

Challenges Of Higher Education To Promote Sustainable Development From A Case Study

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Abstract

The progress of universities to achieve the Sustainable Development Goals (SDG) has been fundamental, but there is still a long way to go for an effective contribution. This study seeks to identify the main challenges of higher education institutions in Ecuador for achieving the SDG based on the analysis of a case study. Given the multiplicity of contexts and the dynamism in these institutions, this research was conducted from a qualitative approach. For this work, the opinions and reasoning documented in the situational diagnosis of the institution under study were considered to learn about the contribution and challenges of the University of Guayaquil in the achievement of goal 4.7 of Agenda 2030 within the framework of sustainable development and quality assurance for the exercise of substantive and management functions. The results reaffirm the importance of ensuring education for sustainability, so it becomes necessary to identify, from a comprehensive approach and with the characteristic of lifelong learning, the internal and external coverage of training programs, analyzing the competencies, commitments and roles of the university community towards society in the areas of intervention: teaching, research, institutional policy and social leadership.

Keywords: Higher education, sustainable development, Ecuador

Resumen

Los avances por parte de las universidades para el cumplimiento de los Objetivos de Desarrollo Sostenible (ODS) han sido fundamentales, pero aún hay mucho camino por recorrer para una contribución efectiva. El presente estudio busca identificar los principales desafíos de las instituciones de educación superior del Ecuador para la consecución de los ODS, a partir del análisis de un caso de estudio. Ante la multiplicidad de contextos y el dinamismo que se desenvuelven en estas instituciones, la presente investigación se realizó desde un enfoque

cuantitativo. Para fines de este trabajo se consideraron las opiniones y razonamientos documentados expuestos en el diagnóstico situacional de la institución sujeto de estudio para conocer la contribución y desafíos de la Universidad de Guayaquil en la consecución de la meta 4.7 de la Agenda 2030, en el marco del desarrollo sostenible y el aseguramiento de la calidad para el ejercicio de las funciones sustantivas y de gestión. Los resultados reafirman la importancia de asegurar una educación para la sostenibilidad, por lo que se vuelve necesario identificar desde un enfoque integral y con la característica del aprendizaje a lo largo de la vida, la cobertura interna y externa de programas formativos, analizando las competencias, los compromisos y roles de la comunidad universitaria hacia la sociedad en las áreas de intervención: docencia, investigación, política institucional y liderazgo social.

Palabras claves: Educación superior, Desarrollo sostenible, Ecuador.

Introduction

Concern for environmental issues has progressively increased in recent decades, leading to a growing debate on sustainable development since the very definition of the concept in the publication of the final report of the UN World Commission on Environment and Development, known as the Common Future or Brundtland Report, which recognized that today's societies consume more natural resources than can be recovered, thus compromising the well-being of future generations (UN, 1987).

The international community's efforts to generate a growing awareness of all aspects related to the planet's sustainability demonstrate the interest in achieving sustainable development and the important role to be played by all sectors and levels of society (Marrón, 2006).

At first, sustainability was closely related only to environmental issues, so for the private, public administration and academic sectors, particularly for the university sector, it was not part of their priorities, mainly due to the low environmental impact that could be generated from these activities (Melle, 2007). However, the concept of sustainability has been strengthened from various angles and has expanded its scope beyond environmental aspects (Moneva et al., 2012). Universities have assumed a more participatory role and, as open spaces for thought, reflection and action, have become involved in solving the challenges of strengthening sustainable development (GUNI, 2011).

The various commitments and declarations, both nationally and internationally, provide a normative framework for higher education institutions to commit to greater engagement with the needs of their environment and accountability to society (Ceulemans et al., 2015).

The importance of education for the achievement of sustainable development makes it necessary to enhance critical thinking in the training of people who incorporate an ethical and global outlook in the exercise of their future profession (Fernandez, 2018), as stated in target 4.7 of Sustainable Development Goal four Quality education, which refers to the social, humanistic and moral purposes of education, explicitly linking education to the other SDGs (GEM Report, 2016).

Education for sustainable development is considered a tool for transforming reality, as pointed out by Chacón (2012): Educating for Sustainable Development is educating to change society, oriented towards a human development that is simultaneously cause and effect of environmental sustainability and global responsibility. This expectation has become important

in the transition to the new millennium. (p. 105)

Achieving the proposed objectives about education for sustainable development is a task at the local level, in which some agreements allow defining the priorities and actions of each country and its HEIs, considering the three dimensions of ESD: learning content, pedagogy and learning environments and social transformation, promoted by UNESCO (2005), as the lead agency of the United Nations Decade of Education for Sustainable Development 2005-2014 (Chacón, 2017).

In this sense, higher education institutions must act as a model of learning and practice for sustainable development from two approaches: 1. From the institution's behavior and the impact of competent activities such as teaching, research and management, and 2, from the point of view of the impact of its activity on the rest of society in an environment in which higher education, research, innovation and outreach with society are considered key factors to meet the challenges of globalization and a knowledge-based society that ensures the welfare of citizens and sustainable development (GUNI, 2012; Lozano, 2006). Therefore, higher education will be oriented towards strengthening and developing competencies for action in terms of rationalized decisions that contribute to sustainable development.

In Ecuador, since the 2008 Constitution, a new public policy framework for higher education and a new scenario in the fulfillment of the objectives of sustainable development was built, based on the creation and application of knowledge, for the benefit of society and public administrative and institutional action, with the goal of the State, the Sumak Kawsay or Good Living (Milia, 2014). Furthermore, in terms of education and learning opportunities, the country has proposed strengthening the education system's comprehensive transformation to overcome discriminatory patterns, improving measures of action for entry to higher education (UNESCO, OEI & VVOB, 2021).

From international empirical evidence, Hall and Dragne (2008) reveal that, in countries such as the United States and Canada, Education for Sustainable Development (ESD) is part of globalization and responds to its powerful fluctuations, linked in UNESCO's regional groupings, establishing interdisciplinary approaches between social and natural sciences in the search for ecological and sustainable solutions for the development of education. Likewise, Prieto et al. (2015) assure that among the university challenges in Latin America is to define social developments, as long as the processes of sustainable regional identity are not left aside, as well as the quality of life of students and teachers within the environment in which they are located.

In Ecuador, studies such as those of Zambrano (2015), Garcés et al. (2016), Granja (2021) and Silva-Jiménez and Ortiz-Moya (2021) agree that higher education and sustainable development are based on inclusive education. The ways to progress in sustainable education are based on quality, health, physical, psychological, mental and social well-being; the degree of fulfillment of the responsibilities assumed by Ecuador regarding ESD is manifested in the set of guidelines set out in the framework of the Decade for ESD. Ecuador is officially committed to programs and projects that promote educational transformation, recognizing the importance of promoting practice through ESD-focused initiatives.

Other authors have developed studies on the importance of higher education for achieving the Sustainable Development Goals; however, very little literature relates target 4.7 of SDG 4: Quality Education with the work of higher education institutions. Therefore, this paper aims to provide a first approximation of the current state of the university that allows

establishing its challenges to ensure training that promotes sustainable development based on theoretical and practical knowledge through education for sustainable development and the adoption of sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and valuing cultural diversity and the contribution of culture to sustainable development, among other means (UNESCO, 2015).

This study is part of a work in progress that seeks to determine how higher education institutions in Ecuador contribute to achieving the SDG. In this research, through a case study, exposes the current situation, strengths and challenges assumed by one of the largest public universities in the country by analyzing its relationship with target 4.7 of Sustainable Development Goal 4, Quality Education.

Methodology

Given the multiplicity of contexts and the dynamism that unfolds in higher education institutions, this research was conducted from a qualitative approach to identify the main challenges of Ecuadorian higher education in the context of the SDGs, using the case method for a closer approach to the practices and perspectives of the subject of study; as Hosdman and Polkinghorne (1989, as cited in Hernández et al., 2014) refer, using qualitative methods allows to know the meanings that people assign to their experiences.

With this background, the internal regulations of the Universidad de Guayaquil were examined, considering the statute, organic regulations for organizational management by processes, internal regulations for continuous improvement and innovation of processes and services, general regulations for undergraduate academic and professional training, general regulations for research and knowledge management, general regulations for student welfare and strategic planning. This Ecuadorian university began its academic activities by integrating the Guayas University Board on December 1, 1867. The qualitative data collected respond to the nature of the object studied; the main research technique used was focus groups, establishing dialogues with the university community, such as authorities, directors, coordinators, administrators and students.

The discussion groups were consolidated in November 2021 with a representative sample of 84 experts in the following areas: academia, research, links with society and institutional management. Opinions and documented reasoning were collected to learn about the institution's situational diagnosis (SWOT). From there and for this work, the information was analyzed from two sides; on the one hand, the contribution of the University of Guayaquil towards the achievement of goal 4.7 of the 2030 Agenda, considering the Strengths and Opportunities and, on the other hand, the challenges of this university in the framework of sustainable development and quality assurance for the exercise of substantive and management functions, with the identified Weaknesses and Threats. It is important to mention that with the permission of the university's appointing authority and because of the relevance of the information collected, which served as a baseline for the design of the strategic planning 2022-2026 of the university under study.

Results

Taking as a reference the alignment of the situational diagnosis with target 4.7 of SDG 4 (Figure 1), the results reaffirm the importance of ensuring education for sustainability, so it becomes necessary to identify, from a comprehensive approach and with the characteristic of

lifelong learning, the internal and external coverage of training programs, analyzing the competencies, commitments and roles of the university community towards society in the areas of intervention: teaching, research, institutional policy and social leadership.

Having identified the alignment and based on the guidelines in the Sustainable Development Solutions Network (SDSN) Australia/Pacific Guide, the main challenges for the subject institution in meeting target 4.7 are proposed.

Assuming the challenges outlined in Figure 2 will allow the University of Guayaquil and other higher education institutions to strengthen education for sustainable development, creating synergies and scenarios that allow better conditions for society.

Discussion

The quality of higher education, as well as its relevance to the reality of the country in its different areas: social, economic, political, institutional, environmental and cultural, is a topic of general interest in most countries in the world (Acosta et al., 2014; Tünnermann, 2008). The analysis of the fulfillment of the substantive functions of universities arises as a consequence of factors related to the growth and expansion of the educational service since the 1960s. In the 1980s and 1990s (Herrera & Aguilar, 2009), higher education institutions began processes of self-analysis and accountability.

If the focus is on SDG 4, target 4.7 "By 2030, ensure that all students acquire the knowledge and skills necessary to promote sustainable development, including through education for sustainable development and sustainable lifestyles, human rights, gender equality, promoting a height of peace and non-violence, global citizenship and appreciation of cultural diversity and the contribution of culture to sustainable development"; it is found that the situation of the University of Guayaquil is similar to the reality of public higher education institutions in the country and Latin America in general.

In the academic function, it is important to highlight the innovative educational model of the University of Guayaquil, which allows the transformation of knowledge structures in its undergraduate and graduate academic offerings and its articulation with the domains and lines of research. Likewise, the academic profile of teachers is aligned to the professional field and their activities in the institution; participation in national and international academic networks is also promoted, and the technical and pedagogical training of teaching staff as needed. This is consistent with Soledispa-Rodríguez et al. (2021), who state that the fulfillment of the substantive functions in higher education institutions has an impact on a complete and comprehensive education to train professionals capable of generating knowledge for the benefit of their environment. Fortunately, public universities make enormous efforts to contribute to national development (Buendía, 2011).

Regarding the Research function, at the University of Guayaquil, there has been a gradual increase in the number of professors with doctoral degrees (Ph.D.) under the modality of tenured and occasional professors, which facilitates the creation of research groups, access to scientific publications and the granting of resources for research. This is consistent with the

Organic Law of Higher Education, which stipulates that as of January 2023, a doctoral degree (Ph.D or its equivalent) will be a mandatory requirement to be a tenured senior professor of a university or polytechnic school (LOES, 2010/2018).

The function called Institutional Policy and Social Leadership at the University of Guayaquil is developed through the implementation of the practice of community service, inter-institutional cooperation for resource management, interdisciplinary approach in the development of programs and projects, implementation of the institutional training plan according to their needs, coverage of efficient Internet service in all academic and administrative units of the University of Guayaquil, implementation of the technological infrastructure of the Data Center according to institutional needs, institutional support for innovation and entrepreneurship events.

This is consistent with Rivas et al. (2017), who mention that it is essential to develop processes that link academia with a society based on experiences lived by students, linking them to the reality of the territory, the market and local governments.

Conclusions

Based on the results obtained in this research work, it can be concluded on the one hand that the political-institutional framework of Ecuadorian higher education is directly related to SDG 4, by reviewing the Constitution of the Republic of Ecuador, the Organic Law of Higher Education and the National Development Plan; recognizing education as a right of people throughout their lives, a public social good and an engine of national development. On the other hand, the legal instruments are based on ethical principles such as human dignity, equality, freedom and solidarity, which are embodied in universal, binding and enforceable human rights.

Thus, the internal regulations of the University of Guayaquil and its strategic planning processes reveal that target 4.7 of SDG 4 shows progress with qualified teachers, the articulation of academia with research, gender equity in its teaching staff and having implemented an ecological, educational model, as well as partnerships with national and international networks, reflected in the inclusive, scientific and practical approach in the 10 areas of knowledge, 48 undergraduate programs and 25 graduate programs. However, the challenges proposed for this goal have yet to be met due to external factors such as budget cuts and little or no articulation with other sectors of the economy, such as the private and public sectors and non-governmental organizations, and internal factors such as instability in the organizational structure of the university and insufficient policies for the sustainability of R&D&I, as well as lack of investment in infrastructure and equipment. Nevertheless, assuming the challenges responsibly will allow the HEI to strengthen its commitment to achieving goal 4.7.

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Figure 1 Alignment of the situational diagnosis with Target 4.7 of SDG 4



Note to the figure: Prepared from the SWOT of the University of Guayaquil (April, 2022).

Figure 2 Challenges to achieving Target 4.7



Note to figure: Prepared from Figure 1 of the present research and the How to start SDGs in universities guide (SDN Australia/Pacific, 2017).