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Sustainability Policies

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Definition

Sustainability policies can be characterized as dynamic, complex, and interactive systems through which environmental problems are identified and countered by creating new policies or by reforming existing policies with the objective to improve environmental performance and to collaborate with sustainable development processes. They encompass human and ecological health, social justice, secure livelihoods, and a better world for all generations and can be created both by public and private sectors. In this context, it should be emphasized that higher education institutions play a fundamental role in the formulation, implementation, and discussion of policies aimed at sustainability.

Introduction

The challenge associated with the promotion and implementation of sustainable development (SD) is a global concern. At this scale, the efforts of governments and society are aimed at curbing environmental degradation and its direct and indirect consequences, through public policies and agendas, like the United Nations 2030 Agenda for Sustainable Development, that include various means of awareness and the effective change of environmental standards (United Nations 2015). The pursuit of environmental preservation and sustainability is related to the level of environmental awareness of individuals. Besides perceptions pointing towards an understanding that natural resources are finite, there is the need for harmony with nature that allows an emphasis on the importance of fairness and equality capable of shaping the way society treats the environment humans live in (Tavares 2005).

This situation illustrates the necessity of sustainability policies, which among diverse aspects involve environmental education, in a broad perspective, to enable awareness of societies so that sustainability can be achieved. According to Sauvé (2002), environmental education aims to induce social dynamics that promote collaborative and critical approaches to environmental

realities and an autonomous and creative understanding of problems encountered and possible solutions and adequate policies to solve them. "More than an education 'about the, for the, in the, by the or on behalf of the' environment, the object of environmental education is indeed fundamental to our relationship with the environment" (Sauvé 2002, p. 1).

In this context, it is important to highlight the role of higher education institutions (HEIs) in the analysis, reflection, and elaboration of public policies aimed at environmental sustainability. For Santos et al. (2011), HEIs are plural institutions, and among many functions, they should be concerned with the training of professionals for the labor market, by means of research and extension activities guided by relevant policies, besides the goal of knowledge cultivation through scientific production. These institutions should address issues that are prominent and stimulate interest in aspects that are not yet considered relevant. Thus, a space conducive to discussions involving human development, prospects for improving the quality of life, as well as sustainable development policies that facilitate attention to these as well as similar issues.

Tauchen and Brandli (2006) emphasize the outstanding role played by HEIs in the process of technological development, in the preparation of students, and in the provision of information and knowledge and that these institutions can and should be used to support the development of a sustainable and just society. It is imperative that HEIs incorporate the principles and practices of sustainability, through the formulation and use of adequate policies, to make fundamental decisions about planning, training, operations, and activities common in their different areas of specialization, as well as in their premises, and to initiate a process of awareness at all levels, including academics/lecturers, employees, and students.

According to Salvioni et al. (2017), HEIs have a fundamental role in exploring, testing, developing, and communicating necessary conditions in the quest for sustainability. Ralph and Wendy (2014) mention that HEIs should provide information, training, and skills to leaders, advocates of environmental sustainability, and staff to improve their understanding of environmental sustainability principles, direction, and policies.

HEIs play a fundamental role in enhancing the creation and diffusion of sustainable thinking by being thought and opinion makers. For this process to be possible, it is necessary that people involved in the development of university activities serve as the basis for dissemination of knowledge and strengthening of sustainable policies and practices. There are still many challenges that need to be overcome in higher education regarding sustainable development, even with the advances already made (Leal Filho et al. 2015). Leal Filho et al. (2018) also emphasize that initiatives to evaluate and encourage the engagement of HEIs in sustainable development is a complex and extensive process. So, sustainability policies at HEIs are important, since they provide a basis for systematic initiatives across the institution.

HEIs and Sustainability Policies

The concept of sustainable development in higher education around the world is widely implemented, analyzed, and studied (Amaral et al. 2015; Lukman and Glavic 2007; Holm and Martinsen 2015). Different policies, perspectives, and lines of action regarding the role of HEIs in building a more sustainable society can be distinguished.

Lozano et al. (2013) propose that the elements to be considered and embraced within sustainable policies of HEIs are: curricula, research, campus operations, community outreach, university collaboration, assessment and reporting, transdisciplinarity, embedding sustainable development into the institutional framework and in the daily campus experience, and educating the educators. Potentially, each of these areas could be covered in an overarching sustainable development strategy and policy. However, according to Leal Filho et al. (2018), some will require focused initiatives, subpolicies, and integrative approaches, so that policies must ensure that broader concerns are fully addressed.

The increase in policy development aiming to address SD is a cause and a consequence of the growing number of HEIs incorporating SD practices. However, such policies often do not reflect the broader concerns of SD; instead, they are more likely to address specific environmental issues (e.g., carbon reduction, conserving energy). This reveals that a more holistic approach may be missing in the policy development process.

Tauchen and Brandli (2006), for example, conducted a study on sustainable practices developed by HEIs, through an extensive bibliographical review on the subject, in 42 institutions located in the UK, the USA, Canada, Portugal, Germany, Spain, France, and New Zealand and in four institutions located in Brazil. In a general analysis, the authors found that environmental management has been implemented using diverse and appropriate policies at most HEIs, with growing concern observed by institutions to adapt to sustainable development policies not only in terms of education but also in environmentally sound practices and campus operation.

Examples of incorporating sustainability policies and principles into higher education mentioned by Lukman and Glavic (2007) indicate that the HEIs analyzed have focused their attention on incorporating sustainability principles into everyday activities and structures such as "managerial performance (vision, mission, statement, strategy and council/sustainability coordinator), education and research (programs, curriculum, education, operations, networking and stakeholder reporting (evaluation tools, sustainability indicators)" (Lukman and Glavic 2007, p. 107). However, it is important to emphasize that the creation of well-defined environmental policies must precede the implementation and incorporation of these sustainability practices, since in this way, one can objectively evaluate and determine who will be responsible for each step of the process, what are necessary physical changes, which resources are available for investments, and then to monitor the different steps, correct mistakes, and minimize possible problems.

Gough and Scott (2007) contribute to this analysis by presenting examples (mostly in the UK) that explore the relationship between higher education and sustainable development policies and practices in the light of seven international case studies on sustainability, related to learning processes, higher education teaching, and management practices. The case studies analyzed by Gough and Scott (2007) demonstrate that research and teaching can contribute to creation and implementation of diverse sustainable development policies, even though there are many challenges, and even failures, in this process. For the authors, when thinking about higher education and sustainable development policies, there are different perspectives; however, HEIs play a central role in the development of citizens and their ideas of sustainable development are implicit in this.

Amaral et al. (2015) present examples of the performance of HEIs for sustainability considering operational and management practices (environmental management system), created by the formulation of campus operations policies, which focus on the efficient use of energy resources. Regarding operational practices, the authors cite Green Building Initiatives, focusing on the Green Building Leadership in Energy and Environmental Design (LEED) developed by the US Green Building Council (USGBC). In addition to LEED certification, the authors cite the Building Research Establishment Environmental Assessment Method which is another environmental assessment method and rating system widely used not only in Europe but also all over the world. Several UK university buildings have been certified under this specific method. All these examples of operational and management practices and their use are based on sustainability policies for campus operations developed by these institutions.

For environmental management practices, Amaral et al. (2015) include examples from organizations certified according to ISO 14001, which also depend on institutional sustainability campus operations policies to be implemented. The authors (Amaral et al. 2015) mention as examples the University of Glamorgan, University of Melbourne, Mälardalen University, and University of Gävle. These authors also

mention that some institutions prefer not to certify their EMS, despite using ISO 14001 as framework to implement it: examples are Lincoln University in New Zealand and Dalhousie University in Canada.

The implementation of green building and/or management initiatives often tends to address only the operational dimension of the university system. In this sense, it is necessary to develop improvements regarding approaches to environmental practices and policies in HEIs including in this process, not only the operational question but also the research, education, and community engagement aspects that are fundamental to enable sustainable development policies (Amaral et al. 2015).

According to Leal Filho et al. (2018), these diverse examples make it clear that SD at universities is here to stay. Yet they also emphasize that there is a need for refurbishment and adjustments, and that SD policies need to be incorporated to improve the management of all resources, community relations and the dissemination of new practices and innovations.

It is worth noting that in addition to the examples presented so far (Tauchen and Brandli 2006; Lukman and Glavic 2007; Gough and Scott 2007; Amaral et al. 2015), there are still many other examples of initiatives of HEIs regarding the contribution to sustainable development policies and actions. However, even in the face of so many examples and diversity, to better incorporate sustainability in all levels of university activity and to guarantee its continuity, the continuous development, incorporation, and evaluation of policies for sustainable development are necessary, as well as adequate analysis on problems and failures related to them.

For Bizerril et al. (2018), sustainability policies in HEIs can be strategic in the transition towards sustainable societies, since they include, among other aspects, critical thinking about the organizational models of society and participation in decision-making as a method of teaching and learning about democracy.

In this sense, it is important to mention Lukman and Glavic (2007) who present an organizational tool, based on a continuous feedback loop (Deming spiral), to incorporate the idea of sustainability policies and principles into university activities. These authors (Lukman and Glavic 2007) proposed four steps in approaching towards a sustainable university: policy, operations, evaluation, and optimization and mention that one significant challenge to integrate sustainability policies into universities is to achieve a coherent institutional approach, where operations, teaching, research, and outreach are synergized.

Policy-making is the first significant step towards facilitating institutional change to achieve sustainable development and education objectives. Sustainable policies should contain key elements, such as the university's statement on its mission, vision, and goals, its organizational structure, and its strategy. The policies represent a framework to support education for sustainable development and the essence of how a university can foster sustainability (Lukman and Glavic 2007).

In this context and in view of the importance of sustainability policies for HEIs to collaborate in sustainable development, it is worth presenting the results of the research developed by Leal Filho et al. (2018), which sought to verify which universities that work in the field of sustainable development have policies for sustainable development and whether such policies are a precondition for successful sustainability efforts.

This research was carried out from a mixed-methods approach, ranging from document analysis, website analysis, questionnaires, and interviewing. The sample involved 35 universities from 7 countries: Brazil, Germany, Greece, Portugal, South Africa, the UK, and the USA. The results were presented through an individual analysis by country and a comparison between countries (Leal Filho et al. 2018).

In a general analysis, it was observed that 57% of the sample universities present a policy that specifically addresses sustainable development. However, this result cannot be considered as an indicator that the remaining 43% are not engaged in actions and policies that address sustainable development (Leal Filho et al. 2018). For the

authors, all the universities in the sample have shown involvement with environmental sustainability policies or procedures in some form or another, regardless of the existence of specific sustainable development policy.

Leal Filho et al. (2018) also highlight that the existence of concrete and active SD policy and principles in some university areas may suggest that other areas are equally developed, but the authors observe that this conclusion is not always true. This illustrates the fact that SD policies are valuable tools in showing the commitment of HEIs to sustainability and assist in the implementation of sustainability training efforts. However, the absence of a SD policy at a given university does not necessarily mean that it would perform poorly in dealing with environmental or social issues. As the findings of Leal Filho et al. (2018) have shown, even in universities with no formal SD policies, there can be successful sustainability initiatives but that are not necessarily integrated into broader policies.

On the other hand, statistical analysis has shown that universities with sustainable development policies "have more probability to have initiatives as green campus procedures, SD in the curriculum and joint local/regional SD activities, when compared with those who do not" (Leal Filho et al. 2018, p. 33).

In view of the above, it is possible to note the relevance of policies for sustainable development and its contribution so that HEIs can effectively collaborate in the promotion of sustainability, as well as in the training of citizens committed to this theme both on and off campus. For Cortese (2003), higher education institutions have a deep moral responsibility to increase the awareness, knowledge, skills, and values needed to create a just and sustainable future. Most professionals who develop, lead, administer, teach, work, and influence the institutions of society are prepared by higher education. As students learn from everything around them, the activities developed in higher education form a complex network of experience and learning. Thus, all parts of the university system are fundamental to achieving transformative change.

According to Velazquez et al. (2005), policies to support sustainability initiatives were rarely found in HEIs, and when they existed, they lacked implementation and were not effective in guiding the daily activities of campuses. The effect of this scenario, among other issues, was to significantly limit access to funds and opportunities for support. However, many of those responsible for sustainability initiatives at HEIs have created their own objectives without adequate sustainability policies, which have led to a struggle for policy-making in these institutions.

Ralph and Wendy (2014) mention that the barriers and failures to integrating sustainability policies into universities are predominantly internal and that financial constraints can limit the implementation of sustainability policies and initiatives at universities due to competing priorities for limited resources and because the long-term savings of these projects are not accounted for in budget modeling. Ralph and Wendy (2014) also emphasize that within university communities, there is often a lack of understanding and awareness of sustainability issues and policies, resulting in confusion, resistance to change, and a lack of staff commitment to implementing sustainability policies and programs. Leal Filho et al. (2018) emphasize that policy development and implementation of initiatives will only be possible with the support of the HEIs senior team.

According to Lozano (2006), the concepts of SD should be integrated into the policies, approaches, and learning of all members of university stakeholder groups (administrators, faculty, and students). In cases where SD is still not part of the culture, it is possible "to force" it from the top to the bottom through power-coercive strategies; however, this approach creates conflicts, which can weaken the implementation.

Contributing to this analysis, Amaral et al. (2015) suggest that in general terms, a sustainable university should teach the concept and philosophy of sustainable development to its students, but it is also fundamental to be able to conceive the concept within day-to-day of organizational management, through the

development and adequate incorporation of sustainable policies.

Stephens et al. (2008) describe specific issues related to failures to integrate sustainability policies into HEIs that include factors internal and external to the higher education system and are related to the dominant sustainability challenges of each region, the financing structure and independence, the institutional organization, the extent of democratic processes, and communication and interaction with society.

According to these authors (Stephens et al. 2008), these five critical questions can help assess the potential and limitations of higher education as a change agent for sustainability policies and actions and can be explored in the context of any higher education institution or system around the world. In this context, identifying specific characteristics of the region in which the HEI is located can facilitate the design and implementation of new initiatives and adequate policies, maximizing and accelerating potential of higher education in social change towards sustainability.

Final Considerations

According to Tavares (2005, p. 4), a sustainable society should be aspired to, since sustainable societies may exist in balance with the environment. Therefore, to build a sustainable society where there are no diverse and continuous environmental problems, the development of policies aimed at sustainability is fundamental, as well as broad processes related to environmental education.

Mader et al. (2013) analyze the important role that higher education must play in addressing the social, cultural, economic, and environmental challenges facing the world and how this can reflect both in multiple university functions, including internal campus operations, education, research, community outreach, and may also reflect in public policies that affect society and sustainability. According to Leal Filho et al. (2018), it is evident that, over the years, incentives for establishing sustainable development policies in higher education institutions including

sustainability-oriented curricula, research, social initiatives, and other related actions have increased.

In this context, it is worth mentioning Stephens et al. (2008), for whom HEIs hold a unique position in society since they are important places of production, perpetuation, and dissemination of knowledge. According to the authors, HEIs have the unique potential to stimulate the synthesis and integration of different types of knowledge and to improve their application, thus enabling social changes that seek sustainability. And these results need the previous development and implementation of diverse sustainability policies in HEIs.

Thus, to enable HEIs to engage even more with sustainable development, the policies for sustainability, as seen in this work, are fundamental. Such policies enable the structuring and implementation of actions that promote research, teaching and learning practices, management, and actions aimed at communities working towards a more just and sustainable society. To achieve this transformation, higher education institutions must identify not only what to give increased focus to in their curriculum, research, and community and business engagement activities but also how to ensure that desired changes are effectively and sustainably implemented through the whole institution (Mader et al. 2013), and this approach needs to be embedded across every aspect of institutional operations in a synergistic way.

However, as mentioned by Bizerril et al. (2018), there are factors that hinder the implementation and institutionalization of sustainability policies in higher education institutions, and the following stand out: personal resistance to change and innovation, institutional and systemic barriers to change, limited perception of the concept of sustainability on the part of the managers, and problems in the conduction of participative process in the institutionalization of the sustainability.

In this sense, it should be noted that HEIs are important references for diverse societies, remain centers of production of knowledge and possibilities for solutions to the problems they experience, and important agents in the

implementation and development of policies and actions that aim at sustainability.

Cross-References

- ▶ Dimensions of Sustainability in Higher Education
- ▶ Higher Education and Sustainability Assessment
- ▶ Higher Education and Sustainability Initiatives
- ▶ Institutional Change and Sustainable Development
- ▶ Sustainability Domains in Higher Education
- ▶ Sustainability on Campus
- ▶ Sustainability Policy Initiatives
- ▶ Sustainability Programs

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