UANL
UNIVERSIDAD AUTÓNOMA DE NUEVO LEÓN

VISIÓN UANL 2040

OBJETIVOS DE DESARROLLO SOSTENIBLE

UANL SUSTENTABLE

UANL Annual Sustainability Report

Year 8, number 8
January-December 2025

La excelencia por principio la educación como instrumento

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Content

Presentation

The Universidad Autónoma de Nuevo León (UANL) presents its Annual Sustainability Report to the university community and the public, a document that reaffirms the institution's commitment to consolidating a culture of sustainability in all areas of university life.

In 2024, the UANL strengthened strategic actions related to the efficient use of water and energy, implementing savings programs, monitoring systems, and self-generation technologies that have allowed for reduced consumption and optimized processes. Progress was also made in comprehensive waste management, implementing protocols that guarantee safety, environmental responsibility, and compliance with current regulations.

Another highlighted focus was the promotion of sustainable mobility on campus, through initiatives that encourage the use of university public transportation, active mobility, and the integration of new alternatives to reduce greenhouse gas emissions. Similarly, environmental monitoring systems were strengthened, designed to identify the biological diversity found in the green areas under the care of university facilities, in order to generate recommendations for sustainable management and conservation of the biodiversity that is part of the university's natural heritage.

The Climate Action Program continued to consolidate its position as a guiding instrument for risk management, mitigation, and adaptation to climate change, aligned with national and international goals. Within this framework, student participation has grown significantly, reflecting the commitment of new generations to the future of the planet and strengthening the University's educational mission.

In recent years, the UANL has transitioned from promoting sustainability as an institutional policy to embracing it as a true culture. Currently, all academic and administrative departments develop programs and initiatives in this area, allowing our students to develop in an environment where sustainability is not just a value, but a daily practice.

Thanks to this collective effort, UANL has been recognized, for the eighth consecutive year, as the most sustainable university in Mexico and is ranked 16th worldwide in the GreenMetric Ranking, among more than 1,500 participating universities. This achievement reaffirms our leadership, both nationally and internationally, and commits us to continue contributing to the achievement of the Sustainable Development Goals (SDGs) promoted by the United Nations (UN).

I invite the entire university community and society to learn, through this report, about the progress and goals we have achieved together, and to renew confidence in our institutional project so that we can continue advancing in the construction of a more equitable, safe, just, and sustainable world.

Dr. med. Santos Guzmán López
President

Who we are

Mission

To train socially responsible, innovative, competitive and competent high school students, technicians and professionals, with full awareness of the regional, national and international environment, with principles and values, committed to sustainable, scientific, technological and cultural development.

To generate timely, relevant and transcendent contributions to the advancement of science, technology, innovation and humanities, and to the improvement of the level of human development of the Nuevo Leon society and the country.

To spread and extend, as widely as possible, the benefits of culture, paying special attention to its responsibility to maintain and increase ties with the general community.

Vision

"In the year 2040, the Universidad Autónoma de Nuevo León will consolidate itself as a public institution of academic excellence, inclusive, equitable, humanistic and international leader in education, innovation and cutting-edge research, which preserves its autonomy, promotes university social responsibility and culture for peace, adopts emerging technologies and good practices in sustainable development, to improve the quality of life and well-being of society."

VISIÓN UANL 2040

Our values

Truth
Responsibility
Justice
Equality
Freedom
Tolerance
Solidarity
Respect
Honesty

Numbers

-Specialized higher education institution

The UANL provides educational services to students who mainly come from the **51 municipalities** of the state of Nuevo Leon and from the northeast region of the Mexican Republic.

There are **36 municipalities** in the state of Nuevo León with UANL academic infrastructure.

We are presen in over

70 %

municipalities of the state of Nuevo León

Educational coverage

55 schools

86 buildings

16 community centers

UANL Community

218,946 students

6,540 administrative employees

7,055 scholars

Distribution of enrolled students by gender:

52 % women

48 % men

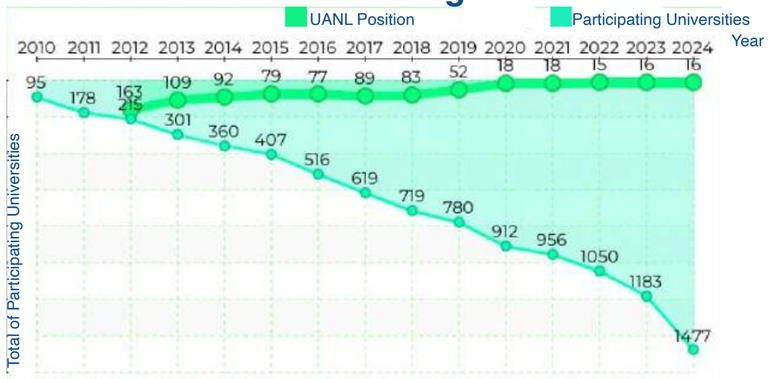
Green metric universities world ranking
UI GreenMetric

1º
place at national level
(for the 8th year in a row)

2º
place in North America

16º
place at international level
(against 1,476 participating universities)

Green Metric World Ranking



UANL position by the green metric world ranking indicators

Education
8

Environment and infrastructure
8

Transportation
9

Urban campus
9

Energy and climate change
87

Water
93

Residues
188

Educational quality

67 internationally accredited educational programs.

46 national and international academic collaboration agreements.

72 undergraduate educational programs accredited by national organizations.

Source: Academic Secretariat and Report on activities carried out at UANL for the year 2024.

Academic programs accredited in the national register of quality educational programs (PNPEC)

Level	Total	Evaluable PE	Not evaluable PE
Bachelor's	93	72	21

***PE:** Educational Programs

Source: Academic Department.

Academic bodies (AB)

(AB):teachers who share lines of creation and application of knowledge.

Grados	Academic Bodies	AB linked to sustainability issues
Consolidated	115	115
In consolidation process	85	82
Currently being created	86	83
Total	**286**	**280**

98 % of the AB are linked to sustainability issues.

Awards of professors

7,055 professors at the UANL

1,377 professors with desirable profiles from the "Program for the Professional Development of Teachers" (PRODEP).

1,296 professors are in the National System of Researchers (SNII).

Qualifications of the academic staff

Teachers	Academic Degree	Middle Higher Level		Higher Level		Total	
Full Time	Bachelor's Degree	15	27 %	41	73 %	56	2 %
	Master's Degree	634	41 %	918	59 %	1,552	48 %
	Specialization	7	4 %	193	97 %	200	6 %
	Doctor's Degree	98	7 %	1,341	93 %	1,439	44 %
	Subtotal	**754**	**23 %**	**2,493**	**77 %**	**3,247**	**100 %**
Part Time	Bachelor's Degree	4	16 %	21	84 %	25	10 %
	Master's Degree	104	52 %	97	48 %	201	83 %
	Specialization	0	0 %	1	100 %	1	0 %
	Doctor's Degree	4	27 %	11	73 %	15	6 %
	Subtotal	**112**	**46 %**	**130**	**54 %**	**242**	**100 %**
Subject	Bachelor's Degree	825	50 %	821	50 %	1,646	46 %
	Master's Degree	647	39 %	1,022	61 %	1,669	47 %
	Specialization	8	28 %	21	72 %	29	1 %
	Doctor's Degree	27	12 %	195	88 %	222	6 %
	Subtotal	**1,507**	**42 %**	**2,059**	**58 %**	**3,566**	**100 %**
Total		**2,373**	**34 %**	**4,682**	**66 %**	**7,055**	**100 %**

Source: Report on activities carried out at UANL for the year 2024..

Educational programs by field of academic training

Field Number	Academic Training Field	Bachelor's
1	Education	1
2	Arts and humanities	14
3	Social sciences and law	14
4	Management and business	14
5	Natural sciences, mathematics and statistics	11
6	Information technologies and communication	7
7	Engineering, manufacturing and building	19
8	Agronomy and veterinary	4
9	Health sciences	7
10	Services	2
Total		**93**

Source: Academic Department..

Educational programs accredited by national agencies

Accreditation	CIEES: Inter-institutional Committees for Higher Education Evaluation	National Organizations within the framework of the Higher Education Act	Both accreditations
Bachelor's Degree	22	66	16

Source: Academic Department.

Educational programs registered in secihti's* national postgraduate system

	Degree			
	Doctor's	Master's	Specialization	Total
Programs by educational offer	49	121	70	240
Programs in the National Postgraduate System SECIHTI	41	100	57	198

* Science, Humanities, Technology and Innovation Secretariat (SECIHTI).
Source: Academic Department.

Bachelor's Degree

Master's Degree

Doctor's Degree

Educational offer in alternative modalities

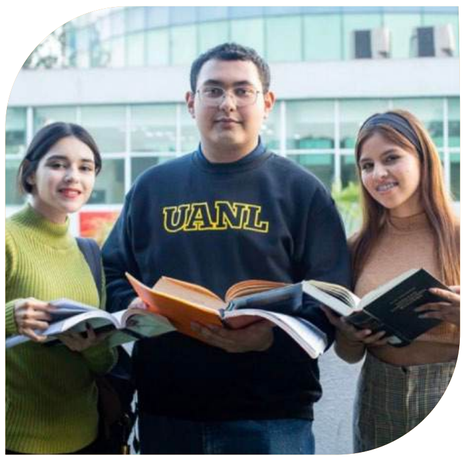
Modality	Educational Level Bachelor's degree
At the distance	5
Online	38
Total	**43**

Source: Academic Department.

Evaluable and non-evaluable educational programs

Level	Evaluable EP	Non-evaluable EP	Total
Bachelor's Degree	72	14	86

Source: Academic Department.



University for the elderly program

Its goal is to offer an alternative option of training and education for people over 60 years of age so they can live a successful aging process.

55
students

7
programs

144
participants

Source: Inclusive Education Office.

Inclusion program for students with disabilities

The purpose of this program is to sensitize the university population about attitude management towards people with disabilities, promote their integration and adaptation to university spaces and propose adjustments to the physical infrastructure to allow their free movement through the university buildings.

5,396

students enrolled in the inclusion program

Student population enrolled in the inclusion program.

Educational Level	Quantity
Middle-Higher	1,989
Higher	3,362
Postgraduate	42
Specialization	3
Total	**5,396**

Objectives of the program:

- To promote the inclusion of students with disabilities in the field of mid-higher education and higher education of the UANL.
- To design education, training and updating programs for the teaching, administrative and service staff, in terms of educational care for students with disabilities.
- To plan and coordinate the required programs, strategies and actions in the academic and human resources fields, to provide comprehensive support to applicants and/or current students with disabilities at UANL.

Purposes:

- To provide guidance and support to applicants of the UANL in the process of assigning schools at the mid-higher level and the selection process at the higher level.
- To be a communication bridge between the schools and the students with specific educational needs and/or disabilities to support their school permanence
- To provide training courses and workshops on educational inclusion for the teaching and administrative staff. To organize events are that promote inclusion and are aimed at the university community and the general public interested in the subject.

Source: Inclusive Education Office.

Types of disability	Middle Higher Level	Higher Level	Postgraduate	Specialization	Overall Total
Reduced Hearing (Hypoacusis)	14	20	0	0	34
Blindness	8	11	1	0	20
Corea de Huntington	1	0	0	0	1
Hearing Impairment	31	83	3	0	117
Visual Impairment	869	2,030	30	3	2,932
Major Depression	11	36	0	0	47
Cognitive Development	4	10	0	0	14
Motor Development	551	393	4	0	948
Dyscalculia (Severe Difficulties in Mathematics)	5	4	0	0	9
Severe Intellectual Disability	11	13	0	0	24
Moderate Intellectual Disability	6	3	0	0	9
Mild Intellectual Disability	0	1	0	0	1
Motor Disability of the Lower Limbs	17	27	0	0	44
Motor Disability of the Upper Limbs	11	11	0	0	22
Multiple Motor Disabilities	7	11	0	0	18
Mental Disabilities	2	16	0	0	18
Neurological Disabilities	10	25	0	0	35
Dysgraphia (Difficulties in Learning to Write)	3	0	0	0	3
Dyslexia (Difficulties in Reading)	41	41	0	0	82
Moderate to Severe Visual Impairment	24	35	0	0	59
Epilepsia	33	51	0	0	84
Multiple Sclerosis	3	5	1	0	9
Schizophrenia	0	2	0	0	2
Post-Traumatic Stress Disorder	2	4	0	0	6
Asperger Syndrome	78	93	0	0	171
Deafness	1	5	0	0	6
Stuttering	5	8	1	0	14
Eating Disorder	10	5	0	0	15
Bipolar Disorder	4	13	1	0	18
Anxiety Disorder	65	146	0	0	211
Communication Disorder (Expression and Comprehension)	2	3	0	0	5
Antisocial Personality Disorder	2	0	0	0	2
Unspecified Disruptive Behavior Disorder	1	0	0	0	2
Autism Spectrum Disorder	27	65	0	0	92
Intermittent Explosive Disorder	1	1	0	0	2
Oppositional Defiant Disorder	1	1	0	0	2
Attention Deficit Disorder	121	154	0	0	275
Learning Disabilities	7	36	1	0	44
Total	**1,989**	**3,362**	**42**	**3**	**5,396**

Source: Inclusive Education Office.

University health center services (CUS)

119,555

consultations and annual services provided in:

7 university clinics located in the municipalities of Guadalupe, Apodaca, and Ciénega de Flores.

2 dental and specialty modules located in the municipalities of Guadalupe and Apodaca.

Source: University Health Center.

Social assistance, community services and volunteer program

577,691

citizens benefiting from social assistance programs

33,701

community services provided in 2024.

Community services provided	Number	Benefited population
Social	2,382	567,802
Legal	31,319	9,889
Total	**33,701**	**577,691**

Source: Report on activities carried out at UANL for the year 2024.

UANL culture

1,747
artistic and cultural events in 2024

1,237,618
attendees in face-to-face and virtual modality

Source: Report on activities carried out at UANL for the year 2024.

Sports

186
sports activities in 2024

49,117
student athletes

19º
championship at the Universiada Nacional (National Universiade)

 # 1
in student sports in Mexico

17º
back-to-back titles

565
athletes participating in 30 disciplines won 166 medals

Auténticos Tigres

Place	Event	League
Runner-up	ONEFA	Major
Champions	ONEFA	Intermediate
Runner-up	ONEFA	Youth

***ONEFA:** National Student American Football Organization

Fuente: Sports Office and Report of Activities Developed at the UANL corresponding to the year 2024.

Sports

51

students in new adapted sports disciplines

601

athletes participated in sports activities, spread across 104 national events and 14 international events

Fuente: Sports Office and Report of Activities Developed at the UANL corresponding to the year 2024.

CO_2 CARBON FOOTPRINT

In 2024, UANL's per capita carbon footprint was:

0.36 metric tons*

* Calculated using the methodology proposed by Carbon Footprint TM (www.carbonfootprint.com)

In 2024, UANL's Carbon Footprint was **85,559** metric tons*

Efficient use of water and energy program

6.67 m^3
per capita / annual water

426 kWh
per capita/ annual energy

Universidad Autonóma de Nuevo León
Sustainability Department

Annual Sustainability Report 2024

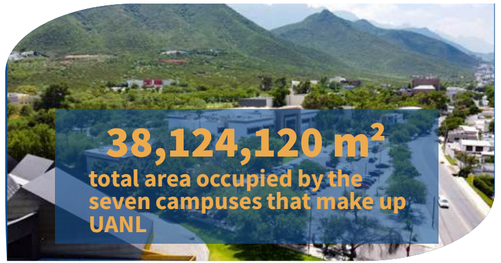
INDUSTRY, INNOVATION AND INFRASTRUCTURE

Sustainable infrastructure

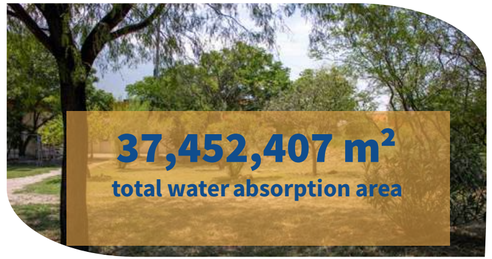
The Universidad Autonoma de Nuevo Leon (UANL) is recognized as the most important institution of higher education in northern Mexico and one of the largest in Latin America when considering its student population and infrastructure. Currently, the UANL encompasses 26 schools and 29 high schools located in seven university campuses and 80 facilities located in 36 of the 51 municipalities that comprise the state of Nuevo León.

Five campuses are located in the Monterrey and its Metropolitan Area: Ciudad Universitaria, Health Sciences, Mederos, Agricultural Sciences and Cadereyta, and there are two more in the municipalities of Sabinas Hidalgo and Linares. Most of the university campuses and facilities of the UANL are located in climatic regions considered arid and semi-arid, with an average annual rainfall of 650 mm and an average temperature of 25ºC, with maximum temperatures that exceed 40ºC and minimum temperatures of 0ºC or even lower.

Facing this climatic and environmental reality, the UANL has promoted an institutional policy on sustainable infrastructure aimed at designing, constructing and operating buildings, facilities and spaces under principles of environmental, economic and social sustainability, seeking to reduce environmental impact, optimize the use of natural resources and promote an environment that favors the welfare of the university community.



38,124,120 m²
total area occupied by the seven campuses that make up UANL



37,452,407 m²
total water absorption area

1,195,967 m²
constructed area

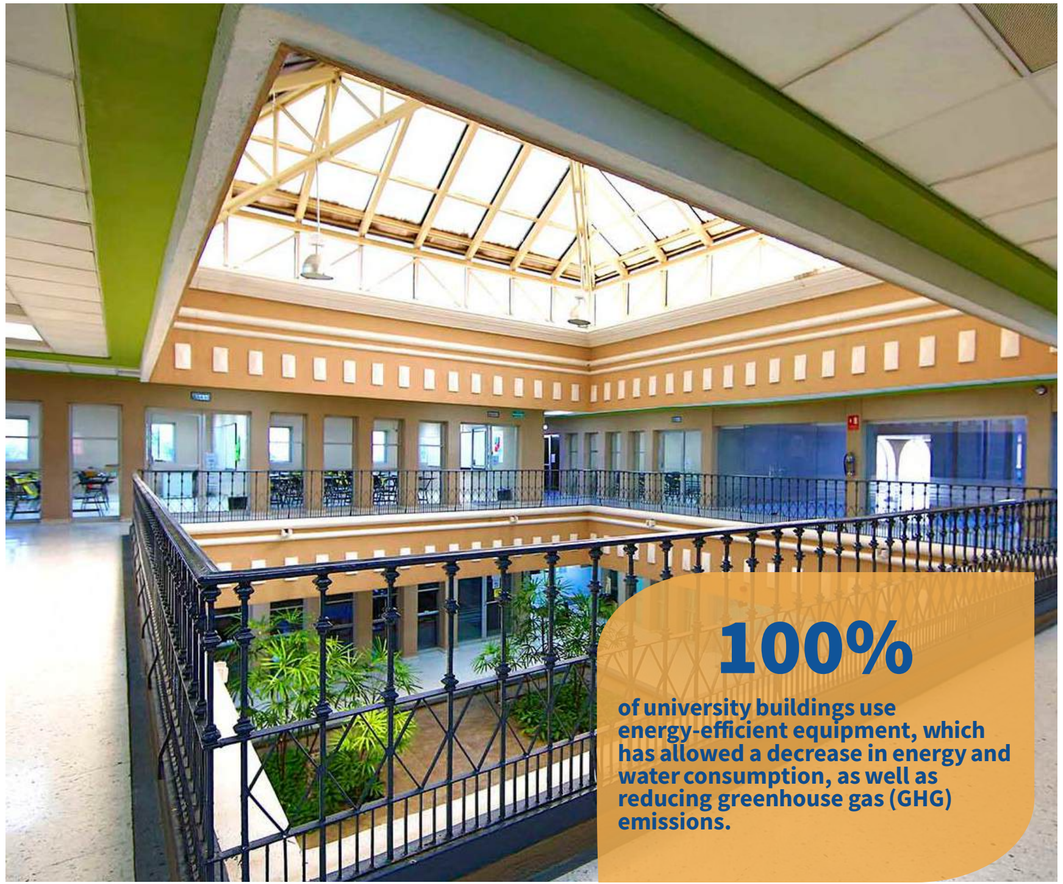
1,080,407 m²
area occupied by planted vegetation

36,372,000 m²
area occupied by forest vegetation

552,569 m²
total area on first floor

164 m²
of open space per capita

98.5 %
ration of open space



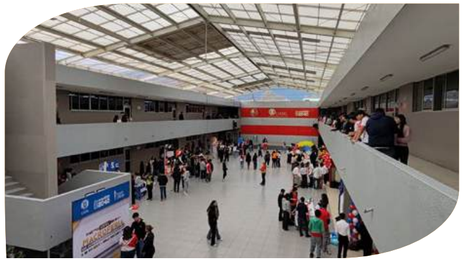
100%

of university buildings use energy-efficient equipment, which has allowed a decrease in energy and water consumption, as well as reducing greenhouse gas (GHG) emissions.

Sustainable buildings promoted by the UANL comply with strict energy efficiency standards, since not only do they reduce energy and water consumption, but also promote a healthier environment for members of the university community. In this manner, the UANL continues to move towards a sustainable infrastructure model that not only responds to current needs, but also anticipates future challenges. With these efforts, we reaffirm our commitment to be leaders in sustainability, in addition to providing an environment that inspires future generations.

Among the actions carried out to achieve greater energy efficiency on campuses and university facilities, the following are noteworthy:

- Reduction of energy and water consumption through good practices for the efficient use of these important resources.
- Permanent maintenance programs for electrical transmission and water conveyance systems.
- Promote self-generation of energy using renewable sources
- Installation of energy-efficient lighting equipment.
- Replacement of conventional air conditioning equipment with energy-efficient ones.
- Installation of motion detectors in classrooms and offices.
- Improvement of the thermal insulation of the infrastructure.
- Use of natural light and ventilation to reduce dependence on artificial systems
- Installation of energy-efficient LED screens.
- Installation of water-saving equipment in service areas in all university facilities.
- Development of green roofs.
- Installation of waste management and recycling systems.
- Increase the rainwater retentive surface.
- Use of solar thermal plant to heat water.
- Use of water produced by condensation from air conditioning systems to irrigate green areas.
- Preparation of inventories and sustainable management plans for forest capital in university campuses.



Currently 100% of the UANL buildings use high efficiency air conditioning and lighting equipment, water saving equipment and adequate waste management systems, which generates significant economic and energy savings, reducing the emission of greenhouse gases (GHG) produced by everyday academic activities. By carrying out these and other additional actions, the UANL not only responds to its operational needs, but also consolidates its leadership in promoting sustainability in university environments, maintaining its position as a national reference in sustainable infrastructure.

Ciudad Universitaria Campus

LOCATION:
San Nicolás de los Garza, Nuevo León, México

Area
95 hectares.

University buildings and Schools

- President's office Building
- School of Architecture
- School of Biological Sciences
- School of Physical and Mathematical Sciences
- School of Chemical Sciences
- School of Public Accounting and Management
- School of Law and Criminology
- School of Civil Engineering
- School of Mechanical and Electrical Engineering
- School of Philosophy and Arts
- School of Sports Organization
- School of Social Work and Human Development

LOCATION:
Monterrey, Nuevo León, México

Health Sciences Campus

Area

29 hectares.

University buildings and Schools

- School of Nursing
- School of Medicine
- School of Dentistry
- School of Psychology
- School of Public Health and Nutrition
- University Hospital

Linares Campus

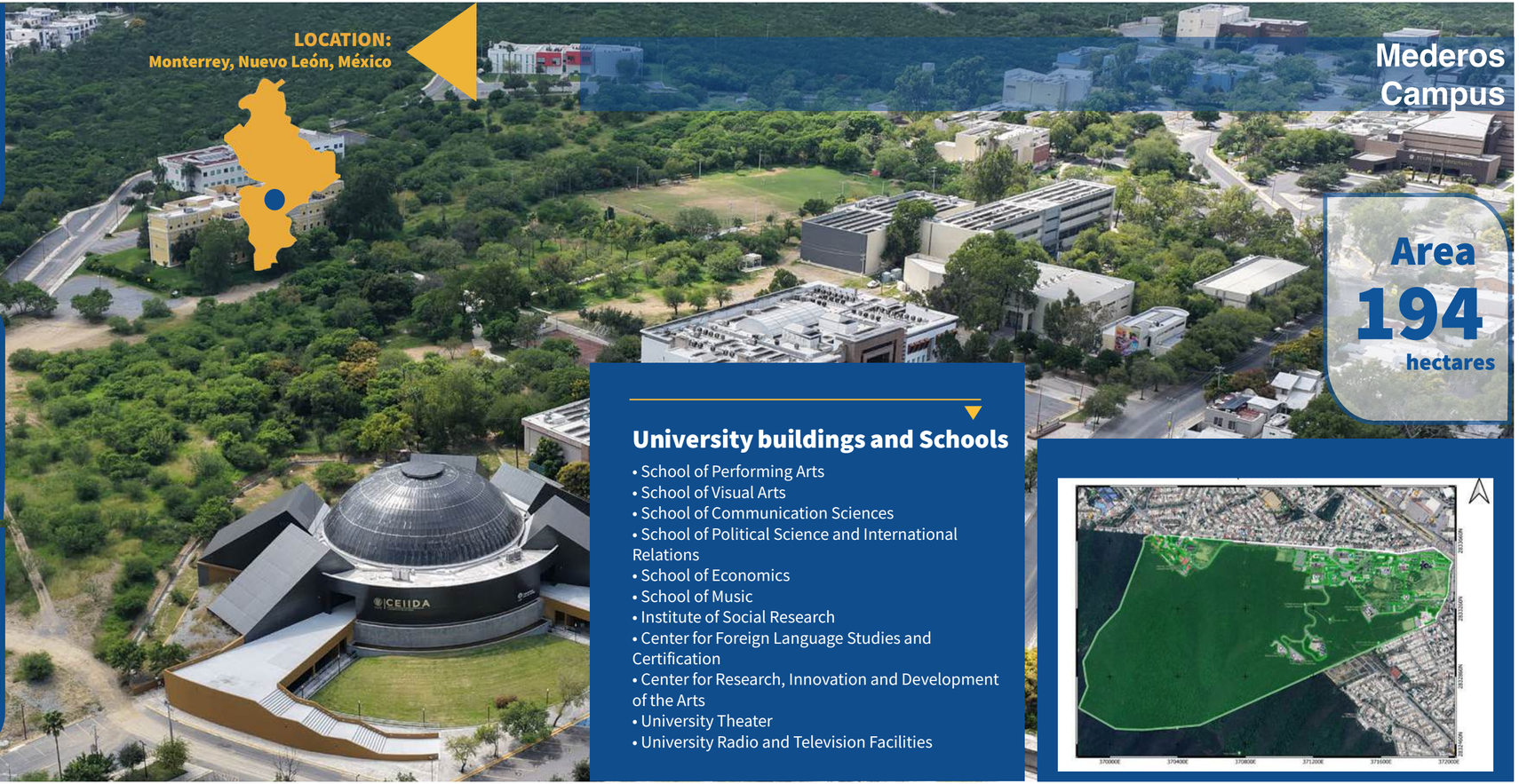
LOCATION:
Linares, Nuevo León, México

Area
2,042
hectares

University buildings and Schools

- School of Forestry Sciences
- School of Earth Sciences
- Academic addition of the School of Public Accounting and Management
- Academic addition of the School of Law and Criminology
- Academic addition of the School of Philosophy and Arts
- Academic addition of the School of Mechanical and Electrical Engineering
- Academic addition of the School of Sport Organization
- Academic addition of the School of Nursing
- Academic addition of the School of Physical and Mathematical Sciences
- Center for Research in Agricultural Production
- Forest reserve area - Forest — School

LOCATION:
Monterrey, Nuevo León, México



Mederos Campus

Area
194
hectares

University buildings and Schools

- School of Performing Arts
- School of Visual Arts
- School of Communication Sciences
- School of Political Science and International Relations
- School of Economics
- School of Music
- Institute of Social Research
- Center for Foreign Language Studies and Certification
- Center for Research, Innovation and Development of the Arts
- University Theater
- University Radio and Television Facilities

Sabinas Hidalgo Campus

LOCATION:
Sabinas Hidalgo, Nuevo León, México

Area
20
hectares

University buildings and Schools

- School of Accounting and Public Administration
- School of Law and Criminology
- School of Nursing
- School of Psychology

LOCATION:
General Escobedo, Nuevo León, México

Agricultural Sciences Campus

Area
1,417
hectares

University buildings and Schools

- School of Agronomy (with annex in Marín)
- School of Veterinary Medicine And Zootechnology (with annex in General Bravo, N.L.)
- Agricultural Research Annex (General Bravo, N.L.)

Cadereyta Campus

LOCATION:
Cadereyta, Nuevo León, México

Area
15
hectares.

University buildings and Schools

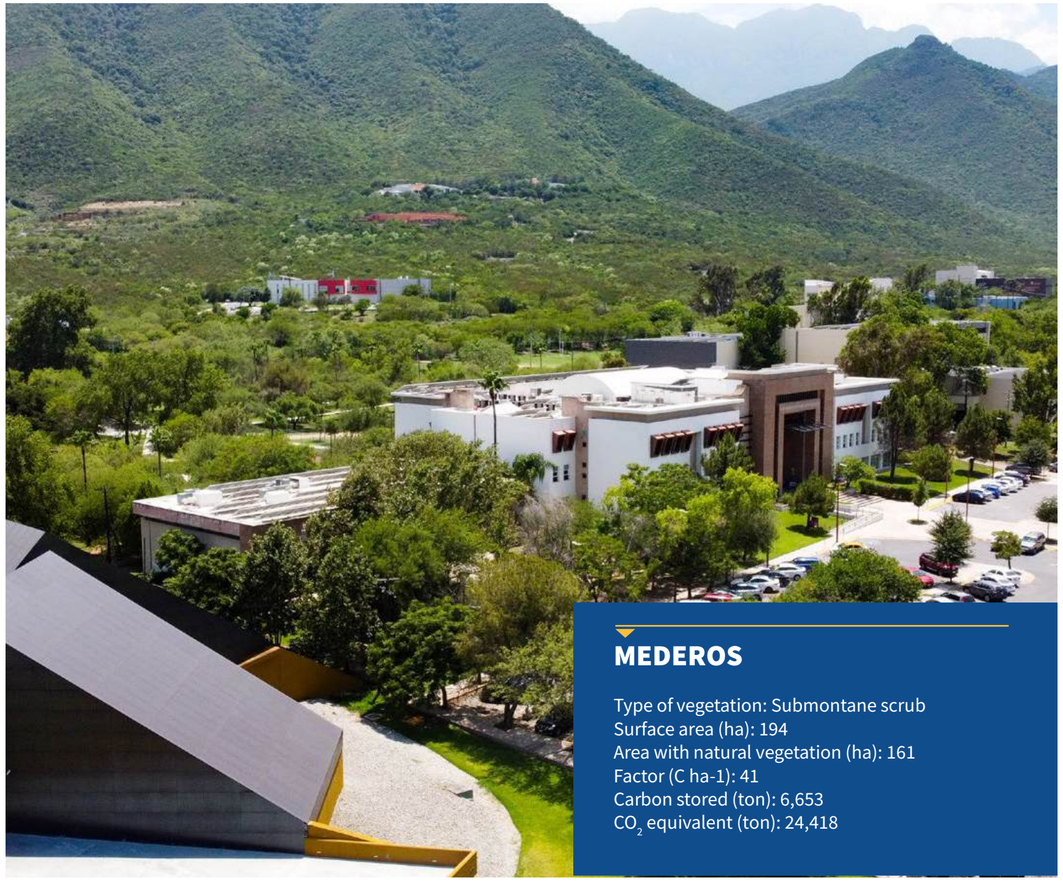
- Academic addition of the School of Public Accounting and Management
- Academic addition of the School of Law and Criminology
- Academic addition of the School of Nursing

Green infrastructure

The areas covered with natural or planted vegetation under the protection of the Universidad Autónoma de Nuevo León (UANL) are an essential constituent of the campuses, not only for their aesthetic and recreational value, but also for the environmental benefits they offer. These areas contribute significantly to improving air quality, producing oxygen, capturing carbon dioxide, and rainwater harvesting. In addition, they help to reduce stress and to promote the physical and emotional well-being of the university community.

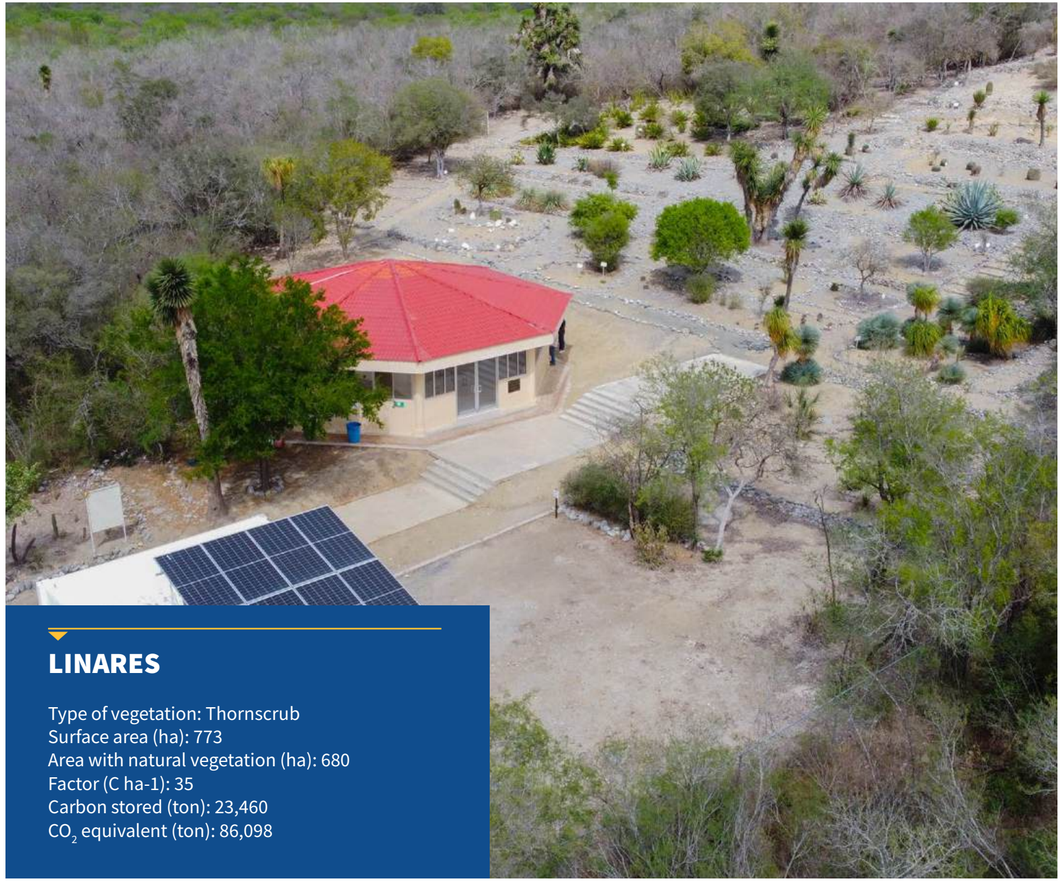
The gardens, parks and natural areas that are under the custody of the UANL serve as habitats for diverse species of native flora and fauna, promoting the conservation of local biodiversity. Besides, these areas are used as educational and research environments, where students can learn about the composition and functioning of ecosystems, the sustainable management of natural resources, and the design and operation of environmental conservation programs.

The UANL's commitment to green infrastructure is reflected in its actions to create, conserve, and maintain these spaces, ensuring their harmonious integration with the university facilities. Through these initiatives, the university promotes a culture of respect and care for the environment, reinforcing its role as a responsible educational institution and a promoter of the sustainable use of natural resources.



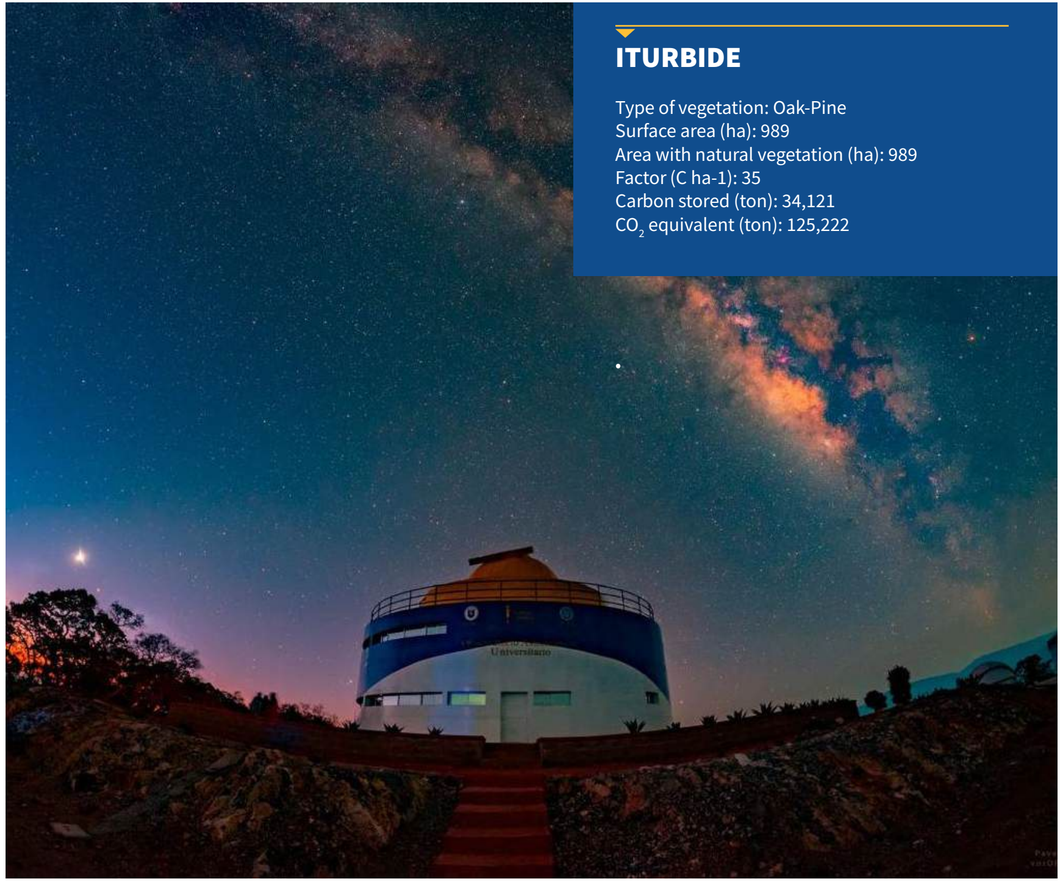
MEDEROS

Type of vegetation: Submontane scrub
Surface area (ha): 194
Area with natural vegetation (ha): 161
Factor (C ha-1): 41
Carbon stored (ton): 6,653
CO_2 equivalent (ton): 24,418



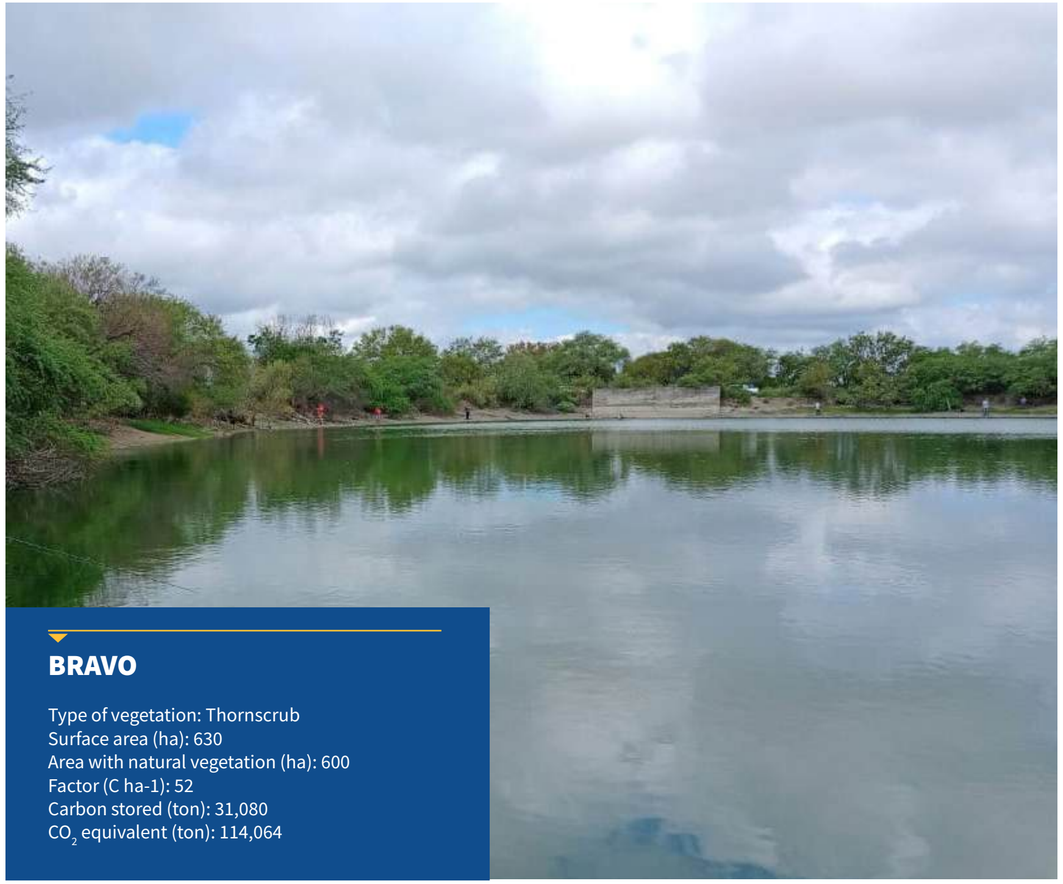
LINARES

Type of vegetation: Thornscrub
Surface area (ha): 773
Area with natural vegetation (ha): 680
Factor (C ha-1): 35
Carbon stored (ton): 23,460
CO_2 equivalent (ton): 86,098



ITURBIDE

Type of vegetation: Oak-Pine
Surface area (ha): 989
Area with natural vegetation (ha): 989
Factor (C ha-1): 35
Carbon stored (ton): 34,121
CO_2 equivalent (ton): 125,222



BRAVO

Type of vegetation: Thornscrub
Surface area (ha): 630
Area with natural vegetation (ha): 600
Factor (C ha-1): 52
Carbon stored (ton): 31,080
CO_2 equivalent (ton): 114,064

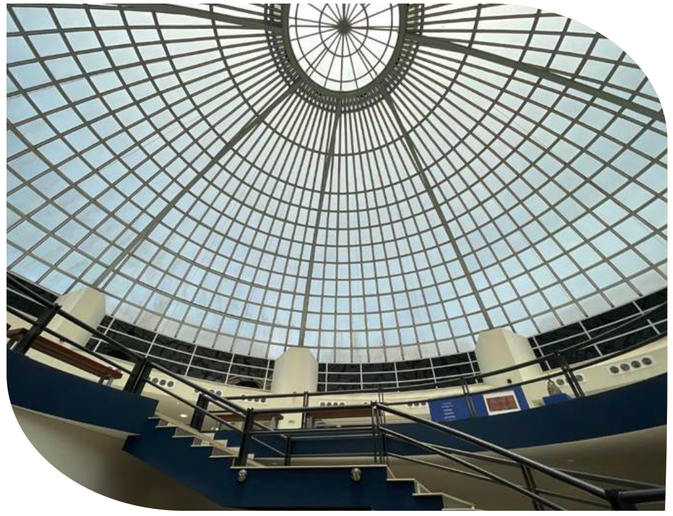
MARÍN

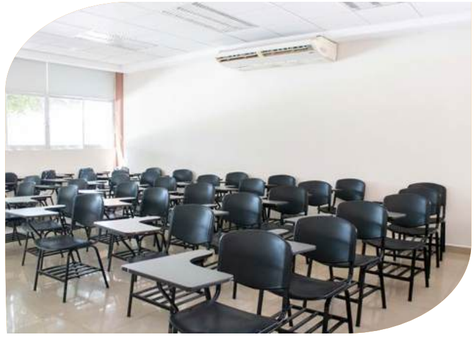
Type of vegetation: Thornscrub
Surface area (ha): 1,052
Area with natural vegetation: 1,051
Factor (C ha-1): 52
Carbon stored (ton): 54,442
CO_2 equivalent (ton): 199,801

Sustainable buildings

The Universidad Autónoma de Nuevo León (UANL) has developed a comprehensive vision for the design and operation of intelligent and sustainable buildings. This initiative not only does seek to reduce the environmental impact of our university facilities, but also to improve the well-being of the members of the university community, as well as to optimize the use of available resources.

The design, construction and operation of sustainable buildings at the UANL is based on the use of advanced technologies and automated systems that allow efficient management of energy, water and other essential resources. This approach not only does contribute to the reduction of operating costs, but also helps to reduce the university's carbon footprint, in line with the Sustainable Development Goals promoted by the United Nations.





The sustainability indicators used to evaluate the performance of this type of buildings go beyond factors related to energy efficiency. Thus, other aspects are integrated using the design and construction of these buildings, such as the use of recycled and low environmental impact materials, as well as the promotion of biodiversity through green spaces and roofs. In addition, the wellbeing of users is promoted by optimizing natural lighting, adequate ventilation and the creation of healthy environments that support learning and personal development.

In addition to their operational function, these buildings also play an educational role. UANL promotes a culture of sustainability through training programs and awareness-raising activities aimed specifically at students. The goal is to form responsible individuals who are committed to the protection for the environment and prepared to lead sustainable initiatives in different areas of society.

The following is an overview of the sustainable buildings that form part of the university's heritage, as well as relevant data that illustrate their positive impact in environmental, economic, and social terms

Sustentable building	Municipality	Total surface area	Objective
Center for Digital Education and Entrepreneurship	Monterrey	5,352 m²	To support the expansion and strengthening of the offering of educational programs in different modalities at all educational levels, through transformative teaching practices, the use of technologies for learning and the knowledge of teachers and students.
Center for Innovation and Design (CID)	San Nicolás de los Garza	2,687 m²	To position design as a tool for change to face the challenges of today's society, promoting the development of innovative projects through the areas of research, project development and professional services, contact, as well as social development and FabLab.
Center for Innovation, Research and Development in Engineering and Technology (CIIDIT)	Apodaca	7,380 m²	A multidisciplinary and integrating center of the Universidad Autónoma de Nuevo León under the administration of the School of Mechanical and Electrical Engineering (FIME), consisting mainly of laboratories with state-of-the-art equipment for research in areas of knowledge related to engineering.
Internationalization Center	Monterrey	7,773 m²	To promote the internationalization policy of the institution in the fields of teaching, research and extension, with the purpose of learning and, if necessary, adopting and/or adapting the best practices in these areas, as they have been implemented worldwide.
Center for Research and Innovation in Aeronautical Engineering (CIIIA)	Apodaca	3,600 m²	To be the technological arm of the aeronautical and aerospace industry in northern Mexico, promoting high value projects in the production chain, developing high engineering, research and technological innovation in the various branches of the sector with activities oriented to the development of new technologies, products, materials and processes.
Center for Research and Biotechnology and Nanotoxicology (CIBYN)	Apodaca	6,119 m²	To advance and disseminate science and technology through interdisciplinary collaboration in three areas of global significance: health, energy and environment, and to be a catalyst for innovation, research, economic development and social prosperity in Mexico and the world.
Center of Research for Sustainable Development (CIDS)	San Nicolás de los Garza	5,913 m²	University building dedicated to research on the environment and sustainability that functions as a regional reference center for environmental information and communication and sustainable development aimed at finding better alternatives for the solution of environmental problems in northeastern Mexico.
Center for Research and Development in Health Sciences (CIDICS)	Monterrey	15,592 m²	To generate a space for scientific and technological research to generate knowledge applied to the solution of priority health problems at the local, national and international levels.
Center for Arts Research, Innovation and Development (CEIIDA)	Monterrey	8,335 m²	To promote research, innovation and the development of knowledge in the arts disciplines, as well as to promote the documentation and generation of archives that enrich the regional and national art heritage.
Medical Services Clinic, Ciudad Universitaria Campus	San Nicolás de los Garza	1,445 m²	To provide quality medical care to university workers, active or retired, and their beneficiaries.

Sustainable Building	Municipality	Total area	Objective
Faculty of Dentistry	Monterrey	24,624 m²	A higher education institution that comprehensively trains dental professionals. It features innovative facilities and a physical infrastructure spread across six buildings, including classrooms and undergraduate and graduate clinics, which also include state-of-the-art dental units.
HU Tower	Monterrey	78,030 m²	It provides specialized care in Nuclear Medicine, Oncology, and Advanced Hematology, and also has an Emergency Department for highly complex medical care.
Faculty of Nursing	Monterrey	4,588 m²	Higher Education Institution. To train nursing professionals, master's degrees, and doctors in nursing sciences. Generating knowledge in line with local, regional, national, and international healthcare demands, with an ethical and humanistic approach, applying university and disciplinary principles and values.
Faculty of Public Accounting and Administration	San Nicolás de los Garza	2,078 m²	A higher education institution that trains ethical, competitive, and innovative professionals with global competencies, a human sense of purpose, and social responsibility in business, committed to sustainable, scientific, and technological development. It offers academic training and cultural spaces that contribute to the development of its students.
Faculty of Engineering Mechanics and Electrical	San Nicolás de los Garza	3,221 m²	A higher education institution whose mission is to provide training focused on competency-based learning for engineers and researchers capable of performing efficiently in the knowledge society . It offers physical spaces such as study cubicles, smart classrooms equipped with the latest technology, videoconference rooms, computer labs, libraries, and auditoriums.
	Total	**176, 737 m²**	

176,737 m²
total built area

Characteristics:

•Thermal insulation using multi-panel walls and 2” polyurethane tile systems

•High-efficiency air conditioning units

•Glass curtains and PTR sunshades, which reduce the thermal load

•Emergency stairs covered with PTR structure to minimize thermal load

•Central air conditioning with fan and coil

•Waterproof exterior wall, improving the building’s temperature

•Ventilated louver facade

•Facade with DuoVent roof that reduces the building’s thermal load

•Ventilated facade

•Photovoltaic solar panels

•Low energy consumption LED lighting

•Sikaplan PVC waterproofing Sarnafil provides thermal insulation for cool roofs and is made from recycled materials.

•Non-air-conditioned central ventilation system

•Use of solar lighting in interior areas of buildings

•Air conditioning systems with high energy efficiency Inverter (VRF) technology

•Infrastructure for bicycles and electric vehicle charging points

•Fire system (alarm) and cistern

•Hydraulic piping based on plus tube

•Low-maintenance Pex-Al-Pex- Flexpad hydraulic piping

•Presence detectors in classrooms and offices

•Plumbing installations in sanitary facilities with infrared detector

•Use of dry urinals

•Reduction in water use due to the installation of ecological tanks in school restrooms

•Rainwater harvesting and air conditioning condenser systems

•Using vegetation to reduce temperature in outdoor areas

Universidad Autonóma de Nuevo León
Sustainability Department

Annual Sustainability Report 2024

CLEAR WATER AND SANITATION

SUSTAINABLE DEVELOPMENT GOALS

Efficient Use of Water

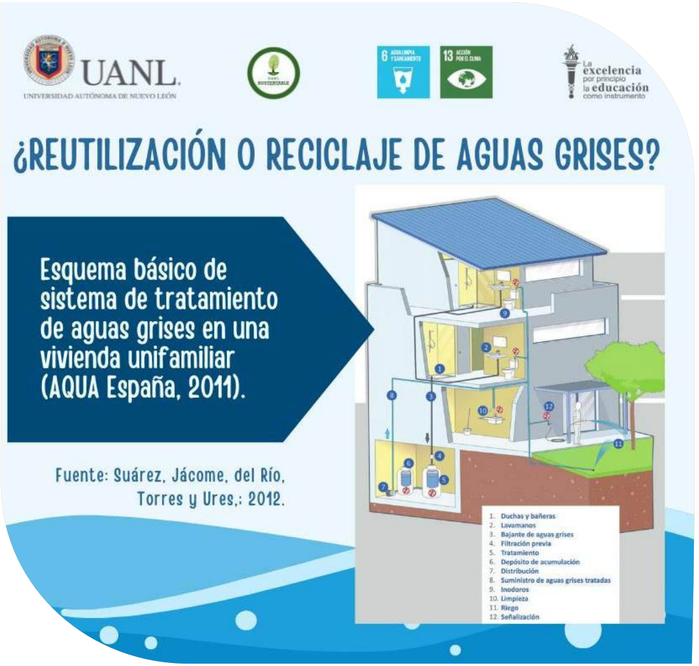
The Universidad Autónoma de Nuevo León, committed to the sustainable development and responsible management of natural resources, promotes the Efficient Use of Water Program on all campuses and academic departments. This initiative is part of its institutional policy on sustainability and meets the need to reduce water consumption, prevents waste, and promotes an environmental culture focused on its conservation.

The program includes strategic actions such as the modernization of water infrastructure, the reuse of treated water, the implementation of low-consumption technologies, and raising awareness among the university community about the great importance of this vital liquid. Additionally, through these actions, the UANL seeks to contribute to the fulfillment of the Sustainable Development Goals, in particular SDG 6: Clear water and sanitation for all.

The efficient water use program reduces water consumption, generates significant economic savings, but also encourages a culture of care and sustainable water use among university students

The implementation of the Program is based on a comprehensive approach that combines technology, monitoring, and environmental education. Over time, water-saving devices have been installed in toilets, sinks, and irrigation systems, as well as equipment for the catchment, treatment, and reuse of wastewater, on all campuses and academic facilities. Through the "Control Panel" operated by the Sustainability Department, via the Infrastructure for Sustainability Department, the water consumption is monitored monthly, allowing leaks to be detected and resource use to be optimized in real time. At the same time, awareness campaigns are being developed for students, teachers, and administrative staff to promote responsible water use habits.

The operation of the program offers several benefits, for example: the reduction of water consumption, which also generates significant economic savings for the institution; reducing the pressure on local and regional supply sources, which helps preserve aquatic ecosystems and maintain a balance in the hydrological cycle; ensuring its commitment to the protection of the environment and the well-being of the community.



In 2024, the Universidad Autónoma de Nuevo León recorded a total water consumption of 1,552,325 m^3, due to the increase in student enrollment. The annual per capita water consumption in 2024 was 6.45 m^3.

Use of alternative water sources

In 2024 more than

210,000

liters from alternative water sources

In 2024, some rainwater harvesting experiences were recorded in High Schools 7, 8, 20, the “Álvaro Obregón” Industrial and Technical High School, the Faculty of Mechanical and Electrical Engineering, as well as the Faculty of Public Accounting and Administration.

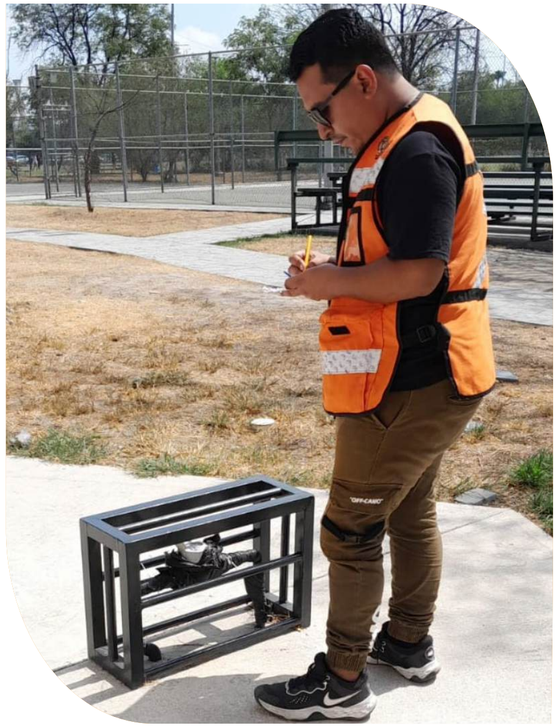
The program for the use of alternative water sources aims to reduce potable water consumption through the implementation of innovative strategies on the campuses and facilities of the Universidad Autónoma de Nuevo León. One of the main actions consists of collecting water generated by condensation in climate control systems, especially in air conditioning equipment. This resource, which was traditionally squandered, is now channeled toward non-potable uses, such as irrigation of green areas.

At the same time, infrastructure has been developed to collect rainwater, using roofs and waterproof surfaces as collectors, connected to filtration and storage systems. This water is also used for activities that do not require potable water, contributing to the preservation of conventional water resources.

Both strategies not only reduce pressure on water supplies but also promote an institutional culture of sustainability and efficient water use. The program strengthens the university’s environmental commitment and serves as a replicable model for other educational institutions.

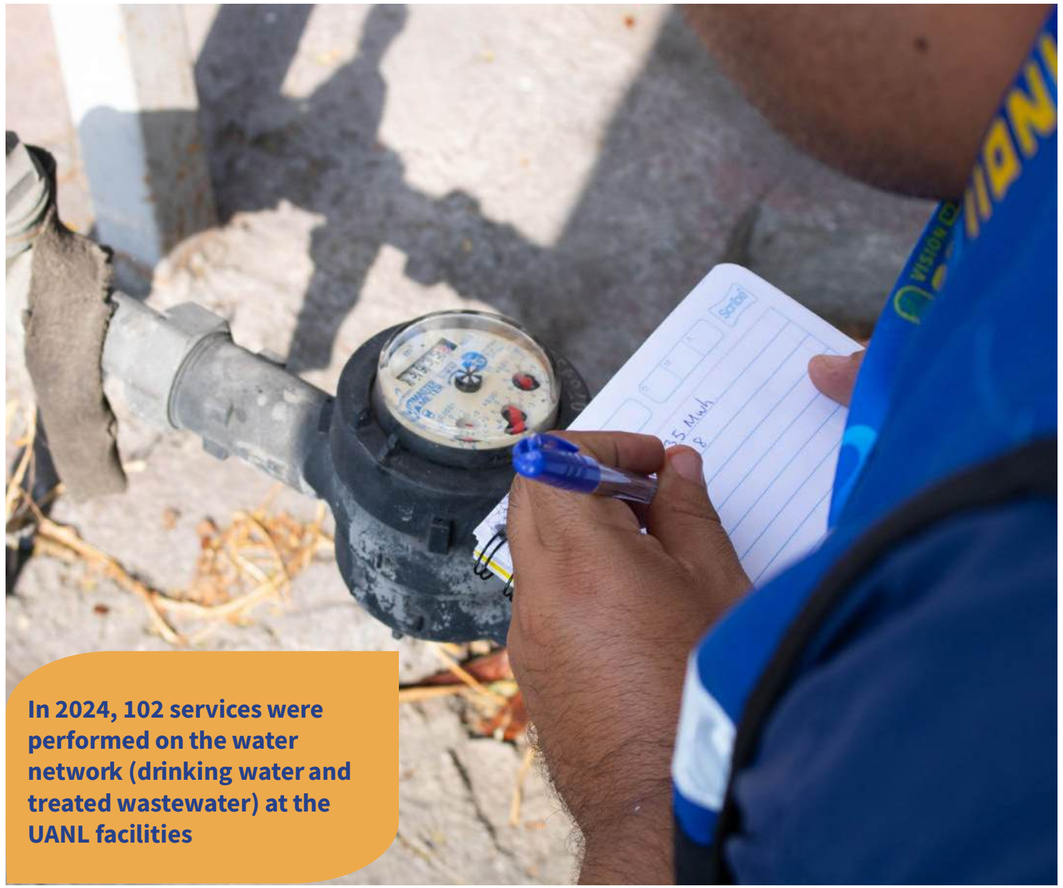
Water network maintenance program

The use of smart irrigation systems supplied by treated wastewater has been implemented.



The Water Network Maintenance Program aims to ensure the efficient and reliable operation of the water infrastructure on university campuses and facilities. Its operation is based on regular inspections, early detection of leaks, pipe cleaning, and repair of damaged connections; to prevent leakage, ensure water quality, and extend the system's lifespan.

The main benefits include reduced water wastage, improved pressure and continuity of supply, as well as lower operating costs associated with emergencies or major damage. Additionally, this program strengthens the culture of responsible water use among members of the university community.



In 2024, 102 services were performed on the water network (drinking water and treated wastewater) at the UANL facilities

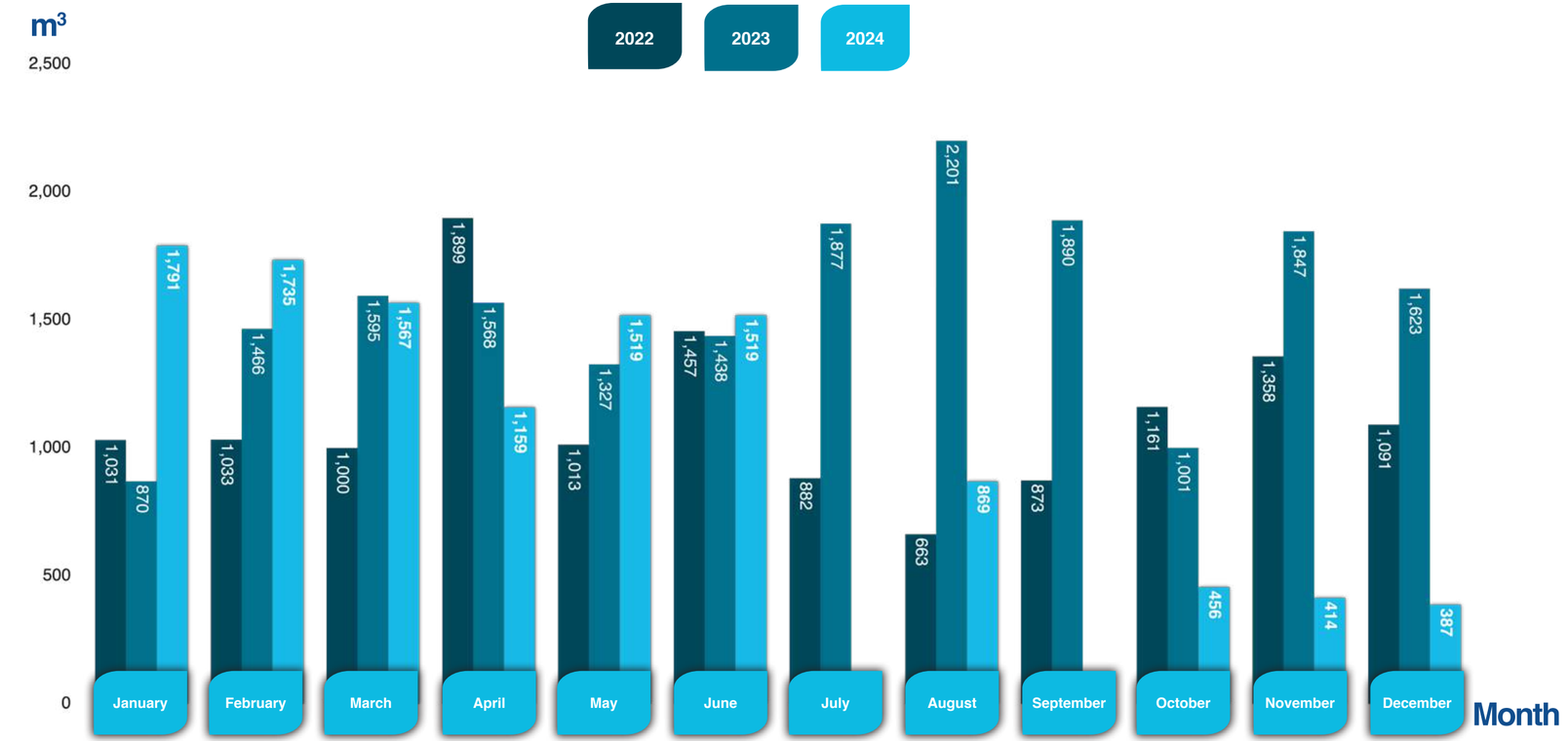
During 2024 a

6.67 m³

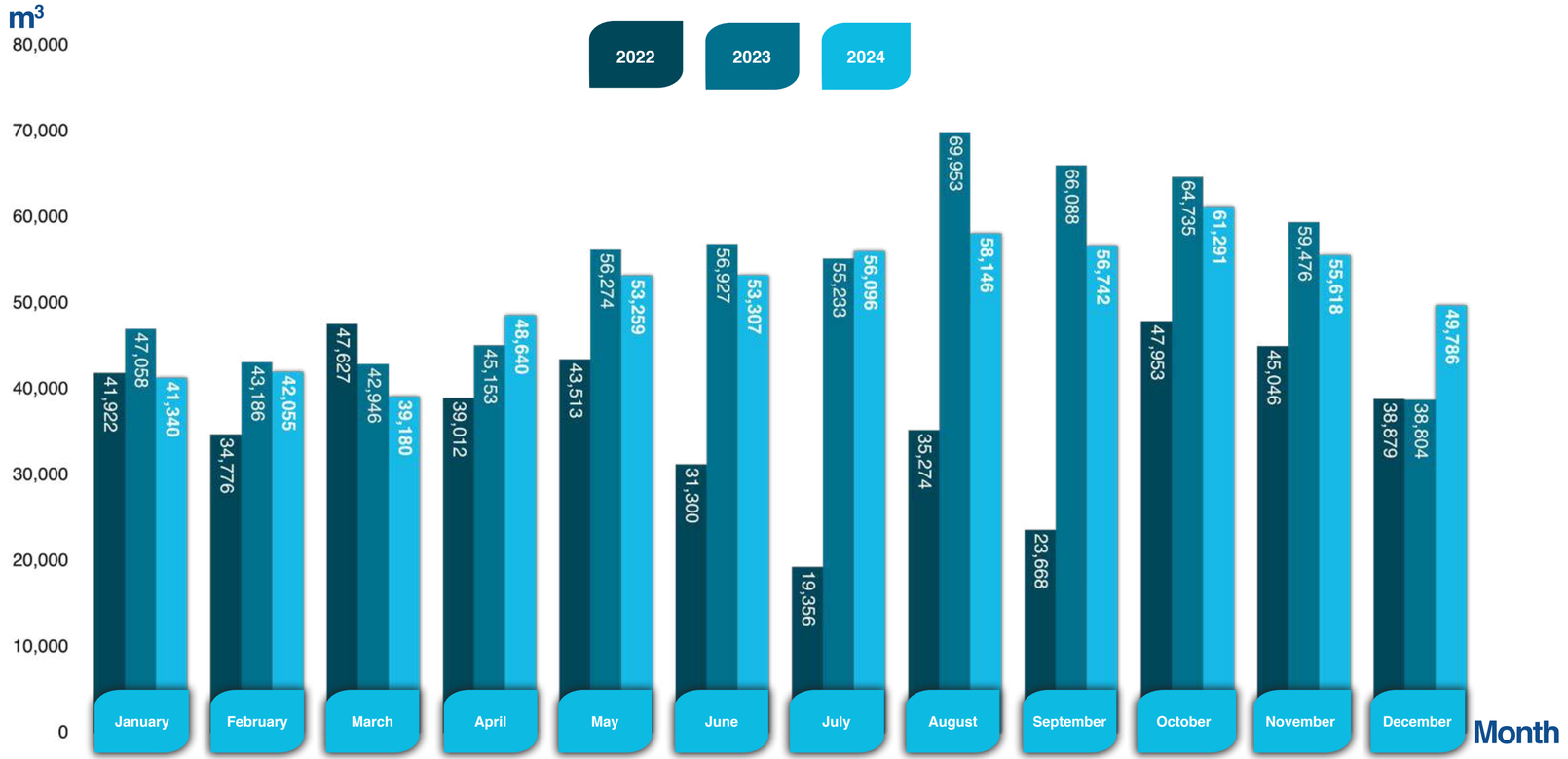
per capita water consumption was recorded

Cubic meters per capita per year

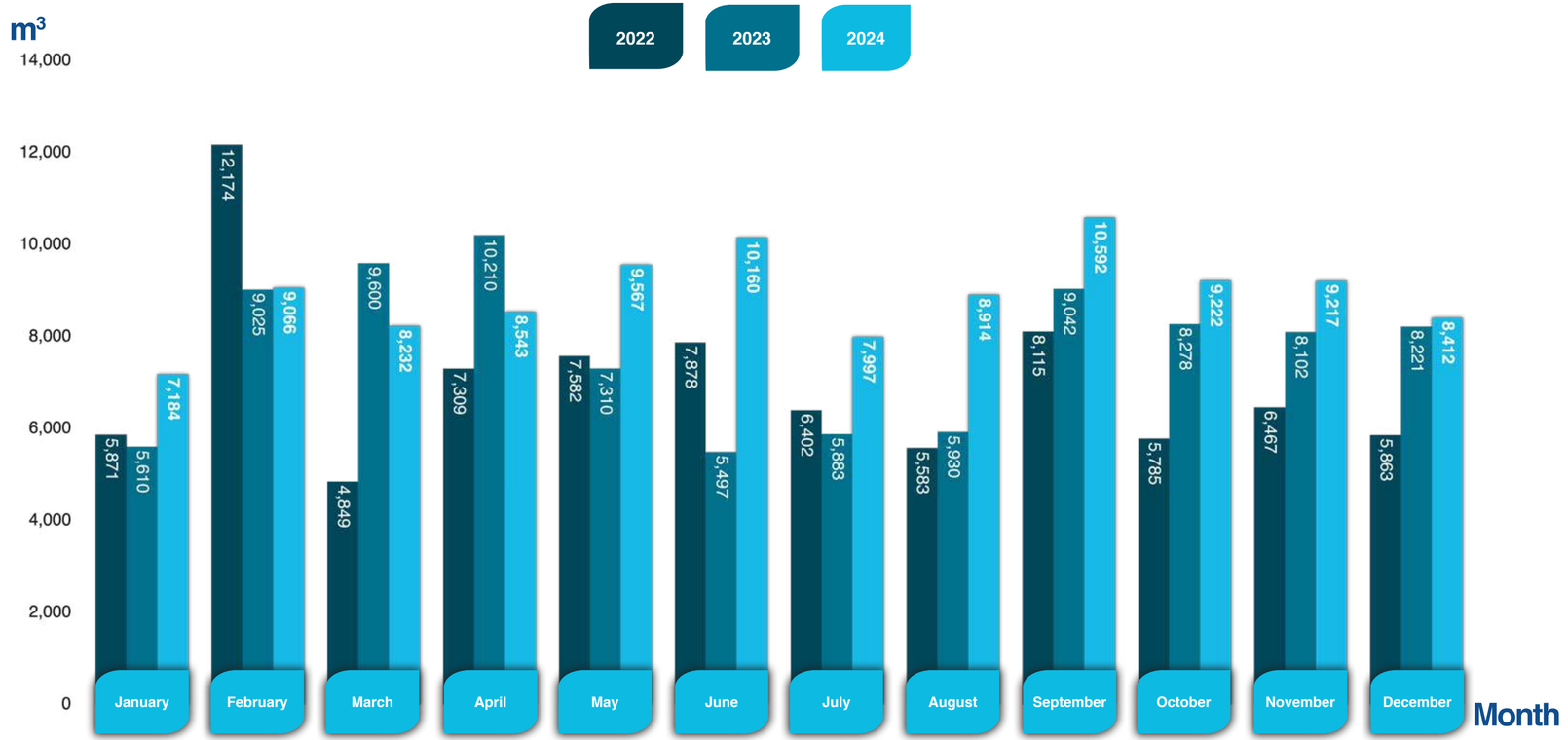
Monthly water consumption
Agricultural Sciences Campus



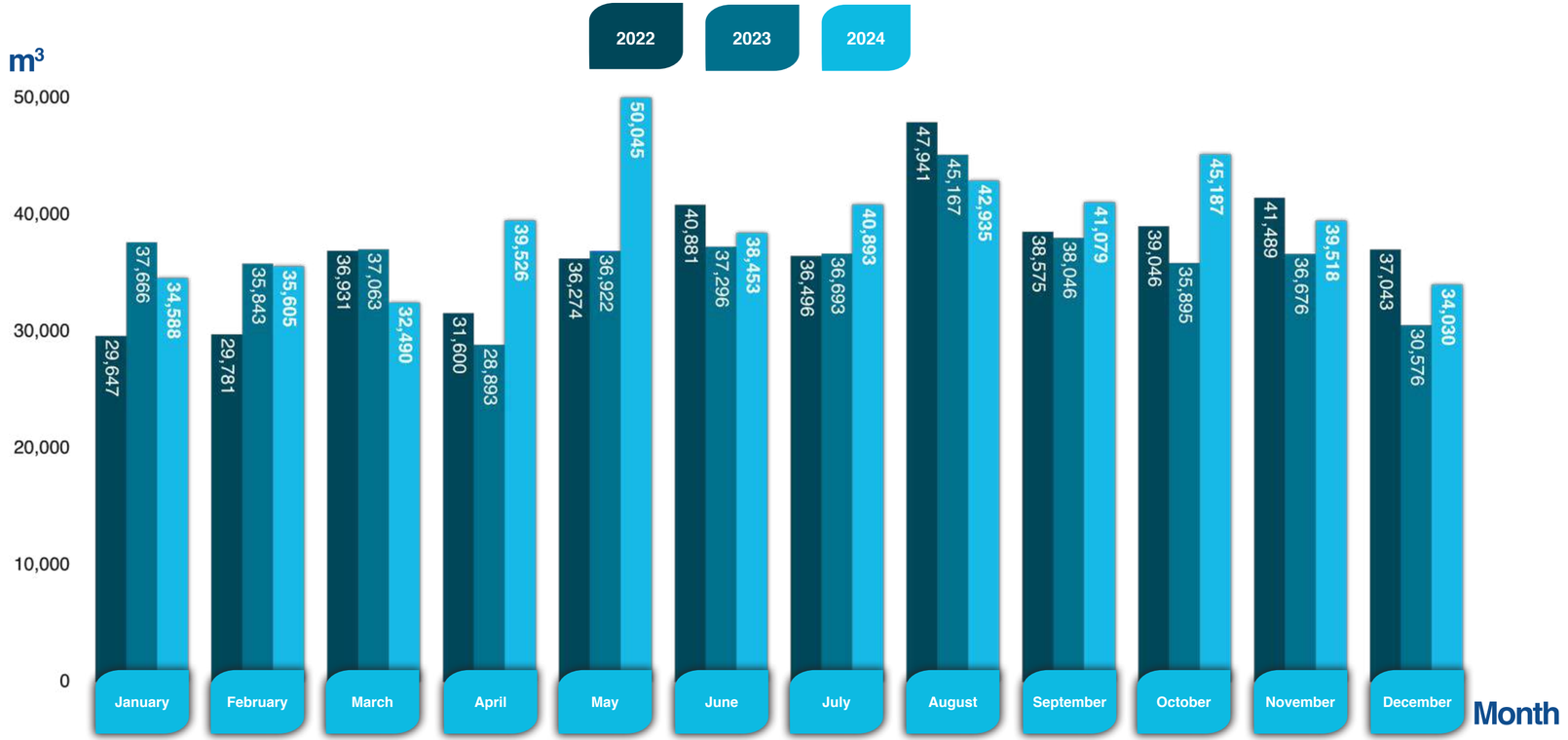
Monthly water consumption
Ciudad Universitaria Campus



Monthly water consumption
Mederos Campus



Monthly water consumption
Health Sciences Campus



Universidad Autonóma de Nuevo León
Sustainability Department

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CLIMATE ACTION

Climate action program

The Climate Action Program of the Universidad Autónoma de Nuevo León (PAC-UANL) is a comprehensive institutional strategy aimed at mitigating and adapting its operations and environment in the face of climate change. This initiative is part of its sustainable management model, aligned with its mission to train highly skilled professionals, develop cutting-edge research, and promote technological innovation with a strong environmental commitment.

The mitigation component of the PAC-UANL includes actions aimed at reducing greenhouse gas (GHG) emissions, such as energy efficiency, efficient water management, promoting public transportation and non-motorized mobility, promoting responsible consumption, and implementing circular economy schemes. These strategies have allowed to reduce the increase of the institution's carbon footprint and to promote sustainable practices among the university community.

In terms of adaptation, the PAC-UANL includes the construction of sustainable infrastructure, sustainable mobility projects, the promotion of applied climate research, and the conservation of natural areas under the protection of the UANL.

Of the 3,799 hectares occupied by the UANL, 98% is covered by natural vegetation in a good state of conservation, which allows it to absorb approximately 500,000 tons of CO_2 equivalent annually, operating as a strategic carbon sink. This capture capacity, combined with mitigation measures, has allowed the institution to maintain a positive carbon balance, estimated at more than 580 tons of CO_2 equivalent.

In addition, the UANL faces considerable vulnerability to the effects of climate change due to its geographic location, which is prone to phenomena such as heat waves, prolonged droughts, and intense storms. These events threaten both the infrastructure and the health and well-being of the university community. Given this situation, the PAC-UANL is designed to reduce the expression of risks caused by climate change through the implementation of adaptation and mitigation measures within the UANL to protect its facilities and ensure the continuity of its educational and research activities.

Since 2023, PAC-UANL has promoted the efficient use of water through the implementation of rainwater harvesting systems and the use of condensed water by air conditioning systems. These systems help preserve water resources and reduce potable water consumption.

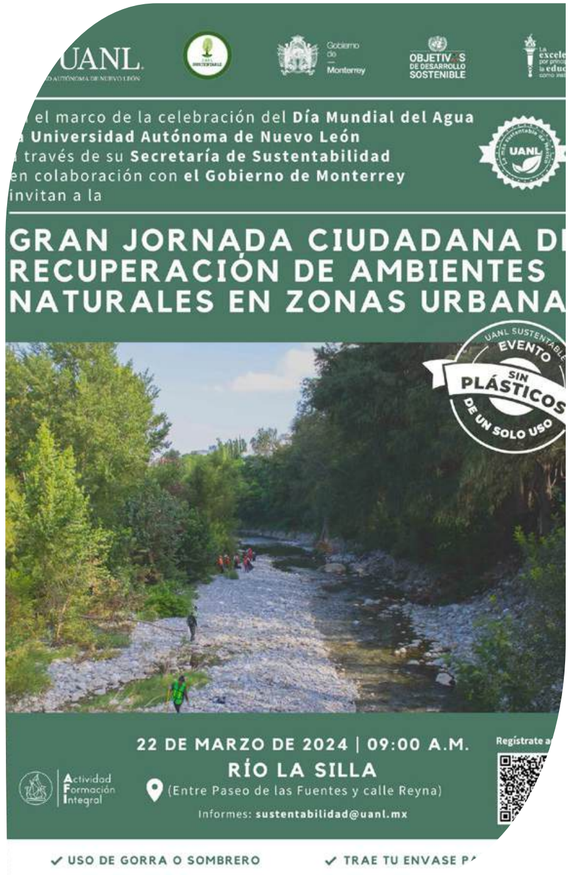
98.5 %

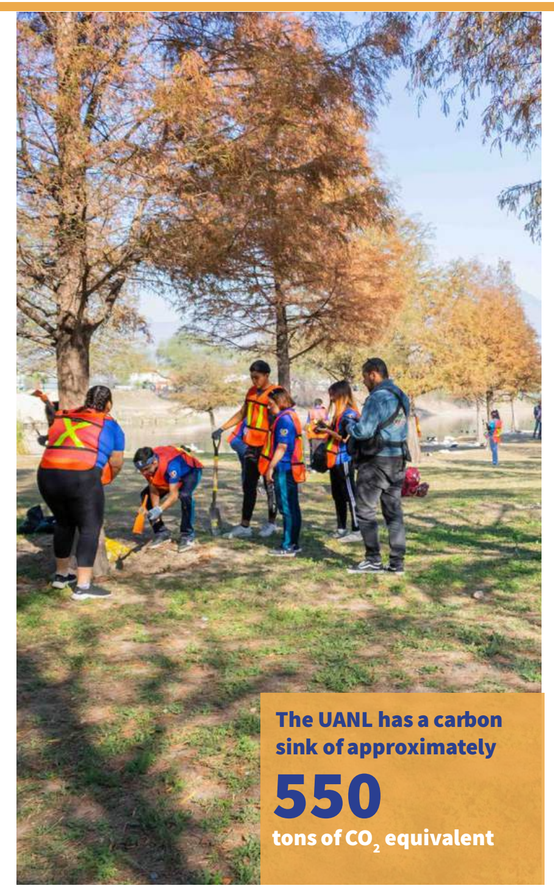
of the UANL territory has natural vegetation in good condition

Another important line of action of the PAC-UANL is the conservation of biodiversity through reforestation actions and conservation of natural areas. These activities reinforce the ecological resilience of campuses and enhance the environmental well-being of their users.

The PAC also promotes environmental education and citizen participation through workshops, conferences, and community activities, extending its impact to the immediate social environment. Through collaborations with local governments, NGOs, and businesses, the university has developed community projects that promote sustainable practices and climate adaptation at local level.

The operation of PAC-UANL is aligned with the 2030 Agenda, especially with the Sustainable Development Goals 4,6,7,11,12,13, 15 and 17. The design aims to serve as a replicable model for other educational institutions and organizations interested in integrating climate actions into their operations, thus strengthening the transition towards a more sustainable, resilient and low-carbon future.





The UANL has a carbon sink of approximately

550

tons of CO_2 equivalent

Reduction of greenhouse gas emissions GHG program - Mexico

Campus	Vegetation type	Surface area (ha)	Vegetation (ha)	Factor (C ha-1)	Carbon stored (ton)	CO_2 Equivalent (ton)
Mederos	Piedmont scrub	194	161	41	6,653	24,418
Linares	Thornscrub	773	680	35	23,460	86,098
Iturbide	Oak-Pine	989	989	35	34,121	125,222
Marín	Thornscrub	1,052	1,051	52	54,442	199,801
Bravo	Thornscrub	630	3,481	52	31,080	114,064
Totales		**3,638**	**3,481**	**215**	**149,756**	**549,603**

Source: Project Development Office of the Sustainability Department, UANL.

In 2024, UANL achieved a favorable carbon balance, amounting to 484 thousand tons of CO_2 equivalent.

Carbon balance

	Kg CO_2 (Equivalent)	Balance
Electricity consumed	83,303,970	83,303,970
University buses (TigreBus)	196,812	83,500,782
Motor vehicles	2,016,000	85,516,782
Motorcycles	42,000	85,558,782
CO storage$_2$ in vegetation	-549,603,000	-464,044,218
Waste recycling	-224,950	-464,269,168
Digital education	-19,847,977	-484,117,145

Source: Project Development Office of the Sustainability Department.

Campaigns for the recovery of natural environments in urban areas

The rampant and unchecked expansion of urban areas represent a growing threat for natural environments that exist within or around the city. Included among these spaces are fragmented ecosystems, urban parks, greenways, bodies of water, and wetlands, which not only perform essential ecological functions, but also provide public spaces of high social value.

Their presence in urban environments bring about multiple benefits, such as improved air quality, temperature regulation, groundwater recharge cycles, flood and drought mitigation, promotion of biodiversity and healthy ecosystems, as well as the availability of favorable environments for both the physical and mental health of the population.

The expansion of cities, often reduce ecosystems to isolated lots of land smothered by surrounding urban infrastructure. Such fragmentation compromises landscape connectivity, hinders mobility of species, disrupts genetic flow between populations, and makes ecosystems vulnerable to diseases, invasive species, and extreme weather phenomena.

In response to this crisis, the Universidad Autónoma de Nuevo León (UANL), in collaboration with the Project Development Office of the Secretariat of Sustainability, has been involved in the Campaigns for the Recovery of Natural Environments in Urban Areas since 2016, whose express purpose is to restore public spaces of ecological importance. This effort aims to improve the environmental quality in urban surroundings and provide safe spaces for social gatherings, environmental education, and recreation.

Between the years 2016 and 2024, 32 campaigns were carried out in natural environments localized in 6 municipalities within the Monterrey Metropolitan Area, gathering during the process thousands of volunteers hailing from college communities, government institutions, private companies, civil society organizations, and the general public. These activities have become an exemplar in the region in matters of urban ecological restoration.

Activities conducted as part of the campaigns include:

- Removal of improperly disposed solid urban waste.
- Control and elimination of exotic invasive species that threaten local biodiversity.
- Reforestation of native plant species that thrive in the local ecosystem.
- Educational workshops imparting topics on management of native flora, urban reforestation techniques, creation of pollinator gardens, solid waste management, and others.

The campaigns serve as interdisciplinary spaces for practical learning, where participants share knowledge from their respective academic or work backgrounds. This collaborative and inclusive approach fosters a notion of co-responsibility, raises awareness in the public about the ecological and social importance of urban green spaces, and strengthens the bond between the community and its natural environment.

Over 7,000 participants

A key aspect of the campaigns is their ease of replicability by other educational institutions, government organizations, and civil associations, which has enabled its expansion as an environmental upright practice in the state of Nuevo León. Additionally, the collective participation has helped establish a culture of land conservation and appropriation, which has in turn motivated new restoration and conservation efforts in different locations within the metropolitan area.

Having undertaken these endeavors, the UANL reasserts their commitment to urban sustainability and social responsibility of our university. Through the combination of institutional, scientific, and community collaborations, the University actively contributes in the formation of increasingly resilient, inclusive, and ecologically functional cities. This model shows that superior education can and should develop a leading role in the sustainable transformation of urban environments.

Sustainable Agricultural Development

Sustainable agricultural development represents an essential strategy to wholly address global challenges regarding food security, protection of natural resources, social equity, and climate change mitigation. This approach aims to guarantee efficient, socially equitable, and environmentally responsible agricultural production that responds to the needs of present generations without compromising those of future generations.

From a systemic perspective, sustainable agricultural development promotes productive practices that safeguard the soil, water, biodiversity, and nature's services. Among the most relevant techniques included are crop rotation, soil conservation, efficient water usage, species diversification, integration of agroforestry, and efficient cattle management; all of which allow for the construction of agricultural systems resistant to plagues, disease, and extreme weather events.

The implementation of sustainable strategies not only improves productivity and stability in agricultural production systems, but also boosts local economies, creates jobs, and reduces dependence on external expenses. Furthermore, said strategies enable the development of technical capabilities through the adoption of appropriate technologies to improve efficiency in productive processes and food quality.

In the face of population growth, biodiversity loss, and environmental degradation, the agricultural sector is called upon to be part of the solution by incorporating sustainability principles into decision-making, knowledge management, and land-use planning.

The role of CIPA-UANL in the transformation of the agricultural sector

In this context, the Agricultural Production Research Center (CIPA, in Spanish) of Universidad Autónoma de Nuevo León represents a key institution in the creation of applied knowledge and technology for sustainable agricultural development. Founded in 1983, CIPA has consolidated an over 4-decade long track record that serves as a national and international benchmark in both research and formation of specialized human resources.

Located within the municipality of Linares in the south of Nuevo León, CIPA occupies an area of 977 hectares, most of it with natural vegetation under conservation and management. The Research Center boasts state-of-the-art infrastructure and equipment for the development of strategic research lines in genetic improvement, animal production, soil conservation, comprehensive crop management, and ecological restoration.

CIPA's multidisciplinary team of researchers and technicians actively collaborates with producers, public institutions, and private companies to ensure that scientific findings translate into practical solutions that may contribute to the sector's sustainability.

Some of their major accomplishments include:

Changes have been made to crops, and the decision has now been taken to expand the area used for grazing, due to the impact of the lack of rainfall and the needs of the agency.

Conservation farming

During 2024, ecological farming practices were implemented in an area of 487365 hectares to produce grains and forages. This system avoids the use of agrochemicals, preserves crop residues as organic fertilizer, reduces mass wasting to help preserve soil structure, reduces erosion and improves organic matter.

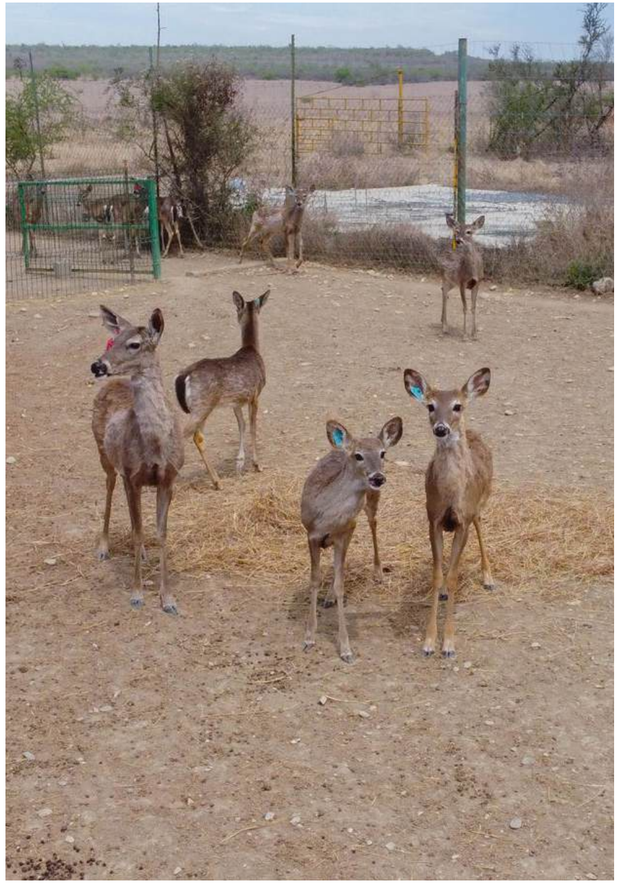
Productive diversification: vitiviniculture

An experimental vineyard was established in 2011 with grapevine species of low water requirements, such as Vitis vinifera L. In 2024, the harvesting plots reached 4 hectares, with varieties such as Cabernet Sauvignon, Merlot, Shyraz, Tempranillo, and Sauvignon Blanc. These actions promote productive adaptation in semi-arid areas, boosting profitability and efficient water usage.

Bodega Vinícola Alere

Bodega Vinícola Alere is equipped with cutting-edge technology to help with wine production and oenology research, boasting photovoltaic cells that enable the use of renewable energy to bring down energy consumption associated with heavy-duty processes.

Likewise, in 2024, the initial irrigation system will be replaced by an integrated drip irrigation system that allows for significant water savings thanks to its focused and controlled distribution, reduces weed proliferation, since water is applied directly to the plants that need it, and decreases the risk of diseases related to excessive moisture.



Environmental Management Unit: White-tailed Deer

Since 2008, CIPA operates the environmental management unit designated “Center for the Genetic Improvement of White-tailed deer”, covering an area of 80 hectares, 5 hectares of which are dedicated to intensive management. In 2024, 5 specimens were kept for research, genetic conservation, and environmental education purposes.

Low-emission animal husbandry practices

The Food Efficiency Assessment program, by determining the residual feed intake (RFI) index, allows for the selection of animals with greater feed efficiency, which contributes to reducing enteric methane emissions, organic waste, and the environmental footprint of the livestock sector.

Forest School: education, conservation, and climate adaptation

The Forest School (BE in Spanish) of the UANL, affiliated to CIPA, is located within the municipality of Iturbide, covering an area of 1,077 hectares that consists of oak, pine-oak, cedar, and shrub-chaparral forests. It serves a dual purpose: educational and ecological. It acts as a field learning site for students, researchers, and the public, as well as a biodiversity reservoir that contributes to carbon capture and regional climate regulation.

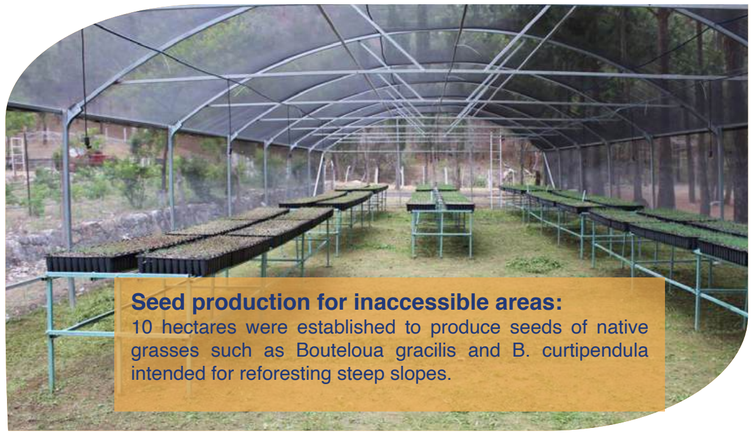
During 2024, multiple educational and restoration activities were carried out, such as environmental education workshops and reforestation campaigns to recover areas affected by wildfires.

2024 highlights

Anti-fire campaigns:
In tandem with the State Civil Guard, some events were run to promote a culture of prevention and control of forest fires.

Reforestation campaign:
In 2024, Pinus pseudostrobus specimens were planted in 140 hectares of the Forest School, with the participation of high school and university students.

Forest plant production:
3,000 pine seedlings were produced for use in institutional reforestation projects and to support communal landowners.



Seed production for inaccessible areas:
10 hectares were established to produce seeds of native grasses such as Bouteloua gracilis and B. curtipendula intended for reforesting steep slopes.

Sustainable livestock development

Sustainable agricultural development is a priority strategy for addressing the challenges of the 21st century. Its implementation requires an encompassing vision that combines productive efficiency, social justice, and environmental conservation. The experience of CIPA-UANL demonstrates how science, education, and innovation can converge to build more resilient, equitable, and self-sufficient agri-food systems.

Through its programs, CIPA not only contributes to the welfare of rural communities and the growth of the regional agricultural sector but also has a positive environmental impact of national scope. Collaboration between academia, producers, companies, and government is the way to scale up these good practices and progress toward truly sustainable agriculture and husbandry.

Environmental Commitment. Ecological Restoration of 233.36 hectares.

The ecological restoration activities are described below:

* Firebreaks
* Removal of dead plant material or trench
* Reforestation. Covers an area of 53 hectares
* Construction of a forest nursery
* Maintenance
* Andiron dams
* Road rehabilitation
* Perimeter fence

Conservation and Sustainable Use of Natural Resources

“Efraím Hernández Xolocotzin (EHX)” Botanical Garden

The Efraím Hernández Xolocotzin (EHX) Botanical Garden of the School of Forest Sciences within the Universidad Autónoma de Nuevo León is a strategic space for the conservation, research, and sustainable utilization of floral biodiversity, with a special emphasis on native species and those of ecological value for the northeastern region of Mexico. Its mission blends the preservation of natural heritage with the production and dissemination of scientific knowledge, serving as a platform for the development of applied research projects, environmental education, and ecological restoration.

The Efraím Hernández Xolocotzin Botanical Garden currently houses over

60 **plants representing**

58 **species**

This program has reinforced its role as a center for the safeguarding and propagation of forest species of ecological, ornamental, and productive interest, therefore contributing to the recovery of degraded ecosystems and the realization of institutional sustainability objectives. Furthermore, the Botanical Garden promotes ties with communities, institutions, and specialized organizations, motivating collaborative actions that favor environmental resilience and the responsible use of natural resources.

This section shows the main progress, results, and actions taken during 2024, which reflect the UANL’s commitment to biodiversity conservation and fostering environmental culture.

During 2024, as part of the preservation strategy for plant species, more than 150,000 seeds were collected from six species *(Amoreuxia wrightii, Dasylirion berlandieri, Ferocactus echidne, Mammillaria compressa, Thelocactus hexaedrophorus, and Thelocactus tulensis). This activity (seed collection).*

In 2024, more than

150 seeds from

6 species of ecological interest were collected.

Wildlife monitoring

In 2024, more than 60 species of terrestrial vertebrates were recorded, 11 of which are classified as endangered according to NOM-059-SEMARNAT-2010. Some of the most notable are the ocelot *(Leopardus pardalis)*, the Mexican burrowing toad *(Rhinophrynus dorsalis)*, the Mexican duck *(Anas diazi)*, and the diamondback rattlesnake *(Crotalus atrox)*.

During 2024, more than

60 species of terrestrial vertebrates were recorded, 11 of which are classified as endangered.

Environmental education program

The Environmental Education program seeks to raise awareness and promote commitment to biodiversity conservation and responsible use of natural resources. Through educational activities, guided tours, workshops, and collaborative projects, it promotes hands-on learning and participation among students, teachers, and visitors. This effort strengthens the university's environmental culture and contributes to the attainment of institutional sustainability goals.

Guided tours: six educational institutions were visited, with approximately 350 children and 25 teachers who were shown presentations related to biodiversity conservation in the main auditorium of the School of Forest Sciences within UANL. Afterwards, they were taken on a tour of the botanical garden and were shown the biological collection, highlighting the species that are under conservation status according to NOM-059-SEMARNAT-2010. Finally, educational activities were carried out in the Visitor Center.

Environmental workshops: This activity was carried out in schools in urban and rural communities and among underrepresented groups, in which workshops were imparted on germination, waste management, identification of wildlife tracks, and wildlife monitoring techniques. In total, more than 2,000 people participated in the various workshops that were held.

Environmental fair: An environmental fair was conducted in conjunction with Regional Unit 7 of the Education Department of the State of Nuevo León and the municipality of Linares, Nuevo León. The activities carried out at this environmental fair focused on vulnerable groups such as low-income rural schools and special education institutions, as well as the public. The main objective of this event was to provide the appropriate tools for the sustainable use and management of natural resources. To that end, workshops on native plant germination, waste management, and wildlife monitoring techniques, as well as audiovisual presentations on the region's biodiversity and drawings and phrases created by elementary school students participating in the last two contests held by the botanical garden. By the end of the environmental fair, more than 800 people attended.

Over 3,200

people participated in the various environmental education activities promoted by the EHX Botanical Garden

Social media

The botanical garden has social media accounts through which more than 200 posts (posts, bulletins, podcasts, reels, garden activities, etc.) have been published, aimed at both specialized and non-specialized audiences. Dissemination through these channels has been an important factor in expanding knowledge, as they have been used to post content related to biodiversity conservation, traditional knowledge, and other environmental topics. This information was shared with more than 20,000 people who follow the institutional pages and strategic alliances. Below are some of the sections managed on the botanical garden's institutional social media accounts.

Virtual museum of the botanical garden: one of the most notable social media posts is a virtual museum, which consists of informative presentations on biodiversity and environmental topics.

Botanical garden podcast

As part of the strategy to spread awareness about activities and biodiversity conservation, two podcasts were produced. The first addressed the topic of hazardous and non-hazardous waste management in the community and educational centers; while the second covered the topic of botanical gardens and their importance.
It should be noted that both podcasts are one hour long, and each one provided presentations on very specific environmental topics that were disseminated through institutional social networks. Similarly, topics related to the podcasts were shared: Changes in land use in forest areas and Environmental impact studies in the state of Nuevo León.

During 2024, 167 posts were published: regarding ongoing activities at the botanical garden (environmental education, maintenance, phenology, etc.), the biocultural importance of flora, fauna, fungi, insects, etc., as well as various environmental topics (food chain, camouflage, photosynthesis, phenology, etc.) via Facebook, X, Instagram, LinkedIn, TikTok, and YouTube.

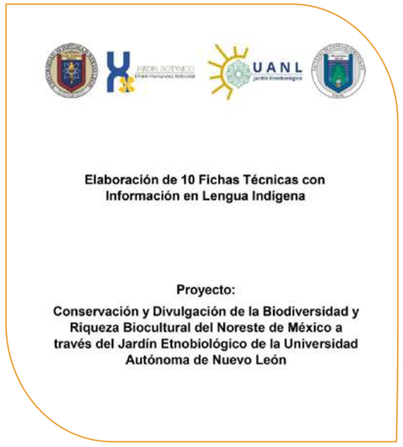
Bibliographic Archive

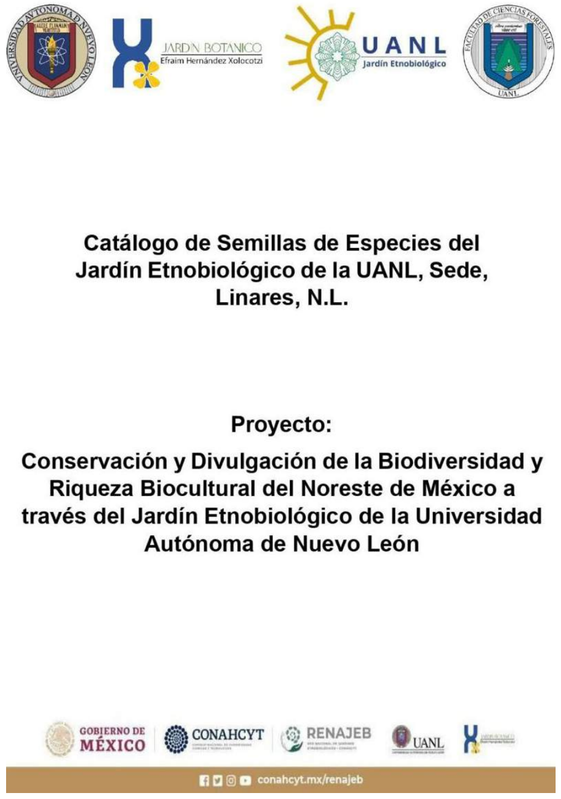
In 2024, field guides were produced for the garden's wild flora and fauna species, as well as catalogs of plants and seeds from rescued vegetation. Some of the activities carried out are listed below:

Field guide to the main tree, shrub, and herbaceous species of the Tamaulipas thorny scrubland: a guide to the main tree, shrub, and herbaceous species in the garden was produced. This guide contains information on more than 30 species and describes their morphology, uses, distribution, and national and international conservation status.

Field guide to birds present in the Botanical Garden: descriptive content was developed using a field guide that includes more than 40 species of birds found in the botanical garden. The information in the guide classifies species by order and family, and provides descriptions, distribution information, myths, etc.

Wildlife tracks manual: a guide was produced on techniques for collecting wildlife tracks, describing various methodologies and techniques for collecting tracks in plaster casts.





Field Guide to Endangered Plant Species: a field guide was produced covering the 18 species of flora present in the botanical garden that are classified as at risk of extinction according to Mexican Official Regulation 059. The guide is aimed at both specialist and non-specialist audiences and contains taxonomy, national and international conservation status, description, distribution, uses, threats, and conservation measures.

Guide to flowers of cactus species (Part 2): this guide shows the main blooming cacti found in the garden and provides basic information about the species, mainly photographs showing their reproductive stages (growth, bud, flower, fruit, etc.) as well as a phenogram showing the periods in which these stages occur.

Catalog of seeds collected from xerophytic shrub species: a catalog was created showing the morphology of the seeds of 10 species of flora collected. It also provides a brief botanical description of the species and its produce, as well as the uses of the plant, including recommendations for germination.

Species reproduction

As part of the strategy to achieve long-term sustainability for the botanical garden, plant production continued in the laboratory and greenhouse. The plants produced are located in the greenhouse tunnel, where they receive the care and conditions necessary for their development and growth. A total of 30,000 plants of six species of cacti were reproduced, with the intention of increasing the biological pool of plant species through the exchange of specimens and species with other gardens, as well as implementing plant adoption programs as part of the environmental education strategy.

In 2024

30,000 plants

of 6 species of cacti of high ecological importance were produced

UANL Ethnobiological Garden

In 2024, the UANL Ethnobiological Garden (JEB) conducted research and science dissemination activities through the national Ethnobiological Gardens project of the Secretariat of Science, Humanities, Technology, and Innovation (SECIHTI). The activities related to sustainability in agriculture focused on three different aspects: training producers in the sustainable utilization of resources, detection of GMOs in corn using test strips, and ex situ conservation of native plant species.

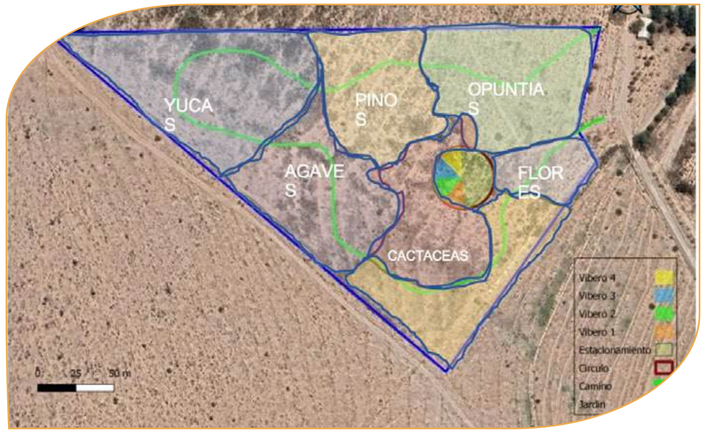
a)Training producers in the sustainable utilization of resources.
Training in different aspects of agricultural production with a focus on sustainability were provided, including production of organic fertilizers such as vermicompost, biological pest control, and proper seed conservation.

b)Detection of GMOs in corn using test strips.
Based on the number of corn imports from the United States each year, there is a latent risk of increasing the contamination of native corn with imported transgenic corn. Although there are reports of the presence of transgenes in some native corn populations in Mexico, there are some areas contamination-free areas which must be preserved to prevent the loss of the original genetic variability existing in all native Mexican corn.

The La Ascensión Academic Unit of the School of Agronomy, organized training sessions for technicians who represented state and federal government offices on how to use test strips to detect the presence of transgenes. With a sample of corn plant leaves, these strips react to the presence of transgenes depending on the test strip.

c)Ex situ conservation of native plant species.
The School of Agronomy set up a space for the purpose of maintaining a collection of plant species representative of southern Nuevo León. To that end, 4.7 hectares were allocated within the La Ascensión Academic Unit. In this area, paths, walkways, areas for selling plants, and spaces for the distribution of the plant species to be included in the garden (agaves, pines, cacti, yuccas, opuntias, etc.) were laid out.

The School of Agronomy within UANL conducts measures for ecosystem sustainability, such as rational utilization of resources and the devising of more environmentally friendly farming systems. By 2025 and 2026, the creation of the "State Center for the Development of Sustainable Agriculture" is foreseen, with the aim of generating knowledge for the use of sustainable farming practices by training producers, technicians, and students in the use of technology that enables increased productivity in agricultural systems that address the challenges of climate change.



Sustainability in farming systems with corn

Corn is the main crop in terms of area under cultivation in Nuevo León, with more than 60,000 hectares (Agro-Food and Fisheries Information Service, 2022), 90% of which is grown under temporary conditions using native corn varieties. In these production systems, producers use seeds collected from the previous crop cycle for their sowings, maintaining varietal purity. However, because of climate change, native seed production has been impaired and, in many cases, halted due to lack of rainfall. As a result, invaluable genetic wealth found in native corn varieties has been lost.

In order to prevent the total loss of native corn seeds, the UANL School of Agronomy launched two major initiatives to prevent a collapse in native corn planting in the region:

1) Collection of native corn seeds to preserve genetic variability through a germplasm bank; currently, there are more than 60 types of native corn, mainly from the southern part of Nuevo León.

2) Multiplication of native corn seeds. For this purpose, three native corn varieties from three ecological niches representative of southern NL were selected, seeds were collected from local farmers, and they were sown in the Experimental Field of the La Ascensión Academic Unit of the School of Agronomy within UANL, in the PV 2024 cycle. Approximately 10 kilograms of seed were collected from each of the three genotypes and sown in isolated plots to avoid contamination. At the end of the cycle, almost 2.5 tons of seed were produced, which were harvested and bagged at the Universidad Autónoma Agraria Antonio Navarro (UAAAN), whom we thank for their support.

Program for the Monitoring and Sustainable Management of Natural Capital

The Program for the Monitoring and Sustainable Management of Natural Capital of Universidad Autónoma de Nuevo León is an institutional strategy aimed at conserving, restoring, and responsibly utilizing the natural resources under its stewardship. This program incorporates systematic actions for the diagnosis, monitoring, and adaptive management of ecosystems, species, and environmental services present on university campuses and in natural areas of strategic interest.

Its main purpose is to generate scientific and technical information that allows for the assessment of biodiversity conservation status, the identification of threats, and the establishment of management measures that promote ecological resilience. In order to do so, standardized field and laboratory methodologies, georeferencing technologies, satellite image analysis, and specialized databases are employed.

The program is not solely limited to observation but also promotes the implementation of sustainable land use practices, habitat restoration, control of invasive species, forest management, and water resource conservation. These actions are carried out in coordination with academic institutions, government agencies, civil society organizations, and local communities, thereby reinforcing partnerships and collaborative work.

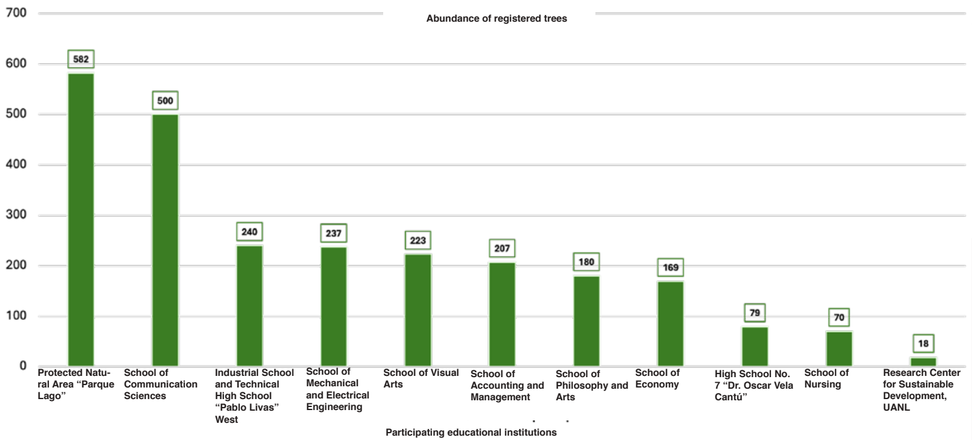
The program also promotes the development of skills among students and academic staff, actively involving them in monitoring, analysis, and decision-making activities. This participatory approach helps to consolidate a university community committed to protecting natural capital and generating innovative solutions in the face of current environmental challenges.

This section shows the main advancements, results, and experiences derived from the program's operation during 2024, evidencing the UANL's commitment to the sustainable management of its natural heritage and to the realization of its institutional sustainability goals.

Assessment of University Forest Capital

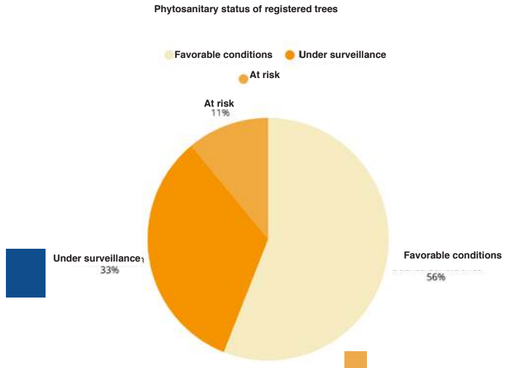
The natural capital safeguarded by the Universidad Autónoma de Nuevo León (UANL) is an important asset that reduces risks and builds resilience to the effects of climate change and environmental degradation. In this context, forest heritage is an indispensable component of most university facilities, given that they provide a range of environmental services such as oxygen production, the absorption of pollutants and suspended particles, rainwater collection, and reduction of the effects caused by urban heat islands. All of these factors serve as a habitat for various species of flora and fauna, which in turn provide recreational areas for members of the university community and society.

By December 2024, a total of 11 forest inventories had been completed, 10 of which were on university campuses as well as one in a public space of high ecological importance.



The project, titled "Diagnosis of the current state and proposal for sustainable management of the forest capital of university departments," began in 2022 as an initiative promoted by the Office of Project Development (DDP, in Spanish) of the Secretariat of Sustainability (SS-UANL). By the end of 2024, 10 diagnoses had been carried out in academic and administrative facilities of the UANL plus one additional diagnosis in public spaces of high ecological importance. This was achieved with the collaboration of 130 volunteers, mainly regular students and those doing social service.

For all of the above reasons, the UANL undertakes various actions to protect and conserve its forest heritage, in addition to providing the student community with environmental education, so that they can recognize the many benefits that urban trees provide. Some of these actions include forest inventories, which consist of carrying out a technical procedure to obtain the necessary information to reliably determine the qualitative and quantitative characteristics of the forest heritage that exists in the areas occupied by the university premises.



The total number of trees surveyed and diagnosed by the end of 2024 was 2,505, located on an area of 34.83 hectares in 10 university buildings.

Monitoring water quality and determining biological contaminants in aquatic environments

The Universidad Autónoma de Nuevo León, through the Project Development Office of the Secretariat of Sustainability in collaboration with the School of Veterinary Medicine and Zootechnics, has implemented a program to monitor water quality and determine biological contaminants in aquatic environments located in the vicinity of campuses and university facilities in the Monterrey metropolitan area. The program responds to the rising need to assess, conserve, and restore urban and peri-urban water bodies, which are essential for the environmental and social well-being of the university community and society at large.

The objective of the program is to establish a continuous monitoring system that provides reliable information on the physical, chemical, and biological conditions of rivers and wetlands associated with university installations. This monitoring focuses on both conventional water quality parameters, such as dissolved oxygen, pH, conductivity, turbidity, and nutrients, as well as the identification of biological contaminants of sanitary and ecological relevance, such as coliform bacteria, protozoa, and potentially toxic cyanobacteria.

The participation of the School of Veterinary Medicine and Zootechnics (FMVZ) is crucial, as its expertise in microbiology, parasitology, and aquatic health bolster the program's technical capacity to detect pathogens that pose risks to human, animal, and ecosystem health. The results obtained not only allow for the identification of sources of contamination, but also for the design of mitigation, control, and remediation strategies that contribute to reducing negative impacts on biodiversity and the university community.

The program comprises periodic sampling campaigns, which are carried out at strategic sites defined according to their proximity to campuses, ecological representativeness, and vulnerability to anthropogenic pressures such as urban discharges, solid waste, or recreational activities. The samples collected are analyzed in the FMVZ aquaculture production laboratory, where microbiological, molecular, and culture techniques are applied, ensuring reliable results that are recorded in databases for subsequent comparative analysis and the generation of environmental indicators.

During 2024

10

sessions were held in 5 urban aquatic ecosystems

In addition to scientific research, the program incorporates an academic training component, as it involves undergraduate and graduate students in field and laboratory activities, allowing them to gain practical experience and develop professional skills in areas such as environmental microbiology, ecotoxicology, and water resource management. This way, the connection between teaching, research, and university expansion is reinforced.

The information generated is used to prepare institutional sustainability reports and to support decision-making on biodiversity conservation, health risk prevention, and improvement of the university's green infrastructure.

By the end of 2024, five monitoring sessions had been conducted in different aquatic ecosystems located in the Monterrey Metropolitan Area, in areas adjacent to university campuses and facilities, with the participation of 21 volunteers and social service students from the Schools of Veterinary Medicine and Zootechnics and Biological Sciences.

Universidad Autonóma de Nuevo León
Secretariat of Sustainability

2024 Annual Sustainability Report

RESPONSIBLE PRODUCTION AND CONSUMPTION

SUSTAINABLE DEVELOPMENT GOALS

Waste

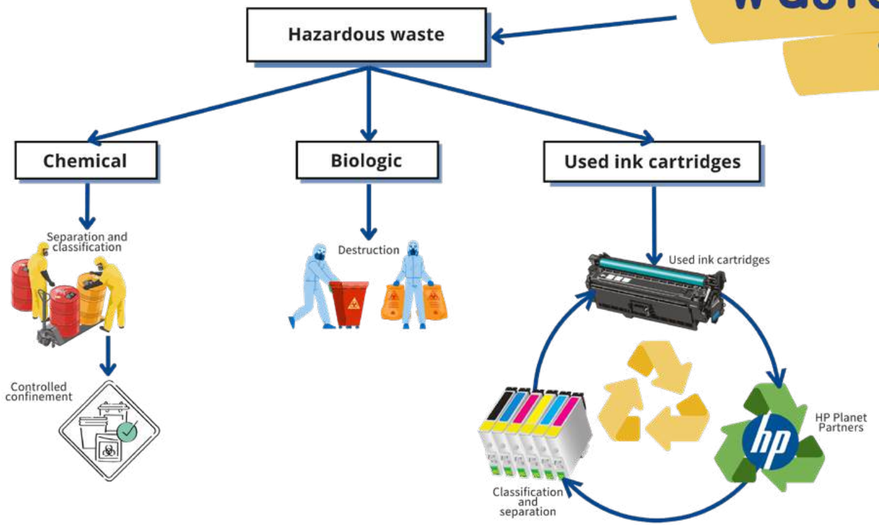
Institutional Program for Comprehensive Waste Management

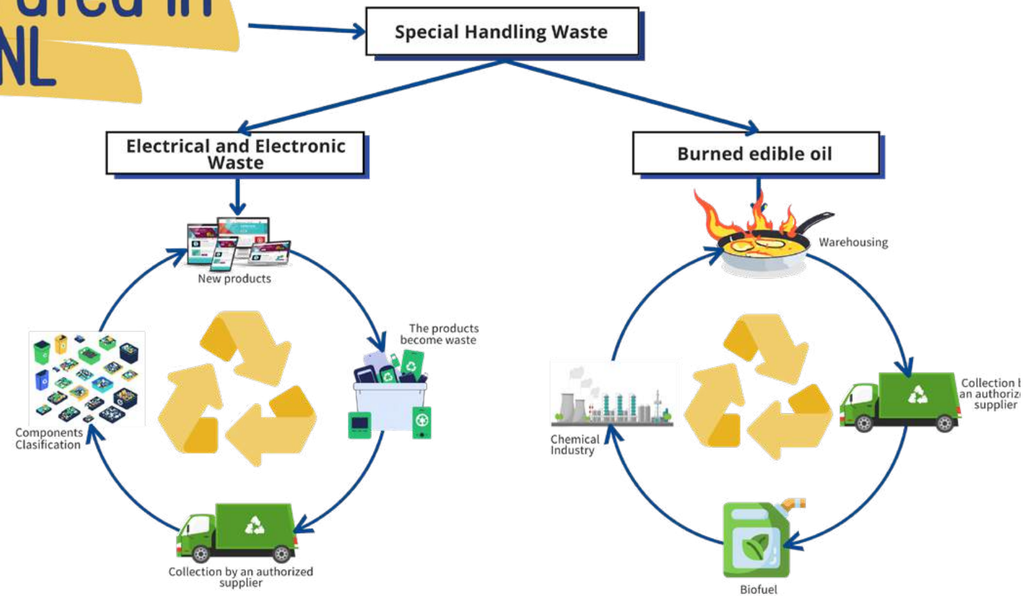
The Universidad Autónoma de Nuevo León (UANL) operates various activities on its premises that generate different types of waste. This waste is collected and delivered to service companies that have state (Urban Solid Waste and Special Management Waste) and federal (Hazardous Waste) authorizations. Depending on its nature and characteristics, it is incorporated into new processes, sent for final disposal, or destroyed by incineration. Currently, the UANL is in the process of transitioning from a linear waste management model to a circular economy model, with the objective of promoting reuse, recycling, and environmental sustainability.

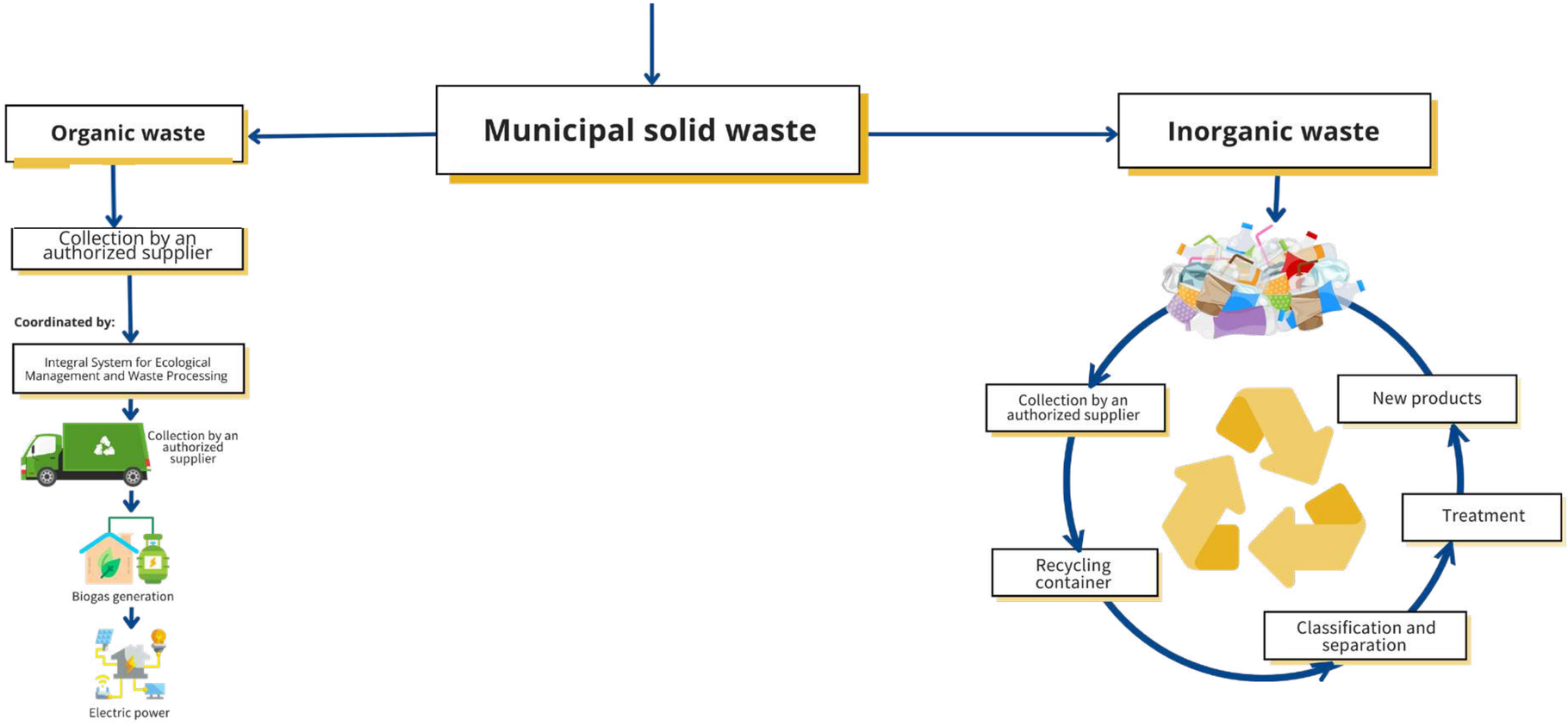
Source: European Parliament Research Service

The following diagram presents a map illustrating the routes that waste follows from the moment it is generated on the different UANL campuses. This flowchart shows how, at the end of its useful life and depending on its characteristics, waste can be integrated into different production chains to be reused in the making of new products, in accordance with the principles of the circular economy.
The specific characteristics of each type of waste are detailed below.

Waste generated in the UANL





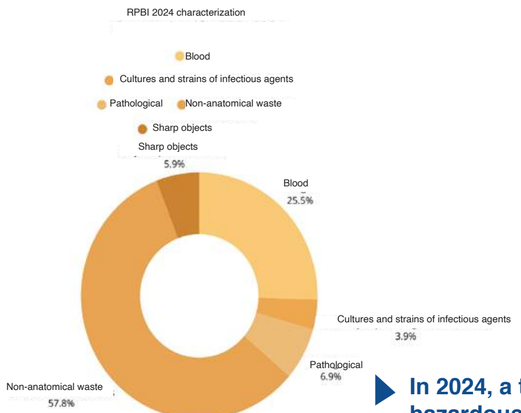

Municipal solid waste
Organic waste
Collection by an authorized supplier
Coordinated by:
Integral System for Ecological Management and Waste Processing
Collection by an authorized supplier
Biogas generation
Electric power
Inorganic waste
Collection by an authorized supplier
New products
Treatment
Recycling container
Classification and separation

Hazardous Waste (HW)

All UANL facilities have a procedures handbook to standardize the handling and disposal of hazardous waste, which serves as a guide for classifying different types of waste according to incompatibility, and that facilitates their handling and storage. During 2024, a total of 247.75 tons of hazardous waste was generated, of which 77% corresponded to Infectious Biological Hazardous Waste (IBHW) and the remaining 23% to chemical hazardous waste, which was handled in accordance with the current legal framework.

Infectious Biological Hazardous Waste (IBHW)

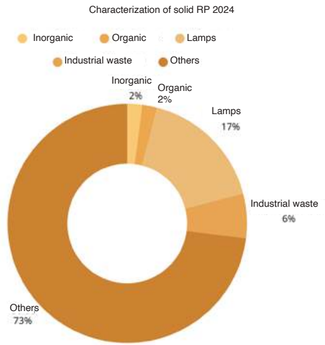
According to NOM-087-SEMARNAT-SSA1-2002, infectious biological hazardous waste is defined as materials discarded during medical care services that contain infectious biological agents. In 2024, a total of 189.64 tons of this type of waste was generated. The characterization is shown in the following graph:

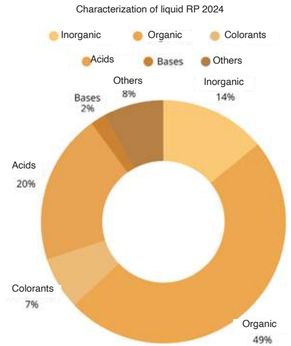


In 2024, a total of 247.75 tons of hazardous waste and 100% of hazardous waste was managed according to the current legal framework

Chemical Hazardous Waste

During the same period, 58.11 tons of hazardous chemical waste were generated, of which 24.76 tons correspond to solid waste and 33.35 tons to liquid waste.





During 2024

58.11 tons

tons of hazardous waste of chemical origin were generated, of which 24.76 t correspond to solid waste and 33.35 t to liquid waste under the current legal framework.

Expired medications

An example of hazardous chemical waste is expired medication. UANL operates five collection centers for this type of waste, which are located at the University Pharmacy of the School of Chemical Sciences, the Technical Medical High School, UANL Medical Services Gonzalitos Unit, the School of Nursing, and the School of Veterinary Medicine and Zootechnics. The university community and the public deposit waste in these containers. Throughout 2024, 997.20 kg of expired medications were collected at the aforementioned collection centers.

Upon collection by a company authorized by the relevant authorities, HW undergoes treatment or confinement in accordance with current environmental regulations.

During 2024

997.20 kg

of expired medicines were collected at UANL

Empty cartridge and toner collection program

Starting in May 2021, UANL is participating in the HP Planet Partners program, in which used ink and toner cartridges (HP and Samsung) are collected and sent to a specialized recycling plant located in the United States that complies with ISO 14001 and ISO 9001 requirements. All cartridges undergo a multi-stage recycling process, converting them into raw materials that can be used to manufacture plastic and metal products, such as new cartridges. Any remaining material is disposed of or processed responsibly through energy recovery processes. In 2024, a total of 2.30 tons of empty toner and ink cartridges were generated in the aforementioned program.

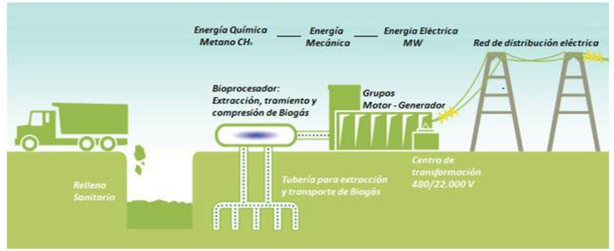
During 2024

2.30 t

of toner cartridges were generated

Urban Solid Waste (USW)

The USW generated in different facilities of the UANL are separated to recover valuable materials that are then collected and transported by authorized companies to the landfill of the Comprehensive System for Ecological Waste Management and Processing (SIMEPRODE) located in the municipality of Salinas Victoria, Nuevo León, and which is managed by the Government of the State of Nuevo León. At this site, USW is deposited in special cells where it is compacted to reduce its volume and covered with layers of clay and soil to ensure treatment under anaerobic conditions. These facilities have infrastructure for capturing methane (biogas) produced by the anaerobic decomposition of organic waste, as well as for monitoring leachate. The biogas is conveyed through a special system to the bioenergy plant of Servicios Sustentables de Nuevo León S.A. de C.V. (SSNL), adjacent to the landfill. Here, it is converted into electrical energy that is used to power the public lighting grid of seven municipalities in the Monterrey metropolitan area, five state government facilities, and Fundidora Park, in addition to providing energy to the Metrorrey collective transportation system (urban electric train) as part of the greenhouse gas mitigation measures implemented in the country.



During 2024, a total of 3,195.33 tons of USW were generated at the UANL, of which 32% was organic waste and the remaining 68% was inorganic waste.

During 2024, a total of

3,195.33 t

of organic waste was generated, of which 100% was treated

During 2024, a total of

1,022.51 t

of Urban Solid Waste was generated

Organic USW

The organic waste generated on all UANL campuses consists mainly of food waste and garden waste. In 2024, 1,022.51 tons of this waste was generated, which underwent treatment.
The above information ensures that 100% of the organic waste generated at UANL is treated in an environmentally appropriate manner.

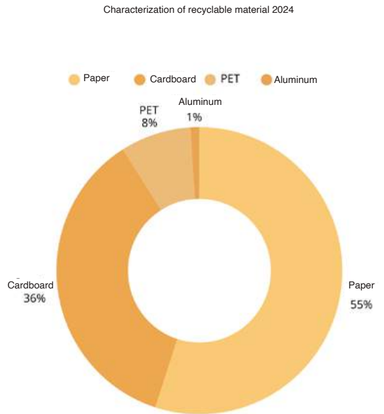
Waste Separation and Recycling Program (PROSER)

In February 2013, the UANL launched the Waste Separation and Recycling Program (PROSER, in Spanish), which currently operates on a systematic basis in 78 facilities (52 academic facilities and 26 central facilities). The program consists of separating recyclable materials (cardboard, paper, aluminum, and PET) into special containers for this purpose. Once separated, this waste is collected by local companies and subsequently incorporated as raw material into different processes for the making of new products such as cardboard, recycled paper, toys, labels, furniture, etc. Thus, USW with recyclable characteristics generated at the UANL follows a circular economy model as established by the General Law on Circular Economy in Mexico.

In 2024, the Waste Separation and Recycling Program (PROSER) operated in 78 facilities, collecting a total of 224.95 tons of recyclable material

Throughout the period from February 2013 to December 2024, a total of 2,253.93 tons of recyclable material was collected, leading to environmental benefits such as: energy savings of 10,059,710 kWh, 67,859,546 liters of water not consumed, 32,715 trees not cut down, 7,683 tons of CO2 not emitted, 393,329 liters of oil not used, 6,407 m3 of landfill not used, and 212 tons of bauxite not used.

During 2024, 224.95 tons of recyclable material were collected, yielding significant environmental benefits, including energy savings of 972,615 kWh and 6,514,062 liters of water, among others, as shown in the following figure:



- 3,459 Trees not cut down
- 6,513,788 Liters of water not consumeds
- 972,572 kWh Electricity not used
- 755 Tons of CO_2 not emitted
- 26,112 Liters of oil PET/plastic not used
- 605 Cubic meters of landfills not used
- 12 Tons of bauxite not used

“With everything, please” Program

With the express purpose of expanding coverage to promote a culture of recycling and raise awareness among the university population about the importance of preventing plastic waste from polluting the environment when not handled properly, the UANL, through the Fundación UANL A.C., is collaborating with the companies Arca Continental and PetStar in the “With everything, please” program, which was launched in May 2024. Under this initiative, a total of 17 special containers were installed at strategic points within the UANL campuses.

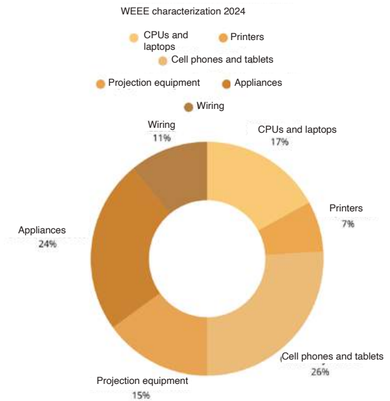
This program consists of placing empty PET plastic bottles, caps and labels included, inside containers, which are subsequently taken to the food-grade PET recycling plant (PetStar) where they will be processed to make new bottles. Between May and December 2024, 540 kg of PET were collected through this program.

1st UANL Recycling Campaign

The 1st UANL Recycling Campaign was held on June 5, 6, and 7, 2024, organized by the Secretariat of Sustainability through the Environmental Management and Operational Security Office, and hosted by the UANL Research Center for Sustainable Development (CIDESU). The campaign was aimed at the university community and the public. The event was intended to serve as a means to achieve proper waste disposal and protect the environment, as well as to promote the recycling of the materials that were being collected: PET, aluminum, paper, cardboard, among others. More than 60 people actively assisted with the organization and logistics, including students and professors from different facilities, as well as student associations, volunteers, and companies.

Special Management Waste (SMW)

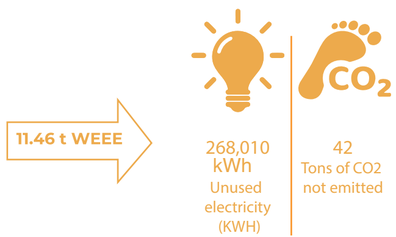
In the current digital age, there has been an increase in the amount of waste from electrical and electronic equipment (WEEE) generated, which can be harmful to the environment and human health if not disposed of properly. In the year 2024, 11.46 tons of WEEE were collected at the UANL during the electronic recycling campaign carried out by the SS in October and during the recycling campaign in June.

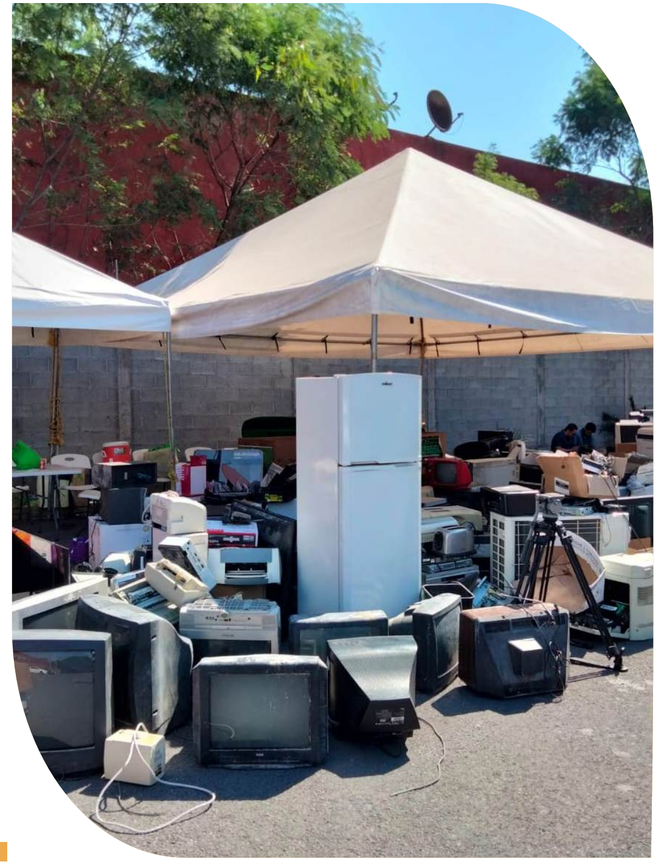


In 2024

11.46t

of Waste Electronic Equipment (WEEE) were collected

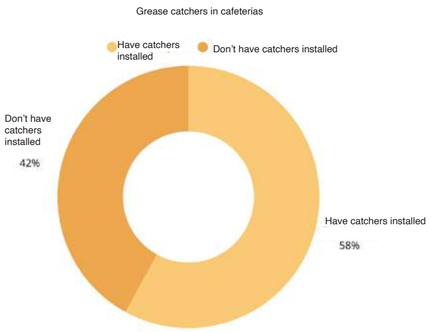




Once collected by a service provider authorized by the state government, waste is taken to collection centers where it is sorted into groups and separated into its different components. For example, plastic is taken to local recyclers to be incorporated as raw material for the making of new products such as toys and platforms; copper and aluminum are sent to a national foundry for the making of electrical wiring, copper pipes, aluminum rolls, etc. Finally, electronic cards and power supplies are sent to foreign companies where precious metals, among other materials, are recovered to be incorporated into other production cycles for the making of cell phones, car parts, fans, pens, etc.

Cooking oils and fats waste from cafeterias

One of the main causes of surface and groundwater pollution is the indiscriminate disposal of waste generated in food preparation, such as vegetable and/or animal oils and fats. The UANL operates a program for the collection and disposal of vegetable oil generated in cafeterias operating on campus with a specialized company that has the necessary authorizations. In 2024, 21.54 tons of vegetable oil were collected for recycling and subsequent use in the making of environmentally friendly chemicals and biofuels.



At present, 58% progress has been made in installing grease and oil catchers in UANL cafeterias to comply with the provisions of Mexican Official Regulations NOM-002-ECOL-1996 “Maximum permissible limits of contaminants in wastewater discharges to urban or municipal sewer systems” and NOM-251-SSA1-2009 “Hygiene practices for the processing of food, beverages, or food supplements.”

In 2024

21.54 t

of vegetable oil were collected from cafeterias operating in different university facilities

Technical Guidelines for Waste Management

The UANL Sustainability Secretariat, through the Environmental Management and Operational Safety Directorate, has developed technical guidelines for:

- Responsible consumption
- Management of recyclable and specially handled urban solid waste
- Management of hazardous waste
- Sustainability guide for workshops and laboratories

These guidelines contain information for university departments on the proper management of waste generated on the various university campuses.

Responsible Consumption

The Universidad Autonoma de Nuevo Leon (UANL) promotes responsible consumption practices among members of the university community, which include reducing the use of single-use plastics, responsible waste management and the implementation of renewable energies, which also help reduce the institutional carbon footprint.
The reduction of the carbon footprint and the preservation of natural resources contribute directly to the fight against climate change and the protection of the environment.

Responsible consumption promotes civic awareness by encouraging students to consider the impact of their choices on society and the planet. This can inspire a generation of more engaged and ethical citizens. Additionally, responsible consumption practices mean significant economic savings for users by avoiding unnecessary spending and wasting fewer resources.

The program to replace the consumption of bottled beverages with drinking water available at the Ciudad Universitaria Campus, through 49 public drinking fountains supplied by two water purification plants, in 2024 recorded a consumption of 3,556,294 liters of water, which avoided the consumption of 7,112,588 bottles of 500 milliliters of bottled water in PET containers, which meant savings for users of about $ 106 million pesos per year.

Economic benefits of the “Drinking Water Fountains” program

Year	Average no. of L of water consumed annually	No. of bottles (500 ml) not consumed annually	Annual savings for the users of the drinking fountains by not buying bottles (500 ml).
2024	3,556,294	7,112,588	$5,742,132.00 (USD)

*Considering the price of the 500 ml bottle at $ 0.80 (USD)

From an environmental point of view, the drinking water program avoided the generation of 47 tons of PET, which in turn avoided the use of 255 m² of landfill space, among other environmental benefits mentioned below:

Environmental benefits of the “Drinking Water Fountains” program

Year	Water consumed (L) in drinking fountains at CU	Equivalence in bottles (500 ml)	Ton PET not used	Energy not consumed (kWh)	Water not consumed (L) in the production of PET	CO_2 not emitted (ton)	Unused landfill (m^2)	Oil saved (L)
2024	3,556,294	7,112,588	85	429,999	3,414,042	145	463	121,455

In 2024, the consumption of just over

7 millon

500 ml bottles of water was avoided, meaning a saving of approximately 6 million dollars for users

Universidad Autonóma de Nuevo León
Secretariat of Sustainability

2024 Annual Sustainability Report

AFFORDABLE AND CLEAN

SUSTAINABLE DEVELOPMENT GOALS

Efficient Energy Use

As part of its institutional commitment to environmental sustainability and efficient use of resources, the Universidad Autónoma de Nuevo León (UANL) has been operating the Efficient Energy Use program for more than 10 years. This program is designed to reduce energy consumption in university facilities through the implementation of technical and operational strategies intended to save energy, incorporate renewable sources, and use highly energy-efficient equipment.

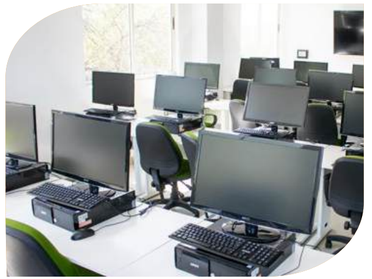
The program addresses the need to transition to sustainable energy consumption models, aligned with the Sustainable Development Goals (SDGs), particularly SDG 7 (Affordable and clean energy) and SDG 13 (Climate action). Its implementation not only reduces the environmental impacts associated with intensive energy use but also fosters a culture of environmental responsibility within the university community.

99,171,393 kWh
annual energy consumption of the UANL in 2024

Energy-saving Strategies

One of the cornerstones of the program is reducing energy consumption by applying energy efficiency measures. Among these are the efficient use of equipment and the adoption of good practices in energy use, such as turning off electrical equipment at the end of the day, disconnecting unused devices, and adjusting the operating hours of air conditioning and lighting systems, etc.

Additionally, work is underway on the design and implementation of automated measurement and monitoring systems, which allow recording and analysis of energy consumption by building, area, or department. This information is extremely important for identifying usage patterns, detecting inefficiencies, and applying corrective actions in a timely manner.



Likewise, awareness campaigns targeted at students, teachers, and administrative staff have been carried out with the intent of fostering an institutional culture of responsible energy use.

Integration of renewable energy sources

The second focus of the program is on the gradual implementation of renewable energy in university facilities. Primarily, photovoltaic energy generation has been spearheaded through the installation of solar panel systems on building roofs.

These systems transform solar radiation into electricity, which is used directly in the operational activities of the facilities. Consequently, energy consumption from fossil fuels is reduced and greenhouse gas (GHG) emissions are minimized, which contributes to the fight against climate change.

The energy generated through these systems is also incorporated as a teaching tool in academic programs related to engineering, architecture, and environmental sciences, facilitating practical learning about clean technologies.

In 2024

36.5%

of the energy consumed by the UANL was generated by renewable energy sources

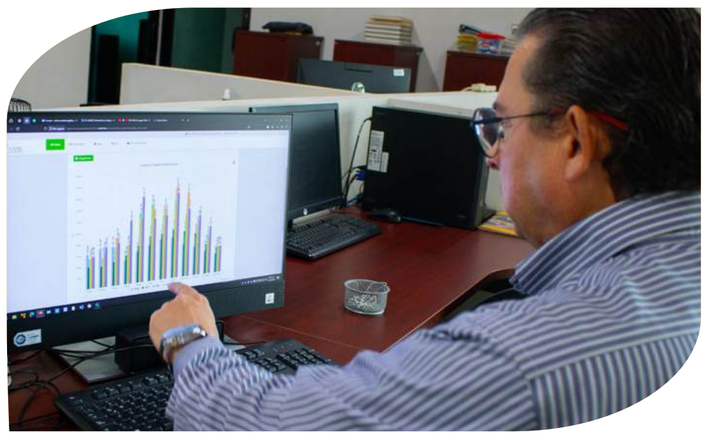
In addition, this incentivizes the undertaking of pilot projects to incorporate other renewable sources, such as solar thermal, wind, and hybrid systems, depending on the specific conditions of each campus and its energy needs.

Equipment upgrades

The use of high-efficiency air conditioning and lighting systems is another key component of the program. In this regard, the gradual replacement of obsolete equipment with high-energy-efficiency technologies has been pushed forward. In terms of air conditioning, systems with variable speed compressors, environmentally friendly refrigerants, and automated temperature controls have been introduced, allowing for optimal thermal comfort conditions to be sustained with lower electricity consumption.

In terms of lighting, the transition has been made to LED technology fixtures, which have a longer service life, significantly reduce energy demand, and improved lighting quality in indoor and outdoor spaces. These fixtures have been complemented with presence sensors and timers, which allow lighting to be activated solely when required, and eliminate unnecessary consumption.

These measures have been implemented in academic and administrative buildings, libraries, laboratories, auditoriums, and sports facilities, significantly improving the energy efficiency of the university's infrastructure.



Control panel

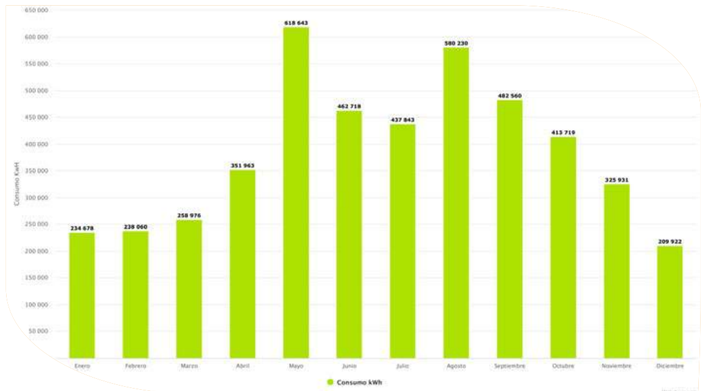
The Control Panel collects information from smart meters and sensors installed at strategic points, which allows for the identification of consumption patterns, detection of anomalies, and evaluation of the impact of implemented energy-saving measures. It also allows for the generation of comparative reports by intervals, which is useful for setting goals and evaluating results.

Highlights of this system's benefits include reduced electricity consumption, savings in operating costs, and lower greenhouse gas emissions. Furthermore, it fosters institutional transparency and promotes a culture of rational energy use among the university community by providing clear, accessible, real-time information on the energy performance of the facilities.

Scope of the program

The Energy Efficiency Program has a broad scope across the entire university structure. It is implemented on all campuses and in all academic units, including high schools, schools, research centers, and administrative offices. In addition, the program is integrated into the university's environmental management systems, ensuring its monitoring, evaluation, and continuous improvement.

Moreover, key energy performance indicators have been established to evaluate progress and generate periodic reports that facilitate decision-making. This evidence-based management strategy allows for precise measurement of the impact of the actions implemented and the establishment of new short-, medium-, and long-term energy efficiency goals.



Benefits of the program

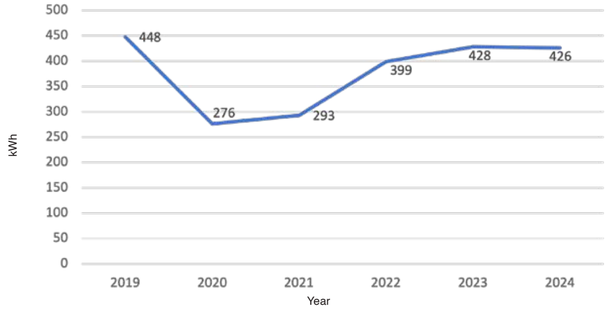
The benefits derived from the UANL Energy Efficiency Program are reflected in various dimensions. From an environmental standpoint, the reduction in energy consumption and the adoption of renewable sources directly contribute to the reduction of the institutional carbon footprint. This reinforces the university's commitment to sustainable development and climate change mitigation.

In economic terms, energy efficiency translates into considerable operational savings, since it reduces the costs associated with electricity consumption. These resources can be channeled into other priority areas, such as educational infrastructure, scholarships, or research projects.

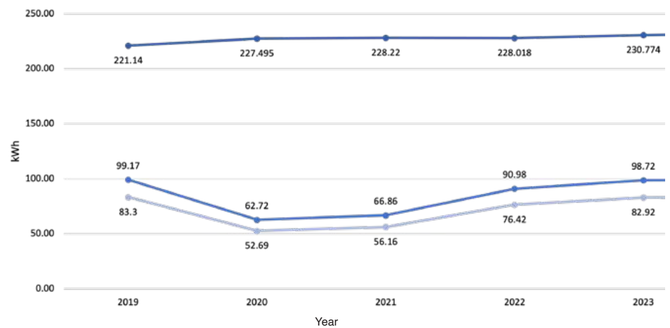
In the academic and social context, the program encourages the university community to participate in the development of a sustainable energy model, while promoting the generation of knowledge and technologies applied to the efficient use of energy.

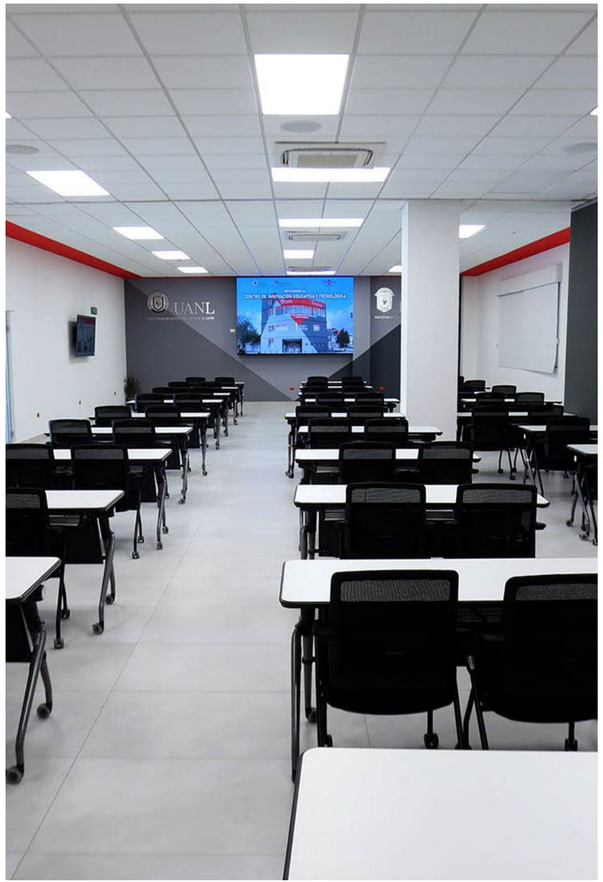
All in all, this program positions the UANL as a responsible, innovative higher education institution committed to sustainability, consolidating its role as a national and international benchmark in university energy management.

Annual per capita electricity consumption



Electricity consumption 2019-2024

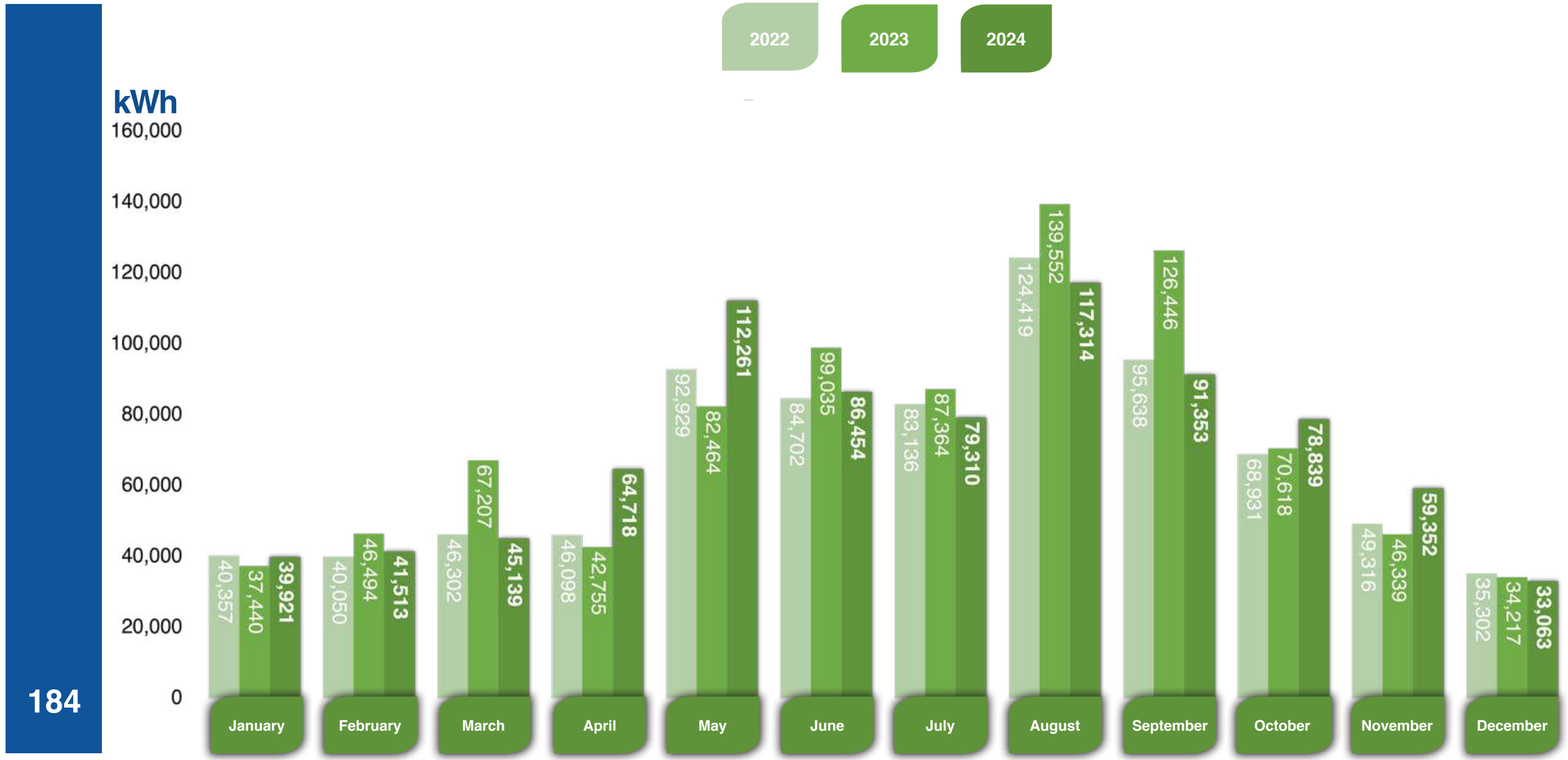




426 kWh

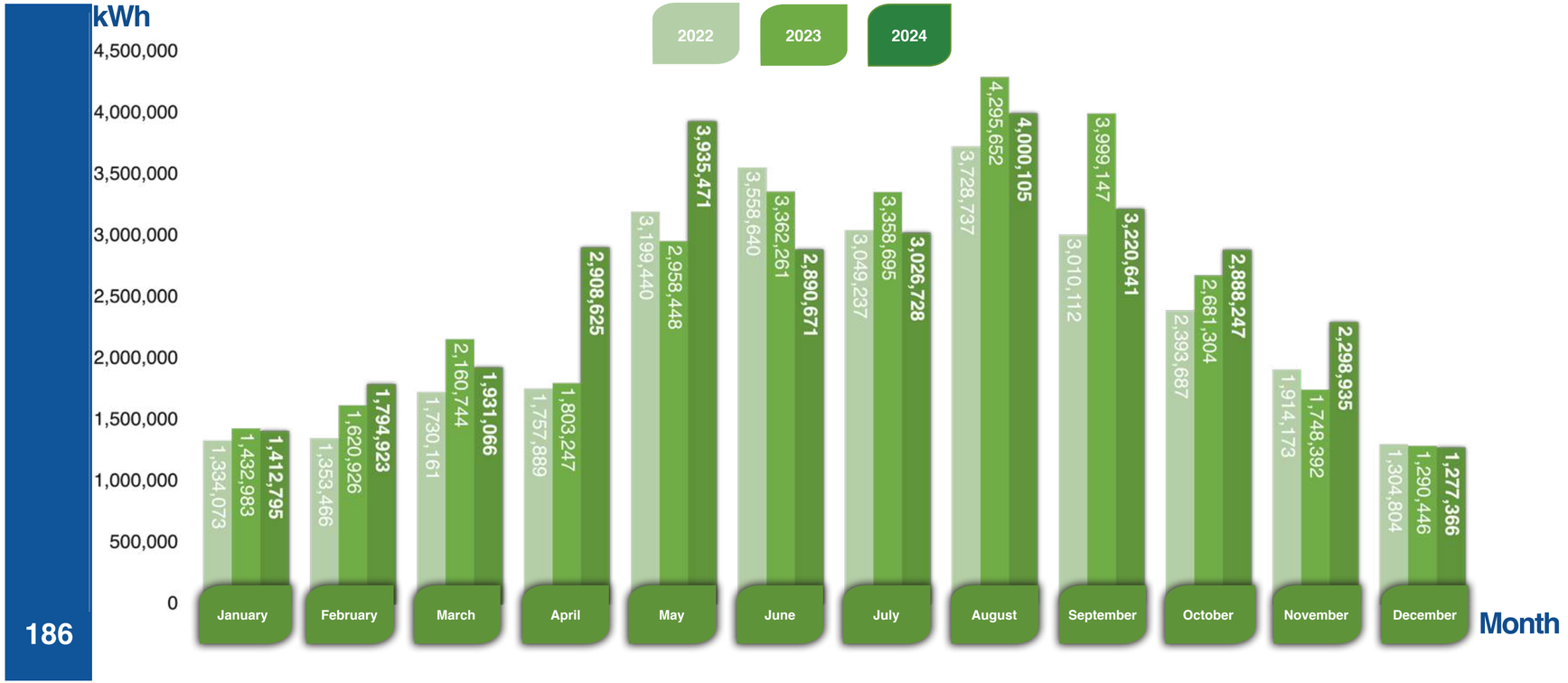
of per capita energy consumption in 2024

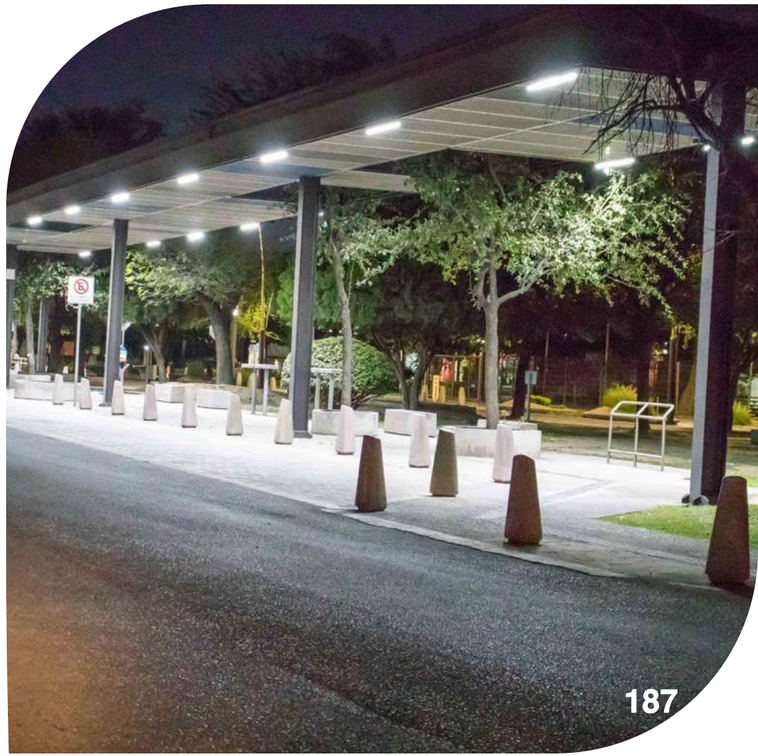
Monthly energy consumptionl
Linares Campus



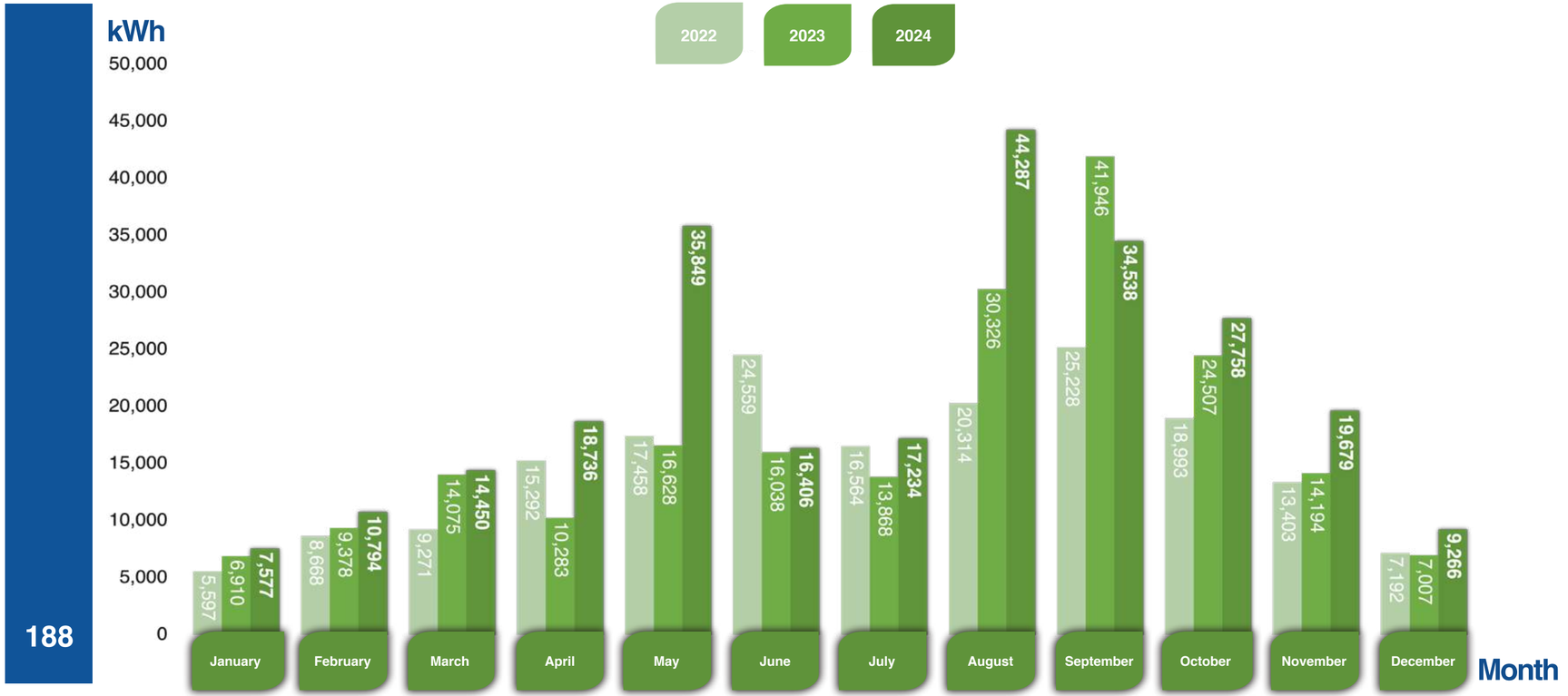
Month

Monthly energy consumption
Ciudad Universitaria Campus

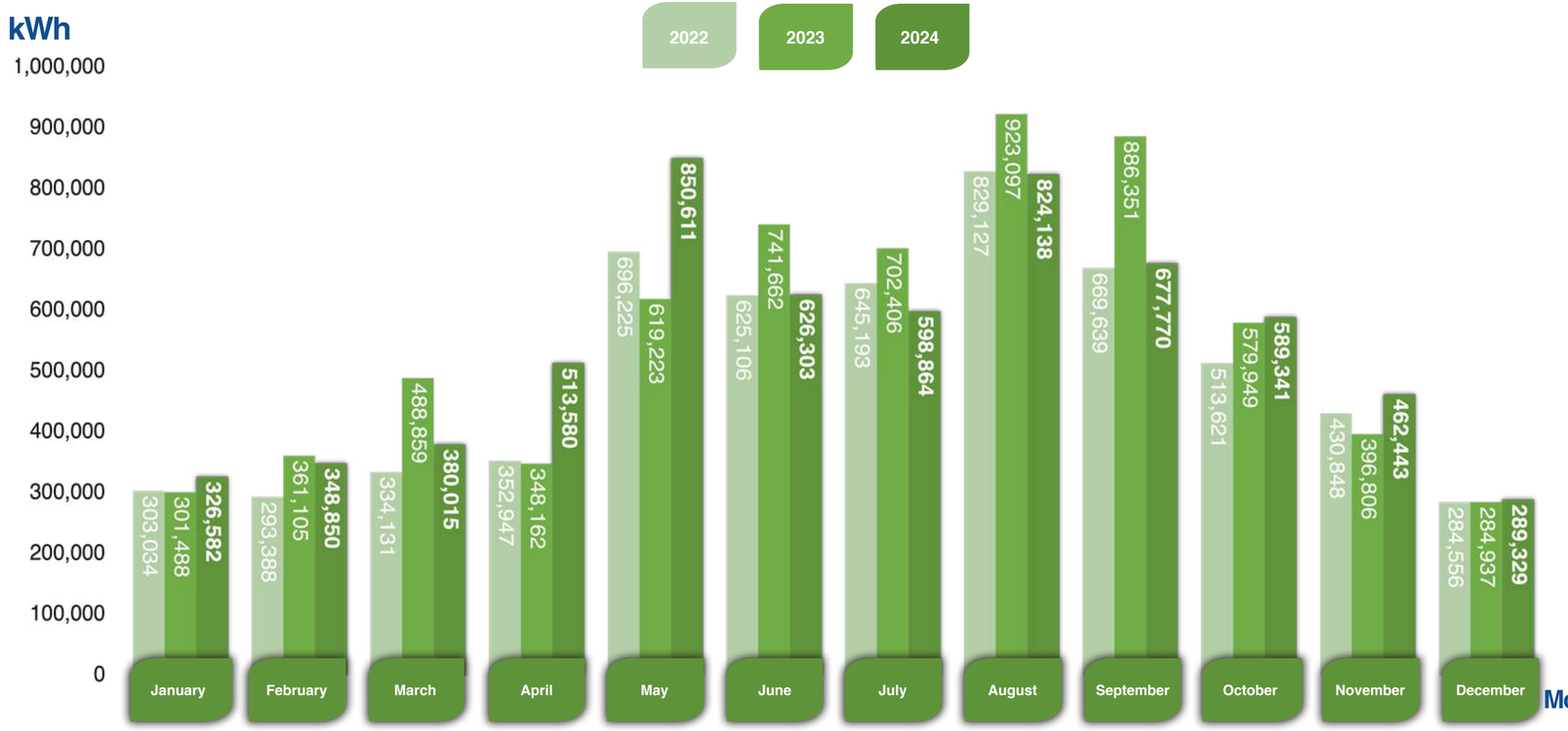




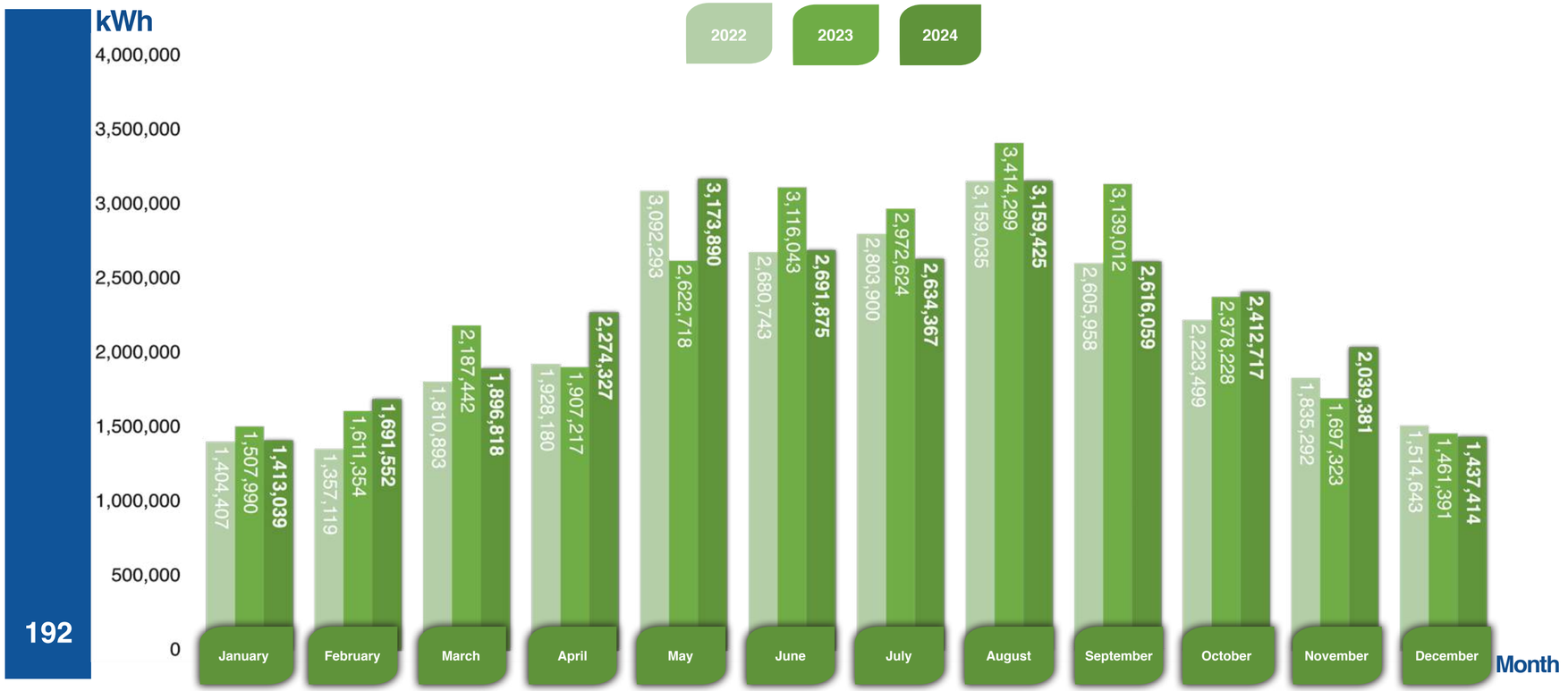
Monthly energy consumption
Campus Sabinas



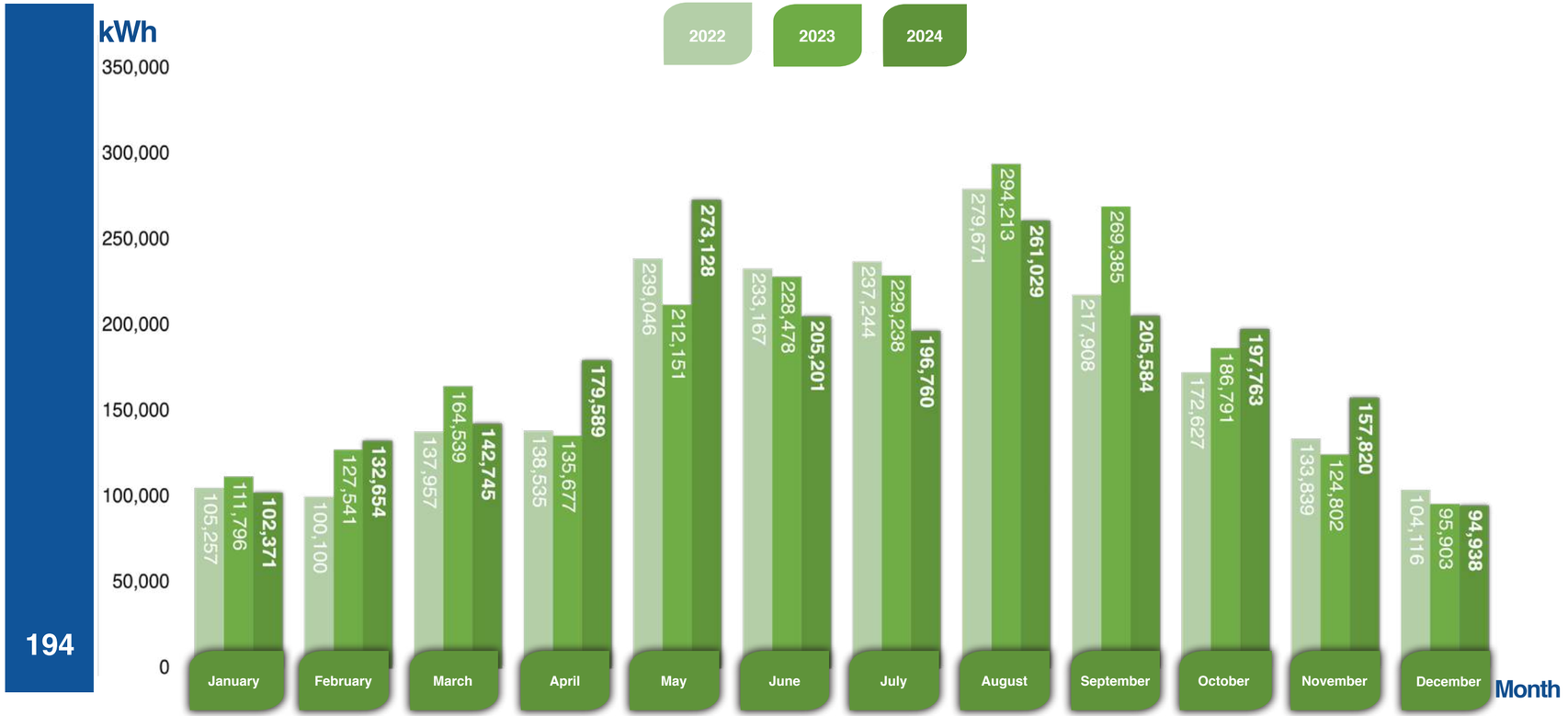
Monthly energy consumption
Mederos Campus



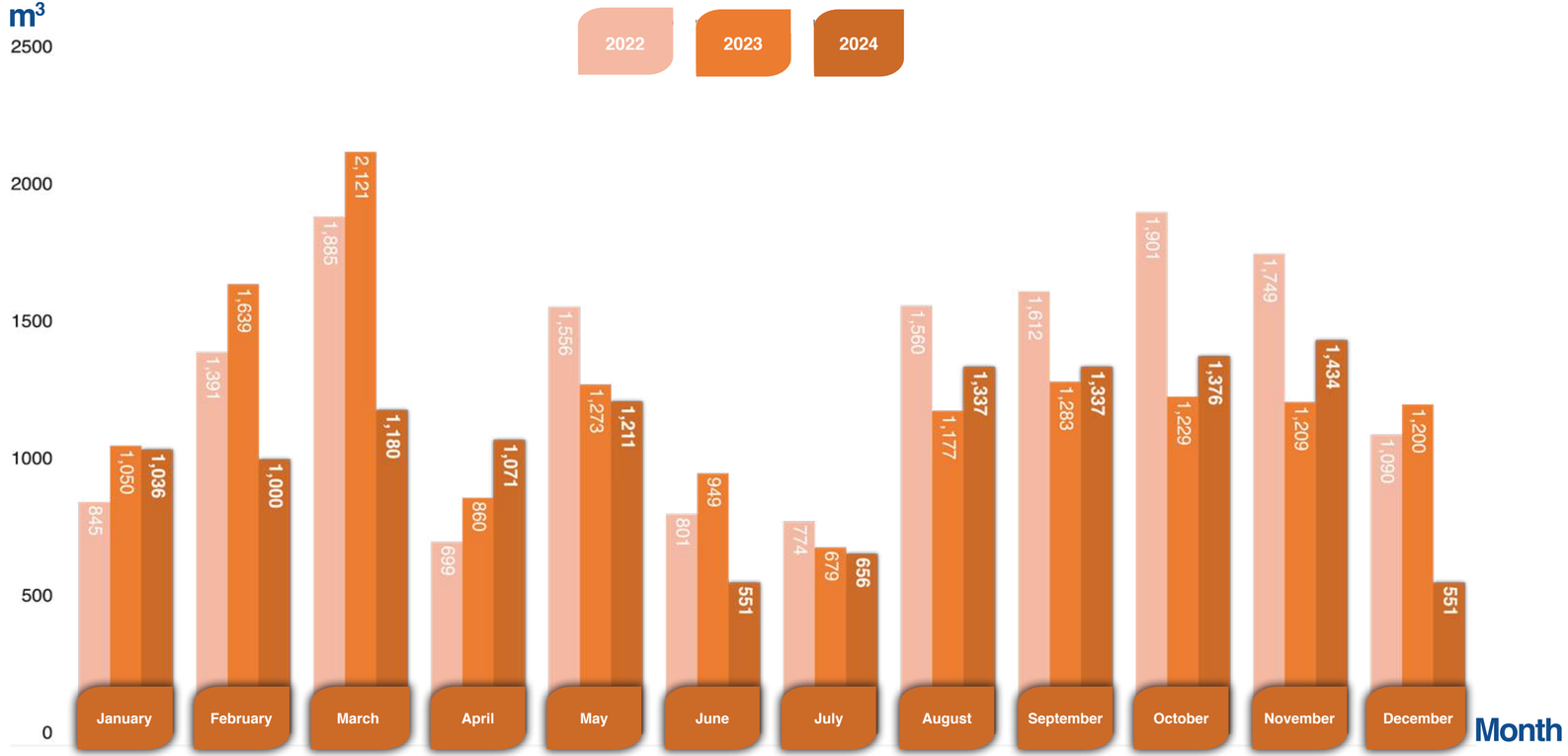
Monthly energy consumption
Health Sciences Campus



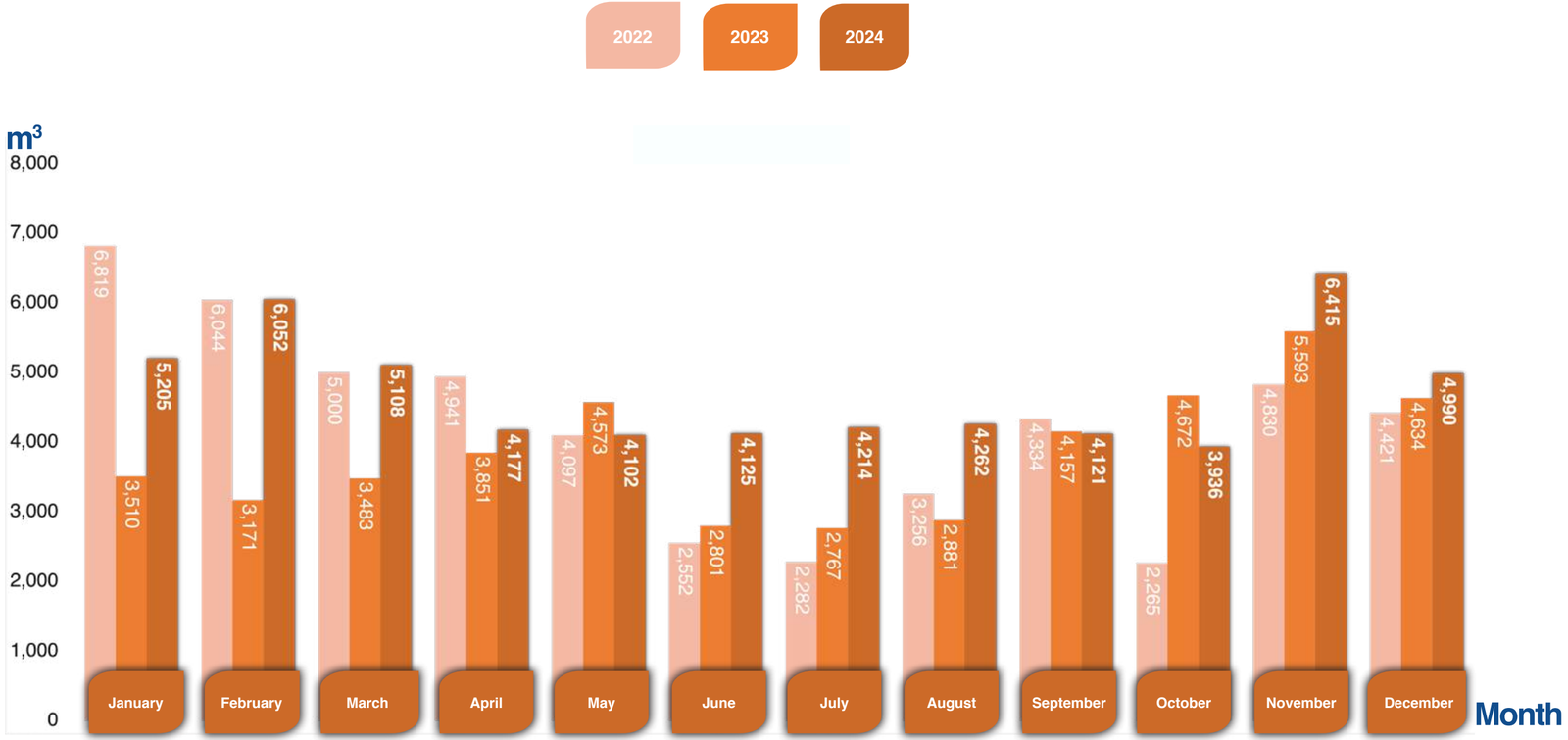
Monthly energy consumption
Agricultural Sciences

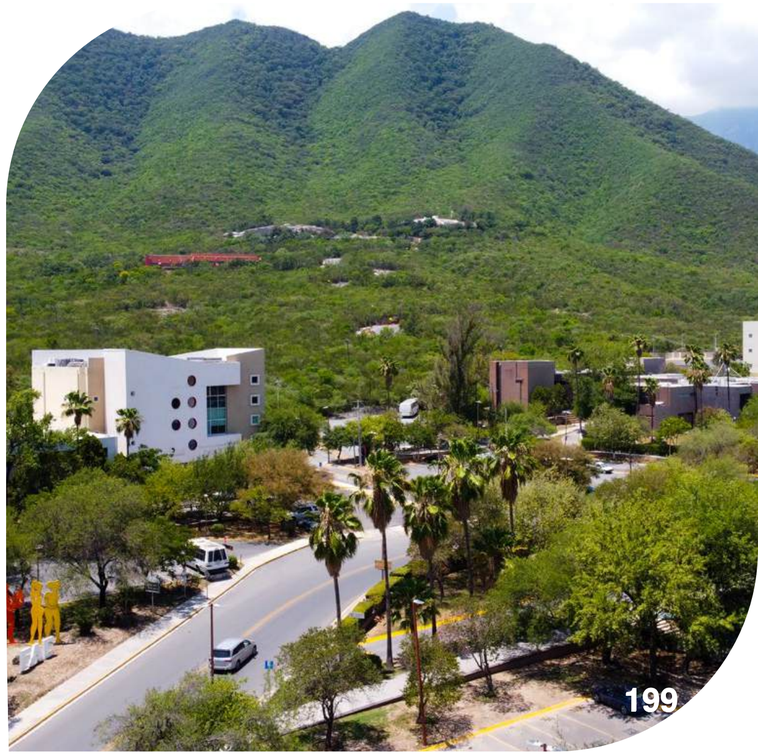


Monthly gas consumption
Agricultural Sciences

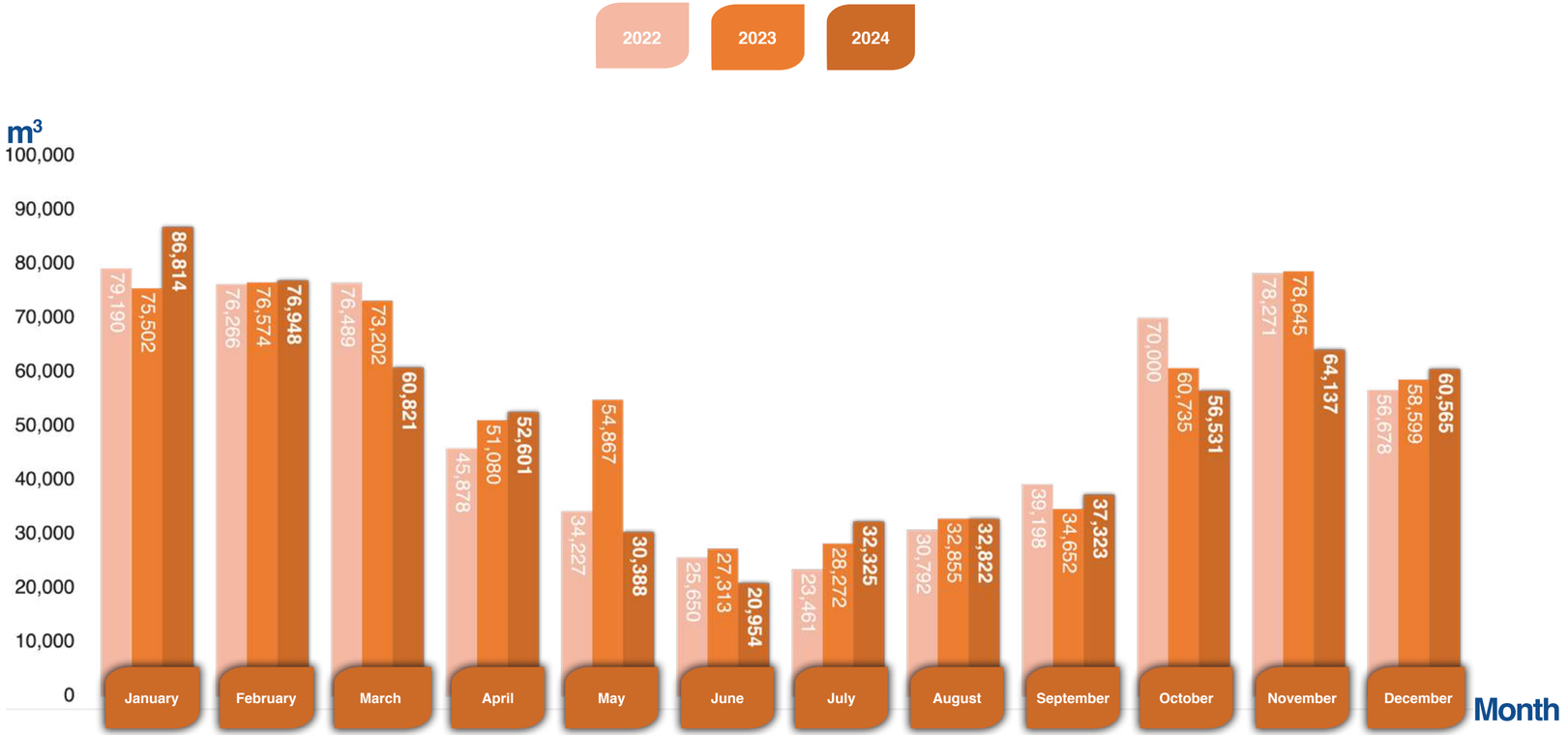


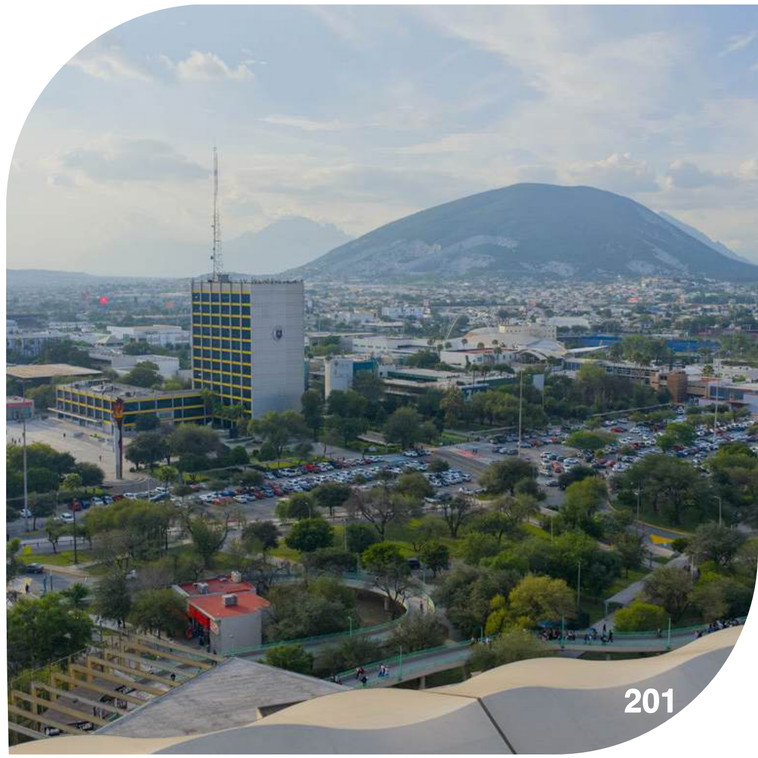
Monthly gas consumption
Mederos Campus





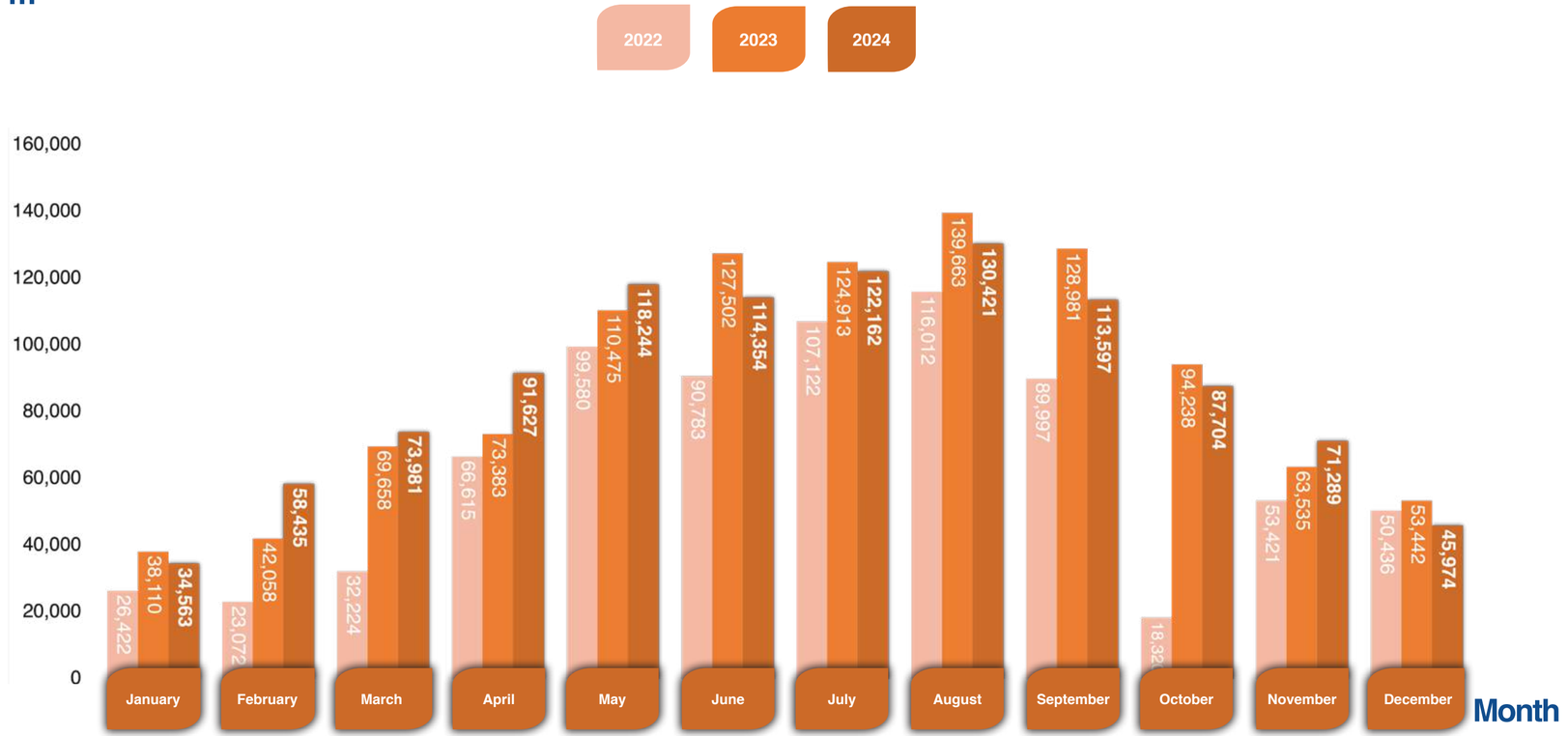
Monthly gas consumption
Ciudad Universitaria Campus

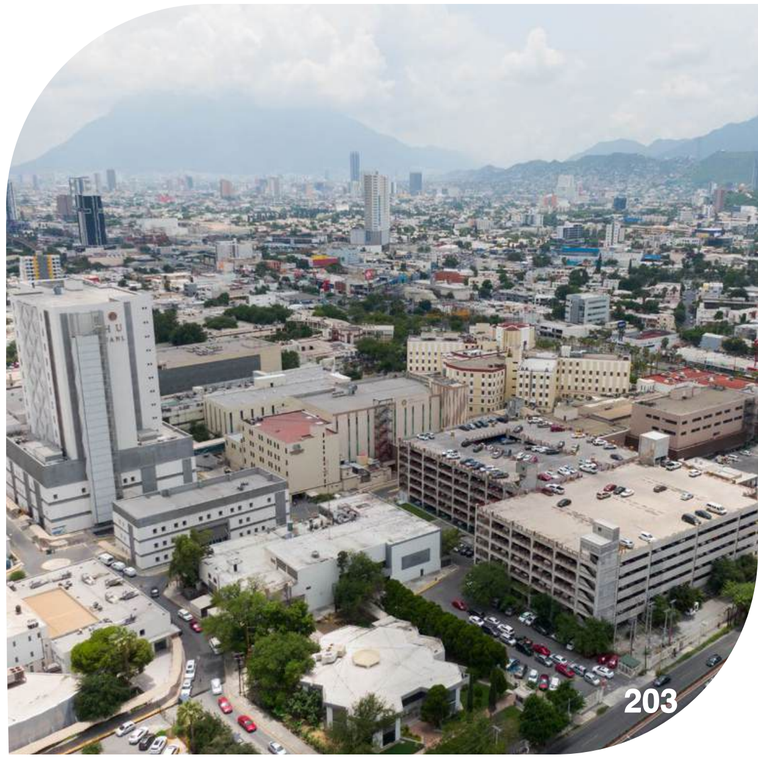




Monthly gas consumption
Health Sciences Campus

m^3





Universidad Autonóma de Nuevo León
Secretariat of Sustainability

2024 Annual Sustainability Report

SUSTAINABLE CITIES AND COMMUNITIES

SUSTAINABLE DEVELOPMENT GOALS

Sustainable Mobility Program

The Universidad Autónoma de Nuevo León (UANL), in accordance with its policies regarding institutional and sustainable development, has implemented a comprehensive program for sustainable mobility in urban campuses located within the Monterrey Metropolitan Area. This program addresses the need to reduce reliance on private transport, promote electric and non-motor powered collective alternatives, as well as to foster a mobility culture in the university community. These actions are involved in a metropolitan context characterized by high levels of atmospheric pollution and traffic congestion problems due to the sheer number of motor vehicles driving on streets and avenues of the city on a daily basis.

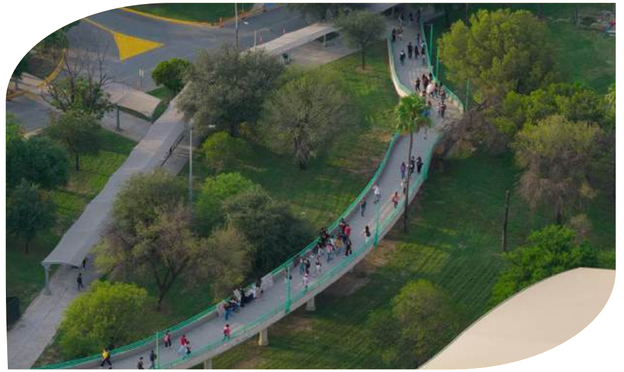
The Inverted Mobility Pyramid

For the program's conception, the UANL followed the principles of the Politics Institute for Transport and Development (ITDP, in Spanish) as reference, specially the Inverted Mobility Pyramid model. This instrument outlines a hierarchy structure for space that prioritizes pedestrians in first place above all, followed in second by non-motorized mobility systems, public transport, and finally at last place, private vehicles lay at the lowest level of relevance. From this perspective, the right to free pedestrian access must be universal and, consequently, priority must be given to the design of access points, roads, and movement spaces within campuses.

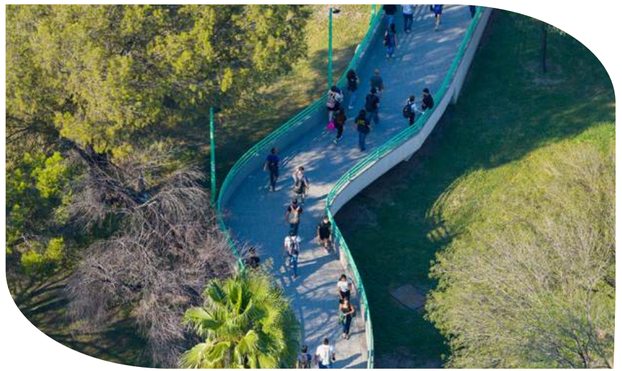
Mobility, inclusivity, and institutional development

Sustainable mobility is another a factor in accessibility and social inclusivity. According to the 2016 UN-Habitat Agenda, cities should ensure conditions that provide equal opportunities, access to basic services, and reinforcement of the social fabric through equitable mobility. The UANL incorporated these principles into its Institutional Development Program, in which the need to bolster sustainable university environments with adequate policies and infrastructure that favor collective and non-motorized mobility.

Environmental and social benefits

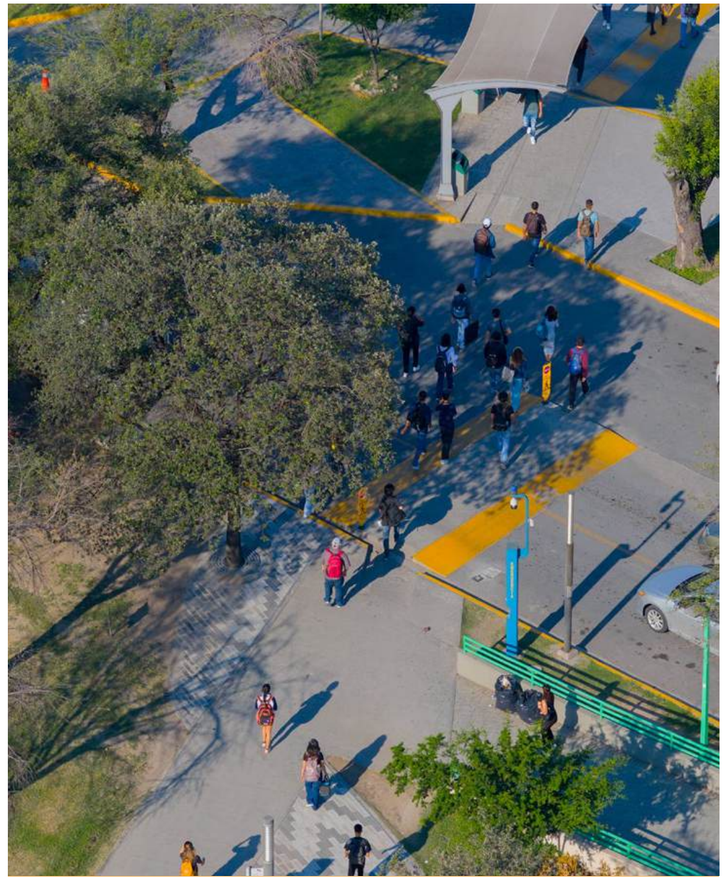


The positive impact of the UANL sustainable mobility program is reflected in multiple dimensions. In environmental terms, it contributes to decrease the greenhouse gas emissions and polluting particles associated to the strong use of private vehicles. It socially guaranties the equal access to transport vehicles, promotes healthier habits by the active mobility and encourages the construction of university communities more cohesive and inclusive. Economically it reduces individual travel costs and generates collective savings by reducing pressure on the road infrastructure.



The case of Ciudad Universitaria

Within the UANL campuses, Ciudad Universitaria represents a priority area for intervention due to the high percentage of the population that travels to and from its facilities on a daily basis. In this context, non-motorized mobility takes on strategic importance, as it allows for safer, more accessible, and more sustainable internal travel. Committing to this model brings direct environmental benefits, such as reduced pollutant emissions, but also social benefits, as it strengthens the social fabric by creating adequate public spaces, communal areas, and pedestrian corridors that reinforce social cohesion.



Program guidelines

The core strategy of the Universidad Autónoma de Nuevo León sustainable mobility program is to promote public transportation, especially the metropolitan electric transportation system (subway), which is recognized for its efficiency and low environmental impact.

To extend coverage to areas not directly connected by the subway, the use of licensed urban bus routes is encouraged, with radial, peripheral, and local routes that facilitate access to the different campuses. This also includes intercity buses, which serve students from nearby municipalities, and public transport hire services, such as taxis and digital platform vehicles (Uber, DiDi, Cabify, Beat, among others), which complement the access network.

In coordination with local transportation authorities, bus routes to campuses have been optimized, with more than 40 routes serving the areas surrounding Ciudad Universitaria and improving frequency, coverage, and accessibility for the university community.

1. R-Álamo Santiago – Directo UANL
2. R-Auto Transportes Azules y Amarillos General Terán - Monterrey - UANL
3. R-Interenlace Directo Cadereyta - UANL
4. R-1 Sector 1 San Nicolás - Tecnológico - Central - Las Puentes
5. R-1 Sector 1 San Nicolás - Tecnológico - Direct - Pabellón
6. R-1 Sector 4 Pilares - Central de Autobuses
7. R-16/316 La Unidad - UANL
8. R-17 Auditorio San Pedro - UANL

9. R-17 Pio X - UANL
10. R-17 Santuario - UANL
11. R-88 Cosmópolis - Jardines
12. R-88 Cosmópolis - Moisés Sáenz
13. R-101 Ébanos
14. R-101 Manantial
15. R-134 Fresnos - Puentes - 15 de Mayo
16. R-134 Telmex - Subwayplex - 15 de Mayo
17. R-207 Penitenciaria
18. R-209 Escobedo - Punta de Loma - Bosques
19. R-209 Escobedo - Punta de Loma - Renacimiento - Olivos
20. R-209 Exprés Escobedo - Hidalgo
21. R-213 Cosmópolis - UANL
22. R-213 Direcat - UANL
23. R-213 Quintas - UANL
24. R-219 Sector 1 Tréboles - UANL - B. Reyes
25. R-220 Pedregal
26. R-220 Provileon
27. R-226 Sector 1 - Buena Vista - Balcones – Alameda
28. R-226 Sector 3 - Buena Vista - Joyas - Alameda
29. R-227 Clouthier - 16 de Septiembre
30. R-227 Clouthier - Constitución
31. R-227 Emiliano - 16 de Septiembre
32. R-227 Emiliano - Constitución
33. R-229 Ébanos - Subwayplex - Mercado. Juárez
34. R-229 Robles - Subwayplex - Mercado Juárez
35. R-232 La Unidad
36. R-232 La Unidad - San Marcos
37. R-316 Libramiento - Paraje San José
38. R-320 Fresnos - Puentes - Colón
39. R-685 Sector 1 Salinas Directo
40. R-685 Sector 2 Bosques de los Nogales

At the same time, the incorporation of non-motorized and electric mobility systems, such as bicycles, electric scooters, and new-generation light transport, is being promoted. To facilitate their adoption, bike lanes, storage stations, and internal circulation spaces have been developed on campuses. These measures generate environmental, economic, and health benefits, while promoting a cultural shift toward more sustainable forms of transportation, contributing to a reduction in private car use and improving urban mobility.

The UANL's sustainable mobility program is a comprehensive effort aimed for transforming the culture of transportation in the university community. By combining the promotion of public transportation, the strengthening of non-motorized mobility, the operation of the TigreBus and the adoption of international principles such as the Inverted Mobility Pyramid, the UANL not only responds to the environmental and mobility challenges of the Monterrey Metropolitan Area, but also positions itself as an institutional benchmark in the construction of more equitable and sustainable urban environments.

The electric public transportation system known as Subway transports more than 3.5 million people who study or work on the Ciudad Universitaria campus each year.

More than 80,000 people pass through the pedestrian areas of the Ciudad Universitaria campus every day.

Specific objectives

• Connect the interior of campuses with their immediate surroundings, prioritizing safe pedestrian mobility.
• Encourage the use of non-motorized transport within the campus to improve mobility.
• Discourage car use by reorganizing parking spaces.
• Establish collaboration agreements to efficiently link with key actors, including municipalities and state agencies.

Policies

• Priority will be given to programs and projects that promote the use of non-motorized means of mobility and pedestrian safety and integrity.
• Non-motorized mobility will be encouraged within campuses.
• Connections between agencies will be implemented, as well as alternatives to encourage the use and movement of non-motorized mobility.
• Efficiency and safety of internal public transportation systems will be developed.
• Projects for the reorganization and improvement of vehicular traffic routes will be established.
• Accessibility between campus spaces and buildings, as well as with the immediate external context will be promoted.

Organization

• Planning and implementation of a support system for non-motorized mobility around campus.
• Coordinate actions between departments and schools related to planning, removal and improvement of physical barriers that prevent free movement between spaces and buildings.
• Coordinate the planning with external urban transportation, schedule and safety in its urban routes.
• Develop urban improvement measures at the entrances of the campus for regulating the entry and exit of non-motorized vehicles.

Planning

• Promote the improvement of roads, sidewalks and crosswalks for the non-motorized mobility around campus.
• Promote the non-motorized mobility and zero carbon emissions.
• Promote the reorganization of spaces intended to provide services to motorized vehicles.
• Manage the removal of obstacles, elements, and/or barriers that put at risk the safety of non-motorized mobility and universal accessibility.

The Sustainable Mobility projects improved by UANL in 2024 benefit more than

80,000

members of the university community

Projects:

During 2024, field studies, architectural design, and technical specifications development continued for projects involved in the Sustainability Program, in addition to the construction and partial development of projects that form part of this program.

1.- Conecta

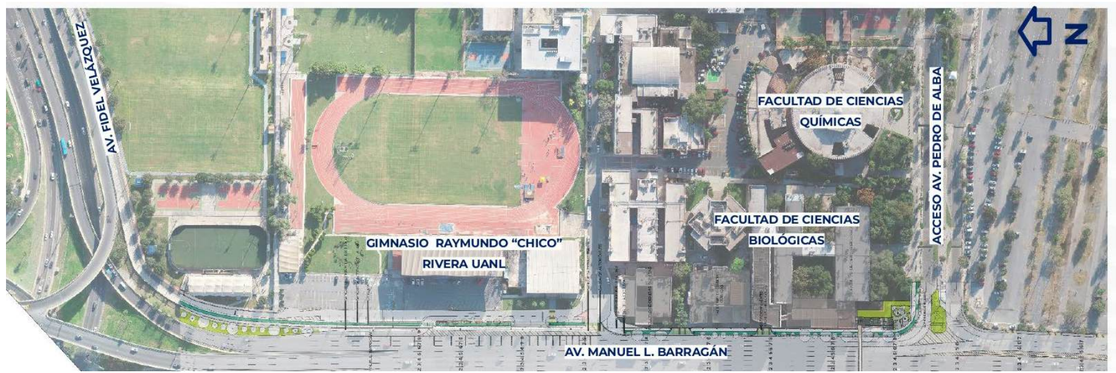
Mobility project for the connection and closure of the pedestrian walkway and bicycle lane circuit on the Ciudad Universitaria Campus, contemplating the construction of a pocket park and a drop-off and pick-up bay for public transportation.

Area: 3,128.20 m^2

Beneficiaries: 80,000 people

Components:

a) One-way bicycle lane 222.00 ML
b) Trees: 35 individuals
c) Bollards: 50 pieces
d) Urban lighting: 30 pieces



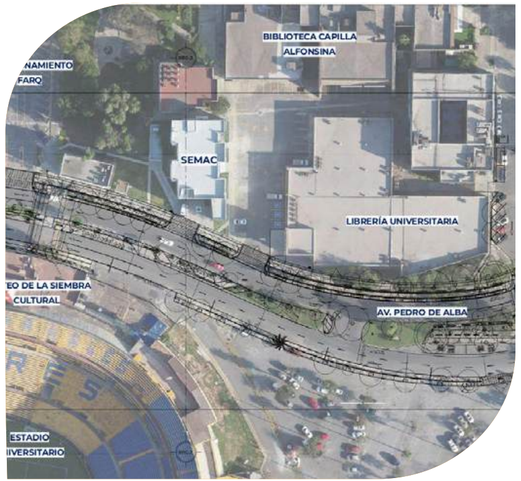
2. Conecta Stage 3. South side stage 1

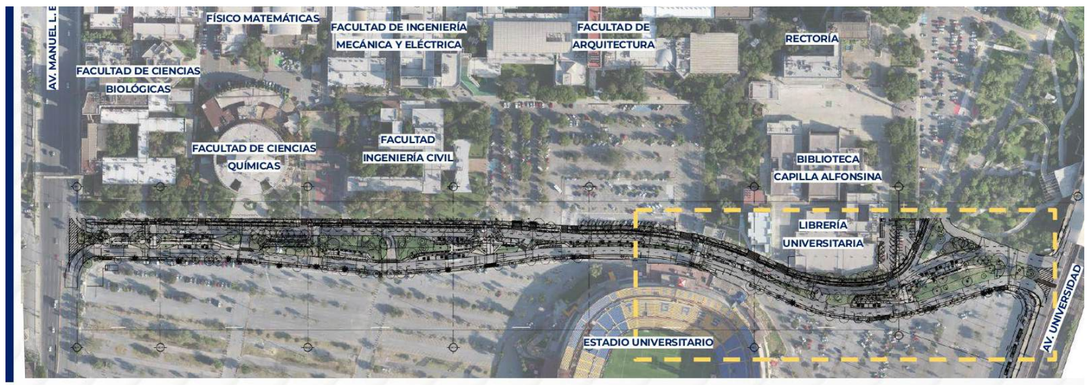
Renovation of the south side of Pedro de Alba Avenue, including reconstruction of the pedestrian sidewalk with universal accessibility features to ensure universal accessibility and safe, comfortable spaces.

Area: 1,201.17 m^2

Beneficiaries: 80,000 people

Components:
a) TigreBus structure Dimensions 5.30 X 24 M
b) Bollards: 26 pieces
c) Waste containers: 15 pieces
d) Water throughs: 2 pieces
e) Road lights: 11 pieces
d) Pedestrian lights: 6 pieces





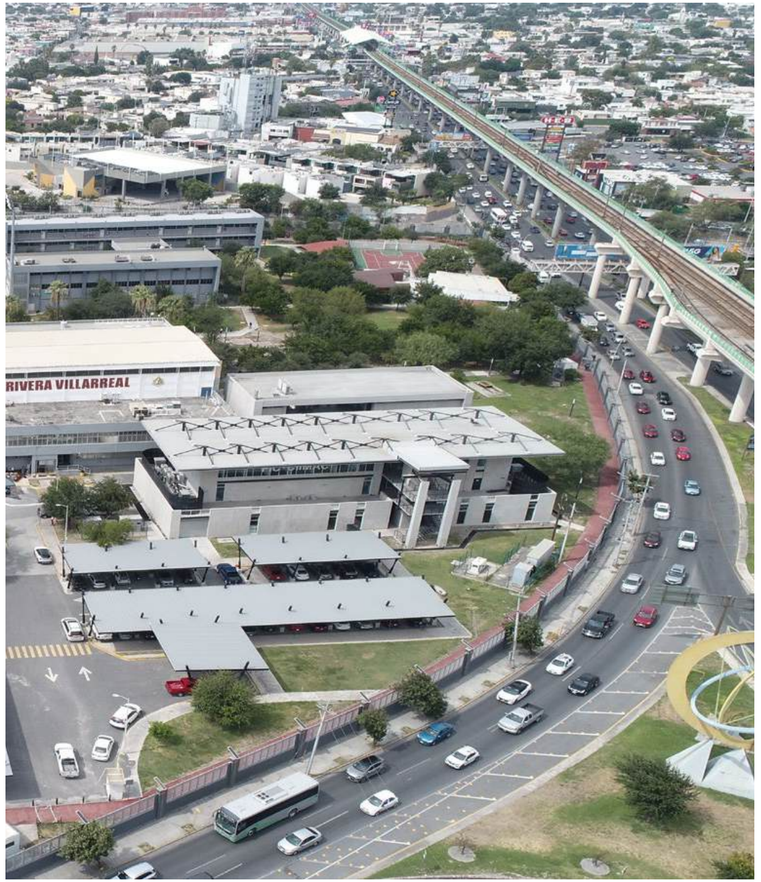
3. Conecta Stage 3. South area stage 2

Rehabilitation of the south area of Pedro de Alba Avenue that considers the reconstruction of the pedestrian sidewalk with components of universal accessibility, in order to ensure universal accessibility, safe and comfortable spaces.

Area: 1,201.17 m2

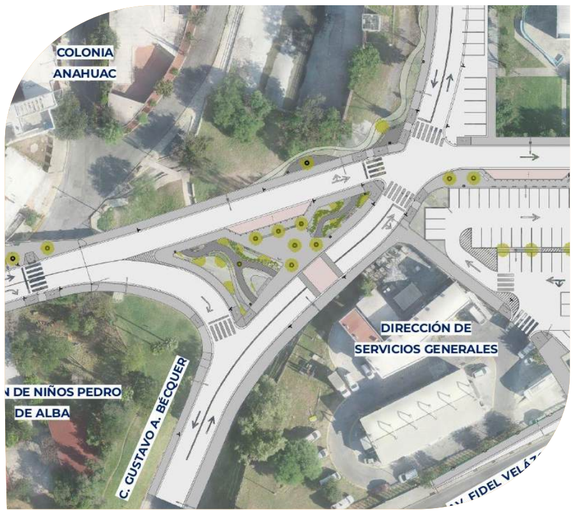
Beneficiaries: 80,000 people

Components
a) Bollards: 16 pieces
b) Trash Modules: 5 pieces
e) Road Lights: 4 pieces



4. Conecta. Gasa Norte.
The plan is to move the bridge and install an elevator, landing, and stairs. Add trees, street furniture, and floor finishes.

Height: 5.20 meters
Development: 91 ML
Slope: 6%



5. Green corridor. School of Communication Sciences, Green Corridor Acueducto Avenue
Comprehensive mobility project from the entrance of School of Communication Sciences
to Acueducto Avenue, including the creation of a green corridor. Complying with the reorganization premises of public space, parking, walkways and accesses, as well urban mobility and equipment elements.

Area: 1,174.00 ML

Beneficiaries: 80,000 people
Components
a) Bicycle lane: 3,438.00 m2
b) Sidewalk: 5,089.00 m2
c) Trees: 287 pieces
d) 7 Safe Crossings – Speed Bumps.
e) 4 Ascent and descent bay: 4.
f) 2 Waiting areas
g) 5 Viewpoints - Resting Area

6. Green Corridor. Gonzalitos Medical District.
Integral mobility project prioritizing non-motorized transport, urban design for sidewalk widening, reorganization of vehicle flow, street-level commerce, and parking collectors. Universal accessibility infrastructure, improvement of bus stations with big data for circuit control and recovery of public space.

Area: 1,174.00 ML

Beneficiaries: more than 80,000 people

Components
A) Bicycle lane: 3,438.00 m2
B) Sidewalk: 5,089.00 m2
C) Trees: 287
D) 7 Safe crossings – Speed Bumps.
E) 4 Ascent and descent bays.
F) 2 Waiting areas
G) 5 Viewpoints - Resting area

Vehicle fleet

The vehicle fleet of Universidad Autónoma de Nuevo León is a fundamental service that guarantees the safe and efficient mobility of the university community within and between the different campuses. Its fleet consists of buses and specialized vehicles that cover internal transportation needs, intercampus routes, and accessibility support for people with reduced mobility. In addition, it incorporates units with green technology that help reduce environmental impact. A rigorous maintenance program ensures the operational reliability of the service, reinforcing the institution's commitment to sustainability and user well-being.

	Central offices	Schools	Total
Cars	81	90	171
Pickup truck	109	227	336
Cargo truck	8	13	21
Bus	56	139	195
Motocicleta	5	4	9
Electric	3	0	3
Total			**735**

El TigreBus: free university transportation

El TigreBus is the free university transportation system of Universidad Autónoma de Nuevo León, designed to facilitate the mobility of thousands of students within campuses and between different university facilities in the Monterrey metropolitan area. Its operation responds to the need to offer a safe, efficient, and sustainable means of transportation that reduces dependence on private cars, contributing to a decrease in traffic congestion and air pollution.

One of its main strengths is that it is free, which eliminates economic barriers and makes it an instrument of equity and social inclusion. By ensuring that the entire university community has access to quality transportation services, it promotes equal opportunities and alleviates the economic burden on students.

During 2024 TigreBus provided just over 116 million free services to nearly 6 million UANL students, generating savings of almost 60 million pesos for its users.

Environmentally, the TigreBus represents a sustainable alternative that contributes to reducing the institutional carbon footprint. By decreasing the number of private vehicles in circulation, pollutant emissions are significantly reduced, strengthening the UANL's commitment to sustainability.

Socially, this service promotes safety, integration, and accessibility, while facilitating quick and reliable access to schools and colleges. In this way, TigreBus has established itself as a pillar of the UANL's sustainable mobility program, aligned with the institutional objectives of responsible development and community well-being.

The Tigre Bus generates savings of almost 60 thousand pesos for users

Environmental and economic benefits derived from the operation of university public transportation TigreBus

Year	Number of daily routes	Total of services per year	Total of beneficiaries	Savings generated by the program for users
2022	478	111,852	5,704,451	$2,302,658.00 (USD)
2023	478	111,852	5,704,451	$2,916,646.00 (USD)
2024	497	116,298	5,931,198	$3,192,248.00(USD)

* Considering a $9.51 (MXN) rate which applies for students.

TigreBus

Origin campus	Service Hours	Number of units	Number of trips per unit	Total daily trips
Mederos	6:16 a.m. a 9:15 p.m.	5	47	235
Health Sciences	6:16 a.m. a 9:15 p.m.	2	70	140
Agricultural Sciences	6:15 a.m. a 8:30 p.m.	2	33	66
Ciudad Universitaria	6:20 a.m. a 9:15 p.m.	1	50	50
Center for Research and Innovation in Aeronautical Engineering (CIIIA)	8:40 a.m. a 9.30 p.m.	1	6	6
Total		**11**	**206**	**497**

Interconnection service between campuses

Origin campus	Destination campus	Service days	Service hours	Total daily services
Ciudad Universitaria	Mederos.	Monday to Friday	6:15 (4 buses)	19
			7:50 (2 buses)	
			10:15 (1 bus)	
			11:00 (3 buses)	
			12:15 (1 bus)	
			14:00 (2 buses)	
			15:20 (1 bus)	
			16:00 (3 buses)	
			18:10 (1 bus)	
			20:00 (1bus)	
Mederos	Ciudad Universitaria.	Monday to Friday	7:00 (1 bus)	15
			9:30 (1 bus)	
			11:15 (1 bus)	
			13:15 (2 buses)	
			15:00 (2 buses)	
			17:20 (2 buses)	
			18:15 (1 bus)	
			19:00 (2 buses)	
			21:15 (3 buses)	

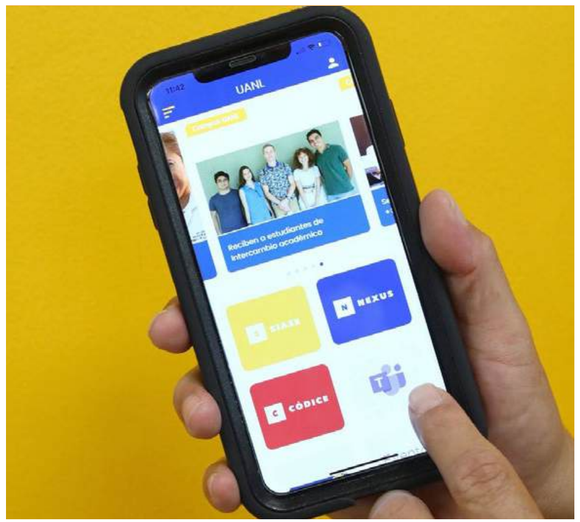
Campus origen	Campus destino	Días de servicio	Horarios de servicio	Total de servicios diarios
Ciudad Universitaria	Health.	Monday to Friday	6:15 (1 bus)	2
Health	Ciudad Universitaria.	Monday to Friday	14:00 (2 buses) 21:15 (2 buses)	4
Ciudad Universitaria	Agricultural Sciences	Monday to Friday	6:15 (1 bus)	1
Metro Cuauhtémoc	Agricultural Sciences	Monday to Friday	6:30 (1 bus)	1
Agricultural Sciences	Ciudad Universitaria	Monday to Friday	20:30 (2 buses)	2
Ciudad Universitaria	Center for Research and Innovation in Aeronautical Engineering (CIIIA)	Monday to Friday	8:45, 13:40 y 16:40 (1 bus per round)	3
Centro de Investigación e Innovación en ingeniería Aeronáutica (CIIIA)	Ciudad Universitaria	Monday to Friday	12:00, 19:30 y 21:30 (1 bus per round)	3

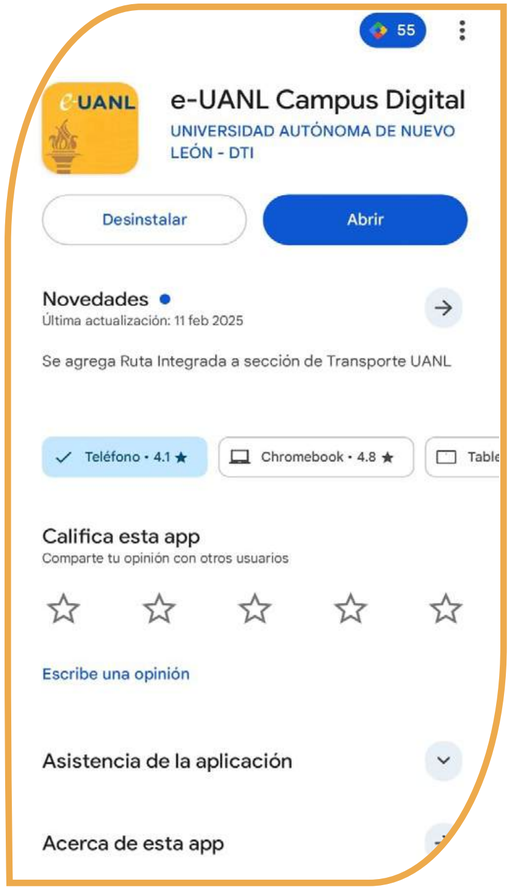
e-UANL Digital Campus

The e-UANL Digital Campus app is an innovative tool that makes it easier for students to access university transportation services. Through this platform, users can quickly and securely get free tickets for TigreBus intercampus transfers. The app also allows users to purchase tickets at preferential student rates on public transportation routes connecting the Monterrey Metropolitan Area with university campuses. This simplifies the process of accessing mobility benefits, ensuring greater convenience and time savings for the university community. With this technological integration, UANL strengthens its commitment to equity and sustainability by promoting more accessible and economical transportation alternatives.

Integrated routes where UANL students can purchase tickets at a preferential student rate on the E UANL Digital Campus App:

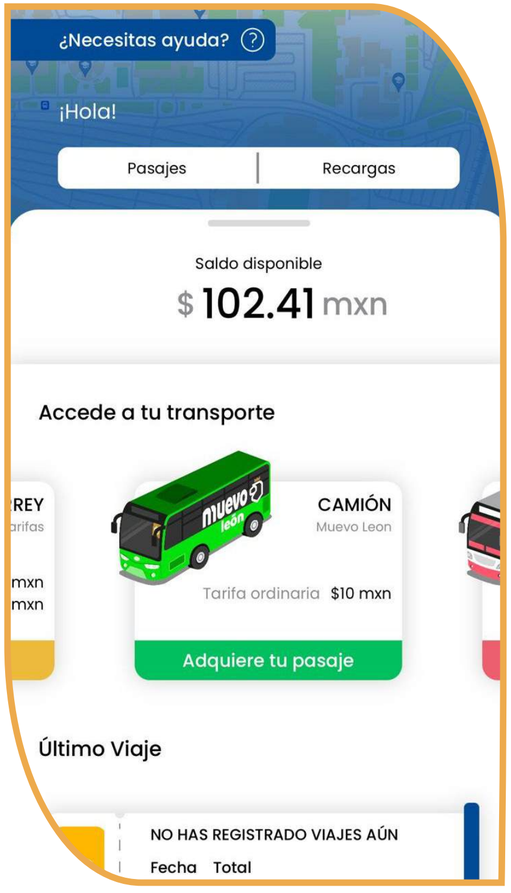
Bosques	Route 226 Bosques- Alameda
Jaral	Sendero-Villas Del Arco
Route 214	214 Mirador De San Antonio
Route 227	Clouthier
Route 227	Emiliano Zapata
Route 1	Alianza Real
Route 1	Vistas Del Carmen
Route 1	Palmiras
Route 130	Centro Por Juárez
Route 130	Alameda
Route 130	Hospital Universitario
Route 2	Normal
Route 201	Estación Mitras Perimetral Sur
Route 201	Estación Mitras Perimetral Norte
Route 223	Quinta Las Sabinas Pablo Livas
Route 223	Quinta Las Sabinas Gine
Route 223	Quinta Las Sabinas Eloy Cavazos
Route 223	San Francisco Centro
Route 310	Heroes Estacion San Bernabé
Route 310	Villazul Estacion San Bernabé
Route 221	Apodaca Clínica 6 Sendero
Route 221	221 Apodaca Clinica 6 Concordia

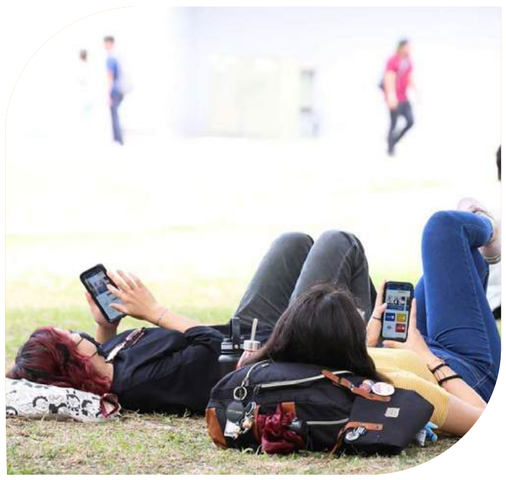




Route 105	Parques
Route 105	San Isidro
Route 185	Pablo Livas (Antes Route 83)
Route 225	Misión San Pablo
Route 85	Tierra Propia Salvador Chávez
Route 224	Monte Cristal
Route 224	Arboledas
Route 224	Lomas Valle Condesa
Route 70	Vivienda Popular
Route 1	Central
Route 1	El Carmen
Route 228	Anzures Por Ruiz Cortinez

Route 40	Sector 2 San Miguel – Cumbres
Route 172	Sector 1 Cometas Centro Directo
Route 130	Agropecuaria- Alianza Real
Route 310	Fomerrey 110
Route 310	Brisas
Route 310	Heroes Cumbres
Route 310	Minas Metro
Route 310	Parques
Route 172	Sector 1 Cometas Centro Directo
Route 40	Sector 1 Paraje-Sendero
Route 340	Sector 3 Buena Vista-Metro San Bernabe





Route 217	Route 217 Guadalupe-Escobedo
Route 130	Agropecuaria- Alianza Real
Route 209	Route 209 Escobedo-Punta De La Loma
Route 209	Route 209 Renacimiento- Santa Luz
Route 232	La Unidad
Route 220	Provileon
Route 220	Pedregal
Route 88	Cosmopolis
Route 106	Circuito Lomas – Ermita
Route 223	Teofilo Salinas
Route 130	Barrio Oaxaca – Centro
Route 85	Rancho Viejo – Tequila
Route 172	Sector 1 Cometas Centro Directo
	García Circuito García
	García – San Bernabé
	Jaral Sendero – Villas Del Arco

Universidad Autonóma de Nuevo León
Secretariat of Sustainability

2024 Annual Sustainability Report

QUALITY EDUCATION

SUSTAINABLE DEVELOPMENT GOALS

Education and research for sustainability

Education and research in sustainability in university settings are strategic elements in training professionals with the skills to tackle the complex environmental, social, and economic challenges of the 21st century. These two components work together synergistically to promote an effective transition toward more equitable, resilient, and environmentally responsible societies.

In the educational sphere, universities play a critical role in providing students with cognitive, methodological, and attitudinal tools that enable them to develop a strong environmental awareness. The inclusion of content on sustainable development in curricula, as well as the use of interdisciplinary approaches and the promotion of critical thinking, facilitates the training of informed, ethically committed citizens who are capable of making responsible decisions in their personal and professional lives. Education for sustainability also promotes fundamental principles such as equity, social justice, and respect for the environment.

In addition, university research plays a central role in generating knowledge and developing scientific and innovative solutions to global environmental problems such as climate change, ecosystem degradation, biodiversity loss, and inefficient management of natural resources. Through interdisciplinary approaches, research enables us to understand the complexity of environmental and social processes, design clean technologies, and evaluate public policies aimed at mitigating and adapting to climate change. It also promotes collaboration between researchers from different disciplines and between national and international institutions, which facilitates knowledge transfer and strengthens institutional capacities.

Sustainable universities also encourage their communities to participate in applied projects, extending the impact of knowledge to society. This link between schools and society is essential for consolidating a culture of sustainability that transcends the university environment and transforms conventional development patterns.

In this context, la Universidad Autónoma de Nuevo León (UANL) stands in a position as a higher education institution committed to integrating sustainability into its core functions. Through training programs, interdisciplinary lines of research, sustainable institutional practices, and strategic alliances, the UANL promotes sustainable development both on and off campus. Its participation in national and international academic networks allows for the exchange of best practices, as well as the implementation of joint projects to address environmental challenges at different scales.

Through these actions, the UANL strengthens its role as a trainer of high-quality technical and ethical human resources capable of leading transformation processes towards sustainable development models. In this way, it reaffirms its institutional commitment to the 2030 Agenda and actively contributes to the fulfillment of the Sustainable Development Goals, particularly the following: 4, 11, 12, 16, and 17.

University Academy for Sustainable Development (AUDS)

The University Academy for Sustainable Development (AUDS) at Universidad Autónoma de Nuevo León represents a visionary institutional effort that seeks to consolidate education, research, and the practice of sustainability as fundamental pillars of university life. Its creation responds to the need to address the major environmental and social challenges of our time, preparing new generations to act responsibly in the face of the climate crisis, biodiversity loss, natural resource management, and the construction of more resilient and just societies.

The AUDS's main mission is to integrate the principles of sustainable development into all areas of academic life, contributing to the training of professionals and citizens committed to environmental protection and social welfare. To achieve this, AUDS has developed a multidisciplinary approach that is one of its greatest strengths: its members are specialists in different areas of knowledge, environmental sciences, economics, sociology, engineering, health, law, and education, which allows them to address environmental problems from different perspectives and build comprehensive solutions adapted to diverse contexts.

Since its creation, AUDS has had a direct impact on curricular innovation at UANL, incorporating values, practices, and knowledge related to sustainability into academic training. Specialized courses have been designed and taught on climate change, natural resource management, renewable energy, energy efficiency, and sustainable development, among other topics. These courses are offered not only to students in environmental fields, but also to students in other disciplines, with the aim of promoting a comprehensive education that fosters education for sustainability in all professional fields.

135 imembers of the AUDS

Holding of 97 AUDS academic events broadcast via various digital platforms in face-to-face mode
-With over 13,716 participants
- 103 experts, of whom 83 are national and 20 are international

Scientific research is also an essential pillar of the AUDS. Through innovative projects, researchers and students work on highly relevant topics such as biodiversity conservation, sustainable water management, climate change mitigation, and the development of clean technologies. These projects not only contribute to the advancement of knowledge, but also generate practical and applicable solutions that help address local and global issues, strengthening the university's ties with society.

Another notable function of the Academy is its ability to influence institutional planning and operations. The AUDS promotes sustainability criteria in university management, reflected in waste separation and management programs, the promotion of sustainable mobility, and energy saving and water efficiency initiatives. These actions not only reduce the university's environmental footprint, but also constitute a replicable model for other higher education institutions.
In addition, the AUDS has established itself as a space for social awareness and participation. Each year, it organizes congresses, conferences, forums, and workshops aimed at both the university community and the general public, with the aim of generating open dialogue on the challenges and opportunities of sustainability. These meetings inspire students, academics, businesspeople, and government representatives to take joint action to strengthen the transition to a sustainable future.

The creation of the University Academy for Sustainable Development is an important milestone in the history of the UANL, as it aligns the academic mission with the Sustainable Development Goals promoted by the UN, with the responsibility of training leaders capable of facing the environmental and social challenges of the 21st century. The benefits it generates span the educational, scientific, institutional, and social spheres, confirming UANL as a cutting-edge university committed to sustainable development.

Oferta Educativa vinculada a temas de Sutentabilidad

In 2024 the UANL offered 36 bachelor's degrees and 166 postgraduate degrees related to sustainability

Bachelor's degrees

1. Energy Management and Sustainable Development
2. Biology
3. Genomic Biotechnology
4. Food Science
5. Political Science and Government
6. Law (school-based program)
7. Economics
8. Education
9. Nursing
10. Peace and Human Rights Studies
11. Social Responsibility Management
12. Veterinary Doctor and Zootechnics
13. Medicine Surgery and Midwifery
14. Microbiology in Food Hygiene (dual modality)
115. Nutrition
16. Psychology
17. Clinical Chemistry
18. Bacteriologist Parasitologist Chemist
19. Pharmaceutical Chemist Biologist
20. Social Work and Human Development

Engineer's degree

1. Agrobusiness
2. Agronomy
3. Environmental
4. Biomedical
5. Biotechnology
6. Civil
7. Electromobility
8. Forestry
9. Geophysics
10. Geology
11. Food Industries
12. Natural Resource Management
13. Materials
14. Mechanical and Electrical
15. Petroleum
16. Chemistry

Master
1. Physical Activity and Sports specialty in
1.1. Health Promotion
2. Building Project Management
3. Medical Infrastructure Architecture
4. Animal Science
5. Sciences specialty in
5.1. Food
5.2. Urban Affairs
5.3. Molecular Biology and Genetic Engineering
5.4. Cognition and Education
5.5. Architectural Design and Management
5.6. Medical Entomology
5.7. Design Management and Innovation
5.8. Environmental Engineering
5.9. Biosystems Engineering
5.10. Food Industry Engineering
5.11. Immunobiology
5.12. Medical Immunology
5.13. Wildlife Management and Sustainable Development
5.14. Plant Resource Management and Administration
5.15. Construction Materials
5.16. Microbiology
5.17. Applied Microbiology
5.18. Medical Microbiology
5.19. Morphology
5.20. Nutrition and Food Technology for Aquatic Organisms
5.21. Sustainable Processes
5.22. Health Psychology
5.23. Biomedical Chemistry
5.24. Chemistry of Materials
5.25. Chemistry of Natural Products
5.26. Environmental Chemistry and Technology
5.27. Social Work

6. Nursing Sciences
7. Engineering Sciences
7.1 Thermal and Renewable Energy
7.2 Materials
7.3 Nanotechnology
7.4 Energy Technology
8. Electrical Engineering Sciences
9. Engineering Sciences specialty in Materials
10. Earth Sciences
11. Nutrition Sciences
12. Agricultural Production Sciences
13. Public Health Sciences
14. Forestry Sciences
15. Political Science and Government
16. Social Sciences specialty in Sustainable Development
17. Conservation, Wildlife, and Sustainability
18. Criminology specialty in
18.1 Safety and Prevention
19. Constitutional Law specialty in
19.1. Human Rights
19.2. Constitutional Procedural Law
20. Law specialty in
20.1. Constitutional Law and Governance
20.2. Labor Law
20.3. Constitutional Procedural Law
20.4. Electoral Law and Systems
21. Energy Law and Sustainability
22. Family Law
23. Human Rights
24. Human Rights and New Technologies
25. Human Development
26. Interior Design and Architectural Environments
27. Medical and Veterinary Entomology
28. Gender Studies and Sexual Diversity
29. Gender in Public Policy
30. Gerontology
31. Government and Public Administration
32. Hydrogeology

33. Aeronautical Engineering specialty in
    33.1 Materials
34. Engineering specialty in
    34.1 Electricity
35. Information Security Engineering
36. Industrial Physical Engineering
37. Industrial Engineering specialty in
    37.1 Total Productivity
37.2 Manufacturing Systems
38. Environmental Engineering and Management
39. Educational Innovation
40. Innovation and Entrepreneurship
41. Research in Humanities, Culture, and Society
42. Hematology Laboratory
43. Integrated Management and Use of Biotic Resources
44. Alternative Dispute Resolution Mechanisms
45. Traditional Chinese Medicine specialty in Acupuncture and Moxibustion
46. Alternative Methods to Solve Problems
47. Sustainable Mobility
48. Clinical Neuropsychology
49. Comprehensive Nutrition
50. Advanced Dentistry
51. Restorative Dentistry
52. Orthodontics
53. Prosthodontics
54. Psychology specialty in
    54.1. Psychoanalytic Clinic
    54.2. Brief Therapy
    54.3. Gender Violence
55. Clinical and Hospital Psychotherapy specialty in
    55.1. Adults
    55.2. Children

    55.3. Adolescents
    55.4. Couples and Families
    55.5. Groups
56. Regulation specialty in
    56.1. Energy
    56.2. Regulatory Improvement
    56.3. Regulated Sectors
57. International Relations
58. Ecological Restoration
59. Social Security
60. Physical Therapy and Sports Rehabilitation
61. Social Work specialty in Social Projects
62. Assessment

Doctor's degree

1. Animal Science
2. Agricultural Sciences
3. Sciences specialty in
   - 3.1 Molecular Biology and Genetic Engineering
   - 3.2 Biotechnology
   - 3.3 Medical and Veterinary Entomology
   - 3.4 Pharmacology and Toxicology
   - 3.5 Immunology
   - 3.6 Microbiology
   - 3.7 Medical Microbiology
   - 3.8 Morphology
   - 3.9 Natural Resource Management
   - 3.10 Nutrition and Food Technology for Aquatic Organisms
   - 3.11 Sustainable Processes
   - 3.12 Biomedical Chemistry
   - 3.13 Environmental Chemistry and Technology
   - 3.14 Materials Chemistry
4. Nursing Sciences
5. Physical Activity and Sports Sciences
6. Earth Sciences
7. Nutrition and Public Health Sciences
8. Economic Sciences
9. Political Sciences
10. Social Sciences specialty in Sustainable Development
11. Conservation, Wildlife, and Sustainability
12. Law specialty in
    - 12.1 Constitutional Law and Governance
13. Thermal and Renewable Energy
14. Medical and Veterinary Entomology
15. Philosophy specialty in
    - 15.1 Architecture and Urban Affairs
16. Engineering
    - 16.1 Electrical
    - 16.2 Materials
17. Engineering specialty in
    - 17.1. Environmental Engineering
18. Integrated Management and Use of Biotic Resources
19. Medicine
20. International Business specialty in
    - 20.1 Agribusiness
    - 20.2 Biotechnology
    - 20.3 Healthcare Business
21. Psychology specialty in
    - 21.1 Clinical Psychology
    - 21.2 Psychology and Education
22. Social Work and Social Policy

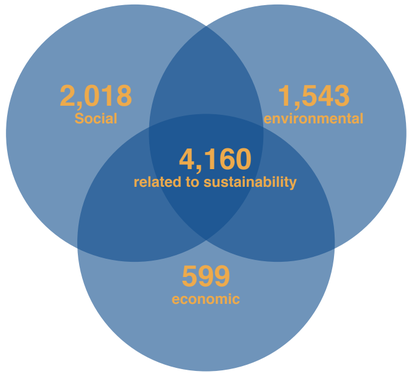
Specialties

1. Human Reproductive Biology
2. Quality of Clinical Care
3. Clinical Cardiology
4. General Surgery
5. Conservation, Wildlife, and Sustainability
6. Electromobility
7. Intensive Care Nursing
8. Child and Adolescent Nursing
9. Community and Family Health Nursing
10. Medical and Veterinary Entomology
11. Epidemiology
12. Gastroenterology and Digestive Endoscopy
13. Gastroenterology and Pediatric Nutrition
14. Clinical Geriatrics
15. Nursing Care Management
16. Smart Industry Engineering

17. Comprehensive Management and Use of Biotic Resources
18. Pediatric Critical Care Medicine
19. Rehabilitation Medicine
20. Emergency Medicine
21. Sports Medicine and Rehabilitation
22. Occupational and Environmental Medicine
23. Clinical Pathology

Diagnosis on the incorporation of sustainability into the UANL university curriculum

In 2024, the 26 schools that make up the Universidad Autónoma of Nuevo León offered 93 bachelor's degrees, in which 8,528 Learning Units (LU) were taught.



49%

of learning units are related to sustainability topics

Scientific research and dissemination on sustainability

7,720

academic publications related to sustainability

759

academic and outreach events related to sustainability

Recognition of the academic staff

7,055
professors at the UANL

1,377
professors with Desirable Profile of the Program for the Professional Development of Teachers (PRODEP)

1,296
professors attached to the National System of Researchers (SNII)

Digital Education Program

The Digital Education Program at the Universidad Autónoma de Nuevo León (UANL) is an innovative academic strategy that seeks to transform the educational experience through the use of cutting-edge digital technologies. Its purpose is to offer a flexible, inclusive, and accessible teaching model that responds to the needs of an increasingly interconnected and dynamic society.

This program offers the student community a wide range of online courses and academic programs designed to ensure that teaching and learning processes are carried out with the same quality as in face-to-face classes. Through interactive digital platforms, students have access to virtual classes, up-to-date educational materials, and spaces for academic collaboration, which facilitates the construction and assimilation of knowledge in an effective and participatory manner.

In addition, the program integrates online assessment tools, multimedia resources, and ongoing technical support, ensuring a comprehensive educational experience. In this way, UANL not only expands opportunities for access to higher education but also prepares its students to navigate the challenges of the contemporary digital world.

In 2024 the UANL through the Digital Education Program provided services to 53,945 students

The benefits of the program transcend the strictly academic. By promoting digital education, UANL contributes to environmental sustainability by reducing the consumption of resources associated with face-to-face education, such as energy, water, and transportation. Thanks to these measures, greenhouse gas emissions and the institutional ecological footprint are reduced, aligning its actions with global climate action commitments.

The benefits of the program transcend strictly academic matters. By promoting digital education, UANL contributes to environmental sustainability by reducing the consumption of resources associated with face-to-face education, such as energy, water, and transportation. Thanks to these measures, greenhouse gas emissions and the institutional ecological footprint are reduced, aligning its actions with global climate action commitments.

In 2024, the Digital Education Program provided academic services to 53,945 students, preventing the emission of approximately 19,800 kilograms of CO_2 equivalent. This reduction was due to savings in energy and water that would have been necessary to carry out the same activities in physical classrooms.

With these types of initiatives, UANL reaffirms its commitment to educational quality, social inclusion, and environmental responsibility, consolidating itself as a university that promotes innovation.

VIRTUANL
Online learning system that allows students to choose between different modalities during their university studies, combining in the same semester face-to-face, mixed or online learning units, according to their needs and preferences.

NEXUS
Institutional virtual platform that facilitates collaboration between students and teachers in the teaching and learning process in school, distance and mixed system. 215,035 active students.

TERRITORIUM
It is a collaborative platform for education, designed by educators and developers that allows students to progress in various skills, it can be considered a private social network for learning, as it is quite easy to use.

SIASE
Supports and optimizes department management processes in educational institutions such as School, Human Resources, Finance, among others; to obtain timely and reliable information for decision-making.

CÓDICE
Electronic catalog of libraries consisting of 69 dependencies of the UANL.

MOODLE
It is a platform that allows the creation and management of online learning and teaching spaces adapted to the needs of teachers, students and administrators.

MICROSOFT TEAMS
Collaboration and communication tool that allows creating learning teaching spaces in a digital environment that is included in the services available in university e-mail, adapting to UANL teachers and students.

INNOVATION AND ENTREPRENEURSHIP PROGRAM

Tiger Tank

Tiger Tank is a program that allows young people, professors, research professors, and administrative staff belonging to the UANL university community to present high-impact ventures that have an impact on at least one of the seventeen Sustainable Development Goals proposed by the United Nations, and which provides seed capital to the best projects.

These ventures are evaluated and given feedback in various phases by a panel of experts in innovation, technology, and financial education, thus achieving the creation of knowledge-based companies. Based on the evaluation process, six teams (three per category) will be selected to receive a TRANSFORMA Scholarship, which is promoted by the UANL and companies committed to high-impact entrepreneurship.

This will enable an incubation process to begin, allowing each team to acquire the tools they need to become knowledge-based entrepreneurs. The incubated teams will have the opportunity to pitch their projects at the final event in front of a committee of entrepreneurs, who will decide which are the best

25

ventures all linked to the achievement of the Sustainable Development Goals

High School Category
TIME TO BRUSH
High School 16 became two-time champions in Tiger Tank, winning this sixth edition with their Time to Brush project.
An electric toothbrush with a traffic light-shaped timer and a built-in speaker that plays musical instructions on how to brush your teeth correctly, it will have Bluetooth connectivity and a micro SD card.

Graduate Category
MEMORIA y VIDA
Memoria y vida, an initiative of the School of Medicine made up of students, professors, and a research professor, won seed capital to continue developing its project.
A brain stimulation course for people aged 60 to 80 with the aim of delaying diseases caused by cognitive decline. Tools such as validated tests and video calls are used to guide diagnosis and refer patients.

Xignux Challenge Category
RECY.PROTEIN
The School of Mechanical and Electrical Engineering and the School of Agronomy joined forces to make Recy Protein win first place in the Xignux Challenge, a category that debuted in the 2024 edition.
Food supplements with high protein and low-calorie content, also providing added value (goat feed) to a byproduct of beer production. We produce food from the waste products of the brewing industry and provide a solution to the protein deficiency in the diets of Mexicans and goats.

Student participation

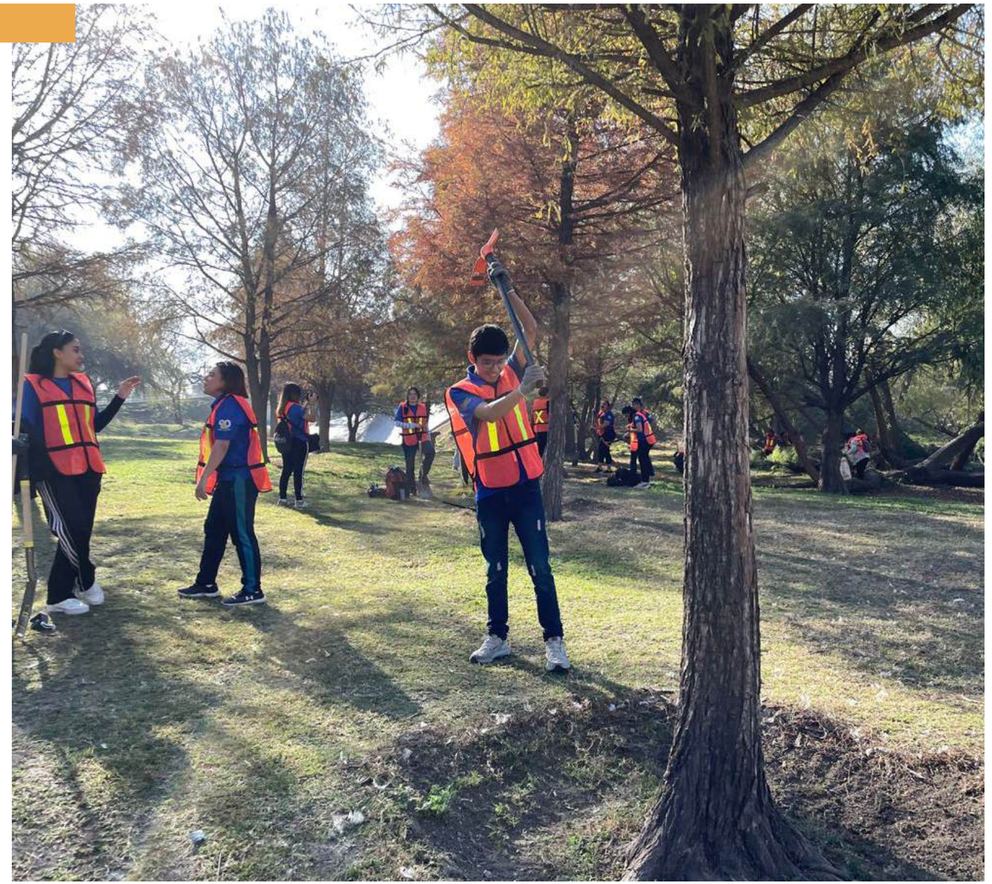
Student participation in sustainability programs promoted by Universidad Autónoma de Nuevo León (UANL) is a fundamental component in building a more equitable and environmentally responsible future. Through their involvement in various initiatives, students not only acquire practical and theoretical knowledge, but also develop key skills for their professional training, such as leadership, critical thinking, teamwork, and problem solving.

Activities related to waste reduction, efficient use of energy and water, conservation of natural environments, and promotion of sustainable practices allow students to integrate sustainability into their academic and daily lives. This experiential learning process promotes a change in habits and greater socio-environmental awareness, while strengthening their commitment to the environment.

At UANL, there are 228 student organizations registered that are active in areas related to the three dimensions of sustainable development: social, economic, and environmental. The federations and societies have organizational structures headed by a president and a secretary general, supported by teams of young leaders who implement projects aligned with annual work programs, whose objective is to generate positive impacts within and outside the university community.

228

student associations linked to sustainability issues



These organizations develop outreach campaigns, educational activities, and community actions through which information on good sustainable practices is disseminated. These actions raise awareness not only among the student population, but also among their families and communities, generating a multiplier effect that transcends the boundaries of the campus.

Student participation also drives innovation in sustainable solutions. By approaching current challenges from fresh and multidisciplinary perspectives, young people propose creative ideas to address environmental, social, and economic issues, thus contributing to the design of viable and sustainable alternatives.

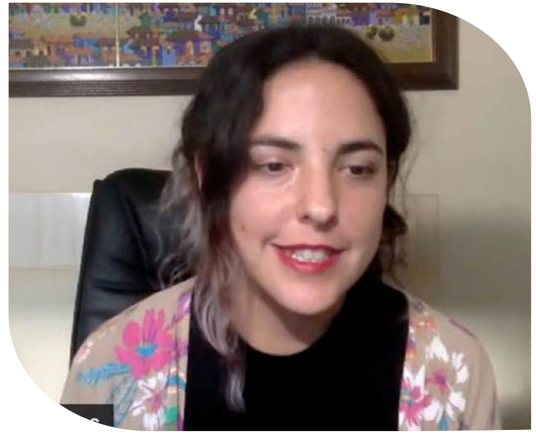
One of the fundamentals of this participation is the cross-cutting integration of sustainability into academic programs. High schools and university schools have incorporated specific content on renewable energy, climate change, waste management, energy efficiency, and resource conservation, promoting both technical knowledge and students' ethical commitment to sustainable development.

In addition, the UANL has a robust Volunteer Program, coordinated by the Office of Social Service and Professional Internships, which connects students with social and environmental projects outside the university setting. These experiences include ecological restoration activities, environmental education, and collaboration with local communities in their transition to more sustainable practices. Such involvement strengthens participants' social awareness and fosters their sense of shared responsibility.

Through these actions, student participation at UANL is consolidated as a strategic component in the formation of a new generation of leaders committed to sustainability. This comprehensive approach allows young people to act as agents of change, promoting more just, resilient environments that are in harmony with the environment. By facilitating their active participation, the institution reaffirms its responsibility to society and to the 2030 Agenda, contributing to the fulfillment of the Sustainable Development Goals from the educational sphere.

Activities to promote sustainability with student participation 2024

Activity	Date	Student participation
Restoration of Natural Environments in Urban Areas Campaign	February 2, 2024	150
Conference: “Biolovers: environmental outreach on social media”	February 8, 2024	1,493
Student participation initiative: “For the well-being of the UANL’s forest capital”	February 14 to 26, 2024	17
Social responsibility and sustainable development initiatives at UANL.	February 29, 2024	720
Conference: “Documentary photography as a tool for ethnographic dissemination”	March 7, 2024	1,351
Student participation initiative: “Towards a new water culture”	March 15 to 22, 2024	55
Current status of water resources in Nuevo León	March 30, 2024	1,840
Great Campaign for the Recovery of Natural Environments in Urban Areas	April 3, 2024	555
Conference: “Leader by chance, sustainable by choice”	April 11, 2024	834
Decent, affordable, and sustainable housing with 3D printing	April 25, 2024	2,100
Student participation activity: “Forest fire prevention”	April 26 to May 8, 2024	26
Student participation initiative “Ecotips”	May 8 to 17, 2024	103
Conference: “Creating community intervention strategies, training agents of change”	May 9, 2024	751



Activity	Date	Student participation
Digital migrant health records: pilot project in northeastern Mexico	May 30, 2024	1,200
Environmental fair	June 5, 2024	250
Conference: “Let’s Be Eco-Leaders”	June 6, 2024	423
Climate justice	June 27, 2024	1,100
Conference: “The Impact of Breastfeeding on a Sustainable World”	August 15, 2024	525
Student participation activity: “How can I support the achievement of the SDGs?”	August 17 to 30	44
Student participation activity: “What actions can I take to care for and conserve the city’s rivers?”	August 21 to 28	17
Aspects of care processes in old age: perspectives and challenges	August 12, 2024	1,903
Conference: “Grow your city with urban gardens”	September 5, 2024	1,584
Conference: “The proper handling of expired medication in the community”	September 13, 2024	1,800
Conference: “The proper handling of expired medication in the community”	October 3, 2024	722
Student participation activity: “Do you eat a healthy and sustainable diet?”	October 7 to 18, 2024	29
Photography contest: “In the spotlight of sustainability”	March 22 to October 15, 2024	174

Activity	Date	Student participation
The academic and cultural transversality of sustainability at the upper secondary level	October 31, 2024	1,810
Student participation activity: “What does it mean to you for a city to be considered sustainable?”	October 21 to November 2	0
Conference: “The importance of indigenous peoples and their relationship with sustainability”	November 7, 2024	744
Student participation activity: “Do you promote and practice respect for Human Rights?”	November 4 to 15, 2024	21
Environmental fair	November 8 , 2024	250
Student participation activity: “Do you consider yourself a responsible consumer?”	November 18 to 29, 2024	17
Prospects for Meeting the Targets of the Kunming-Montreal Global Biodiversity Framework 2021-2030, in Mexico	November 28, 2024	1,700
Total		**24,308**

In 2024, the UANL carried out

31,348

activities to promote sustainability with student participation

More than

370

participants in activities to promote sustainability issues

Culture of Sustainability at UANL

The Autonomous University of Nuevo León (UANL) has consolidated a firm commitment to building a culture of sustainability, understood as a process that comprehensively links academic training with socioeconomic and environmental responsibility. This effort has allowed sustainability to cease being merely an institutional policy and become a central element of university life, present in every academic and administrative department at UANL.

The transition to this culture has been the result of the participation of students, faculty, and administrative staff, who have assumed the implementation of sustainable practices in their daily work as part of their responsibilities. This commitment has been strengthened through a collective vision that drives ongoing actions to benefit the environment, making sustainability part of the university community's identity.

This cultural shift is expressed in multiple dimensions. In the classroom, educational programs have incorporated content geared toward environmental preservation, responsible resource management, and understanding the challenges posed by climate change. Teaching in this area is not limited to theory but translates into concrete behaviors: efficient use of water and energy, proper waste disposal, and participation in recycling campaigns and the restoration of natural environments with high ecological value are all part of the university community's standard practices.

Additionally, academic institutions have adopted measures to optimize the use of natural resources. Energy-saving technologies, water collection and reuse systems, and sustainable mobility mechanisms have been installed to reduce the carbon footprint. Likewise, improving the condition of green spaces has become highly relevant, not only as areas for socializing and recreation, but also as environments that promote biodiversity and ecological balance.

Thanks to these actions, sustainability at UANL is no longer limited to an abstract concept, but manifests itself as a daily practice shared by the entire university community. In this way, the institution has positioned itself as a national and international benchmark in promoting a culture that places the conservation of the planet and the well-being of future generations at its core.

2024 was a significant year in this process, as various university departments strengthened their participation in programs and projects that promote a culture of sustainability. These initiatives ranged from environmental training and awareness to comprehensive waste management activities, energy conservation, ecological restoration, and student volunteering. Each action reflected the conviction that sustainability must be transversal, involving an increasing number of people and activities on and off campus.

The UANL not only seeks to train professionals of academic excellence, but also conscious citizens capable of facing the challenges of a changing world. The principles, values, and practices of sustainability have become strategic pillars to ensure the development of highly qualified technical and human resources committed to building a more just, safe, and sustainable Mexico.

In this way, the Culture of Sustainability at UANL constitutes a long-term institutional effort that draws on collective work and is projected as a guide to achieving harmonious, responsible, and equitable development, benefiting the university community, society, and the environment.

Participating agencies

High schools	Faculties	Central dependencies
Preparatory School No. 1	Faculty of Agronomy	Center for Research in Agricultural Production
Preparatory School No. 7	Faculty of Architecture	Directorate of Forestry Development
Preparatory School No. 8	Faculty of Visual Arts	
Preparatory School No. 9	Faculty of Biological Sciences	
Preparatory School No. 14	Faculty of Physical and Mathematical	
Preparatory School No. 16	Faculty of Chemical Sciences	
Preparatory School No. 19	Faculty of Nursing	
Preparatory School No. 20	Faculty of Veterinary	
Preparatory School No. 21	Faculty of Dentistry	
Preparatory School No. 22	Faculty of Public Health and NutritionNutrición	
Preparatory School No. 23		
Preparatory School No. 25		
Center for Research and Development in Bilingual Education (CIDEB)		

The actions related to sustainability carried out in 25 high schools, faculties and central departments of the UANL were grouped into 11 categories with a total of 88 activities, which are shown in the following graph.

Activities carried out to promote the sustainability in university facilities

Universidad Autonóma de Nuevo León
Secretariat of Sustainability

2024 Annual Sustainability Report

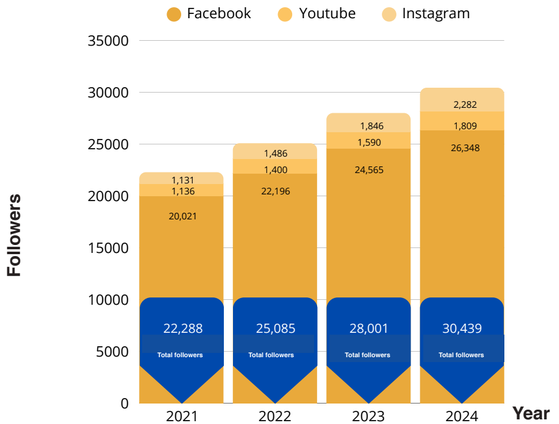
ALLIANCES FOR ACHIEVE THE GOALS

SUSTAINABLE DEVELOPMENT GOALS

Communication and dissemination program for sustainability

The environmental crisis facing humanity on a global scale has highlighted the need to transform not only the prevailing models of production and consumption, but also the way we communicate and share knowledge and values of sustainability.

In this context, the communication and dissemination program for sustainability (UANLSustentable) of the Universidad Autónoma de Nuevo León, run by the Project Development Department (DDP) of the Sustainability Secretariat (SS), aims to motivate individual and collective behavioral change towards sustainability through the promotion of sustainability values, practices, and knowledge, as well as promoting the ethical principles of equity, environmental justice, and intergenerational responsibility, as proposed by the Sustainable Development Goals (SDGs) of the 2030 Agenda.

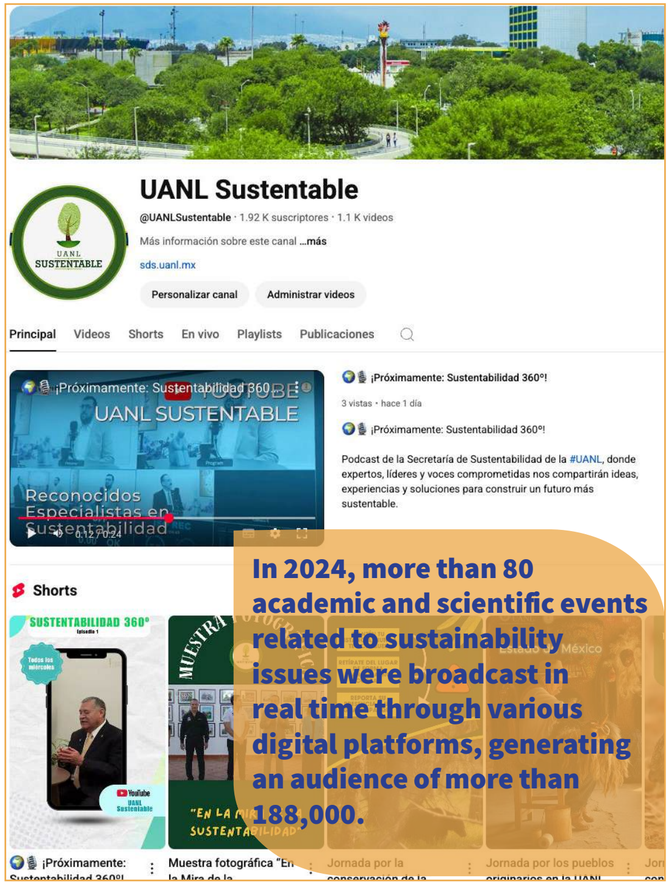


The UANLSustentable Communication and Dissemination Program is primarily aimed at the university community, including students, academics, and administrative staff; however, its reach extends beyond university campuses, as the use of Information and Communication Technologies (ICT), such as social networks and digital platforms, allows it to expand its coverage to society interested in being part of the change towards sustainability, living in the state of Nuevo León, Mexico, and the world, so that currently, social networks and the sustainability website (sds.uanl.mx) have more than 31,500 followers in 95 countries.

In 2024, more than 2,500 posts were managed by the Communication and Dissemination Program for Sustainability, reaching 1,480,000 people on social media and the website.

Through the dissemination of information and content, the Program seeks to train human resources committed to sustainability, with the aim of building networks and alliances that drive change in their environment and contribute to the construction of a more sustainable future.

The growing importance of sustainability-related issues and the high demand for knowledge about them are reflected in the reach achieved by the Communication and Dissemination Program. In 2024, more than 2,490 posts were made and disseminated on social media and the website, which were viewed by 1,480,000 people in Mexico and 95 countries around the world, including Colombia, Argentina, Peru, Chile, the United States, Spain, France, New Zealand, Indonesia, and Australia, among others.
Countries visiting the sds.uanl.mx website



In 2024, more than 80 academic and scientific events related to sustainability issues were broadcast in real time through various digital platforms, generating an audience of more than 188,000.

In addition, 130 videos have been produced and posted on the UANLSustentable YouTube channel, and more than 30 online conferences and 52 virtual educational workshops have been broadcast on topics related to water conservation, air quality, electronic waste disposal, the circular economy, conservation of natural environments, sustainable management of biodiversity, social equity, and respect for human rights, among others.

The UANL Sustainability website (sds.uanl.mx) has been established as an important platform for disseminating knowledge and promoting a culture of sustainability in university environments and the surrounding society. It offers access to posts, visual material, news, and events carried out by the university community to promote sustainable development, which has resulted in thousands of annual visits from more than 95 countries.

The Communication and Dissemination Program for Sustainability develops its digital content and multimedia materials through a collaborative process that integrates the expertise of specialists from various disciplines, such as visual arts, biological and environmental sciences, pedagogy, and other areas related to sustainable development.

The process begins with thematic planning, in which content areas are defined in line with the institutional objectives of promoting sustainability in university settings. Subsequently, reliable, current, and relevant information is researched and compiled, which serves as the basis for the development of scripts, texts, and visual resources.

Países que visitan la página web sds.uanl.mx

In the creative stage, the multidisciplinary team translates the information into attractive and accessible products, such as infographics, audiovisual capsules, interviews, photo galleries, and interactive posts. The visual arts department is responsible for graphic design and audiovisual production, while specialists in biological and environmental sciences validate the technical and scientific accuracy of the content. For their part, education professionals ensure that the message is clear, educational, and adapted to diverse audiences.

The materials are disseminated through UANLSustentable's social media channels, which are designed to be an open and global classroom. This approach allows the university community and society at large to access knowledge, values, and sustainable practices in an enjoyable and participatory way. Thanks to this methodology, the Program has been established as an effective tool for induction and awareness-raising, promoting a culture of sustainability that transcends the academic sphere and contributes to the formation of citizens committed to sustainable development.

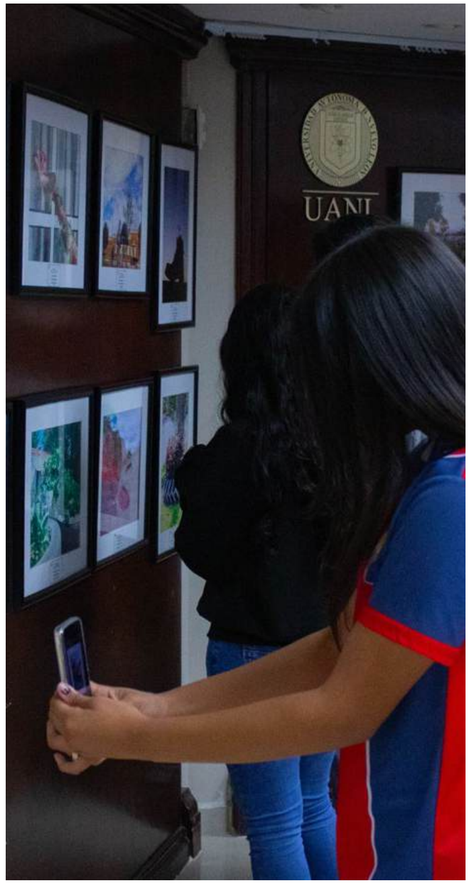
It is worth noting that the participation of the student community and academic staff in the development of content is increasing, reflecting the interest of the university community in moving from a spectator role to becoming a protagonist in the transition process towards sustainability at the UANL, thus fulfilling one of the main objectives of the Program, to contribute to the training of human resources of the highest technical and human quality with a vision of sustainability.

Art and Sustainability

The Autonomous University of Nuevo León (UANL) has consolidated an innovative program that links sustainable development with artistic expression, promoted through its Preparatory Schools and Faculties. This strategy seeks to raise awareness among the university community about the importance of environmental care, using art as a vehicle for reflection and cultural transformation.

The program promotes the creation of artistic works made from recycled materials, encouraging the reuse and responsible use of resources. Students and teachers actively participate in the production of plastic, sculptural, and visual pieces that not only have aesthetic value but also convey messages related to nature conservation, waste management, and respect for ecosystems. Through these artistic expressions, participants reflect on the impact of their actions on the environment and develop a more critical awareness of environmental challenges.

Among the program's most notable activities are workshops, exhibitions, and competitions that integrate artistic creativity with environmental education. These initiatives allow young people to explore new forms of expression while strengthening their commitment to the principles of sustainability. In this way, the UANL has created a space where talent, innovation, and social responsibility converge.



The program's impact is reflected in the growing interest of the university community, which finds art an accessible and engaging medium for exploring the culture of sustainability. By exhibiting the works in university and cultural venues, the reach of these initiatives is expanded, raising awareness among a greater number of people and consolidating the role of UANLomo as a promoter of the transition toward sustainability.

Along these same lines, the Ministry of Sustainability, through the Project Development Directorate, has consolidated the "Spotlight on Sustainability" photography contest. The tenth edition was held in 2024 under the theme "Actions to Improve Urban Waste Management." That same year, the photography exhibition "Spotlight on Sustainability," featuring the winners of the photography contest of the same name, was exhibited at six university campuses, reaching an audience of over 4,000 people.

In this way, the UANL integrates artistic creativity and environmental responsibility, using art as a pedagogical and cultural tool that contributes to consolidating a university community that is more conscious, reflective, and committed to sustainability.

Guidelines

With the aim of inducing changes in attitude and behavior in the activities carried out by members of the university community in the field of environmental management, efficient use of energy and water, and responsible consumption, the Universidad Autónoma de Nuevo León, through its Sustainability Department, has developed and published the following guidelines applicable to all university departments:

- Technical guidelines for adequate thermal insulation of buildings.
- Technical guidelines for green construction.
- Technical guidelines for the efficient use of water for irrigation.
- technical guidelines for sustainable mobility.
- Technical guidelines for the efficient use of water.
- Regulations for the acquisition of air conditioning equipment.
- Technical guidelines for the use of drinking water and treated wastewater.
- Sustainability guide for workshops and laboratories.
- Technical guidelines for lighting equipment in classrooms.
- Technical guidelines for the purchase of products designed to improve the efficiency of air conditioning equipment.
- Technical guidelines for the purchase of goods and services, green procurement.
- Technical guidelines for operational safety.

- Technical guidelines for responsible consumption.
- Technical guidelines for the handling and management of urban waste with recyclable characteristics and special handling requirements.
- Technical guidelines for the handling and management of hazardous waste.
- Institutional policy for the incorporation of good sustainability practices at UANL.
- Lineamiento técnico para el consumo responsable

Acknowledgments

SEMARNAT
SECRETARÍA DE MEDIO AMBIENTE Y RECURSOS NATURALES

LA SECRETARÍA DE MEDIO AMBIENTE Y RECURSOS NATURALES

OTORGA EL

PREMIO AL MÉRITO ECOLÓGICO 2018

EN LA CATEGORÍA EDUCACIÓN AMBIENTAL FORMAL

A LA UNIVERSIDAD AUTÓNOMA DE NUEVO LEÓN

POR SU DESTACADA TRAYECTORIA DE 20 AÑOS EN MATERIA DE CUIDADO DEL MEDIO AMBIENTE, LA CUAL SE HA TRADUCIDO EN UNA PROLÍFICA PRODUCCIÓN DE INVESTIGACIONES CIENTÍFICAS EN ESOS TEMAS, LA GESTIÓN DE UN CAMPUS SUSTENTABLE, LA INCORPORACIÓN TRANSVERSAL DE LA DIMENSIÓN AMBIENTAL EN SUS PLANES Y PROGRAMAS DE ESTUDIO CON UNA VISIÓN HOLÍSTICA, LA VINCULACIÓN CON SU COMUNIDAD, SU POLÍTICA PARA REDUCIR GASES DE EFECTO INVERNADERO Y LA PROMOCIÓN DE UNA MOVILIDAD SUSTENTABLE.

CIUDAD DE MÉXICO, 16 DE JULIO DE 2018.

ING. RAFAEL PACCHIANO ALAMÁN
SECRETARIO DE MEDIO AMBIENTE Y RECURSOS NATURALES

UNIVERSITAS INDONESIA
UI GreenMetric

Certificate

This certificate is awarded to

Universidad Autónoma de Nuevo León

as The 16th World's Most Sustainable University in 2024 UI GreenMetric World University Rankings

12 December, 2024

Prof. Dr. Ir. Riri Fitri Sari, M.M., M.Sc.
Chairperson of UI GreenMetric

GOBIERNO DE MONTERREY

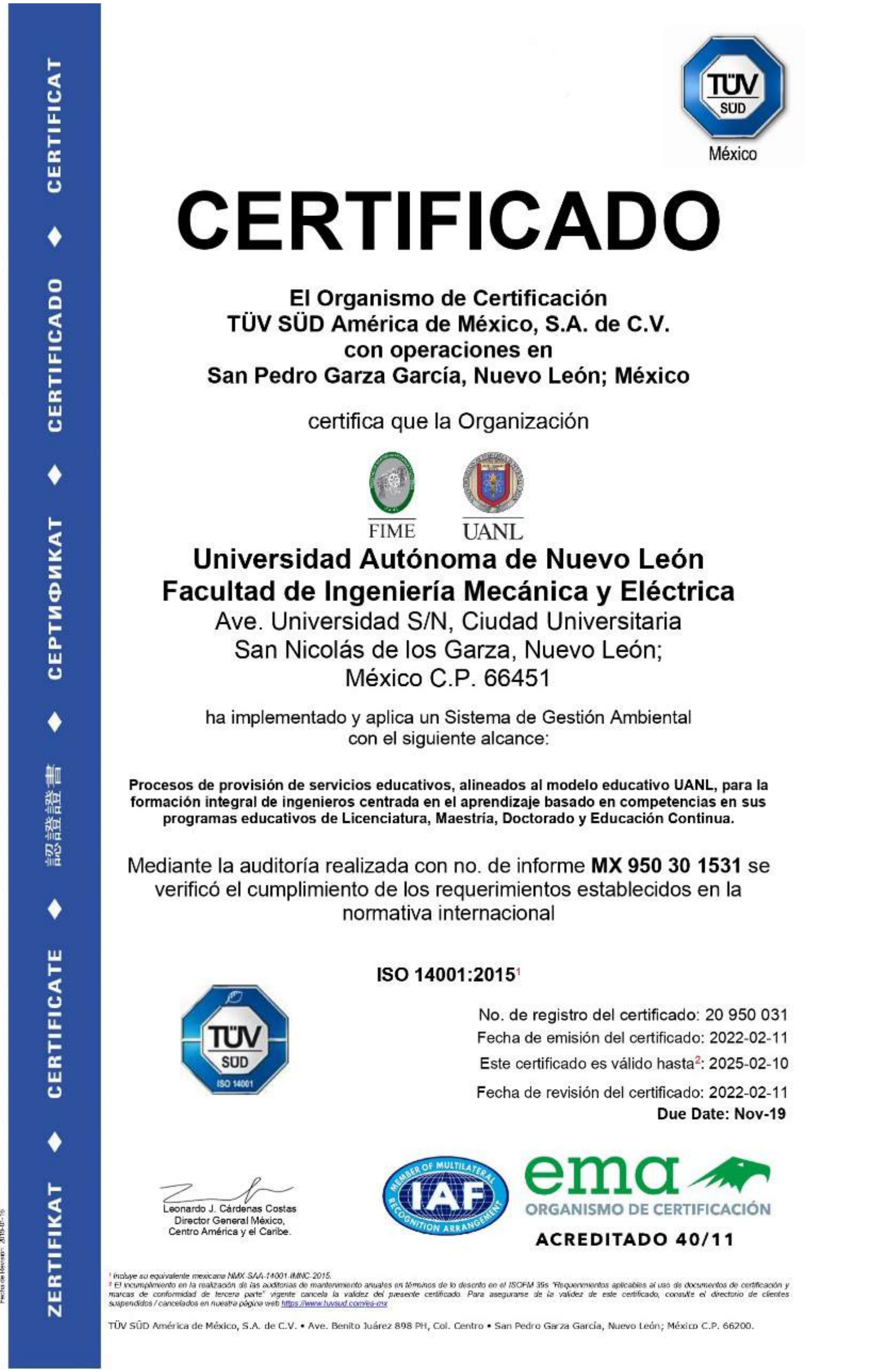
EL GOBIERNO MUNICIPAL DE LA CIUDAD DE MONTERREY

OTORGA EL PRESENTE

RECONOCIMIENTO

a la

Academia Universitaria para el Desarrollo Sustentable de la Universidad Autónoma de Nuevo León



CERTIFICADO

El Organismo de Certificación
TÜV SÜD América de México, S.A. de C.V.
con operaciones en
San Pedro Garza García, Nuevo León; México

certifica que la Organización

FIME UANL

Universidad Autónoma de Nuevo León
Facultad de Ingeniería Mecánica y Eléctrica
Ave. Universidad S/N, Ciudad Universitaria
San Nicolás de los Garza, Nuevo León;
México C.P. 66451

ha implementado y aplica un Sistema de Gestión Ambiental con el siguiente alcance:

Procesos de provisión de servicios educativos, alineados al modelo educativo UANL, para la formación integral de ingenieros centrada en el aprendizaje basado en competencias en sus programas educativos de Licenciatura, Maestría, Doctorado y Educación Continua.

Mediante la auditoría realizada con no. de informe **MX 950 30 1531** se verificó el cumplimiento de los requerimientos establecidos en la normativa internacional

ISO 14001:2015[1]

No. de registro del certificado: 20 950 031
Fecha de emisión del certificado: 2022-02-11
Este certificado es válido hasta[2]: 2025-02-10
Fecha de revisión del certificado: 2022-02-11
Due Date: Nov-19

Leonardo J. Cárdenas Costas
Director General México, Centro América y el Caribe

ema ORGANISMO DE CERTIFICACIÓN
ACREDITADO 40/11

TÜV SÜD América de México, S.A. de C.V. • Ave. Benito Juárez 898 PH, Col. Centro • San Pedro Garza García, Nuevo León; México C.P. 66200.

CERTIFICAT ◆ CERTIFICADO ◆ CERTIFICADO ◆ СЕРТИФИКАТ ◆ 認證證書

TÜV SÜD

CERTIFICADO

No. de informe.: **MX 950 17 742** / No. de registro del certificado.: **20 950 039**

El Organismo de Certificación
TÜV SÜD América de México, S.A. de C.V.

Certifica que la Organización

Universidad Autónoma de Nuevo León
(Preparatoria No. 25 "Dr. Eduardo Aguirre Pequeño")
Francisco Villa y Morelos S/N, Colonia Ex Hacienda El Canada
Escobedo, Nuevo León; México C.P. 66050

para el alcance

Servicio de Enseñanza-Aprendizaje y la gestión de instalaciones y recursos que busca la minimización del impacto ambiental asociado para garantizar que se contribuya activamente a la preservación del medio ambiente, fomentando una cultura de responsabilidad ambiental en toda la dependencia universitaria.

ha implementado y aplica un Sistema de Gestión de Ambiental

Las certificaciones futuras relacionadas con el alcance de este certificado y la No aplicabilidad de los requerimientos de la norma ISO 14001:2015 se pueden obtener consultando a la organización.

Mediante la auditoría realizada se verificó el cumplimiento de los requerimientos establecidos en la normativa internacional

ISO 14001:2015

Vigencia del Certificado: 2024-03-12 al 2027-03-11
Fecha de revisión del certificado: NA
Due Date: Diciembre - 16

TÜV SÜD ISO 14001 · IAF · ema ORGANISMO DE CERTIFICACIÓN ACREDITADO 40/11

Leonardo J. Cárdenas Costas
Director General México,
Centro América y el Caribe

https://www.tuvsud.com/es-mx

VISIÓN UANL 20 · La excelencia

aice
RECONOCIMIENTO DE ACREDITACIÓN 2030

La Agencia Internacional de Calidad Educativa AICE

ACREDITA

A LA

FACULTAD DE CONTADURÍA PÚBLICA Y ADMINISTRACIÓN DE LA UNIVERSIDAD AUTÓNOMA DE NUEVO LEÓN

Con vigencia de octubre del 2022 a octubre del 2027 por haber cumplido con los requisitos de calidad educativa establecidos por la AICE.
Ciudad de México, octubre del 2022.

En compromiso con los Objetivos 2030 somos parte de Pacto Mundial de las Naciones Unidas

Dr. Eduardo Avalos Lira
Presidente de la AICE

La Asociación Nacional de Facultades y Escuelas de Contaduría y Administración
y la
Coordinación Nacional
de Responsabilidad Social Universitaria

Otorgan el

"Distintivo de Responsabilidad Social Universitaria"

a la

Universidad Autónoma de Nuevo León
Facultad de Contaduría Pública y Administración

Por cumplir mediante el desarrollo y aplicación de buenas prácticas, los principios fundamentales de responsabilidad social universitaria, promoviendo la calidad y la ética del desempeño en las escuelas y facultades de negocios mediante una gestión responsable de los impactos educativos, así como en la generación y aplicación del conocimiento organizacional, ambiental y social para buscar el desarrollo humano sostenible.

Puebla de Zaragoza 9 de junio de 2016

M.A. Héctor Julián Vargas Rubín
Coordinador Nacional

Dr. Juan Alberto Adam Siade
Presidente

R.S.U.- 010


HP Inc.
MÉXICO
Reconoce a:
UNIVERSIDAD AUTONOMA DE NUEVO LEÓN
Por su participación en HP Planet Partners, programa de devolución y reciclaje de Cartuchos de Tinta Originales HP y Cartuchos de Tóner Originales HP.
MX268428809Q
2056 Cartuchos de Tóner HP
403 Cartuchos de Tinta HP
88 Toner Samsung


QUALITAS
Certificado de Acreditación
Mediante el presente diploma, Agencia Qualitas de Chile certifica que la
Licenciatura en Educación de la Universidad Autónoma de Nuevo León
Se acredita con una vigencia de 5 años, desde el 25 de noviembre de 2019 hasta el 25 de noviembre de 2024
Judith Scharager
Directora Ejecutiva
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Jefa del Departamento de Salud Ambiental y Ocupacional
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132/ELHTE/NL/2023
Fecha de vencimiento:
21 de agosto del 2024
Verificado por:
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Secretaría de Salud del Estado de Nuevo León
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