



CAPACITY-BUILDING PROGRAM FOR EMBEDDING SUSTAINABILITY IN HIGHER EDUCATION

Results of the workshops held in 2018 by Colombia Challenge Your Knowledge network, Universidad Ean and Portland State University,

WITH THE SUPPORT OF THE US EMBASSY IN COLOMBIA.



JOSÉ ALEJANDRO MARTÍNEZ S./JENNIFER ALLEN



ACKNOWLEDGEMENTS

FACILITATORS:

Dr. Jennifer Allen

Prof. José Alejandro Martínez

WITH THE COLLABORATION OF:

Dr. Dave Ervin

María Paulina Vásquez Varela

Camilo Iván Puerto López

Marjorie Zomignani Maia

Luis Alejandro Arévalo

Sara Vera Aguirre

EDITING:

Nicholas Tiffin Sharp and Robinson A. Muñoz H.- Success Communication Service

DESIGN AND DIAGRAMMING:

Carolina Henao Castro

TRANSLATION:

Elvis Nehomar Useche Villamizar – Success Communication Service


PRINTING:

Carolina Henao Castro

All rights reserved:

This document cannot be totally nor partially reproduced, registered or transmitted by any means of information recovery, without previous authorization of Universidad Ean in representation of Colombia Challenge Your Knowledge® network (CCYK).


The opinions expressed in this document are the sole responsibility of the authors and do not necessarily reflect the views of the CCYK Network, Universidad Ean, or US Embassy for Colombia.



INDEX

PAG.

| | |
|--|-----|
| FOREWORD. SARA VERA AGUIRRE | 5. |
| 1. SUSTAINABILITY OF HIGHER EDUCATION IN COLOMBIA | 7. |
| 2. BUILDING SUSTAINABILITY IN HIGHER EDUCATION: THE SUCCESSFUL EXPERIENCE OF PORTLAND STATE UNIVERSITY | 18. |
| 3. SMALL GRANT PROJECT – COLOMBIA CHALLENGE YOUR KNOWLEDGE (CCYK) NETWORK, UNIVERSIDAD EAN, PORTLAND STATE UNIVERSITY AND US EMBASSY TO COLOMBIA | 25. |
| 4. OUTCOMES OF THE WORKSHOPS TO EMBEDDING SUSTAINABILITY IN HIGHER EDUCATION TO COLOMBIA | 37. |
| FINAL THOUGHTS. MARIA PAULINA VÁSQUEZ VARELA | 46. |





FOREWORD

SARA VERA AGUIRRE

In February 2018, I had the opportunity to accompany an intersectoral mission to the city of Portland, Oregon, a point on the map of the United States, which was until then imperceptible when choosing destinations of academic interest. Today I am still surprised, what that city left in me: a feeling of well-being, clean air thanks to a planned arborization, transport systems designed for the community - including the most extensive and used cycling network in the country - and especially, a university that has put in its missionary pillar knowledge at the service of the city. A city that today is one of the most sustainable in the world, innovative and creative, where its entrepreneurial ecosystem is fertile land to catapult any trend, especially those that tend to claim the roots, the sustainable, which has a purpose and impact positive for the environment. And Portland State University (PSU) has a lot to do with it: it has boosted the sustainable seed of an unrivaled urban structure.

And perhaps it is the impact of a university on the sustainability of the city that attracts the most attention. Usually, we see that it is a trend in real sector companies. Corporate sustainability strategies have been positioned at the core of many traditional businesses and have gradually ceased to be a commercial measure to demonstrate corporate social responsibility or philanthropy actions. Increasingly, we see that in companies of different sectors and in several multinationals, sustainable management has been integrated in the value chain, in the corporate identity and in the organizational culture. This has been the result of the evolution of the business mission in the search for the purpose and impact of the work of organizations.

Universities have not been exempt from this trend, but it cannot be ignored that they have a tradition rooted in academic work that has been related to environmental education, training for sustainable development and the generation of knowledge to promote social innovation. There are innumerable initiatives that can be mapped in the field of research, which have contributed to social, ecological and economic results (for stating some of the most relevant dimensions of sustainability) and those projects that, from the extension, have pointed to Develop viable and sustainable solutions for problems that affect the physical environment of universities, as well as their communities.

More than a phase of business management, it is a need that has been impregnated transversely in the processes of organizations and universities are no stranger to this trend. Ean University, for its part, has been an institution of higher education that has integrated sustainability transversally as a priority that has been permeating curricular plans, projects that it drives and gradually in the operation and administrative processes. An example of this has been the construction of the **Ean Legacy** building, inspired by the Cradle to Cradle®

concept, which classified waste and prevented 97% of these from reaching landfills thanks to the principle of circular economy. In this way, a vision consistent with the construction of a sustainable campus has been consolidated. It is not in vain that his institutional vision has as a **superior purpose**, to contribute to integral formation and sustainable entrepreneurship, considering research, leadership and innovation fundamental elements in the generation of abundance for humanity.

The example of PSU and the initiatives that it is carrying out together with Ean and Colombia Challenge Your Knowledge (CCYK), have been valuable points of reference to promote a series of workshops carried out jointly with Colombian universities in several regions of the country. CCYK once again consolidates itself as a network of quality universities, which puts on the agenda issues and purposes relevant to society, this time, in the hands of international allies such as the United States Embassy. There are many university initiatives that are aligned with the 2030 Agenda of the United Nations. Precisely the diagnosis with which this cooperation project began was an excellent way to map how sustainability is operating at different levels of universities. With the granting of this project, decision makers such as the Ministry of Education were also articulated, who integrated into the discussion have seen the opportunity to accompany this collective construction exercise in the future.

Finally, it is worth noting that there are already network initiatives that serve as inspiration to continue working jointly for sustainability in Colombian higher education. What began as a research project to **develop capacities, connect and report** Sustainability in Higher Education Institutions, today translates into the HOCHN Nachhaltigkeit an Hochschulen initiative (SUPERIOR elevated to n -de sustainability-, Sustainability in Universities), a platform that connects all the interest groups of the university: researchers, students, teachers and administrators to build and develop initiatives, establish participation and reporting mechanisms, as well as solving the challenges of building a sustainable university. Funded by the German Ministry of Education and Research (BMBF), HOCHN has managed to materialize the collaborative research of eleven German universities, generating clear guidelines in the following fields of sustainable action: **the reporting and development of sustainability reports, institutional governance, teaching, research, operations management and university extension.**

A fascinating path that invites you to connect many initiatives that already exist in Colombian universities, to measure their impact and take advantage of the positive externalities that institutional commitment can have in your environment.



101

SUSTAINABILITY OF HIGHER EDUCATION IN COLOMBIA

The aim of this chapter is to analyze the inclusion of sustainability concepts and practices in Colombia's education system, and its context for sustainable development. This analysis considers the following aspects: i) the conceptual evolution of sustainable development and its international structures, ii) the introduction of the concept of sustainability to the field of education, iii) sustainability translated into environmental education in Colombia, and iv) gaps in this approach and how they can be addressed.

I. SUSTAINABLE DEVELOPMENT: CONCEPT

The concept of sustainable development has been interpreted in different ways since its conception in the 1970s within the environmental movement and its counterpart environmental economy. Environmentalism considers sustainability from the point of view of conservation, in which the natural environment is constantly threatened by human-economic activities that generate waste and pollution, as well as uncontrolled population growth that strains availability of finite natural resources even more. For this, economic growth must be restricted within the limits of natural resources to avoid irreversible damage to natural ecosystems (Meadows, 1972).

On the other hand, environmental economics considers sustainability as the optimization of natural resources to guarantee lasting economic growth. In contrast to the environmentalist vision of growth restriction, environmental economics focuses on the efficient use of natural resources, through market liberalization and the transfer of technology, which would in turn lead to improvements in the environment (Castro , 2004).

Although opposed in their definition of sustainability, environmentalist and economist theories emerged from recognizing threats to our environment and prejudice to continuity of life. This implies a notion of sustainability linked to human and economic development, but

it only considers the negative impact on the environment. Sustainability is not analyzed as the triple result of the environmental, economic and social areas.

The 1987 Brundtland report by the World Commission on Environment and Development is the most widely accepted definition of sustainable development. It states that sustainable development is one that "meets the needs of the present without compromising the needs of future generations" (UN Brundtland Commission, 1987, p. 41). The report recognizes that sustainable development implies limits and requires sacrifices, but that technology and social organization can be structured to "open the way to a new era of economic development". This definition for sustainable development balances elements from previous environmentalist and environmental economy theories by proposing that eradication of poverty and other social problems can be achieved all the while fostering economic growth.

The Brundtland report therefore was a step towards a systemic thinking approach to sustainable development, unifying the nuances between environmental, social and economic sustainability as dimensions under a single concept. Another step towards a systemic approach for sustainable development was taken following the Rio 1992 Summit, with the concept of integral sustainability.

The integration of the three dimensions (environmental, economic and social) should be reflected in cross-sectorial and interdisciplinary work. In public policy, the sustainable development framework has achieved great global acceptance, most notably by the work of international organizations such as the United Nations and its Millennium Development Goals (MDGs) and current Sustainable Development Goals (SDGs).

The MDGs are a series of 8 purposes agreed upon by 189 United Nations member countries at the 2000, Millennium Summit held in New York. These were expected to be fulfilled by 2015. The 2015 UN Report on the MDGs showed partial achievement towards all the objectives. However, the report also indicated the persistence of gender and economic inequality especially in developing nations, the negative effect of climate change on development; and an increase in the displacement of communities due to armed conflict, especially in Africa and the Middle East.

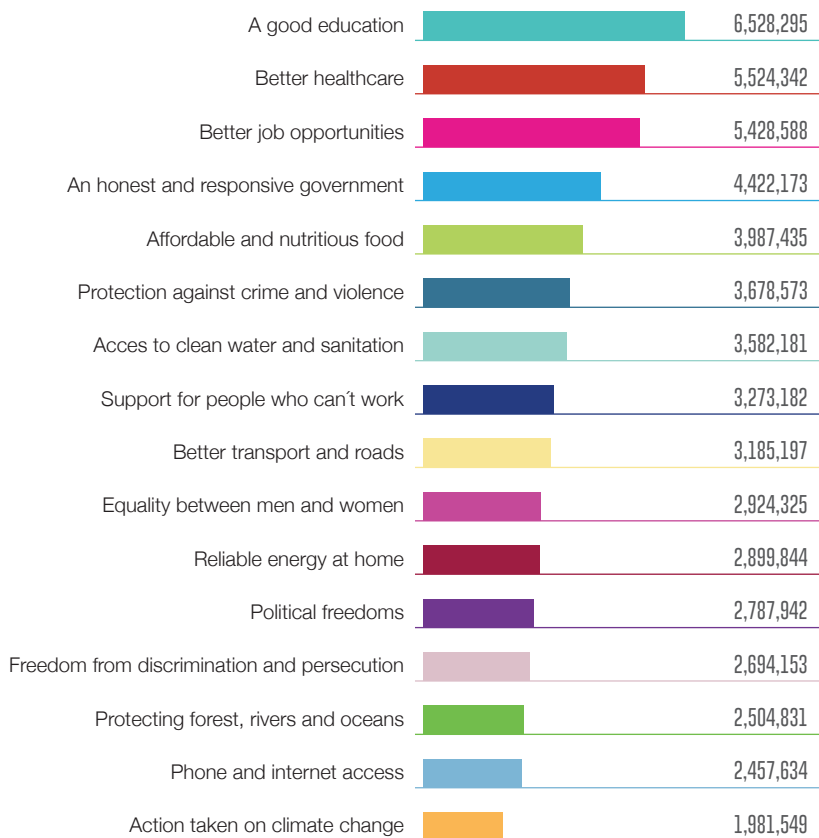
With the aim of continuing the unfinished work from the previous program, the United Nations pushed for a reformed agenda known as the Sustainable Development Goals which built on the already established objectives and addressed major gaps in their structure. In contrast to the MDGs, which were proposed by developed countries, the SDGs were an initiative proposed by Saudi Arabia and Colombia, a middle-income country with a good deal of influence among other Latin American countries. 193 United Nations member states approved the SDGs initiative at the 2012 Rio + 20 Summit. These were based on the MDGs, but economic, gender, human rights and environmental needs were included and defined more clearly.

Another difference from previous efforts was to define SDGs objectives in direct consultation with the global population between 2013 and 2015. A survey was taken by 9.5 million people in a prioritization exercise of global objectives (Figure 1).

Figure 1: My World Analytics.

9,736,484 VOTES

for All Countries & Country Groups / All Genders / All Education Levels / Age group (All Age Groups)



In 2015, a greater consensus was reached regarding the problems affecting all of the signatory countries. The SDG's agreed upon were:

SUSTAINABLE DEVELOPMENT GOALS



Image from www.un.org/

Therefore, the Sustainable Development Goals are currently being interpreted as the measurable objectives for the concept of sustainable development. The United Nations has created support programs for the countries and carried out concentration exercises with different social groups and dissemination, appropriation and prioritization of the SDGs, regarding each country's individual context.

For the specific case of Colombia, the country has actively participated in monitoring the implementation of the SDGs. According to the voluntary review sent by Colombia to the United Nations High Level Policy Forum, the country has incorporated the SDG framework into several of its public policy plans. Colombia's 2014-2018 National Development Plan under the President Juan Manuel Santos administration directly incorporated 92 of the 169 specific goals stipulated in the SDGs. These goals focused mainly on education, the reduction of inequalities and peace building, responsible consumption, protection of marine and terrestrial environment, action against climate change, eradication of hunger and access to water and renewable energy (Government of Colombia, 2016, pp. 6-7).

Later in March 2018, it is developed the Strategy for the implementation of the SDG in Colombia, by the National Council of Economic and Social Policy, CONPES 3918.

II. INTRODUCTION OF THE CONCEPT OF SUSTAINABILITY TO EDUCATION

The introduction of sustainable development concepts in the specific field of education can be traced back UNESCO's¹ Education for Sustainable Development¹ program. This aims to improve access to quality education for sustainable development at all levels and in all social contexts, to encourage changes in the knowledge, skills, values and behaviors needed to achieve a more sustainable and just society for all. Another important aspect is that quality education, in addition to being one of the main SDGs in itself, is also viewed as a key enabler to generate sustainable development processes. In fact, target 4.7 of SDG 4 Education addresses the Education for Sustainable Development program and its related approaches.

Education for Sustainable Development takes a holistic approach to embedding sustainable development concepts in education by focusing on learning content and outcomes, pedagogy, and societal transformation. More specifically, the program contemplates the following actions:

- Integrating critical topics such as climate change, biodiversity, disaster risk reduction, and sustainable consumption and production as new learning content in the curricula.
- Designing more interactive and student-centered pedagogical methodologies and learning environments.
- Empowering students to become agents of change and encourage sustainable solutions at the local level.
- Promote learning outcomes centered on competencies, such as critical and systemic thinking and collective decision-making.

UNESCO also led the United Nations Decade for Education for Sustainable Development, from 2005 to 2014, which also consolidated education not only as one of the SDGs but also as an important tool to reach sustainability. The initiative sought to mobilize global resources and aimed at "integrating the principles and practices of sustainable development into all aspects of education, to encourage changes in knowledge, values and attitudes" (UN Decade of Education for Sustainable Development Final Report, 2014).

The agency coordinated efforts to create new partnerships with the private sector, supported public policy change, served as converging point for all stakeholders, and encouraged monitoring and evaluation of the progress towards embedding education for sustainable

¹ See <https://en.unesco.org/themes/education-sustainable-development>

development into all areas and levels of education systems at the global, national, regional and local levels. In this sense, the Education for Sustainable Development program has transformed the implementation of sustainability concepts across curricula, pedagogy and operations in education.

The UN Decade of Education for Sustainable Education Final Report highlighted that Higher Education Institutions have made significant efforts to address sustainability in campus operations, supported by the development and sharing of tools and reporting frameworks, followed by various examples of good practice in reorienting learning and teaching practices and advances in sustainability research.

The partnership between Colombia Challenge Your Knowledge (a network for Colombian HEIs accredited in High Quality by the Ministry of Education) and Portland State University reflects the intent of this initiative.

III. ENVIRONMENTAL EDUCATION IN COLOMBIA

The immersion of the concept of sustainability in the Colombian national education system is still incipient and focusses mainly on the environmental factor. The environmental education program for Colombia (Decree 1743 of 1994) is conceived in four fundamental stages: the exploration stage, which identifies the actors committed to the subject in Colombia; the deepening stage, conceptualizing environmental education ; the projection stage, formalizing effective environmental education agreements, and the strategy stage, which defines the guidelines and criteria on which environmental education should be addressed. In this subsection, we will discuss the latter stage.

Different strategies have been designed to strengthen the full integration of environmental education through the National Environmental Education Policy. This aims to involve the entire educational system in an environmental education process. Despite their evolution, there is still a need to strengthen and appropriate the concept of sustainability in all its dimensions (environmental, economic and social) to attain education for sustainable development.

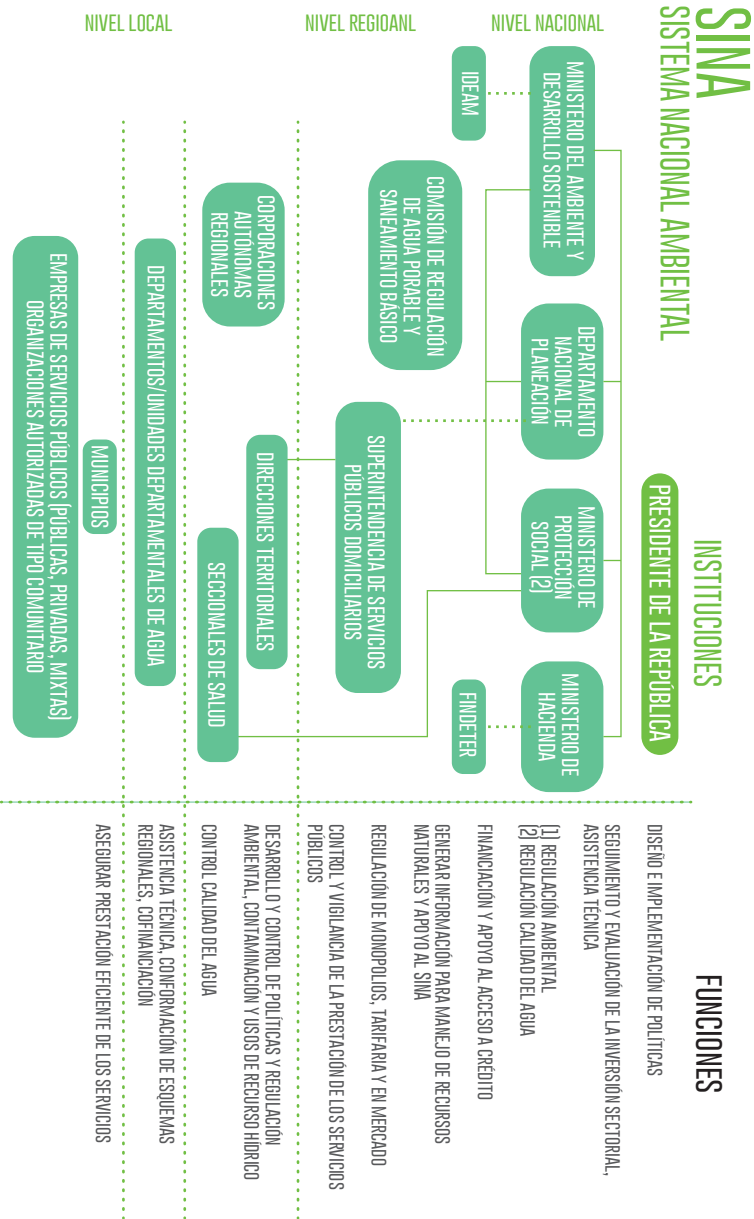
The policy was jointly proposed and implemented by the Ministry of Environment and Sustainable Development and the Ministry of Environment, Housing and Territorial Development. It outlines eight strategies to teach and implement actions in sustainability:

- 1. Inter-sectoral and inter-institutional coordination.**
- 2. Inclusion of the environmental dimension in formal education.**
- 3. Inclusion of the environmental dimension in non-formal education.**

- 4. Training of environmental educators.**
- 5. Design, implementation, support and promotion of communication strategies and actions and dissemination of environmental actions.**
- 6. Environmental Education in the SINA.**
- 7. Promotion of national environmental service.**
- 8. Promotion of ethno-education in Environmental Education; promotion of environmental projects with a gender perspective and citizen participation.**

The National Environmental Education Policy acquires greater dynamics thanks to the National Environmental System (see Figure 2). This is understood as an articulating and coordinating axis of governmental and non-governmental actors including environmental norms, programs, activities and institutions which drive the implementation of general environmental principles in the country. In this way, the relationship between actors is activated at different levels and areas, from a common concern: the environment and its sustainability.

Figure 2: National Environmental System chart



In the context of the National Environmental System, environmental education is a transversal axis that allows for transformation processes of natural and sociocultural dynamics and contributes to the achievement of one of the fundamental purposes of the system: to build a regional vision. Thus, a pedagogical perspective is promoted allowing for the appropriation of concepts and methodologies by communities, creating strategies to qualify local development. The aim of environmental education is that all populations, development sectors and social actors, understand their competences and responsibilities clearly.

Under the National Environmental System, the Ministry of Environment and Sustainable Development and the Ministry of Environment, Housing and Territorial Development have partnered with regional autonomous corporations, sustainable development corporations and environmental authorities for the inclusion of environmental education in formal and informal education institutions.

One of the most interesting initiatives from the National Environmental Education Policy is applied in the primary and secondary education levels. The School Environmental Projects (PRAE) program is a pedagogical strategy seeking to understand local environmental problems. It contributes in the search for solutions in accordance with the realities of each region and municipality in a cultural, social and political context. In practical terms, the school and its community work jointly in specific projects that promote the analysis and understanding of local problems and generates participatory spaces to implement solutions in accordance with natural and sociocultural dynamics.

These projects provide spaces in schools to develop research and intervention strategies. The first ones involve pedagogical-didactic and interdisciplinary processes, whose purpose is to reflect objectively on the ways of seeing, reasoning and interpreting the world and the ways of relating to it. The intervention processes involve concrete participation activities and community projection.

Therefore, the School Environmental Projects integrate different areas of knowledge to solve problems in an interdisciplinary way, promoting understanding of science, technology and technology, from the perspective of a social framework.

In the tertiary level², some experiences have been developed to include the environmental dimension in training, from formal academic programs to social outreach activities, although there is insufficient evidence to affirm that these experiences have influenced fundamental changes. Environmental education for the tertiary level has been an essential theme within the curricular reform of each program, including compulsory subjects required by the government. This curricular reform aims to provide basic elements to sensitize students on environmental issues, which should be considered in the future development of their profes-

² The Colombian Higher Education system is comprised of three types of institutions: professional technical institutes, technological institutes, and universities.

sion. However, in very few cases have these attempts been adequately monitored and evaluated, as well as expanding beyond the merely ecological or directly related to natural resources.

Briefly, for universities fully to contribute to achieving the objectives of Environmental Education, they must promote programs that include the following components: training of trainers and other environmental education agents (from the government, NGO's, productive sector, journalists, publicists and communicators in general), promotion of programs and research projects in Environmental Education. Environmental Education research must also help in defining suitable pedagogical strategies. The universities must also generate spaces to disseminate research results and inter-institutional, intersectoral and social outreach activities, developed in the environmental area and environmental education.

IV. GAPS IN ENVIRONMENTAL EDUCATION IN COLOMBIA

This brief analysis of embedding sustainability in the Colombian education system has led to the following conclusions. First, that sustainability in Colombian education has been given limited consideration in its environmental dimension; neglecting the social and economic aspects. In order to effectively bring the sustainable development concept into the education arena, all three dimensions must be included in policies and activities.

In addition, embedding sustainability in education in Colombia has been directed almost exclusively to scholarship. In order for institutions, students and communities to fully take ownership of sustainability practices, those need to be reflected in the institution's operations as well.

Second, an analysis and measurement of the impact generated by environmental education processes in Colombia is needed, to determine whether its approach has been the most effective or if, on the contrary, there is a need to rethink and promote new scenarios for effective transformation processes.

Third, sustainability education is a challenge for all, and it must be managed systematically and comprehensively. Despite great efforts made in Colombia regarding environmental education, the country has yet to adopt an education for sustainable development focused on a comprehensive training system involving all the scenarios that comprise sustainability and at the different levels of education (early childhood, basic, middle, secondary and higher).

V. REFERENCES.

- BADILLO, M. (2012). Política de educación ambiental en Colombia, 2002-2010. Revista De Investigación Agraria Y Ambiental.
- CASTRO, C. J. (2004). Desarrollo Sostenible: Mainstream and Critical Perspectives. *Organization & Environment*, Vol. 17 Issue 2, pp. 195–225.
- CHAVARRO, D., Vélez, M. I., Tovar, G., Montenegro, I., Hernández, A., & Olaya, A. (2017) Los Objetivos de Desarrollo Sostenible en Colombia y el aporte de la ciencia, la tecnología y la innovación. Documento De Trabajo.
- COLOMBIAN GOVERNMENT (2016). Voluntary National Presentation for Colombia. The SDGs as an instrument for peace consolidation [ODS como un instrumento para la consolidación de la paz] <https://sustainabledevelopment.un.org/content/documents/12644VNR%20Colombia.pdf>
- FLOREZ-YEPES, G. Y. (2015). La educación ambiental y el desarrollo sostenible en el contexto colombiano. *Revista Electrónica Educare*.
- MEADOWS, D., Randers, J., & Behrens, W. (1972). *Rapport du Club de Rome*.
- MINISTERIO DE AMBIENTE, VIVIENDA Y DESARROLLO TERRITORIAL; MINISTERIO DE EDUCACIÓN NACIONAL (2003). Política Nacional de Educación Nacional.
- MINISTERIO DE EDUCACIÓN NACIONAL (2005). Atalero No. 36, August/September issue. <https://www.mineducacion.gov.co/1621/article-90893.html>
- MINISTERIO DE EDUCACIÓN NACIONAL. Decree 1743 of 1994. http://www.minambiente.gov.co/images/BosquesBiodiversidadyServiciosEcosistemicos/pdf/Normativa/Decretos/dec_1743_030894.pdf
- UN Bruntland Commission. (1987). *Report of the World Commission on environment and development: Our Common Future*. United Nations.
- UN (2015). *The Millennium Development Goals Report 2015*.
- UNESCO Education for Sustainable Development: <https://en.unesco.org/themes/education-sustainable-development>
- UNESCO (2014). *UN Decade of Education for Sustainable Development Final Report 2005-2014: Shaping the future we want*. <https://sustainabledevelopment.un.org/index.php?page=view&type=400&nr=1682&menu=35>



BUILDING SUSTAINABILITY IN HIGHER EDUCATION: THE SUCCESSFUL EXPERIENCE OF PORTLAND STATE UNIVERSITY

1021

I. PORTLAND STATE UNIVERSITY'S ROAD TO SUSTAINABILITY

The development of Portland State University's (hereinafter PSU) sustainability program started in the early 2000s. In keeping with its motto "Let knowledge serve the city", PSU has since established a well-defined mission to positively impact Portland and its broader community through educational access, engagement with local partners and the expertise of its faculty and staff.

Students, faculty and administrators worked together to launch PSU's sustainability program, establishing a campus recycling activity and creating a new position of Operations Sustainability Coordinator to oversee this initiative. Similarly, an Universidad Ean student-led research project culminated in the construction of a roof garden on the main campus building, aiming to improve air quality of the sector, in addition to providing students interested in environmental issues a living laboratory and research space. The Urban Canopy marked the start of Universidad Ean's sustainable operations, insofar as it reproduces the different Colombian natural ecosystems, holds a rainwater catchment area for the building's cistern supply system and has an active honey-producing apiary. Additionally, PSU created a position for a Coordinator of Academic Sustainability Programs to promote dialogue and cooperation across different disciplines and faculty that were already individually engaged in sustainability issues.

In 2005, PSU campus community published a Declaration of Support for Sustainability, signed by students, faculty, and administrators, recognizing the University's public responsibility and leadership in developing solutions that improve the quality of life for all. As such, "sustainability became a central part of Portland State's institutional vision, an area of research enterprise, and a key learning outcome for its students"³. The Declaration also

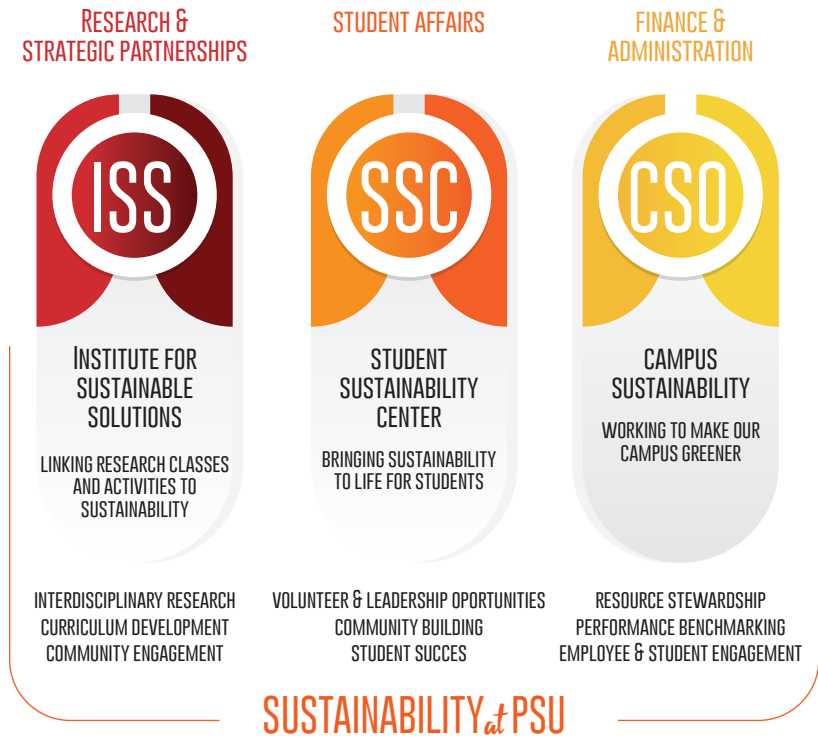
³ See <https://www.pdx.edu/sustainability/about>

established PSU's intention to introduce sustainability concepts into all colleges, develop a sustainable physical campus and operations, and become an academic laboratory for developing sustainable processes and practices using multidisciplinary approach in partnerships with business, government and other organizations.

Most importantly, PSU's Declaration marked an important turning point for campus-wide efforts, in accordance with the integrality of sustainability involving environmental, social and economic dimensions. There are, however, currently three main units (see Figure 3) that centralize actions for sustainability:

- Institute for Sustainable Solutions: whose role is to generate partnerships and collaboration with communities, governmental agencies and businesses in co-creating sustainable solutions for identified problems. ISS has moved in recent years toward developing more intentional and sustained partnerships with key community organizations to help provide for more cumulative impact and to expand systems that facilitate iterative problem solving over time.
- Campus Sustainability Office: whose role is to embed sustainability in PSU's campus operations, policies and planning.
- Student Sustainability Center: whose role is to cultivate student sustainability engagement and leadership opportunities and develop the knowledge, skills, and values to act as sustainability leaders in their future careers and communities.

Figure 3: Sustainability units at PSU



PSU is a member of the Ashoka U global network, a community of leaders and institutions who work collectively to make social innovation and change setting new standards in higher education and beyond. Staff at PSU were also deeply involved in the design and implementation of a transparent, self-reporting framework for American colleges and universities to measure their sustainability performance through the Association for the Advancement of Sustainability in Higher Education (AASHE)⁴, which is the Sustainability Tracking, Assessment & Rating System™ (STARS)⁵. PSU is also a strategic ally of the Portland, Oregon city government and several governments in different parts of the world in urban sustainability issues, sustainable development and green economy through their Urban Sustainability Accelerator.

⁴ See <http://www.aashe.org/>

⁵ See <https://stars.aashe.org/>

It is clear that with this experience, this institution is considered a model for sustainability in Higher Education not only for the United States, but also internationally.

II. UNIVERSIDAD EAN, CCYK AND PORTLAND STATE UNIVERSITY: A PARTNERSHIP FOR COLOMBIA

Just as sustainability for PSU is important, as observed in the previous issue, for Universidad Ean it is an issue that has been relevant for less than 10 years. This, sustainability was introduced to its statement of objectives in 2016 with the purpose of "contributing to the training of sustainable entrepreneurship, leadership and innovation as fundamental elements in generating abundance for humanity." For this institution, sustainability is a complementary attribute of the axis of its mission of integral training and development of business skills.

The Universidad Ean (a Colombia Challenge Your Knowledge - CCYK member) is working with the Association for the Advanced in Sustainability for Higher Education – AASHE since 2015, with the first participation in the annual conference and expo, and with this experience, the institution began to work on the matter of how to include sustainability into high schools naturally, this matter was sent to CCYK, and for that reason that simple initiative was maturing through time through university networks.

CCYK and Portland State University have also partnered to advance joint sustainability and social innovation education and research programs among Colombian universities and the Higher Education system. The objective is to build capacities for all relevant actors in embedding Sustainability in Higher Education, based on PSU's and the known AASHE experience for integrating sustainability into university scholarship and practice. Another important aspect is to build social capital among the principal Colombian Higher Education Institutions and the systemic policy-making actors (the US Embassy in Colombia, the National Ministry of Education and local secretaries of education) to jointly design and implement actions, programs and institutions with common goals and coordinated synergies between the public and private sector with international cooperation.

This new collaboration stems from recent Academic Agreements between CCYK member Universidad Ean and Portland State University in October 2017. Universidad Ean developed a workshop on Sustainability for Higher Education for its academic community (faculty, staff and students), delivered in Bogotá by two of PSU's Senior faculty members from the Institute for Sustainable Solutions. This interactive workshop, which was partially funded by the governmental entity for technical education SENA, was aimed at developing strategies for more effectively integrating and advancing sustainability initiatives at Universidad Ean. The facilitators engaged participants – including students, faculty, staff and

administrators - in exploring how sustainability tools and strategies used at other higher education institutions, in the business sector, and at the community level might apply to local and regional issues in Colombia. In addition, PSU's Certificate in Social Innovation and Social Entrepreneurship certificate program chose Colombia in 2017 for the first time for its Field Study, taking advantage of the Universidad Ean's interest and experience with high-impact social enterprises.

Parallel to this, under the framework of the Universidad Ean's 50th Anniversary, it held an open academic conference focused on Sustainable Entrepreneurship, in which Dr. Robert Liberty, the Director of the Institute for Sustainable Solutions in Portland State University, was the keynote speaker. The event also had the important support and presence of the US Embassy in Colombia, the ICETEX, the Ministry of Education, Ministry of Environment, Ministry of Information and Communications Technology, and some member institutions of the CCYK network (Universidad de Externado, Universidad del Rosario, Universidad de La Sabana and Universidad Santo Tomás).

In a further effort to generate spaces for knowledge transfer between PSU and Colombian universities, CCYK organized an academic-scientific mission called **"Colombian Cities Going Green with Portland: Experiencing a Sustainable Footprint"** to the city of Portland, Oregon in February 2018 to explore building solutions for sustainable cities. The aim was to take a diverse delegation composed of researchers in sustainability and urbanism, local, regional and national government officials, directors of internationalization of Universities and postgraduate students in topics of circular economy, green cities and sustainability to participate in **PSU's 2018 International Elevating Impact Summit** and create academic and decision-making spaces for public policy between one of the most innovative and sustainable cities in the United States and different entities and cities of Colombia. In this sense, this Mission already has the support of the Direction for the Promotion of Higher Education of the National Ministry of Education. The mission had 4 axes of development:

- Sustainability of Higher Education,
- Resource management (water, air, energy) and effects.
- Impact and social innovation ventures as a strategy for the sustainability of peace in Colombia (Economic Empowerment) and,
- Smart Cities, urban transport, waste management, city governance.

As a direct result from these activities, CCYK perceived the need and opportunity to scale up these capacity-building and knowledge transfer initiatives not only to other Colombian HEIs (starting with those 27 that are member institutions of the network), but also to the systemic policy-making actors. In fact, the Office of International Cooperation of the Ministry of Education expressed interest in giving continuity and generating commitments to

establishing and adapting a indicators framework methodology to measure sustainability in Higher Education in Colombia.

Otherwise, CCYK and Portland State University have partnered to promote joint sustainability and social education and innovation, as well as research programs between Colombian universities and the higher education system. The objective is to train all actors to incorporate sustainability in higher education, based on the experience of PSU and the knowledge already acquired from AASHE. The intention is to integrate sustainability into scholarships and university practices. Another important aspect is to create social capital among the main Institutions of Higher Education of Colombia and in the systemic actors in the formulation of policies (the United States Embassy in Colombia, the National Ministry of Education and the local Secretaries of Education) to design and implement actions, programs and institutions through an effort articulated with common objectives and coordinated synergies between the public and private sectors with international cooperation.

The general objective of the Capacity-Building Program for Embedding Sustainability in Higher Education, in this document, is to present a diagnosis of the current policies, practices and efforts for measuring, monitoring and strengthening sustainability in Higher Education in Colombia and consequently produce a Document of Recommendations that aims to generate a high-level discussion on the matter of policy making and implementation, inspired by the PSU experience and methodologies.

During the implementation of the program, it was checked the key lessons learned from the successful Portland State University and AASHE experience for integrating sustainability into university scholarship and practice that might apply to local and regional issues in Colombia based on the American model. We identified the motivations and barriers for implementing sustainable management initiatives in Higher Education; involved Colombian Higher Education Institutions and the systemic policy-making actors (such as the National Ministry of Education) to generate discussion on the advancement of sustainability; shared the theory and current international practice of measurable sustainability indicators for impact assessment; and broadened the cooperation generated between PSU and Universidad EAN to other universities of Bogotá and different regions of the country.

As a result, we hope that the recommendations for sustainability policies and practices contained in this document can be of use to the Ministry of Education and Higher Education Institutions in advancing sustainability scholarship and operations.

III. REFERENCES.

AASHE. Association for the Advancement of Sustainability in Higher Education: <https://www.aashe.org/>

PORTLAND STATE UNIVERISTY. Sustainability: <https://www.pdx.edu/sustainability/about>

STARS. Sustainability Tracking, Assessment & Rating System™: <https://stars.aashe.org/>

WORTHAM-GALVIN, Brooke D.; Allen, Jennifer H.; and Sherman, Jacob, "Sustainable Solutions: Let Knowledge Serve the City" (2016). Institute for Sustainable Solutions

Publications and Presentations. 103. https://pdxscholar.library.pdx.edu/iss_pub/103



103

SMALL GRANT PROJECT - COLOMBIA CHALLENGE YOUR KNOWLEDGE (CCYK) NETWORK, UNIVERSIDAD EAN, PORTLAND STATE UNIVERSITY (PSU) AND THE US EMBASSY TO COLOMBIA

I. INTRODUCTION

CCYK Network, led by the Universidad Ean applied for the Small Grants of the US Embassy in Colombia, in December 31, 2017.

In that sense, in April 2018, it was announced that it was granted a co-financing of USD \$ 10,000 by the US Embassy, in order to diagnose and implement workshops on capacity building for the integration of the Sustainability in Higher Education in Colombia in partnership with the Sustainable Solutions Institute (ISS) of Portland State University - PSU.

In this regard, the Universidad Ean, representing the CCYK Network received COL \$ 21,816,000 (USD \$ 7,240) in June 2018 in order to implement the first phase of this project. This focused on conducting a workshop in each of the four cities of the country targeted at officials of Colombian universities and local, departmental and national governmental entities who work on institutional sustainability, institutional environmental management, institutional social responsibility, institutional quality and / or institutional planning issues within their HEIs and who perform functions in directly related topics in a first phase.

In a second and final phase, the project focuses on documenting the discussions at these workshops, consolidating the results and building a document that offers suggestions and recommendations for a possible public policy led by the Ministry of National Education and the Ministry of Environment and Sustainable Development, for the Sustainability of Higher Education in Colombia.

II. DEVELOPMENT OF PREVIOUS ACTIVITIES: ACADEMIC AND SCIENTIFIC MISSION "COLOMBIAN CITIES GOING GREEN WITH PORTLAND: EXPERIENCING A SUSTAINABLE FOOTPRINT."

The project starts from the relationship between researchers from the Institute for Sustainable Solutions of Portland State University and the work done in designing and implementing the sustainability measurement system of US universities, led by the Association for the Advancement of Sustainability in Higher Education (AASHE) through its Sustainability Tracking, Assessment and Rating System (STARS) and directives from the EAN University and the CCYK Network.

In this sense, and although this phase was not contemplated in the central activities of the project co-financed by the US Embassy, a reference is made to the development and results of this first phase, being of great importance in developing the following activities.

The CCYK Network and the Universidad Ean carried out an academic and scientific mission to the city of Portland, Oregon called "Colombian cities going Green with Portland: experiencing a sustainable footprint" between February 7th and 14th, 2018.

The delegation was comprised by representatives of 6 Colombian universities in Bogotá and Medellín, joined by the Ministry of National Education, through ICETEX, with the purpose of establishing academic and scientific relations for the benefit of the programs and projects of the participating institutions for topics related to:



The delegation was chaired by Universidad Ean President of the General Chamber (Dr. Herbert Perico), the Director of International Relations Office of ICETEX on behalf of the National Government (Sara Vera Aguirre), the Academic Vice-Rector of Universidad Ean (Dr. Diego Cardona), the Vice-Rector of Promotion and Human Development of the Universidad de La Salle (Dr. Diego Mora), the Administrative Vice-Rector of Universidad ECCI (María Lucero Soler), the Director of Social Projection (Juan Carlos Camelo) and the Director of the Civil Engineering Program of Universidad De La Sabana (Sandra Jarro), Directors of International Relations of some of these universities (Luis Alejandro Arévalo - Universidad Ean), (Sandra Guarín, Antonio Nariño University), Technical Secretary of the CCYK Network

(Camilo Puerto) and professors and researchers of the EAFIT University (Dr. Carlos Cadena), and the EAN University (Paula Echeverry, José Alejandro Martínez and Mauricio Sabogal).



The Colombian delegation was received by the President of Portland State University-PSU, Dr. Rahmat Shoureshi, the Provost of PSU, Dr. Margaret Everett, the Director of the Institute of Sustainable Solutions-ISS of PSU, Dr. Robert Liberty, senior officials of the municipal government of Portland and the State of Oregon, as well as important business leaders, entrepreneurs and researchers of the region.



The Colombian delegation participated in the 2018 International Elevating Impact Summit, where they learned about first-hand experiences of American entrepreneurs who have generated important scientific and social innovation projects. They also created networking spaces between the delegation and entrepreneurs such as Corey Pressman, Vice President of Adaptive Strategies at Fiction, John Warner founder of the Warner Babcock Institute for Green Chemistry and Carol Dahl, Executive Director of the Lemelson Foundation, in order to generate synergies between their institutes and Colombian universities on research, innovation, sustainability and entrepreneurship.

This mission raised the Network's profile and its member universities in order to strengthen links with PSU and generate academic and scientific cooperation projects, among them holding workshops on Sustainability for Colombian HEIs.

III. DEVELOPMENT OF PREVIOUS ACTIVITIES DIAGNOSIS AND ON-SITE WORKSHOPS AND TRAINING SESSIONS IN COLOMBIA

A) SURVEY

As part of the first phase of the Small Grant project, the EAN University led by Professor José Alejandro Martínez presented the an analysis of the situation of university sustainability in Colombia.

The diagnosis was sent to all the CCYK universities through the Technical Secretariat of the Network and to the RCI and ASCUN universities through the ASCUN Coordination of Internationalization in July of 2018 with maximum completion date in August.

The diagnostic instrument consisted of 23 questions aimed at knowing the sustainability contacts, offices, policies and practices within the universities. It also included strategic approaches that include sustainability issues such as mission and institutional vision, motivations, budgets, indicators in order to know i) Institutional policies and efforts and ii) HEI internships. (Instrument Capacity-Building Program Annex).

In total, 29 HEIs responded to the survey, the majority of CCYKs showing the following results (Annex: Instrument Analysis v2):

28% | completed by environmental management area

17% | completed by planning area

14% | by sustainability area

7% | by social responsibility area

55% | of the surveyed HEIs are part of Global Compact or PRME

72% | make sustainability reports

93% | of the HEIs surveyed mention sustainability in their institutional policy

79% | of the HEIs surveyed have an area that centralizes institutional sustainability activities. There are also multiple links with environmental areas, management systems, vice-rectories and administrative offices

74% | of the areas that handle sustainability have their own Budget

81% | of these areas have human and technological resources

85% | of these areas have administration and information activities

93% | of these areas have administrative activities in charge

44% | of these areas have academic activities in charge

41% | of these areas are in charge of activities that generate income

Sustainability is of Interest to senior management: **91%**

Sustainability is aligned with mission and vision: **83%**

Interest of sustainability is altruistic (needs of the world or the country) **86%**

HEIs have academic programs with developed subjects: **66%**

HEIs have interest of a particular area: **34%**

There is more work on environmental indicators (**70%**) than comprehensive indicators of sustainability (**46%**)

59% of HEIs have committees that support the issue of sustainability and that are not part of the management unit directly. **17%** have these committees and are part of the management unit.

100% of the HEIs surveyed consider it necessary for the Ministry of Education to direct a line of work to integrate sustainability in HEIs and **100%** are interested in participating in the CCYK-EAN-PSU project.

B) CALL TO COLOMBIAN HEIS

Once the results were collected, a call was made through the Technical Secretariat of the Network for CCYK universities and through the Internationalization Coordination of ASCUN for ASCUN / RCI universities. There was a good response from interested parties receiving 114 applications from universities of all regions and local and departmental government officials from regions such as Cundinamarca, Antioquia, Valle del Cauca, Coffee Region, Huila and Guaviare. For the call, the Network published a digital document in JPG and PDF format including all the information regarding places, dates, requirements and documents to be delivered in order to participate in the workshops.



Abierta Convocatoria al programa "Construcción de Capacidades para fortalecer la Sostenibilidad en la Educación Superior"

Los interesados deben postularse al correo cjpuerto@universidadean.edu.co enviando la documentación completa antes de la fecha de cierre de la convocatoria.



Perfil del aspirante:

El taller está dirigido a funcionarios de universidades colombianas que trabajen en temas de sostenibilidad institucional, gestión ambiental institucional, responsabilidad social institucional, calidad institucional y/o planeación institucional dentro de sus IES y que desempeñen funciones en temas directamente relacionados.



Modalidad:

Presencial

Número de becas:

Se otorgarán 100 cupos para los talleres. 25 por cada ciudad (Bogotá, Cali, Medellín y Manizales). Se incluyen refrigerios y almuerzos durante el taller.



Objetivos del programa:

Contribuir con los procesos de gestión de la sostenibilidad institucional en las IES de Colombia a través de actividades de Capacity Building
Capacitar a funcionarios de las universidades colombianas, así como a académicos que se desempeñan en temas de sostenibilidad, gestión ambiental, responsabilidad social, calidad y/o planeación institucional y debatir sobre el desarrollo de la sostenibilidad institucional en el sistema de Educación Superior de Colombia a través de la experiencia de Portland State University.



Contenido del programa:

Se realizarán 1 taller de 7 horas, replicado en 4 ciudades del país, impartido por la profesora del Instituto para Soluciones Sostenibles de PORTLAND STATE UNIVERSITY, Dra. Jennifer Allen y el profesor de la UNIVERSIDAD EAN, José Alejandro Martínez.

Las 4 ciudades donde se realizarán los talleres son: Bogotá, Cali, Medellín y Manizales. Las universidades anfitrionas, en estas ciudades son:



Institute for Sustainable Solutions
PORTLAND STATE UNIVERSITY



Portland State UNIVERSITY



Bogotá

Lunes 29 de octubre de 2018



Cali

Martes 30 de octubre de 2018



Universidad de Medellín
Ciencia y Libertad

Medellín

Miércoles 31 de octubre de 2018



UNIVERSIDAD DE MANIZALES

Manizales

Viernes 2 de noviembre de 2018

C) DEVELOPMENT OF WORKSHOPS

The 4 workshops in the country were held between Monday, October 29th and Friday, November 2nd, 2018, in 4 cities of the country. These were led by Dr. Jennifer Allen, a Senior Fellow of the Institute for Sustainable Solutions of Portland State University and Professor José Alejandro Sepúlveda, Director of the Department of Sustainability of the Institute for Sustainable Entrepreneurship of Universidad Ean.

The workshops were held at Universidad El Bosque (Bogotá), Universidad del Valle (Cali), Universidad de Medellín (Medellín) and Universidad def Manizales (Manizales). They were attended by 114 participants, experts in topics of university sustainability, planning, infrastructure and financial management of 33 HEIs throughout the country and with representatives of local and departmental government entities such as Empresas Públicas de Cundinamarca, the Secretariat of Tourism of Guaviare, the District Department of the Environment of Bogotá, SENA del Valle, CORANTIOQUIA, CORPOCALDAS, the Environment Secretariat of Manizales and the Govern office from Caldas department, as well as the Cultural Attach of the United States Embassy in Colombia at its opening in Bogotá.

The agenda of the 4 workshops consisted of the following:

1. 8:00am - 8:30am: Registration and Opening US Embassy in Colombia (for Bogotá), Host Institution and CCYK.

2. 8:30am – 10:00am: Introduction: long term project and phase one

- a) Presentation of the project, and the details of this phase
- b) Short presentation: context about sustainability in HE
- c) first discussion: why do you think it is important to integrate sustainability into HE institutions
- d) short presentation: peace, SGDs.
- e) second discussion: importance of this for the Colombian Community.

3. 10:00am – 11:00am: Models of sustainability into the universities

- a) Model in PSU.
- b) General models in Colombia - from the survey.
- c) Third discussion: comments about the models (pros and contras, experiences)

4. 11:00am – 12:00pm: Practical exercise: connecting SGDs with sustainability strategy

- a) Introducing SDGs.
- b) Use examples from other universities - E.g. PSU Centers for Excellence focused on 1) Homelessness and 2) Smart Cities.

c) Exploring opportunities for each institution based on their areas of focus and assets. List of SDGs and discussion about which seem most relevant, and opportunities to integrate them.

5. 2:00pm – 4:00pm: Practical exercise: connecting Climate Change with sustainability strategy

- a) Introducing Climate change.
- b) Examples from other universities (and examples in countries with high risk)
- c) Exploration opportunities for each institution based on their areas of focus and assets, set of possible areas of focus and discuss how these align with each institution's assets/interests, and what actions could be taken.

6. 4:00pm – 5:00pm: Practical next steps and closing.

- a) Tools opportunities for each institution going forward
- b) Networking, sharing best practices, additional workshops, regional activities, national activities, Other.
- c) Closing.

The workshops presented important diagnoses of university sustainability in the different regions of the country, good national practices of the different departments of Colombia, as well as successful experiences at Portland State University in terms of its relationship with private entities and the government of the city of Portland and the State of Oregon in the USA. The workshops also presented information on the work of "the Association for the Advancement of Sustainability in Higher Education (AASHE) and its STARS methodology (System of monitoring, evaluation and qualification of sustainability).

Participants of the Workshop at Universidad El Bosque,, Bogotá, representatives of HEIs of the capital, Santa Marta and Neiva, as well as representatives of local governments such as Empresas Públicas de Cundinamarca, the Secretariat of Tourism of Guaviare and the District Department of the Environment.



Participants of the Workshop at the Universidad del Valle, Cali, IES del Valle del Cauca and the SENA branch for the department.



Participants of the Workshop at Universidad de Medellín, HEIs of the department of Antioquia, Barranquilla and representatives of CORANTIOQUIA.



Participants of the Workshop at Universidad de Manizales for the coffee region, HEIs of the department of Caldas and Risaralda, and government representatives such as CORPO-CALDAS, the Secretariat of the Environment of Manizales and the Gobernación de Caldas.

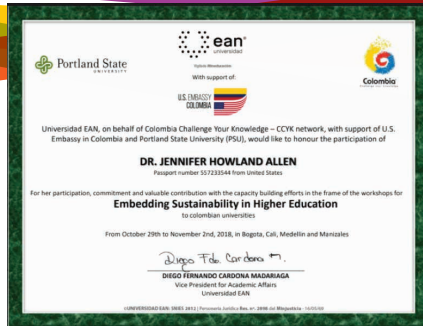


Opening of the workshops in Bogotá. From right to left: Michelle Riebeling (Cultural Attaché of the US Embassy in Colombia), Dr. Rita Plata de Silva (Academic Vice Chancellor Universidad El Bosque), María Paulina Vásquez (Executive Director of CCYK Network, Social Projection Director of Universidad de Manizales) and Dr. Jennifer Allen (Senior Fellow, Institute for Sustainable Solutions, Portland State University).



IV. SECOND AND LAST PHASE:

The CCYK Network and Universidad Ean made a certificate for each one of the attendees of the workshops to be delivered digitally, as well as one for the workshop professors in recognition of their important contribution to developing the Capacity Building Program for Embedding Sustainability in Higher Education for Colombia.



Finally, the EAN University and the CCYK Network wish to thank Portland State University and the US Embassy in Colombia for their constant support in the successful development of this program and for their contribution to the development of internationalization and sustainability of Higher Education in Colombia.



1041

OUTCOMES OF THE WORKSHOPS TO EMBEDDING SUSTAINABILITY IN HIGHER EDUCATION TO COLOMBIA

The consolidated results obtained during the five workshops in Colombia, together with the universities of the CCYK network and other universities and institutions interested in the call are presented below (see previous chapter).

I. WHY SUSTAINABILITY IN UNIVERSITIES?

The discourse about the importance of working on sustainability in universities is broad and is not necessarily recent. The great majority of universities that participated in the workshops have expressed how, on average, they have been working on issues related to sustainability for over six years. Another group of universities details an evolution of a project that can take over ten years, where they have gone through lines of environmental management, and/or corporate social responsibility and then, sustainability. (Details of the method used to carry out this work is found in numeral three of this chapter.)

From many academic programs within universities, as well as from the institutions themselves it is clear that there are many activities, all linked to the general functions of education in a higher education institution: research, training, and extension, transcending the issue of sustainability towards internal management, establishing a link between this management and formative activity.

Regarding the work with professors, different levels of maturity are observed from different universities, since it is an aspect directly linked to the characteristics, capacities, and interests of the staff. This implies a challenge for the institutions: if professors do not have sensitivity or information, then students cannot capture its dimension. It is absolutely necessary to keep in mind that students are not only the generators of change, going from the inclusion of concepts to the real transmission of knowledge.

Some Higher Education Institutions expressed the necessity to continue working on the concept of sustainability (individually or jointly). There seems to be a greater relationship between the entities and the activities that involve work on the environmental issue, and, therefore, incomplete work (which relegates social and environmental dimensions) could currently be taking place.

II. HOW IS WORK IN SUSTAINABILITY EVIDENCED?

In many cases, the evidence of the universities regarding their sustainability work is seen in terms of planning, or strategy: the universities are involved in investment projects related to the environment. Sustainable campuses, participation in national or international rankings, acquisition of shared transport systems such as bicycles, research institutes, construction carried out under intelligent building standards or investments made through social work with communities or territories.

In the subject of education, practically all the Universities offer many courses related to the subject, mainly environmental. However, they also have academic programs that address other areas of knowledge related to sustainability (environmental, biology, social sciences, ethics, etc.), which are developed and maintained directly related to the interest and demand of the community. This is interesting since some academic training programs have been withdrawn due to low demand, although their value proposition was high in terms of sustainability.

Another way to highlight the work of universities on the issue of sustainability is the relationship with stakeholders, and especially with the public sector in their regions and provide advice to the public sector, research on technical issues work committees, etc. It is important to highlight that the vast majority of institutions in recent years have approached decision makers and of public policy generators (or the latter have approached universities) in such a way that articulation is becoming more common in local planning processes (such as territorial zoning plans), development of critical project analysis, design of solutions for cities and regions or prospective development studies (to name a few) not by consultants but in the hands of universities.

It would seem that all the universities are working internally on those elements of environmental performance linked to their operations: efficient water, electricity consumption, LED lighting, waste management, use of rainwater, etc. Some have transcended these common themes to begin working on issues such as the implementation of renewable energy for self-consumption, wastewater treatment or electric mobility, for example. Therefore, in several institutions in Colombia, the issue of sustainability has been developed from finance, logistics or procurement areas, due to the relationship between natural resource management and the economic resources necessary to make the training activity viable. In other

cases, the responsibility for sustainability activities has migrated to other areas to the extent that the issue becomes more complex and includes variables that are not the focus of the institutions' initial areas.

The institutions are working hard on collaboration between universities, but there is still a lot of zeal and a lot of competition, which means that the information is not shared as well as it could be. There are work networks, which usually start from an interest in joint research on environmental issues and sometimes transcend to other types of activities linked to sustainability, such as Red RAUS - Environmental Network of Colombian Universities, the Colombian Network of Environmental Training - RCFA, and others. However, migration to sustainability issues in these networks is a recent issue. The high-level inter-institutional discussion is not yet part of their agendas, except in the case of the G8 group in the department of Antioquia and the SUMA alliance of the City of Manizales, where there has been an institutional concern to better integrate and contribute significantly to the territory.

III. SUSTAINABILITY AND COLOMBIAN REALITY

In the Universities, through social projection or extension areas, there is the possibility of transferring content, knowledge and research work in sustainability beyond the university community. This is valuable for Colombian society in general, thinking about generating real solutions for the regions: a direct relationship between the real world and the activity (and relevance) of the universities.

Several universities have had experiences in generating mechanisms to go back from the classroom to the territory. This involves making students and professionals trained in the cities go to the regions to carry out practices to study problems and generate solutions, and even work in their profession. These activities include the modifying pedagogical models in the institutions and generating internal capacities so that professors who mediate the contents and their development, can link students in professional practice work in rural areas (noting that Colombia is about 80% rural).

The exercise of recognizing the territory and its dynamics contributes significantly to relevance in education. In this way, problems of the communities will allow the development of sustainability content, and in turn, rethink the university as a center of interaction between actors and knowledge (not by faculties, but through transversal, integration and systemic work).

In addition, opening communication between the universities and the territories generates a beneficial dynamic to facilitate discussions on public policy and sustainable development necessary for the country:

- Strike a balance where the country can make use of biodiversity, without forgetting the country's other productive and economic areas.
- Generation of indicators linked to our territory and environment (not on external models from other territories).
- Monitoring the link between the transfer of knowledge to the community and subsequent national growth.
- Contribute significantly to the relationship between the community, universities and academia to ensure harmonious and homogeneous dialogue using arguments based on knowledge.
- Empirical knowledge that communities become part of the generation of knowledge and solutions to their problems.
- Recognize regional strengths, which can add value to the development of the country in a framework of new production models.

IV. A DETAILED VISION OF THE OPERATION OF SUSTAINABILITY

In most cases, multiple areas within institutions work simultaneously on issues associated with sustainability, which can represent an example of interdisciplinary work, as well as an opportunity to improve the interrelation and harmonization of different areas (faculties, directive areas, coordination, etc.).

Below are some cases universities have been developing and implementing sustainability in their institutions.

| UNIVERSIDAD | OBSERVACIONES |
|---|--|
| <p>UNIAGUSTINIANA</p> <p>DOES NOT HAVE A SPECIFIC OFFICE</p> | <ul style="list-style-type: none"> • An office subject to the rectorate, can hinder the transmission of information; as it is at the level of a Vice Presidency, it can motivate work between different processes; When it is up to a faculty, communication between them is difficult due to professional jealousy/language differences. • It is not enough that the rectors are motivated and resourceful, there must also be internal networks. • It is important that the operation of sustainability comes from the academy and research (training areas) and not only from the operative department, which would be normal when it is in the administrative area. |
| <p>UNIVERSIDAD SANTO TOMÁS</p> <p>SUSTAINABILITY COORDINATION SINCE 2016</p> | <ul style="list-style-type: none"> • Part of the motivation is that being a Catholic university, the environmental issue was incorporated by the Laudato Si; in this way it is in the interest of the founders and incorporates the whole university (multicampus). • A national team of environmental coordinators was consolidated, whose members are linked to the academic area. • Simultaneously, the operational part is involved and included in the substantive part of the university |

UNIVERSIDAD SANTO
TOMÁS
SUSTAINABILITY
COORDINATION SINCE 2016

- Work continues on teacher training, and the campus is being linked as an open laboratory.
- Working with third parties, linking the entire university community
- Wide communication of social responsibility

UNIVERSIDAD
DE LA SALLE
SUSTAINABILITY
COORDINATION

- It depends on human management, there are other coordination: legal matters and philanthropy
- The objective is to promote culture around sustainability, beyond environmental issues
- They seek to articulate the different actors (and actions) within the institution
- Improvement is needed in that information is handled from different, so several vice-rectories have fragmented information.

UNIVERSIDAD JORGE TADEO
LOZANO
DOES NOT HAVE
A SPECIFIC OFFICE

- There is an organizational development area that manages all management systems, including environmental management issues; therefore, it is a dependency of the financial vice-rectory.
- The model seeks to link the academy so that a unit with contents on environmental management is offered in all the programs.
- There is an environmental committee involving different areas of the university, from the administrative to the academic areas
- To improve: there are some programs that use volunteers (students/workers), but it is not easy to manage motivation (reward, incentive).

UNIMINUTO
SUSTAINABILITY
OFFICE

- 10 years of existence of the office (evolved from the environmental issue)
- The linking of work within the university has sought the integration of the external community: work with the neighborhood, with merchants, and with homes.
- Linking resources of developed activities (recovery and sale of recyclable material) to support the activities of students with disabilities.
- The proposal "towards the route of sustainability": organize the home and then replicate work in the other venues, and subsequently to the entire organization.
- To improve: those results no longer depend on the engineering faculty, now they depend on human management; joined health and safety at work.

UNIVERSIDAD EAN
SUSTAINABILITY
DEPARTMENT

- They have been working for 15 years on environmental issues and the subject is evolving
- Sustainability activities have had different leaders in the institution over time: financial vice-rectory, faculties, management dependent of the rectory
- It is observed that more than an isolated area that orders and plans, the scheme of a meeting point that facilitates processes and allows information and resources to flow, following a strategy, has worked.

UNIVERSIDAD DE
ANTIOQUIA
ENVIRONMENTAL
MANAGEMENT DEPARTMENT
IS BEING STRUCTURED

- Since 2017, the aim has been to be a sustainable university, recognizing the differences between each campus to articulate them.
- They work at the regional level in the G8, a group of universities that meets every month and works on issues of territorial importance, such as the air quality pact.

- Work begins in different areas until it converges into a sustainability committee with interstate participation.
- The link to the theme of the University's strategy is important because it becomes auditable in certification processes.

V. SUSTAINABILITY, SDGs AND CLIMATE CHANGE

One way in which universities are making their work in sustainability more visible recently is by using the universal language of sustainable development objectives. It is clear that the universities are strategic allies in developing the SDGs. However, the institutions still do not integrate their projects as a single sector, but rather develop them in an isolated and dispersed way from their different programs (academic, research or extension). Therefore, work must be done to centralize the information from the different institutions.

Now, it must be made clear that universities cannot bear all the SDG work in the country on their own. This is a work to be shared by many other institutions, public and private. While the issues are related, it is important to note that sustainability should not focus only on SDGs.

The SDGs can be an effective framework to work on planning sustainability in the universities. In some cases, however, the use of the frame of reference does not allow a true articulation with the goals of the SDGs but only an element in a way: the SDGs are an instrument or tool. The final emphasis of the universities must be to solve the needs of their territory and not contribute to goals. In this way, the work in sustainability would generate an indirect impact (contribution to the SDGs) that can be achieved and would not be an objective in itself.

In many of the universities the way of expressing the SDGs and their relationship with the sustainability work performed by institutions is completed through sustainability reports. However, this work is individual except in the cases of the G8. (Antioquia) and the SUMA group of Manizales, where work has been organized and articulated.

Engagement with their local communities (social engagement) would seem to be the strategy in which universities can express the SDGs. However, it is necessary to highlight once again that given the number of goals of the SDGs and their disparity, it is possible that if a region is not contextualized, the works that are carried out from inside and outside the universities will not contribute significantly to the sustainable development of the territory. An opportunity to use universities as bridges over which the SDGs can adapt to the regions.

A summary of events in some institutions regarding the SDGs is presented in the following table:

| UNIVERSIDAD | DETALLE |
|-------------------------------------|---|
| UNIVERSIDAD DE ANTIOQUIA | Contributed to the SDGs Through programs made by the university, however, all work is not fully documented, except for environmental issues. |
| U MEDELLÍN | It seeks to articulate the campaigns on the subject of sustainability and the SDGs in a broad way, although they admit a lack of improving in the area of information across the length and breadth of entities. Currently, working on how sustainability reports respond to requests for information from outside so that there is no reprocessing of the presentation of sustainability information and SDGs. |
| INSTITUTO TECNOLÓGICO METROPOLITANO | Sustainability is being done and SDGs jointly, although many areas do not know why it is being done (it seems to be a fad and not a background exercise). The relationship is seen in the disclosure reports. |
| UNIVERSIDAD EIA | The 17 SDGs are not fully exploited, although it is noteworthy that work is carried out from research and application of engineering on projects that link these prioritized SDGs. Each university has different interests, so it is necessary to articulate, and identify capacities (know what can be contributed from each university). |
| UNIVERSIDAD DEL NORTE | All universities in one way or another have addressed the issue, varying by the guidelines of the rector's office. For articulated work, it is important to have some criteria (common points). Also, it is important to share information and facilitate disclosure. |
| UNIVERSIDAD DEL MAGDALENA | To emphasize the proposal that the university campus is a sustainability laboratory, a group of professors, students, and graduates designed a strategic planning exercise for the campus. 12 themes of biocultural campus were defined where the 17 SDGs are reflected. At present, themes were prioritized, working mainly on the SDGs (6) water - culture and governance - and (14) life on the ground, focused on zero plastic. |

However, it is worth noting that the work that universities have been doing on climate change has not transcended beyond what is reported as activities related to SDG 13. Therefore, with few exceptions in the national territory, there is no common front to work on the control, mitigation and adaptation to climate change of the territories. For this reason, initiatives

such as the climate change table of higher education institutions are highlighted. This comes from the RAUS Network supported by the climate change directorate of the Ministry of Environment and sustainable development, and which has been reinforced by even more inclusive national initiatives such as the University Pact on climate change, signed in Guajira at the beginning of 2019 called by Universidad de la Guajira y la Universidad Ean.

VI. OPPORTUNITIES OBSERVED DURING THE DIALOGUES

The below is a list of the main opportunities observed in the different tables developed across the country in relation to higher education in Colombia and work in sustainability:

- One goal should be that the institutions transcend their vision of mere environmental or social issues management , to working towards a sustainability that integrates the three dimensions (social, environmental and economic) in a balanced way. Although the historical work on environmental issues of many institutions must be recognized, the integrating vision of modern sustainability should be the starting point for teaching future generations and in the daily activities of Colombian universities, both for national resources , as well as the needs of society.
- In the same way, an education policy must transcend that seeks to contribute significantly to environmental issues, to find the full value of a policy that promotes training in sustainability, more in line with the biodiversity of the territory, social complexities, post-conflict reality and the need for equity and environmental and social justice. The united competencies in sustainability offered in a coordinated way in the institutions of the education system (basic, middle, higher), can help positively transform today's society and the country of tomorrow.
- The university engages different types of actors, which can allow discussion and enrichment of the concept of sustainability, but it is necessary to open the dialogue beyond cities and link regional interests and needs so that the term becomes of real significance for the regions and their development.
- As a group of diverse people in one institution (university community), each university can contribute to the development of public policies from knowledge in sustainability, but today it is not doing so effectively.
- The articulation between academia and public and private institutions must be further improved in order to develop the fulfillment of common objectives for the good of society. The University must fully comply with its role as a transformer of society through knowledge and, in particular in the present discussion, for sustainable development.

- Strategically, universities should link external and internal work: there must be a transverse approach not only within the institutions (external) but at the inter-institutional level (internal) as a part of the sustainability implementation.
- Progress must be made in determining how to measure sustainability and its impact, in order to better channel resources and institutional capacities. There are multiple efforts and multiple measurement criteria, which can be inefficient when trying to coordinate efforts or identifying if progress has been made decisively towards solving society's needs.
- Work must be done on communication, since the knowledge and added value of sustainability is not being disseminated, and, therefore, opportunities to work together, to motivate the integration of resources and efforts, are lost.
- Including the social dimension in sustainability requires working in a special way with customs and cultures. Highlighting the richness and diversity throughout the territory is important, and activities must be conducted in accordance, taking advantage of the different university institutions throughout the country. This is a strength that has not yet been explored owing to lack of communication and inter-institutional coordination.
- Regardless of the university's approach (there are some that focus on sustainability from training and others from research), it is important that at the top of agenda include successfully working to reach communities. Therefore, it would be helpful to evaluate the way in which each institution carries out the extension tasks, the relationship with the interested parties and the identification of the pertinence of their training/knowledge creation processes.
- Universities with multiple campuses have ample opportunity to impact different regions from different angles, shifting to the topic of awareness and practice in the cities. These universities should seek to use units of criteria to act with the same orientation but respecting the characteristics of the environment (and reading their needs).
- At the macro level, institutions should take advantage of meeting spaces with their peers (for example, ASCUN - Colombian Association of Universities meetings) in order to generate common points of agreement on the sustainability issue, building a list of priorities for country or region, seeking the articulation of capabilities and opportunities, and from there, the construction of inter-institutional proposals.

FINAL THOUGHTS

MARÍA PAULINA VÁSQUEZ VARELA

The concept of sustainability framed in the systems of higher education in the world has taken boom in response to the global call, that is proposed from the framework of the SDGs, and the need to raise awareness of the concept of sustainable development in universities from its substantive functions and university management overall.

As a result of the project "Training program for incorporating sustainability in higher education" developed by Ean University, Portland State University (PSU) and the network of universities CCYK supported by the government of the United States of America. In which also ASCUN institutions (Asociación Colombiana de Universidades) and RCI (Red Colombiana para la Internacionalización) were included in the pursuit of building a broad characterization and to include as many Colombian institutions of higher education system on the state of university sustainability.

Above, with the aim of displaying the current status, understandings and practices in terms of sustainability characterize universities in Colombia through a diagnosis and workshops that enabled conversations on capacity building for integration sustainability in Higher Education in Colombia.

All these spaces, the existence of some progress was evident in the awareness of the implications of sustainability in higher education institutions, however, in an incipient level which implies a challenge for universities to take the next steps with more decision to forward a phase, in which one, this concept will involve with the general strategy of university management and considered as an additional factor that contributes to building a quality education.

The challenge has to do with the ability to integrate sustainability since the social, environmental and economic perspective to the three main functions of the University: education, research and extension.

In training: linking environmental education in the training process of university, developing new skills for today's professionals and the challenges they bring these processes from pedagogy and evaluation.

From research: the generation of new knowledge to understand the phenomenon of sustainability in universities and their relations with the environment.

Finally, from the extension the opportunity and responsibility of the university with its context from the ability to transform realities from the knowledge that is generated and in the construction of a new social order, where the axis articulator, will be based on the quality and the importance of establishing relations between the institution and its stakeholders around the concept of sustainable development of city.

This project was carried out with the support and expertise of the Institute for Sustainable Solutions (ISS) from Portland State University - PSU and generally, with the model of Portland State University, as a reference from the design and implementation of a comprehensive sustainability strategy for the university, which departs from the institution and power in coordination with public and private in recognition of the city as a framework for higher education quality and sustainable.

In that sense, the experience of Portland State University joins the work led by Ean University, the universities of CCYK and universities ASCUN and RCI, reaffirming the importance of university networks about this topic, and how they can be built proposals that allow the exchange of good practices aimed at improving university management in the face of sustainability and university relations with the environment.

By way of closing, these reports are intended to compile the timeline set in the execution of this project and become the possibility that, from this experience, the findings constitute the first step in building a model of university sustainability articulated from the entities of government as Ministry of Education and the Ministry of Environment and Sustainable Development, which ones will contributes to the formulation of the public policy that allows the advance in a determined and rigorous way in the understanding of what implies the insertion of sustainability, from a comprehensive view since social, environmental and economical field, for the construction of a quality higher education in Colombia.



Colombia®
Challenge your knowledge

