



Received: 15.03.2021

DOI: 10.15584/jetacomps.2021.2.22

Accepted for printing: 1.07.2021

Published: 28.12.2021

License: CC BY-SA 4.0

WIKTORIA SOBCZYK¹, MACIEJ CIEPIELA²

A University as a Driving Force of Ecological Initiatives for Society

¹ ORCID: 0000-0002-1326-4916, Prof. PhD. Eng., AGH University of Science & Technology, Department of Environmental Engineering, Poland

² ORCID: 0000-0003-0362-8461, M.Eng., AGH University of Science & Technology, Department of Environmental Engineering, AGH Doctoral School, Poland

Abstract

This paper emphasizes the role of universities in encouraging ecological initiatives for sustainable development. We characterized the origin of sustainability and its consistency with the Constitution of the Republic of Poland. Moreover, we present ecological education as the concept of lifelong learning in the spirit of respect for the natural world. The examples of pro-ecological higher education initiatives were described, such as Poznan School of Logistics (“EKO-LOG” programme), Jan Kochanowski University of Kielce and the University of Social and Medical Sciences in Warsaw (education of ethnic minorities), Andrzej Frycz-Modrzewski Krakow University and the University of Agriculture in Krakow (Friend of the National Park educational program) as well as the AGH University of Science and Technology (continuing education). It has been shown that schools and universities play a major role in environmental education not only for children, but also adults. It is worth mentioning that the potential and clout of universities should be continuously employed in the environmental movement.

Keywords: university, sustainable development, education, environment

Introduction

The concept of sustainable development has evolved since the late 1960s. During the UNESCO Intergovernmental Meeting of Experts, an intergovernmental scientific program “Man and the Biosphere” was launched. Conclusions from the meeting led to the convening of the United Nations Conference on the Human Environment held in Stockholm in 1972. Here, for the first time, “Trans-boundary Pollution” and “Global Pollution” were defined.

In 1987, The World Commission on Environment and Development led by Gro Harlem Brundtland presented a report “Our Common Future”. The document defined the term “Sustainable Development” as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (United Nations, 1987). The definition included issues such as human population, flora and fauna, natural and energy resources, water, the atmosphere of Earth. Moreover, it defined the most important tasks, for example eradication of poverty, decent work, human safety and health, gender equality, intercultural dialogue and education for all (Mazur-Wierzbicka, 2006).

The concept of sustainable development in the Constitution of the Republic of Poland

In 1991, the Parliament of the Republic of Poland adopted the Ecological Policy document, which covers strategic objectives and directions for environmental repair and protection (<http://isap.sejm.gov.pl>). It was the first strategic and comprehensive project of its kind in Poland. The adoption of the document has brought Poland closer to the countries which have recognized the idea of sustainable development as the basis for their further social and economic development. Notably, the recognition of the concept of sustainable development as a constitutional principle in 1997 was a turning point in the history of Poland. Article 5 of the Constitution of the Republic of Poland of 2 April 1997 declares that the Republic of Poland safeguards the independence and inviolability of its territory, ensures freedom and human and civil rights and the safety of its citizens, protects its national heritage and ensures environmental protection while following the principle of sustainable development (Konstanty, Sobczyk, 2015, p. 20).

Ecological education as the concept of lifelong learning

Ecological education is the concept of a lifelong learning of a society in the spirit of respect for the natural world. The main task of ecological education is to create responsible pro-ecological behaviour. The responsibility for ecological education lies jointly with formal institutions, such as kindergartens, schools, universities as well as government and local authorities, entrepreneurs, organisations and all citizens (Sobczyk, 2000, p. 9–13; 2016, p. 10–12; 2019, p. 223–230). General ecological education consists of both formal and informal education. Formal education is conducted to create a system of ecological education at all its levels, commencing with the pre-primary education and ending with the university training for environmental protection professionals.

Ecological content is classified into two types: multidisciplinary, within other subjects, and interdisciplinary, in the ecological protection course. Whereas in-

formal education is conducted outside the school system by institutions, governmental and non-governmental organisations (cultural centres, heritage museums, economic operators, local authorities, family). Their task is to expand the knowledge acquired at school and verify it in everyday life.

There are two types of ecological education: passive and active. Passive forms include publishing activities, information points, reading rooms, short-term and permanent exhibitions (Sobczyk, 2000, p. 85–88). While field classes, nature trails, eco-camps, conferences, training courses, competitions, educational games and plays, theatre performances and workshops are main types of active forms. Ecological education creates personality traits, beliefs, habits, views and ethical rules of conduct. In addition, it teaches responsibility for environmental changes, makes people more sensitive to the suffering of animals and forms respect for natural and cultural heritage.

The differences in worldviews as well as their relationship with philosophical trends, which are the source of ecological education, are also important. Consequently, we can distinguish three types of education. Firstly, conservative education which focuses on natural sciences, the state and rights of the environment. Secondly, radical education, which concentrates on sharing knowledge and increasing responsibility for the condition of the environment. It also pursues the doctrine of sustainable development. Radical education emphasises the social aspect of environmental protection, e.g., environmental protests (Dobrzański, Kielczewski, 2021, p. 422, 423). And finally, moderate education, which combines natural economic as well as political, social and ethical aspects.

Ecological initiatives involving universities

An example of a pro-ecological initiative by a university is the participation of Poznan School of Logistics in the project “EKO-LOG”, which was co-financed by the European Social Fund (<https://badam.poznan.pl/2017>). Moreover, Poznan organized Wielkopolska Environmental Protection Day in cooperation with A. Mickiewicz University. Lectures, workshops and nature films were presented as part of the celebrations. In 2017, more episodes of “Green Service of Poznan”, a TV program about environmental protection, were produced. Informative, educational and promotional advertisements on low emissions of pollutants and possibilities to reduce them are popular on radio programmes. Continuous educational activities, including meetings, talks, ecological workshops, competitions, are carried out in educational facilities of Poznań. The city also publishes a bulletin “Ecological Poznan”.

Other initiatives attracted researchers from Jan Kochanowski University in Kielce and the University of Social and Medical Sciences in Warsaw. Roma education assistants play an important supporting role for teachers working with

Roma children. The role of an assistant and the requirements they must meet have been specified in the Pilot Government Programme for the Roma Community. Roma education assistants training is to provide a comprehensive help to Roma students in their contacts with the school environment, in building a positive view of school and presenting benefits of education to the adult Roma community. Cultural assistants are a critical link in the process of integrating the majority and minority communities (Sobczyk, Szempruch, Chmielewski, 2018, p. 18).

Creating an educational program called Friend of the National Park in 2015 was an especially significant example of an ecological initiative, to which the scientific community from Andrzej Frycz-Modrzewski Krakow University and the Agricultural University of Krakow contributed greatly. National parks are ideal places for the ecological education of children, and consequently, as the range of offer expanded with educational programmes, the effectiveness of teaching as well as understanding of the relationship between society and nature increased (Pułka, Guzik, Frączek, 2016, s. 217, 220, 221).

The AGH University of Science and Technology in Krakow is a higher education institution developing partnership cooperation with universities in Poland and all over the world. Main priorities of the university are education, research and innovation. The field of science is very well represented and forms the basis for the development of a wide range of applied sciences. What is more, the university educates specialists in earth sciences and renewable energy sources. By pursuing the idea of lifelong learning, the university reaches out to many social groups. It is worth mentioning that an interdisciplinary Open University of AGH has been operating within the university for many years now (<https://www.agh.edu.pl>).

Conclusions

To achieve the objectives of sustainable development, it is necessary to consider human habitats in a broad sense; not only immediate environment, air, water, biodiversity, but also the quality of life, food, health, construction, consumption, waste, pollution, culture, security and human rights are key aspects. The environment is not only the natural surroundings but our relationship with other people and with ourselves. Education should emphasize individual behaviour. The interaction of all these elements, harmony between them and their sustainable development will allow humanity to look clearly into the future and protect the environment. Education and conscious activities of all people of different professions, views and affiliations are necessary to achieve the important objective of the harmonious development of the planet. The problem concerns not only children but also the continuing education of adults in the society. This is where the important role of universities becomes apparent.

Humanity causes a lot of damage to the environment, but it can also repair a lot. The awareness of the damage caused and the possibilities of preventing it should play a major role. The ecological awareness should be manifest in attitudes, beliefs and practices relating to the natural environment and our emotional connection with it. We are shaping our personality, habits, ecological ethics, and sensitivity to the beauty around us through everyday actions. “We need to preserve a strong belief in the capacity of the human spirit and a deep sense of belonging to the universe” (Rembiałkowska, 2000). Schools and teachers are the basis for the intellectual development of a student on every level of education. Providing adequate technical and organizational preparation for teachers in the area of environmental education is crucial in creating environmental awareness as well as in increasing its effectiveness.

Ecological education should promote a multilateral development of a student and depart from verbalism. In general, a teacher uses modern technologies and takes care of their own education and development. Also, a family home has an important role in environmental education; it shapes pro-ecological attitudes from an early age. 30 years ago, Kalinowska wrote that home, parents, peers and environmental organizations should not be expected to provide an alternative to formal, institutional education and upbringing but to harmoniously supplement and enrich the entire education process (Kalinowska, 1991).

Universities with their enormous intellectual potential should be engaged in the environmental movement. Kassenberg (2014, p. 2–3) said: “It is worth integrating internally to become a social and even political force. It is worth creating agreements with other organizations, relying on understanding, cooperation and building bridges (...). We stand up here for our common good, which is nature and natural resources, we care for the quality of life of the present generation and environmental protection for the sake of future generations”.

References

- Dobrzańska, B., Dobrzański, G., Kielczewski, D. (2012). *Ochrona środowiska przyrodniczego*. Warszawa: Wyd. Naukowe PWN.
- https://badam.poznan.pl/2017/ii_nasza-przestrzen/programy-i-inicjatywy-proekologiczne (18.04.2021).
- <http://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WMP19910180118> (22.04.2021).
- <https://www.agh.edu.pl/studenci/konkursy-dla-studentow/info1/article/nowe-konkursy-projektu-inicjatywa-doskonalosci-uczelnia-badawcza-wnbspdzialaniachnbsp4nbsp8> (18.04.2021).
- Kalinowska, A. (1991). *Ekologia – wybór przyszłości*. Warszawa: Editions Spotkania.
- Kassenberg, A. (2014). *Ruch ekologiczny w ostatnich 25 latach – blaski i cienie*, Retrieved from: <https://www.tygodnikpowszechny.pl/ruch-ekologiczny-w-ostatnich-25-latach-blaski-i-cienie-25212> (18.04.2021).
- Konstanty, D., Sobczyk, W. (2015). Historia idei zrównoważonego rozwoju. *Ekonatura*, 2(135), 20–22.
- Mazur-Wierzbicka, E. (2006). *Edukacja dla zrównoważonego rozwoju*. Szczecin: Print Group.
- Pułka, J., Guzik, M., Frączek, M. (2016). Program Przyjaciół Parku Narodowego – konceptualizacja, operacjonalizacja i realizacja. *Państwo i Społeczeństwo*, XVI, 2, 207–221.

- Rembiałkowska, E. (2000). Stan środowiska w Polsce w świetle Agendy 21. EKO-DOM 2.
- Sobczyk, B., Szempruch, J., Chmielewski, J. (2018). Edukacja asystentów edukacji romskiej warunkiem inkluzji społecznej Romów w Polsce. *Edukacja Ustawiczna Dorosłych. Polish Journal of Continuing Education*, 2(101), 16–26.
- Sobczyk, W. (2000). *Edukacja ekologiczna i prozdrowotna*. Kraków: Wydawnictwa Naukowe Akademii Pedagogicznej.
- Sobczyk, W. (2016). *Aspekty społeczne i środowiskowe gospodarki odpadami*. Kraków: Wydawnictwa AGH.
- Sobczyk, W. (2019). *Odpady niebezpieczne: przepisy i codzienność*. Kraków: Wydawnictwa AGH.
- United Nations (1987). *Report of the World Commission on Environment and Development. Report Our Common Future (WCED)*. Retrieved from: <http://www.un-documents.net/our-common-future.pdf> (5.03.2021).