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## Description Of The Contributions Of The Academic Offerings Of The Higher Education Institution, Santander Technological Units (UTS), In Colombia, To The Implementation Of The Sustainable Development Goals (Sdgs).

**Carlos Alberto Amaya Corredor**, Environmental Engineering, Unidades Tecnológicas de Santander UTS. Bucaramanga, Colombia.

**Carolina Hernández Contreras**, Environmental Engineering, Unidades Tecnológicas de Santander UTS. Bucaramanga, Colombia.

**Miguel A. Ávila A.**, Engineering Faculty, Universidad Distrital Francisco José de Caldas, Bogotá, Colombia

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**Abstract.** The Sustainable Development Goals, SDGs, from the United Nations, are a universal call to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030. The 17 SDGs are integrated, as they recognize that interventions in one area will affect the results of others and that development must balance environmental, economic and social sustainability. The research worked from the academic offerings of the Technological Units of Santander, a Higher Education Institution in Colombia, to recognize the structural aspects from the programs offered for the training of professionals including guidelines that coincide with the SDGs. The training structure of the academic programs was reviewed and the SDGs were directly related to them. The institution offers academic programs relevant to the needs of Colombian society, it is recognized for the quality of its graduates and the identification of its relationship with the SDGs visualized the successful contributions made, which allows interpreting that the professionals graduated from this Colombian HEI have a vision of the future that is articulated with international guidelines and in their performance they will surely contribute to the sustainable construction of well-being.

**Keywords:** Sustainable Development, University Sustainability, Outreach, Curriculum

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### I. INTRODUCTION

The Sustainable Development Goals are necessary in the academic programs of universities to comply with quality education; when people can access quality education, they can escape the cycle of poverty, therefore, education contributes to

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reduce inequalities and achieve gender equality, and thus achieve acceptance, renewal and compliance with the SDGs in each academic program of higher education, thus the health and welfare of each student will be dignified, the quality of life will be higher and contribute to creating more peaceful and tolerant societies.

One of the purposes of the university is to do research to produce new knowledge oriented to solve the complex problems of a society in particular and of humanity in general. In current pedagogy, one of the most important purposes is to develop the cognitive and social faculties of learners, that is, the capacity to learn, to reflect, to dialogue, to work with others, and to value differences. But this requires that the teacher himself practices them, that is, that he teaches by his own example. (Boggino&Rosekrans, 2014). As argued by Sáenz (2018), the role of universities in relation to sustainability is fundamental because they assume it in two dimensions, one by incorporating it into their structure and operation and two by transmitting its relevance among their academic actors and in their community of influence. (Sáenz, et al., 2018) Universities have the fundamental role of social transformation, towards the SDGs they must also assume this role since the linkage to the SDGs allows new paths of change, with the expectation of better scenarios in the horizon of the year 2030.

It is necessary to take advantage of the integrative potential of the 17 SDGs, the synergy moves results towards other SDGs. Working in an institution of higher education, by contributing to the SDGs multiplies this condition, even if it is thought that education only points to SDG4, quality education, from this it can show results to SDG1 poverty eradication, or to SDG2 zero hunger, or to SDG08 decent work, or to SDG10 reduction of inequalities, or find spaces in any other SDG.

The work of the Technological Units of Santander UTS, to identify the relationship from their academic programs is significant to strengthen their results in the service of their communities of influence, is a contribution to the fulfillment of the SDGs from Colombia and has to be a differentiating aspect, which highlights the institution for its present and future commitment to social welfare. The institution offers higher education in two areas of knowledge, administration and organizations and engineering, grouping 16 academic programs, from which it must assume commitments in relation to the SDGs. The structure of the programs has been formulated in clear response to the needs of the institution's environment, so that the training of professionals is a space that transforms societies, not only for the quality performance of its workforce, but for the integrity of their actions in the search for individual and collective well-being, this strength is solidified when working on the SDGs and contributes to strengthen the positioning of this HEI, with greater relevance in the national context. (UTS U. T., 2020)







World leaders decided in 2015 to adopt a set of global goals to eradicate poverty, protect the planet and ensure prosperity for all: the 17 Sustainable Development Goals (SDGs). They are all interrelated and incorporate the global challenges we face on a daily basis. It should be noted that, in the framework of this work, a parallel is made between environmental education and training, in the scope of the SDGs, in consideration is understood environmental education as a proposal aimed at all audiences without any derogatory and that can be carried out at levels even of informal












education using strategies such as information in the variety of social networks, where the use of ICT's is important (Villamil, 2018).

For UTS, from its institutional educational project responds to the principles of educational quality established by UNESCO (UTS U. T., 2020), from the institution it is propitiated the environmental principles and values that contribute to the achievement of the objectives of sustainable development, all institutional processes have environmental vision, for the rational and efficient use of renewable and non-renewable natural resources. Sustainable development has to do with the commitment of current generations with future generations, so as to ensure development without endangering the subsistence of life on the planet. There are 17 SDGs (Table 1), although they are already known worldwide, it is always necessary to name them as a reminder.

**Table 1.** UN Sustainable Development Goals (Paris, 2015).

Source: Own elaboration, based on UN data (UN, 2015).

SUSTAINABLE DEVELOPMENT GOALS (SDGS)		MAIN APPROACHES
	An end to poverty	Extinguish extreme poverty, sharply reduce the proportion of poor families, create social protection measures for vulnerable people, subsidize families in need.
	End to hunger	Improving nutrition and achieving food security, ending hunger and ensuring access for all people, particularly the poor, doubling sustainable agricultural activity and maintaining genetic diversity of seeds.
	Health and well-being for all	Ensuring healthy lives, reducing maternal mortality, ending preventable deaths of children under five years of age, combating communicable diseases, treating substance abusers, supporting medical research.
	Quality education	Ensure that all girls and boys complete primary and secondary education, which should be free of charge, access to early childhood care services, equal access for men and women to technical, professional and higher education.
	Gender equality	Overcome and eliminate all forms of discrimination and violence against women and girls, guarantee universal access to sexual and reproductive health.
	Clean water and sanitation	Improve water quality, minimize the use of toxic and hazardous chemicals, increase protection of water resources, universal and equitable access to safe drinking water.

	Affordable and sustainable energy	Increase the use of renewable energy, technology capable of providing modern and sustainable energy services.
	Decent work and economic growth	End child labor, encourage the growth of businesses and entrepreneurs, reduce unemployment, eradicate forced labor, and eliminate human trafficking.
	industry, innovation and infrastructure	Increase access to ICTs, promote inclusive and sustainable industrialization, increase scientific research and improve technological capacity in industrial sectors.
	Reducing inequalities	Achieving income growth for the least favored people, Giving more say to developing countries in international economic and financial situations, facilitating orderly and legal migration.
	Sustainable communities and cities	Ensure decent housing for all people, improve slums, reduce the number of deaths caused by natural and human disasters, increase inclusive and sustainable urbanization, implement contingency plans.
	Sustainable consumption and production	Achieve sustainable management and efficient and proportionate use of natural resources, reduce food waste per capita worldwide, achieve environmentally sound and rational management of chemicals, reuse goods and products before they reach their life cycle.
	Climate action	Capacity to react immediately to climate change, reduce gas emissions, be prepared for the effects of natural disasters.
	Underwater and ocean life	Protect marine and coastal ecosystems, facilitate artisanal fishermen's access to marine resources and markets, improve conservation and sustainable use of the oceans and their resources.
	Life of terrestrial ecosystems	Ensure the conservation and sustainable use of terrestrial ecosystems, fight for the protection of paramos and put an end to deforestation, rehabilitate land and increase tree planting and protection of endangered species.
	Peace, justice and strong institutions	Reduce all forms of violence, end abuse, violence and torture against children and women, reduce bribery and corruption in all its forms, create transparent and accountable institutions, public access to the country's economic information.
	Partnerships to achieve the SDGs	Promote investments in favor of the least developed countries, enhance national and international

UNESCO from the implementation framework of the 2030 Agenda for Education (UN-UNESCO, 2019) talks about improving access to quality sustainable development education at all levels and in all social contexts, to transform society by reorienting education to help people develop the knowledge, skills, values and behaviors needed for sustainable development.

There is growing international recognition of education for sustainable development (ESD) (VC, 2020) as an integral element of quality education and a key enabler of sustainable development. SDG4 is the specific focus for education at all levels and scopes, from which the need to reach all communities is raised. Even so, educational institutions cannot only contemplate contributing results exclusively to SDG4, but by positioning themselves in this focus, multiple results can be radiated towards other goals. (Albareda-Tiana, Fernández, Mallarach, & Vidal, 2017).

The ambitions that education has for the 2030 agenda are embodied in SDG4, from which it is intended to ensure equal opportunities in access to quality education at all levels and for life, boys and girls from early childhood to basic secondary will have free and quality education in all scopes, enter places that are considered with little attention, generate in them a sense of belonging for the planet earth, that they grow in ideals that allow environmental protection, considering knowing about the importance and finiteness in natural resources and how fragile ecosystems are.

In addition, in higher education, this impulse of training is complemented at the base, promoting access to education organized by focuses of knowledge and for which it is required to have a bachelor's degree, so it is certified that this person has completed his or her studies in secondary education, although there is still no equality, the 2030 agenda is responsible for this, in Colombia has worked to make education free, for this projects are created to help students who have the desire to excel and learn but do not have the necessary resources to achieve one of his or her greatest dreams.

The SDGs are general purposes that do not specify how different activities can contribute to their achievement. However, in the case of education, science, technology and innovation activities, there are some studies and reflections that have proposed ways to link them to sustainable development.

The Scientific Advisory Board of the UN Secretary-General (SAB) recognizes the "crucial role of science for sustainable development" (UN-SAB, 2014), from which it made a significant recommendation to propose a specific sustainable development goal on science, or at least specific science targets in each of the SDGs and to consider science not only as an implementation tool but as a public good, in addition to the incorporation of innovation in training processes so that initiatives achieve regional, national and global impacts.

Universities can produce models of sustainable practices for society, teach students skills to address major societal challenges, conduct research to solve these challenges, interact with regional actors, among other things. However, the successful contribution of STI to the SDGs depends on the efforts of not only academia, but also civil society, industry and governments. (Zilahy&Huisingh, 2009).

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The analyses of the SDGs have a relationship in the development of university work, due to the fact that many of the contexts have to do with the relationship that should exist between universities and academia as well as with the community projection that is made to the communities and also to the companies in the region. (CRUE-GESU, 2018).

From this point of view the objective of analysis, corresponds to the identification of certain factors related to the Sustainable Development Goals ODS, in the university work specifically in the reduction of the planet in terms of pollution and also the reduction of poverty, as well as the generation of quality employment. (Parrado & Trujillo, 2015).

Therefore, the scenarios proposed in the UTS should be mentioned that these developments also have to do with the activities and educational projection that is carried out in the institution, taking into account that it is a university and technological institution that must allow education by means of propaedeutic cycles in a practical and operative way that provide the student with experience and expertise in the development of their professional work, but also provide spaces for research and development of technological alternatives that can provide compliance with the objectives of sustainable development based on the great context of poverty reduction, innovation and also partnerships to meet the objectives which is one of the main parameters in the development of the operational contexts of the university. (UTS U. T., 2020).

Development of an analysis identifying variables in the framework of the fulfillment of the SDGs in the educational work of the UTS, seeks to promote guidelines that help the balance between economic growth and environmental protection, likewise these concepts should include and maintain from all fronts of university life and from which permeates, students and teachers of all areas of knowledge, administrative staff, so that sustainability also permeates the administrative functioning of the entity (Amaya, Hernandez, & Tavera, 2020).

## **II. METHODS**

The work carried out in documentary review and identification of concordant aspects, was focused from a qualitative methodological approach (Hernandez, Fernandez, & Baptista, 2014) and for its sequentiality focused on descriptive and explanatory analysis (Tamayo, 2014). The qualitative approach made it possible to describe the conditions and characteristics of quality associated with the university institution and to achieve this, the descriptive approach was used to recognize the structuring aspects of the educational offer of the UTS, from each academic program and area of knowledge, and the explanatory approach was used to establish the relevance of this institutional academic component with the goals and scope proposed from the SDGs.

Methodologically, three moments were defined (Tamayo, 2014): a first moment of identification of the topics, which within the academic offer, relate aspects towards environmental sustainability; a second moment of recognition of the SDG aspects with which that UTS academic offer has relevance and a third moment in which strategies were built to strengthen what was identified and improve the approach of the UTS

academy in the SDG goals. The process applied to obtain the information results can be seen in Table 2.

**Table 2.** Summary of methodological process

Source: Own elaboration, based on Hernández, Fernández, & Baptista (2014).

Construction Process			Expected Result
Stage 1	Stage 1	Stage 1	
Diagnosis of UTS academic components focused on Environmental Sustainability.	Identification of binding SDG aspects of the UTS academy	Construction of strategies to improve environmental sustainability	
Aspects of analysis and progress			
<ul style="list-style-type: none"> <li>• Structure of the UTS</li> <li>• Academic components of the UTS</li> <li>• Identification of environmental aspects by programs</li> </ul>	<ul style="list-style-type: none"> <li>• Identification of focus of UTS on the SDGs</li> <li>• Selection of SDG targets on which the UTS profiles focus</li> <li>• Relationship between UTS academic offerings and SDG targets</li> </ul>	<ul style="list-style-type: none"> <li>• Formulation of strategies to strengthen environmental management UTS</li> <li>• Formulation of environmental improvement aspects, by programs, to consolidate their focus on the SDGs.</li> </ul>	Formulation of improvement of academic-environmental aspects of UTS focused on the SDG targets

### III. RESULTS

The institution Technological Units of Santander to 2020, celebrates 56 years forming highly competent and quality professionals to meet the sectoral needs of the northeastern region of Colombia. From the Institutional Educational Project PEI (UTS U. T., 2020).

In its academic structure, UTS trains from two areas of knowledge, Administration and Engineering, through 17 academic programs (Table 3) and for which, from the PEI, it identifies as its own, to proceed for sustainable development and define the institutional work that favors environmental principles and values that contribute to the achievement of the objectives of sustainable development; and from the institutional values (UTS U. T., 2020, page 36).

**Table 3.** Structure of academic programs at UTS

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Source: own elaboration, based on <https://www.uts.edu.co/sitio/oferta-academica-2/>.

Faculty of Natural Sciences and Engineering. FCNI	Faculty of Socioeconomic and Business Sciences. FCSE
Environmental Engineering Electromechanical Engineering Systems Engineering Telecommunications Engineering Electronic Engineering Electrical Engineering Topographic Engineering Industrial Engineering	Business Administration Public Accounting Marketing Fashion Design Physical Activity and Sports




Having recognized the institutional academic foundations and the academic programs to be focused on, an analysis of the environmental aspects of the programs and their relationship with the SDGs was conducted with students of the environmental resources technology program of the UTS, environmental engineering propaedeutic program, in the process of obtaining their professional degree (Sanchez, Zambrano, & Amaya, 2020). These are shown in Table 4 and Table 5.

**Table 4.** Programs of the Faculty of Socioeconomic and Business Sciences FCSE and the SDGs.



Source: Own elaboration, adapted from Sánchez, Zambrano, & Amaya (2020).

Faculty of Socioeconomic and Business Sciences. FCSE		
Academic Program	Related SDGs	Academic Approach to STSU and SDG Relationship
Business Administration SNIES(53456)		<ul style="list-style-type: none"> <li>• Opportunity for all men and women, particularly the poor, to have the same rights and economic resources.</li> <li>• Increase the supply of qualified people to provide quality advice on corporate issues.</li> <li>• Train professionals with awareness towards renewable energy and energy efficiency in companies.</li> <li>• Promotes the development of companies and organizations that help improve employment and regulate it.</li> <li>• Promotes access to information technology in order to publicize your company in a sustainable way and not wasting physical resources.</li> </ul>



		<ul style="list-style-type: none"> <li>• It trains professionals to mobilize the country's financial resources as a necessary dynamic in the quality of life.</li> <li>• It trains competencies to promote the growth of the regions and the country.</li> </ul>
<p>Professional in Physical Activity and Sports SNIES(102106)</p>		<ul style="list-style-type: none"> <li>• Help promote mechanisms to end malnutrition due to poverty or ignorance. <ul style="list-style-type: none"> <li>• Strengthen the prevention and treatment of addictive substances.</li> </ul> </li> <li>• Carry out activities that protect health, such as physical and mental sports.</li> <li>• Through education, encourage young people and children to promote the development of the objectives by means of games and games.</li> <li>• Achieve gender acceptance by demonstrating that this career is related to the strength of men and women and thus generate decent and dignified jobs.</li> </ul>
<p>Professional in Fashion Design SNIES(106407)</p>		<ul style="list-style-type: none"> <li>• Demonstrate that creativity does not only come from women, but that this activity can also be carried out by men without losing their masculinity. <ul style="list-style-type: none"> <li>• Promote sustainable production, with the management of fabric and leather scraps used in the sector, contributing to the protection of ecosystems.</li> </ul> </li> <li>• Use of low-pollution machinery, affordable energy and makes manufacturing methods and times more agile and less polluting.</li> <li>• Support the development and innovation of new technologies that are affordable and facilitate processes.</li> <li>• Achieve sustainable management and efficient use of natural resources.</li> </ul>
<p>Professional in Marketing SNIES(103072)</p>		<ul style="list-style-type: none"> <li>• Promote mechanisms to increase investments from friendly countries through international cooperation. <ul style="list-style-type: none"> <li>• Strengthen relations with the World Health Organization.</li> </ul> </li> <li>• Strengthen the capacity of countries, alertness to reduce risks to national and global health.</li> <li>• Ensure educational outreach capacity in the corners of the country.</li> </ul>


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		<ul style="list-style-type: none"> <li>Promote gender equality and human respect as a basis for trade relations with international and national companies.</li> <li>Form in the construction of international trade and cooperation mechanism. <ul style="list-style-type: none"> <li>Manage green marketing for the creation of products and make their life cycle long.</li> <li>Take advantage of the FTAs of countries with Colombia, to appropriate mechanisms and international initiatives for sustainability in Colombia.</li> </ul> </li> </ul>
Public Accounting SNIES(90894)		<ul style="list-style-type: none"> <li>Promote the technological use of applications to reduce the use of so much paper in all processes. <ul style="list-style-type: none"> <li>Help to seek equality among human beings, promoting access to the same rights and economic resources.</li> </ul> </li> <li>Increase the supply of qualified people to provide quality advice on accounting issues.</li> <li>Promote the development of companies and thus reduce employment and regulate it.</li> <li>Increase the access to information technology in order to make your company known in a sustainable way and not wasting physical resources.</li> <li>Train professionals to mobilize the country's financial resources as a necessary dynamic in the quality of life.</li> </ul>





















Note: SNIES, National System of Higher Education Information.  
Legal registration code of an academic program in Colombia.











**Table 5.**Programs of the Faculty of Socioeconomic and Business Sciences FCSE and the SDGs.

Source: Own elaboration, adapted from Sánchez, Zambrano, & Amaya (2020).

<b>Faculty of Natural Sciences and Engineering. FCNI</b>		
<b>Academic Program</b>	<b>Related SDGs</b>	<b>Academic Approach to STSU and SDG Relationship</b>
Environmental Engineering SNIES(101707)		<ul style="list-style-type: none"> <li>Improve the production and consumption of natural resources.</li> <li>Prevent environmental degradation by creating awareness campaigns.</li> <li>Contribute to making cities and settlements safe, resilient and sustainable.</li> <li>Evaluate environmental damage to soil, air and</li> </ul>

		<p>atmosphere that may affect human and animal health.</p> <ul style="list-style-type: none"> <li>• Determine if any company is affecting the ecosystem, misusing natural resources and mismanaging waste.</li> <li>• Design processes for the remediation and quality of air, water and soil, so as not to cause damage to living species in each habitat. <ul style="list-style-type: none"> <li>• It trains professionals in demand in the workplace for the management and control of environmental impacts.</li> </ul> </li> <li>• Work in the construction of urgent measures to combat climate change and its effects.</li> <li>• Assist in the conservation and sustainable use of oceans, seas and marine resources for sustainable development.</li> <li>• Promote the sustainable use of terrestrial ecosystems, sustainably manage forests and combat land degradation.</li> <li>• Thanks to the globalization and importance of this program, international ties can be created with any country in the world.</li> </ul>
<p>Telecommunications Engineering SNIES(53092)</p>		<ul style="list-style-type: none"> <li>• Through the media revolution, we can put an end to poverty by creating programs that sponsor low-income people.</li> <li>• To provide educational information to people who may not have the necessary resources to go to school.</li> <li>• Use new sustainable technologies that do not have an impact on the environment.</li> <li>• Disseminate information on health issues.</li> <li>• Contribute to ecological savings, where it helps to generate and store information electronically, without requiring physical resources and pollutants.</li> <li>• Improve digital connectivity in Latin America and thus promote digital divides between countries to achieve economic, political and environmental impacts.</li> </ul>
<p>Electromechanical Engineering SNIES(90937)</p>		<ul style="list-style-type: none"> <li>• There is an obligation to update and use all knowledge in favor of the environment.</li> <li>• Construction, innovation and operation of machines in a sustainable way.</li> <li>• Reduce the use of materials that are involved in</li> </ul>

	 	<p>environmental pollution.</p> <ul style="list-style-type: none"> <li>• Equality and inclusion between men and women is promoted by training men and women without differentiation.</li> <li>• Promote prevention so that industries do not generate negative impacts to the environment.</li> <li>• Use fewer resources and thus avoid waste of materials that can be pollutants.</li> </ul>
<p>Industrial Engineering SNIES(107257)</p>	       	<ul style="list-style-type: none"> <li>• Design, analyze and interpret sustainable production processes.</li> <li>• Help and promote the access of all people to adequate housing and basic services.</li> <li>• Use of organic solid waste as raw material in the manufacture of different products.</li> <li>• Contribute to the reduction of pollution due to gas emissions from factories.</li> <li>• Promotes gender equality and access for all to better possibilities and quality of life.</li> <li>• Promotes the generation of companies and employment opportunities that incorporate sustainability in their performance.</li> <li>• Always considers the relationship between the environment and the company as the basis for production and sustainability.</li> <li>• Work with teams to protect the environment in industrial processes.</li> </ul>
<p>Electronic Engineering SNIES(53390)</p>	     	<ul style="list-style-type: none"> <li>• Promotes the transformation of traditional energy into sustainable energy, so that it is less polluting.</li> <li>• Promotes the use of alternative energy sources such as the sun, air, rain, sufficient energy for all Colombian homes. <ul style="list-style-type: none"> <li>• Strengthening in the health sector, implementing the automation of medical processes, with state-of-the-art technology that allows the ease of patient examinations.</li> </ul> </li> <li>• Innovation of technological devices for the improvement of the environment.</li> </ul>
<p>Electrical Engineering SNIES(106412)</p>	   	<ul style="list-style-type: none"> <li>• It promotes gender equality and implements inclusion, so that women see this as an alternative for improvement. <ul style="list-style-type: none"> <li>• This program is key to face the digital transformation of Colombia and the world.</li> </ul> </li> </ul>

	 	<ul style="list-style-type: none"> <li>• Implementation of sustainable electric transportation, more environmentally friendly.</li> <li>• Reduction of polluting gases and greenhouse effect to the atmosphere.</li> <li>• Achieving productive employment for people with disabilities who are trained in all areas of electrical engineering.</li> </ul>
<p>Systems Engineering SNIES(101596)</p>	       	<ul style="list-style-type: none"> <li>• This is one of the careers with the highest employability and remuneration in Colombia.</li> <li>• It is responsible for designing, programming, implementing and maintaining computer systems, reducing the excessive use of paper in offices and thus saving millions of trees a year.</li> <li>• Technological advances that allow assertive communication between developed and developing countries.</li> <li>• The systematization of information as a support for business efficiency.</li> <li>• Promotes the use of virtual media as a way to save natural resources.</li> <li>• Incorporates energy efficiency in processes.</li> </ul>

Note: SNIES, National System of Higher Education Information.  
Legal registration code of an academic program in Colombia.

#### IV. DISCUSSION

For UTS, the fulfillment of the SDGs is a fundamental pillar of its activities, relating all its focuses in a prospective manner: It seeks to ensure inclusive (SDG 5), equitable and quality education (SDG4), increasing the level of education reduces poverty (SDG1) and therefore hunger (SDG2), training in the efficient use of natural resources (SDG6) and (SDG7), training for access to better employment (SDG8), providing environmentally friendly products (SDG10), better coexistence in cities (SDG11), under the protection of the common home (SDG12, 13, 14 and 15) and the integration of everyone in the world (SDG16 and 17).

Therefore, the approach within the framework of relevance in training and its relationship with the sustainable development goals, aims to consolidate a proactive mechanism that contributes to the formation of a more committed society, with others and with its environment, the efficient use of resources, awareness for the common good, the need to contribute from the individual for the general good (Sáenz, et al., 2018). The university must assume strategies that keep it always in the focus of the SDGs and that its education, research and extension functions are framed in sustainability as a distinctive institutional mark (CODS, 2019).

The following strategies are proposed to be applied at UTS in order to maintain its relationship with the SDGs and sustainability:

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Campaigns for internal strengthening of the UTS:

Promote health and well-being as a basis for quality of life, this applies to objectives 3 (health and well-being), 5 (gender equality) and 16 (peace, justice and solid institutions), where the health and well-being of the community is taken into account through campaigns carried out within the university. These activities to encourage a healthy lifestyle through sports, and also promote access to health services provided by the university in the welfare office. (WHO, 2020)

In all careers, carry out campaigns on respect for women to encourage their participation in the different spaces provided by the university and also promote respect for others, focusing on gender diversity. These campaigns should be executed articulating different careers, as well as the creation of forums and discussions on the importance of women in society and respect as a tool for change and the path to peace in society. (Albareda-Tiana, Fernández, Mallarach, & Vidal, 2017).

Impulse in the Extension and community projection of the UTS:

Executing social outreach programs and through research projects with a social focus, can implement an annual percentage of ideas in this field, which impact the communities of the region, as well as the creation of a research seedbed, which has a perspective of social sustainability, which allows the arrival to communities with higher poverty rates throughout the department. (Sáenz, et al., 2018).

Likewise, within the research line, innovation projects can be generated that provide solutions to the problems of drinking water, energy and that contemplate educating the population on issues of environmental sensitivity. In each of the careers it is necessary to organize seedbeds that focus on issues that contribute to the welfare of communities with research and innovation projects. (Amaya, Hernandez, & Tavera, 2020).

Strengthening Research in and for Sustainability:

The existing research seedbeds in the institution can not only contribute knowledge, but seek to use ecosystem-friendly technologies to provide solutions to the environmental problems of the region, all through the generation of knowledge and the implementation of solutions from previous studies, which seek to contribute to the global quota. (Sáenz, et al., 2018)

Promote all mechanisms for Gender Equality and reduction of inequalities:

Gender equality in education, implies that both men and women, have the same opportunity to access any career. What is needed is to change the way of perceiving certain professions, which historically have been exercised by men and currently continue to be so, but which can also be executed by women, which would guarantee equal access to the labor market for men and women. Globally, various strategies have been implemented in education to increase the participation of women in education, an example is at the University of Oviedo, in Spain, which requires that candidates for professorship follow a mandatory course on gender and education (UN-UNESCO, 2019).

One of the most feasible strategies for gender inclusion is the creation of institutional subjects that focus on gender equity, where activities that involve the entire student community can be developed. They can be presented through the guidelines for the development of outreach, where social projection is included, which

also serves as a support for the inclusion of education programs for vulnerable communities.

Reduction of inequalities:

The Technological Units of Santander is a great social project that makes the typology of students who enter it, are of middle and low strata and currently there are several agreements with different entities that guarantee admission to young people of limited resources who do not have family financial support. This is a differentiating strength of the institution compared to all other higher education institutions in the region, the UTS contribution to equal access to education and as a high quality offer to the most vulnerable populations, are a solid social approach that characterizes the institution and which is an imprint of sustainability and prospective in its academic offer (UTS U. T., 2020).

Promote the efficient use of resources:

In the guidelines for the articulation of research with social extension, it is possible to stipulate a percentage of research and development projects, interdisciplinary linking with all careers, allowing each one from their field, generate a contribution to social development and infrastructure of vulnerable communities in the department, mainly rural, for the present topic. Initially, it is necessary to work with a minimum and realistic percentage, but to reach the goal as a requirement. (Sánchez, Zambrano, & Amaya, 2020).

The university must transform its performance towards sustainability (CRUE-GESU, 2018) To achieve this goal, UTS must incorporate sustainable energy that will be used in its own use, evidencing that the solar potential of the region can also serve vulnerable communities, rural areas and industrial and business development. (Sánchez, Zambrano, & Amaya, 2020).

## V. CONCLUSIONS

Through the 2030 agenda, significant social, political and economic commitments were assumed by Colombia, the promotion of the Sustainable Development Goals is a commitment of the country that should have an impact on the quality of life of people. Quality education must be a commitment of all state educational institutions, and UTS is undoubtedly an institution where sustainability has taken on significant importance. The progress made in the social component in aspects such as inclusion, gender equality, equal opportunities, respect for others and coexistence on equal terms, as well as the promotion of care, respect and responsible use of resources, is noteworthy.

A major contribution to social improvement at the UTS is to generate awareness and commitment on the part of students, teachers and administrators, including the SDGs in their Institutional Educational Project, making them part of their institutional commitment and promoting and highlighting their inclusion in the offerings of each of the academic programs. It has begun to include these issues in the University's strategic planning processes so that the university is aware of processes that are environmentally sustainable.

The institutional prospective development plan implies a cultural change in research, development and innovation; this is a fundamental pillar for maintaining the

relationship of UTS with the SDGs, so that initially it will be committed to its knowledge and appropriation in all areas, and it will be essential that in both the academic and administrative areas, the SDGs and sustainability be permanent evidence of quality. From the academic programs we work to identify the technical and thematic focuses that society demands, its formulation has sustainability criteria, the tacit inclusion of the SDGs is undoubtedly a present and future value of this academic offer, since it is one of the focuses from which the training of professionals relevant to the dynamics of society and knowledge of international processes and appropriate in the country that seeks to build real quality of human and social life is evidenced.

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