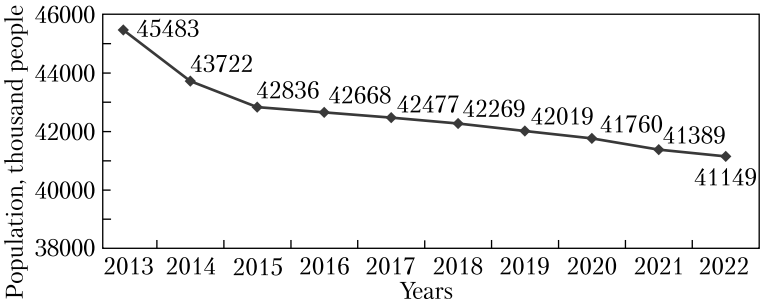

Fig. 4. Dynamics of Ukraine's Population in 2013—2022

Source: prepared by the authors, based on [27].

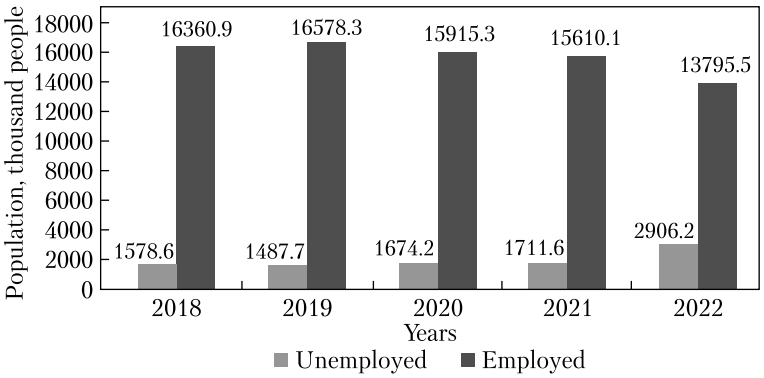

Fig. 5. The Number of Employed and Unemployed Population of Ukraine in 2018—2022

Source: generalized by the authors, based on [26, 35].

the number of maternal deaths per 100,000 live births increased from 12.5, in 2018, to 18.7, in 2020. This indicator is critical in rural areas, namely 11.2 cases of maternal death, in 2018, and 23.0, in 2020 [32]. This confirms a low level of medical care in Ukraine, particularly in rural areas. The mortality rate for men aged from 30 to 59 years is too high: 62.1, in 2018, and 60.8, in 2020, while that for women this rate was 25.5, in 2018, and 24.9, in 2020 [32]. The high mortality is caused by low income of the majority of the population, which leads to the impossibility of using high-quality medical care.

Since the beginning of the war, the mortality rate of the working-age population in Ukraine has increased significantly. In addition, part of the population has migrated abroad, fleeing from the war. According to the analysts, during the six months of the war, the population of Ukraine decreased by 6.7 million people [34]. According to the forecasts of sociologists, by 2030, the population of Ukraine will drop to 35 million people at best, and to 30 million, at worst. The decrease in population causes a decline in the domestic market and demand in it. This negatively affects the level of investment in the future.

There has been reported a negative trend in the field of education. In 2018—2020, the percentage of the population with higher education decreased from 39.1%, in 2018, to 37.7%, in 2020, while the share of the population with or without primary education increased from 28.5%, in 2018, to 32.5%, in 2020 [32]. During the full-scale war in the country, as of March 22, 2023, the losses from the destruction of property in the field of education amounted to USD 8.9 billion [33]. It will take years to recover what has been lost.

The current situation in the social component of sustainable development is a crisis, because due to the full-scale invasion of the Russian Federation on the territory of Ukraine, the population migration and the level of unemployment increased rapidly as a result of the destruction of infrastructure and business, the expansion of forced labor, and the stratification of the population into socially vulnerable groups.

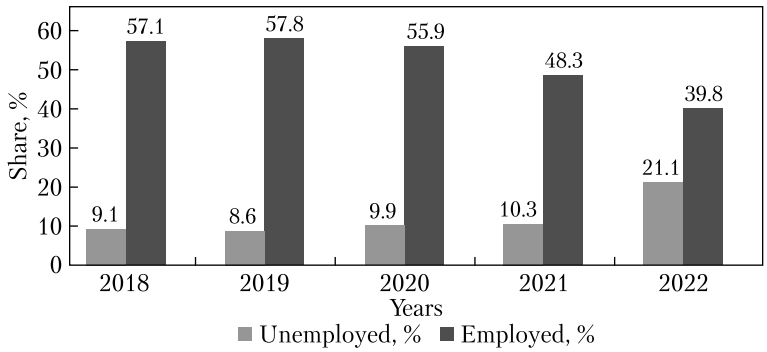

Fig. 6. Employment rate and unemployment rate in Ukraine, in 2018—2022

Source: generalized by the authors, based on [26, 27].

Fig. 5 shows the dynamics of the employed and unemployed population of Ukraine in 2018—2022.

Therefore, in 2018—2022, the unemployed population of working age grew by 1 million 194 thousand persons (84.10%), as compared with 2018. Since 2019, there has been an increase in the number of unemployed people because of the COVID-19 pandemic. Thus, the growth rate was 12.54%, in 2020, 2.23%, in 2021, and 69.79%, in 2022. Therefore, the number of unemployed people is critically high. This creates problems of poverty and a decline in the standard of living of the population.

Figure 6 shows the unemployment rate in Ukraine, in 2018—2022.

Since 2019, there has been a 1.7% increase in the unemployment rate for 2019—2022, which was caused by the COVID-19 pandemic. In 2022, the unemployment rate increased 2.05 times as compared with 2021, because of the war. The increase in unemployment in 2018—2021 entailed a decrease in the employment rate, by 8.8%. Between 2018 and 2022, the labor force increased by 10.25%, which meant that the supply of labor was increasing, while the demand for it was decreasing, which led to a surplus of labor and lower wages, as people agreed to work for lower wage in order to survive.

Figure 7 shows the dynamics of average annual wage in Ukraine in 2018—2022.

In 2018—2021, the average wage in Ukraine increased by 45.30% as compared with 2018. The highest average wage growth rate was recorded in 2019 (18.46%), while the lowest one was reported in 2020 (10.41%). However, the average wage in

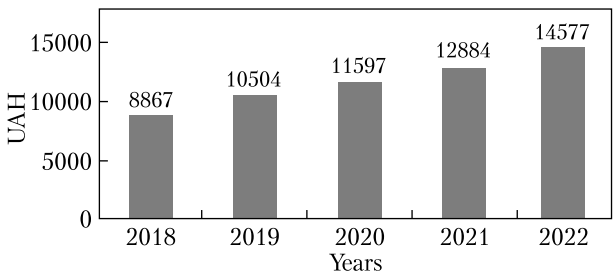

Fig. 7. Dynamics of average wage in Ukraine, in 2018—2022

Source: generalized by the authors, based on [26, 27].

Ukraine has remained low as compared with EU countries and does not guarantee a decent standard of living for the workforce reproduction.

Therefore, the analysis of the social goals of sustainable development in Ukraine by social component has indicated positive dynamics until 2022 and illustrated a high potential in achieving these goals. With the beginning of the full-scale war, the situation has changed radically and requires additional attention, in particular, from the world community.

The ecological situation in Ukraine is critical because of the military invasion of the Russian Federation. It has been worsened by regular massive missile attacks on infrastructural facilities and the ecological disaster at the mouth of the Dnieper River, which, according to preliminary estimates, has caused a damage of over EUR 3.8 billion [35]. During the year of the war, the damage caused to the environment amounted to more than USD 49 billion. The full-scale war has

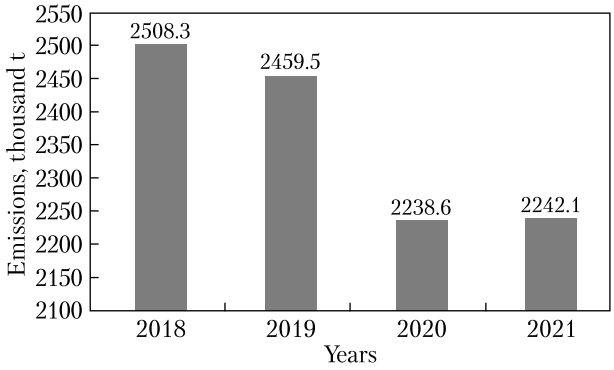

Fig. 8. Emissions of pollutants into the atmospheric air in Ukraine from stationary emission sources, in 2013—2021

Source: generalized by the authors, based on [27].

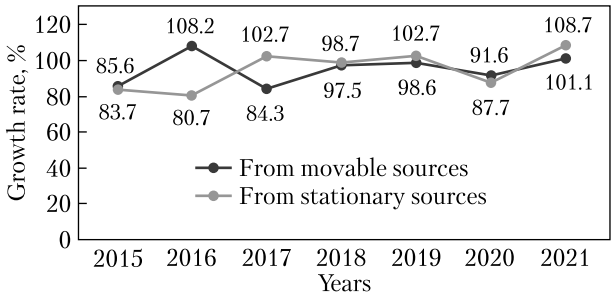

Fig. 9. Growth rate of emissions of pollutants and greenhouse gases per person in Ukraine, in 2015—2021

Source: generalized by the authors, based on [27].

led to emissions of more than 42 million tons of greenhouse gases into the air [36].

The government policy should be aimed at reducing the burden on natural ecosystems and ensuring safe conditions for the life of the population. The dynamics of atmospheric emissions in Ukraine is shown in Fig. 8.

Therefore, in 2013—2021, there was a decrease in the emissions of harmful substances into the atmospheric air in Ukraine by 57.90 thousand tons or by 16.55% as compared with 2017. To reduce the number of emissions into the environment, the supervision of regional state environmental inspections over the polluting enterprises should be strengthened.

Figure 9 shows the general tendency towards increasing emissions of pollutants and greenhouse gases per person in Ukraine since 2017, which means the deterioration of atmospheric air quality. This threatens the normal existence of society.

Since the beginning of the war in Ukraine, many industrial facilities have been damaged or destroyed. A significant part of them is located in temporarily occupied regions of the country or in the regions under hostilities and, therefore, suspended their activities. All these factors have automatically led to reducing industrial emissions into the environment. After the victory of Ukraine, it will be necessary to pay special attention to the attraction of impact investments for the restoration of industrial production, given the goals of sustainable development.

The critical ecological situation in Ukraine endangers the existence of future generations and the further country's development based on the principles of sustainability. As of June 1, 2023, 368 war crimes against the environment were recorded. In particular, the largest number of them occurred in Kyiv Oblast (67), Dnipropetrovsk Oblast (37), Odesa Oblast (28), and Zaporizhzhia Oblast (28) [37]. Figure 10 shows the structure of the mentioned war crimes.

As of October 1, 2023, according to the Ministry of Environment, the total damage caused to the natural environment in Ukraine as a result of the aggression of the Russian Federation has exceeded UAH 2 trillion. At the same time, the largest amount, namely UAH 146 billion (EUR 3.8 billion), is a consequence of the Russian terrorist attack on the Kakhovska HPP [35].

Ukraine's achievements in the implementation of the environmental goals of sustainable development are low, and the fulfillment of the benchmarks is unlikely. The environmental problems caused by the war, which threaten the ecological security of the country, region, and the world, require an immediate response of the world community to find ways for solving them.

Thus, the analysis of the achievement of the economic goals of sustainable development of

Ukraine has shown that in 2018—2022, the dynamics of achieving the specified goals were rather low. The analysis of the social and economic goals of sustainable development in Ukraine has shown positive dynamics until 2022 and illustrated a high potential in achieving the goals of sustainable development. In particular, this concerns the development of education, the spread of the Internet, and the growth of wage.

Starting with 2022, the situation in the social and economic component of sustainable development has been critical. Because of the full-scale invasion of the Russian Federation on the territory of Ukraine, the migration of the population, the unemployment rate, the spread of forced labor, and the stratification of the population into socially vulnerable groups have intensified rapidly, and the existing and new environmental problems have deepened.

In Ukraine, the worst situation is with the implementation of ecological goals, as the level of atmospheric air pollution has exceeded the limit norms ten times, dozens of hectares of forest have been destroyed, water and land resources have been polluted with military waste, and there is an ecological disaster at the mouth of the Dnieper River.

Therefore, the full-scale invasion of the Russian Federation on the territory of Ukraine has nullified all the country's progress in achieving the goals of sustainable development. The post-war recovery of Ukraine shall be based on the principles of sustainable development. On its own, during the war, Ukraine is unable to create and fully finance a system of ensuring environmental, social, and economic security. Therefore, it is necessary to create conditions for attracting foreign investments. Special attention should be paid to impact investments. For this, it is necessary to regulate impact investing at the legislative level, to promote the disclosure of information about their social and environmental activities in the reporting of enterprises, as well as to form intermediary platforms for investors who wish to invest in sustainable development.

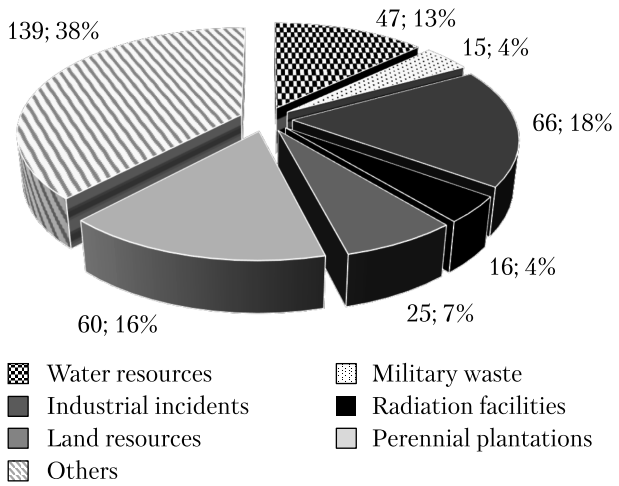

Fig. 10. The number of ecological crimes caused by military actions (as of June 1, 2023)

Source: generalized by the authors, based on [38].

Achieving the goals of sustainable development in Ukraine is hindered by a high level of corruption and the shadow economy. Therefore, the implementation of reforms to modernize the judicial and anti-corruption system, local regulation should be continued.

During the period of martial law in Ukraine, there are significant contradictions between the economic goals of the survival of business and the goals of environmental protection, resource conservation, as well as raising of social standards and poverty reduction. However, it is necessary to find compromises for the restoration of Ukraine and its future prosperity.

The mechanism of attracting impact investments in post-war Ukraine needs further research.

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СТАЛИЙ РОЗВИТОК УКРАЇНИ ЯК ІННОВАЦІЙНИЙ ПІДХІД ДО ЇЇ ПОВОЄННОГО ВІДНОВЛЕННЯ

Вступ. Основною метою міжнародного економічного співробітництва у досягненні цілей сталого розвитку є вирішення глобальних проблем щодо подолання бідності, збереження планети та економічний розвиток в цілому.

Проблематика. Додаткових досліджень потребує оцінка досягнень та окреслення можливостей України у реалізації цілей сталого розвитку як інноваційного підходу до її повоєнного відновлення, що є актуальним для залучення імпакт-інвестицій як інноваційного інструменту інвестування.

Мета. Оцінка досягнень та окреслення можливостей України у реалізації економічних, соціальних і екологічних цілей сталого розвитку в умовах повоєнного відновлення.

Матеріали й методи. В основу дослідження покладено концепцію сталого розвитку. Для вивчення сучасного стану досягнення сталого розвитку Україною та окреслення повоєнних перспектив використано емпіричні (спостереження, опис) та теоретичні (аналіз, синтез, абстрагування, узагальнення, індукція, дедукція, пояснення) методи наукового дослідження.

Результати. Аналіз соціальних та екологічних цілей сталого розвитку в Україні свідчить про позитивну динаміку до 2022 року та ілюструє високий потенціал у досягненні цілей сталого розвитку. З 2022 року ситуація у всіх складових сталого розвитку є кризовою. Через війну стрімко зросла міграція населення та рівень безробіття, зросла смертність і скоротилася народжуваність, знизилися економічні показники розвитку країни. Найгірша ситуація в Україні у реалізації екологічних цілей.

Висновки. Для повоєнного відновлення необхідним є створення умов для залучення інвестицій, більша частина яких має бути імпакт-інвестиціями. Для цього необхідно врегулювати на законодавчому рівні імпакт-інвестування, сприяти розкриттю у звітності підприємств інформації про їхню соціальну та екологічну діяльність, а також формувати посередницькі платформи для інвесторів, які бажають здійснювати капіталовкладення у сталий розвиток.

Ключові слова: економіка, екологія, соціальна відповідальність, сталий розвиток, цілі сталого розвитку, імпакт-інвестування.