

Marcin Geryk

Jagiellonian University, Kraków
e-mail: rektorat@wsz.pl

SUSTAINABLE DEVELOPMENT GOALS AS A PERSPECTIVE FOR HIGHER EDUCATION INSTITUTIONS

ZRÓWNOWAŻONE CELE ROZWOJU JAKO PERSPEKTYWA DLA INSTYTUCJI SZKOLNICTWA WYŻSZEGO

DOI: 10.15611/pn.2018.520.05

JEL Classification: M14, I23

Summary: Universities are now faced with a huge challenge. They need to see the change in society and due to this, they must change themselves. United Nations Environment Programme might be helpful in this process. The implementation process is difficult as many people are involved. The understanding of the process and of its necessity must be shared by every member of a particular institution. The term ‘sustainable development’, even if used so commonly, may be understood differently, so further research is suggested on clarifying the term. Due to its popularity, many universities are now involved in many activities like signing a declaration of sustainable development or other initiatives. For some of those institutions, it is an apparent action that is not followed by any action later. The goals itself are very useful for higher education institutions as they play a role of a road map on the way to establishing strong and living links with the society as such, represented by stakeholders.

Keywords: sustainable development, university, perspective, future, higher education.

Streszczenie: Uniwersytety stoją obecnie przed ogromnym wyzwaniem. Muszą dostrzec zmiany zachodzące w społeczeństwie i w zgodzie z nimi muszą dokonać zmian wewnętrznych. Program Środowiskowy Organizacji Narodów Zjednoczonych i inne podobne inicjatywy mogą okazać się pomocne w tym procesie. Proces wdrażania jest trudny, ponieważ w proces ten zaangażowani są ludzie. Jego zrozumienie oraz jego konieczność muszą być zrozumiałe i wdrożone przez wszystkich członków danej instytucji. Termin „zrównoważony rozwój”, nawet jeśli jest używany powszechnie, może być rozumiany różnorodnie, dlatego sugerowane są dalsze badania nad tym pojęciem.

Słowa kluczowe: zrównoważony rozwój, uniwersytety, perspektywa, przyszłość, szkolnictwo wyższe.

1. Introduction

Modern societies have changed their expectations addressed towards institutions of higher education. The massive popularity of tertiary education has influenced universities hugely. Currently, they are almost unable to focus on their research and curricula only. With the changed perspective and perception, increased by the volume of student enrolment, they need to be more society oriented and more sustainable in their strategical actions.

The paper presents a review of international literature as well as research on the premises and results of implementing sustainable goals. Recommendations from international organizations, like the United Nations Environment Programme, are also cited.

The main aim of the paper was to present the current status of the research under way on how universities respond to societal expectations and to what extent the main goals are understood by those institutions.

The paper introduces the subject to the readers, then presents the processes of implementation along with research examples from different countries, and, before it leads to the conclusion, a critical view of the issue is presented.

2. Background of the change

Sustainability, in general, is an important concept for society, stakeholders, for the economy and the environment [Lélé 1991]. Many organizations observe the change in the way stakeholders view their role in the modern world. This view, published in 1987 by the World Commission on Environment and Development, proposed the concept of sustainable development in the document known as the Brundtland Report (Gro Harlem Brundtland, former Prime Minister of Norway, former Director-General of the World Health Organization, The Chairperson of the Brundtland Commission, formerly known as the World Commission on Environment and Development) under the official title of *Our Common Future*.

The Brundtland Report formulated a brief definition of sustainable development, and it is the “development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts [UN WCED 1987]:

- the concept of ‘needs’, in particular the essential needs of the world’s poor, to which overriding priority should be given; and
- the idea of limitations imposed by the state of technology and social organization on the environment’s ability to meet present and future needs”.

Due to growing societal expectations by university stakeholders, every institution of higher education is obliged to take into consideration the goals of sustainable development. Academic systems of many schools have been, on different levels, involved in converging their systems with sustainable development.

The turning point was the United Nations Environment Programme (UNEP) that was published at The Stockholm Conference in 1972. Its main actions were focused on [UN UNEP]:

- framework for environmental action,
- educational, informational, societal and cultural aspects of environmental issues,
- recommendations for action at the international level.

During that Conference the Declaration of the United Nations Conference on the Human Environment was published as a list of principles to inspire and guide the people and institutions in their way to preserve the environment in which humans are living.

What is relevant to underline, three out of the twenty-six Principles were directly addressed to higher education institutions. They were, as follows [UN 1972]]:

Principle 18

Science and technology, as part of their contribution to economic and social development, must be applied to the identification, avoidance and control of environmental risks and the solution of environmental problems and for the common good of mankind.

Principle 19

Education in environmental matters, for the younger generation as well as adults, giving due consideration to the underprivileged, is essential in order to broaden the basis for an enlightened opinion and responsible conduct by individuals, enterprises and communities in protecting and improving the environment in its full human dimension. It is also essential that mass media of communications avoid contributing to the deterioration of the environment, but, on the contrary, disseminates information of an educational nature on the need to protect and improve the environment in order to enable man to develop in every respect.

Principle 20

Scientific research and development in the context of environmental problems, both national and multinational, must be promoted in all countries, especially the developing countries. In this connection, the free flow of up-to-date scientific information and transfer of experience must be supported and assisted, to facilitate the solution of environmental problems; environmental technologies should be made available to developing countries on terms which would encourage their wide dissemination without constituting an economic burden on the developing countries.

At that moment, education became formally recognized as a main player in fostering environmental protection on the global scale. Higher education institutions were, from this moment, engaged in the process of integrating environmental education and education focused on sustainable development into their actions. The

range of those actions should be very widely understood as education, research, reporting, community oriented projects and campus operations [Lozano 2006].

On the other hand, the Declaration pushed higher education institutions to more intensive actions to join the bandwagon of the UNEP Agenda. It led to the development of a wide array of different declarations and to the signing of many initiatives to provide guidelines for universities to demonstrate their full and strong commitment to sustainability in their operations [Lozano et al. 2013].

The visible document, that might be published or cited, helps higher education institutions to legitimize their efforts in sustainable development, and may also be a stimulator and motivational factor for internal stakeholders. Perhaps that is why more than one thousand university managers and leaders, representing institutions from around the world, signed various types of declarations [Calder, Clugston 2003].

For the years many different declarations were created, beginning from Talloires Declaration in 1990, through Kyoto Declaration International in 1993, to the Rio+20 Higher Education Sustainability Initiative (HESI) in 2012. The latter initiative was created in Rio de Janeiro, Brasil, as a partnership between United Nations Department of Economic and Social Affairs, UNESCO, United Nations Environment, UN Global Compact Principles for Responsible Management Education (PRME), United Nations University (UNU), UN-HABITAT and UNCTAD. That initiative won commitments from over 300 universities representing the whole globe. Due to its strong connections to the United Nations it provides a unique interface between higher education, science and policy making [HESI 2018].

In September 2015, at the United Nations Headquarters in New York, the new global 2030 Agenda for Sustainable Development of 17 Sustainable Development Goals was published that should have come into effect on 1 January 2016. Its main goals focused on education. They referred, above all, to the generally meant education [UN 2015]:

- A world with equitable and universal access to quality education at all levels.
- Access to education has greatly increased for both boys and girls.
- Inclusive and equitable quality education at all levels – early childhood, primary, secondary, tertiary, technical and vocational training. All people, irrespective of sex, age, race, ethnicity, and persons with disabilities, migrants, indigenous peoples, children and youth, especially those in vulnerable situations, should have access to life-long learning opportunities that help them acquire the knowledge and skills needed to exploit opportunities and to participate fully in society. We will strive to provide children and youth with a nurturing environment for the full realization of their rights and capabilities, helping our countries to reap the demographic dividend including through safe schools and cohesive communities and families.
- By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.

- Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
- Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.

It is known that higher education is a cornerstone for sustainable development. Including tertiary education as one of its main goals resulted in a steady growth in the number of students worldwide. Between 2000 and 2015, the overall number of students doubled globally, reaching 213 million [UNESCO 2017].

But also the universities have changed. They have redefined their ideas of sustainability in all relevant academic disciplines and focused stronger on the moral obligation of higher education to work for sustainable future [Wu, Shen 2016]. Other initiatives involved research on sustainable development, investing in endowments according to sustainability values or developing community partnerships [Rowe 2007].

It is estimated by the United Nations Conference on Trade and Development (UNCTAD) that the annual investment required to achieve sustainable development goals is 3.9 trillion dollars [Kitaoka 2016]. It presents the vastness of the sources that need to be mobilized to achieve the goals declared.

3. Processes of implementation within a university

The role of higher education, and education in general, cannot be exaggerated. Education plays an important role in fostering capabilities that encompass and also challenge the human capital. The focus on capabilities can be helpful in better understanding what it might mean to be educated in the global era and how this relates to the development of nations [Tikly, Barrett 2011].

Universities around the world are experiencing a strong trend to redefine their strategies along the lines of sustainability [Beynaghi et al. 2016]. The term is very widely understood. Now, universities focus not only on education, but they are going further, directing the social learning process [König 2015].

To empower the process of implementation sustainable development goals, many universities established centres or institutes focusing on that particular task only. The evolution of those centres can be seen as part of a broader process of integrating sustainability into universities' research and curricula [Beynaghi et al. 2016]. This new role can be even called 'the sustainability transition or transformation of universities' [Baker-Shelley et al. 2017].

The research project on 44 centres from Europe, North America, New Zealand and Japan clearly showed that there is an increasing call for universities to contribute to societal needs and sustainability. The study also shows that higher education institutions are using the centres to promote sustainability [Soini et al. 2018].

It is obvious that any changes are implemented more smoothly if more people are actively involved in the process. So, after a clear and firm decision has been

made by a university leaders to converge the institution's system with sustainable development goals, this decision should be transferred to everybody who takes part in building the organization.

Studies have shown that it is the number of people that determines the outcome. If more people within an organization are involved, the better results of the change are observed. The crucial thing is to successfully empower the faculty by delegation of power and responsibility for a part of the project. To enhance the achievement, good and positive communication should be established between the groups involved [Verhulst, Lambrechts 2015]. Communication itself is a key element in every stage of the process as it connects both interpersonal and technical issues [Jawahir et al. 2007].

During the implementation of the process some kind of organizational resistance should be expected. That is why support from the faculty is important as it may help to counteract that resistance. The implementation of sustainable development goals depends on open lines of communication as a source of support [Metzinger et al. 2017]. That is why active commitment of every member of the organization is important and has its influence on the success or failure of the action.

A research project on 84 respondents from 70 institutions worldwide was organized to measure the level of commitment of universities into implementation of sustainable development goals [Lozano et al. 2015]. The survey was divided into different groups of categories: background, institutional framework, campus operations, education, research, outreach and collaboration, on campus experiences, and assessment and reporting.

The results showed that many higher education institutions have engaged and still are developing that process in sustainability efforts. The level of integration of this implementation is still not complete. The results also showed that there is a strong correlation between signing declarations and commitment to sustainable development. Another interesting observation was that universities are divided into two groups: one, interested in actively signing a declaration and in implementing sustainable development goals, and the second one, which is lagging behind the first group of institutions. Summarizing, the recommendations based upon the results of the survey strongly suggested: commitment of sustainable development goals to an institution's strategy and policy; signing a declaration of will; full implementation of sustainable development in the system and a full commitment of university leaders and their faculty to the process.

Many higher education institutions are focused on preparing people to be leaders of organizations. As so, it is crucial to choose the proper "shape" of this leadership; a more sustainable one. Leadership, of course, requires a lot of skills and proper exercise of influence or power [Yukl, Van Fleet 1990].

The use of the holistic and comprehensive approach might help to create a more sustainable model of higher education and to create leaders for future organizations. The use of physiological and psychological techniques might help leaders to avoid

the chronic power stress and lead them to a more balanced leadership style [Boyatzis et al. 2006].

The expected changes force universities to engage in planning that should be revised in order to acknowledge the inter-sectoral imperative. That combined task means that the higher education sector affects and is affected by a wider environment which was previously, and traditionally, bound to higher education only. As a result, new opportunities for collaboration should be established between the education sector and other sectors of the economy [Persaud 2017].

Sustainable innovation in higher education requires investment in high quality academic research programs and other initiatives sponsored from public funds. In general, there are three ways to meet the goal: to increase research funds, to target the fields of research that can make a profit by solving global problems, and by building up the professional research capacity [Owens 2017].

It is worth noting that implementing sustainable development goals is not only met by obstacles. As P.S. Adler from University of Southern California said in his 2015 Presidential Address, “Some scholars of our community are excited by the wonderful opportunities they see for businesses to thrive and profit by helping address these sustainable development goals. [...] We need to work with colleagues in other business school departments and elsewhere in the university to articulate a more viable vision of the role of the university – one that avoids unsustainable claims to total independence but also resists abject dependence on key sources of funding. We need to articulate a new civic-minded form of interdependence between university and society. [...] Given the intensifying sustainable development challenges discussed above, it seems urgent that we open our schools’ governance to a broader range of stakeholders representing a wider array of community and social forces” [Adler 2016].

Another action aimed at meeting Sustainable Development Goals is adult learning and education. Recognized by the global report, issued by UNESCO in 2016, popular adult education is widespread in many countries as people struggle for sustainable livelihoods, meaningful work and peaceful living in an environment free from pollution [Walters, Watters 2017].

Summarizing, sustainable development goals are correspondent to the nature and complexity of global issues. By bringing together the social, economic and environmental aspects of sustainability and welfare, they built a foundation for a gradual process towards a safe space for human development [Mironenko et al. 2015].

The challenge to change is directed at every higher education institution, state or non-state. They are both public institutions and in that meaning they serve the public good. Sustainable development goals provide a hint of how universities should, simultaneously, promote commodification and unbundling in higher education [McCowan 2016].

4. Critical view of the issue

Even though universities accept sustainable development goals and present their activity in the many declarations and initiatives they sign or join, those goals were not holistically implemented throughout the system of higher education. Instead, they were compartmentalized [Lozano et al. 2015]. On the other hand, the signing of any declaration itself does not prove any real commitment of an organization to the goals of an initiative [Bekessy et al. 2007].

Higher education intuitions should be, in some way, obliged to monitor the process. Just to prove that their efforts are based on realistic undertakings, not to “cover-up” or “brush-up” their operations by apparent action. That is why some kind of assessment should be held [Walton 2000].

The term “sustainable development” itself is not clear for everyone. There are over three thousand papers mentioning the term “sustainability” published annually. The number of papers and journals referring to “sustainability” is still rising, but the definition of the term is still unclear. The research on citation data from best scientific databases (Science Citation Index, Social Sciences Citation Index, Institute for Scientific Information and Web of Science) proved it excessively [Kajikawa et al. 2007].

Some research found that it might be difficult to reach all the 2030 Agenda goals. For example, in South Asia and in sub-Saharan Africa, where wealth gaps are reinforced by gender gaps, gender-based inequalities appear to be wider. Achieving goals by 2030 would require considerable efforts to increase enrolment for the poorest groups of society [Ilie, Rose 2016].

5. Conclusions

Undeniably, higher education has to play an important role in developing sustainable challenges on the global scale. The potential of educational institutions should see their goals set much higher than just education and advancing skills. To serve communities, to uncover ground-breaking research and to develop excellence in teaching, sustainable teaching, should be the new goals.

Due to their popularity, many universities are now involved in many activities like signing declarations of sustainable development or other initiatives. For some of those institutions, it is an apparent action that is not followed by any action later on. The goals itself are very useful for higher education institutions as they play a role of a road map on the way to establishing strong and living links with the society as such, represented by stakeholders.

Every university will face the challenges of the future, which means providing a proper answer to arising societal needs. The academia must change itself and this process might be easier if done with some respect to institutions’ surroundings and if it followed the suggestions of the United Nations agenda.

Further research in this subject is highly expected. It would be very interesting to measure, using a quantitative methodology, the number of institutions that have declared (or reached) the sustainable goals in comparison to the total number of higher education institutions presented by countries. Another suggested topic would be to check if those actions, undertaken by universities, meet the expectations of stakeholders and to what extent the society feels its needs are being fulfilled.

References

- Adler P.S., 2016, *Our teaching mission*, Academy of Management Review, vol. 41, no. 2, pp. 185–195.
- Baker-Shelley A., Zeijl-Rozema A., Martens P., 2017, *A conceptual synthesis of organisational transformation: How to diagnose, and navigate, pathways for sustainability at universities?*, Journal of Cleaner Production, vol. 145, pp. 262–276.
- Bekessy S.A., Samson K., Clarkson R.E., 2007, *The failure of non-binding declarations to achieve university sustainability: A need for accountability*, International Journal of Sustainability in Higher Education, vol. 8, no. 3, pp. 301–316, <https://doi.org/10.1108/14676370710817165>.
- Beynaghi A., Trencher G., Moztarzadeh F., Mozafari M., Maknoon R., Leal Filh W., 2016, *Future sustainability scenarios for universities: Moving beyond the United Nations decade of education for sustainable development*, Journal of Cleaner Production, vol. 112, pp. 1464–1474.
- Boyatzis R.E., Smith M.L., Blaize N., 2006, *Developing sustainable leaders through coaching and compassion*, Academy of Management Learning and Education, vol. 5, no. 1, pp. 8–24.
- Calder W., Clugston R.M., 2003, *International efforts to promote higher education for sustainable development*, Planning for Higher Education, vol. 31, no. 3, pp. 30–44.
- HESI, 2018, Higher Education Sustainable Initiative, <https://sustainabledevelopment.un.org/sdination/hesi> (16.02.2018).
- Ilie S., Rose P., 2016, *Is equal access to higher education in South Asia and sub-Saharan Africa achievable by 2030?*, Higher Education, vol. 72, no. 4, pp. 435–455.
- Jawahir I. S., Rouch K. E., Dillon O. W., Holloway L., Hall A., 2007, *Design for Sustainability (DFS): New challenges in developing and implementing a curriculum for next generation design and manufacturing engineers*, International Journal of Engineering Education, vol. 23, no. 6, pp. 1053–1064.
- Kajikawa Y., Ohno J., Takeda Y., Matsushima K., Komiyama H., 2007, *Creating an academic landscape of sustainability science: An analysis of the citation network*, Sustainability Science, vol. 2, pp. 221–231.
- Kitaoka S., 2016, *Sustainable development goals and Japan's official development assistance policy: Human security, national interest, and a more proactive contribution to peace*, Asia-Pacific Review, vol. 23, no. 1, pp. 32–41.
- König A., 2015, *Changing requisites to universities in the 21st century: Organizing for transformative sustainability science for systemic change*, Current Opinion in Environmental Sustainability, vol. 16, pp. 105–111.
- Lélé S., 1991, *Sustainable development: A critical review*, World Development, vol. 19, no. 6, pp. 607–621.
- Lozano R., 2006, *Incorporation and institutionalization of SD into universities: Breaking through barriers to change*, Journal of Cleaner Production, vol. 14, no. 9–11, pp. 787–796.
- Lozano R., Lukman R., Lozano F.J., Huisingh D., Lambrechts W., 2013, *Declarations for sustainability in higher education: Becoming better leaders, through addressing the university system*, Journal of Cleaner Production, vol. 48, pp. 10–19.

- Lozano R., Ceulemans K., Alonso-Almeida M., Huisingh D., Lozano F.J., Waas T., Lambrechts W., Lukman R., Hugé J., 2015, *A review of commitment and implementation of sustainable development in higher education: Results from a worldwide survey*, Journal of Cleaner Production, vol. 108, pp. 1–18.
- McCowan T., 2016, *Universities and the post-2015 development agenda: An analytical framework*, Higher Education, vol. 72, pp. 505–523.
- Metzinger J.R., Anderson Cabral J., Benhart B.L., Morgan P., Santon S.D., 2017, *Integrating Sustainability into Construction Education*, ASEE Annual Conference & Exposition, Paper ID #17977, <https://peer.asee.org/authors/36718>.
- Mironenko O., Lucas P.L., Tarasova N., Zlinszky J., 2015, *Sustainable development goals: Why do we need them?*, Social Evolution & History, vol. 14, no. 2, pp. 176–190.
- Owens T.L., 2017, *Higher education in the sustainable development goals framework*, European Journal of Education, vol. 52, pp. 414–420, <https://doi.org/10.1111/ejed.12237>.
- Persaud A., 2017, *Integrated planning for education and development*, European Journal of Education, vol. 52, pp. 448–459, <https://doi.org/10.1111/ejed.12233>.
- Rowe D., 2007, *Education for a sustainable future*, Science, vol. 31, pp. 323–324.
- Soini K., Jurgilevich A., Pietikäinen J., Korhonen-Kurki K., 2018, *Universities responding to the call for sustainability: A typology of sustainability centres*, Journal of Cleaner Production, vol. 170, pp. 1423–1432.
- Tikly L., Barrett A.M., 2011, *Social justice, capabilities and the quality of education in low income countries*, International Journal of Educational Development, vol. 31, pp. 3–14.
- UN, 1972, *Declaration of the United Nations Conference on the Human Environment*, <http://www.un-documents.net/unchedec.htm> (15.02.2015).
- UN, 2015, *Transforming our world: the 2030 Agenda for Sustainable Development*, <https://sustainable-development.un.org/post2015/transformingourworld> (19.02.2018).
- UN, United Nations Environmental Programme, <https://www.unenvironment.org/about-un-environment/why-does-un-environment-matter> (15.02.2018).
- UN WCED, 1987, *Our Common Future*, <http://www.un-documents.net/our-common-future.pdf> (19.02.2018).
- UNESCO, 2017, *Six ways to ensure higher education leaves no one behind*, Policy Paper, <http://unesdoc.unesco.org/images/0024/002478/247862E.pdf> (19.02.2018).
- Verhulst E., Lambrechts W., 2015, *Fostering the incorporation of sustainable development in higher education. Lessons learned from a change management perspective*, Journal of Cleaner Production, vol. 106, pp. 189–204.
- Walters S., Watters K., 2017, *Reflecting on the global report on adult learning and education in the “post-truth society”*, Adult Education Quarterly, vol. 67, no. 3, pp. 228–237.
- Walton, J., 2000, *Should monitoring be compulsory within voluntary environmental agreements?*, Sustainable Development vol. 8, no. 3, pp. 146–154, <http://dx.doi.org/10.1002/1099-1719>.
- Wu Y.-C.J., Shen J.-P., 2016, *Higher education for sustainable development: A systematic review*, International Journal of Sustainability in Higher Education, vol. 17, pp. 633–651.
- Yukl G., Van Fleet D.D., 1990, *Theory and research on leadership in organizations*, [in:] Dunnette M.D., Hough L.M. (eds.), *Handbook of Industrial and Organizational Psychology*, Consulting Psychologists Press, Palo Alto, CA.