

2.4. CARPATHIAN SCHOOL: NON-FORMAL EDUCATIONAL CENTRE ON THE WAY TO EUROPEAN INTEGRATION

The European Neighbourhood Instrument (ENI) and Regional East Strategy Paper (2014-2020) have stressed the objectives for the Central and Eastern Europe (CEE) region multi-country cooperation. Among others, it has focused on education policy and a system contributing to building open societies, youth employability and innovation. The quality and relevance of education in Eastern Partner Countries will be further enhanced with the focus on the modernization agenda and reforms in line with the European Higher Education Area.

The new State Regional Development Strategy³⁷¹ adopted recently by the Cabinet of Ministries of Ukraine is a favourable document in the context of Ukraine's European and Euro-Atlantic integration. The strategy defines how the state will develop and maintain rural zones in unfavourable conditions, mountainous, border areas and other territories. A very encouraging statement concerning an interdisciplinary approach in education was announced by Prime Minister of Ukraine, Denys Shmyhal: "The Government is striving to ensure that scientific, technical, engineering and mathematical professions become popular again. This is a response to the demands of the economy and the needs of society³⁷²."

Globalization as a phenomenon of the XXI century poses several challenges, the solution of which requires intercultural cooperation and integration of multidisciplinary knowledge necessary for the formation of new values, social behaviour that can ensure the further development of man as a social being. Ukraine's ambitious plans need to be backed up by appropriate human resources, which impose certain obligations on the education sector. Educating experienced and socially responsible specialists require new approaches and learning instruments, reviewing the content of academic disciplines, and introducing innovative models of their implementation. Formal education does not always cope at this pace, while non-formal education, which offers alternative forms and content of learning, helps local communities to adapt to the challenges of globalization and societal transformation.

Education for Sustainable Development (ESD) is recognized as a key tool for achieving the SDG – Ukraine 2030. However, one formal education is not enough for the formation of educational-professional and educational-scientific competencies. Non-formal and informal education, learning in the community, provides participants with the opportunity to critically compare the declared goals with real-life problems and take concrete actions to overcome them.

The future specialist and conscious member of civil society must have the ability to preserve cultural, scientific, and moral values in a common system of knowledge about nature and be able to apply the acquired knowledge and skills for achieving a sustainable society³⁷³.

Carpathian School is an innovative educational tool established by the Faculty of Geography of Taras Shevchenko National University (KNU) of Kyiv in cooperation with The Centre for Public Initiatives (CPI) of Kosiv Region, designed as placement of holistic non-formal education to address youth adaptation to the global environment. Such an idea arose in the process of discussing the existing gaps in the education of socially conscious youth and the shortcomings of vocational training of university students.

The purpose of this paper is to examine the impact and effectiveness of the International Carpathian School, a centre for non-formal education on the achievement of the Sustainable Development Goals (SDG) in the vulnerable mountain region of Ukraine. It attempts to integrate the social and environmental dimensions of SD into one framework. The authors aimed at discussing measures within the Carpathian School activities to meet objectives outlined

³⁷¹ Communications Department of the Secretariat of the CMU. Cabinet of Ministers approves the State Regional Development Strategy for 2021-2027. Government Portal, 05 August 2020.

³⁷² Shmyhal D. 2020. STEM education will provide an opportunity to create a basis for the professions of the future. Government portal.

³⁷³ Koprina H., Meijers F. 2014. Education for Sustainable Development (ESD). Exploring Theoretical and Practical Challenges.

by the SDG-4 “Quality Education”: *Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all* and the SDG-11 “Sustainable Cities and Communities”: *Make cities and human settlements inclusive, safe, resilient and sustainable*. These goals fall directly in the ESD Learning objectives³⁷⁴.

To meet the SDG-4 and SDG-11 there is a need for the expansion of ESD based on an integrated approach. Following conceptual thinking of the landscape as a physical outcome of the mutual interaction between nature and people, we are sure that the landscape can be considered as the physical environment of the people who live and work in that area³⁷⁵.

By saying this, we are considering the land-use problem in wide dimensions including municipal solid waste management (MSWM) and its n on the landscapes and the quality of life. The generation of waste has become an increasingly important global issue over the last decade. It poses numerous questions concerning the adequacy of conservative MSWM, its environmental effect and social consequences. This issue was already discussed in detail³⁷⁶.

This publication focuses on demonstrating the role of universities in educating the younger generation, where universities play a dominant role, taking responsibility and a certain type of social commitment to employees, partners, civil society institutions and society at large.

Achieving the UN SDG-30 is about producing tangible results that improve people’s lives in the Eastern Partnership (EaP) countries³⁷⁷. This is a dynamic process of adaptation, learning and action³⁷⁸. In a wide context, the EaP supports delivery on key global policy goals set by the UN SDG-30 and the Paris Agreement on Climate Change. Complex multidimensional tasks require appropriate multifaceted corporate efforts to implement them. Today, the mission of the university is to ensure compliance with public demand, provide relevant knowledge and services at the community level and opportunities to be useful to society. The "third" social mission of universities is connected with the formation of a single educational and scientific space, directly in the communities.

Cluster-model school in Quadruple Helix cooperation. The formation of an active civic position to meet the SDG requires innovative approaches in education. The dominant function in this process should be provided by universities as carriers of multidisciplinary disciplines³⁷⁹. The special emphasis of the Carpathian School is placed on Quadruple Helix Cooperation that considers universities as drivers of a sustainable society³⁸⁰. The Quadruple Helix model was borrowed from Linnaeus University, Sweden, as an affordable tool to strengthen the institutional capacity of the mountain communities of CEE universities that united the resources of partner universities into one educational cluster.

The world experience of the developed countries, as well as those in a transitional state, proves the efficiency and regularity of the emergence of cluster models in education. In Ukrainian realities, universities are the most suitable for the role of educational clusters that should become research centres open to innovations and new educational technologies³⁸¹. Given this,

³⁷⁴ Education for Sustainable Development Goals: Learning Objectives, UNESCO. 2017.

³⁷⁵ Agamuthu P., Hansen J. 2007. Universities in Capacity Building in Sustainable Development: Focus on Solid Waste Management and Technology.

³⁷⁶ Mykhaylenko, V., Blyzniuk, M. (2021). Educational activities of the international Carpathian school in the context of sustainable development goals.

³⁷⁷ EaP (Eastern Partnership). 2017. European Neighbourhood Policy and Enlargement Negotiations.

³⁷⁸ GSD Report. Briefs. 2015. Brief 2. Integrated Perspectives on Sustainable Development Goals.

³⁷⁹ Pidlisnyuk V. 2010. Education in Sustainable Development: the role of universities.

Kopnina H., Meijers F. 2014. Education for Sustainable Development (ESD).

GSD Report. Briefs. 2015. Brief 2. Integrated Perspectives on Sustainable Development Goals.

³⁸⁰ Hasche N., Höglund L., Linton G. 2019. Quadruple helix as a network of relationships: creating value within a Swedish regional innovation system.

Kimatu J. N. 2016. Evolution of strategic interactions from the triple to quad helix innovation models for sustainable development in the era of globalization.

³⁸¹ Khmara M. 2015. Development of Educational Clusters in Ukraine.

Agamuthu P., Hansen J. 2007. Universities in Capacity Building in Sustainable Development: Focus on Solid Waste Management and Technology.

the combination of experienced educational entities from the BSR with their EaP counterpart countries is a promising idea. It foresees building the capacity of academic tutorials and supplementary resources, expanding distant learning technologies, and making use of students' motilities for site visiting, attending international conferences, schools and workshops.

Implementing esd: cross-sectoral events. Education for Sustainable Development (ESD) is a new category of interdisciplinary knowledge that requires an understanding of its essence by the main social groups. Unfortunately, in Ukraine, where formal education prevails with its subject approach to classical scientific disciplines, the place for the implementation of multidisciplinary, comprehensive educational programs is still defined. The implementation of the principles of sustainable development in Ukraine is very slow and ambiguous³⁸². Unlike environmental education, the esd model must meet the public demand for its implementation, which combines the views of key social groups. In the case of vulnerable mountain regions, these groups consist of local communities, civic and women's organizations, local authorities, government officials, scientists, practitioners, and farmers.

In recent decades, civil society, governments, and European institutions have increasingly recognized the importance and relevance of non-formal education. First of all, education should ensure the interests of young people, who are the core of the target audience. Non-formal learning and education are constantly confirmed as key priorities and areas of work of organizations and institutions related to education, in particular in the youth sector.

The Stockholm Environment Institute has released the results of a study assessing the influence of environmental SDG targets on other SDGs. The report finds that in the EU, the two environmental targets that seem to have the strongest synergistic potential for SDG progress are: SDG target 13.1 – *strengthen resilience and adaptive capacity to climate-related disasters*; and SDG target 12.4 – *the responsible management of chemicals and waste*. The more sectors and stakeholder groups are represented, the greater the chance that critical interactions will not be overlooked, and that they will be fairly and realistically scored.

In addition to the SDG targets noted above, one of the additional eight environment-related targets that collectively promote progress on all the other SDGs is SDG target 12.2 – *sustainable management and use of natural resources*. The above-mentioned statements are well coherent with our findings had been obtained within an analysis of thematic areas of the traditional winter session of Carpathian School³⁸³. Based on the gained experience, the tuition plan of the Carpathian School Agenda includes A) *Adaptation to climate change*; B) *Sustainable management of natural resources*; C) *Strategy for MSWM*; D) *Introduction of Environmental and Social Impact Assessment*; E) *The third mission of universities*; F) *ESD: youth education, cultural and aesthetic aspects of a green economy*.

Youth education. The international segment of Carpathian School started with non-formal education of Kosiv Lyceum (secondary school) students in 2017. Its learning activities were built on two educational tool-kits “Step by Step”³⁸⁴ *tailored for Ukrainian citizens by local experts and “Green Pack Ukraine”*³⁸⁵, the upgraded version, originated in the frame of the educational project Local Initiatives for a Sustainable Ukraine (LINK) supported by the Norwegian Ministry of Climate and Environment. Education of youth was supplemented by training of trainers (TOT) segment provided by REC Centendre, Hungary, and the International Organization “Green Dossier”, Ukraine. Fig. 1 shows the participants upon completing the TOT on Learning to ESD, at the Carpathian School-2019.

The learning objectives of these co-related projects allowed to educate a variety of stakeholders such as lyceum students, their families and to familiarize schoolteachers with

³⁸² Rudenko L. N. (2018) "COME ON!" Geography: Updating toward world trends.

³⁸³ Blyzniuk M., Mykhaylenko V. 2019. Analysis of Thematic Areas of the International Carpathian School in the Context of Education for Sustainable Development.

³⁸⁴ About Green Steps.

³⁸⁵ About the Green Pack Project.

the approaches in teaching and learning to SD³⁸⁶. Later, the idea has grown up to an informal discussion with definable stakeholders' groups that ended with a common vision of non-formal education of youth and their teachers within MSWM and human attitude to the landscape quality. Its outcomes said non-formal education as an innovative component requires an appropriate theoretical justification, scientific and methodological support from its shippers – university practitioners, civil society activists and vocational trainers.



*Fig. 1. TOT segment of Learning to ESD, Carpathian School-2019
(Photo: Blyzniuk M.)*

Carpathian School is also assisting local communities in strengthening environmental governance by fostering civic involvement in governmental decision-making and educating a variety of stakeholders about sustainable use of natural resources, landscapes quality and advanced waste management technologies to mitigate the negative impact of polluted territories.

The landscapes of today reflect the way society have taken care of them. The quality of the mountain landscape affects the quality of everyday life of citizens. The only way to create sustainable landscapes is to identify our preferences for managing, planning and protecting landscapes in Europe as a whole. It needs an adequate landscape policy that establishes general principles, strategies and guidelines aimed at the protection, management and planning of landscapes.

The Carpathian Winter School was designed as a cluster model for the collaborative activity that combines educational resources of several western and local universities, two National Natural Parks, Civic Society Organisations, practitioners and local government. In our view, such an approach may accelerate the pace of achieving SDGs-30 through gaining knowledge and establishing a dialogue among the participating countries. It can promote the practical implementation and dissemination of innovation; to develop international relations to create bases for engineering practice and testing of scientific research results. An important segment is also the improvement of the skills of teachers, officials and managers.

This is key to understanding the role of an International segment of Carpathian School as a place for skills sharing of the best EU practice among local communities. The School has advantageous to pool their scientific, technological, and educational resources with those of other, similar countries. It may support capacity-building activities by securing the dissemination of new knowledge and furthering international networking beyond that which universities already do by themselves. Thus, the educational activities of the school contribute to the achievement of all five priority areas of SDG-30 in Ukraine:

1. The Carpathian School program is integrated into international and national policy related to the ESD.
2. Educational activities conducted by university-level professionals directly in communities have strengthened the capacity to achieve SDG-30.

³⁸⁶ Mykhaylenko V., Mindjov K., Blyzniuk M., Verbitsky V. (2017). "Green Steps" – a New Educational Tool for Sustainable Development.

3. Local activists received new educational technologies for educating young people.
4. The four-dimensional model has proven the effectiveness of training of different stakeholders and age groups in cooperation (education – government – business – community).
5. The transnational educational environment has contributed to the formation of a holistic perception of sustainable development concept and expanded the institutional capacity of partner universities in organizing educational activities within ESD.

The Carpathian region has a favourable geographical position, which is currently used inefficiently. Further work of the Carpathian School should strengthen the role of cross-border cooperation to improve environmental services to local communities and begin work on a strategic plan for the development of Kosiv and Vyzhnytsia towns as cultural, educational and tourist centres of the Hutsul region.

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