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## Multilevel Strategic Planning for Sustainable Development in Public Administration

Yurii Orel <sup>1,\*</sup>, Oleg Kulinich <sup>2</sup>, Hryhorii Dziuba <sup>3</sup>, Nataliia Krasnostanova <sup>4</sup>, Roman Bakhaiev <sup>1</sup>

<sup>1</sup>Department of Personnel Management and Entrepreneurship, Education and Research Institute "Institute of Public Administration", V. N. Karazin Kharkiv National University, 4 Svobody Sq., 61022 Kharkiv, Ukraine <sup>2</sup>Department of Law, National Security and European Integration, Education and Research Institute "Institute of Public Administration", V. N. Karazin Kharkiv National University, 4 Svobody Sq., 61022 Kharkiv, Ukraine <sup>3</sup>Department of National Security, Public Management and Administration, Zhytomyr Polytechnic State University, 103, Chudnivska str., 10005 Zhytomyr, Ukraine

<sup>4</sup>Department of Management, Finance and Business Technologies, Institute of Public Service and Administration, Odessa Polytechnic National University, Shevchenko ave., 1, 65044 Odesa, Ukraine \*Corresponding author: orel@karazin.ua; Tel.: +380972292521

Abstract: The global community recognises that achieving SDG requires not only the development of strategies but also constant adaptation to the changing context. Throughout Ukraine period of independence, there has been no single, comprehensive development strategy that integrates various levels of governance and spheres of activity. Public administration plays a crucial role in shaping a sustainable future. Despite the importance, the mechanisms of interaction between state administration and local self-government in the context of sustainable development remain insufficiently studied. Therefore, this study aims to develop a modern methodology for strategic planning in public administration in Ukraine. This methodology considered the specifics of multilevel strategic planning and ensured the achievement of SDG in the national economy. The study was conducted using systemic and comparative approaches to explore the theory and practice of strategic planning at various levels of governance. Factors hindering the effective implementation of strategies in domestic public administration were identified. The results showed the characteristic features of strategic planning at different levels of governance in Ukraine. The experience of the strategic planning application identified systemic shortcomings that require developing new management tools and mechanisms. Therefore, key aspects that need improvement at the local level under the conditions of decentralisation reform were identified. The analysis indicated the necessity of introducing multilevel strategic planning and enhancing the systemic nature to achieve SDG within public administration.

**Keywords:** Multilevel strategic management; Public administration sphere; Project approach to management; Strategic impact of communities; Sustainable development goal

## 1. Introduction

Research Article

The development of Ukraine as a modern European state is inextricably associated with the establishment of an effective public administration system, with one of the fundamental principles being strategic planning. The power of local authorities has increased due to decentralization accompanied by a growth in responsibility, particularly towards future generations. Therefore, local self-government bodies are already facing the challenge of ensuring resilience to external and internal threats while simultaneously creating stable financial sources for community development.

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Accelerating the implementation of Sustainable Development Goal (SDG) in public administration is critical for ensuring a sustainable future (Kovalivska, 2021).

One critical issue for the public administration sphere in Ukraine is understanding the reasons for failures in achieving strategic goal. Effective public administration is the key to solving sustainable development problems. Modernising the public administration system is necessary to resolve society pressing problems (Pastukh, 2022).

Significant contributions to the strategic planning theory have been made by scholars such as Maistrenko and Bilyk (2023), Melnyk (2020), Prylepa and Huts (2019), Porter and Kramer (2006), Ansoff (1977) as well as other world-renowned scientists. Although scholars have already taken steps towards systematizing studies in this field, most works still lack a unified understanding of strategic planning, often equating it with management in general or strategy.

Sustainable development is the subject of numerous studies by scholars and organisations worldwide. This area of study is being explored by well-known international and domestic scientists including Whulanza and Kusrini (2024), Berawi (2023), Gutman et al. (2022), Harwahyu et al. (2022), Das et al. (2021), Banik and Lin (2019), Porter and Kramer (2018), Tosun and Leininger (2017), Kotler and Lee (2005) among many others. In particular, Kharun and Hrytsyna (2021) have also made a significant contribution to this field, mainly by studying the specifics of public administration in the context of sustainable development and the impact of European integration processes on the development of social responsibility.

According to numerous studies, effective public administration is a determining factor in sustainable development with emphasis on analysing the functioning mechanisms (Whulanza et al., 2025; Bianchi and Richiedei, 2023; Ortina et al., 2023; Silva et al., 2023; Semenets-Orlova et al., 2022a, 2022b; Zhuk et al., 2022; Ciasullo et al., 2020). The role of local authorities in creating effective partnerships for achieving SDG has been the focus of global scholars namely Masuda et al. (2022), Prasetyo et al. (2022), Yu et al. (2018), as well as Ukrainian scholars including Movchaniuk (2024), Omelchenko (2024), Ostrenko (2023), Pastukh (2022), Kovalivska (2021), and others. Despite the diversity of approaches, state strategy indicates that central and local government bodies still face difficulties implementing reforms, improving the quality of services for the population, and addressing pressing socio-economic problems in the regions (Pastukh, 2022).

Based on the description above, this study aims to improve the practice of strategic planning in Ukraine by analysing existing approaches, identifying shortcomings, and developing recommendations. The results will help enhance the effectiveness of multilevel strategic management at all levels of the economy, social activity, and environmental protection to achieve sustainable development objectives.

## 2. Methods

#### 2.1. Qualitative Analysis

Various methods were used to conduct a comprehensive strategic planning analysis. The systems approach allowed for identifying the system structure, institutional analysis facilitated the examination of governance frameworks, and comparative analysis was used to evaluate different strategic planning models. Abstract-logical analysis was used to examine the evolution of strategic planning, and marketing analysis helped to determine the role of marketing in this process.

The theoretical and methodological framework was based on the generalisation and comparison of scientific sources, legal documents, and empirical results. The selection of literature was conducted through a systematic search in recognized scientific databases, including Scopus and Web of Science, which served as the primary sources. Additional searches were carried out in Google Scholar, ERIC, and DOAJ to ensure broader coverage. The inclusion criteria include (a) relevance to public administration, sustainable development, or strategic planning, (b) the presence of empirical data or case studies, (c) geographic focus on Ukraine or countries experiencing postcrisis recovery, (d) publications in peer-reviewed journals indexed in the aforementioned databases, and (e) publication dates primarily within the last 10 years, with exceptions made for seminal works. On the other hand, the exclusion criteria include non-peer-reviewed sources, outdated theoretical models, or publications lacking methodological transparency.

#### 2.2. Quantitative Analysis

This study aims to identify trends in the implementation of the Sustainable Development Goal (SDG), with a high probability of achievement in the future. Statistical analysis has been removed from this section as it pertains to quantitative methods. The choice of objects for the study was due to the crisis in Ukraine, which has fewer resources to implement innovative solutions and efficient technologies in the context of the war. The ranking of the goal according to the integrated assessment of progress towards achieving the SDG according to the United Nations Ukraine (2021) is as follows; Goal 1: No Poverty, Goal 3: Good health and well-being, Goal 4: Quality education, and Goal 5: Gender equality.

The data on the selected SDG were collected from the official reports of the United Nations Ukraine (2021), UNDP Ukraine (2019), and ISER (2019). The study covered the period from 2015 to 2024, but the lack of some data reduced accuracy. To forecast the data, the FORECAST.ETS function of the Excel analysis package was used.

When making the relevant calculations, a composite index of each indicator was calculated to form an idea of the trends and progress of state and regional authorities in implementing strategic sustainable development objectives. The formula for calculating the composite index is as follows:

$$CI = \sum_{i=1}^{n} w_i * N_i \tag{1}$$

CI — composite index;

N<sub>i</sub> — normalized value of indicator i;

w<sub>i</sub> — weight of indicator i, which reflects its significance;

n — number of indicators.

The obtained indices range from 0 to 1, where values close to 0 indicate low (compared to others) progress of state and regional authorities in implementing strategic sustainable development objectives, while values close to 1 indicate progress in implementing the tasks of the defined SDG. Negative values are acceptable within the framework of this methodology but indicate the overall inefficiency of state and regional authorities in implementing strategic SDG.

In calculating the composite indices for each indicator, a normalization formula was used to bring different indicators into comparability:

$$N_i = \frac{x_i - x_{min}}{x_{max} - x_{min}} \tag{2}$$

The following formula was used to determine the weight (wi) for each indicator:

$$\sum_{i=1}^{n} w_i = 1 \tag{3}$$

The composite index allows for the creation of an integral score that represents the overall level of progress in terms of the established indicators. Based on the results of the calculations, conclusions will be drawn on the current state of implementation of the strategic SDG and priority tasks in the context of war and post-war recovery.

The study covered the period from 2015 to 2024 but data gaps, particularly in regions affected by armed conflict, limit the accuracy of the analysis. Incomplete or inconsistent reporting due to disruptions in data collection processes constrained the precision of trend identification and forecasting. Despite these limitations, the use of composite indices and normalization techniques ensures a systematic approach to evaluating progress towards the SDG. The results remain relevant for assessing overall trends and identifying priority areas for sustainable development in the context of war and post-war recovery.

## 3. Results and Discussion

## 3.1. A Theoretical Analysis on The Role of Public Administration in The Implementation of Sustainable Development in Ukraine

The war large-scale challenges have presented the public sector with numerous complex tasks. Simultaneously, pressing economic, social, and environmental issues must be addressed, requiring flexibility and adaptability from government authorities. Strengthening the role of public administration in Ukraine is associated with the need to develop and implement effective mechanisms for optimising management processes to increase efficiency and accountability to future generations. Achieving SDG in the face of global and national challenges directly depends on the quality of public administration (Kovalivska, 2021). Therefore, local self-government must take responsibility for implementing SDG, as the most significant changes occur at the local level. To fully exploit the potential of informal networks, an optimal balance between state support and local initiative must be ensured. New intermediary structures may also be created locally for more effective coordination of efforts (Masuda et al., 2022). These intermediary structures include regional development agencies, public-private partnership coordination centres, innovation hubs, advisory councils, or sector-specific working groups. The primary function is to enhance policy coherence, optimize resource allocation, and improve communication between different actors, thereby addressing governance gaps and ensuring a more efficient realization of sustainable development goal.

To implement the principles of sustainable development, an effective public administration system based on a clear division of powers among different levels of government and engagement of the public in decision-making processes is necessary. The conceptual basis of this system should be the National Strategy for Sustainable Development of Ukraine (Movchaniuk, 2024).

## 3.2. An Analysis of The Possibilities of Multi-Level Strategic Planning of Sustainable Development in Public Administration

Strategic planning in public administration is adapting organisations to changes in the external environment by developing flexible and effective strategies. The goal of strategic planning in public administration is to ensure the effective functioning of the system, ability to adapt to changes, and the achievement of long-term goal that meet society needs. State bodies develop these plans as a system of interconnected perspectives that define the directions of socio-economic development in the long term.

Strategic planning in Ukraine covers a wide range of aspects and factors, but lacks a systematic nature, leading to inefficiency and low effectiveness at all levels of governance. Overcoming problems with strategic planning requires improving the content of plans and detailing the place within the multilevel governance system and the interaction between different levels of planning. In general, this system ensures the coordinated operation of all strategic planning components without limiting individual subsystems autonomy (Maistrenko and Bilyk, 2023).

Modern country conditions require a radical update of the system of documents, which is a set of outdated and contradictory provisions. As of 1 January 2024, a systematic approach to making strategic decisions covered 1,314 territorial communities, 31 more than in the previous half of 2023 (Monitoring Report, 2024). Therefore, the level of coverage by the strategic planning process across the country regions is uneven. In particular, the Monitoring report on the state of development and approval of strategic documents in the territorial communities of Ukraine, as of 1 January 2024, shows that in some regions, a systematic approach to strategic decision-making has not even started (Figure 1).



**Figure 1** Involvement in Strategic Planning in Ukrainian Regions as of 1 January 2024 (modified from Monitoring Report (2024)

Strategic planning at the local level in Ukraine current challenging conditions is a collaborative effort including local self-government bodies, businesses, civil society organisations, and the residents. The socio-economic development programme is formed into a coherent concept that combines socially oriented measures (meeting the population's needs) and economic tools (stimulating growth and improving the efficiency of management activities) to achieve long-term stability. A set of measures necessary for strategy planning is implemented at each stage, detailed in Figure 2.



**Figure 2** Implementing Strategic Planning at the Local Level (modified from Prylepa and Huts, 2019)

An analysis on the effectiveness of strategic planning as a management tool showed that the main reasons for deviations from planned strategic goal include:

- Constant reorganisation of central executive bodies leads to a dilution of responsibility for the implementation of planned tasks and complicates the coordination of actions between different structures (Omelchenko, 2024);
- Resistance to changes in the public sector and local self-government bodies associated with the introduction of new analytical tools;
- Lack of coordination among different departments at the strategic planning stage;
- Existing problems with the development of partnerships and stakeholder engagement;
- Relevant controversial aspects of liberalisation in the context of national security;
- Insufficiently developed strategic plans for changing external environments;

The systematic undermining of Ukraine economy due to occupation manifests in reduced production, increased security costs, and labour shortages. This system ensures the coordinated operation of all components of strategic planning without limiting the autonomy of individual subsystems (Melnyk, 2020).

# *3.3. Analysis on the progress of state and regional authorities in implementing strategic sustainable development objectives*

Analysis on the progress of state and regional authorities in implementing strategic sustainable development objectives includes an assessment of SDG task implementation status with a high probability of being achieved in the future (Figure 1):

I. The analysis results on the progress of state and regional authorities in implementing the strategic goal of SDG 1 are presented in Table 1.

Objective	Indicators	Time	scale										CI
	-	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
1.1. Reduce poverty by 4 times, in particular by eliminating its extreme	population whose average per capita equivalent total expenditure is lower than the actual	58.3	58.3	47.3	43.2	37.79	32.735	23.977	19.35	11.05	6.308	-1.976	1
forms (%)	1.1.2. Share of persons whose daily consumption is lower than USD 5.05 in PPP	2.4	2	1.9	1.8	1.592	1.4238	1.2634	1.082	0.909	0.841	0.627	1
1.2. Increase coverage of the poor population with targeted social support programs (%)	1.2.1. Share of poor people covered by state social support in the total number of poor people	63	70.3	73.6	70.9	74.88	76.775	78.641	81.03	83.18	85.32	87.46	0
. ,	1.3.1. Ratio of poverty levels of households with children to households without children, times	1.5	1.4	1.6	1.5	1.571	1.518	1.6398	1.56	1.69	1.604	1.729	0.30 39
groups	1.3.2. Share of food expenditure in total household expenditure, %	54.6	51.4	49.6	49.4	47.29	45. <i>797</i>	44.313	42.66	41.09	39.52	37.95	1

**Table 1** Analysis on the level of implementation for Sustainable Development Goal 1: No Poverty (modified from United Nations Ukraine, 2021)

The proportion of the population whose average equivalent total expenditures were lower than the actual subsistence level decreased from 58.3% in 2015 to 43.2% in 2018. This is an 89.3% increase in the total resources of the population compared to 2015, while the subsistence level increased by 44.6% over the same period. Based on the forecasting results, this indicator may reach a negative value by 2025, which would indicate a significant approach to the task. However, Russia full-scale armed aggression in 2022 created additional risks that could slow down the process due to the loss of household income, redistribution of the state budget for defence, increased reconstruction costs, and general economic instability. A similar trend was observed in the proportion of people with daily consumption below USD 5.05 per PPP. According to the forecasts, this proportion would decline rapidly every year until 2025 due to the growth of real incomes, which, after falling by 20.4% in 2015, started to grow, reaching 9.9% in 2018 compared to 2017.

The coverage of the poor by targeted social support programmes in the context of the war has shown steady growth, reflecting the effectiveness of government initiatives even in a difficult socioeconomic situation. The overall level of implementation is high, given the value of the integral for all indicators (CI = 1). The proportion of the poor population covered by social support programmes gradually increased from 63% in 2015 to 70.9% in 2018, indicating a positive trend. In addition, forecasts strongly suggested that this indicator could reach 87.46% in 2025. The integral indicator of the task is low (CI = 0), indicating the target is not being met due to funding constraints and the reduced effectiveness of social policy.

The ratio of poverty rates for households with and without children was relatively stable until 2018, but the indicator has a weak upward trend. Therefore, the forecast showed the possibility of an increase to 1.72 times in 2025. The proportion of food expenditures in households has gradually decreased to 37.95%. The integral indicator for this target (CI  $\approx$  0,3) is significantly lower than the maximum level in the overall dataset, indicating a partial lag in achieving the target indicator.

II. The analysis results of the progress of state and regional authorities in implementing the strategic goal of SDG 3 are presented in Table 2

The achievement of SDG 3 in Ukraine is marked by progress in several key aspects related to healthcare and mortality reduction. The introduction of modern perinatal technologies and the reorganization of obstetric and neonatal units helped reduce the under-5 mortality rate from 9.3 cases per 1,000 births in 2015 to 8.3 in 2018. However, the forecasts are less optimistic, with a decrease in the indicator to 6.4 by 2025. From 2015-2018, the number of patients with newly diagnosed active tuberculosis decreased significantly from 55.9 to 50.5 patients per 100,000 people due to new treatment regimens and the use of specialized drugs recommended by the World Health Organization (WHO). This indicator is expected to continuously decrease, reaching 36.5 cases in 2025, which led to a high value of the integral index (CI = 1).

The State Programme for Improving Road Safety (CMU, 2021) also made a significant contribution, helping to reduce the number of deaths and injuries caused by road accidents. However, the integral indicators for this task are moderate for both road (CI  $\approx$  0.6) and urban (CI  $\approx$  0.5) transport, which indicates the need to introduce new measures to regulate the traffic situation.

Measures aimed at reducing the mortality rate of breast cancer through awareness-raising campaigns and early diagnosis reduced the probability of death for women aged 20-64 from 0.15514 in 2015 to 0.1501 in 2018, with a target indicator expected to reach 0.15 by 2025. This progress led to a high value of the integral indicator (CI = 1).

Table 2 Analysis on the level of implementation for the Sustainable Development Goal 3: Good health and well-being (modified from United	L
Nations Ukraine, 2021)	

Objective	Indicators	Tim	e scale										CI
		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
3.1. Reduce maternal mortality	3.1.1. Maternal mortality rate, per 100,000 live births	15.1	12.6	9.1	12.5	10.241	9.6217	9.1657	8.1933	7.4502	8.2292	6.8466	1
3.2. Minimize preventable mortality	y 3.2.1. Under-5 mortality rate, per 1,000 live births	9.3	8.8	8.9	8.3	8.1137	7.6439	7.616	7.0366	6.9995	6.4731	6.4007	1
among children under 5 y.o.													
	s 3.3.1. Number of patients with a first-time diagnosis of TB, pe	r 37	40	42.8	42.8	45.315	47.083	48.878	50.762	52.6312	54.483	56.334	0
epidemics, including through the use o													
innovative practices and treatments	3.3.2. Number of patients with a first-time diagnosis of active tuberculosis, per 100,000 population		54.7	51.9	50.5	48.394	46.762	44.331	42.998	40.479	38.731	36.488	1
3.4. Reduce premature mortality from	n 3.4.1. Number of deaths of men from cerebrovascular disease	s 64	63	62.3	62.1	61.355	60.78	60.206	59.591	<i>58.995</i>	58.4	57.805	1
non-communicable diseases	aged 30-59 years, per 100,000 men of the corresponding age												
	3.4.2. Number of deaths of women from cerebrovascula		27.4	26.7	25.5	24.393	23.263	22.399	21.237	20.342	19.187	18.289	1
	diseases aged 30-59 years, per 100,000 women of the	e											
	corresponding age												
	3.4.3. Number of deaths of women from malignant neoplasm		25.4	24.3	24.1	23.224	22.513	21.828	21.085	20.369	19.653	18.935	1
	of the breast aged 30-59 years, per 100,000 women of the	e											
	corresponding age	10.0	10.0	10	11 F	11 202	11 0 10	10 (74	10.000	10.070	0.001	0.00005	0.0000
	3.4.4. Number of deaths of women from malignant neoplasm		12.8	12	11.5	11.392	11.048	10.674	10.393	10.079	9.391	9.62365	0.8239
	of the cervix aged 30-59 years, per 100,000 women of the	e											
2 E. Doduco promoturo montality by	corresponding age a 3.5.1. Probability of dying at 20–64 years, male	0.200	0 201	0.275	0.207	0.382	0 202	0.3821	0 201	0.3804	0 2012	0.3819	1
	e 3.5.2. Probability of dying at 20–64 years, male					0.382 0.147			0.381		0.3843 0.1394	0.3819 0.1379	
introduction of innovative approaches to		0.150	0.152	. 0.147	0.15	0.14/	0.1430	0.1445	0.1425	0.141	0.1394	0.1379	1
disease diagnostics													
	s 3.6.1. Number of deaths due to traffic accidents, per 100,00	0 12 6	124	121	10.5	10 071	9 293	8 5276	7 8221	7 0856	6 3489	5.6121	1
and mortality from road accidents		0 12.0	12.1	12.1	10.0	10.071	<i>.</i>	0.0270	7.0221	7.0000	0.010)	0.0121	-
	e 3.6.2. Number of people injured due to traffic accidents, pe	r											
practices in resuscitation, treatment and													
rehabilitation of road accident victims	Type of transport:												
	- Road transport used by carriers in their economic activities	4.09	4.64	4.29	4.03	4.0167	3.9047	3.7695	3.6947	3.5946	3.2204	3.2274	0.6126
	- Urban electric transport	0.5				0.497	0.5106	0.5247	0.5316	0.5419	0.5522	0.5625	0.4898
	o 3.8.1. Share of smokers among women aged 16–29, %	5	5.1	5.2	4.8	7.5	7.3317	7.9556	8.4573	9.0427	9.6257	10.207	0.0369
	g 3.8.2. Share of smokers among men aged 16–29, %	31.4	34.4	28.9	27.9	29.3	26.19	25.77	25.174	22.357	21.071	20.272	0.7876
innovative means of informing about the													
negative consequences of tobacco	0												
smoking													
1	e 3.9.1. Share of population expenditure in total health	n 48.78	3 52.29	47.45	48.24	47.658	47.171	44.278	44.346	42.379	42.002	39.658	0.7221
financing system	expenditure, %												

III. The analysis results for the progress of state and regional authorities in implementing the strategic goal of SDG 4 are presented in Table 3

In terms of SDG 4, the growing accessibility of online education and digital technologies contributes to the quality of education. The proportion of the population using the Internet has continued to grow, from 67.6% in 2019 to 95.8% in 2025. However, Russia full-scale war on the territory of Ukraine, which started in February 2022, is currently slowing this process down significantly, particularly in remote regions, frontline and combat zones, where access to digital technologies is often limited. The effect is also pronounced in occupied territories, where providing the population with access to the Internet is almost impossible. However, the high integral indicator for the proportion of educational institutions in rural areas with access to the Internet (CI = 1) indicates the effectiveness of state regulation in bridging the gap between urban and rural areas regarding educational level. According to the calculated forecast values, the share of secondary education institutions with access to the Internet and the use of computers in the learning process will continue to grow in 2025, particularly in rural areas. Approximately 105.4% of Internet coverage and 130.03% use of computers in the educational process is expected to be achieved in these institutions.

Another important trend is the optimization of educational institution networks, which contributed to an increase in the number of students per teacher from 8.50 in 2015 to 9.39 in 2019. The proportion of institutions organizing inclusive education has increased significantly, from 8.98% in 2016 to 35.14% in 2019, due to the implementation of new legislation. Moreover, participation in inclusive education has increased further, from 35.1% in 2019 to 87.8% in 2025, confirming the development of educational reforms and the implementation of legislative initiatives, especially the Law of Ukraine 'On Education' No. 2145-VIII dated 01.01.2025 (VRU, 2025).

The practice of cities joining the UNESCO Global Network has been widely developed in Ukraine, which contributes to the expansion of educational opportunities (Pryima, 2016). As of 2016, these cities included Melitopol, Nikopol, and Novoiavorivsk, which joined in 2022 (Kyiv, Poltava, and Netishyn), while Lviv, Sumy, and Ternopil were added to the list in 2024 (MFA of Ukraine, 2024). Despite the previous increases in the indicator, a steady decline in enrollment in vocational education occurred, from 79.2% in 2019 to 67.5% in 2025. The continued optimization of the vocational training system as well as the renewal of material and technical base contributed to the inflow of students before the full-scale invasion, marked by an increase of 11.8% between 2017 and 2018. However, the current decrease in access to the educational environment generally due to alarms, power outages, and general threats to students lives and health has a negative impact on the indicator integral value (CI  $\approx$  0.65).

Table 3 Analysis on the level of implementation for Sustainable Development Goal 4: Quality education (modified from United Nations Ukrain	e,
2021)	

Objective Indicators	Time s	cale										CI
· · · · · · · · · · · · · · · · · · ·	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
4.2. Ensure the 4.2.1. Coverage rate of children availability of high-aged 5 y. o. by preschool quality preschool institutions and structural development for all divisions of legal entities under children public and private law, %	70.6	69.8	69.5	69.1	68.55327526	68.09488642	67.64484507	67.16206668	66.69107592	66.35708214	65.68884215	1
4.3. Ensure the 4.3.1. Ratio of the number of availability of vocational entrants to vocational education education institutions to the total number of places in vocational education institutions financed from state and local budgets	84	93	76	85	79.1853767	84.10764638	73.88187264	81.13382135	70.18453427	78.01972986	67.48501144	0.647
4.4. Improve the quality 4.4.1. Number of Ukrainian cities of higher education and that are members of the UNESCO ensure its close Global Cities Network that are connection with science; studying promote the formation of cities of education and science	-	1	4	4	4	-	-	-	-	-	-	Х
4.5. Increase the 4.5.1. Level of population prevalence among the participation in formal and population of the informal types of education and knowledge and skills vocational training, %	9.2	9	8.7	8.6	8.371186314	8.207002007	7.956738289	7.808620791	7.560191188	7.404586329	7.16060734	1
necessary for obtaining 4.5.2. Share of the population that decent work and reported using Internet services in entrepreneurial activity the last 12 months, %	48.9	53	58.9	62.6	67.61296523	71.7479205	77.23215678	81.0481507	86.49804519	90.4700489	95.81958264	0
4.7. Create modern 4.7.1. Share of general secondary learning conditions in education institutions in rural areas schools, including that have access to the Internet, %	85.9	89	91.1	91.5	95.2	96.01584395	98.09192229	100.1171995	101.9705216	102.9286831	105.4048019	1
inclusive ones, based on 4.7.2. Share of general secondary innovative approaches education institutions in rural areas that use computers in the educational process, %		95.1	96.6	98.2	98.7	106.6742404	110.3312351	115.5475275	120.4026912	125.22742	130.0354903	0
4.7.3. Share of full-time general secondary education institutions that provide inclusive education, %	-	8.98	16.17	24.45	35.14	43.33323704	52.29442561	61.25465888	70.03983812	78.91002385	87.78050279	0

IV. The analysis results on the progress of state and regional authorities in implementing the strategic goal of SDG 5 are presented in Table 4

The implementation of SDG 5 targets within the framework of strategic planning for sustainable development is characterized by the integration of a gender component into a number of strategic and sectoral regulations. The national mechanism for ensuring equal rights and opportunities for women and men has been significantly strengthened, in particular by including coordination of interaction between central executive authorities on gender equality in the powers of the Vice Prime Minister for European and Euro-Atlantic Integration of Ukraine. The position of Government Commissioner for Gender Policy in 2017 ensured the coordinated implementation of relevant measures at the highest level (CMU, 2017). In addition, the adoption of the new Electoral Code No. 396-IX of 19.12.2019 and subsequent editions, which provides for a gender quota of 40% (VRU, 2019), contributed to a significant increase in the number of women in political representation. The proportion of women among members of the Verkhovna Rada reached 20% in 2020 and remained at 25% in oblast councils. The reformed local self-government and territorial organisation of power in 2014 (VRU, 2014) also contributed to an increase in the proportion of women among deputies of oblast and local city councils. However, the ongoing war has had a significant impact on the structure of the civil service, with the proportion in category A positions decreasing to 9.51% by 2025. In this case, the negative integral index (CI  $\approx$  -0,55) indicates the need for additional measures to ensure equality in the crisis.

In the area of preventing and combating domestic violence, the mechanism of interagency cooperation was improved, which ensured an increase in the number of appeals on domestic violence, (from 96.2 thousand in 2017 to 130.5 thousand in 2019), exceeding the target set for 2020. A significant increase in the number of specialists trained in combating violence from 250 in 2017 to 8,337 in 2019 was achieved through systematic professional development.

The provision of social services to victims was strengthened, accompanied by the accession of local councils to the European Charter for Equality between Women and Men (CEMR, 2006). In the area of labour relations, the ratio of average wages of women to men improved from 74.9% in 2015 to 77.2% in 2019. Given the projected increase to 80.76% in 2025, this indicator is expected to grow further. This growth trend is insufficient, as evidenced by the low value of the integral indicator (CI  $\approx$  0,05). A general systematic approach to public administration gradually strengthened gender equality within the strategic planning of sustainable development.

This study identified several objective and subjective factors that negatively impact the implementation of strategies in public administration to achieve SDG. During data collection, specific features of strategic planning at various levels of governance in Ukraine were clarified. The results showed that the existing tools and mechanisms did not provide the necessary level of effectiveness and required modernisation. This study allowed for identifying specific aspects of strategic planning that need strengthening to ensure the effective functioning of local self-government bodies under conditions of decentralization. Achieving SDG requires a comprehensive strategic planning system comprising all public administration spheres.

**Table 4** Analysis on the level of implementation for Sustainable Development Goal 5: Gender equality (modified from United Nations Ukraine, 2021)

Objective	Indicators	Time sca										Integral
		2015 201	6 2017	2018	2019	2020	2021	2022	2023	2024	2025	indicator (Cl
the elimination	ons for 5.1.1. Number of regulatory legal acts revised or adopted to of all ensure equal rights and opportunities for women and men ination and prevent discrimination against women and girls, units ad girls		-	4	5	-	-	-	-	-	-	Х
5.2. Reduce the l gender-based domestic vi	evel of 5.2.1. Proportion of women and girls aged 15 and over who and have ever been in a partnership with a man who have been olence, subjected to physical, sexual or psychological violence by a ffective current or previous intimate partner in the last 12 months,		96.2	110.7	130.5	146.965	164.071	180.999	<i>199.716</i>	216.4413	234.93865	<del>7</del> x
nanifestations,	and 5.2.2. Number of calls for domestic violence, thousands		-	160	553	-	-	-	-	-	-	х
orovide	timely 5.2.3. Number of specialized support services for victims of		1869	2244	2122	2312.712	2443.356	2590.661	2570.224	2736.5586	2736.7156	х
ssistance to victi	<i>,</i> 1											
	5.2.4. Number of children who have suffered abuse		-	588	312	-	-	-	-	-	-	х
	5.2.5. Number of persons who have completed programs for perpetrators		250	300	8337	11348.58	15325.48	19034.65	25439.484	28842.825	34916.711	х
	5.2.6. Number of specialists who have completed training on preventing and combating domestic violence		560	496	1703	2110.287	2671.189	3189.485	4136.7529	4606.3823	5500.9844	x
	5.2.7. Number of specialists who have completed training on preventing and combating discrimination against women		1740	6 17178	3 24035	26434.12	29689.54	32707.46	38116.627	40863.264	45978.851	х
	5.2.8. Number of social services provided in accordance with the needs of persons who have applied for domestic violence		6575	6964	8054	8702.931	9436.585	10146.74	11093.491	11776.806	12694.508	х
	5.2.9. Number of information campaigns conducted to combat domestic violence		8000	10000	) 70000	93506.43	124022.8	152594.9	200742.47	227093.76	272838.02	х
	5.2.12. Percentage of financial security of regional programs to combat domestic violence, at the expense of the local budgets		96.2	110.7	130.5	146.965	164.071	180.999	<i>199.716</i>	216.441	234.9387	х
4. Ensure pportunities	equal 5.4.1. Share of women among deputies of the Supreme for Council of the country	- 12	12	12	12	20	-	-	-	-	-	х
epresentation at	higher 5.4.2. Share of women among deputies of regional councils ecision- and local councils of cities of regional significance	- 25	25	25	25	25	-	-	-	-	-	х
	al and 5.4.3. Share of women in the civil service by category of positions «A»	- 22.	2 22.8	26.7	17.64	18.199	16.404	14.2755	12.9266	11.212	9.507059	-0.55296
5. Expand acc mily planning s nd reduce the l	ess to 5.5.1. Birth rate under the age of 20, per 1000 women aged ervices 15-19	27.3 25.	3 22.4	19.7	17.245	5 14.643	12.0188	9.4548	6.87012	4.0481	1.8125	1
	omen's 5.6.1. Ratio of average wages of women and men, % ities (%) 5.6.2. Employment rate of women aged 25-44 who have children aged 35	74,9 74, - 59	6 78,8 -	77,7 -	77,2 -	<i>78,199</i> -	<i>78,669</i> -	<i>79,1446</i> -	<i>79,7466</i> -	<i>80,232</i> -	<i>80,7632</i> -	0,04868 x

This study analysed the progress of state and regional authorities in implementing strategic sustainable development objectives. The analysis showed insufficient progress in overcoming poverty (SDG 1) due to several systemic problems, including limited financial resources of the state budget that do not allow for an adequate increase in social standards, such as subsistence minimum, known to restrain the growth of incomes among the most vulnerable segments of the population (Tykha, 2023). Other systemic problems include the financial instability of the pension system due to demographic challenges and shadow employment limits (Shumska, 2023), as well as underfunding of social infrastructure, especially in the healthcare sector, due to the reduction of social spending in the war, which makes it necessary to cover the deficit with citizens personal funds (Lopushniak et al., 2024; Klevchik, 2018). As stated by the United Nations Ukraine (2021), despite the overall positive trends, there is a higher vulnerability of women, who, due to lower incomes and social stereotypes, face multidimensional poverty, requiring additional measures to overcome gender inequality (SDG 5). Therefore, households retain a low level of economic capacity, which is particularly acute in families with children.

To accelerate progress towards overcoming poverty (SDG 1), it is necessary to implement a set of measures aimed at reforming key socio-economic mechanisms. The impact of Russia ongoing armed aggression against Ukraine reinforces the importance of implementing such measures, as it increases social inequality, limits access to resources, and requires systemic support for the most affected populations (Korolchuk, 2024; Lopushniak et al., 2024; Tykha, 2023). The system of social standards and guarantees should be improved by introducing economically justified proportions between the main state guarantees and sources of income, ensuring a balance between social support and economic incentives. Supporting the proposed measures, it is important to consider the results of Blyzniuk et al. (2024) on the need to restore the post-war social contract based on the basic principles of social justice, cohesion, complementarity, social quality and inclusiveness. Furthermore, as stated by Pavlov et al. (2024a), measures such as the transfer of financial and economic resources and powers from the central level to the local level have the potential to address a multitude of significant social issues, including the elimination of spatial disparities in rural and urban development, socio-economic inequality, and, most importantly, the alleviation of poverty (SDG 1).

There is a need to reform the pension system, which should be based on the principles of social justice while fostering the younger generation to take up formal employment through the creation of favourable pension conditions. Considering Ukraine European integration efforts, Akarçeşme et al. (2024) reported the need for policies that properly focus on strengthening the framework for social inclusion and social protection. This is described in more detail in the policy study by Grossi et al. (2024), which focused on the development of an inclusive labour market, decent working conditions, adequate social protection systems, and social inclusion policies, vital for the well-being of people and the overall resilience of EU societies. Jasmi and Hassan (2024) as well as Pavlov et al. (2024b) reported the need to introduce a differentiated approach to the provision of social services, which will increase the availability of free or partially free services for the most vulnerable categories of the population.

One of the main obstacles to the effective delivery of healthcare services is the low level of funding. According to the United Nations Ukraine (2021), budget expenditures are mostly spent on salaries and utilities, accounting for about 75% of all expenditures, which limits the financial capacity to provide treatment, procure medicines, and upgrade the technical equipment of medical facilities. The Ukraine pharmaceutical market also faces the problem of low-quality and counterfeit medicines. WHO estimated that almost 10.5% of medicines used in low- and middle-income countries do not meet quality standards and are counterfeit (Ministry of Health of Ukraine, 2019). According to several studies (Krychkovska et al., 2024; Safonov et al., 2024), Ukraine lacks a unified system for monitoring the circulation of medicines, which makes it difficult to control the quality of medicines and circulation. Based on the comparison of Kim and Soloviov (2024) and Lobur et al.

(2024) the procedures for allowing medicines into the market take much longer than in the EU, which also contributes to the spread of low-quality medicines.

To improve the indicators for SDG 3 targets and accelerate achievement, it is necessary to ensure the implementation of measures to prevent non-communicable diseases, which, according to the United Nations Ukraine (2021), cause 80% of deaths in the country. Consequently, implementing the creation of an effective mental health care system focused on the user of care is important (Chorna, 2024); as well as ensuring the fulfilment of commitments to prevent communicable and non-communicable diseases (Nache et al., 2024). It is also important to ensure further development of a system designed to provide quality and timely healthcare services based on evidence and patient-centeredness at all levels (primary, secondary and highly specialized) of healthcare, up to rehabilitation and palliative care. As a supplement, the study by Salmistu et al. (2024) is quite informative, as it emphasizes the need to develop a culture of avoiding diseases of various natures and to implement prevention efforts with a reorientation to the preventive sphere of the healthcare system. This facilitates the detection of diseases in case of non-detection in time.

Among the identified challenges to achieving SDG 4, the most significant include the lack of adequate funding due to the war and infrastructure problems, including the destruction of educational facilities, and socio-economic inequality, which lead to a decrease in the coverage of students at all levels, especially in rural areas. These problems are also emphasized in the reports of United Nations Ukraine (2021), UNDP Ukraine (2019), ISER (2019) and also apply to adult education, as reported in the policy brief by Lazorenko (2022). Despite the growing demand for vocational training, there are gaps between the supply of educational programmes and the requirements of the modern labour market, which reduces the attractiveness of this area for young people. Similar conclusions were reached by Lytvyn and Zalishchuk (2024), who argued for the need to modernize vocational training in vocational and higher education institutions. This situation necessitates the development of a strategic vision regarding the role of vocational education within regional development in cooperation with local authorities and the organization of systematic work on vocational guidance for young people. In turn, inclusive initiatives, although showing growth, suffer from uneven distribution of resources and insufficient support for teachers to work with students who have special educational needs. The adoption of National Strategy for Quality Inclusive Education (CMU, 2024) by the government is considered a progressive step, due to the role in individualizing learning, promoting social integration, tolerance and understanding of diversity, as well as supporting teachers with the necessary resources for effective inclusive education (MES, 2024).

In the global context, there is high gender segregation in the labour market, accompanied by age and gender discrimination, especially against women planning pregnancy or with minor children (Tueller, 2024). The low representation of women among the heads of amalgamated territorial communities, particularly in Ukraine, indicates inequality in access to influential positions, which is associated with the concentration of power and financial resources (Tiurina, 2024). A report by the RESIST (2024) project also mentioned that the proliferation of anti-gender movements, the absence of adequate legal guidance for citizens regarding equal rights and anti-discrimination, and the absence of adequate statistical information, including by gender and age, contributed to the difficulties in implementing effective gender reforms.

To accelerate the achievement of SDG 5, the application of gender budgeting should be intensified as this will contribute to the effective distribution of financial resources considering the needs of different population groups. Particular attention should be paid to monitoring and implementing the requirements for gender quotas stipulated by electoral legislation to ensure equal representation of men and women in elected bodies. In the study of Herbut et al. (2024), the need for proper implementation of gender quota requirements in the Ukrainian government was reinforced by the experience of Sweden as a world leader in achieving gender balance. Similar to Ukraine, voluntary party quotas operate in Sweden, and due to unconditional compliance, the

percentage of female candidates is 43.5%, and the percentage of elected is 49.3%. Overcoming gender stereotypes is also important as reported in the work of Tiurina (2024), by developing and implementing a National Communication Strategy on Gender Equality. Policymakers should prioritize the sustainability of local mechanisms for preventing and responding to domestic and gender-based violence, including the development of a system of services for victims and the creation of specialised services at the local community level. Similar efforts are also being made in the international context, with Bondestam (2024) reporting the effectiveness of creating specialised local institutional strategies to combat gender-based violence in EU countries. Meanwhile, De la Parra-Guerra et al. (2025) underscored the need for women-led projects at the community level to promote the role as key drivers of sustainable change in Colombia.

## 4. Conclusions

In conclusion, strategic planning at the local level is a crucial tool for determining the direction of community development and ensuring sustainable growth. This system is designed to enhance the competitiveness of local communities by adapting to changes and effectively using resources. The existence of an approved socio-economic development programme is one of the main requirements for obtaining additional funding from the state budget and other sources. The analysis of SDG 1, 3, 4, and 5 showed key implications for achieving sustainable development. Progress in SDG 1 (No Poverty) has been profound in reducing poverty rates and expanding social support programs. However, the full-scale war has introduced economic instability, threatening the gains. SDG 3 (Good Health and Well-being) has witnessed improvements in child mortality reduction, tuberculosis treatment, and road safety, though challenges remained in further reducing mortality rates. SDG 4 (Quality Education) has benefitted from increased digitalization and inclusive education reforms, but war-related disruptions hinder accessibility, particularly in frontline areas. SDG 5 (Gender Equality) has advanced through legal reforms and increased women political participation, but the war has negatively impacted female representation in top government positions, necessitating further policy interventions. To ensure sustainable economic development in Ukraine during the post-war recovery period, it is necessary to focus on supporting regions and communities, fostering gradual transformation into self-sufficient and competitive units. For a successful transition to sustainable development, natural resources, economic opportunities, and the country cultural heritage must be effectively combined, balancing the needs of the present with the preservation of the environment for future generations. Given the current global challenges, a more detailed analysis of how public administration and local self-government can ensure sustainable development in Ukraine is needed. Future studies should also analyze how different levels of public administration use modern tools to achieve SDG.

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## Author Contributions

Yurii Orel: Formal analysis, Investigation, Writing –original draft, Writing – review & editing; Oleg Kulinich: Data curation, Resources, Validation; Hryhorii Dziuba: Project administration, Writing – review & editing; Nataliia Krasnostanova: Methodology, Conceptualization, Supervision; Roman Bakhaiev: Validation, Software, Visualization.

## Conflict of Interest

The authors declare no conflicts of interest.

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