Principles of Russian Higher Education in Sustainable Development

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Abstract. The paper analyses the principles and goals of sustainable development and their implementation in higher education. The authors provide a review of the key UN documents on sustainability and particularly stress the dual function of education both as a goal of sustainable development and as its tool in achieving other crucial goals. The authors also highlight the significant changes in Russian higher education by illustrating how sustainability principles are being integrated into the universities' strategic framework, programmes and curricular.

1 Introduction

Adopted in Rio de Janeiro at the UN Conference in 1992, the concept of sustainable development has definitely become one of the most relevant subjects of our time. Throughout these years the concept has been defined in many different ways, one of the latest and most frequently quoted being from the Brundtland Report: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" [1].

In this regard, education as one of the inalienable human rights and the fundamental basis of the sustainable development paradigm should become a major priority for national governments, legal authorities and world organizations. And it is obvious that universities should take the initiative here, embedding sustainability principles into their strategies and policies, updating their programmes to meet the needs of society and business, and launching new programmes to train specialists in the field of sustainable development.

When speaking about implementing sustainability principles in higher education in the current context of global transformations, we should mention that the process of reorienting education to address sustainability can take place at a few levels. Thus, it can be conducted by national and regional policymakers at the level of education ministries, that is education for sustainability can be adopted as a national or regional strategy and policy, and thus, requires an appropriate legal framework in the form of official standards and systems of inspection, such as professional bodies responsible for certification, licensing and public recognition of higher education institutions (HEIs). Sustainability principles integration in higher education can also be promoted and supported by university authorities, who assume responsibility for designing programmes and curricular to be compatible with sustainability

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principles and criteria. We also strongly believe that reorienting education in formal settings depends greatly upon the teacher when it comes to creating new or redesigning existing syllabi, courses and units and selecting teaching materials and learning activities to be practiced.

This paper aims to analyze the key UN documents related to sustainability principles and thus, to evaluate the current state of Russian higher education in the light of its ongoing transition to a new model – education for sustainable development.

2 Materials and methods

The key method of study used in the paper is critical analysis of official documents, deployed on the UN and UNESCO websites, as well as on Russian HEIs' websites. We also applied case study to illustrate the implementation of sustainable development goals in Russian higher education.

3 Results and discussion

3.1 Goals and principles of sustainability: documents review

The concept of sustainable development is traditionally described as a triad of economic, ecological and social dimensions. The principles of sustainable development were listed in the Rio Declaration on Environment and Development in 1992. Those 27 principles highlight the need for global partnership in environmental preservation and restoration, global cooperation in poverty eradicating, promoting appropriate demographic policies, improving science and knowledge transfer, promoting a supportive and open international economic system, enhancing equity among generations, gender equity, peace, tolerance, and social justice [2]. All the principles have been reconsidered, and reaffirmed multiple times, the key and central of them being "the integration of environmental, social, and economic concerns into all aspects of decision-making" [3]. As J.C. Dernbach rightly notes, "integrated decision-making is a response to the fragmented decision-making process that causes unsustainable development, and its centrality to sustainable development is expressly and implicitly supported by the Rio texts" [ibid, p. 257].

Another important document that should be mentioned here is the 2030 Agenda for Sustainable Development, which was unanimously adopted at a special UN summit in September 2015 [4]. The document lists 17 Sustainable Development Goals (SDGs) with 169 associated targets to be achieved by 2030. Among them the following should be underscored: to end poverty, hunger and achieve food security and sustainable agriculture, to protect the planet, reduce inequality, foster innovation, promote sustainable economic growth, ensure sustainable consumption and production patterns, ensure equitable quality education and life-long learning for all. As we can see the SDGs to a large extent reaffirm and specify the Rio Declaration principles.

Thus, education in the framework of sustainable development should be given special prominence, since it fulfils a dual function. On the one hand, education is an end in itself. Indeed, it should be accessible and available for all regardless of gender, race, financial and social status. On the other hand, education can and should be considered as a tool for achieving other crucial SDGs. In this regard, the importance of higher education has to be particularly stressed, since its mission is to train specialists to further promote a most innovative, efficient and sustainable economic growth of countries and regions.

Among the key higher education initiatives meant to ensure the implementation of the 2030 Agenda, we should mention the Higher Education Sustainability Initiative (HESI). This is a partnership between several United Nations entities and the higher education community, currently chaired by the United Nations Department of Economic and Social Affairs and the Sulitest Association, which is a non-profit organization and online platform aimed to improve sustainability literacy. Each year, the HESI holds a global forum, which is as a special event to highlight the critical role of higher education in achieving SDGs. Thus, the HESI 2023 Global Forum that was held on 17 July 2023 was particularly focused on facing the challenges and opportunities to accelerate the recovery from COVID-19 and achieving the 2030 Agenda [5].

While the UN initiatives fostering international collaboration and knowledge exchange in the field of sustainable development seem to be relevant and timely, it is safe to say that at a national and regional level education, business and other spheres of human life often fall far behind in integrating sustainability principles and achieving SDGs. Thus, the current situation in higher education has to be analysed separately for each particular country and region before making any conclusions or assessments.

3.2 Embedding the principles of sustainability in Russia's HEIs

In Russia, the whole process of reorienting all forms and levels of education to address sustainability is still in its early days. It should be noted that since the Earth Summit in 1992 tens of projects and initiatives have been realized in Russia, a lot of projects are still working and disseminating ideas of sustainable development among both learners and educators. And yet, most projects are local and do not impact the whole system of education [6 - 8], which means that Russia is to develop a national strategy and policy for sustainability, create regulatory and methodological basis for embedding the principles and criteria of sustainable development into all education forms and settings.

Having said that, we should yet admit that over the last few years, there has been a significant change in the field. Many Russia's HEIs have claimed their mission as driving the transition to sustainability and thus, have adopted sustainability principles and launched a number of ESG programmes.

ESG (Environmental, Social and Governance) is a comprehensive framework that includes key elements of environmental and social impact, as well as how governance structures can be updated to maximize stakeholder well-being. ESG can be considered as a subset of SDGs and are used to measure environmental, social, and governance practices. By incorporating sustainable practices into day-to-day running of the business, companies can achieve success through the use of ESG factors.

ESG addresses the risks and opportunities associated with changing environmental, social, and economic systems. Environmental issues include climate change and emissions, natural resource stewardship, and waste management. Social issues may involve human capital management, customer welfare, and community engagement. And lastly, governance issues include the policies, protocols, practices, and systems used to manage and lead a company. A company having strong governance has the policies, protocols, practices, and systems to improve ESG performance.

In 2022, according to the analytical report issued by a group of scholars from MGIMO University, Russian universities offered 37 master's degree programs in the field of ESG [9]. But as the authors state, the problem that arises here is that "the breakthrough is mainly quantities rather than qualitative, and the aforementioned process remains uneven and initiative-based in nature. A number of Russian universities demonstrated fairly good

results even compared to educational institutions across the globe, while others chose to follow a rather perfunctory approach or ignore the issue entirely" [ibid, p.3].

Thus, the abovementioned analytical report overviewed 37 master's degree programs and 11 bachelor's degree programmes in the field if ESG provided by 25 Russian HEIs. The following parameters were taken into account: the goals and objectives of the programme, the learning outcomes in terms of knowledge, skills and competences, the placement options for students' internship, the modules and disciplines to be delivered within the programme, the education format (some programmes are to be implemented exclusively online, while others can be delivered only in-person and some programmes have a mixed attendance format) and finally, the tuition fee, which also varies significantly from university to university and from program to program.

It should be stated that some universities offer programmes to be provided in collaboration with foreign universities or businesses. For example, MGIMO Faculty of Management and Politics, together with LUISS University of Rome, offers a double degree Master's programme in Public and Municipal Administration — Law, Digital Innovation and Sustainable Development. The goal of the programme is to train experts in the field of innovative development, combined with legal and management education, providing them with the tools necessary to interpret modern digital transitions in society and economy.

Many of the universities included in the analytical report also provide short-term programmes (from 24 academic hours up to one semester).

The key conclusions that the authors made at the end of their report are as follows: "1. Russian universities mostly offer Master's programs in Economics, Environment and Nature Management, and Management. The respective initiatives predominantly come from tertiary education institutes of Moscow and St. Petersburg. 2. Universities with connections to the petrochemical industry, urban planning, and architecture are the main drivers of the ESG-related Master's programs. 3. Professional education in sustainable development is expected to develop in such a way as to meet the needs of agro-industrial production, construction, the textile industry along with other sectors of the real economy and the financial sector. 4. To a large extent, the demand for professionals in the field of sustainable development is covered thanks to vocational education. This trend will still be relevant for another 5 years given the pace at which the new graduates from the respective Bachelor's and Master's programs are entering the market. The top areas will include non-financial reporting; development and implementation of corporate ESG transformation strategies; due-diligence and audit of companies undergoing the transformation; and skills development by management generalists who head the ESG track in companies (ESG officers)" [ibid, p. 23].

3.2 Case studies

In this section we would like to dwell upon a few cases that were not included into the abovementioned report, but in our view present a good illustration of how sustainability and ESG principles can be integrated into higher education.

The first example here is a free specialized online course on ESG for agricultural producers, created in collaboration of the Russian producer of mineral fertilizers Acron Group and Russian State Agrarian University (RSAU) [10]. Acron has been cooperating with Russian State Agrarian University, the leading Russian university in the field of training personnel for the agricultural industry for a long time. "Acron Class" being equipped with modern laboratory equipment operates at the University providing classes for future agronomists. Acron specialists also regularly give talks to students sharing up-to-date information on the use of mineral fertilizers and the ways to increase the efficiency of

complex fertilizers, as well as Acron's advanced developments in creating new brands and making the agriculture more sustainable. The experience of agricultural holding Plodorodiye applying modern agricultural technologies, namely the use of precision farming and the introduction of digital solutions to optimize agricultural processes is transferred to the students.

The course "ESG and Sustainable Development of Food Systems" was created in 2022 and is designed not only for students but also for industry professionals. The course is aimed to meet the learners' needs since the agro-industrial complex in Russia is growing at a rapid pace, therefore modern agricultural companies are introducing strategic planning to follow the industry trends. More and more companies are implementing ESG principles, so the demand for specialists in this field is growing significantly.

Among the lecturers of the course are specialists from Food and Agriculture Organization of the United Nations, Institute of Economics of the Russian Academy of Sciences, Soil Institute, Rosbank, and Acron Group. Within the course, the issues of regulatory policy in the industry are studied; the risks and opportunities of low-carbon development, mitigation and adaptation of food systems to climate change are assessed. Attention is focused on ESG Banking for the agrifood sector. Adding to that, the application of ESG principles in the production of chemical products, ways to reduce greenhouse gases, the use of 4R strategy (Reduce, Reuse, Recycle and Recover) in agriculture using mineral fertilizers, the role of biomodified fertilizers in the sustainable development of agriculture, and fertilizers with improved properties are studied as well. Generally speaking, during "ESG and Sustainable Development of Food Systems" course the agriculture of the 21st century is viewed in the light of scientific and technological progress.

Another example of how sustainability principles can be embedded into higher education is the School of Environmental Leadership [11], which is a joint project of Institute of Public Administration and Civil Service of the Presidential Academy RANEPA and the Russian Ecological Society. This is a short-term training course (18 academic hours) to be delivered in-person.

The School of Environmental Leadership allows the students to understand the implementation of state environmental policy, the peculiarities of relationships with government and business structures, and representatives of the public on environmental issues. At the same time, the programme helps to gain basic skills for developing leadership qualities to work in the environmental sector and with the environmental community and environmentally responsible business. Particular attention within the programme is given to developing the personal qualities and competencies of an environmental leader.

The next example and a unique experience of Moscow State University in integrating sustainability principles and therefore achieving SDGs is the Scientific Laboratory "Sustainable Development Management and ESG Transformation", which is a joint initiative of the Faculty of Economics of Moscow State University and the National Rating Agency [12]. The laboratory was created on January 31, 2022, the aim being to conduct relevant research on the issues of sustainable development and ESG transformation; cooperation and interaction with business and government agencies in the field of sustainable development; implementation of fundamental and applied science achievements in the agency activities and the education process of Moscow State University; assistance in achieving the common SDGs claimed by the United Nations. An important achievement of the laboratory in disseminating the findings and ideas of sustainability is the ESG-digest which is published four times a year and overviews the most important events that have happened and documents that have been launched over the period in the field of SDGs and ESG.

Apart from Master's and Bachelor's programmes and short-term courses, many Russian HEIs hold annual conferences and forums on sustainability, which help disseminate the sustainability principles and ideas and contribute to a more effective collaboration in the field of SDGs. Thus, in Ural State University of Economics (Ekaterinburg) the conference "Management and Entrepreneurship in the Paradigm of Sustainable Development" has been annually held for the past five years [13]. The conference is held within the framework of the Moscow Academic Economic Forum and states its aim as follows: to create a discussion platform where representatives of science, business, and government structures would be able to debate and develop scientific and practical recommendations for solving urgent issues of management and business.

3.3 Integrating sustainability principles into curricular and syllabi

The Education for Sustainable Development 2030 document states its mission as to "reorient all levels of education and learning to contribute to sustainable development and to strengthen education and learning in all activities that promote sustainable development". The document particularly highlights competences, skills and attitudes, "related to empathy, solidarity and action-taking", since those can help build a future "where education contributes not only to the successes of individuals, but also to the collective survival and prosperity of the global community" [14].

Thus, when speaking about sustainability practices in higher education, we should stress that their implementation requires a HEI's strategic commitment, experienced and highly qualified faculty and effective collaboration with businesses and other educational institutions. What is more, we believe that reorienting the whole education process to address sustainability should take place not only at the national level or the level of HEIs' programmes, but also right in the classroom. And that's where the importance of a professional educator, whose responsibility is to design/redesign a course, to select the contents, materials, teaching methods and learning activities should not be overlooked.

Therefore, universities and individual staff members seeking to effectively incorporate sustainability principles into their education framework should consider the following steps to be taken:

- Universities should encourage collaboration between departments in order to establish cross-disciplinary connections; collaborating across disciplines contributes to designing high quality programmes and courses to meet the needs of society and business.
- Universities should focus on partnerships to build effective networks and relationships with businesses.
- Universities should encourage both students and faculty to take part in international and All-Russia projects in order to adopt the world's best innovative experiences and techniques and integrate them into their own framework and education context.
- Universities should encourage both students' and faculty's research in the field of SDGs and ESG and promote academic publications on sustainable development topics.
- Curricular and syllabi of social sciences and humanities should be designed to develop the learner's intercultural attitudes and values, as well as personal qualities, such as empathy, tolerance, open-mindedness, so as to facilitate international contacts on the way to sustainability.
- Environmental protection, sustainable consumption of natural resources and other important SDGs should be introduced into socials and humanities in different forms as a speaking point, a case issue, an essay topic, etc.

Thus, we believe that while the process of fully integrating sustainability principles into higher education can be challenging and time-consuming, it is still a crucial decision to

make, which will definitely be beneficial for all education stakeholders – students, universities, businesses, and most important, it will contribute to creating a more sustainable future for all.

4 Conclusions

Education in terms of sustainable development has a global focus and is meant to help achieve the fundamental goals of the epoch. Therefore, in a contemporary setting, when reorienting education to be able to address most challenging issues of the modern world on the way to sustainable future, educators, scholars and authorities are to ensure that the principles of sustainable development are accounted for, and thus, deeply integrated into the education framework and the whole academic process.

Today, as the analysis of documents showcases, the Russian higher education system has made significant progress in the field of sustainability. Most of Russian leading universities have launched or are on their way to design and launch programmes related to SDGs and EGS. Many universities provide short-term trainings and hold annual conferences on sustainability for both scholars and students to disseminate the ideas of SDGs and ESG, establish effective partnerships and collaboration with ESG-related businesses, and to ensure that all students have specific knowledge, skills and competences to be able to manage sustainability issues both in labour and social frameworks.

It seems obvious that embedding sustainability principles in higher education always takes time, resources and strategic commitment, the latter being of supreme importance. Only when there is a deep understanding and commitment, effective collaboration at a regional, national and international level can take place, which in turn is meant to contribute to solving many of the global problems and build the planet's sustainable future.

References

- 1. The Brundtland-Report (2016), https://www.britannica.com/topic/Brundtland-Report
- 2. Report of the UN Conference on environment and development (Rio de Janeiro, 3-14 June 1992) A/CONF.151/26 (Vol. I), 5 (1992), https://digitallibrary.un.org/record/159179?v=pdf
- 3. J.C. Dernbach, Achieving Sustainable Development: The Centrality and Multiple Facets of Integrated Decisionmaking. Indiana Journal of Global Legal Studies, **10(1)**, 247-285 (2003)
- 4. Transforming our world: the 2030 Agenda for Sustainable Development, Resolution adopted by the General Assembly on 25 September 2015 (2015), https://sdgs.un.org/2030agenda
- 5. HESI 2023 Global Forum, 17 July 2023, New York (2023), https://sdgs.un.org/HESI/2023GlobalForum
- 6. A.V. Kanaev, O.A. Kanaeva, T.N. Solovey, Integration of sustainable development issues into educational programs of higher professional education: goals, problems, directions, Problems of modern economics, **4(80)**, 174-180 (2021)
- 7. I.V. Ilyin, A.D. Ursul, T.A. Ursul, A.I. Andreyev, Education for Sustainable Development in Russia: Challenges and Prospects (2017)
- 8. M. Nikiforova, I. Skvortsova, Intercultural competence and intercultural communication in the context of education for sustainable development. E3S Web of Conferences, **296**, 08026 (2021)

- SDEA-2024
 - 9. ESG education trends in Russia: an overview. Expert analysis and report (2022), https://mgimo.ru/upload/2022/12/esg-education-trends-in-russia-september-2022-an-overview-eng.pdf
 - Acron Class. Acron Class Graduates Receive Master's Degrees at Russian State Agrarian University (2021), https://www.acron.ru/en/press-center/press-releases/200864/
 - 11. The Russian Presidential Academy of National Economy and Public Administration (RANEPA) (2024), https://igsu.ranepa.ru/program/p145617
 - 12. The MSU Faculty of Economics (2024), https://www.econ.msu.ru/students/foreign/EF/
 - 13. Ural State University of Economics (2024), www.usue.ru
 - 14. UNESCO. Education for Sustainable Development: A roadmap, Towards achieving the SDGs, 67 (2020)