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THE ROLE OF EXTRACURRICULAR EDUCATIONAL INSTITUTIONS IN ADVANCING SUSTAINABLE DEVELOPMENT

РОЛЬ ПОЗАШКІЛЬНИХ ОСВІТНІХ ЗАКЛАДІВ У СПРИЯННІ СТАЛОМУ РОЗВИТКУ

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Today, sustainable development is crucial for fostering a balanced and prosperous future. While formal education remains a cornerstone, extracurricular educational institutions significantly promote the United Nations' Sustainable Development Goals (SDGs). These institutions contribute to sustainability by enhancing students' academic performance, fostering inclusion, and cultivating social responsibility. Through project-based learning, entrepreneurship programs, and STEM education, they develop critical skills such as creativity, financial literacy, and environmental awareness, preparing youth to tackle global challenges. Extracurricular institutions align their objectives with key SDGs, particularly Goal 4 (Quality Education), Goal 5 (Gender Equality), Goal 8 (Decent Work and Economic Growth), and Goal 17 (Partnerships for the Goals). They bridge educational gaps by providing accessible learning opportunities, supporting marginalized communities, and promoting gender-inclusive environments. Furthermore, they encourage sustainable entrepreneurship and leadership, empowering students to develop job-related skills and contribute to economic growth. Community-driven initiatives and public-private partnerships further enhance their impact on sustainability. Despite their significant contributions, these institutions face challenges in integrating sustainability principles into their strategies, securing funding, and navigating political and stakeholder interests. Limited resources, insufficient educator training, and a lack of institutional support hinder effective implementation. However, extracurricular institutions can overcome these barriers by adopting innovative teaching methodologies, engaging in interdisciplinary collaboration, and leveraging community partnerships. This paper explores the potential of extracurricular educational institutions to drive sustainable development through targeted educational programs, interactive learning approaches, and real-world applications. It underscores the importance of sustainability strategies that integrate environmental, social, and economic dimensions, ultimately shaping responsible, globally conscious citizens capable of fostering sustainable progress.

Keywords: sustainable development, sustainable development goals, sustainable development strategy, extracurricular education, extracurricular institutions, social responsibility, STEM education, educational innovations, sustainable competitiveness.

Сьогодні сталий розвиток є надзвичайно важливим для забезпечення збалансованого та процвітаючого майбутнього. Хоча формальна освіта залишається ключовою складовою навчального процесу, позашкільні освітні заклади відіграють значну роль у реалізації Цілей сталого розвитку (ЦСР) ООН. Вони сприяють сталому розвитку, покращуючи академічну успішність студентів, сприяючи соціальній інклюзії та формуючи відповідальність перед суспільством. Через проектне навчання, програми підприємництва та STEM-освіту ці заклади допомагають розвивати критичне мислення, фінансову грамотність, екологічну свідомість та інші навички, необхідні для вирішення глобальних викликів. Позашкільні заклади орієнтуються на ключові ЦСР, зокрема: Ціль 4 (Якісна освіта), Ціль 5 (Гендерна рівність), Ціль 8 (Гідна праця та економічне зростання) і Ціль 17 (Партнерство заради сталого розвитку). Вони допомагають подолати освітні розриви, забезпечуючи доступні можливості навчання, підтримуючи маргіналізовані громади та сприяючи рівності у сфері освіти. Окрім того, позашкільні заклади стимулюють розвиток підприємницьких навичок, лідерства та інновацій, що сприяє створенню нових робочих місць та економічному зростанню. Громадські ініціативи та державно-приватні партнерства додатково посилюють їхній внесок у сталий розвиток. Попри значний внесок у сталий розвиток, ці заклади стикаються з низкою викликів, таких як інтеграція принципів сталого розвитку у власні стратегії, обмежене фінансування, політичні та організаційні труднощі. Недостатня підтримка з боку держави, обмежені ресурси та нестача кваліфікованих педагогів є серйозними перешкодами на шляху до ефективного впровадження стратегії сталого розвитку. Однак завдяки впровадженню інноваційних методик навчання, міждисциплінарній співпраці та активному залученню громади позашкільні заклади можуть подолати ці труднощі. У статті досліджується потенціал позашкільних освітніх закладів у сфері сталого

розвитку через цільові освітні програми, інтерактивне навчання та практичне застосування знань. Акцент зроблено на необхідності впровадження комплексних стратегій, що об'єднують екологічний, соціальний та економічний аспекти сталого розвитку, сприяючи вихованню відповідальних, свідомих громадян, здатних формувати сталий та справедливий світ.

Ключові слова: сталий розвиток, цілі сталого розвитку, стратегія сталого розвитку, позашкільна освіта, позашкільні заклади, соціальна відповідальність, STEM-освіта, освітні інновації, стала конкурентоспроможність.

Statement of the problem

In today's rapidly evolving world, sustainable development is essential for ensuring a balanced and prosperous future. The United Nations' Sustainable Development Goals are a universal blueprint to address global challenges, including quality education, gender equality, economic growth, and partnerships. While formal education plays a crucial role in shaping young minds, extracurricular institutions significantly contribute to sustainable development by fostering skills, inclusion, and social responsibility. Supporting these institutions is vital as they bridge gaps in education, empower marginalized groups, enhance career prospects, and cultivate collaboration among various stakeholders.

Extracurricular institutions significantly promote sustainable development by enhancing students' academic performance, satisfaction, and overall development, which aligns with the Sustainable Development Goals (SDGs). These activities improve individual capabilities and contribute to the broader institutional and societal sustainability goals. Integrating extracurricular activities into educational frameworks can foster a culture of sustainability and innovation, essential for addressing contemporary global challenges.

Extracurricular activities enhance students' academic performance and satisfaction, strengthening institutions' academic reputations. This, in turn, attracts high-achieving students and supports sustainable development by fostering a skilled and satisfied student body [7].

In high schools, extracurricular activities and programs incorporating project-based learning and national contests help develop students' creative and divergent thinking, which are crucial for innovation and sustainable economic development [6]. Extracurricular education institutions are pivotal in promoting sustainability by embedding SDG principles into their curricula and operations. This approach educates future leaders and influences societal norms and practices towards sustainability [12].

University extension programs focusing on environmental education and cultural awareness through extracurricular activities can lead to a more socially and environmentally conscious student body, preparing them to be proactive in sustainable development in their professional lives [8].

While extracurricular institutions significantly contribute to sustainable development, challenges such as integrating sustainability principles into institutional strategies and addressing political and stakeholder interests remain. Overcoming these barriers is essential for maximizing the impact of ECA on sustainable development [12].

The purpose of the research

Goal of the paper – to discover the role of extracurricular educational institutions in advancing sustainable development, discuss the respective challenges, opportunities, and relevant strategy.

Presentation of the main research material

Sustainable development is one of the key areas of modern social progress. Developing a sustainable development strategy for extracurricular educational institutions is important for educating environmentally conscious, socially active, and economically literate citizens. Implementing sustainable development strategies in extracurricular educational institutions is the key to success, as it helps foster a responsible attitude towards nature, society, and economic resources among children and youth. Extracurricular institutions have a unique opportunity to teach through practical activities to preserve the environment, build a just society, and use resources responsibly. Children learn to appreciate natural resources, use them rationally, and acquire skills contributing to a sustainable lifestyle. In the long run, this contributes to creating a society capable of responding effectively to global challenges [4; 5].

Extracurricular institutions strongly impact young minds, encouraging creativity, a sense of global belongingness and responsibility, sharing knowledge, impacting the culture of consumption, communicating, supporting health and well-being, etc. These roles allow extracurricular institutions to contribute to achieving Sustainable Development Goals, especially the following:

Goal 4: Quality education;

Goal 5: Gender equality;

Goal 8: Decent work and economic growth;

Goal 17: Partnerships for the goals.

According to the purposes and scope of their work, the most important goal for extracurricular institutions is "Goal 4 Quality Education" as they provide extra learning opportunities for both students and teachers, develop critical thinking, creativity, and soft skills, and target marginalized or underserved groups to close educational gaps.

Extracurricular institutions contribute to gender equality by supporting inclusive and equitable education, breaking stereotypes through mixed-gender teamwork, promoting equal access to extracurricular activities, etc.

Through promoting sustainable entrepreneurship, leadership, and innovation, these organizations play a critical role in promoting decent work and economic growth. Extracurricular institutions can enable youth to foster job-related skills, develop financial literacy, provide opportunities for internship and cultural exchanges, empower students to start responsible and profitable businesses and build careers, and contribute to economic growth and sustainable competitiveness on different levels.

Finally, extracurricular institutions support the larger objectives of sustainable development in addition to the individual development of their participants through cooperation, advocacy, and education, leveraging public-private partnerships, community-driven initiatives, etc.

These institutions depend heavily on the development of future leaders, entrepreneurs, and innovators who can promote sustainable development and sustainable competitiveness in various industries. Here, we examine how extracurricular organizations might link their operations, activities, and aims with the SDGs, particularly in business-focused projects.

A sustainability strategy for an extracurricular education institution is a set of actions to build environmental, social, and economic sustainability through educational programs, management decisions, and practical initiatives. Extracurricular educational institutions can influence sustainable development by implementing educational programs, interactive classes, and social initiatives. Environmental programs consider the introduction of clubs for waste sorting, energy conservation, gardening, and the organization of environmental campaigns. For example, cleaning up areas or planting trees. They introduce children to the problems of climate change, pollution, and the rational use of natural resources and help them better understand the importance of preserving the environment [10].

Social programs promote competence development through volunteering, which teaches children to help others and engages them in solving social problems; cultural events that promote mutual understanding between children from different social groups; and media literacy courses that build critical thinking skills and combat misinformation.

Economic programs focus on developing students' financial literacy, economic sustainability, and knowledge of rational resource consumption. These programs include entrepreneurship courses that teach children the basics of business and financial literacy. Institutions operating on the principles of sustainable development actively interact with local communities, other educational institutions, and NGOs. This allows them to attract more resources for educational activities and promote partnerships.

Creativity helps to implement the principles of sustainable development more effectively. For this purpose, creative contests and festivals are held on ecology, social values, and innovations. The STEM education program is being implemented to develop engineering and scientific skills that address environmental and social issues. STEM education (Science, Technology, Engineering, Mathematics) is an innovative approach to learning that combines natural sciences, technology, engineering, and mathematics to develop the complex competencies required in the modern world. Based on the STEM acronym, a graduate should be knowledgeable in the natural sciences (physics, chemistry, biology), technology (primarily IT), engineering, design, and mathematics. Most importantly, however, they must be creative and imaginative. Extracurricular education is an excellent platform for implementing STEM education due to its flexibility and practical focus [11]. Here is how it is used in institutions. Organization of robotics, programming, and environmental modeling clubs. Researching environmental conservation, alternative energy, etc. Work on practical projects that include the development of innovations for sustainable development: water purification, waste sorting, and using recycled materials.

Participation in international STEM competitions on environmental topics, equipping extracurricular institutions with STEM laboratories where students can conduct experiments, test ideas, and create prototypes. Using simulations and VR/AR technologies to model ecosystems or analyze climate data. This, in turn, enables students to evaluate problems from an environmental, economic, and social perspective and stimulates the development of new technologies for sustainable development. Practical activities make education enjoyable and inspire children to participate in solving important challenges. STEM education is an integral part of the sustainable development strategy in extracurricular education. It allows us to raise a generation capable of understanding global issues and offering innovative solutions. Combining science, technology, engineering, and mathematics creates unique opportunities for children to develop environmental awareness and practical skills, thus ensuring sustainability and sustainable competitiveness on different levels [1].

One of the main tasks of modern education is to develop economic competence among students, which enables them to understand complex environmental processes and human impact on nature and make rational decisions about their behavior and relationships with the environment. It provides an opportunity to acquire knowledge, skills, and values to contribute to the sustainable coexistence of humans and the natural world. Extracurricular education is a unique environment for implementing the principles of sustainable development, as it offers flexible learning formats and practical activities that directly influence the formation of young people's worldviews. Extracurricular educational institutions can become key agents of change in promoting sustainable development. They can teach children and youth the rational use of resources and financial literacy through curricula, practical activities, and social projects. In practical classes, financial literacy clubs can be created where children learn to plan a budget, avoid excessive consumption, and estimate the cost of resources.

Let us take the example of the Liubotyn House of Children and Youth Creativity to examine the practical work in these areas. The Liubotyn House of Children and Youth Creativity actively participates in environmental events. Every year, children participate in the regional action within the framework of the All-Ukrainian action "Naturalist Day", in the regional stage of the All-Ukrainian environmental competition "Bird of the Year-2024", in the regional stage of All-Ukrainian competitions and events: "Gallery of Indoor Plants", 'New Year's Arrangement', 'Ukrainian Souvenir', 'Parks-Lungs of Cities and Villages', 'Earth is Our Common Home', and the All-Ukrainian Youth Festival 'Through the Lens of a Naturalist'. Students from the environmental club took part in the IX Regional Student Scientific and Practical Conference of the Kharkiv Territorial Branch of the Minor Academy of Sciences of Ukraine in the section "Ecology". The conference participants had the opportunity to exchange views and results of their research during presentations and discussions. The institution's team presented a research paper on the ecological state of the city's water resources. Representatives of scientific and educational institutions gave helpful advice and shared their experiences with young scientists. Together with representatives of the city council, they took part in the Zero Waste City project, which was conducted by the Kharkiv Zero Waste team; where they visited an exhibition at the Liubotyn Central Public Library, which told about the need to prevent environmental pollution and negative consequences for human health. The children attended pilot classes where they learned the basic principles of reducing, reusing, and recycling waste (Reduce, Reuse, Recycle), which were part of the program based on the manual "Implementing Zero Waste Principles in School Lessons" and participated in a master class: "How to make useful things from old materials", in the practical lesson 'Composting organic waste', where they practiced creating compost pits using biocomposites to process organic waste into fertilizer. We also took part in several campaigns to educate local residents about the need for retail waste collection and the use of paper bags instead of cellophane. They also organized a collection point for recyclable materials: batteries, light bulbs, lids, and electronic waste. The club members who participated in the Zero Waste City program gained important knowledge and became active participants in changes in their community. Their activities will help reduce the amount of waste, build environmental awareness, and engage others in adhering to the principles of sustainable development [2].

Implementing a sustainable development strategy in extracurricular educational institutions is important, but several challenges can accompany it. These challenges relate to logistical support and organizational, financial, and social aspects, such as lack of funds for organizing educational events, training, and purchasing materials, insufficient state funding, and lack of programs to support sustainable development in extracurricular education. Not all employees of extracurricular education institutions have sufficient knowledge of the principles of sustainable development and how to implement them in their educational activities. Another problem is the lack of systematic professional development programs for teachers and the difficulty in developing curricula integrated with the concept of sustainable development. The effectiveness of a sustainable development strategy largely depends on the active participation of children and their parents. Lack of understanding of the importance of sustainable development among families and lack of interest among children due to a lack of interactive approach leads to the devaluation of the strategy. Extracurricular educational institutions often depend on the support of local authorities or communities, so the lack of support or interest in implementing environmental and social programs has negative consequences, leading to limited communication with NGOs or businesses [3].

The Sustainable Development Strategy is an important tool for improving the quality of extracurricular education institutions. Its implementation promotes a harmonious combination of educational, social, economic, and environmental aspects, allowing institutions to fulfill their core functions and become centers of positive change in the community. Despite numerous challenges, most can be overcome with proper organization, financial support, and motivation of teachers and students. Implementing a sustainable development strategy in extracurricular educational institutions will contribute to young people's environmental awareness and the formation of a society that values resources and cares about the future.

Conclusions and prospects for further research

To sum up, extracurricular educational institutions must implement a sustainable development strategy to develop socially conscious, environmentally aware, and economically educated citizens. These organizations provide unique chances to involve kids in practical, interactive activities that solve global issues, including resource management, social justice, and environmental protection. Integrating environmental, social, and economic programs supported by STEM education and community partnerships can turn these institutions into instruments of positive social change despite obstacles like limited financing and inadequate training. In addition to improving the educational process, putting sustainability first in extracurricular education allows the next generation to create an equitable and sustainable world.

Література

1. Вороненко Т. І. STEM-освіта – її реалії у сьогоденні України. URL: <https://lib.iitta.gov.ua/id/eprint/722375/1/2%20%D1%87%D0%B0%D1%81%D1%82%D0%B8%D0%BD%D0%B0%20%D0%B7%D0%B1%D1%96%D1%80%D0%BD%D0%B8%D0%BA%20%D0%BA%D0%BE%D0%BD%D1%84%D0%B5%D1%80%D0%B5%D0%BD%D1%86%D1%96%D1%97-6-12.pdf>.
2. Історія закладу. ЛМБДЮТ. 2024. Веб-сайт. URL: <https://lubotinskij-miskij-budinok-ditacoi-ta-unackoi-tvorcosti-7.webnode.com.ua/istoriya-zakladu>.

3. Стратегія розвитку позашкільної освіти / за ред. проф. О. В. Биковської. К.: ІВЦ АЛКОН, 2018. 96 с.
4. Education for Sustainable Development Goals: Learning Objectives. *UNESCO digital library*. 2017. Веб-сайт. URL: <https://unesdoc.unesco.org/ark:/48223/pf0000247444>.
5. Gough A. Education for Sustainable Development: Principles and Practices. London: Routledge, 2022. pp. 57-67.
6. Kosarikov A. N., Davydova N. G. Extracurricular activities programs as a resource for sustainable development. *Prospects*. 2022. vol. 52. pp. 503–512. DOI: <https://doi.org/10.1007/s11125-021-09583-5>.
7. Nassar F. S., Abbas A. O., Al-Saify H., Ali O. M. The Impact of Extracurricular Activities on Developing Academic Standing, Student Satisfaction, Performance, and Bolstering the Academic Reputation of Higher Education Institutions from the Perspective of SDGs. *Journal of Lifestyle and SDGs Review*. 2024. Vol. 5(1). P. e02758. URL: DOI: <https://doi.org/10.47172/2965-730X.SDGsReview.v5.n01.pe02758>.
8. Sanmartín Ramón M. G. S., Estévez Pichs D. C. M. A. Extensión universitaria para la educación ambiental y el desarrollo sostenible. *Universidad Y Sociedad*. 2015. Vol. 7(1E). URL: <https://rus.ucf.edu.cu/index.php/rus/article/view/187>.
9. The 17 goals. *UN website*. Веб-сайт. URL: <https://sdgs.un.org/goals>.
10. Transforming Our World: The 2030 Agenda for Sustainable Development. *United Nations*. 2015. URL: <https://sdgs.un.org/2030agenda>.
11. What is STEM Education? *International Science Teaching Foundation*. 2022. URL: <https://science-teaching.org/stem-education/what-is-stem-education>.
12. Žalėnienė I., Pereira P. Higher Education For Sustainability: A Global Perspective. *Geography and Sustainability*. 2021. Volume 2, Issue 2. P. 99-106. DOI: <https://doi.org/10.1016/j.geosus.2021.05.001>.

References

1. Voronenko, T. I. (n.d.). STEM-osvita – yii realii u sohodenni Ukrainy [STEM education – its realities in today's Ukraine]. Available at: <https://lib.iitta.gov.ua/id/eprint/722375/1/2%20%D1%87%D0%B0%D1%81%D1%82%D0%B8%D0%BD%D0%B0%20%D0%B7%D0%B1%D1%96%D1%80%D0%BD%D0%B8%D0%BA%20%D0%BA%D0%BE%D0%BD%D1%84%D0%B5%D1%80%D0%B5%D0%BD%D1%86%D1%96%D1%97-6-12.pdf>.
2. Istoriiia zakladu [History of the institution]. (2024). LMBDiUT. Available at: <https://lubotinskij-miskij-budinok-ditacoi-ta-unackoi-tvorcosti-7.webnode.com.ua/istoriya-zakladu>.
3. Bykovska, O. V. (Ed.). (2018). *Stratehiia rozvytku pozashkilnoi osvity* [Strategy for the development of extracurricular education]. Kyiv: IVC ALKON.
4. UNESCO. (2017). Education for sustainable development goals: Learning objectives. UNESCO Digital Library. Available at: <https://unesdoc.unesco.org/ark:/48223/pf0000247444>.
5. Gough, A. (2022). *Education for sustainable development: Principles and practices* (pp. 57-67). London: Routledge.
6. Kosarikov, A. N., & Davydova, N. G. (2022). Extracurricular activities programs as a resource for sustainable development. *Prospects*, 52, pp. 503–512. <https://doi.org/10.1007/s11125-021-09583-5>.
7. Nassar, F. S., Abbas, A. O., Al-Saify, H., & Ali, O. M. (2024). The impact of extracurricular activities on developing academic standing, student satisfaction, performance, and bolstering the academic reputation of higher education institutions from the perspective of SDGs. *Journal of Lifestyle and SDGs Review*, 5(1), p. e02758. <https://doi.org/10.47172/2965-730X.SDGsReview.v5.n01.pe02758>.
8. Sanmartín Ramón, M. G. S., & Estévez Pichs, D. C. M. A. (2015). Extensión universitaria para la educación ambiental y el desarrollo sostenible. *Universidad Y Sociedad*, 7(1E). Available at: <https://rus.ucf.edu.cu/index.php/rus/article/view/187>.
9. United Nations. (n.d.). The 17 goals. UN website. Available at: <https://sdgs.un.org/goals>.
10. United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development*. Available at: <https://sdgs.un.org/2030agenda>.
11. International Science Teaching Foundation. (2022). What is STEM education? Available at: <https://science-teaching.org/stem-education/what-is-stem-education>.
12. Žalėnienė, I., & Pereira, P. (2021). Higher education for sustainability: A global perspective. *Geography and Sustainability*, 2(2), pp. 99-106. <https://doi.org/10.1016/j.geosus.2021.05.001>.

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