

Education for Sustainable Development in Russian Universities

Abstract

Universities can and should play a key role in turning society sustainable through their power to teach and generate world leaders and their capability to perform research activities to enable a sustainable future [Amaral, et al., 2015]. However, higher education institutions are far from reorienting themselves toward sustainability [Sterling and Scott, 2008]. This problem is urgent for the Russian educational system. There are currently only 60 universities (less than 5% of the total not counting affiliates and military academies) in Russia running professional educational programmes in sustainable development as either main or additional courses [Zhevlakova, 2013]. Hence additional studies require to better implementation of Education for Sustainable Development in Russian universities. This paper is aimed to assess the SD at the university, taking into account the Russian specifics.

Introduction

Sustainable development (SD) involves and requires fundamental societal transformations, it can only result from a process of societal learning [Kates et al., 2001]. Consequently, education and learning are the key to achieving sustainable development. In this context universities as research and teaching institutions are playing an important role since they not only generate and transfer relevant knowledge, but they also educate future decision makers to enable them to contribute to a (more) sustainable future [Barth, Rieckmann, 2012, Amaral, et al., 2015]. Moreover the regional Universities play an important role in sustainable development of a region in particular, because they are expected to closely engage with local communities in networking and productive partnerships, amplifying the

capacity of a region to selforganize and operate, and leading to mutually beneficial outcomes [Karatzoglou, 2013]. Therefore over the past two decades, leading universities around the world have been actively involved in the implementation of sustainable development principles in their academia.

The term Education for Sustainable Development (ESD) was first used in 1992 at the World Conference on Environment and Development, in Rio de Janeiro, where priority was given to the role of education in pursuing those kinds of development that respect and nurture the natural environment. It focused on the process of orienting and reorienting education in order to foster values and attitudes regarding respect for the environment, and envisaged ways and means of doing so (UNESCO 2006). Nowadays there are four interchangeable and synonymous terms in the field of ESD: “education for sustainability”, “education for sustainable development”, “sustainability education”, and “sustainable university”. The most common of them is the term sustainable university, which is defined as a higher educational institution, as a whole or as a part, that addresses, involves and promotes, on a regional or a global level, the minimization of negative environmental, economic, societal, and health effects generated in the use of their resources in order to fulfill its functions of teaching, research, outreach and partnership, and stewardship in ways to help society make the transition to sustainable lifestyles [Velazquez et al., 2006]. The concept of a sustainable university should comprise all the three realms of sustainable development: environmental protection, economic performance, and social cohesion.

The transition to higher education for sustainable development will not require significant financial resources, because it needs to use the existing organizational resources [Kankovskaya, 2016]. At the same time making changes in a university is not an easy task. As with any other new idea the incorporation of SD is bound to face resistance from at least some of its stakeholders. This resistance can be explained by the fact that normally individuals are happy with the status quo and are not willing to change their attitudes and routines [Lozano, 2006].

Higher education institutions are far from reorienting themselves toward sustainability [Sterling and Scott, 2008]. If we look carefully at the core business and activity of a higher education institution - i.e., learning and teaching - we observe that sustainability has been integrated into the curriculum in piecemeal, rather than holistic approaches. The rigid disciplinary structures of universities and content-based learning are acknowledged to be key barriers in embedding sustainability in an integrative way [Wals, 2010]. In other words, until now, teaching and learning in higher education has provided few opportunities for students to develop their own values, skills, and attitudes to become change agents in the area of sustainability [Lambrechts et al., 2013].

The key elements of a sustainable university

The attention of researchers is drawn to the study of the key elements of a sustainable university. To date, there is no generally accepted approach. Hence, it is important to take into consideration various ones. Velazquez et al. (2006) approved that all the sustainability initiatives of universities are organized into four strategies. The first three of them, education, research, and outreach and partnership, can be carried out inside or outside the campus. The other is aimed at implementing sustainability on the campus itself. All of these four strategies have two fundamental means for successfully fulfilling their goals. One is to enhance the awareness of sustainability issues among the people related with the initiative; the other is the use of technology that permits reduction of the environmental burden at the local or global level depending on where the initiative is being implemented [Velazquez et al., 2006].

The literature review based on the analysis of 60 peer-reviewed papers presented by Lozano et al. (2015) revealed the following key elements of a sustainable university (Fig. 1).

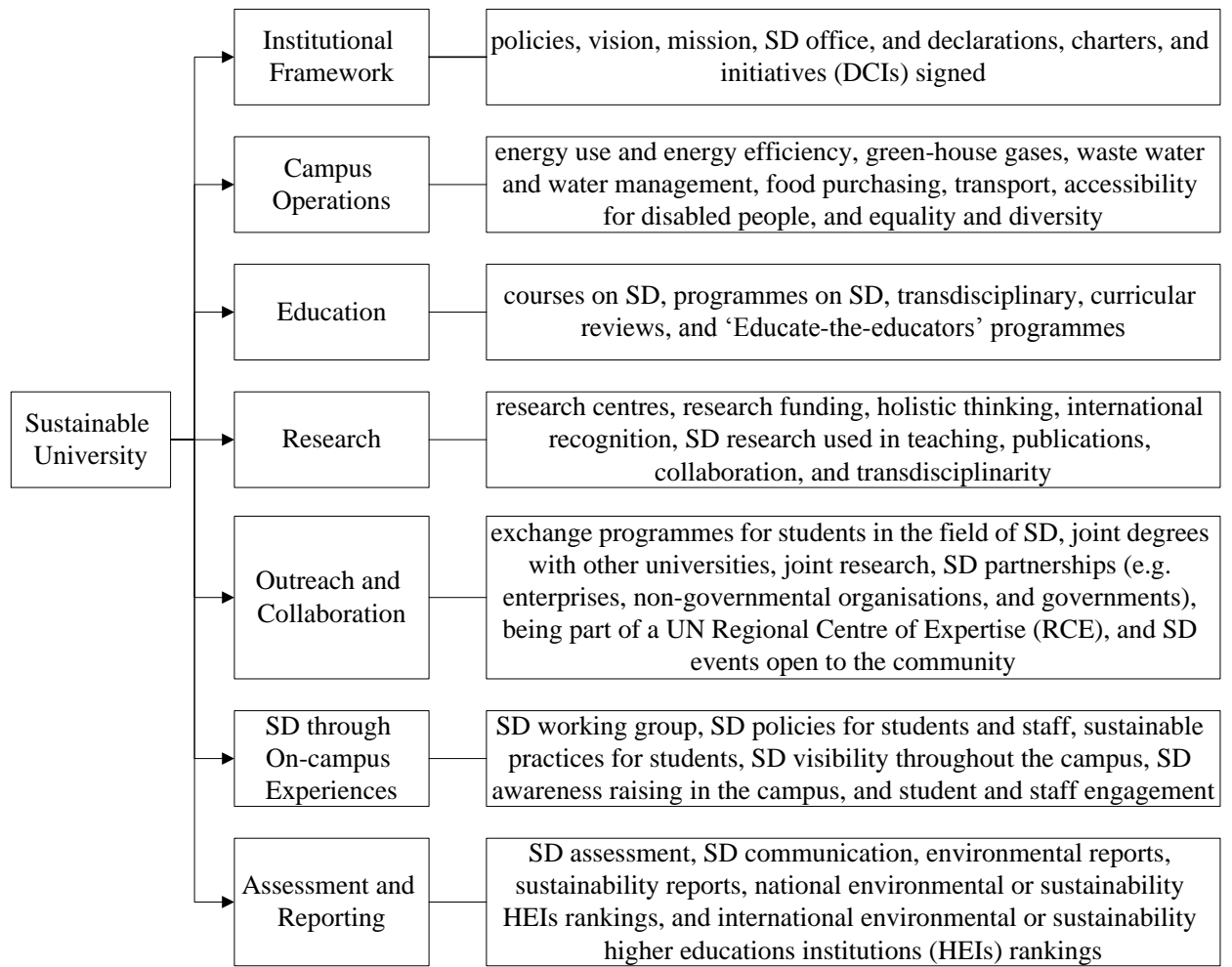


Figure 1. Key elements of a sustainable university [Lozano et al., 2015]

The literature review revealed that the research on ESD is usually performed on one or two of the system's elements [Lozano et al., 2015]. Therefore, there is lack of multipurpose investigations, which could contribute to the understanding of ESD from various perspectives.

Another approach can be found in the paper of Alghamdi et al., (2017). They analyzed 12 assessment tools of sustainability in universities. The criteria for assessing university sustainability can be considered as elements of sustainable universities. The analysis shows that although there is a slight variation in their content, assessment tools of sustainability in universities share many commonalities (presented in Fig. 2).

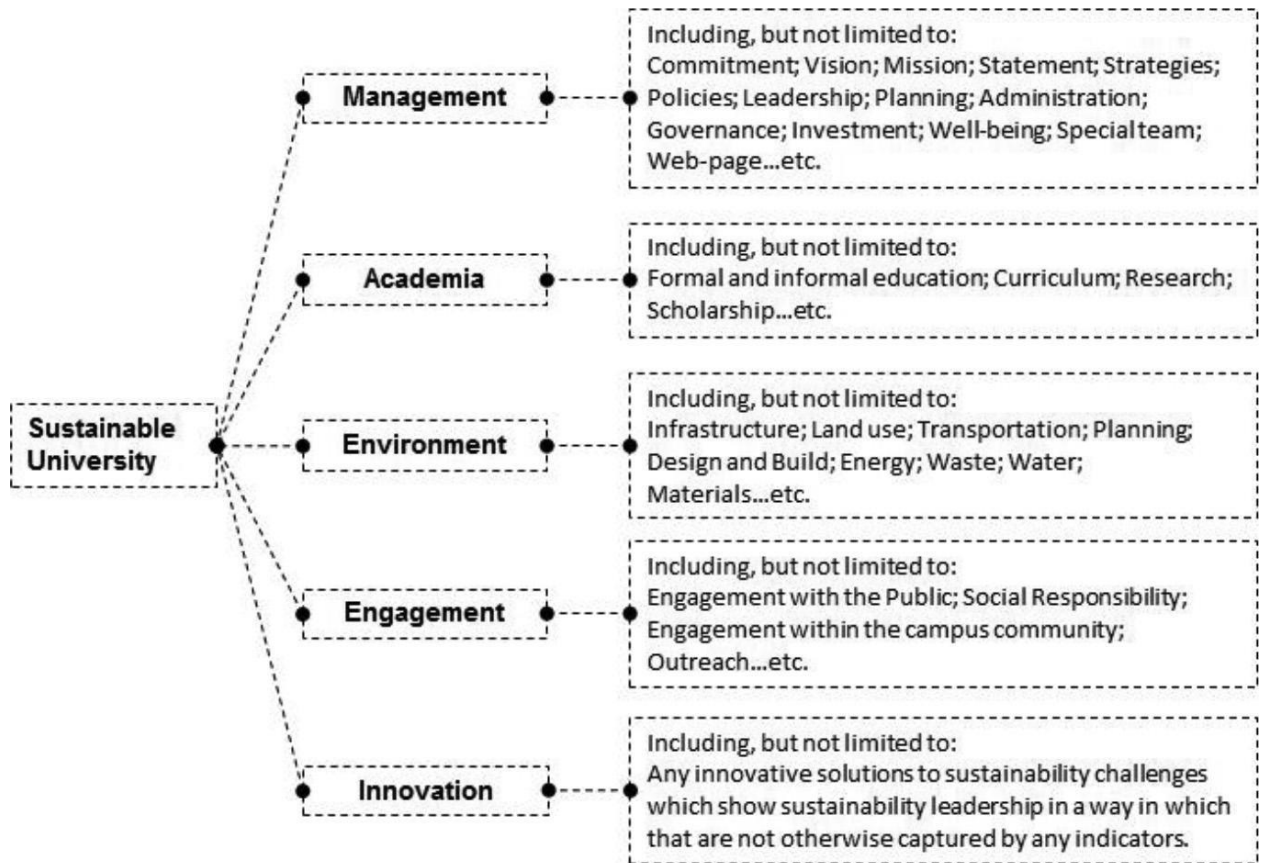


Figure 2. Main common criteria used in the 12 benchmarking tools to assess sustainable university [Alghamdi et al., 2017]

Figure 2 illustrates the identified five areas (criteria) used in the 12 reviewed frameworks to improve sustainability performance in higher education institutions. As each university is faced with different challenges, universities can tailor their own tool based on the proposed framework [Alghamdi et al., 2017].

Van Ween (2000) investigate 3 possible dimensions of SD – engagement, organization and sustainable development. Each of these dimensions include 4 levels.

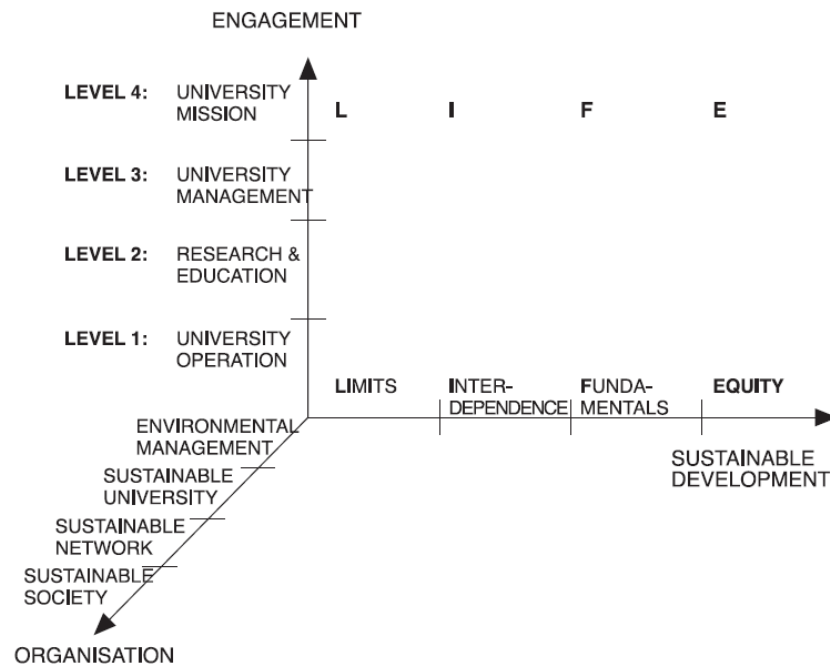


Figure 3. The sustainable university classification model [Van Weenen, 2000].

Therefore, this model is possible to use for classification of different universities. Also, universities may use it as an aid for assessing the dimensions, status and level of their commitment.

Despite the fact that all described models utilize different grounds for classification, all of them use similar criteria of sustainable university. Therefore these criteria may be used for organization of the integrated implementation process of ESD.

Implementation of ESD

The institutionalization process proceeds from the individual to the system, Dobes (2001) divides it into four steps (presented in Fig. 4): (I) Intuition, (II) Interpretation, (III) Integration and (IV) Institutionalization.

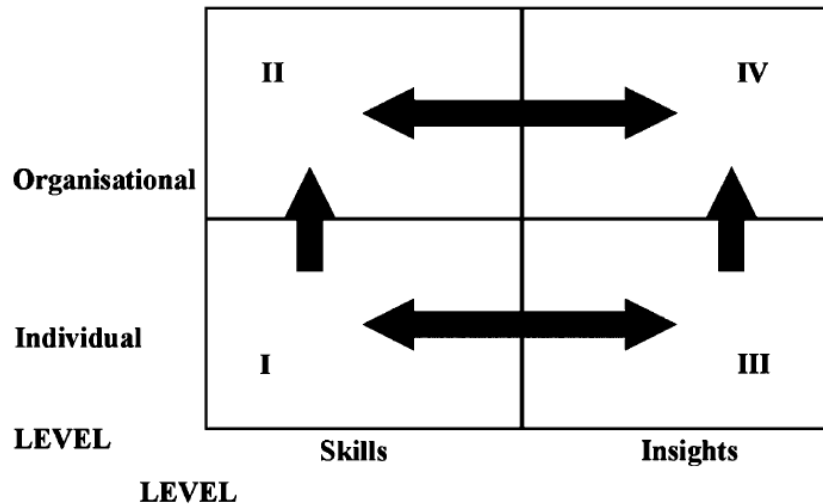


Figure 4. Mental structures flow, from the individual to the organization [Dobes, 2001]

In the intuition step, particular skills are created or modified on the individual basis, e.g. the necessary SD information and education is provided to each individual. In the interpretation step the individual internalizes the skills and modifies his/her way of thinking, i.e. the mindsets, values, attitudes, behaviors and thoughts. When more and more individuals acquire the necessary SD skills and work together, they form the organizational skills, thus passing to the integration step. This, in turn, can serve to achieve the last step, institutionalization, making the innovation become part of the culture of the organization, i.e. getting SD institutionalized into the university [Lozano, 2006].

Universities are dealing with the challenge of sustainable development in many different ways [Van Weenen, 2000] such as management, planning, development, education, research, operations, community service, purchasing, transportation, design, new construction, renovation and retrofit (ULSF, 1999). Some researchers claim that the Education for Sustainable Development may be

implemented on various levels (strategic or tactical) and not necessarily at all levels at once [Van Weenen, 2000].

In order to introduce sustainable principles, universities should consider the following issues: 1) reasons for the inclusion; 2) steps that should be taken for the implementation; 3) organisational issues [Zaptcioglu et al., 2017]. There is an opinion, that without sustainability policies or declarations, it is very difficult to encourage or motivate members of universities to participate in sustainability initiatives or sustainable development in higher education [Lee et al., 2013].

Even though nowadays there are different approaches to the ESD implementation the transition to a sustainable university and the sustainability reporting within academic setting are still at their infancy stage [Lozano, 2011] and sustainability concept still continues to be misunderstood by people and organizations [Waas et al., 2011].

In such conditions measuring sustainability remains a complex and challenging process for higher education institutions, especially institutions that are at the early stage of their sustainable development programmes [Gómez et al., 2014]. For measuring and analysing sustainability in universities, three main approaches were developed: accounts assessment, narrative assessment and indicator-based assessment [Alghamdi, et al., 2017]. A brief comparison between the three main approaches for measuring and analysing sustainability in universities is shown in Table I.

Table I

The three main approaches to measuring and analysing sustainability at university

	Data	Potential for transparency	Potential for consistency	Potential for participation	Usefulness for decision-making
Accounts assessment	raw data, converted to a common unit (such as money, area or energy)	Low	High	Low	Medium
Narrative assessments	text, maps, graphics and tabular data	Medium	Low	High	Medium
Indicator-based assessment	text, maps, graphical and tabular data, but they are organized around indicators	High	High	Medium	High

Source: Adopted from Dalal-Clayton and Bass (2002, p. 134) and Alghamdi et al. (2017, p.86)

Indicator-based assessments are thought to be one of the most used approaches in measuring sustainability. The indicator-based assessment approach can ‘convey value added messages in a simplified and useful manner to different types of target audiences, including policy and decision-makers and general public’ [Ramos and Pires, 2013].

Therefore, each university could choose the appropriate model of sustainability which met its goals and adopt suitable sustainability assessment tool.

Sustainable universities in Russia

The United Nations declared the Decade of Education for Sustainable Development as period from 2005 to 2014 in 2002. The goal was to promote public understanding of the importance of education in the field of sustainable development. Like many other countries Russia participated in this project. However, due to date, proposed aims have not been fully achieved yet. There are

currently only 60 universities (less than 5% of the total not counting affiliates and military academies) in Russia running professional educational programmes in sustainable development as either main or additional courses [Zhevlakova, 2013].

The federal state educational standards of higher education analysis has shown a rather narrow approach to the interpretation of the concept of sustainable development. The concept of sustainable development in Russia is mostly analyzed through solely as a biological and geographic problem. Hence, in fact there is no any connection between the Educational System and the National Strategy of Education for Sustainable Development in Russia [Kankovskaya, 2016]. Unfortunately in the Russian system of education there is not a word on the subject of sustainable development and “green economy” [Zhevlakova, 2013].

For a critical understanding of the ESD in Russia, Zhevlakova (2013) recognise several factors:

- The lack of a national system of ESD supported at the institutional level.
- The absence of a common understanding of ESD and agreement on the methodology, objectives, values, methods and content of ESD.
- The substitution of concepts – from the start of the Decade of ESD, the subject became somewhat fashionable and many programmes of environmental education, practical environmental action, or even the teaching of natural sciences, were called “education for sustainable development”, although these are actually quite different things.
- In Russia, the role of government in promoting education for sustainable development is quite small. Practically all the main work at the federal and regional level is carried out by civil society organisations and individual initiative groups in educational and research institutions and organisations.
- At the same time, tens of prominent projects of all sizes have been realised in Russia during the years of moving from environmental education to education for sustainable development, each of which has made a significant contribution to understanding of ESD and changing educational practice. But while recognising the undoubted merits and achievements of these projects and

initiatives, it should be noted with regret that the vast majority of them were of a local character, possessed a small amount of resources and could not change the situation at a systemic level across Russia.

There is no doubt that SD is particularly relevant for Russia. As was revealed in a study by Bobylev and Solovyova (2017), Russia in comparison with the USA, Norway, Canada and Germany lags behind in terms of sustainability indicators. Hence additional studies require to better implementation of Education for Sustainable Development in Russian universities. Researches should take into account the Russian specifics, the historical features of the education system development and the priorities of the national policy.

This paper is aimed to assess the SD at the university, taking into account the Russian specifics. The following design of the study is proposed:

1. Literature review of existing studies on ESD and SD assessment at the university;
2. SD assessment on the example of a specific university on 7 elements, detected by Lozano et al. (2015);
3. Comparative analysis of the results obtained with the results of international research.

This research is a step toward a better understanding of the Education for Sustainable Development at Russian universities. Understanding the functioning of sustainable universities will contribute to the formation of a specific model of thinking and achievement of key goals of sustainable development. The research of SD in Russia could be useful to scholars who study the features of ESD, to the management of universities that are oriented on the implementation of the SD concept, to authorities whose strategies reflect sustainable development of a territory, as well as to socially responsible business.

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