Integrating the Sustainable Development Goals Into Croatian Higher Education: A Content Analysis of University Strategic Documents

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Abstract

The integration of the Sustainable Development Goals (SDGs) into higher education policy is an important step towards fostering a responsible, transformative academic environment. This study focuses on a content analysis of Croatian universities' strategic documents to understand how the contribution to the implementation of the SDGs is addressed. A content analysis protocol was created to code all points of the strategic documents that address the facilitation of the realization of the SDGs within the core academic activities (in research, teaching, management and community engagement). The analysis shows that while universities emphasize the importance of their own societal impact and sustainable development in general, the integration of the SDGs and SD remains uneven in both scope and depth across institutions. The strategic documents are generally aligned with the SDGs, such as Quality Education (SDG 4), Industry, Innovation and Infrastructure (SDG 9) and Sustainable Cities and Communities (SDG 11), but detailed frameworks for how academic staff can contribute to these goals are not clearly outlined.

Keywords: higher education institutions, sustainable development, sustainable development goals, university strategies

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Introduction

Contemporary society is confronted with a range of complex challenges that stem largely from human activity. This is primarily manifested in a large number of global inequalities and disparities among individuals and communities, and a general imbalance between human needs and the exploitation of available natural resources. Accelerated technological advancements are transforming numerous aspects of daily life, and yet such progress is frequently insufficiently directed toward ensuring equality, democratic participation and social inclusion (UNESCO, 2021). Addressing these multifaceted issues, alongside the demands of modern living, require creative, adaptive, and self-organized action (Bai et al., 2016). In this context, the Sustainable Development Goals (SDGs) were adopted by the United Nations member states at the United Nations Sustainable Development Summit as part of the 2030 Agenda for Sustainable Development. The stated goals are aimed at eradicating poverty, fighting against inequality and injustice, and addressing the climate change by 2030 (United Nations, 2015). In the Agenda 2030, particular emphasis is placed on education, which is regarded not only as a means of advancing all 17 SDGs, but also as a distinct objective in its own right. Specifically, SDG 4 underscores the need to promote and ensure inclusive and high-quality education (UNESCO, 2017).

The Role of Universities in Shaping a Sustainable Future

The role of educational systems in shaping a sustainable future is often emphasized and widely acknowledged, with higher education institutions, especially universities, holding a distinctive position in this process (Prior et al., 2025). Universities are increasingly perceived as key agents, capable of steering society towards more sustainable trajectories (Berchin et al., 2021). This role has been conceptualized through various models emphasizing the multidimensional integration of sustainability across key domains of university functioning: teaching and learning, research, campus operations and governance (management), and community engagement (Findler et al., 2019; Henderson et al., 2017; Lozano & von Haartman, 2018). According to these models, transformative sustainability integration requires not only the adoption of sustainability principles in strategic documents but also their operationalization through measurable targets, concrete action plans, and monitoring mechanisms. Without such operationalization, sustainability risks being reduced to rhetorical commitment rather than institutional practice (Leal Filho et al., 2023).

In recent years, sustainability has emerged as a central pillar of strategic planning within higher education institutions (Duarte et al., 2023). Well-designed higher education institutions' strategic plans encompass environmental, social, and economic dimensions, thereby aligning institutional objectives with global sustainability commitments (Franco et al., 2019). While insufficient on its own, the integration of the SDGs into higher education policy is recognized as an essential initial step towards fostering a responsible and transformative academic environment (Leal Filho et al., 2023). Nevertheless, the representation of the SDGs in university strategies often remains limited, and discrepancies between formal strategic documents and actual institutional practices can be found (e.g., Blasco et al., 2020; Duarte et al., 2023; Sanches et al., 2023). Such inconsistencies indicate the need for coherent coordination and robust monitoring mechanisms.

Despite the growing body of international literature addressing the integration of the SDGs into higher education policies and strategic planning (e.g., Leal Filho et al., 2023; 2024; Prior et al., 2025; Sanches et al., 2023), empirical evidence from the Croatian context remains

scarce. This lack of systematic investigation limits insights into the extent to which Croatian universities align with global sustainability agendas and adapt them to local socio-economic and policy conditions. Therefore, the aim of this study was to examine the extent and manner in which SDGs are integrated into the strategic frameworks of Croatian universities.

Methodology

This study employed a qualitative content analysis of 7 Croatian universities' strategic documents (University of Zagreb, Split, Rijeka, Zadar, Dubrovnik, Juraj Dobrila University of Pula, Josip Juraj Strossmayer University of Osijek). The units of analysis were the official strategic plans of each Croatian university, as publicly available on their institutional website. Strategic documents were collected in their most recent versions.

The content analysis proceeded in several steps. First, a protocol was created to code all points of the strategic documents that address the facilitation of the realization of the SDGs within the core academic activities (in research, teaching, management and community engagement). The coding framework was based on the 17 SDGs and the corresponding targets. The framework was adapted to allow for the identification of both explicit references to the SDGs (e.g., the Agenda 2030, direct mention of a specific SDG, etc.) and implicit alignments (e.g., references to sustainability related concepts such as climate action, social equity, or inclusiveness). Second, the strategic documents were systematically reviewed and coded using a coding framework. For each document, occurrences of SDG related content were recorded and categorized under the following dimensions: (I) general orientation towards SD/SDGs, (II) integration of SD/SDGs in teaching strategies, (III) integration of SD/SDGs in research agendas, (IV) community engagement in line with SD principles or SDGs, (V) institutional governance and management plans promoting sustainability and SDGs. Coding was conducted manually using MAXQDA software.

Results and Discussion

Different Levels of SD and SDGs Integration

The analysis reveals three distinct levels of integration of SD and the SDGs within the strategic documents of Croatian universities:
  (I)   *Minimal or no mention of SD/SDGs* – The focus on universal themes of sustainable development is recognized, but without explicit reference to the SDG framework.
  (II) *Explicit reference to SD/SDG principles without a clear operational framework or implementation plan* – The strategies in this category mention specific SDGs or SD principles, but there is no clear action plan to achieve them. Here, the SD/SDGs are stated as general principles on which the strategies are based rather than as operationalized objectives. Most universities fall into this category.
  (III) *Comprehensive integration of SDGs/SD across academic functions supported by specific action plans* – This level, which entails full alignment of teaching, research, management, and community engagement with the SDGs, is rarely observed in the national academic context.

An interesting finding is that smaller universities, such as the University of Dubrovnik, tend to demonstrate greater commitment to SD/SDGs and are more inclined to develop detailed implementation plans to achieve the SDGs and SDs compared to larger and older universities such as the University of Zagreb.

Focus on Specific SDGs

Among the SDGs, SDG 4 (Quality education) emerges as the most prominent, appearing in all analyzed strategies, even those that do not directly mention sustainability. Particular emphasis is placed on the development of new study programs, curricula, and lifelong learning initiatives tailored to diverse student profiles, as well as the introduction of interdisciplinary programs. Other than SDG4, which appears in all strategies, SDG17 (Partnerships for the goals) is also frequently represented, mostly through activities such as networking with European education and research initiatives (e.g., SEA-EU, YUFE). Goals that can also be identified as priorities in university strategies are SDG5 (Gender equality) and SDG10 (reducing inequality). Universities mainly focus on ensuring equal opportunities for all, caring for vulnerable and underrepresented groups, and improving educational accessibility. SDG 9 (Industry, innovation and infrastructure) is also present in strategies through plans to develop transdisciplinary research centers and promote technological innovations, while SDG 13 (climate action) is reflected in green campus initiatives, green practices, energy efficiency measures and climate adaptation strategies.

SDGs in Core Academic Activities

The last aspect of the strategy analysis is focused on the analysis of SD and SDGs representation in core academic activities.

Teaching is the domain where the strongest alignment with SD and the SDGs can be observed. Strategic documents frequently emphasize fostering "competencies of the future". In this sense, democratic competences, the development of critical thinking, active citizenship, system thinking are mentioned, all of which are key topics in the Education for sustainable development and aspects of sustainability competencies (e.g., Adomßent & Hoffmann, 2013; Bianchi, 2020; Bianchi et al., 2022; Redman & Wiek, 2021; Rieckmann, 2018; Wiek et al., 2011, 2016). Nonetheless, the introduction of new study programs based on the SDGs or similar initiatives is mentioned to a lesser extent.

When it comes to *research*, there is no explicit link to the SDGs and SDGs. The greatest focus is placed on quantitative indicators, such as the number of funded projects, publication indexed in the Web of Sciences and Scopus, and the establishment of research groups, etc. Any connection between these research activities and the SDGs is largely implicit and infrequent.

Least addressed domain in universities strategies is *management*, both in respect to the SDGs/SD and in general. In universities' strategic documents sustainability mainly appears through green campus initiatives, rather than being integrated into governance structures. Although management (or governance) is considered a key aspect of fostering sustainability in higher education institutions (Leal Filho et al., 2023), in the Croatian academic context, focus is rarely placed on connecting this core academic activity with SD/SDGs.

Community engagement is frequently mentioned in universities strategies, though seldom explicitly linked to the SD/SDGs. Universities contribution to the realization of the SDGs in this core academic activity is primarily framed in terms of knowledge transfer and the fulfilment of universities' social responsibility.

Conclusion

Although the SDGs are institutionally embedded in the strategic frameworks of most Croatian universities, their integration remains uneven in both breadth and depth across institutions. The majority of SDG references are related to the quality of education, innovation, and the green transition. While detailed implementation plans exist in some universities, a comprehensive integration of the SDGs as a strategic framework is still lacking.

To better align Croatian higher education with global sustainability efforts, it is necessary first of all to formally embed the SDG framework in strategic documents. More specifically, all universities should explicitly link their institutional goals to the SDGs. Universities that have already integrated the principles of SD and SDGs into their strategies and activities, such as the University of Dubrovnik, can serve as an example of good practice. In addition, what is missing from most of the analyzed universities are detailed action plans of work on SD/SDGs. Berchin et al. (2021) also find that in promoting sustainability by higher education institutions, it is most important to set clear goals whose achievement will be monitored and measured through various tools. Finally, it is important to put greater emphasis on management as core academic activity, which in the context of sustainability has been neglected in most of the analyzed strategies.

Acknowledgements

Declaration of Generative AI and AI-Assisted Technologies in the Writing Process

The author declares that Instatext, an AI-assisted writing software, was used in proofreading and refining the language used in the manuscript. The usage was limited to correcting grammatical and spelling errors and rephrasing statements for accuracy and clarity. The author further declares that, apart from Instatext, no other AI or AI-assisted technologies have been used to generate content in writing the manuscript. The ideas, design, procedures, findings, analyses, and discussion are originally written and derived from careful and systematic conduct of the research.

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