

#### **PAPER • OPEN ACCESS**

## Ukrainian social sector development in contemporary conditions: problems and areas for their solution

To cite this article: H S Lopushniak et al 2024 IOP Conf. Ser.: Earth Environ. Sci. 1415 012060

View the article online for updates and enhancements.

#### You may also like

- Sustainable Futures in a Changing World
   Reflections from the 5th International
   Conference on Sustainable Futures;
   Environmental, Technological, Social and
   Economic Matters (ICSF 2024)
   A E Kiv, S O Semerikov, P P
   Nechypurenko et al.
- Features of designing systems for the formation of an internal microclimate of a high class of cleanliness of operating rooms of medical institutions

  N M Lobanchykova, T A Vakaliuk, V P Korbut et al.
- Geoinformation modeling of the geoecological state of the floodplainchannel complex of rivers on the territory of the Turka city community of the Lviv Region

I P Kovalchuk, L P Kurhanevych, Yu M Andreychuk et al.



doi:10.1088/1755-1315/1415/1/012060

# Ukrainian social sector development in contemporary conditions: problems and areas for their solution

### H S Lopushniak<sup>1</sup>, T G Kytsak<sup>1</sup>, I S Verkhovod<sup>1,2</sup>, V V Osadchyi<sup>2,3,4</sup> and I O Ryabokon<sup>1</sup>

- $^1$ Kyiv National Economic University named after Vadym Hetman, 54/1 Beresteysky prospect, Kyiv, 03057, Ukraine
- $^2$  Borys Grinchenko Kyiv Metropolitan University, 18/2 Bulvarno-Kudriavska Str, Kyiv, 04053, Ukraine
- $^3$  Institute for Digitalisation of Education of the NAES of Ukraine, 9 M. Berlynskoho Str., Kyiv, 04060, Ukraine
- <sup>4</sup> Academy of Cognitive and Natural Sciences, 54 Universytetskyi Ave., Kryvyi Rih, 50086, Ukraine

E-mail: halyna.lopushniak@kneu.edu.ua, kitsak@kneu.edu.ua, verkhovod.iryna@kneu.edu.ua, v.osadchyi@kubg.edu.ua, ivan.ryabokon@kneu.edu.ua

Abstract. The article is devoted to the adaptation of social policy's conceptual framework to war conditions, radical growth of defense spending, which, against the background of production infrastructure destruction and declining business activity, lead to critical underfunding of social sector. The authors emphasize the priority of population's quality of life characteristics as a criterion for assessing functioning of social sector's clusters and a basis for updating social policy's principles and priorities. The study identified the main social sector development problems, which primarily include: limited resources in response to the social sector's growing needs, including social protection; reduced access to medical and educational services; insufficiently effective reforms during the period of war; depopulation; increased migration flows, etc. The following priority areas have been identified for their resolution: creation of conditions for increasing the birth rate, and socialization of senior citizens; effective migration policy; reforming the wage system; simplifying access to professional pre-university and higher education; adapting the network of medical institutions to population's growing needs; preserving and restoring social infrastructure, etc. Development and implementation of measures within the mentioned areas will contribute to social sector development and, accordingly, to the improvement of population's quality of life.

#### 1. Introduction

Russia's full-scale military aggression against Ukraine has brought a lot of grief and hardship to the population [1]. Thousands of servicemen and civilians have been killed, and many businesses, homes, communal and social infrastructure facilities have been destroyed [2]. At the same time, Ukraine's struggle for its independence and freedom has prompted the country to realize its personal civilizational choice, which contributes to democratization of society and progressive economic and social transformations.

Content from this work may be used under the terms of the Creative Commons Attribution 4.0 licence. Any further distribution of this work must maintain attribution to the author(s) and the title of the work, journal citation and DOI.

doi:10.1088/1755-1315/1415/1/012060

Under these circumstances, restoration of social sector, which ensures standard of living and quality of life, is of strategic importance for country's social and economic recovery. Social sector recovery under conditions of war, deep social and economic crisis, global economic and technological challenges require development of a concept that provides for coordination in time and space of fundamental areas of certain actors' actions, use of resources required for this purpose, and determination of expected results.

The purpose of this article is to single out the current problems of social sector development and to substantiate directions for their solution. Achievement of this purpose entails formation of the following tasks: to analyze the level of population's quality of life and to argue for the expediency of using it as an indicator of social sector development; to identify current problems of Ukrainian social sector development and to determine priority areas for their solution.

#### 2. Literature review

Studies devoted to the problems of social sector during war mainly proceed from the thesis that social sector's additional needs for resources are formed depending on the scale of losses in population's quality of life and are used to quantify the number of groups that have suffered damage to health or economic well-being; have been deprived of factor income sources or even ability to work; have been forced to stop studying [3–5]. Less widespread are studies that take into account the depth of gap between the existing quality of life characteristics and social norms and standards as a prerequisite for increasing the burden on social sector, and the extent of available resource support for the social sector shortage as a basis for assessing the need for additional resources to ensure its functioning in line with the urgent needs of society. At the same time, these studies consider the level of efficiency of using the available resource potential, firstly, as a given, and secondly, independent of the institutions' quality (policies and procedures used in the process of its implementation) [6]. Accordingly, our study aims to close this gap by taking into account the importance of institutional changes, updating policies and procedures used in the process of their implementation in order to obtain better social results.

#### 3. Methods

The database for analytical component of the study was compiled from statistical sources of the Ministry of Social Policy, the State Statistics Service, the National Bank of Ukraine, the Pension Fund of Ukraine, Eurostat, as well as from news portals and researchers' publications. In order to accomplish the tasks set, methods of comparative analysis and deduction were used to identify development problems, as well as methods of systematization and generalization — to identify priority areas for solving social sector's problems. For quantitative assessment, the study used methods of time series analysis, analytical grouping to assess dynamics of quality of life's individual components and to highlight contribution of individual social sector's clusters to dynamics of meeting basic population needs. Calculation results became the basis for further use of synthesis method to rank the problems of social sector development in Ukraine and to select priority directions for their solution. Generalization method was used in order to formulate conclusions from the study.

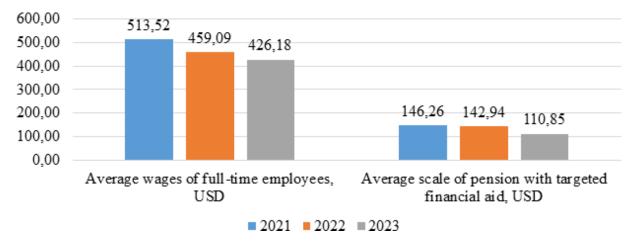
#### 4. Results of the study

#### 4.1. Quality of life as an indicator of social sector development

The multidimensionality of human life generates numerous discussions about approaches to determining the level and quality of life. The most popular integral indicator for assessing quality of life in terms of practical application is human development index, which in general is a combination of three components – level of well-being, life expectancy and education. Diversity of visions on the concept of quality of life has stimulated emergence of numerous methods for assessing its level. In particular, Polozhentseva, when studying income inequality, identifies

such components of quality of life as life expectancy, efficiency of health care system, level of income and level of education [7]. Eurostat, when assessing quality of life, identifies the following indicators: material surroundings (income, consumption and material conditions); productive or core activities; health, education, leisure and social interaction, economic security and physical security, governance and fundamental rights, natural and living conditions, and general life experience [8]. In Ukraine, the state recognizes an approach that assesses the standard of living based on the level of wages and pensions, their compliance with social guarantees, consumer price and poverty indices. At the same time, scholars have proposed to enrich these indicators with others, such as those characterizing health, education, transport infrastructure, etc. [9]. Thus, when assessing quality of life according to each of the listed approaches, it is necessary to turn to indicators that characterize the state of social sector through the prism of its services accessibility to the population. Therefore, it can be argued that it is reasonable to use quality of life level as an indicator of social sector development. For instance, the level of pensions, the amount of state social standards and guarantees characterize the state of social protection system development, indicators of public access to healthcare and education services – the state of education and healthcare systems development, etc.

The extraordinary events taking place in Ukraine in recent years (pandemic and introduction of quarantine restrictions, war, increased internal and external migration flows, etc.) have led to a deterioration in the standard of living and quality of life, as evidenced by dynamics of average wages and pensions in dollar terms (figure 1), as well as data on the ratio of average wages and pensions to the actual subsistence level for the respective category (figure 2).

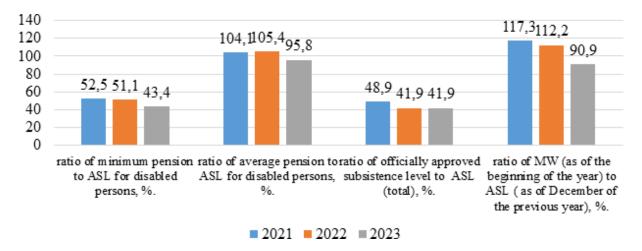


**Figure 1.** Dynamics of average wages and average scale of pension in 2021-2023, USD (on the basis of [10–13]).

Thus, the average wages of full-time employees during the two years of martial law decreased from \$513.52 in 2021 to \$426.18 in 2023, which means a 17% decrease. The average scale of pension for the same period decreased from \$146.26 to \$110.85, i.e. by 24.2%. The ratio of basic social standards and guarantees is even more revealing. Thus, in 2023, the officially approved subsistence level was only 41.9% of the actual subsistence level, which indicates a significant reduction in all social transfers and wages to budget institution employees. Moreover, this approach practically leads to equalization in labor remuneration: wages from the 1st to the 12th tariff category in the unified tariff net are minimal.

Real wages decreased by 11.4% in 2022. Obviously, the war has significantly deepened preexisting social problems. According to the World Bank, the level of poverty in Ukraine increased tenfold during the war. All this led to a decrease in population's purchasing power, which directly affected the level of access to educational and medical services.

doi:10.1088/1755-1315/1415/1/012060



**Figure 2.** Dynamics of the ratio of certain social standards and guarantees in 2021-2023, USD (on the basis of [14–16]).

At the same time, in nominal terms, there has been a slight increase in incomes (table 1), which in basic indicators is lower than the composite inflation index.

**Table 1.** Key indicators in the field of household income in Ukraine in 2021-2024 (\* for three quarters of 2023, \*\* composite inflation index for three years) (on the basis of [11–13, 17–19].

Indicators	2021	2022	2023	2024	2024/2021,%
Average wages of full-time employ- ees, UAH	14014	14847	16849,7*	n/a	n/a
Minimum wage as of beginning of the year, UAH	6000	6500	6700	7100	118,33
Average scale of pension with targeted financial aid (as of beginning of the year), UAH	3507,51	3991,53	4622,59	5385,25	153,49
Minimum pension, UAH Consumer price index, %	$1769 \\ 109,4$	1934 $120,2$	2093 $112,9$	2361 n/a	133,47 148,46**

Decline in actual income indicators demonstrates a threatening decline in living standards in Ukraine, which has negative consequences for social sector development.

#### 4.2. Current problems of social sector development in Ukraine

In order to understand current problems in social sector development, it is necessary to note prerequisites for social sector development that formed before the full-scale invasion. These include: high human potential, as evidenced by Ukraine's 77th position in the Human Development Index 2021 and its belonging to the group of countries with a high human development index; an extensive network of social infrastructure facilities (education, culture, healthcare, social security, housing, transport and communications); increased mobility in educational programs; reforming the healthcare sector on the principle "money follows the patient"; increasing housing support programs, etc.

At the same time, social sector development was also affected by unfavorable factors, the negative impact of which deepened with the beginning of Russia's full-scale invasion into Ukraine.

At the same time, social sector development was also affected by unfavorable factors, the negative impact of which deepened with the beginning of Russia's full-scale invasion into Ukraine. Among them: low GDP per capita (\$4,825.4 in 2021, which was only 108.8% compared to 2016; in 2022, this figure deteriorated significantly and amounted to only 77.5%); high level of clandestine employment and "envelope" wages; high level of corruption (in 2021, Ukraine ranked 122nd out of 180 in the Corruption Perceptions Index, scoring only 32 points out of 100); significantly lower life expectancy than in developed countries (69.77 years according to 2021 data, Switzerland – 83.23 years; Canada - 83.80; Japan - 84.83; France - 82.59; Austria - 82.27; Germany 81.51; Poland – 78.76); significant polarization of population by the quality of their life; depopulation; low level of funding for the main components of social sector (in 2021: education – 5.7% of GDP. At the same time, the Law of Ukraine "On Education" stipulates that budget funding should be at least 7% of GDP; healthcare – 3.74%, which is 1.26% less than stipulated by law); dispersion of financial resources and irrational distribution of financial resources (education: there is a practice of placing a state order for 1-2 places, which, in the absence of fee-paying students, leads to unprofitability of the educational program and, accordingly, a decrease in educational services quality), and others.

Social sector functioning has been significantly hampered by military activities. Many social infrastructure facilities have been completely destroyed, and some have been damaged. According to the World Bank [19], the sectors most affected by Russian aggression in Ukraine are housing, transportation, energy, trade and industry. The losses are concentrated in the frontline regions, in particular Donetsk, Kharkiv, Luhansk, Zaporizhzhia, Kherson, Mykolaiv, and in the regions returned to government control, such as Kyiv and Chernihiv regions. Disruptions in economic flows and production, as well as additional war-related costs, are estimated as losses, totaling around USD 290 billion. Ukraine's GDP declined by 29.2 percent in 2022, and poverty increased from 5.5 percent to 24.1 percent in 2022 (based on a poverty threshold of USD 6.85 per person per day).

Educational and healthcare facilities also sustained significant damage. As of November 2023, 365 educational institutions and 193 medical facilities were completely destroyed, and 3428 educational institutions and 1468 medical facilities were damaged [20, 21].

In the context of new challenges emerging during the war, it is worth noting a sharp increase in need for social support for the population while financial resources are limited. In 2022, funding for social protection expenditures increased by 23%, and in 2024, their volume remained almost at the previous year's level. Against the backdrop of high inflation, this increase is offset by a decrease in real funding.

When analyzing social sector's state in times of war, Skipalska [22] notes 4 main problems that are relevant and most significant:

- 1) limited resources combined with the growing needs of social sector (due to the increase in the number of IDPs and people in difficult straits). This problem leads to an increase in the number of challenges social sector has to address. Currently, social services are operating in an under-resourced environment. At the same time, there is a difference in the ability to provide assistance in regions. Additional difficulties arise in occupied and de-occupied territories;
- 2) lack of specialists and their experience. In early 2022, an increase in the number of war refugees led to an outflow of social workers to safer regions or abroad. As a result, many communities are experiencing a shortage of specialists. Unprecedented massive destruction, including houses and civilian infrastructure, has made it impossible in some communities to provide adequate social services at all. Currently, there is an acute need for psychologists. Social workers are only gaining experience in dealing with crisis situations and families who experienced trauma and loss and often require specific assistance or additional forms of training;

3) further decentralization and reduction of community responsibility. Currently, communities decide independently how many specialists they need. Under conditions of financial deficit, local authorities neglect the social sector, which leads to the lack of social workers in some communities;

4) the problem of financing social sector. Due to large scales, there is an acute problem nowadays, in addition to decentralized centers, of forming a central level structure that would assume funding the most demanded social services at the national level. It is also noted that limited local budgets in wartime complicate this issue.

We cannot fully agree that further decentralization will lead to a slowdown in social sector development. We also do not deem it appropriate to create an additional structure to finance social services.

At the same time, we believe that the following problems in social sector should also be added:

- reduction of healthcare and educational services accessibility due to population's growing needs and insufficiently effective reforms during the war;
- depopulation;
- uneven distribution of labor force by region and with respect to labor market demand;
- destruction of social infrastructure, which will require significant financial and other resources for restoration;
- a significant number of migrants, including children and working-age individuals, most of whom have already adapted in other countries, which will lead to a labor shortage in future should they not return.

All of these and other problems require a more detailed analysis in order to solve them.

#### 4.3. Priority areas for solving social sector problems

Deepening of social sector development problems necessitates revision of areas for their solutions. The main task under current conditions should be overcoming the above-mentioned problems and improving the quality of life of all social groups. The state social policy should be developed in this area, which should become a new policy of social modernization. The social concept of development should focus on the fact that the powerhouse of economic progress is working-age citizens with high labor potential and human capital, significant social activity, mobility, and ability to adapt to the prevailing conditions as quickly as possible and to put their knowledge and skills into practice.

One of the key areas of the abovementioned changes should be creation of conditions for increasing the birth rate and reducing the premature mortality rate. Measures developed in these areas should promote healthy nutrition, careful attitude to one's own health, dissemination of skills for self-preservation behavior during air alerts, etc. In the short term, they will contribute to reducing depopulation rate, and in the long term, to obtaining a positive natural population growth rate, which will contribute to increase in labor force and reduce its shortage in labor market in the postwar period.

In our opinion, the incentive mechanisms to promote appropriate behavioral patterns, both in relation to broad population and companies, are the development of insurance medicine and the introduction of differentiated insurance payment rates. Increasing insurance rates for companies that do not implement measures to reduce morbidity and preserve working capacity (and, accordingly, reducing rates for companies that implement such measures and have evidence of their effectiveness) should become an effective mechanism for stimulating and, at the same time, accumulating financial resources to expand the scope of measures to support families with children.

doi:10.1088/1755-1315/1415/1/012060

#### 5. Discussion

Taking into account the shortage of labor, an effective migration policy should be an important area for solving the abovementioned problems, which will include measures aimed at creating favorable conditions for education, development and employment of young people, especially school graduates, as well as for return of forced migrants and those who left Ukraine before the war in search of better jobs.

An equally important area in this context should be optimal deployment of labor in Ukraine. State support for internally displaced persons should be focused on encouraging them to work and adapt to society in the territorial community where they temporarily reside, and in return to their previous place of residence in the postwar period.

Stimulation and economic (resource) support for moving towards an optimal distribution of labor force should, in our opinion, be based on improving efficiency of labor market functioning, primarily by increasing spatial and professional mobility of the economically active population. Expanding state guarantee programs for education loans and including in the requirements for international partners' investment projects the costs of increasing housing affordability in the regions of project implementation should become an effective means of financial support for increasing spatial and professional mobility of the economically active population.

In view of population ageing, it is worth highlighting creation of favorable conditions for active life of the senior citizens as a separate area of solving the abovementioned problems. In the context of this area, measures should be developed to support this category of people's health, their socialization through involvement in labor and other activities under certain employment and cultural recreation programs, as well as acquisition of new skills (drawing, sewing, design, carving, etc.)

The key areas should also address the issues of accessibility and quality of educational services and medical care. First and foremost, it is necessary to simplify access to professional pre-university and higher education during martial law and in the first 5 years of postwar recovery of Ukraine. Combined with an effective employment policy and provision of a first job, this will help young people make decisions about their future residence and life in Ukraine rather than abroad. In addition, all accreditation procedures should be suspended during martial law, while extending the validity of already obtained accreditation certificates. New programs that have not been accredited before and have been created outside the framework of previously accredited specialties should be accredited under a simplified procedure. All saved funds should be used to create shelters with proper working and resting conditions, as well as to strengthen Ukraine's defense capabilities. Given the significant increase in the number of people with disabilities as a result of Russia's military aggression against Ukraine, the network of health care facilities should be adapted to the current and future needs of the population, taking into account its resettlement. This will contribute to increasing medical care accessibility.

Another key area of change should be creation of conditions that will stimulate economic activity and productivity of all working-age individuals. Wages, including minimum wage, assume an extremely important role in these processes, as they determine the extent of poverty, the boundaries of which are defined by the subsistence level. As was mentioned above, in Ukraine it is unreasonably low. Therefore, poor and low-income people have limited access to basic social services that affect the reproduction of human capital in terms of education, culture, and healthcare; they are forced to save on quality medicine and food. Most of the labor force has low wages. In order to change this situation, the eradication of poverty must adhere to new values and principles of social policy based not only on state support but also on creating conditions for increasing the level of remuneration.

It is important that a significant increase in remuneration, combined with an increase in income elasticity of aggregate supply in Ukraine (which will prevent the effect of nominal wage growth from being eroded by inflation), is also accompanied by an increase in the amount

doi:10.1088/1755-1315/1415/1/012060

of resources accumulated by social insurance funds and budgets, the revenues of which grow proportionally (and in the case of progressive tax rates, even faster) with the growth of wages

An important area for solving social sector problems is restoration of social infrastructure and housing destroyed as a result of the Russian invasion. It is impossible to solve these problems at the expense of the state budget, so participation of business in these processes is extremely relevant. However, when building a dialogue with business regarding its participation in the implementation of social infrastructure restoration projects, the government should understand that a business entity, even if it implements socially responsible practices and upholds generally accepted human values, will be ready to support social projects only in certain cases, when they do not result in unprofitability of its economic activity and ensures its profitability. And also, if it feels public authorities' not just formal but real support, respect, and appreciation of its efforts aimed at rebuilding important social infrastructure facilities [23].

Ukraine should build a future in which cities and villages that have fallen victim to Russian aggression revive and flourish, forming a social and economic ecosystem where people live in decent conditions and have access to modern technologies that promote sustainable social development and ensure well-being. An important condition for the development of such an ecosystem is its tendency to balance, which is achieved by harmonizing relations in labor and social life of population on region, state and world levels [24].

#### 6. Conclusions

Summarizing the abovementioned, we note the deterioration in quality of life as a result of Russia's armed aggression against Ukraine, which evidences the existence of problems that hinder social sector development. The main social sector problems have been identified: limited resources combined with growing social needs; reduced responsibility of territorial communities regarding social sector development; destruction of social infrastructure, which will require significant financial and other resources for restoration; decrease in accessibility of medical and educational services due to population's growing needs and insufficiently effective reforms during the war; depopulation; increase in migration flows and uneven distribution of labor force by region and with respect to labor market demand.

The following priority areas for their solution have been identified: creation of conditions for increasing the birth rate and reducing the premature mortality rate; effective migration policy that will facilitate return of Ukrainians from abroad, including those who left in search of better jobs before the war; reforming the wage system; simplifying access to professional pre-university and higher education during martial law and within five years after it is lifted; adapting the network of medical institutions to population's growing needs; suspension of accreditation procedures for educational programs during martial law and redirection of the saved funds to the construction and equipment of comfortable shelters for study and recreation in educational institutions; optimal placement of labor in Ukraine and creation of conditions for the continuation of active life of senior citizens. Development and implementation of measures within the mentioned areas will contribute to social sector development and, accordingly, to the improvement of population's quality of life.

#### ORCID iDs

H S Lopushniak https://orcid.org/0000-0001-8576-6440 T G Kytsak https://orcid.org/0000-0002-0525-7556 I S Verkhovod https://orcid.org/0000-0002-9176-2574 V V Osadchyi https://orcid.org/0000-0001-5659-4774 I O Ryabokon https://orcid.org/0000-0002-2005-6576

doi:10.1088/1755-1315/1415/1/012060

#### References

- [1] Velykodna M, Deputatov V, Kolisnyk L, Shestopalova O and Shylo O 2023 Psychological Service for Ukrainian School Students during the Russian Invasion: Experience of School Psychologists from Kryvyi Rih International Journal of Child Health and Nutrition 12(1) 11–22
- [2] Kholoshyn I V, Syvyj M J, Mantulenko S V, Shevchenko O L, Sherick D and Mantulenko K M 2023 Assessment of military destruction in Ukraine and its consequences using remote sensing *IOP Conference Series: Earth and Environmental Science* 1254(1) 012132 DOI https://doi.org/10.1088/1755-1315/1254/1/012132
- [3] Kadykalo O 2022 Actual issues of Ukrainian population social protection under martial law Scientific notes of V.I. Vernadsky Taurida National University 2 2–14
- [4] Pyshchulina O, Yurchyshyn V, Markevych K, Mishchenko M and Dobrovolsky D 2022 Socio-economic and humanitarian consequences of Russian aggression for Ukrainian society (Kyiv: Razumkov centre) URL https://razumkov.org.ua/uploads/article/2022\_Gum.pdf
- [5] Pyrozhkov S I 2022 National sustainability of Ukraine: a strategy for ensuring *Ukrainian Geographical Journal* (2) 3–10 DOI https://doi.org/10.15407/ugz2022.02.003
- Bezpalenko O 2022 Vectors of social policy for Ukraine under conditions of war challenges Problems of modern transformations. Series: Economics and Management 1(4) 3-10 DOI https://doi.org/10.54929/ 2786-5738-2022-4-07-04
- [7] Polozhentseva Y 2016 Inequality in social standard of living in the international context *Economic Annals-XXI* 157(3-4(1)) 15-18 URL https://web.archive.org/web/20180721175708/http://soskin.info/userfiles/file/Economic-Annals-pdf/D0I/ea-V157-0004.pdf
- [8] 2024 Quality of life: Database URL https://ec.europa.eu/eurostat/web/quality-of-life/database
- [9] Libanova E M, Hladun O M, Lisohor L S, Tkachenko L H, Kovtun N V, Marchenko I S, Ivanov A and Peliakh M 2013 Measuring quality of life in Ukraine Analytical report Instytut demohrafii ta sotsialnykh doslidzhen imeni M.V. Ptukhy NAN Ukrainy, Prohrama Rozvytku OON, Ministerstvo ekonomichnoho rozvytku i torhivli Ukrainy Kyiv URL https://www.idss.org.ua/monografii/UNDP\_QoL\_2013\_ukr.pdf
- [10] National Bank of Ukraine 2024 Ofitsiinyi kurs hryvni shchodo inozemnykh valiut (serednii za period) URL https://bank.gov.ua/files/Exchange\_r.xls
- [11] State Statistics Service 2022 Average monthly wages of full-time employees by type of economic activity in 2010-2022 URL https://www.ukrstat.gov.ua/operativ/operativ2021/gdn/szpshp/szpshp\_ed\_rik.xlsx
- [12] State Statistics Service 2023 Average monthly wages by type of economic activity per quarter in 2023 URL https://www.ukrstat.gov.ua/operativ/operativ2022/gdn/snzp/snzp\_ek/smzp\_ek\_23\_ue.xlsx
- [13] Pension Fund of Ukraine 2024 Data on the average size of the pension payment URL https://www.pfu.gov.ua/statystyka/dani-pro-serednij-rozmir-pensijnoyi-vyplaty/
- [14] 2024 22FaktychnyiPM23 URL https://dostup.pravda.com.ua/request/22faktichniipm23
- [15] 2023 Information of the Ministry of Social Policy on the actual size of the subsistence level for 2023 URL http://pmguinfo.dp.ua/profsoyuznye-novosti/6465-informatsiya-minsotspolitiki-shchodo-faktichnogo-rozmiru-prozhitkovogo-minimumu
- [16] Ministry of Social Policy 2022 The actual size of the subsistence level in 2021-2022 URL https://www.msp.gov.ua/news/12286.html
- [17] State Statistics Service 2023 Consumer price indices in 1993-2023 (to the corresponding period of the previous year) URL https://www.ukrstat.gov.ua/operativ/operativ2020/ct/isc\_rik/isc1993-2020vppr.xls
- [18] Ministry of Social Policy 2024 Social standards URL https://www.msp.gov.ua/content/socialni-standarti.html
- [19] World Bank 2023 Ukraine rapid damage and needs assessment URL https://documents1.worldbank.org/ curated/en/099184503212328877/pdf/P1801740d1177f03c0ab180057556615497.pdf
- [20] 2023 Ukraine: War's Toll on Schools, Children's Future URL https://www.hrw.org/news/2023/11/09/ ukraine-wars-toll-schools-childrens-future
- [21] Batiuk I 2023 The Ministry of Health revealed how many Ukrainian medical institutions were damaged and destroyed by the Russian Federation URL https://life.pravda.com.ua/society/2023/11/7/257484/
- [22] Skipalska H 2022 What social problems did the war highlight? URL https://rpr.org.ua/news/yaki-problemy-sotsialnoi-sfery-pidsvityla-viyna/
- [23] Dmytrenko M, Nesterenko S, Oleksenko R, Yeremenko L and Vasylchenko O 2021 Management of corporate responsibility in the business environment: Socio-psychological aspect *Periodicals of Engineering and Natural Sciences* 9(4) 323–346 DOI https://doi.org/10.54929/2786-5738-2022-4-07-04
- [24] Lopuschnyak H, Chala N and Poplavska O 2023 Socio-economic determinants of the ecosystem of sustainable development of Ukraine IOP Conference Series: Earth and Environmental Science 915(1) 012019 DOI https://doi.org/10.1088/1755-1315/915/1/012019