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## Assessment of the level of awareness of higher education students about the sustainable development goals

### *Ocena poziomu świadomości studentów szkół wyższych na temat celów zrównoważonego rozwoju*

**Abstract:** The article identifies the relationship between the achievement of sustainable development goals and quality education, which requires the search for reserves and points of influence that higher education can provide. Sustainable development requires large investments in quality education, provision of qualified medical services to the population, zero-carbon energy production, developed urban infrastructure, and digitalization. It has been proven that higher education provides tools for solving global problems of our time.

The main directions of reform in the context of increasing the UN's ability to overcome current challenges and support sustainable development around the world are highlighted at the Future Summit, where one of the main issues is the digital transformation of education. The article assesses the level of awareness of higher education students about the Sustainable Development Goals using an online survey. The study conducted among applicants for higher medical education shows a high level of awareness of the Sustainable Development Goals and areas of competence development.

To find weaknesses in relation to the SDGs, it is advisable to systematically conduct surveys not only among students of higher medical education, but also among students of other higher education institutions with a focus on related SDGs, as their results are an important indicator of understanding the speed of achieving all the Sustainable Development Goals and the availability of resources, including educational resources.

**Keywords:** Sustainable Development Goals, Level of Awareness, Health Care, Higher Education Students

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**Abstrakt:** W artykule zidentyfikowano związek między osiągnięciem celów zrównoważonego rozwoju a jakością kształcenia, co wymaga znalezienia rezerw i punktów wpływu, którymi może stać się szkolnictwo wyższe. Zrównoważony rozwój wymaga dużych inwestycji w wysokiej jakości edukację, zapewnienie ludności wykwalifikowanej opieki zdrowotnej, wytwarzanie energii bezemisyjnej, rozwiniętą infrastrukturę miejską i wdrażanie cyfryzacji. Udowodniono, że szkolnictwo wyższe dostarcza narzędzi do rozwiązywania globalnych problemów naszych czasów.

Podczas Future Summit, gdzie jednym z głównych tematów była cyfrowa transformacja edukacji, podkreślono główne obszary reform w kontekście zwiększenia zdolności ONZ do pokonywania współczesnych wyzwań i wspierania zrównoważonego rozwoju na całym świecie. W artykule, za pomocą ankiety internetowej, oceniono poziom świadomości studentów szkół wyższych na temat Celów Zrównoważonego Rozwoju. Badania przeprowadzone wśród kandydatów na studia medyczne wskazują na wysoki poziom świadomości celów zrównoważonego rozwoju i obszarów kształcenia kompetencji.

Aby zidentyfikować słabości w kontekście SDGs, wskazane jest systematyczne przeprowadzanie badań ankietowych nie tylko wśród kandydatów na studia medyczne na poziomie wyższym, ale także wśród kandydatów na inne uczelnie wyższe, ze szczególnym uwzględnieniem powiązanych z SDGs, ponieważ ich wyniki stanowią ważny wskaźnik zrozumienia tempa realizacji wszystkich Celów Zrównoważonego Rozwoju i dostępności zasobów, w szczególności edukacyjnych, na ten cel.

**Słowa kluczowe:** cele zrównoważonego rozwoju, poziom świadomości, ochrona zdrowia, studenci szkół wyższych

## Introduction

The year 2024 was a key period for the ongoing globalization process. The world community is facing two different directions of movement: one leads to deepening environmental crises, increasing climate disasters, widening inequality, conflicts, and inaccurate use of advanced technologies; the other leads to sustainable development, poverty alleviation, global peace, and the beneficial use of digital technologies, which is what we must choose (Kimura, 2024; Order of the cabinet of ministers of Ukraine, 2024).

The 2024 Sustainable Development Report, published by the UN, calls for bold reforms and renewed commitment to multilateralism to address the pressing challenges facing humanity. By expanding the agenda of the Sustainable Development Goals (SDGs), ensuring adequate funding, strengthening international peace and security, harnessing science and technology, empowering youth, and improving global governance, the international community can pave the way for a sustainable and prosperous future for all (Kimura, 2024). Given that, according to (Sachs, Lafortune, Fuller, 2024), in 2024 Ukraine ranked only 182nd out of 193 on the UN-based Country Support for Multilateralism Index, this requires researchers to look for reserves and points of influence that higher education can provide.

Sustainable development, in turn, requires large investments in quality education, qualified healthcare services, zero-carbon energy production, developed urban infrastructure, and digitalization. Low-income and lower-middle-income countries face high capital costs, which hinder their efforts to achieve sustainable development and meet the Sustainable Development Goals. That is why access to both long-term capital and higher education innovation is important for such countries to invest more effectively and achieve their goals.

On January 1, 2025, the Order of the Cabinet of Ministers of Ukraine “Some issues of ensuring the achievement of the Sustainable Development Goals in Ukraine” came into force (Order of the cabinet of ministers of Ukraine, 2024). It defines the main tasks for achieving the SDGs for the period up to 2030 and indicators of their achievement. For each of the goals, coordinators and co-implementers (if necessary) are identified to monitor the implementation of these targets. Target for Goal 4: Ensure access to quality higher education.

## Literature Review

The scientific work of Adesuwa V. A. (Adesuwa, 2019). In the publications of Kimura Yu. (Kimura, 2024; Kimura, 2024; Kimura, 2024), who conducted a thorough study of the SDGs, reviewed the key ideas of the Sustainable Development Report 2024: SDGs and the UN Future Summit, noted that the Sustainable Development Report calls for bold reforms and renewed commitment to multilateralism to address the pressing challenges facing humanity. By expanding the SDG agenda, ensuring adequate funding, strengthening international peace and security, harnessing science and technology, empowering youth, and improving global governance, the international community can pave the way for a sustainable and prosperous future for all.

Sachs J.D., Lafortune, G. Fuller G., Drumm E. (Sachs, Lafortune, Fuller, Drumm, 2023; Sachs, Lafortune, Fuller, 2024) are the authors of the Sustainable Development Report. The Sustainable Development Report 2023-2024 presents the SDG Index and dashboards, which are a useful tool for assessing the implementation of the UN Agenda 2030 and the SDGs by countries.

In order to determine the level of awareness of higher education students to achieve the goals of sustainable development, the publications of Vnukova N.M., Pyvovarov O.V. (Pyvovarov, 2024; Vnukova, Achkasova, Pyvovarov, 2020) are considered, where it is proposed to use the Google-forms tool to conduct a survey in order to obtain an analytical basis for forming a course of action to achieve the SDGs.

## Data

The guiding principle of sustainable development is summarized in five P's: People, Planet, Prosperity, Peace and Partnership. Each of these elements represents a critical aspect of human and planetary well-being (Table 1).

**Table 1.** Composition of the guiding principle of sustainable development

An element of principle	Composition
People	Ensuring that no individual, group, nation or region is left behind
The Planet	Life within the Earth's environment
The prosperity	Expanding the benefits of modern education and technology around the world
Peace	Coexistence in accordance with the principles of the UN Charter and international law, advocating non-intervention and peaceful conflict resolution

Partnership	Cooperation between governments, civil society and business to achieve common global goals
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Source: Kimura, 2024.

These principles reflect the basic aspirations of UN member states, including respect for human rights, gender equality, poverty alleviation and the end of hunger through, among other things, the development of higher education for sustainable agriculture. The principles of sustainable development, guided by the five Ps, provide a comprehensive framework for global progress. The Summit of the Future is a key moment for the international community to strengthen the role of the UN in addressing current challenges, ensuring that all countries, without exception, can participate in and benefit from global progress.

According to (Pyvovarov, 2024; Sachs, Lafortune, Fuller, Drumm, 2023), the main Sustainable Development Goals in Ukraine in 2022 were as follows: Goal 1: Eradicate poverty; Goal 2: End hunger; Goal 3: Good health and well-being; Goal 16: Peace, justice and strong institutions.

They are fully in line with the UN’s guiding principle of sustainable development, but they need to be expanded, which is what the Government is trying to do.

According to the data published in the UN report in 2024 (Sachs, Lafortune, Fuller, 2024), Ukraine ranked 44th out of 167 on the Sustainable Development Index, which is a good indicator.

Fig. 1 shows the average productivity by SDG in Ukraine in 2024. As can be seen from Fig. 1, in 2024, there was zero productivity under Goal 1: End Poverty. The highest performance is observed for Goal 10: Reduce Inequality (98%). As for the quality of education, the level is relatively high (76%), but there is room for growth.

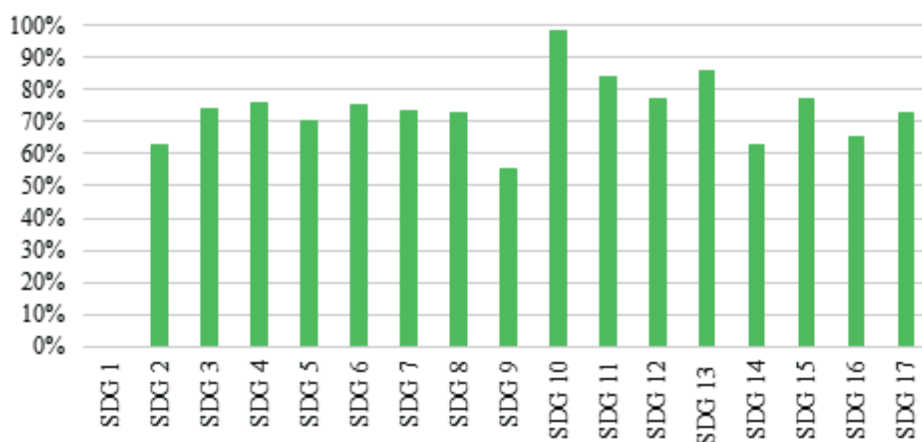


Fig. 1. Average SDG productivity in Ukraine in 2024

Source: Sachs, Lafortune, Fuller, 2024.

Failure to achieve the SDGs is a major challenge for humanity. Almost 9 years after their adoption, governments still do not have a plan to achieve the SDGs, which require investments of more than \$8 trillion per year for at least 10 years, not just \$200 billion per year in fake development assistance (Kimura, 2024).

Every year on July 11, the United Nations celebrates World Population Day, making it relevant and important to highlight its problems. This highlights the close relationship between population growth, human rights and sustainable development, which is directly linked to the 17 UN SDGs (Kimura, 2024).

The day is a reminder of the crucial role that individuals and organizations play in achieving all of the SDGs set by the UN. They are adopting environmentally friendly practices, innovative solutions to global challenges, and investing in communities. By addressing population issues through the lens of the 17 global goals, the international community can work towards a more equitable, sustainable and prosperous future for all stakeholders (Kimura, 2024). Today, specialists from a number of faculties and research institutes of Ukrainian universities are working on the main issues related to the level and quality of life of the population. This shows that higher education provides tools for solving global problems of our time.

In the context of expanding opportunities for sustainable development, the UN should support countries and regions in adopting comprehensive sustainable development goals by 2050.

The main areas of reform in the context of enhancing the UN's ability to overcome current challenges and support sustainable development around the world are highlighted in the agenda of the Future Summit. It is a platform that brings together representatives of UN member states, civil society and the private sector around a common goal - planning for a secure, peaceful and highly developed future. Digital technologies, peace and security, as well as sustainable development and financing were the main topics of the 2024 Future Summit. The issue of digital transformation of education is a priority for many leading countries of the world, as innovative digital solutions are what improve the quality of education, make it inclusive and accessible. The higher the quality of education, the stronger the social capital of the country.

To determine the level of awareness of higher education students, Kharkiv National Medical University was chosen, where the study programs in several components of natural science and health care disciplines are focused on achieving certain priority SDGs. An online survey was conducted among applicants using a Google form developed by the author (Moralez-de la Cruz, 2024) using corporate e-mail, which included questions about awareness of the SDGs, their number, choice of priority goals, the need to develop health

competence, the impact of higher medical education on the development of health competence, as well as the relationship between the Sustainable Development Goals on Goal 3 on ensuring a healthy lifestyle and Goal 4 on ensuring inclusive and equitable quality education.

The gender composition of the respondents was asymmetrical: men - 20%, women - 80%. The survey involved students of the same year of study.

Table 2 shows the gender distribution of answers to the question: "Are you familiar with the Sustainable Development Goals?"

**Table 2.** Distribution of respondents' answers to the question "Are you familiar with the Sustainable Development Goals?"

Answers	Share of responses, % of total	
	Men	Women
Yes	87,5	51,4
No	12,5	11,4
It is difficult to answer	0	37,2

Source: developed by the authors.

Table 2 shows that the majority of respondents are aware of the 17 SDGs (87.5% of men and 51.4% of women), but 37.2% of women said they found it difficult to answer this question. This indicates that there should be separate educational activities to raise awareness and motivate them to get involved in the implementation of the SDGs.

When asked to choose one of the sustainable development goals from the list, which was a priority for each applicant. The distribution of answers is shown in Figure 2.

The Figure 2 shows that 18.6% of respondents believe that the priority among the Sustainable Development Goals is Goal 3: Ensure healthy lifestyles and promote well-being for all at all ages. Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable is in second place (13.95%), and Goal 10: Reduce inequality within and among countries (11.63%) is in third place, which is in line with the guiding principle of sustainable development. As can be seen from Fig. 2, there was no concentration on a single goal for higher education students, which requires additional research on which strategy to choose: to focus on choosing one priority SDG or to develop all areas simultaneously. It can be noted that the focused group of respondents among higher medical education students has no focused choice among the SDGs. This is also confirmed by the study conducted in (Pyvovarov, 2024).

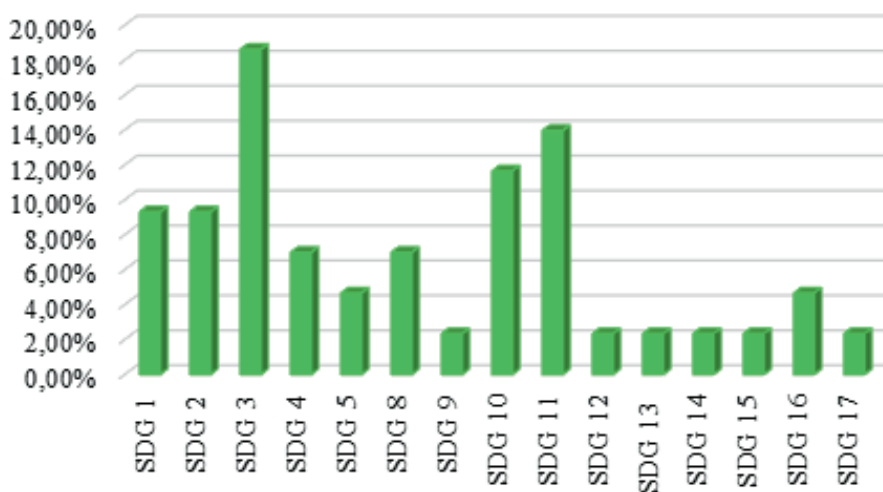


Fig. 2. Distribution of answers of medical students on the priority of the Sustainable Development Goals

Source: developed by the authors.

The next question of the survey, “Do you consider ensuring that all students acquire the competencies necessary to promote sustainable development as a priority among the sustainable development goals?” was answered as follows (see Table 3).

**Table 3.** Respondents’ answers to the question: “Do you consider the development of education to be a priority among the SDGs?”

Answers	Share of responses, % of total	
	Men	Women
Yes	87,5	82,8
No	0	2,8
It is difficult to answer	12,5	14,4

Source: developed by the authors.

Table 3 shows that the vast majority of students answered “Yes” to this question: 87.5% of men and 82.8% of women, but among women there were people who denied this, which requires additional research. The fact that there is a group of almost 1/7 of both men and women who found it difficult to answer the question indicates that these people are not well informed not only about the SDGs but also about the importance of education in general.

Almost all respondents (97.7%) consider it necessary to develop health competence. To the question “To what extent will obtaining higher medical education influence the formation of health promotion competence?” 27.9% answered “Very much”, and 72.1% - “Strongly”. This can be explained by the specifics of higher education.

Answers to the question about the relationship between the Sustainable Development Goals regarding Goal 3: Ensure healthy lifestyles and Goal 4: Ensure inclusive and equitable quality education are presented in Table 4.

**Table 4.** Distribution of answers to the question: “In your opinion, is there a link between the Sustainable Development Goals in relation to Goal 3: Ensure healthy lifestyles and Goal 4: Ensure inclusive and equitable quality education?”

Answers	Share of responses, % of total	
	Men	Women
Yes	100	82,8
No	0	5,7
It is difficult to answer	0	11,5

Source: developed by the authors.

Table 4 shows that 100% of men and 82.8% of women answered “Yes”. Similarly to Table 3, a certain number (11.5%) of women also had doubts about answering this question, and there is also a group that denied it. This indicates a lack of information and awareness of the issues under consideration, which requires increasing the competence of higher education students on these issues. For this purpose, the experience of other universities can be used. This can be the leader in solving the most pressing problems of sustainable development - the University of Alberta (Canada), which in 2024 was ranked 6th in the world and first in North America for its efforts (Kimura, 2024).

This prestigious recognition was published in the Times Higher Education Impact Rankings for 2024. As one of Canada’s and the world’s leading universities, the University of Alberta engages its employees, partners and significant resources to make a meaningful contribution to the global commitment to sustainability. The University of Alberta’s rise in the global rankings underscores the institution’s excellence in sustainability initiatives and its role as a leader in addressing global challenges. All this confirms the need to develop relevant competencies in higher education institutions not only abroad but also in Ukraine.

## Conclusion

The current period of sustainable development in the world is facing challenges, including deep poverty in certain countries, material hardship, wars, worsening environmental crises, and global cooperation hampered by differences between states. However, globalization processes and accessible digital platforms are empowering even the world's poorest populations to learn about the SDGs, which provide an important framework for development, and at the same time, governments are developing integrated strategies and institutional structures to achieve them.

The decisions made by the UN on sustainable development should help improve the next state of humanity. The Summit of the Future is an opportunity to strengthen ties between countries and challenge them to overcome poverty, eliminate social inequalities, insecurity and war, and improve the environment. Through education, training, and research, the UN seeks to promote sustainable development and peace.

For 16 of the 17 SDGs of 2024, Ukraine was on track to meet its goals, albeit at a slower pace than desired. For Goal 1, it has moved away from the target. However, the other Goals require close attention, as none of them had 100% performance in 2024. The exception is Goal 10: Reduce inequality within and among countries, which has reached almost its maximum value.

The study among students of higher medical education institutions shows a high level of awareness of the Sustainable Development Goals and areas of competence development. To find weaknesses in relation to the SDGs, it is desirable to systematically conduct surveys not only among students of higher medical education, but also among students of other higher education institutions with a focus on related SDGs, as their results are an important indicator of understanding the speed of achieving all the Sustainable Development Goals and the availability of resources, in particular, educational resources for this.

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