

CLIMATE ACTION PLAN REPORT 2024



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USFQ's Climate Action Plan aims to unite our operational, academic and research areas to coordinate campuswide climate initiatives. The action plan is divided into the following topics: Energy and Carbon emissions, Operations, Procurement, Nature and Ecosystems, Community and Partnerships, Implementation, and Reporting. Each section describes our current efforts as well as our future commitments to advancing our sustainability strategy.

1. Energy and Carbon Emissions

We quantified our greenhouse gas emissions (GHG) into 4 categories.

Category 1: Direct GHG emissions:

- Emissions from diesel and gasoline consumption in generators.
- Emissions from LPG consumption.
- Emissions from the use of diesel and gasoline in our own vehicles.
- Fugitive emissions due to refrigerant leaks.
- Emissions from burning biogas.
- Fugitive emissions from the use of fertilizer and urea.
- Emissions from the use of photovoltaic energy.
- Emissions from wastewater in septic tanks.

Category 2: Indirect GHG emissions from imported energy:

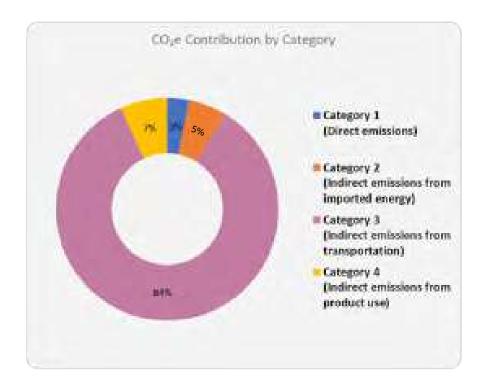
- Emissions due to energy consumption from the national electrical grid.

- Category 3: Indirect GHG emissions from transportation:

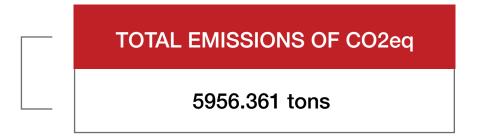
- Emissions due to the mobilization of students and administrative staff.
- Emissions for business flights of administrative staff and international students.

- Category 4: Indirect GHG emissions from product use:

- Emission due to disposal of common waste.
- Emissions from hazardous waste incineration.
- Emissions from management of recyclables.
- Emissions from services used by the organization.



Graphic 1. Emissions report of 2022 - Carbon footprint update



USFQ reports a total of 5956.361 tons of CO2e, of which 185.271 tCO2e corresponds to category 1 (direct emissions), 317.915 t CO2e category 2 (indirect emissions due to energy), 5034.685 tCO2e category 3 (indirect emissions due to transportation) and 418.489 tCO2e category 4 (indirect emissions from use of products by the organization) (Green Wise, 2023).





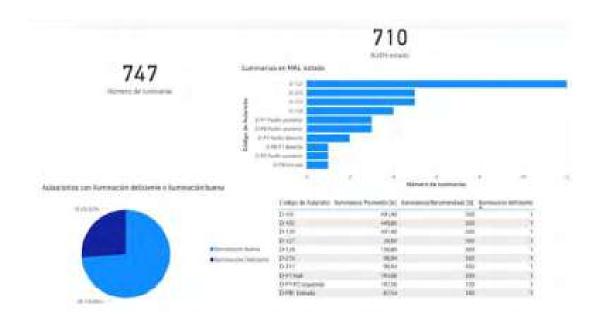
The following values show electricity consumption at the Cumbayá campus

Table 1. Summary of energy consumption

Year	Energy consumption (kWh)
2019	3 578 380.00
2020	1 919 294.00
2023	2 688 791.16

Since 2012, USFQ has been working on initiatives and pilot projects to improve its energy performance. For example, after studying energy consumption in various buildings, we acted to lower the high consumption of energy in the library and kitchen areas. The initiative included changing the incandescent light bulbs to LEDs in the library, studying the correct settings for air-conditioning temperatures in the library, and installing automatic locks in the cold room of the kitchen.

Last year we continued with this initiative and changed the light bulbs of Da Vinci's building along with a project with students from USFQ Energy Efficiency Team ASHRAE – Student Chapter, who measures the quality of the lightning at this site. Where they identify 710 luminaires of various nominal powers, types and subclassifications, they evaluate classrooms, hallways, stairs and halls. The results from this study were data analysis and recommendations were developed in relation to the information on areas with low poor lighting, necessary to meet the objective, in each type of area for educational buildings.



Graphic 2. Summary of lighting and luminaire quality - Da Vinci

USFQ is constantly looking to implement solutions with technology in order to reduce the energy consumption from the local electricity company, EEQ. As a result, the sustainability office initiates a renewable energy plan, which includes a series of gradual installations in strategic areas of the campus. It started in 2022 with an initial installation of 4 photovoltaic panels at the university experimental farms located in Puembo which supplies enough energy for a classroom. The second installation is located at the principal campus on the rooftop of the microbiology building which has 33 solar panels and generates 17 kWp. The last installation was in 2023 at the back of the coliseum with 24 solar panels which generate 13 kWp.



Figure 1. Solar Panels at campus



Commitment:

- Decrease energy consumption by 5% by 2025, compared to baseline of 2019. This will be achieved by implementing an energy management system and awareness campaigns. It includes the renovation of the energy infrastructure by incorporating generation plant and energy transformers, placement of photovoltaic system and investment in automatization and renewal of illumination, along with a continuous efficient energy monitoring at campus with the participation of professors and students.
- Increase the solar photovoltaic capacity from 1 to 6% by 2025. This will be achieved by increasing the number of solar panels located at our main campus and the research stations.
- In order to reduce scope 3, we aim to create a compensation plan such as reforestation campaigns for carbon capture. We also aim to support the design of a water collection system in buildings with a large roof area and the capacity to hold such a system.
- As stated in the Sustainability Policy: To achieve carbon neutrality based on our 2019 Greenhouse Gas (GHG) emissions baseline, we have the following scheme:
- Scope 1 and 2: by 2030
- Scope 3: by 2035, from specific sources (waste, mobility, and food services).
- Become net zero by 2050, compared to the target year 2019. This target may be modified according to national decarbonization strategies in the future.

· Compensations:

- Prioritize reductions in direct emissions.
- Adhere to minimum standards set for the purchase of offsets according to our climate action plan.
- Commit to purchasing high-quality offsets.
- Analyze environmental, social, and economic aspects regarding
- compensation decisions to avoid negative outcomes.
- Use offsets as a transitional strategy towards carbon neutrality.
- Implement an evaluation strategy for all off sets purchases aligned with the climate action policy.



2. Transportation

Category 3 represents the most significant contribution and had various emission sources such as: transportation of employees and students (terrestrial or by air), management of waste and wastewater (including hazardous waste). Staff and students commuting to campus is the most significant contributor. As a solution USFQ launched Pancho Bus, an institution sponsored free bus service available to the entire campus community. It serves as an alternative transportation method aimed at reducing individual car use. Further, the bus has various routes around the city which are available on its web page.

Pancho Bus routes:

https://www.usfq.edu.ec/sites/default/files/2024-08/rutas-panchobus-semestre-2024.pdf?itok=ne3C0dBMcK

Commitment:

- Acknowledge the role of category 3 emissions in our operations.
- Include daily commuting, campus-operated fleet, and air travel within mobility efficiency and emissions management goals.
- All vehicles acquired by USFQ will be assessed to meet emission reduction criteria, aiming for zero emissions by 2030.
- Prioritize the use of clean or low-emission fuels.
- Coordinate offset purchases with the University's Sustainability department, currently named the Office of Sustainability.
- Reduce single-occupancy vehicles entering university parking lots by 25% by 2025, compared to 2022 levels.
- Review remote work options based on campus operational needs.
- Analyze campus parking availability and align it with climate change and sustainability policies.





3. Water

Water, as we know, is a valuable element essential for our thriving existence. As a university, we recognize its significance and have undertaken numerous projects aimed at reducing water consumption while also raising awareness within our community to cherish and conserve this vital resource.

Some of our actions include Flow regulation of communal bathroom faucets resulting in an annual 5% reduction, regulation of the flow meter valve at the main campus intake, collection of rainwater through natural systems such as the lagoon, as well as in cisterns and small reservoirs in various buildings. Finally, a Thesis Project with the Civil Engineering Department "Rainwater Availability on the USFQ Campus".

The following values show water consumption at the Cumbayá campus:

 Year
 Water consumption (m3)

 2019
 32 731.60

 2020
 9 439.47

 2023
 38 617.00

Table 2. Summary of water consumption

Commitment:

- Achieve a 10% reduction in potable water consumption compared to the 2017 baseline by 2025.
- Implement irrigation systems and rainwater reuse.
- Develop a water action plan.





4. Operations

Due to the number of students and staff at the university, it is important to maintain metrics of the operations conducted within the campus. We have an operational reporting system which indicates on a monthly basis the consumption of water, electricity, fuels, gas, wastewater, and also a list of suppliers who have certifications or registrations for environmentally friendly products. Within operations, we have several initiatives that have been developed over time and have gained increasingly more strength.

a. Campus Growth and Retrofit

The University has grown and stablished goals to increase density use for the past five years, as well as prioritized efficiency operation within our science centers at the Galapagos, Tiputini and Tandayapa.

Commitment:

- New construction at USFQ will be subjected to green building and efficiency guidelines.
- Incorporate sustainability criteria for renovations, upgrades, and maintenance
 of existing infrastructure, as well as for the design and construction of new
 buildings. If it is not possible to meet the defined standards for the project, the
 reason for its infeasibility must be declared in the project document.

b. Waste Operations:

The USFQ Smart Campus initiative facilitates the implementation of research projects involving multiple fields of sustainability from different colleges. Each year three projects are chosen to undertake to advance our goal of becoming a smart campus.

Over the past few years, we have installed numerous recycling containers throughout the campus to assist the community in understanding waste separation.

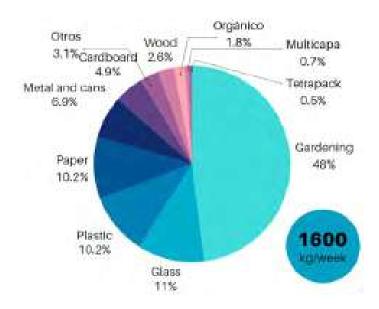


i. Zero Waste Campus:

This project aims to contextualize the current solid waste management of the principal campus in Cumbayá, to determine the waste generation baseline and develop an action plan to achieve a zero-waste campus. The methodology was defined in 5 steps which included: pre-evaluation, evaluation, post-evaluation, objective and indicator definition and selection of strategies for reduction and optimization. Along with the CHAT institute and food service, the characterization of waste was developed based on four categories of measurement for solid waste: comestible (waste destines to pigs), comestibles not suitable for consumption, not comestible, and expired goods. And for liquids: oils.

The methodology includes the recompilation of information about management waste system and analysis of flux in relation with waste generation, to achieve the certification.

In relation to waste generation, we have worked with students from the Environmental Engineering program. In 2022, a characterization of all waste generated at the university was conducted as a thesis project. During this project, waste was characterized over the course of one week, and the quantities for each type of waste were obtained as percentages. The data obtained were corroborated by an ultrasonic sensor that measures waste generation in real-time.



Graphic 3. Waste characterization (Arteaga, et.al 2022)





Commitment:

Prioritize the waste hierarchy in the comprehensive management of solid waste.



Graphic 4. Zero Waste Hierarchy (Zero Waste International Alliance, 2023)

- Achieve the following objectives for waste reduction sent to landfill based on the 2017 baseline:
- 25% by 2025
- 50% by 2030
- 90% by 2050
- Use all garden waste for composting by the year 2030.
- Monitor scope 3 emissions from waste.
- Commit to eliminating single-use plastics in campus food service venues, catering, and event hosting.

ii. Sustainable Food Services "CHAT verde"

 The Hospitality and Gastronomy School has worked on different initiatives to innovate its operational processes and actions to improve its sustainability performance, among these actions are:



- Use of electric induction cookers for food preparation to reduce gas consumption.
- Separation of organic waste, which is sent to a pig farm for proper management, collection, and delivery of cooking oil, orange peels, and coffee waste for the biodiesel production project within the university and production of bioproducts in the DLAB, respectively.
- Acquisition of vegetables from the USFQ's Puembo Experimental Farm, which has a
- biodigester that converts crop residues into gas for water heating and fertilizers for soil improvement.
- Significant reduction in single-use plastics, eliminating the use of plastic straws and
- disposable cups at points of sale.
- Implementation, in collaboration with the Sustainability Office, of the "USFQ Cash"
- campaign, which offers discounts and rewards to customers who purchase their drinks using their own reusable containers, reducing the consumption of disposable cups.
- Development and implementation of Policy GEN 04, which includes concrete actions to improve sustainable practices and reduce environmental impact.
- Development and implementation of Policy BOTH No. 13, which includes concrete actions to reduce plastic consumption and eliminate single-use plastic within its operations.

Commitment: Our farm becomes zero waste by 2026.

5. Procurement

The food and resources that are supplied to USFQ principally come from local suppliers. We have developed a Procurement Statement that favors certain suppliers with sustainable values and certificates.

Commitment:

- Promote the implementation and compliance with the purchasing policy.
- The purchasing department incorporates sustainable purchasing practices into its processes.





6. Curriculum and Sustainability Course Offerings:

USFQ as an institution is committed to promoting and advancing sustainability education among its students. We have adopted more sustainability learning outcomes and have implemented specific focused programs for both undergraduate and graduate students, which can be taken off-campus or on-campus.

To identify sustainable courses, an inventory was conducted across all USFQ academic departments. A team from the Office of Sustainability and the Department of Curriculum Design defined the methodology. The starting point was the database of USFQ classes for the 2019-2020 academic year. The methodology involved searching the database using keywords based on the study by Brugmann, Rashad et al. (2019) related to the 17 Sustainable Development Goals, STARS language, and sustainability reporting practices of other STARS-reporting universities.

Sustainability, as defined by Stanford University, focuses on the healthy maintenance and development of society environmentally, economically, and socially. This definition guided the inventory.

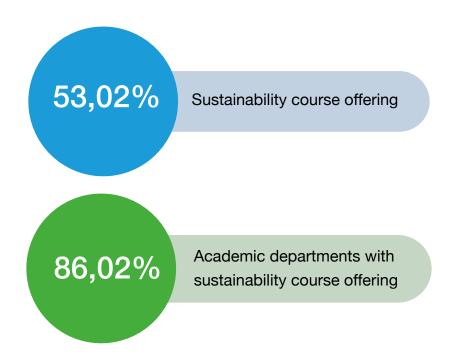
Courses resulting from the filter were reviewed and classified as:

- **1.Sustainability Focused:** Courses that directly address the healthy maintenance and development of society from an environmental, economic, and social point of view (Stanford University).
- **2. Sustainability Inclusive**: Courses that cover at least two of the three sustainability axes (environmental, economic, and social) or include at least one sustainability unit, activity, or topic, or directly relate to sustainability practices (Stanford University, University of California Berkeley).

The institution's inventory of sustainability course offerings can be found at:

https://docs.google.com/spreadsheets/d/1DR00zxbaA1ASxuJ9NFbq8ohaQFVCHfVc/edit?usp=drive_link&ouid=113508866479873703021&rtpof=true&sd=true





Graphic 5. Sustainable courses (academic year 2019 -2020)

The percentage of courses that are sustainability course offerings is 53.02%, considering that in the selected academic periods we offered 2982 between undergraduate and graduate courses, which 460 are sustainability-focused and 1160 are sustainability-inclusive.

86.02% of USFQ academic departments integrate sustainability themes into their courses, linking them to the Sustainable Development Goals. These courses are offered at our main campus and our scientific stations in the Galapagos Islands and the Amazon Basin. Both stations promote global research partnerships and continuously teach conservation and sustainable development to local communities and international students.



USFQ offers sustainability-focused graduate programs. Here's an example:

• Masters in Environmental Management: This professional program uses an integrated approach based on four areas: Biophysical Environment, Human Environment, Environmental Management, and Institutional Environment. Throughout the program, students connect the conservation needs of natural resources with the social demands of dependent populations. This allows them to understand, analyze, and solve environmental problems from a social perspective. This program combines this focus with training in environmental and organizational planning tools, current environmental policy and legislation, environmental communication, and negotiation—all aimed at achieving participatory management of natural resources and the environment. The program benefits from USFQ's nearly two decades of experience working in the Galapagos Islands, building academic experience and relationships with local authorities and communities.

Link: https://www.usfq.edu.ec/es/posgrados/maestria-en-gestion-ambiental

• Masters in Public Health: The USFQ Master's in Public Health program aims to improve the health conditions of diverse populations in Ecuador. It achieves this through a postgraduate professional training program that emphasizes a multidisciplinary, demanding, and contextualized approach. The program combines theoretical, practical, and research aspects effectively under a comprehensive approach, applying learning and various methodologies to work with populations. Students take courses like Design Thinking, Conflict Resolution, Environmental Health, and Environmental Economics to consider all aspects of sustainability.

Link: https://www.usfq.edu.ec/es/posgrados/maestria-en-salud-publica-mph





Commitment:

- Promote the implementation and compliance of sustainability-focused courses, by collaborating with faculty departments, incentivize sustainability teaching and creating a framework to guide the development of sustainability-focused courses.
- Updating the analysis for strategically selected academic year, to track our advance on curriculum and sustainable academic offerings and using the analysis to inform strategic planning and decision-making to establish clear, measurable targets for increasing the number of sustainability-focused courses.

7. Nature & Ecosystems:

USFQ is privileged to be located in a megabiodiverse country which continues to inspire us to promote efficiency and sustainability in our researcher network and research projects. The unique location of our science stations in Ecuador allows us to undertake important climate change research. This research is focused on sustainability, the environment, corporate responsibility, climate change and equity. It is carried out by a multidisciplinary team of experts and students that are concerned with the healthy maintenance and development of society and the environment.

a. Galápagos Institute for Arts and Science (GAIAS)

The Galápagos Extension of the San Francisco de Quito University (USFQ), located on San Cristóbal Island, is the only university extension in the Archipelago accredited by the Council of Evaluation, Accreditation, and Quality Assurance of Higher Education (CEAACES).

The USFQ Galápagos extension offers two new undergraduate programs in a semi-presential format with a duration of four years of studies: Bachelor's degree in business administration and Bachelor's degree in Environmental Management, and a graduate program in a presential format with a duration of two years in a Master's degree in Environmental Management with a focus on socio-ecosystem management.

Link: https://www.usfq.edu.ec/es/galapagos



b. Galapagos Science Center (GSC)

The Galapagos Science Center (GSC), is a multidisciplinary research center located on San Cristóbal Island, which has been created thanks to the collaboration between USFQ and the University of North Carolina - Chapel Hill (UNC) for scientific development in the Galapagos Islands.

This research center wants to promote the conservation of the fragile ecosystems of the islands and the development of the populations that inhabit them through scientific and intellectual development. The GSC is conceived as a multidisciplinary space with three fundamental axes: integrated scientific research, education, and community support. Link: https://www.usfg.edu.ec/en/galapagos



Graphic 6. Galapagos Science Center (Mena, 2021)





c. The Tiputini Biodiversity Station (TBS)

The Tiputini Biodiversity Station (TBS), established in 1994, is located in the north basin of the Tiputini River, the world's greatest biodiversity hotspot. The principal activities are research and education, with environmental conservation being a main focus. The station contributes to the proposal and the implementation of strategies for the sustainable use of resources or alternative sources compatible with nature. The station works alongside local villages, with whom they share their experience and information.

Link: https://www.usfq.edu.ec/es/estacion-de-biodiversidad-tiputini-tbs



Figure 2. Tiputini Biodiversity station





d. Cloud Forest Research Station - Mindo (Tandayapa)

he Tandayapa Cloud Forest Station (TCS) is a research facility established in the Andes of the Pichincha Province, Ecuador, in 2022 by Universidad San Francisco de Quito. The station protects 55 Ha of primary and secondary forest. The station is situated within the Chocó Andino Biosphere Reserve, an area internationally recognized by UNESCO's Program on Man and the Biosphere (MaB) in 2008. Our goal: To bring people together from all areas of expertise, different backgrounds, and countries into a complex, fragile, and threatened system, aiming to find viable venues for sustainable development and biodiversity conservation. TCS is home of a unique biota, that includes emblematic species of mammals such as the spectacled bear, and the recently described olinguito, as well as endangered birds like the black-breasted puffleg, and others like the Cock of the rock and the Plate-billed Mountain Toucan. Additionally, it protects countless species of insects, amphibians, and reptiles.

Link: https://www.usfq.edu.ec/en/cloud-forest-research-station-mindo

e. GAIAS Europa

GAIAS Europa is the USFQ academic hub in Valencia, Spain, bridging development between Latin America and Europe.

We further student, teacher, and scientist training and research, fostering experience and knowledge exchange with Europe from our headquarters in Valencia, Spain. The aim is to transcend borders with the USFQ liberal arts philosophy, forming creative, free, innovative, and enterprising human beings while promoting connections and alliances between Latin America and Europe.

Link: https://gaiaseuropa.com/en/about-us/#about-us



f. Institutes

Additionally, USFQ has various research institutes that produce scientific publications and projects in different disciplines relating to sustainable development. These are:

The Institute of Energy and Materials focuses on interdisciplinary research in technology, engineering, and industry, with a particular emphasis on the field of energy and materials. Its primary objective is to drive scientific research and promote the publication of articles, as well as the development of patents in these areas. Additionally, it seeks to establish collaborations with various entities, offer research services and consultancy, and encourage the creation of ventures related to energy and materials.

https://www.usfq.edu.ec/es/institutos-de-investigacion/instituto-de-energia-y-materiales

- Institute of Micro and Nanoelectronics (IMNE), research is carried out in relation to the physics of the solid state for the development of Nanoelectronics technologies (devices). The purpose of these devices is the development of microelectronic systems (integrated circuits) for applications of logic (microprocessors), memory (RAM, DRAM, ReRAM), telecommunications system, detectors and sensors, and photovoltaic cells. https://www.usfq.edu.ec/es/instituto/instituto-de-micro-y-nanoelectronica-imne

Institute for Innovation in Productivity and Logistics (CATENA-USFQ), this
institute was developed to promote applied research in areas of productivity,
quality, logistics and supply chain, and its related areas in ergonomics, data,
science, manufacturing, innovation in education, etc. It focuses on multidisciplinary
collaboration at a departmental level, as well as, with external national and
international institutes.

https://www.usfq.edu.ec/es/institutos-de-investigacion/instituto-de-innovacion-en-productividad-y-logistica-catena-usfq





- Institute for Computational Simulation (ISC), aims to be the platform to promote the development of computational simulation in Ecuador, providing a broad and inclusive space where teachers and researchers, from USFQ and around the country are invited to participate.
- https://www.usfq.edu.ec/es/instituto/instituto-de-simulacion-computacional-isc
- Institute of Atmospheric Research (IIA), is a scientific entity whose purpose is to investigate the local and regional atmosphere, integrating experimentation, computational modeling and statistical data analysis.
- https://www.usfq.edu.ec/es/institutos-de-investigacion/instituto-de-investigaciones-atmosfericas-iia
- Biósfera (Biological and Environmental Investigations USFQ), is an interdisciplinary institute that seeks to develop scientific research in a wide range of academic topics in different ecosystems of the biosphere at a national and international scale.
- https://www.usfq.edu.ec/es/institutos-de-investigacion/instituto-biosfera
- **ECOLAP (Institute of Applied Ecology)**, develops projects and provide consulting services for research, monitoring, management, conservation, and sustainable use of natural resources.
- https://www.usfq.edu.ec/es/institutos-de-investigacion/instituto-de-ecologia-
- aplicada-ecolap

Commitment: Continue to invest in research projects that prioritize environmental engineering, energy systems, science, biodiversity, conservationism, economic development, and community impact. As for the academics, USFQ is committed to providing students with co-curricular, international opportunities to build the skillset of the liberal art mindset and respond to world problems.



8. Community & Partnerships

a. Community outreach:

As a liberal arts university our curriculum promotes the development of creative, critical, curious, motivated and free-thinking individuals. Students are able to face constant changes and the complexity of contemporary society. They are also given the opportunity to be responsible citizens through social projects that involve innovation and sustainability. Our connection with society is an important part of our teaching and research activities.

USFQ seeks sustainable development through scientific research, quality education and community outreach. Its contributions to the Sustainable Development Goals (SDGs) are described in the next table. The impact of all these projects is in local Ecuadorean communities. Examples of our community outreach can be found here: https://www.usfq.edu.ec/en/community-outreach

Table 3. Outreach Projects with SDGs Focus Report

SDGs	Detail
Goal 1: No Poverty	The project involves regularly visiting the homes of low-income individuals living on the outskirts of the city of Quito. These are households previously visited by the project leader and volunteer youths through the Adelphos Foundation.



SDGs	Detail
Goal 2: Zero Hunger	The association "Agroecological Producer Alpachaca Muyuverde Ltda." based in Oyambarillo, Quito Canton, was established in 2017 and consists of six active members and 27 suppliers of agricultural products and processed goods. The association is linked to a marketing model in which consumers are employees of Mariscal Sucre Airport, as part of the shared value program called "Our Orchard" by Quiport Corporation (the airport's administrator).
Goal 3: Good Health and Well-being	Mental health is an area of holistic health that is often neglected and requires community-level intervention. The project aims to offer quality psychological services at differentiated prices. In 2016, the Mental Health Clinic (CSM) was established by the Department of Psychology and the Medical Systems of the San Francisco de Quito University (SIME) to provide quality psychological services to the community.



SDGs	Detail
Goal 4: Quality Education	This project seeks to activate initiatives that have an impact on the educational gap in vulnerable populations in Ecuador. It originates from a project called The Quito Project (TQP), an initiative of the University of Michigan that, in collaboration with USFQ since 2013, has worked on a social justice project to serve children from marginalized urban neighborhoods in Quito during the summer vacation period.
Goal 5: Gender equality	RECLAMA (Recovering and Celebrating the Heritage of Afro-Ecuadorian Women) is a decolonial, anti-racist, and feminist research with conceptual lines of critical geography and history, utilizing oral history tools and participatory methodologies to strengthen the resistance of Afro-descendant-black women, make their knowledge visible, and create spaces for the transmission of this rich cultural heritage.



SDGs	Detail
Goal 6: Clean water and sanitation	Rivers are unique and essential unidirectional ecosystems that perform critical ecological processes and provide unparalleled environmental services to humans, many organisms, and the planet. Currently, in Ecuador, there is no wastewater treatment system, and very few industries have industrial treatments to treat their effluents.
Goal 7: Affordable and clean energy	Winner of funds from the Smart Campus Group USFQ call to promote applied research projects in sustainability on campus. SGEn aims to assess energy management on the Cumbayá campus through four phases: 1) diagnosis, 2) improvement plan, 3) implementation and monitoring, 4) savings strategies.



SDGs	Detail
Goal 8: Decent work and economic growth	Huertomanías is a social organization whose objective is to integrate into the workforce individuals with serious mental health problems. This project aims to provide tools to this organization to strengthen and boost its growth. To achieve this goal, assistance will be provided to improve the following areas: public relations, fundraising, communication, legal, community and agricultural activities.
Goal 9: Industry, innovation and infrastructure	The project will contribute articles on relevant topics for the professional practice of the construction industry to technical journals and presentations. These articles contain knowledge produced and developed in the Civil Engineering (ICV) career. The articles will be available for free through the 4000 physical copies of the magazine, its website, and newsletter distribution to a national audience of around 30 thousand recipients.



SDGs	Detail
Goal 10: Reduced inequality	The aim of this study is to explore the association between social determinants and the prevalence of dental caries in school-aged populations in rural and urban areas of Ecuador. To do this, an ecological assessment of the observed communities is conducted, along with a qualitative comparative analysis using data from the USFQ School of Dentistry Survey, employed in oral health brigades.
Goal 11: Sustainability cities and communities	Among the anthropogenic factors that can increase the emergence of infectious diseases is the human occupation of natural habitats, resulting in increased contact with wildlife species. In this regard, domestic animals introduced by humans, specifically domestic dogs, can play a fundamental role as hosts and transmitters of pathogens between humans and wildlife.

SDGs	Detail
Goal 12: Responsible consumption and production	The main objective of this study is to determine the potential acceptance and demand for the product EsPapaya once it has entered the market. To reach the final data, which is the potential demand for this product, a series of steps will be taken to refine this data more and more until reaching a realistic projection of the product in question. For this study, mainly secondary sources corresponding to data related to the country's population will be used, as well as works that focused on analyzing the feasibility of products similar to EsPapaya.
Goal 13: Climate action	The project will deliver simulation model software, available online for public access, focusing on education and decision-making. The model will be constructed using a systems dynamics approach, a powerful tool for solving complex problems that considers the relationships between technical variables (e.g., technology) and soft variables (e.g., behavior).



SDGs	Detail
Goal 14: Life below water	Hundreds of wild animals annually arrive at the USFQ Veterinary Hospital to be treated for damages resulting from illegal trade, poaching, or habitat loss. In this regard, professionals from different areas have come together to not only provide the necessary care to rehabilitate the fauna entering USFQ facilities but also to work on restoring the ecosystems in which they thrive, thus ensuring a better reintroduction into their natural habitat.
Goal 15: Life and land	In Galápagos, there is a new student curriculum model under the sustainability education approach, in which one of the main focuses is experiential education. Therefore, considering the needs of Galápagos and the contribution of various actors, the importance of connecting and learning from the environment has become evident as one of its substantial objectives.



SDGs	Detail
Goal 16: Peace and justice strong institutions	This is a program of interviews and presentations with a psychological-social strategy through radio, television, print media, and social networks, aimed at promoting the defense of freedom and democracy among the population. This entails promoting an evolution of citizen consciousness in favor of these values. Through this program, the aim is to reduce the widespread ignorance and apathy of citizens towards the values of freedom and democracy.
Goal 17: Partnerships for the goals	The project aims to create alliances with universities from the 13 countries located in the equatorial zone (Ecuador, Colombia, Brazil, Sao Tome and Principe, Republic of Congo, Gabon, Democratic Republic of Congo, Uganda, Kenya, Somalia, Maldives, Indonesia, and Kiribati) to develop and implement environmental conservation strategies and actions, in order to raise awareness among people, the public sector, and the private sector about the different environmental problems we face today.



 Link: https://estudusfqedu-my.sharepoint.com/:b:/g/personal/jspro-ano_usfq_edu_ec/ETjWki8qQTNOmSJgUgyye7gBjEiP_m18r72OL 6rBmNNPwQ?e=HObc4m

Commitment: Continue to invest in community projects from the last three years with the proposed budget.

b. Partnerships

USFQ seeks to collaborate with international networks that are focused on developing academic expertise and increasing international understanding on society and global environmental change.

APRU (Association of Pacific Rim Universities), is a network of leading Research Universities, which seeks to promote education and public policy on issues that generate viable solutions on Sustainable Development issues and come from 17 economies in the Pacific Region.

HUC (Hemispheric University Consortium), is an alliance promoted by the University of Miami across America that seeks to discover and share knowledge focused on the problems in our region. The network specializes in encouraging innovation, entrepreneurship and promoting social initiatives.

GLAA (The Global Liberal Arts Alliance), is an association that seeks to strengthen the education of Liberal Arts around the world. The strength of the network is in sharing the knowledge and experiences of the institutions to educate our students and become leaders in a highly globalized world.

Networks: https://www.usfq.edu.ec/en/opi/networks



Commitment:

USFQ will invest in international collaborations to create local value.

One example of this is our partnership with the University of Edinburgh, signed under the COP26 framework. This project called Living Lab is focused primarily on studying Energy transition in the Galapagos Islands.

A second example is LDAS (Land Assimilation System): This tool improves the prediction of the climate of Ecuador and Latin America. In collaboration with Duke University and Johns Hopkins University and with support of NASA, we have installed an LDAS node in Quito to improve the prediction of meteorological parameters and create climate change scenarios anywhere in Latin America. It integrates terrestrial and atmospheric models of the climate from satellites with observations from meteorological stations on earth. The application framework will be led by researchers from USFQ, INAMHI, Universidad Peruana Cayetano Heredia and the Naval Medical Research Unit (NAMRU-6) of Peru.

9. Implementation and reporting

The implementation of sustainability projects started in 2012 with the Office of Sustainability and Innovation. The office subsequently created a multistakeholder group to solve challenges both inside and outside of our campus. Through the Smart Campus group, we have taken concrete action towards more efficient operations while consulting a range of experts on carbon footprint, mobility, waste, energy, and sustainable development. This group meets once a year to decide which projects will be undertaken. The projects are presented by a panel of experts and then executed in conjunction with researchers, students and school decision makers.

Smart campus: https://www.usfq.edu.ec/es/oficina-de-innovacion-y-sostenibi-lidad-ois/sostenibilidad



- a. Smart campus:
- Authorities:
- President
- Chief Operating Officer
- Dean of Research
- Panel of experts:
- Environmental Engineering
- Business
- Mobility and Logistics
- Energy
- Biodiversity
- Sustainable food systems
- Student representatives

The Office of Sustainability is responsible for updating the sustainability report, which is voluntarily uploaded to ASSHE, a global sustainability standard created for higher education. USFQ achieved a Silver Rating in 2017 and is hoping that due to our strategic advancement in sustainability, we achieve Golden Standard by 2020. Sustainability reports have been published since 2012 and a measurement of the university's carbon footprint has been reported since 2015. A resume of these activities is shown in the table below.

Table 4. Carbon Footprint and sustainability reports USFQ

Report	Year
Sustainability Report	2012
Sustainability Report	2013
Sustainability Report	2018
Carbon Footprint upgrade	2015
Carbon Footprint upgrade	2017
Sustainability Report upgrade	2020
Carbon Footprint Update	2022

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Climate Action Plan Report

Sustainability Report:

https://reports.aashe.org/institutions/universidad-san-francisco-de-quito/report/2022-01-03/

Sustainability report update:

https://www.usfq.edu.ec/sites/default/files/2023-07/actualizacion-reporte-sostenibilidad-2020.pdf?itok=kEMLP4s0Ek

Carbon Footprint reports:

https://www.usfq.edu.ec/sites/default/files/2024-04/preliminar-informe-usfq-2022-v2-compressed.pdf?itok=owdZrF3kTR

Sustainable development:

https://www.usfq.edu.ec/es/oficina-de-innovacion-y-sostenibilidad-ois/sostenibilidad/desarrollo-sostenible

Sustainability Policy:

https://www.usfq.edu.ec/sites/default/files/2023-07/politica-de-sostenibilidad-usfq.pdf?itok=i077lcfp9H

Sustainable Investment Policy Statement: https://www.usfq.edu.ec/sites/default/files/2023-07/US-

FQ%20Sustanaible%20Investment%20Policy%20Statement.pdf?itok=UqsGi3vL8L

Commitment:

Include the next information (links) required:

- Institution's sustainability strategy
- Institution's sustainability policy on donations and funding.

