

Annales Universitatis Paedagogicae Cracoviensis

Studia ad Didacticam Biologiae Pertinentia IV (2014)

Agnieszka Sadowska-Konczal

Education for Sustainable Development in the Academic Education in Poland in the Light of the Education for Sustainable Development Strategy

Introduction

On December 20, 2002, the General Assembly of the United Nations established the years 2005–2014 a UN Decade of Education for Sustainable Development, signalling that the time has come to initiate a substantial transformation of the education system. It became clear that the world community must make an effort to switch the education system to a completely new direction in order to meet the rapid changes and new challenges brought by the twenty-first century. The vision and objectives of the UN Decade clearly define a new paradigm of education based on values and a holistic approach towards the dependencies emerging at the junction of environment, economy and society – both at the local and global level.

The role of education as a catalyst for change toward a sustainable development was already emphasized 10 years earlier, in the international sustainable development policy paper, entitled Agenda 21, adopted by the UN during the conference in Rio de Janeiro. Among the necessary actions such as the protection of the atmosphere, strengthening the rights and role of women, change in consumption patterns or halting deforestation, it is education that is indicated as a tool necessary to achieve the objectives in each of the key areas. The words from Agenda 21: "new ways of investing in the future are needed in order to achieve global sustainable development in the twenty-first century. The scope of recommendations varies from new teaching methods to new methods of using raw materials and participating in the creation of a sustainable economy" (http://www.unesco.com), emphasize that the advancement of knowledge and awareness of all members of the society is the foundation on which you can build a sustainable world.

In response to the commitments made in the international arena, in 2005 in Vilnius, the European Economic Commission of the United Nations adopted a Strategy for Education for Sustainable Development as the European form of implementation of the objectives of the UN Decade (Borys 2010). The phrase justifying the need for the implementation of ESD to the education system has been included already

in the introduction: "Education, being one of the fundamental human rights is a prerequisite for achieving sustainable development. [...] education for sustainable development can help the realization of our vision of the future." (Ministerstwo Środowiska 2008) The strategy contains a set of guidelines and recommendations on the scope of the implementation of ESD, the preferred methods of teaching, learning areas, values, competencies, materials and tools, and international cooperation. It also points out that "it is important to ensure that **all pupils and students** are able to acquire adequate knowledge on sustainable development [...]," (Ministerstwo Środowiska 2008) at the same time addressing the demands concerning the higher education system.

At the end of the UN Decade of Education for Sustainable Development, and almost ten years after the adoption of the Strategy for Education for Sustainable Development, it seems reasonable to ask the question, to what extent Poland has fulfilled its commitments regarding the ESD. In the face of rapidly occurring environmental, ideological and socio-economic changes, do the institutions of higher education and the entire academic community properly use their potential for active participation in implementing the international and national strategic documents? Are colleges and universities able to keep up the pace with contemporary social transformations when the azimuth of changes paves the way to sustainable development?

Higher education should significantly contribute to the ESD through the development of adequate knowledge and expertise (Ministerstwo Środowiska 2008), and its role in the education of future professionals is essential for achieving sustainable development in all areas of socio-economic development. The aim of this study is to verify whether the system of academic education in Poland is responsible for the commitments made at the international level in the field of education for sustainable development.

Regulations of national law concerning training in the field of education for sustainable development in the system of academic education

International documents – Agenda 21 or the Strategy for Education for Sustainable Development – require the signatories, including Poland, to include the ESD content into the curriculum at all levels and fields of formal education. The first step in the implementation of these commitments is the inclusion of the relevant provisions of national law in the documents.

The presence of the content in the field of education for sustainable development in the curriculum, from kindergarten through to secondary schools, is guaranteed by the Regulation of the Minister of Education, incorporating ESD

into the core curriculum for different types of schools¹. On the other hand, in the case of universities, the obligation to maintain education in the field of sustainable development is applied by separate provisions under the Regulation of the Minister of Science and Higher Education of 2 November 2011 on the National Qualifications Framework for Higher Education². The National Qualifications Framework requires students to acquire knowledge and skills in the field of sustainable development only in the case of education in the natural sciences, agriculture, forestry and veterinary medicine, in the course of the studies of I and II degree. Therefore, this obligation does not apply to social (including pedagogical), economic or technical sciences. This means that the National Qualifications Framework does not require the prospective teachers, economists or sociologists to possess knowledge of the concept of sustainable development, or the understanding of the interdisciplinary problems and issues that arise at the border of environment, economy and society.

It is worth noting that there are no guidelines concerning education for sustainable development for the III degree studies (doctoral), regardless of the discipline, leaving full autonomy in this regard for the students, making the presence of such the content dependant both on the initiative of the university authorities, as well as its competence and human resources.

It is difficult to say whether the fact that education for sustainable development has a low priority in the legislation regulating the sphere of higher education is the result of negligence, or rather insufficient knowledge and awareness of the law-makers. Only 43% of Polish citizens understand the concept of "sustainable development" in a way that applies equally to environmental, economic and social development issues. Given that ESD is mandatory only in the fields of natural sciences, one can formulate a hypothesis that perhaps, in the common awareness, the first and often the only association with the term "sustainable development" is still the issue of environmental protection.

The results of surveys³ conducted among students including a breakdown between different types of schools, indicate that it is the higher education where activities are undertaken in accordance with the principles of sustainable development the rarest. These trends are also confirmed by a survey conducted among teachers – only university teachers (10%) indicated that their institution was not taking any action in accordance with the principles of sustainable development. The results presented above may suggest that it is the consequence of the lack of uniform guidelines in the field of ESD in higher education.

¹ Rozporządzenie Ministra Edukacji Narodowej z dnia 27 sierpnia 2012 roku w sprawie podstawy programowej wychowania przedszkolnego oraz kształcenia ogólnego w poszczególnych typach szkół (J.L. 2012 item 977).

² Rozporządzenie Ministra Nauki i Szkolnictwa Wyższego z dnia 2 listopada 2011 roku w sprawie Krajowych Ram Kwalifikacji dla Szkolnictwa Wyższego (J.L. 2011 no. 253 item 1520).

³ Ekspertyza dotycząca edukacji dla zrównoważonego rozwoju w Polsce. Raport końcowy, Poznań 2012.

Without a doubt, education for sustainable development is not a standard of academic education. The graduates interested in the development of this area of interest can take advantage of the offer of postgraduate studies. Many universities, in the context of postgraduate education offer specialized fields of study devoted to the issues of sustainable development, but it often happens that due to the lack of a sufficient number of students, such studies do are not launched.⁴

Education for sustainable development in the field of economics

Sustainable development is a very inclusive concept involving the issues of natural resources management, access to drinking water, poverty reduction, access to education, environmental protection, gender, ethnicity and religion based equality, patterns of production and consumption, ethics, democracy, governance, or the economy. In fact, the term covers almost all spheres of life, becoming the new paradigm of training and management. Due to the large variety of issues it is necessary to create holistic learning programs, at the same time relating to the key issues addressing the needs of particular professional groups (Lorek 2013).

In particular, it seems important to raise the awareness and sensitivity to the issues of sustainable development in people, who in the future will occupy positions related to the economy, management, planning and entrepreneurship, because the decisions made by them will have consequences in social and environmental terms. It is the students of economics who have the potential to constitute a management team, which has a decisive influence on the shaping of the national economy in a manner allowing the achievement of the objectives of sustainable development.

Despite the fact that education in the field of sustainable development is an obligatory component of graduate education exclusively in the faculties of natural sciences, agriculture, forestry and veterinary medicine, it happens that higher education institutions recognize the need to undertake measures to increase the knowledge and awareness of sustainable development among the students of economics. As examples of good practices in the integration of the ESD content into the curriculum, the following may be mentioned: a compulsory subject of "Ecological aspects of management" in the course of "Management and Marketing" at the Podlasie Academy, or the subject of "Fundamentals of sustainable development" taught in the past at the University of Economics in Katowice. Currently, the university proposes the specialty of "environment and space management" within the course of spatial development at the Faculty of Economics.

Studies concerning awareness and knowledge of sustainable development, conducted among the students of economic universities, indicate that the actions taken carry out the set objectives quite well. The surveys conducted at the University of Economics in Katowice show that from year to year the percentage of students who during their studies have encountered the concept of sustainable development

⁴ Ekspertyza dotycząca edukacji dla zrównoważonego rozwoju w Polsce. Raport końcowy, Poznań 2012.

is increasing (90% of respondents in the academic year 2010/2011). What is more, up to 95% of the students has a good understanding of the concept of sustainable development by locating this subject at the intersection of the environment, economy and society, and 89% of the respondents admit that it is important to transfer the knowledge in the field of environmental considerations of the development within the context of education in the economics courses (Lorek 2010). These results are encouraging, however it should be remembered, that comprehensive education in the field of economics is not the norm.

The authors of a study on the knowledge of sustainable development of the students majoring in "Management and Marketing", conducted at the Podlasie Academy, reached quite different conclusions than those mentioned above (Otrebska et al. 2007). The authors, based on the results of surveys, formulated the thesis that the respondents do not look at the matters of nature conservation globally, but rather from their own perspective, focusing mainly on the issues that affect them directly. The fact that the respondents, taking part in this study, pointed to the green areas near their place of residence or actions to improve air quality as the preferred investment objective is not necessarily indicative (contrary to the authors) of the dominance of anthropocentric philosophy in the thinking of young people. Education for sustainable development is often carried out according to the rule "think globally, act locally," and local patriotism is also a part of this philosophy. In addition, respondents possessed a (virtually) small amount, so it seems more reasonable to devote it for feasible local objectives than, for example, for the protection of endangered species or improvement of water quality of the Baltic Sea, which requires an incomparably greater financial outlay. Further, the studies have confirmed that the well-being of nature is the value of high importance to the respondents, although the knowledge of students in the field of environmental protection, in the opinion of the authors of the study, is insufficient. It must be remembered that ESD in education puts more emphasis on the development of attitudes and values, than knowledge. Authors of the study relate to the level of preparation of future graduates of management and marketing to implement the principles of sustainable development in a critical way, while recognizing the need for the robust training of students. The fact that the curriculum includes the content related to the environmental aspects of business management deserves praise.

Education for sustainable development in the academic training programs for future teachers

"Appropriate initial training and further education of educators and the ability to share experiences are particularly important for ESD to succeed. Along with raising the awareness and knowledge relating to sustainable development, and in particular those aspects of sustainable development, which relate to areas related to their profession, educators can be more effective [...]" – these words in the Strategy for Education for Sustainable Development (Ministerstwo Środowiska

2008) signal the need to train teachers in the field of ESD. The strategy emphasizes that the training of teachers is a particularly important aspect of implementing the assumptions of education for sustainable development, because the education of students in the spirit of sustainable development will be their responsibility. This indisputable fact is, however, omitted in the documents setting out the requirements of the education of future teachers.

The requirements concerning the training of future teachers (Regulation of the Minister of Science and Higher Education of 17 January 2012 concerning the standards of education preparing for the teaching profession and the Regulation of the Minister of Science and Higher Education of 4 November 2011 on the model of learning outcomes) do not contain any guidance directly related to education for sustainable development. This means that educational institutions are not obliged to train future teachers in the field of sustainable development, despite the fact that, in professional practice, the core curriculum will oblige them to transfer content from the scope of ESD to the students. The possible consideration of the ESD content in the field of education for sustainable development in the curricula of teacher training programs depends entirely on the initiative and competence of the university, as well as human resources at its disposal.

Teacher education does not end with the completion of the relevant studies, but can be and often is continued in Teacher Training Centres. This results not only from the need for further development of competencies of the teachers themselves, but it is also a necessity arising from the desire to obtain further degrees of promotion. Who has time for environmental education? The report on the audit of environmental education within formal education prepared by the Centre for Environmental Action "Źródła" (Ośrodek Działań Ekologicznych "Źródła") shows, however, that the educational offer of the teacher training centres in the field of education for sustainable development is modest - as many as 6 out of 21 analyzed centers during the period of study (the analysis concerned the offers for the school year 2010/2011) did not offer any form of training related to environmental education. At the same time, the results of surveys conducted among teachers indicate that over 80% of respondents are interested in various forms of training in the field of sustainable development and environmental education, which may suggest that the current educational offer does not meet the needs of educators (Wychowałek et al. 2011)

The results of studies on teachers' knowledge and awareness in the field of sustainable development seem to confirm the existence of certain shortcomings in the process of education of future teachers. As many as 31% of the teachers had never heard about the term "sustainable development", and only every fifth teacher declares a very good level of knowledge on the subject. Taking into account the division of respondents with respect to the place of employment, the greatest knowledge of the concept of "sustainable development" is represented by the teachers in primary and middle schools, the lowest – secondary schools. Every third

academic teacher has never encountered this concept, while 67% of teachers in the field of natural sciences declare a very good understanding of the meaning of the term.⁵

Further, in the context of the recommendations of the Strategy for Education for Sustainable Development, in addition to the substantive preparation of teachers to conduct education for sustainable development, it is equally important to prepare them methodologically. The strategy recommends and promotes the active methods of education, to stimulate the learners to independently seek solutions, shape attitudes and develop competences of critical thinking. Such educational outcomes may be the result of the application of discussions, simulation games, role plays (drama method), field activities, case studies, project method or communication and information technology (Ministerstwo Środowiska 2008). However, the survey of teachers shows that the most common method in environmental education is a lecture (a talk), recognized by teachers themselves as the least effective and least attractive to students. Much less frequently used are the methods recognized by the teachers themselves as the most effective and attractive for the students, e.g. educational games, discussions or the project method (Wychowałek et al. 2011). These results may suggest that in the future teacher training programs (including the system of supplementary education) it is necessary to increase the emphasis on working methods engaging the students.

In addition to the application of participatory methodologies, the key to realizing the goals of education are also the so-called soft competencies of a teacher. Among them, the attention is drawn to skills such as teamwork, effective communication or lifelong learning (Tuszyńska 2011). In the context of education for sustainable development, the important emphasis is put on the development of proper attitudes (respect, tolerance, sense of responsibility) and building the world of values. The ability to undertake dialogue and the communication skills of a teacher seem to be a key factor determining the didactic success, so the position that the development of these skills should be a priority in teacher education colleges seems reasonable.

An example of good practices in the area of skills of future teachers in the field of ESD was the preparation of the 45-hour "Educator of sustainable development" course by the Faculty of Biology and Earth Sciences at the University of Maria Curie-Skłodowska in Lublin, addressed to the students of biology. The course had an interdisciplinary character, which allowed participants to deepen their knowledge in various aspects of sustainable development. The effects of the course were measured by ex-ante and ex-post tests, which showed an increase of the participants' knowledge by 54.7%, which in the opinion of the authors indicates that the main objective of the course, and thus acquiring integrated knowledge on sustainable development has been achieved (Gajuś-Lankamer et al. 2011).

⁵ Ekspertyza dotycząca edukacji dla zrównoważonego rozwoju w Polsce. Raport końcowy. ITTI Sp. z o.o. as per order by Ministerstwo Środowiska, Poznań 2012.

Measures in favour of education for sustainable development, adopted in higher education – good practices

Universities not only implement research and teaching programs, but they are also the place of undertaking other activities for education for sustainable development, unrelated to the educational program. In this section, I wish to draw attention to the examples of good practices for education on sustainable development, which in recent years have been initiated at Polish universities. It should be emphasized that the practices mentioned in this section, due to the voluntary nature and grassroots initiative should be classified rather as belonging to the area of non-formal education.

Important role in promoting the concept of sustainable development is played, among others, by the University Centre for Environmental Studies and Sustainable Development (University of Warsaw) offering a series of open lectures cantered around the issues of the year in each academic year, under the general title: "Selected issues of ecology and environmental protection. Sustainable development in theory and practice." For example, the theme of the lectures in the academic year 2013/2014 was: "Ideal City – sustainable city. Spatial planning of urban areas and its impact on reducing the effects of climate change." The activities of the Centre also include the proposals for seminars and training courses for teachers on how to conduct education for sustainable development. A series of one-day courses entitled: "How to conduct education for sustainable development", addressed to teachers, was realized in 2012 in the five provincial cities in cooperation with the Ministry of Environment and the regional teacher training centres.

An important function, from the point of view of raising the awareness of the academic community in the field of sustainable development is performed by student initiatives undertaken at the university . An example can be the project of the students of the Academy of Mining and Metallurgy in Krakow, implemented since 2007, under the banner of Green College, under which educational campaigns to promote environmentally friendly behaviours or healthy lifestyles are organized.

Since 2012, the Cracow universities are also the organizers and hosts of the Cracow Festival of Responsible Business - in 2014 the third edition of this event took place. The previous edition of the festival included the participation of: the Academy of Mining and Metallurgy, Jagiellonian University, Pedagogical University and University of Economics. During the festival, students have the opportunity to learn what the corporate social responsibility (CSR) is and why the strategy of sustainable development is increasingly being implemented in Polish enterprises. The leading topics of the last edition of the Cracow Festival of Responsible Business were among others: CSR and environmental protection, social aspect of CSR: CSR activities for human rights and education, CSR in the area of employment. With the participation of the invited guests – the practitioners of the implementation of CSR and the rules of sustainable development in various areas of the functioning of the organization, students have the opportunity not only to deepen their knowledge

in this field, but also realize the practical dimension of sustainable development. A major advantage of the project is the fact that the organization of the festival involves the participation of universities of different profiles of education – technical, pedagogical and economic, which creates an extra chance to perceive the aspects of sustainable development in the area preferred by the participant.

Within the walls of universities there are commonly also student scientific circles. Some of them focus the profile of their activities around sustainable development, which can be associated with the growing interest of students in the subject. Due to the fact that the theme of operation of student scientific circles concerning sustainable development has not been adequately studied, the actual scale and importance of this phenomenon are unknown.

The initiatives undertaken by NGOs for the improvement of knowledge and awareness of students and teachers in the field of sustainable development

We can say that the mission of NGOs is to fill certain gaps in education, health, nature conservation, helping the sick or excluded, or the humanitarian protection of animals. Sensitivity to social and environmental problems, their good knowledge and the search for solutions, and even the ability to exert pressure, make the nongovernmental organizations an indispensable component of the social landscape of Poland. The role of the NGOs in the promotion and education for sustainable development is also not to be underestimated. Non-governmental organizations are actively working in the field of non-formal education, but increasingly they also constitute support within formal education and in the system of supplementary education of teachers.

One of the organizations with a key impact on the state of knowledge and awareness of students and teachers is the "Źródła" Centre for Environmental Action, functioning for 20 years, having its registered office in Łódź, but taking action nationwide. Interests of the Association are focused on environmental and ecological education, global, regional, civic and health-oriented education, and thus the broadly understood education for sustainable development. The support for teachers and students is the ability to: take part in stationary or e-learning training courses, use the ready-made lesson plans and teaching aids. The offer of the Association also includes interesting publications and reports on the state of education for sustainable development in Poland. Importantly, ODE "Źródła" actively promotes the engaging and creative ways of working with students, which are part of the foundation of the Strategy for Education for Sustainable Development. Among the implemented measures, these training courses deserve special attention: *School for Trainers for Environmental Education* or *Global Education for children* (a project aimed at pre-school and primary education teachers).

Many other non-governmental organizations make an effort to implement projects aimed at students or teachers, providing developments, methodical guides,

organizing training courses and seminars, developing lesson plans. Many of them are thematically focused on global education, in this way being involved in the topic of sustainable development. The group of organizations active in this field can include, among others, "Zagranica" Group, Centre for Civic Education, Our Earth Foundation, Responsible Business Forum, and the Polish Humanitarian Organization.

Conclusions and recommendations

Despite the many real advancements in education for sustainable development, there is still no comprehensive vision of such education at the level of higher education (Lorek 2010). The fact that at the ministerial level, despite the commitments made at the international level before nearly a decade, the need to oblige the universities to conduct compulsory education in the field of ESD still has not been recognized, is not without influence on the Polish system of higher education. Awareness and knowledge of students and teachers in the field of ESD is still not sufficient to say that the creation of the Strategy for Education for Sustainable Development has succeeded.

An important function in the academic education for sustainable development is fulfilled by student organizations and NGOs that are trying to fill the gaps in education. Their activity should not be an excuse for the lack of strategic, holistic and interdisciplinary program of education for sustainable development in academic education.

Universities should educate professionals in the field of environmental protection, as well as introduce elements of ESD to teacher training programs, economic, technical and human sciences. What is particularly important, from the perspective of achieving cascading effects, is directing the greatest efforts to the education of people who in the future will work in the teaching profession. This applies to both the academic education system and the forms of supplementary education offered by the Teacher Training Centres.

In accordance with the principle of autonomy of the universities, they have a lot of freedom in arranging their curricula (Markowska-Manista et al 2010), but they do not operate in a vacuum and cannot remain indifferent to the challenges of a dynamically changing world. Universities should not only use the test results for the creation of innovative paradigms of how the world works, but also actively contribute to the education of students and improving academic competence in the field of sustainable development, while seeking the opportunity to improve their competitiveness and the attractiveness of the market. The academic community can and should be a catalyst for positive change, contributing to the implementation of the vision of a sustainable, equitable world, which will provide a secure future for the future generations.

References

- Borys T., 2010, Dekada jako kluczowa inspiracja dla krajowych systemów edukacji dla zrównoważonego rozwoju, [in:] T. Borys (ed.), Edukacja dla zrównoważonego rozwoju. Tom I. Edukacja dla ładu zintegrowanego, Wydawnictwo Ekonomia i Środowisko, Białystok–Warszawa.
- Ekspertyza dotycząca edukacji dla zrównoważonego rozwoju w Polsce. Raport końcowy, 2012, ITTI Sp. z o.o. na zlecenie Ministerstwa Środowiska, Poznań.
- Gajuś-Lankamer E., Wójcik A.M., 2010, Efekty kształcenia na kursie dla studentów "Edukator zrównoważonego rozwoju", [in:] M. Nodzyńska, J.R. Paśko (eds.), Research in Didactics of the Sciences, Kraków.
- Lorek A., 2013, Edukacja dla zrównoważonego rozwoju na przykładzie Uniwersytetu Ekonomicznego w Katowicach, Studia Ekonomiczne, Uniwersytet Ekonomiczny w Katowicach, Katowice.
- Markowska-Manista U., Niedźwiedzka-Wardak A., 2010, *Uczelnia wyższa wobec problematyki zrównoważonego rozwoju wyzwania współczesnego świata*, [in:] H. Ciążela, W. Dziarnowska, W. Tuburski (eds.), *Wobec zagrożenia globalnym kryzysem ekologicznym*, Wydawnictwo Akademii Pedagogiki Specjalnej, Warszawa.
- Obrębska M., Kowalski R., Stoczkowska R., Gomulska K., 2007, *Przygotowanie studentów kierunku zarządzanie i marketing do realizacji idei zrównoważonego rozwoju*, [in:] J.W. Czartoszewski, E. Grott (eds.), *Problemy XXI wieku uwarunkowania społeczno-pedagogiczne wychowania do zrównoważonego rozwoju*, Wydawnictwo Uniwersytetu Stefana Kardynała Wyszyńskiego, Warszawa.
- Rozporządzenie Ministra Edukacji Narodowej z dnia 27 sierpnia 2012 roku w sprawie podstawy programowej wychowania przedszkolnego oraz kształcenia ogólnego w poszczególnych typach szkół (J.L. 2012 item 977).
- Rozporządzenie Ministra Edukacji Narodowej z dnia 1 marca 2013 roku w sprawie uzyskiwania stopni awansu zawodowego przez nauczycieli (J.L. 2013 item 393).
- Rozporządzenie Ministra Nauki i Szkolnictwa Wyższego z dnia 2 listopada 2011 roku w sprawie Krajowych Ram Kwalifikacji dla Szkolnictwa Wyższego (J.L. 2011 no. 253 item 1520).
- Strategia Edukacji dla Zrównoważonego Rozwoju, 2008, Warszawa.
- Tuszyńska L., 2011, Nauczyciel dialogu w dobie edukacji dla zrównoważonego rozwoju, [in:] D. Jankowska (ed.), Pedagogika dialogu, Wydawnictwo Akademii Pedagogiki Specjalnej, Warszawa.
- Wychowałek K., Świderek G., 2011, Kto ma czas na edukację ekologiczną? Raport z badania edukacji ekologicznej w edukacji formalnej, ODE Źródła, Łódź.

http://www.unesco.pl

Education for Sustainable Development in the Academic Education in Poland in the Light of the Education for Sustainable Development Strategy

Abstract

In the year 2005 in Vilnius The United Nations Economic Commission for Europe adopted the Strategy for Education for Sustainable Development. The Strategy obliges the signatory countries to integrate the education for sustainable development (ESD) into all forms of their education system and covers all levels and faculties. After nearly 10 years from its adoption

and at the end of the United Nations Decade of Education for Sustainable Development, it is reasonable to verify the engagement of Poland in fulfilling its commitments. The aim of this study is to identify the place of education for sustainable development in national regulations and to make an attempt to characterize the state of education for sustainable development in higher education, with particular emphasis put on economics and pedagogy.

Key words: education for sustainable development, sustainable development, strategy for education for sustainable development

Agnieszka Sadowska-Konczal, PhD student

Pedagogical University of Cracow e-mail: a.sadowska.konczal@gmial.com