



## ALIGNING GOVERNANCE AND ACADEMIA: THE DUAL ROLE IN ADVANCING SUSTAINABLE DEVELOPMENT

### Abstract

We are witnessing a global shift toward sustainable development, particularly in urban areas, where the majority of people reside. For decades, there has been growing concern about poverty, inequality, environmental protection, and overall well-being. However, achieving sustainable development goals (SDGs) remains challenging, and we have yet to adopt a more integrated and modern approach to sustainable development. The concept of governance in higher education institutions now includes managing sustainable development goals and promoting real-world sustainability practices. This framework emphasizes three main roles: governance and management, encouraging university sustainability initiatives, and building capacity to advance SDGs. To accomplish this, local governments require sufficient flexibility to engage local stakeholders and mobilize resources to achieve their long-term strategic goals, ultimately enhancing residents' quality of life.

This paper examines key issues in sustainable development and explores how governance quality intersects with educational development indicators. It seeks to align university efforts around sustainable development, identify gaps in knowledge and practices worldwide, in the Global South, and the Arab countries, and anticipate the essential skills needed throughout the SDG decade and beyond. Sustainability is built around three pillars: Environmental, Social, and Economic sustainability; however, the paper reveals that it is important to consider a fourth pillar for a sound implementation of the SDGs, the Local Governments. Additionally, the paper offers practical recommendations for institutions that have yet to make significant progress in sustainability, drawing on current educational research in higher education. It highlights success factors from universities known for their sustainability efforts. The paper advocates for a comprehensive, interdisciplinary approach combining governance and education to promote sustainable development.

*Keywords:* Sustainable development goals (SDGs); Local Government; Higher Education Institutions; Administrative Sustainability; Policy Interventions; Universities Leadership

### Introduction

The Sustainable Development Goals are a set of interlinked and interdependent goals agreed upon by 193 UN member states, proposing a vision of a just and sustainable world for 2030, and the recognition that different societal actors, including the HE sector, must partner to achieve this proposed future drive changes within universities (UNGA, 2015). As a result of the rising attention to HE and the SDGs, universities around the globe are becoming increasingly interested in engaging with the Goals (Cuesta-Carlos et al., 2023; Chankseliani & McCowan, 2021). The Times Higher Education (THE) Impact Rankings, which use the SDGs to evaluate societal impact, have also influenced universities' interest in the Goals. This influence is most notable in the increase of participating universities in the last four years: from 467 universities in 2019 to around 2526 universities in 2025 (THE, 2025).

Referring to the 2023 UN Sustainable Development Progress Report, only 15% of the SDGs are on track, the progress of 50% of the targets is insufficient, and 30% are delayed or not involved in the process. Some challenges hamper or block the successful implementation of SDGs in many countries worldwide. Abdalla et al. (2024) include a myriad of reasons, but not limited to lack of stakeholders' engagement due to unclear policy or structure, a weak political commitment due to feeble coordination with the local government that generates disagreements on local priorities, and the swelling impacts of climate change. To effectively confront these challenges, it is urgent to include the SDGs in the national policies, strategies, plans, and public investments. Active engagement from government bodies, civil society organizations, academia, and private sector actors is crucial in shaping and advancing the SDG implementation framework.

In this context, universities can play a pivotal role in driving progress and accelerating the realization of all 17 SDGs. Education and research are explicitly recognized in a number of the SDGs, and universities have a direct role in addressing these. However, the contribution of universities to the SDGs is much broader, as they can support the implementation of every one of the SDGs and the implementation of the SDG framework itself. These main areas of contribution are learning and teaching, research, and external leadership (Malmio & Liwang, 2023; Olumide & Bada, 2021). Universities have contributed significantly to achieving the SDGs through their current



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actions in these areas. However, to be genuinely successful globally, universities must become champions of sustainable development and lead the implementation of SDGs.

In practice, implementing the SDGs has proven not to be precise among universities; it depends on several factors. First, there are different understandings in universities and among teachers on how the SDGs would be steered (Leal Filho et al., 2019; Sammalio et al., 2015). Second, there is a considerable conceptual deficiency and lack of comprehensive methodologies to guide and orient the HEI in developing their specific ESD profile (Malmio & Liwang, 2023; Isenmann et al., 2020). Third, smaller universities do not have the same resources and a wide range of scientific disciplines as the larger ones, so they might not sustain the current pace of agenda achievement. For universities that have not entirely applied sustainable development in their curriculum, these are important measures for enhancement, not ignoring that there are obstacles that need to be detected and avoided. Suppose the universities' mission is to shape the leaders of tomorrow and educate the people who will develop and oversee society's institutions. In that case, this sector has a moral responsibility to increase awareness, provide the knowledge and technologies to create a sustainable future, and balance the three dimensions of sustainable development (Malmio & Liwang, 2023; Cuesta-Claros et al., 2023). Though achieving the SDGs is immense, it is high time for universities to get started and accelerate action on the 17 SDG Goals.



**Figure 1:** The 17 SDGs.

Source: <https://sdgs.un.org/goals>

Today's students are future participants in diverse professional roles—from employees and employers to managers and political leaders—and have significant potential to embed the Sustainable Development Goals (SDGs) within their career paths. Consequently, educational institutions, notably higher education institutions (HEIs), play a pivotal role in advancing the SDGs. Consequently, higher education institutions (HEIs) have admitted the urgent need to develop educational methods and policy frameworks that integrate the Sustainable Development Goals (SDGs) into campus operations, research agendas, and educational programs. ((Suklun & Bengü, 2024; Ramísio et al., 2019). This recognition aligns with the United Nations' Agenda 21 (1992), which emphasized the responsibility of educational authorities to promote established pedagogical methods, foster innovative teaching practices, and strengthen the integration of traditional education systems within local communities—efforts encapsulated under the theme “Promoting Education, Public Awareness, and Training” (Section IV, Chapter 36, 1992).

This study aims to enhance the conversation about education and sustainability worldwide and in the Global South while addressing the precise linkages between the difficulties and the research goals. In the second section, the paper examines key issues in sustainable development and explores how governance quality intersects with educational development indicators. It seeks to align university efforts around sustainable development and identify gaps in knowledge and practices in education and research. Section 3 will explore the Methods for Integrating Education for Sustainable Development. The fourth section will explore sustainable development practices in higher education in Europe, the US, the Global South, and Arab countries. The paper will reveal that it is essential to consider Local Governments as a fourth pillar for a sound implementation of the SDGs.

Additionally, the paper offers practical recommendations for institutions that have yet to make significant progress in sustainability, drawing on current educational research in higher education. It highlights success factors from universities known for their sustainability efforts. The paper advocates for a comprehensive, interdisciplinary approach combining governance and education to promote sustainable development.



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### 2. Universities' contribution to the SDGs

Universities perform twofold roles as agents of change and beneficiaries of sustainable development initiatives. Understanding the intricate relationship between university and sustainable development outcomes is indispensable for planning well-informed policies and strategies to foster harmonious partnerships between academia, government, and civil society.

A quick look at the SDGs shows that they cover many specific areas such as agriculture, health, gender equality, water and sanitation, energy, industry and innovation, infrastructure, etc. Under almost all of them, higher education institutions can contribute positively. Thus, Universities' contributions should cover a wide range of interconnected social, economic, and environmental challenges covered by the SDG agenda. They can provide the knowledge, innovation, and new ways of thinking to reinforce the implementation pathways of the SDGs and provide professional advice and personal skills to create citizens with the knowledge necessary to achieve the SDGs, citizens who will become leaders, decision-makers, innovators, or entrepreneurs. With their trusted position, universities can educate people on the importance of the SDGs in society and be as broad as possible to achieve all of them, whether in teaching, research, community engagement, or advisory services.

In the twenty-first century, universities look forward to becoming more responsive to societal needs. In this way, they will become a role model for the community and the government in finding solutions for the challenges that face the implementation of the SDGs, which is a cornerstone to prove their willingness and capability to play a dynamic role that makes the university globally sustainable. Furthermore, universities provide an opportunity for partnership with other universities and with the local stakeholders to achieve several goals, in particular SDG 4, "inclusive and equitable quality education and lifelong learning opportunities for all," and targets such as "acquire the knowledge and skills needed to promote sustainable development". The cooperation framework can be extended among governments, businesses, civil society, funders, other universities, and the community. The role of local authorities is crucial in achieving the goals; they are closer to the community and cooperate to a greater extent with other regional and international stakeholders, thus, they form with universities an agent of change that benefits from this engagement with the SDGs.

Bhowmik et al. draw some key benefits from this engagement that could deliver an integrated way of communication that demonstrates to the internal and external stakeholders how universities can be a factor in the well-being of society, and show their impact and significance as a future agent of change when the graduates understand and can put into operation the SDG agenda. (Bhowmik et al., 2017). They propose the steps to follow if universities need to engage with the SDGs. First, the university should map the current state of knowledge on SDGs goals and then build its capacity to achieve them; second, according to the previous stage, the university should identify its priorities, challenges, opportunities, and gaps; third, integrate and implement the SDGs within university strategies, policies, and plans; and finally, Monitor, evaluate, and share actions on the SDGs. Working in cooperation and sharing interests would open the universities to a new perspective on collaborations with different stakeholders in research and education.

From a different standpoint in HEI is the distinction between SD as a learning goal (ESD) and SD as an organizational goal, leading to a double interpretation of how universities view SD as a pedagogy idea or a practical measure. (Malmio & Liwang, 2023). In this view, Moore extends the point that sustainability is both education for change, as well as education in change, including a more process-oriented approach to how things may happen, such as the organizational structures, leadership strategies, decision-making processes, the dynamics of a classroom, and strategic planning initiatives (Moore, 2005).

#### 2.1. Education

Universities worldwide are the providers of knowledge and innovation in society; with their education systems, research, and institutional practices, they act as role models for the general public. In case of a failure to produce innovators and leaders in society, they could be considered failing in delivering the message required from them. Plus, they will be partly responsible for the situation we face today and in the future. They need a new sustainable way of managing and thinking to review their education systems of teaching and research, and actualizing the SDGs through their role of knowledge production, innovation, and formation. (Wals, 2010; Chankseliani & McCowan, 2021). Hence, universities must reproduce their role as change agents by vigorously endorsing SDGs in their curricula (Leal Filho et al. 2019).



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Consequently, education quality is a solid foundation that leads to sustainable development for individuals, communities, and countries. Universities play an essential role in implementing SDGs through their various and extensive programs and activities for undergraduate and graduate curricula. They can incorporate the principles of Education for Sustainable Development (ESD) in the courses and research while providing training for instructors, course coordinators, and developers. (Bhowmik et al., 2017). Moreover, universities can strengthen their institutional commitment to sustainability by providing executive education and capacity-building courses for external stakeholders on the SDGs while advocating for supportive national and state-level education policies. Universities can engage the students in co-creating learning environments and structuring courses around real-world collaborative projects for change that foster adaptive capacity to work toward a target. Volunteer opportunities, campus networks, and student-led clubs further mobilize communities around the SDGs through events, campaigns, and national and international youth leadership programs focused on sustainability. To strengthen the societal impact of their efforts, universities can also develop durable partnerships with business and industry, for instance, by monitoring evolving employer needs through communities of practice. Finally, fostering cooperation and exchange relationships with other universities in developed and developing countries allows for mutual capacity building and the co-development of tailored training programs to meet SDG challenges.

## 2.2. Research

Achieving the SDGs will entail the community to pilot complex social, economic, and environmental challenges, many of which demand major transformations in how societies function, economies operate, and humanity interacts with the planet. With their extensive research capabilities, universities play a decisive role in generating the knowledge, evidence-based solutions, and innovations necessary to support this global endeavor.

To advance the SDGs through research, universities can adopt a multifaceted strategy. They can promote various research approaches, including interdisciplinary and transdisciplinary studies, while fostering innovation and incubating sustainable solutions. Universities can also contribute directly to national and local SDG implementation, advocate for stronger coordination, and support research on the SDGs.

Within their institutions, universities can position the SDGs as a core research priority, encouraging faculty to participate in international research collaborations and assessments, and helping researchers recognize how their work aligns with specific goals. Systematically mapping institutional research strengths against the SDGs and identifying key researchers ensures more targeted contributions. Moreover, arranging innovative challenges that unite university researchers and external stakeholders can generate additional approaches to addressing sustainability issues.

## 3. Methods for Integrating ESD

Sterling (2004) advocates two ways to integrate sustainable development into the higher education system, partially or fully. Partially, when SD is integrated into an existing system, or as a complete incorporation into the educational content. In the first case, the system remains unchanged, and sustainability becomes a more general “education in sustainability.” In contrast, in the second case, the system witnesses a comprehensive transformation and becomes a more in-depth “education for sustainability.” Isenmann et al. (2020) advise a “morphological box,” which refers to a three-way methodology. The first phase is to scrutinize the existing situation of the ESD implementation; the second, based on the findings of the first phase, is to fine-tune or tailor the course development considering ESD on different layers; and the third is to develop a university-specific interdisciplinary ESD profile. A key critique in this field is that integrating sustainable development (SD) into curricula demands systems thinking, interdisciplinary collaboration, and innovative pedagogical methods that foster interactive, experiential, transformative, and real-world learning. However, most initiatives to embed SD in curricula have primarily concentrated on curriculum design and articulating learning outcomes (Lozano et al., 2017).

Research indicates that autonomy serves as a key motivational factor. At the same time, it is equally valuable to create opportunities for teachers to reflect on how they categorize their courses and integrate their research findings within the framework of sustainable development (Malmio & Liwang, 2023; Mulder et al., 2013). Understanding sustainability in education varies widely, ranging from simple practices such as waste separation to more complex, holistic interpretations (Sammalisto et al., 2015). To support this diversity, professional learning opportunities for teachers should emphasize critical thinking, reflection on sustainable consumption practices, and modeling effective



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pedagogical strategies. Ultimately, the transition toward an emergent sustainability worldview must be rooted in innovative higher education curricula that nurture interdisciplinary thinking, foster a sense of agency, and cultivate a broader “planetary consciousness” (Merritt et al., 2019). From an academic perspective, the complexity of these issues—shaped by the intersection of multiple value perspectives—necessitates a new interdisciplinary approach. This requires disciplines to explore novel pathways actively and, in some cases, to redefine traditional identities partially, a process that can pose considerable challenges for educators (Falk, 2019; Malmio & Liwang, 2023).

### 4. Sustainable Development Practices in Higher Education

#### 4.1. SD in Europe and the US

In Sweden, the Swedish Higher Education Authority demanded a self-assessment from 47 Swedish universities based on three areas: governance and organization; environment and resources; and design, implementation, and results. The study revealed that, among the universities analyzed, only 12 met the higher standards for practical sustainability work. It also highlighted substantial variation in how higher education institutions (HEIs) conceptualize sustainability, directly influencing implementation in practice. Governance and organization emerged as the weakest area, with fewer than half of the participating HEIs achieving the overarching goals for integrating the Sustainable Development Goals (SDGs) (Malmio & Liwang, 2023; Finnveden et al., 2020). However, two institutions, KTH – Royal Institute of Technology and Linnaeus University, appear as a paragon of the integration of SD in the education, research, and institutional structure. At present, the overarching objective of the Royal Institute of Technology is the comprehensive integration of sustainable development (SD) into all educational programs across every level. The aim is to equip students with the necessary competencies to contribute effectively to sustainability efforts at the societal level upon graduation. While at Linnaeus University, a broad selection of courses is offered, addressing the three dimensions of sustainable development—ecological, social, and economic—while also reflecting a strong integration of research in the field. In addition, various initiatives are in place to strengthen employees’ competencies, including annual theme days that recognize and reward students for meaningful contributions.

The University of Manchester is particularly noteworthy in the United Kingdom, given its consistently high position in the THE Impact Rankings. It has a decentralized structure and a special office responsible for monitoring sustainability strategies, alongside a committed management team that ensures sustainable development (SD) integration across education, research, and other institutional activities. The strength of this model lies in positioning SD as a clear strategic objective and an integral component of existing tasks. (Appleton 2017b). The success factors identified in the HEIs highlight three key elements essential for realizing sustainability as an operational and pedagogical objective. First, institutional leadership must demonstrate a clear commitment to integrating and prioritizing sustainability goals within the organization. Second, the implementation must adopt an interdisciplinary approach that engages multiple domains simultaneously. Third, employees should be encouraged to adopt and apply this perspective in ways that align with their contexts and professional circumstances. (Malmio & Liwang, 2023). Elsewhere in Europe, Korhonen-Kurki et al. (2019) noted that several SDGs are embedded within the descriptions of multiple degree programs at the university level. Similarly, Aleixo et al. (2018) reported that in Portugal, graduate programs include SDG-related courses to a greater extent than undergraduate programs.

In Turkey, Suklun and Bengü stated that the Ministry of Development founded a National Sustainable Development Commission to bring together collaborative activities among all relevant stakeholders to achieve the SDGs, and to transform all its institutions by these goals by establishing an SDG-based unit (Suklun & Bengü, 2024; European Development Agency, Briefing, 2020). For instance, Abdullah Gül University (AGU) not only imparts knowledge, cultivates motivation and skills, facilitates learning, stimulates creativity for its students, and extends these objectives to its faculty and administrative staff. Achieving the Sustainable Development Goals (SDGs) at the institutional level requires collaborative initiatives that actively engage all stakeholders. (Suklun & Bengü, 2024). Another point they raised is the importance of raising awareness. Students must develop a deeper consciousness of their individual and collective impact on the world (Manolis & Manoli, 2021). Embedding sustainability into the core functions of education, research, and extension programs enhances awareness and fosters a stronger sense of responsibility toward the SDGs (Ramisio et al., 2019). Training programs are pivotal in promoting awareness, advancing the SDGs, and shaping students’ attitudes and responses to sustainability challenges through targeted awareness-building initiatives (Suklun & Bengü, 2024).

In the United States, universities have adopted various innovative approaches to progressing the SDGs. For



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instance, Carnegie Mellon University developed an interactive exhibit where students reflected on the SDGs, while Georgia Tech hosted public webinars. Rice University and the University of California have implemented community engagement initiatives, and the University of Tennessee, Knoxville, followed a systematic strategy by mapping and cataloging SDG-related courses. (Alaoui, 2021).

In contrast, although numerous universities worldwide are operating to integrate the SDGs into their educational programs, Scandinavian institutions—particularly in Finland—place distinctive emphasis on specific goals. Korhonen-Kurki et al. (2019) highlight that these efforts often prioritize SDG 4 (Quality Education), SDG 17 (Partnerships for the Goals), and SDG 3 (Good Health and Well-being). However, at the University of Helsinki, less attention is given to SDG 1 (No Poverty), SDG 6 (Clean Water and Sanitation), and SDG 5 (Gender Equality). This uneven focus distribution across the SDGs reflects an ongoing challenge, suggesting the need to explore stable implementation strategies further. A study examining universities across 17 countries on five continents found that while 78% of participants stated being fully aware of the SDGs, their application in teaching indicated substantial discrepancy. Precisely, 32% of institutions reported fully applying the SDGs, 40% employed them partially, 11% applied them to a limited extent, and 18% did not (Filho et al., 2019).

### 4.2. SD in the South and Arabic Countries

In the global south, particularly, there is a pressing need to evaluate the effectiveness of the current educational systems to foster social progress and sustainable development. The countries in the southern part of the planet are confronted with unique difficulties alongside promising opportunities. It is essential to assess the effectiveness of adapting educational curricula to regional realities and aligning them with the SDGs. Owuondo (2023) and Kioupi and Voulvoulis (2019) emphasize that both teachers and students must be empowered to identify challenges and opportunities, determine essential skills, design appropriate curricula and pedagogies, adopt whole-institution approaches, and measure progress toward sustainability goals. Eventually, aligning universities' curricula with sustainability principles is vital for building a more sustainable and prosperous future. However, the Global South faces considerable barriers in incorporating SDGs into education due primarily to financial constraints that often hamper the distribution of funds needed to improve infrastructure, train teachers, and provide high-quality instructional materials (Tikly & Barrett, 2013). Addressing these barriers and ensuring equitable, culturally relevant instruction is critical for advancing sustainable development through education.

Promoting sustainability in education requires the engagement of diverse stakeholders; governments on the front line are essential partners for universities in fostering a coordination mechanism that can bring these different stakeholders together. International organizations and NGOs contribute by mobilizing resources, facilitating collaboration, and sharing global expertise, so teachers as change agents embed sustainability into teaching and learning processes, highlighting the ongoing need for continuous professional development (Owuondo, 2023). Therefore, a supportive policy environment, sustained investments in teacher preparation, and active community participation are indispensable. Together, these measures are key to strengthening education in the Global South, thereby advancing social progress and sustainable development.

Regarding Arabic countries, Abdalla et al. clarified how universities can effectively support and accelerate the achievement of the SDGs, exploring four key functional areas of universities: Institutional Capacity & Governance; University–Community Partnerships & Collaboration; Research Productivity; and Teaching and Learning. They gathered data from 30 public universities in 14 Arab countries, showing that SDG performance varies widely at sub-regional levels, with very low performance being widespread in all low-income countries. In contrast, middle-income and high-income countries have demonstrated some progress on certain SDGs. The SDGs' slow progress and limited implementation emphasize the urgent need to increase efforts, strengthen collaborations, and develop tailored strategies and interventions at sub-national, national, and regional levels to make meaningful progress in the remaining years. (Abdalla et al., 2024). They classified universities under "SDGs Prioritization Scores" based on faculty responses to understand how universities in the Arab region prioritize each SDG, considering economic, social, environmental, and institutional aspects of sustainable development. Universities' contributions to the SDGs are categorized into three levels: low, medium, and high, with the independent variables including institutional governance, community partnerships, research productivity, and teaching and learning.

The results revealed that the universities in high-income countries prioritize the SDG implementation more than those in middle-income or low-income countries in the Arab region. This discrepancy is logical due to the relevant differences in resources, infrastructure, and policy frameworks that support SDG initiatives. The study revealed



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that the most prioritized goals at the regional level are: SDG4 (Quality Education) and SDG8 (Decent Work and Economic Growth), and the suggestion is that the universities in the sample mentioned before underscore the educational quality improvement and foster economic growth through proper employment opportunities. The least prioritized SDGs are SDG15 (Life on Land), SDG2 (No Hunger), and SDG5 (Gender Equality), which indicates a lower priority on environmental sustainability, eradicating Hunger, and promoting gender equality within these institutions.

These findings convey an important message to universities and policymakers in the Arab countries that they must support the lower-priority SDGs to deal with disparities across institutions. In particular, greater attention and resources are needed to raise the prioritization of SDG 15 (Life on Land), SDG 2 (Zero Hunger), and SDG 5 (Gender Equality). Universities can assimilate these underrepresented goals into their core missions through curriculum reforms, research initiatives, and community engagement programs. To bridge these gaps, initiating collaborative strategies involving partnerships, funding mechanisms, and awareness campaigns is primordial. The low score of certain SDGs in middle-income and low-income countries further underscores the need for increased support and capacity building through cooperation and targeted funding to help establish a more balanced and inclusive approach to achieving the SDGs across the Arab region. Regional and inter-university collaboration and sharing best practices are essential. Universities in high-income countries (HICs) can be pivotal in supporting resource-limited institutions. Building collaborative networks and partnerships will ultimately strengthen the overall capacity of universities to advance the full spectrum of SDGs. (Abdalla et al., 2024; Agusdinata, 2022).

Universities with strong governance structures and leadership commitment are more successful in integrating Sustainable Development Goals (SDGs) into policies, strategic plans, and daily operations. Active involvement of top management—presidents, deans, and department heads—plays a crucial role. To strengthen this, universities with weaker governance should invest in capacity-building frameworks, resources, and professional development programs for administrators and staff, enabling a more integrated approach to sustainability. Additionally, research productivity is a key driver of SDG progress. Universities with higher publication rates on sustainability issues contribute more effectively to policy-making and knowledge dissemination. Policymakers and university leaders should prioritize research that is aligned with sustainability goals to reinforce institutional strategies and national/regional sustainability efforts.

Overall, the results divulge that universities' contribution in the Arab region emphasizes the environmental dimension in the three levels: low, medium, and high income countries. At the national level, universities in Qatar and the United Arab Emirates strongly prioritized all sustainability dimensions. In contrast, the institutions of Yemen, Sudan, and Syria reflected the lowest priority levels. This configuration provides valuable insights for universities, policymakers, and stakeholders, enabling them to better align strategies and resources with the most urgent sustainable development challenges.

### **5. The Fourth Dimension of Sustainability: Local Governments**

Sustainable development is a multi-layered concept that includes a variety of viewpoints that influence decision-making processes. According to this definition, sustainability is a broad proper principle built around three dimensions: Environmental, Social, and Economic sustainability. However, a fourth pillar that appears essential to consider for the proper implementation of the SDGs is the Local Governments. They are indispensable in advancing the United Nations Sustainable Development Goals (SDGs), as they are the closest to citizens and most directly responsible for shaping local policies, services, and infrastructure. Their proximity to communities enables them to translate the global SDG agenda into context-sensitive actions that address pressing challenges such as poverty reduction, climate adaptation, equitable access to services, and social inclusion. For this reason, the synergetic role of the local governments/authorities became essential in facilitating these difficulties. (Chibli, 2024). Local governments initially have significant gaps in expertise; their capacity to deliver on these goals is significantly strengthened when they partner with educational institutions, which act as knowledge hubs and incubators for innovation. Collaborative efforts between universities, industry, and government can enhance the impact of research on sustainable development (Di Maria et al., 2019; Abdalla et al., 2024).

Likewise, partnerships can facilitate the transfer of knowledge from academia to practical applications, thereby accelerating the achievement of the SDGs. (Al-Belushi & Al-Hooti, 2024). Given their proximity to the population, governments must act as leaders and catalysts at both local and national levels. Accordingly, they are more flexible in engaging and coordinating actors on the ground, mobilizing resources, and achieving both long-term strategic



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goals and short-term plans to improve residents' quality of life. However, local authorities initially have significant gaps in expertise; collaborating with universities would bridge this gap and develop their vision collaboratively to guide the process. Their role is crucial in ensuring that all stakeholders participate in shaping the future.

Local Governments act as catalysts for community engagement in the process. Involving universities in collaborative research projects with the governments allows for testing policies with academic backing. Universities play a vital role by integrating Education for Sustainable Development (ESD) into their curricula and preparing graduates with systems thinking, policy analysis, and community engagement competencies. It enhances the ability to deliver on SDG targets and provide tailored strategies for socio-economic, cultural, and environmental contexts. However, local authorities initially have significant gaps in expertise; collaborating with universities would bridge this gap and develop their vision collaboratively to guide the process. In sum, local governments act as the implementers of SDGs locally. At the same time, educational institutions bring in the intellectual resources, research insights, and skilled human capital needed to realize these targets. Their collaboration ensures a community-driven process integrating governance, education, and societal engagement.

The closeness to communities permits them to convert the global SDG agenda into context-sensitive actions to tackle constant challenges such as climate adaptation, social inclusion, and poverty reduction. However, their capacity to deliver on these goals is significantly strengthened when they partner with educational institutions, particularly universities and schools, which act as knowledge hubs, research centers, and incubators for innovation.

### 6. Conclusion

The UN 2030 Agenda represents an influential agreement that requires the knowledge, skills, values, and attitudes necessary to advance sustainable development. Therefore, educational institutions are responsible for linking curricula to specific SDG learning outcomes and employing transformative pedagogies and strategies that may be adapted to their particular contexts. Institutional responses will inevitably vary according to size, mission, funding capacity, disciplinary strengths, and community needs. Implementing the SDGs requires systemic change across all levels, particularly organizational, governmental, and societal, and will encompass economic and cultural shifts. Educational systems in the Global South face opportunities and challenges in advancing social progress and sustainable development through alignment with the SDGs. Effective integration requires adapting curricula to regional contexts, empowering teachers and students, and embedding sustainability and green practices across disciplines to foster transformative learning and long-term commitment. Overcoming these challenges demands coordinated action: governments must enact supportive policies and allocate resources, international organizations and NGOs should foster collaboration and mobilize expertise, and teachers—key change agents—require continuous training. A holistic, well-supported approach is essential to ensure equitable, culturally relevant education that empowers individuals and strengthens sustainable development in the Global South.

To prepare society with the skills needed for a sustainable future, sustainability as an educational goal should be integrated into various areas of knowledge creation. Colleges and universities have different approaches and perspectives on addressing sustainability challenges, with variations in disciplines, organizational structures, and regional contexts. The challenges we face today and in the future require long-term views and strategies in research and education, including a complete understanding of the three dimensions of SD. To meet these two requirements, one suggestion could be to limit the initial scope of SD. The universities that have been successful in implementing sustainability have done the following:

- Start with a limited scope of SD focused on environmental concerns in an initial phase.
- Encompass the non-environmental aspects of sustainability.
- Identify a specific cluster of SDGs that fit with their areas of education (Leal Filho et al., 2019).

Consequently, it is important to start with a reductionist understanding of sustainability as purely environmental, but to fully understand its meaning, which covers social, economic, and administrative sustainability. Sustainable development (SD) represents a paradigm shift in how the role is viewed in our society and the projected outcomes of higher education institutions in the future. Amid pressing global challenges such as climate change, rising inequalities, and mass migration, higher education institutions (HEIs) are progressively acknowledged as playing a fundamental role in advancing the Sustainable Development Goals (SDGs). To address this concern, educational systems and institutions must undertake considerable transformation to provide future generations with the needed knowledge and skills to confront these multifaceted topics efficiently.



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Ultimately, advancing a sustainable and equitable future requires the intentional and coherent integration of education with the SDGs, an urgent and indispensable endeavor. The insights from this study provide a critical foundation and practical roadmap for policymakers, educators, and stakeholders in the Global South as they work collectively to harness education as a driver of sustainable development and social transformation.

### 7. Recommendations and Strategic Directions

In the governance and management fields, universities must clearly define their sustainability (SD) ambitions in governance and management to create real impact in research and education. A key challenge is that despite being interconnected, teaching, research, and administration are often handled separately. (Leal Filho et al. 2019). Higher education institutions (HEIs) should set precise requirements for courses addressing SD to strengthen education, since faculty often struggle to integrate the SDGs in education. Moreover, sustainability must be understood beyond environmental issues to include neglected dimensions such as social sustainability. (Chankseliani and McCowan 2021; Leal Filho et al. 2019). This aspect is vital for HEIs as civic role models and especially critical for institutions like the Swedish Defense University, where societal vulnerabilities directly affect security. (Enarsson and Pease 2016).

There is a link between education and research. The research can reinforce societal resilience, while education fosters problem-solving ability, critical thinking, creativity, and awareness. Drawing on the experiences of successful higher education institutions, it is also essential to establish dedicated working groups that focus exclusively on educational activities for sustainable development, addressing both theoretical foundations and practical content. (Malmio & Liwang, 2023).

The research affirms that achieving sustainable development through education is feasible, particularly in the countries in the south. They can advance the realization of the SDGs by adapting curricula that reflect local contexts and cultural specificities, particularly in southern countries. Their main challenges are related to the investments in educational infrastructure that need to be increased by the HEI. Addressing these challenges is critical for harnessing education as a driver of sustainable development. It is essential to balance the local context and the global sustainability objectives. This approach will enable learners to develop relevant skills while contributing meaningfully to the global sustainability agenda.

It is important to embed sustainability and green practices across all levels of education to strengthen students' understanding of ecological challenges and their ability to propose viable solutions. Integrating sustainability throughout the curriculum rather than confining it to a single subject or discipline will maximize the impact.

Finally, the stakeholders' engagement is recommended to advance sustainability through education. First, governments are advised to craft supportive policies and allocate resources strategically. Second, higher education institutions are called upon to reform curricula and pedagogical approaches to align more diligently with sustainability goals. Third, international organizations are indispensable in fostering collaboration, mobilizing resources, and facilitating knowledge exchange. Finally, educators are responsible for introducing sustainability awareness in learners, emphasizing the ongoing need for comprehensive teacher training and professional development.



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