USEK SUSTAINABILITY REPORT 2019 - 2021



Our commitment

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Our 3 principles of sustainability

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University has acted to inspire and encourage environmental sustainability, both academically and administratively. Our attitude towards sustainability and the significance we place on it are an integral part of the mission of our Catholic institution.

We are on our way to becoming a university which can achieve significant sustainability through knowledge, proactivity, collaboration, and creativity. Our community, staff, students, and alumni are learning to understand the principles of sustainability – it is becoming rooted in our operations and gives hope for a positive sustainable existence. Great things happen when we work together, and we are steadfast in remaining faithful and strong to our commitment for succeeding generations.

"The small choices we make each day will have the largest impact on our community and our environment" USEK President Father Talal Hashem

WELCOME TO THIS SUSTAINABILITY REPORT.

We have been working logistically on many internal levels towards our goals to cultivate the mindset of our community for sustainability. Now is the time to step back and take stock.

The establishment of the Office of Sustainability and academic and research centers in 2010, and The Green Committee in 2016, consolidated efforts between on-campus partners who recognized the worth of harnessing ideas from the community and building a robust sustainability strategy. These partners work to advance the environmental management of the institution, increase its environmental and social performance, and engage the university community as a whole in sustainable development.

In 2018 we committed to the UN Sustainable Goals (SDGs) and the UN Global Compact to help frame and guide our activities. Sustainable practices have a place in the heart of USEK and influence every decision we make and every action we take. USEK will continue to make a difference.

The purpose of this report is to outline USEK's sustainability roadmap and to give information and details about what has been achieved so far and what is planned for the future. The importance of this report is to demonstrate USEK's actions and initiatives and to provide insights into improving our performance for long-term sustainability strategies. This report will address the following topics in this order: **Our Three Sustainability Principles | The USEK Way | Commitment of On-Campus Units | What Has Been Done | UN Sustainability Goals and Ranking, UN Global Impact and IU GreenMetric Rankings | What is Next?**

Emissions & Energy	Campus Operations	Nature & Ecosystems	Health & Well-Being	Culture & Learning
Greenhouse Gas Emissions	Student Life	Landscape Operation	Personal Well-Being	Legislative Action
Energy Reduction	Purchasing	Campus Design	Food Habits	Curricula
Renewable Reduction	Transportation	Conservation		Research
	Building Operation			Public Awareness
				Professional Development
				Community Outreach
				Partnerships

USEK ROADMAP TO A SUSTAINABLE CAMPUS

OUR THREE SUSTAINABILITY PRINCIPLES

To embed sustainability on economical and operational levels, we base our strategy on three foundational principles: respect for the human condition, respect for the conservation of natural resources, and respect for the economic viability of the university, all to ensure USEK can continue on its sustainability journey. These strategies can succeed only if the USEK community embraces this vision and takes action.

Consistent with its sustainability aims, USEK approached the effort from its three fundamental perspectives:

Respect for the human condition

Building knowledge and capacity.

Caring and sharing awareness | events| engagement | on-campus partners

Respect for the conservation of natural resources

Making the most of resources by reduced energy consumption through conservation and efficiency.

> Green living matters energy task force | building & construction | transportation

Economic viability

Increasing growth of a sustainable economy through intelligent purchasing power and cost reductions.

Best value for money procurement | consumption |

OUR APPROACH – THE USEK WAY

We believe the key to success in increasing sustainability is community awareness and engagement. Without community involvement, little can be achieved. The University must not only engage its students, faculty, staff, and alumni to work toward these goals and plans but must also collaborate with all its on-campus units which are integral to achieving sustainability and developing greater participation and outreach.



UNIT	RESPONSIBILITIES
	Upholding environmental responsibilities, building partnerships, building knowledge capacity.
	 Support the university's environmental responsibilities in its vision and mission by playing a leading role in establishing and actively pursuing a policy of environmental best practices.
	- Promote a green environment that is healthy, safe, and conducive to excellent education and provides good occupational conditions.
	- Compile a yearly report of all our sustainability initiatives and action plans to be submitted to GreenMetric.
GREEN	 Support/follow up on the implementation of sorting campus recyclables and managing the Materials Recovery Facility (MRF)
COMMITTEE	 Support/follow up on the implementation of the action plan for sustainability and climate change mitigation by holding regular meetings will concerned stakeholders.
	- Oversee the implementation of sustainability principles related to energy management.
	- Raise awareness on sustainability issues among staff, faculty, and students.
	- Ensure the conservation of the living environment on campus.
	 Educate members of the community, both within and outside of USEK, about the importance of co-existing with the natural environment, and the importance of preserving this environment for future generations.
	- Increase the appreciation of the campus as a sanctuary for living things (especially birds and bees) and to serve as a model for a sustainable relationship between people and nature.
	- Develop a transportation initiative to decrease private vehicles on campus - Organize Green Events

UNIT	RESPONSIBILITIES		
ENERGY TASK FORCE	 Managing energy and conservation. Manage the implementation of sustainability principles applicable to energy management, water conservation, infrastructure, and operations and budgeting. Implement green building principles in all renovation and construction projects and assess its effectiveness. 		
PURCHASING DEPT AND WAREHOUSES	 Implementing environmentally preferable purchasing. Apply green and environmental sound purchasing principles. Strategize towards zero-waste procurement. (Appendix 1 – Procurement Report) 		
CATERING DEPARTMENT	 Implementing catering best green practices and applying no plastic policy. Adopt sound environmental catering principles (Appendix 2 – Catering Report) Apply green "no to plastic" practices (Appendix 3 – No Plastics Policy) 		
IT DEPARTMENT	Implementing a paperless campus and less consumption of server power. Digital transformation through automated processes and workflows resulting in no printing: - Online forms - Green PCs Reduce printing - One shared printer (with monitored access) per department - Virtual Desktops (through Citrix VDI) - Virtual Environment (Virtualization) meaning less servers and less power consumption - Digital Signature - Cloud Computing		

UNIT	RESPONSIBILITIES
	Raising awareness and maintaining positive presence on social media.
COMMUNICATION AND EVENTS OFFICE	 Sustain awareness campaigns to promote sustainability and environmental protection, in collaboration with the Green Committee and other stakeholders. Organize Green Events. Publicize green initiatives, events and success stories on social media.
SECURITY AND MAINTENANCE OFFICE	 Managing green spaces and safe removal of waste. Use green tools and equipment into all work and facilities. Sort demolition waste. Reduce parking areas on campus and ensure an efficient use of all parking spots. Manage green transportation on campus to reduce private vehicles on campus (Appendix 4 – Carpooling) Increase and manage green areas at USEK. Ensures proper disposal of all campus waste to the MRF
PROVOST OFFICE, RESEARCH CENTER, DEANS AND FACULTY MEMBERS	 Building knowledge capacity within the community. Allocate research funds related to sustainability topics. Incorporate sustainability principles in courses offered in all university majors and programs. Organize conferences, workshops, educational sessions, awareness campaigns and training on sustainability. Incorporate sustainability in department budgets. Ensuring that faculty, staff and students are equipped with the required knowledge to abide by the sustainability initiatives, including identifying training needs and ensuring training appropriate to each individual's responsibility is available and attained.
ALL STAFF, FACULTY AND STUDENTS	 Engaging in and promoting sustainable practices. Engage with university's sustainability policy and practices. Take an active role in promoting sustainability. Refrain from activities that may cause pollution. Participate in events related to sustainability.

WHAT HAS BEEN DONE - SOWING A GREENER TOMORROW

So far we have outlined our principles, strategies and goals. Now we will look at what has been achieved in more detail, which will be broken down into two parts: the Green MasterPlan **(Appendix 5)** and Student Engagement and Capacity Building.

Our Green MasterPlan written in 2010 and developed over the last decade, highlights different initiatives and strategies that aim to incorporate sustainability principles into the improvement of campus life and spread a green message to the wider community.

The Green MasterPlan promotes measures including:



PART 1 THE GREEN MASTERPLAN

ENERGY EFFICIENCY AND EMISSION REDUCTION

The need and use of energy have had a major impact on the earth's environment, climate and resilience. While the University historically has relied heavily on nonrenewable fuels, we now better understand the negative impacts on the environment. Therefore, we are striving to reduce our energy demand by increasing our energy efficiency and the percentage of our energy fueled by renewable and sustainable energy sources. To this end, we have developed a number of economic energy and emission strategies.

Energy Efficiency: High performance green buildings with the aim to satisfy the six categories of LEED protocol: Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality, Innovation in Design.

Emission Reduction: Eco-transportation and reduction of fossil fuels as an energy source, decreasing the heat island effect.



USEK has implemented these measures to increase energy efficiency and reduce emissions

- Since 2014, USEK began retrofitting all existing lighting systems with LED systems to reduce its average energy consumption by more than 60%. Currently more than 85% of the lighting system is based on energy efficient lighting technologies such as LED.
- HVAC systems are being retrofitted with VRV systems to reduce their energy consumption by around 40%. Currently around 90% of the HVAC systems are based on energy efficient technologies such as VRV or chillers.
- Our IT systems are being replaced with lower energy consumption systems, which includes cloud storage for emails, its web and other critical services such as Moodle and Active Directory, etc. In addition a new service was created by the university offering an online preregistration option and a new system called MyDegree powered by DegreeWorks by Ellucian for energy efficiency and reduction of paper use.
- The hardware including servers and computers, etc. are typically green, utilizing minimum power consumption and using green materials.
- The Server Farm itself is optimized to consume less energy i.e., LED lighting, small UPS, least number of servers, green networking devices, etc.

GREENHOUSE GAS (GHG) EMISSION REDUCTION PROGRAM

Our GHG emission reduction program that aims at decreasing the environmental impact is explained by these three scopes:



Scope 2 - Reduction in electricity consumption. A 212 kWp of Photovoltaic (PV) system was installed to lower the amount of electricity purchased from the national grid. Since 2004, all the installed HVAC systems were switched to energy efficient systems combining VRV systems or chiller systems. It is to be noted that all HVAC systems are CFC free.

USEK is studying the possibility of installing ground heat pumps to lower even more the energy consumption of the HVAC systems while taking advantage from renewable energies.

Scope 3 - Lowering GHG emissions from waste. This objective is realized through recycling program described in the corresponding section (WS).

OUR LOW CARBON TRANSPORTATION AND COMMUTER FACILITIES PROJECT

This project encourages low-carbon transportation methods with new pathways and a pedestrian commuter facility that holds showers, lockers and electric vehicle charging stations.

Transportation initiatives to decrease private vehicles on campus:

• Car-pooling program that allows students, faculty, and employees to commute to and from the university and lower GHG emissions (https://www.facebook.com/groups/usekcarpool/).

• Sustainable transportation systems, covering campus fleets, student/employee modal split and programs promoting sustainable transportation.

• Electric shuttle transportation system for students and employees based on electrical cars that use on-board rechargeable Energy storage. The shuttle cars are available and free for all faculty members, staff, students, and visitors; the shuttles make approximately 300 trips each day, covering the whole campus. In 2019, USEK bought two new shuttles: one for 6 persons and another one for 8 persons bringing the total number of shuttles to 10.

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1. The USEK Carpooling Program is our answer to have fun and save time, where in return we offer a VIP parking spot at the Student Parking, along with many gifts and surprises! To face Lebanon's worsening fuel crisis together, the Green Committee is re-launching its much-awaited carpooling initiative. Carpooling is when three or more USEK community members (students, staff, or faculty) commute together in the same vehicle from a similar location or along the same route to the USEK Campus.

2. Biing profecinecy: To promote alternative methods of transportation, USEK is trying to be more bicycle-friendly and initiated activities to promote bicycle riding with limited success because Lebanon is wildly car-centric. The number of bicycles entering the campus is almost none.

3. An initive of Bike_Cool will be launched in the spring semester where we will introduce the rules and methodes to bike in a safe way. That will be considered as a benchmark to push for a greener commute.

RENEWABLE ENERGY

Renewable Energy: Implement renewable energy options to meet the University's Carbon Neutral Challenge Project. As designed, the new sustainable layout of the campus will enable its students and staff to adopt a more ecologically aware, lower carbon lifestyle the Masterplan employs a variety of renewable power resources, including wind power, solar energy, and other alternate energy sources like biomass energy. The use of mini wind turbines in the park area will provide a source of clean and renewable energy for the entire campus without disturbance. Photovoltaic panels are being used as another alternative source of energy; modules have been placed on rooftops where possible to provide supplemental clean solar energy resulting in a significant contribution to energy production efficiency and reductions in CO2 emissions.



SOLAR ENERGY AT USEK



The 212 kWp PV farm was commissioned in July 2017 (http:// www.cedro-undp.org/content/uploads/ event/161004092443773~UNDPCEDRO_ BEF_2016.pdf) and has already delivered

more than 279 MWh as shown in the real data acquired by the monitoring system. **In 2019, it reached 350 MWh.**

This source will be extended to cover the students' parking with a farm of around 650 kWp that is supposed to higher even more the participation of renewable energies within the energy mix of USEK.

• Installed a photovoltaic solar power system.

Solar Water Heating

Solar water heating system was installed to provide 800 liters of hot water.

🚱 OUR ENERGY TASK FORCE —

In 2018 the energy task force started to prepare the energy policy for USEK. An inventory was completed, and consists of the electrical and mechanical drawings of building H (2018-2019), building C and D (2020-2021) and the single line diagram of the main electrical room (2019).

A study was then performed to evaluate the Energy Performance Indicators (EnPI).The study encountered some difficulties due to the absence of energy meters. For that, a monitoring system is currently being deployed to measure the electric energy and performance of the emergency generators. The Electricité du Liban (EDL) consumption continues to be measured by the main counter of the university. Different tenders have been prepared to equip the main electrical room with counters to calculate electrical energy consumption for each building at the campus (2019).

The Energy Task Force team members were provided with the following training:

- Energy Management Systems ISO50001:2011 in 2018
- Internal Audit of Quality Management Systems ISO19011 in 2020
- Brainstorming and proposal writing sessions where team proposed different actions to be taken to reduce energy consumption.

SMART BUILDINGS

In accordance with our Green MasterPlan, our building incorporate eco-design and features. The inspired Green Buildings both direct and indirect benefits. The immediate and most direct benefit is the reduction of energy use and water cost for the entire life cycle of the building. An explanation of these designs and features follow.

Natural Ventilation / 3. Full-Day Natural Lighting

USEK relies on the natural ventilation across all its buildings. All buildings are designed to provide natural ventilation and full-day natural lighting.

Building D, the University Restaurant and the new library have the latest green design features, and includes the energy efficient VRV building energy management system.

Building E softly integrates welcoming spatial configuration which includes a central hall with an interior garden and a zenithal lighting. As integral design feature of the building, the circular garden extends the visual perspectives, and links the various functions. This design creates an inner environment rich with a variety of plants that change with the seasons, providing an organic ambiance.

Building F (Residence Hall) can accommodate 200 female students, and provides an environment conducive to green living and study. Offering maximum natural light and ventilation. The design incorporates an urban strategy which consists a large atrium, a well-protected, convivial, safe and enclosed monospace.

Building H is one of the most modern buildings at the University. It offers natural ventilation and full-day lighting. This building is supported by a complete VRV energy management system.



USEK parking areas are a combination of open spaces, buildings incorporating smart design:

Combination of open space and building

- Students parking / FLOOR 1 (10,000 m²) open space
- Students parking / Ground Floor (10,000 m²)
- Students parking / Underground (10,000 m²)

Open space

- Area P1 (1000 m²) / For administration only
- Area P2 (1500 m²) / For staff only
- Area P3 (3000 m²) / For staff only

Building (Underground)

- Building F (1500 m²) / 3 FLOORS / For staff only
- Building H (4000 m²) / 3 FLOORS / For staff only and dorm students

Total parking area = 15500 m2 (open space) Ratio 25%



WASTE MANAGEMENT AND RECYCLING

Waste Management and Recycling: We are committed to instilling a waste management and recycling mindset in our community, which includes a program that complies with the LEED materials and resources requirements. The Green MasterPlan allocates a specific wide area within the campus which is dedicated to the recycling program where general collection, sorting and storage of material takes place.

The success of our waste management system has exceeded all expectations. All our waste is placed at our Materials Recovery Facility (MRF). Our Lebanese employees sort and dispatch all waste it to local industries, 60% of which is solid waste.

This is what we have done:

- Implemented sort from the source system (promoting awareness to all our community and janitors).
- Implemented a print management program to reduce paper consumption and work towards a paperless campus.
- Reduced single use plastic and packaging.
- Worked towards green catering and procurement.
- Composted our organic waste
- Disposed biological laboratory waste according to our agreement with "ARC en Ciel".

(Appendix 6 - Waste Management Report)





PART 2 STUDENT ENGAGEMENT AND CAPACITY BUILDING

ACADEMICS | VOLUNTEERING | EVENTS AND PUBLIC AWARENESS LECTURES

GREEN ACADEMICS – Since 2010 We have worked on integrating sustainability and practice in the curriculum and held an educational session on this topic, offering several programs directly linked to sustainability: MS energy Studies, MS environmental science, MS food security, MS applied energy, BS agribusiness, and biochemistry.

Our sociology course SOC217 and general social information SOC 201, SOC 210 and DRT 214, have a big impact on the students' behaviour and habits, and environmental practices related to food, transportation, waste, water, energy, purchasing and other sustainable matters.

The number of courses/modules related to environment and sustainability offered in fall 2019 included 625 sections for 304 unique subjects / courses. The total number of courses offered in fall 2020 included 2819 sections for 1407 unique subjects / courses. For each unique subject / course, one or more section could be offered.

It is worth mentioning that all the projects in architecture and engineering are in alignment with environment and sustainability standards. All our engineering programs at USEK are accredited by ABET and the architecture program is engaged with the NAAB accreditation.

The Civic Engagement & Citizenship course is mandatory for all undergraduate students as part of their general education. Students

are motivated and encouraged to work on projects related to the promotion of green initiatives under the guidance of the Green Committee.

VOLUNTEERING:

With the help of the head of department of Psychology & Social Sciences - Faculty of Arts and Sciences, as chapter of Civic Engagement and Community Services, we were able to introduce the concept of volunteering with Green USEK. Volunteers complete 10 hours of community services, assisting in the environmental work on campus or solving environmental challenges through research and coming up with practical solutions for daily issues.

Student dedicated showed we can quickly adapt and change our routines in the face of significant challenges and make a positive difference. Facing the devastation of the Beirut blast on the 4 August, 2020, when 2750 tons of ammonium nitrate exploded in the port of Beirut, killing more than 200 people, wounding 5000 others, and leaving 300,000 residents temporarily homeless. Students armed with brooms and shovels, took to the streets of Beirut to clean up their city.



USEK has a total number of courses /modules related to environment and sustainability of 259 sustainable course. In Fall 2022, USEK offers 278 sections for 117 unique subjects/courses out of the total 259 sustainable courses. For each unique subject / course, one or more section could be offered.

It is worth mentioning that all the projects in Architecture and Engineering are thought with alignment of environment and sustainability standards. All the Engineering programs at USEK are accredited by ABET and the Architecture program is engaged with the NAAB accreditation.

Before Fall 2022, the Green Committee at USEK had a significant role in the Civic Engagement & Citizenship course that was mandatory for all undergraduate students as part of their General Education framework. Students were very motivated and encouraged to work on projects related to Green initiatives promotion.

As for today, the General Education framework has been restructured covering the UN Sustainable Development Goals (UN-SDG) with the assistance of Green USEK, while enabling students to become good citizens of the future, actively engaged in the development of societies, empowered with a sound culture, possessing know-how as well as humanism, and contributing to the establishment of a better world. The GE program is divided in 10 Core areas of 3 credits each which aim at meeting the Institution Learning Outcomes (USEK-ILOs) as well as the Job Market needs (as defined by NACE) for a better immersion and engagement of USEK students in personal, social, professional, national, and international life. Moreover, the 10 core areas contribute to the implementation of the UN-SDGs.

Through USEK General Education, students will be able to:

A. Engage in fundamental questions of faith and justice.

B. Identify, reflect upon, integrate, and apply different arguments to form independent judgments.

C. Collect, interpret, evaluate, and use evidence to make arguments and evidence-based decisions.

D. Apply knowledge and tools from various disciplines to identify and address intellectual, ethical, and practical problems of relevance to the contemporary world.

E. Communicate ideas and arguments through clear writing and speech.

F. Identify information needs, locate, and access information, and critically evaluate sources. G. Collaborate intellectually and creatively with diverse people.

H. Engage in creative process and thinking to support society.

The 4 main courses covering sustainability subjects within the new GE framework are GEHS205, GEHS210, GEPS200 and GEPS205 found in the list above.

• **GEPS205:** The "Civic Engagement Journey" course is designed as a fundamental pillar of academic training, conceptually as well as empirically. It aims to help students acquire notions, concepts and practical applications indicative of a civic and citizenship commitment which would contribute to the development of society, while identifying their social, political and civic responsibilities. This course affirms an ambition to train social actors and equip them with a high ethical standard, while remaining aware of social realities at all scales: volunteering, commitment towards the environment, the persons with special needs, within NGOs, • **GEHS205:** The course covers two large periods of the Lebanese history: the Ancient and Medieval Times.

Thus the course aims first:

- To introduce students to the ancient history and the ancient archeology of LebanonThe course covers two large periods of the Lebanese history: the Ancient and Medieval Times. Thus the course aims first:

- To introduce students to the ancient history and the ancient archeology of Lebanon

-To familiarize students with major historical events and archaeological sites that forged this important period of Lebanon History

- To give a big picture through written evidence and materials of the various civilizations and cultures being succeeded on the Lebanese soil, and under several themes: Arts, Crafts, Commerce, Religion, Politics, Societies... etc.

The period covered, spread over six major chronological phases, ranging from prehistory to the end of Antiquity and the Early Byzantine period. The course aims then to:

- Introduce the students to the Lebanese history during the Middle Ages; the period extended from the year 636, the date of commencement of the Islamic-Arab invasion for our country, till 1516, dates of the triumph of the Ottomans on the Mamluks in the battle of Marj Dabek.

- Introduce the students to the historical documents and teach them how to look at these sources and to stress the importance of returning to it when reading the history.»

• **GEHS210:** The history of modern and contemporary Lebanon extends from the date of the Ottoman victory over the Mamluks during the battle of Marj Dabek in 1516 to the end of the civil war with the Taif Agreement in 1989 Students will learn chronologically about the great periods and events in Lebanon's history, including the reign of the Maan and Chehab dynasties, both Caïmacamias and Moutasarifiya systems, the French mandate, and the process of independance. Students will be aware of the evolution of the Lebanese territory, politics and society, so they could understand the dynamics of the process of State-building and social organization.

• **GEPS200:** This course aims to reflect on the multi- dimensional experience of the youth. It will study the youth position regarding its relation to other age groups. It will conduct an analytical reading through the concepts and notions of value, norm, culture, ritual, symbol, engagement, life project, the social role of religion, etc.; to reach the level of considering the place of the youth in specific social contexts such as: family, friends, leisure, associative and political life. The course is particularly interesting for young people as the key to any social construction as a social active person, as well as the key to any change of mentality in favor of a humanistic dialogue within the societies.

EVENTS:

USEK with the help of its agricultural students labelled all of USEK's tree on campus

Public Awareness lectures: We organize birdwatching activities and events related to ecosystems sustainable design and birdlife habitat on campus and critical locations in Lebanon.

Planting Cedars in North of Lebanon: Each year around 1000 students graduate from USEK, leaving behind history, a place where they were taught, nurtured, grasped their ultimate vision, goals and values; in order for them to symbolize their clinging to their roots (National and institutional), we aimed to plant a tree, in a specific land marked for USEK Community.

To enforce the bond between the USEK community and the national environment, to reinstall the natural healer of climate change and to replant Lebanon. In 2018, USEK teamed up with USAID, Lebanese Reforestation Initiative, and the Municipality of Ehmej to plant the cedars; USEK community planted 126 trees and 200 trees in 2019.



Several events and studies have been published and broadcasted on national television and international ones, to tackle persistent environmental issues, all of these were conducted by Dr. Nabil Nemer, Faculty member at USEK Faculty of Agricultural and Food Sciences, showing once again the importance of faculty:

October 2019, LBCI:

Could we make Lebanon green again? (After Lebanon Wildfires 2019, a series of about 100 forest fires)

August 2019, TF1: Global warming hurts cedars in Lebanon <u>link</u>

April 2019, AlJazeera TV: Can Lebanon's cedars outlive climate change and a pesky insect? <u>link</u>



RESEARCH FUNDS DEDICATED TO SUSTAINABILITY RESEARCH.

We invest in supporting innovative product development and help build a more just and sustainable financial system. In 2019, around 54% of the research funds signed by the Office of Grants and Contracts were dedicated to sustainability issues.

This section covers faculty and department sustainability research and initiatives for open access research.

		USD	LBP
LAL	Total Research Funds Dedicated to Sustainability Research (in US Dollars)	\$ 39,743.72	LBP 190,900,000.00
TO	Total Research Funds (in US Dollars)	\$ 231,616.18	LBP 395,000,000.00



UN SUSTAINABILITY GOALS AND RANKINGS - RECOGNIZING OUR COMMITMENT

Our contribution towards fulfilling the UN Sustainable Development Goals (SDGs) was recognized with our recent success in the 2021 Times Higher Education (THE) University Impact Rankings where we were awarded 1st, joint-1st and 2nd in Lebanon. We demonstrated significant positive impact across 3 SDGs, highlighting our holistic approach to embedding sustainability and equity through our teaching, operations, research, and outreach within the community.



2021 GLOBAL IMPACT RANKINGS SUCCESS

USEK organizes its activities in alignment with the SDG goals. More than 30 events related to sustainability are organized by USEK yearly.

SOME OF OUR KEY SDG EVENTS FOR 2019-2021

SUSTAINABLE DEVELOPMENT GOALS	OUR PROJECTS		
کر الک SDG 1 No Poverty	December 2018 – Christmas Market - Outreach. A cross-section of different NGO stands raising money for families in need in Lebanon. Fall 2019 "Mi Casa es su Casa"		
۲ SDG 2 Zero Hunger	December 2018 annual food drive - The Student Affairs Office Fall 2019 – Launching of our outreach program: " T3ish w Yekol Ghayrak" (Care Beyond Family) - sharing food, reducing food waste and support for the community. T3ish w Yekol Ghayrak/ تعيـش ويـاكل فـيرك /Care Beyond Family is a food bank initiative in partnership with the Social Service Office and the Green Committee and will help reduce hunger and support food recovery.		

SUSTAINABLE DEVELOPMENT GOALS	OUR PROJECTS
	 August 2021 – Collaboration between USEK and Phoenix Medical Recognizing the need to design and manufacture healthcare technologies locally, and strengthen the Lebanese healthcare system, USEK's Biomedical Engineering Department has recently signed a Memorandum of Understanding with Phoenix Medical (member of INDEVCO Group) to bring together personnel, technological, and clinical resources. This MoU is based on the mutual recognition of the importance of research in the field of medical devices and form a nucleus for promoting excellence and professionalism in the field of healthcare technology to ultimately empower the health-tech industry in Lebanon and the region.
	As a result of this collaboration, USEK has officially launched the USEK-Phoenix joint medical program entitled "Medical Device Design", open to all biomedical, electrical, computer, mechanical and telecom engineering students.
-_>	February 2021 – The Coronavirus Outbreak USEK organized a lecture on the coronavirus outbreak, given by Dr. Madonna Matar Lahoud. The lecture addressed the clinical manifestations and complications of this disease, the medical management of patients, and the main prevention measures that should be considered.
SDG 3 Good Health & Wellbeing	November 2020 - Hybrid uro-oncology congress "U-CARE 2020" Distinguished international speakers and moderators presented the latest updates in the fields of prostate, renal and bladder cancers with an emphasis on a multidisciplinary approach.
	May 2019 – Awareness lecture: Healthy Voice in a Healthy Body: Talking about Performing Arts Medicine. Delivered given by Alfonso Gianluca Gucciardo, MD., a performing arts medicine expert and bioethics/sexology specialist.
	April 2019 Free taster workshop about ENCÉFAL brain-training method.

March 2019 - Fitness Awareness Day – Student Affairs Office

The fitness day in the green space next to the campus restaurant included live fitness classes, fitness competitions, dietitian consultations, physical therapy, and supplements consumption awareness sessions, and many more activities.

OUR PROJECTS

November 2021: 7th National Day of ADMEE – Section Liban

The Holy Spirit University of Kaslik (USEK) organized the 7th National Day of ADMEE* (Association pour le Développement des Méthodologies d'Évaluation en Éducation), entitled "Online Assessment: Theory and Practical Tools" (to be given in French). The purpose of this day was to understand, enrich and ensure the consistency of online assessment and its tools, in addition to discussing the evolution of online assessment tools in higher education. It also strives to meet the changing needs and expectations based on a "renewed vision of educational success.

November 2021: Webinar Education

As part of a series of webinars on Administrative Decentralization, the Holy Spirit University of Kaslik (USEK) organized the fourth webinar on Education.

March 2021 – Lebpass National Seminar

Under the patronage of the Directorate General of Higher Education at the Ministry of Education and Higher Education, the Holy Spirit University of Kaslik (USEK) organized the LEBPASS National Seminar, a project co-funded by the Erasmus+ Programme of the European Union.

This seminar introduced the LEBPASS project which aims to help students and graduates make their skills and qualifications clearly understood in Lebanon, the Middle East and Europe, thus facilitating their mobility as both learners and future employees.

February 2019 - Accreditation for Reshaping Business Education in the MENA Region conference - in partnership with The Association to Advance Collegiate Schools of Business (AACSB), and under the patronage of the President of the Council of Ministers, H.E. Mr. Saad Hariri, Link to website: <u>https://www.usek.edu.lb/bemenabeirut2019</u>

September 2019 – The 1st National Workshop on UI GreenMetric for Lebanese Universities - UI Green Metric and the University of Indonesia, with experts of UI GreenMetric in the University of Indonesia and the Coordinator Regional of UI GreenMetric for Middle Eastern Universities and Professor of King Abdul Aziz University. A tree was planted under the workshop title.



SUSTAINABLE DEVELOPMENT GOALS	OUR PROJECTS
تي SDG 5 Gender Equality	March 2021: Women in Leadership: #ChooseToChallenge Inequality in a COVID-19 World On the occasion of International Women's Day, the Holy Spirit University of Kaslik (USEK) organized a virtual roundtable on the theme of "Women in Leadership: #ChooseToChallenge Inequality in a COVID-19 World". March 2019 Girls and Math: An Illuminating Equation – Workshop with The Agence pour l'enseignement français à l'étranger (AEFE) and USEK. Hosted by the Faculty (School?) of Arts and Sciences.
SDG 6 Clean Water and Sanitation	2019 USEK-talaya Waterfull Initiative We teamed up with talaya (who are they?) to provide fresh drinking water all year round from fountains across campus. To encourage the reuse of bottles, the initiative campaigned to cut down on the landfill plastics by encouraging students to refill rather than single use.

SUSTAINABLE DEVELOPMENT GOALS	OUR PROJECTS
	November 2021: Webinar: Energy and Natural Resources As part of a series of webinars on Administrative Decentralization, the Holy Spirit University of Kaslik (USEK) organized the 5th webinar on Energy and Natural Resources.
SDG 7 Affordable Clean Energy	2020 Ceremony of Signature of the Memorandum of Understanding between USEK and IPTEC Energy Center Hosting of the event: Sustainable Energy in Lebanon: From 2020 Concrete Targets to 2030 Vision organized by the Ministry of Energy
SDG 8 Decent Work & Economic Growth	June 2020: Study by UBS: "The Economic and Financial Crisis in Lebanon: Major Problems and Reform Plan" A study has been recently conducted by the graduates of the USEK Business School entitled "The Economic and Financial Crisis in Lebanon: Major Problems and Reform Plan". 2019 Annual Job Fair– Careers Services Office

OUR PROJECTS

November 2021 - The 3rd International Entrepreneurship Research Symposium

This event was organized by the Center for Innovation and Entrepreneurship at the Monte Ahuja College of Business at Cleveland State University (CSU), and the Asher Center for Innovation and Entrepreneurship at the Holy Spirit University of Kaslik (USEK) The theme of this year's symposium was: A New Era for Entrepreneurship: Adapt and Innovate.

July 2021 – Entrepreneurship World Cup (EWC) National Event

Summer 2021: Global Accelerator Program 2021

The Holy Spirit University of Kaslik (USEK) organized the US-affiliated Global Accelerator Program in Lebanon. It is designed to support university students and faculty entrepreneurs in accelerating the development of their ideas and products to market during these challenging times.

This 8-week online program, hosted by the Asher Center for Entrepreneurship and Innovation (ACIE), took place between July 8 and August 30, 2021. It includes fireside chats, training sessions and workshops, plus mentorship by American and international industry providers and experts.

April 2021: Hult Prize 2021 Beirut Impact Summit

The Holy Spirit University of Kaslik (USEK) cohosted the Hult Prize 2021 Beirut Impact Summit.

More than 250 student entrepreneurs from more than 40 countries all over the world took part in this summit to showcase their innovative startups and inspire a generation of young people to change the world through business. The teams pitched their startup solutions to address the Hult Prize 2021 Challenge aiming to create jobs, stimulate economies, reimagine supply chains, and improve outcomes for 10 million people by 2030.

February 2019 - Ethics of Research Involving Human Subjects and Biosamples - - three-day workshop.

Hosted by the Center for Ethics and Bioethics of the Higher Center for Research, in partnership with the Lebanese National Consultative Committee on Ethics, the Ministry of Public Health, the National Council for Scientific Research, the UNESCO Office in Beirut, and the World Health Organization.

March 2019 - lecture - "Entrepreneurship and Innovation Technology" given by H.E. Mr. Nicolas Sehnaoui, Chairman of UK Lebanon Tech Hub. Hosted by the Faculty of Sciences and the Asher Center for Innovation and Entrepreneurship (ACIE)

April 2019 – Digital Technologies in Educational Models: Realities, Challenges and Prospects - International Colloquium -As part of the 50th anniversary of the International Federation of Teachers of French (FIPF). Organized by The Lebanese Association of Teachers of French (ALEF), in partnership with the Lebanese University's Foreign Languages Bureau, the Holy Spirit University of Kaslik (USEK), the Jinan University and the Institut français du Liban.



SDG 9 Industry, Innovation & Infrastructure

SUSTAINABLE DEVELOPMENT GOALS	OUR PROJECTS
SDG 10 Reduced inequalities	April 2019 - lecture - Autism is not a disability, it is a different ability for World Autism Awareness Da, USEK organized a lecture entitled "Autism is not a disability, it's a different ability". Hosted by the Department of Psychology of the Faculty of Philosophy and Humanities, and the Center for Ethics and Bioethics of the Higher Center for Research.
SDG 11 Sustainable Cities and Communities	 February 2021 – Launching Webinar of the Research Project: Lebanon Unsettled Through student workshops and collaborative research, "Lebanon Unsettled" will establish a publicly accessible archive of Lebanon's recent urban protests. Using the new and enlarged archival collections at USEK and, more broadly, in Lebanon, this initiative will place the 2019 protests in their larger historical and geographical context, rereading Lebanese urban history through the eyes of urban revolt from the Ottoman era to the present day. The webinar included a speech by Fr. Talal Hachem, USEK President, and an introduction by Dr. Michael Mason, Director of the Middle East Centre (MEC) of the London School of Economics (LSE), on the center's work and the Academic Collaboration with the Arab Universities Programme funded by the Emirates Foundation. May 2019 - Hike to Bentael Biosphere Reserve: In Their Footsteps. Hike in the Bentael Reserve to honor the memory of Father Etienne Sacre. USEK installed permanent information boards about the life of Rev. Fr. Sacre, the history of the region, the architecture of the hermitages, and the biosphere of the reserve. Green Reporters - To enthuse future Journalists of USEK about environmental causes and issues. Recycling - awareness sessions for St. Rock School – campus visit/training USEK welcomed students, teachers and staff, janitors, and maintenance staff to offer them awareness sessions

SUSTAINABLE DEVELOPMENT GOALS	OUR PROJECTS
\$I	October 2019 – Green Committee awareness activities - organized fun and engaging activities related to the environment and waste sorting, aimed at promoting awareness in an easy approachable way.
SDG 12 Responsible Consumption and Production	May 2019 - USEK Faculty Members Research Awards, USEK organized the USEK Faculty Members Research Awards. This event, hosted by the Higher Center for Research, took place on Monday, May 6, 2019.
لیں Sکے 13 Climate Action	
ک Life Below Water	August 2020 No to plastic – 'Clean our Sea' litter picking event at Raouche, Beirut – in collaboration with Mr. Samer Halwani, his team and our students to bring to light the quantity of plastic in our sea. June 2019 Maritime and Marine Governance in Lebanon: Taking Stock for Action - colloquium In collaboration with Robban Assafina, a leading Arabic-English magazine specialized in shipping and marine technology. On the importance of sound maritime and marine governance policies and laws, this colloquium will address the merits and challenges of the Lebanese nation as a country bordering the sea.

SUSTAINABLE DEVELOPMENT GOALS	OUR PROJECTS
<u>لَّہُ جُہُ</u> SDG 15 Life on Land	August 2019 - Sawweb Sawtak for Sustainable Hunting, August 2019 - conference In the presence of H.E. Mr. Fady Jreissati, Minister of Environment. Birdwatchers exhibited their photos of birds and talked about birdwatching as an alternative to hunting.
کې	As part of the project "Reconciling the Past to Build the Future", USEK organized 3 webinars in 2021: November 2021 – Webinar: Ending Impunity September 2021 – Webinar: Missing persons and rule of Law July 2021 – Webinar: Missing Persons and Transitional Justice April 2021 – Webinar: The Root Causes of the Lebanese Civil War October 2021: Steer-Leb Monitoring and Closing Event
	StEER-Leb project (2017-2021) was an Erasmus+ Capacity Building project co-funded by the European Commission. The project's main objective was to boost student empowerment, engagement and representation infrastructures in Lebanese universities. This project was coordinated by USEK.
SDG 16 Peace, Justice and Strong Institutions	February 2021 - Human Fraternity: Rewriting World History On the occasion of the 2nd anniversary of signing the "Human Fraternity Pledge" by His Holiness Pope Francis and the Grand Imam of Al-Azhar Sheikh Ahmed Al-Tayyeb, the Holy Spirit University of Kaslik (USEK) organized a virtual roundtable entitled "Human Fraternity: Rewriting World History".
	February 2020 – 4th International Conference on the Lebanese Commercial Code USEK organized its 4th International Conference on the Lebanese Commercial Code, entitled "Overlapping Perspectives of Researchers and Judges in light of the Reform of the Lebanese Commercial Code". The conference was held under the patronage and in the presence of H.E. Judge Souhail Abboud, First President of the Court of Cassation and President of the Higher Judicial Council, following the recent reform of the

Lebanese Commercial Code (Law N° 126/2019 of March 29, 2019).



OUR PROJECTS



SDG 16 Peace, Justice and Strong Institutions

R

SDG 17 Partnerships for the Goals **April 2019 International Colloquium on Commercial Law: Capital Markets Law** - A continuation of the study conducted for two consecutive years in the context of the 75th anniversary of the Code of Commerce and brought together experts from the world of education, research, business, and economics.

April 2019 Writing and Geopolitics in the Contemporary Arab and Mediterranean World - Symposium Hosted by the Faculty of Letters, in collaboration with the Institut national des langues et civilisations orientales – INALCO (France) and the Ibn Tofail University (Morocco).

March 2019 - Latin American Contributions to Peace and International Law – lecture delivered by H.E. Mr. Mauricio Alice, Ambassador of Argentina to Lebanon, and moderated by Dr. Joseph Al Assad, Associate Professor at the Faculty of Engineering. Hosted by the School of Law and Political Sciences and the International Affairs Office.

(Appendix 8 - Green Events on Campus)

USEK ALIGNMENT WITH THE UN GLOBAL COMPACT

CATEGORY	INDICATORS FOR 2019	VALUES, BENCHMARKS AND COMMENTS
General environment	Total area on campus covered in planted vegetation (%)	35%
	The total open space area divided by total campus population	22 m2
Energy Efficiency and Climate change	Rate of energy efficient appliances used on campus	75%
	Smart building implementation rate	70%
	Number of renewable energy sources in campus	1 PV system
	The total electricity usage divided by total campus population (kWh per person)	830kWh/person
	The ratio of renewable energy production divided by total energy usage per year	2017/2018 consumption: 6520352kWh
	The total carbon footprint divided by total campus population	0.22
Safety and well being	Number of safety related events per year	
	Overall result of the safety culture assessment	
Waste	Electronic waste collected per year 2019 (AC's, Washing machines, Equipment's, Computers, etc.)	4 trucks
	Number of fluorescent lamps stored safely at the MRF per year	5000 lamps
	Plastic (PET, HDPE, Nylon, Flex, etc.)	3, 737 Tons
	Estimated number of water bottles saved through the installed drinking water fountains per year	4,800,000 bottles
	Organic waste converted into compost for the year 2019	12,000 Kgs
	Glass collected from bins for the year 2019	40 bags of 50 L capacity
	Metal Collected (Aluminum, construction waste from campus)	6, 955.5 T
	Paper and carton board	26,535 T
	Styrofoam	5 trucks
	Wood (Desks, furniture and tree pruning)	6 trucks

Water	Rate of water efficient appliances used in the University	30%
Social Transportation	Number of social events linked to SDGs conducted per year	30+
	Number of Transportation Initiatives to Decrease Private Vehicles on Campus	4
	Total number of zero emission vehicles	10
	Total parking area = 15500 m2 (open space)	25%
Education	Ratio of sustainability courses to total courses / subjects	9.27%
	Ratio of sustainability research funding to total research funding Total number of scholarly publications on sustainability per year Total number of events related to sustainability per year Number of student organizations related to sustainability	64%
		90
		75
		10

IU GREENMETRIC RANKING

Within a year of the creation of the Green Committee, USEK was ranked by GreenMetric World University for the following rankings:

- 2017 1st Green University in Lebanon and among the 10 'Greenest' Universities in the Arab World.
- 2018 1st Sustainable and Green University in Lebanon and 8th Most Sustainable University in the Arab World.
- 2019 1st Sustainable and Green University in Lebanon and 3rd Most Sustainable and Green University in the Arab World of that year.
- 2020 1st Sustainable and Green University in Lebanon for the fourth consecutive year and 3rd Most Sustainable and Green University in the MENA region.

In order to track the implementation of the greening initiatives and impacts at USEK, several indicators were adopted by the University. These indicators were derived from the UI GreenMetric initiative and cover all the components targeted at USEK long-term sustainability plans. These indicators help when setting up future plans and projects.

INDICATORS ADOPTED BY USEK

CATEGORY	INDICATOR	VALUES, BENCHMARKS AND COMMENTS	REMARKS
General environment	Total area on campus covered in planted vegetation (%)	35%	
	The total open space area divided by total campus population	22 m2	
Energy Efficiency and Climate change	Rate of energy efficient appliances used on campus	75%	
	Smart building implementation rate	70%	
	Number of renewable energy sources in campus	1	PV system
	The total electricity usage divided by total campus population (kWh per person)	830kWh/person	2017/2018 consumption: 6520352kWh Students: 6825 Staff: 337 Instructors: 692
	The ratio of renewable energy production divided by total energy usage per year	4.14%	
	The total carbon footprint divided by total campus population	0.22	2017/2018 Co2 emission: 1727.92tons Students: 6825 Staff: 337 Instructors: 692

What next?

Despite the recent disturbing political, and economic upheavals in Lebanon, and not to forget the global pandemic, our commitment to sustainability remains strong. It creates opportunities for our staff and students, makes us more efficient, and is the right thing to do.

Through developing more partnership and student collaboration we can build knowledge and capacity and learn to make the most of resources. We understand that being sustainable generates worth. It means more than lowering our environmental impact; it's about spirit, soul and brainpower, building the human connections to make a positive difference in protecting the earth.

We continue to measure our progress and achievements against our foundational strategy, rankings, the UN Sustainable Development Goals (SDGs) and Global Contact. A review of the work we are doing across our operations, research, teaching, and outreach is imperative to advance university sustainability practices and to recognize what has been done, and what is yet to be achieved.

Our future plans include work in these areas:

CIVIC ENGAGEMENT PROJECTS:

It is very clear to us that it is time to develop our partnerships within the community.

Scouts – educate and train scouts to instill a sustainability mindset to advance our activities to national level, thus investing in the youth to ensure their rightful future.

Students – initiate a circular economy through a repurpose store initiative where students will buy used products, up-cycling/repairing/ recycling and put for sale in a walk-in store. The store will serve as a living laboratory for student to gain experience in their study areas and embed sustainability ethos.


Exploring new energy resources is of a growing importance during the last few years, such as biodiesel fuel. Biodiesel is recommended as a substitute for petroleum-based diesel and mainly as carbon neutral energy, compared to fossil fuel diesel.

Biodiesel Project: Continuous prototype unit converting waste cooking oil into biodiesel (WCO)

This project objective is to build a continuous prototype unit which converts waste cooking oil (WCO) into biodiesel. Simultaneously, there will be a study of biodiesel market in Lebanon will be performed by surveying and collecting data from different governmental or nongovernmental database resources. These assessments are necessary to demonstrate the feasibility of biodiesel production from WCO in the Lebanon case.

The project will be developed in two stages:

- **1.** Implementation of a control system and build a reactor which is adequate for a small scale industry
- **2.** Use of a method to recycle un-reacted reagents and purify the biodiesel product.

Link to the Biodiesel project: https://www.iptgroup.com.lb/Library/Assets/Biodiesel20%Brochure20%-IPTEC20%and20%USEK20%-last085339-.pdf

We will continue to work hard to expand the university's goals by demonstrating and spreading good environmental practice on a local and national level. It remains USEK's top priority to continue growing a culture of sustainability among students, faculty, and staff, empowering them to be green actors in helping reduce environmental footprints through their actions and initiatives.

Thank you for reading our report.

For updates please visit us on <u>https://www.usek.edu.lb/about-usek/sustainable-office/about-us</u> and follow us on Instagram@green.usek



1. Sustainable Procurement Report | 2. Catering Report | 3. No plastics Policy 4. Carpooling | 5. Green Masterplan | 6. Waste Management Report | 7. Awareness Events

USEK SUSTAINABLE PROCUREMENT

This document presents an overview of what sustainable procurement is and outlines key initial steps needed to facilitate the shift to sustainable procurement. The key elements of sustainable procurement, the benefits, and challenges; as well as how to transition to more sustainable procurement, are presented.

USEK have placed sustainability at the heart of the procurement process. It is now time for sustainable procurement to become the standard operating procedure across the campus.

Our Vision:

To reduce the generation of greenhouse gases and overall sustainability. The most important environmental and social challenges in today's consumer society are:

Reducing the emissions of greenhouse gases	Reducing the emissions of hazardous chemicals
Avoiding over-consumption of resources and limiting the volume of waste	Stopping the use of ozone depleting substances
Safeguarding biodiversity	Promoting safe and equitable work environment
Supporting local entrepreneurs.	

In procurement, it is therefore important to manage:

Consumption of raw materials and energy	Chemicals in products
Polluting emissions	Waste generation
Work conditions	Diversity of supplier

Fields of action include:

- **Physical assets** (buildings, equipment, vehicles etc.)
- Management processes (procurement, travel requirements, management systems etc.)
- Organizational culture (day-to-day behavior of staff)

The major goods procured by USEK System are:

Food	Generator sets
Pharmaceutical supplies Chemical and petroleum products	
Medical equipment	Air conditioning/heating/plumbing
Vehicles and transportation	Laboratory equipment
Telecommunications equipment	Rental/lease equipment
IT equipment	
Shelter and housing	

The major services procured are:

Security	General management
Construction	Freight and air transportation
Engineering services	Maintenance and repair
Leasing or rental	Consultancy
Telecommunications	Outsourced personnel services (catering, cleaning,
	travel)

TRANSITIONING FROM PROCUREMENT TO SUSTAINABLE PROCUREMENT

Sustainable procurement directly supports two of the four basic procurement principles: Best value for money and the interest of USEK

Quality and the environment are often closely linked as quality usually means a longer product life and thus less consumption of resources because of lower replacement rates. Moreover, an **eco-efficient** product usually uses less energy, meaning lower energy costs over the life-time of the product. An eco-efficient product is often cheaper to dispose of either because it is included in a recovery or re-use system or because it does not contain hazardous substances and thus does not require special handling.

Ultimately, when buying a product, the purchase price must be considered. The price calculation must include all the costs relating to the product throughout its life. When products are examined from a life-cycle perspective, those that meet sustainability criteria are frequently cheaper. Many sustainably produced products also have a smaller carbon footprint, i.e. they are produced with less energy or consume less energy. As USEK has committed to being carbon neutral, products or services that have low carbon impacts can be classified as being "in the interest to USEK".

Compliance with **fundamental labor** standards throughout the supply chain during contract execution also supports the goals of "interest to USEK" and "best value for money". Moreover, ensuring decent working conditions and the non-use of child labor and forced labor demonstrates that USEK does as it preaches as well as contributing to complying with the SDG's.

SUSTAINABLE PROCUREMENT

Emission of harmful and toxic substances into water or atmosphere, the generation of waste, the consumption of natural resources and damage to, or destruction of, ecosystems are elements of unchecked consumption. Increasingly USEK and surrounding communities are bearing the brunt. At the heart of numerous policies and activities—developed to address these negative impacts—is a shift in production and consumption patterns.

Procurement can be called sustainable when an organization uses its buying power to signal preferences to the market by its choice of goods and services, which meet sustainable development criteria.

Sustainable procurement is not about "burdening" the market with extra requirements; rather it is a well-defined strategy that gradually phases in sustainable requirements, supports measures, promotes dialogue and open communication between the suppliers and procurers.

Procurement has to meet the obligations of timeliness; effectiveness; efficiency; competition; transparency; equitable distribution; and development.

Sustainable procurement is about combining social and environmental factors with financial considerations when making purchasing decisions. It involves looking beyond the traditional economic parameters and making decisions based on life-cycle costs; these parameters associated with environmental and social risks benefits as well as broader social and environmental implications.

A sustainable procurement incline to develop and adopt policies and practices that:

- Secure best value for money, price, quality, availability, functionality.
- Support a precautionary approach to environmental challenges.
- Are cleaner and safer; make efficient use of resources, ensure adequate management of chemicals.
- Incorporate environmental costs, reduce pollution and risks for humans and the environment.
- Influence purchasing decisions to support issues such as poverty eradication, international equity in the distribution of resources, labor Conditions, and human rights.

What are the Key Elements of Sustainable Procurement?

Sustainable procurement policies and processes incorporate appropriate safeguards and checks to avoid abuses or inadvertent infringement on key issues, the most important of which are noted below.

The growing attention to issues of sustainable consumption and production (SCP) is the result of decades of work on cleaner production and eco-efficient industrial systems. SCP represents the latest step in a progressive evolution from pollution control; an evolution which has gone from:



Local Entrepreneurship

Strategic procurement practices can also support the development of local entrepreneurs by requiring that a certain percentage of goods and services be locally sourced.

Human Rights

Human rights are increasingly acknowledged as a business issue. They are closely linked to corporate risk and reputation management. The procurement function must include processes that identify companies that flaunt their responsibility to uphold the universal human rights both towards their employees and the communities by which they operate.

Labor Rights

With the rise of globalization—and with it the extension of global supply chains—procurers have the unique opportunity as well as responsibility to ensure that procurement supports workers' rights. Companies operating in global markets are increasingly expected to assume some level of responsibility for labor practices along their supply chains. This responsibility can and should also form an integral component of the procurement function, by ensuring that the contracted companies operate within the universally accepted ILO's core conventions on labor standards. At a minimum, procurers should be aware of a prospective supplier's performance concerning:

Rights to freedom of association and the effective recognition of the right to collective bargaining:

- Elimination of all forms of **forced or compulsory labor**.
- Effective abolition of **child labor**.
- Elimination of discrimination in respect of employment and occupation.

While the above four elements do not cover the full range of labor rights issues, they do address some of the deepest and most challenging aspects of this subject area.

Gender and the Empowerment of Women

The procurement function can promote gender equity and the empowerment of women by adopting practices that support minority businesses, particularly those owned by women.

Poverty Eradication

Eradication of extreme poverty and hunger by providing capital investment through local and regional sourcing strategies in the respective economies. By sourcing products and services in-country or within a particular region procurement can:

- Support job creation.
- Stimulate increases in income.
- Improve the purchasing power of the local population.
- Generate economic opportunities within communities.
- Contribute to economic development.

A well-functioning procurement system can ensure:

- Better value for money.
- Increase in efficiency and effectiveness of delivery.
- Reduction in the potential for corruption.
- A positive, country-level Gender and the Empowerment of Women.

Sustainable Procurement Guidelines for Office Stationery

Key environmental impacts:

The most important environmental and social impacts relating to pulp and paper production for paper consumables are the following:

i) Forest destruction and loss of biodiversity (e.g. illegal and sustainable logging of forests used to produce virgin paper fibers).

In order to reduce these impacts, there are two solutions:

• Produce/use paper from virgin fiber stemming from legally harvested woods and from sustainably managed forests. The certification of sustainable forest management (such as the FSC, PEFC, CSA, or SFI) guarantees both legality and the respect of environmental and social standards in forest exploitation.

• Produce/use paper from recovered paper in order to produce recycled paper. In fact, it is possible to recycle high-quality paper, such as graphic paper, several times for either the same, or lower quality uses, reducing the need for virgin fiber.

ii) Water and energy consumption during production (of recycled paper as well as paper produced from virgin fibers).

The water and energy consumption levels can vary widely depending on the grade/type of paper produced.

Production processes for paper based (totally or mainly) on post-consumer recovered paper fibers (recycled paper) use much less energy and water than those for paper based (totally or mainly) on virgin fiber.

iii) Use of chemicals namely chlorine and chlorine substances.

iv) Optical brightening agents (for whiteness, brightness, and shade.

v) Use of other chemical substances (e.g. colorants and dyes).

The most important environmental aspects related to printing consumables and other office stationery are:

- Waste from disposal (unless reprocessed or recycled),
- Packaging (plastics), heavy metals (e.g. mercury, cadmium, lead, nickel)
- Hazardous substances used to produce toner materials.

Elements and potential environmental impacts of office stationery

Energy consumption for the production of paper based (totally or mainly) on virgin fiber is 5,000-10,700 kWh/t, compared to a consumption for the production of recycled paper of 1,700-5,500 kWh/t. Pulp and paper industries in the EU have substantially improved their technology, developing, and using, in many cases, best available technologies in order to minimize their environmental impacts. For example, paper mills that produce paper based on virgin fiber produce almost half their primary energy consumption from biomass. These changes have been taking place both in wood fiber and recycled fiber mills. However, the production process of paper based (totally or mainly) on virgin fiber is still characterized by a higher water and energy consumption (in the pulp production phase), but in many cases a lower fossil CO2 emission.



Chlorine and chlorine substances

Chlorine or chlorine compounds as well as other chemicals (such as ozone or hydrogen peroxide) can be used in the bleaching process in order to, among other things, obtain a final product with a high whiteness level. All papers, including paper based (totally or mainly) on virgin fibre, can be purchased with different whiteness levels. Traditionally when paper production allowed the use of elementary chlorine for bleaching, office paper used to be very white directly from the process and by the use of optical brighteners. However, chlorine compounds used in the bleaching process can react with existing organic substances in water, creating organic chlorine compounds (AOX). These halogenated organic compounds (dioxins, chlorinated phenols) may be toxic and are poorly degradable in the aquatic environment. In order to avoid the emission to the environment of such compounds, the bleaching process should be totally chlorine free (TCF) or elementary chlorine free (ECF) with the strict control of AOX levels after depuration.

Optical brightening agents

The choice for a certain paper type is often based on three characteristics: whiteness, brightness, and shade. Whiteness is the measurement of light reflectance across all wavelengths of light comprising the full visible spectrum (outdoor daylight) and therefore it is the one that best correlates with your visual perception of the paper. CIE Whiteness (ISO Standard 11475) is the most commonly used whiteness index. Papers that reflect a higher percentage of blue light tend to measure the highest, while those reflecting a higher percentage of yellow light tend to yield lower values. The normal maximum whiteness level would be 100, but higher values can be obtained if papers have added optical brightening agents (OBAs). The function of an OBA is to reflect ultraviolet (UV) light from the light source as visible light in the blue spectral region giving measurements in excess of 100. Brightness is a measurement of light reflectance of the specific wavelength of blue light. Simply put – brightness represents a narrower measurement of light reflectance than whiteness. The beginning brightness range for a base paper pulp is from 0-100 calculated normally with the ISO Standard 2469. During the papermaking process, OBAs are frequently added to increase a paper's whiteness as well as brightness. Shade is a measurement of the color of paper. It is an important characteristic within the definition of a paper's whiteness, and it is measured with the most universally accepted system of color measurement, the CIE LAB model. It is commonly accepted that there are four groups of white shades: true white, cream white (yellowish), blue, white (bluish) and red, white (reddish). If you want to ensure the reader's comfort it is better to select a true white or cream white paper to minimize eyestrain17. That is to say, papers that do not reflect more blue than normal in light – in other words papers with ISO brightness and CIE whiteness not exceeding the value 100 and therefore, papers with limited or no OBA content. Lower brightness/whiteness levels might also represent a lower need for strong bleaching of pulp and paper surface treatment, reducing related environmental impacts in the paper production process. OBAs have impacts on human health and the environment, especially aquatic, as they are difficult to break down, both in water purification systems and biologically in aquatic systems. They may cause allergic reactions to people and are toxic to aquatic life as they are not biodegradable.

Other chemical substances

Chemical substances that may be used in paper production can also have negative effects.

on health and the environment. For example: Some of the synthetic polymers that could be used in pulp and paper production are classified as carcinogenic, mutagenic, teratogenic, or toxic and may cause adverse effects on the aquatic environment. Colorants and dyes can contain heavy metals such as mercury, lead, cadmium, or hexavalent chromium compounds as constituents. These may cause severe health problems by bioaccumulation and biomagnification18. Problems do not only occur during the handling of these substances but also when they are discharged into the environment with wastewater, or in the form of incineration ashes, etc. EDTA (ethylenediaminetetraacetic acid) is a very strong complexing agent. Complexing agents are reactive composts that can re-mobilize heavy metals in river sediments when they are discharged into the aquatic environment. While this is true for all complexing agents, EDTA is of particular concern because it is very poorly biodegradable and has stronger complexing properties than other substances. APEOs (Alkylphenolethoxylates) are transformed in the environment into metabolites that are more toxic than the original surfactant, and both APEOs and metabolites are suspected to have hormone-mimicking, estrogenic effects affecting the reproductivity of male organisms, and have high bioaccumulation factors.

Writing implements

Writing implement addresses commonly used pens and markers. The environmental impacts of writing implements are notable considering the number of end users and thereby the quantities purchased globally. In the United States, it is estimated that around 1.6 million single-use pens are thrown away each year, ending up in landfills as solid waste19. The most significant impacts on the environment are associated with waste generation and the use of heavy metals and harmful substances. Substituting some materials with recycled material is one good alternative. These are described below. Generation of waste from the disposal of single-use pens and markers (usually made of plastic) can be substantially reduced if refillable pens are markers are purchased. This is because the ink is the only consumable part, while the barrels (usually made of plastic) are durable. Not only is less waste generated but the resources used in the manufacturing process are also spared.

Heavy metals and harmful substances

Switching to purchasing water-based markers eliminates the sustainability impacts associated with petroleum-based solvents including the health impacts (SO 4); most permanent markers are solvent-based. For most general office purposes, non-toxic, water-based markers can be substituted for permanent or waterproof ink. Dyes in inks should not contain any heavy metals, such as on antimony, arsenic, barium, cadmium, mercury, selenium, lead and/or hexavalent chromium. They should also not be based on volatile organic compound solvents. The criteria of the Nordic Swan ecolabel for Writing Instruments provide an exception for certain writing implements: overhead markers, white board markers and text markers (permanent fiber pens). In general, it is recommended to purchase water-based markers.

Recycled material

There are several elements of writing implements that can be made from recycled material, for instance, reducing the amount of virgin wood used for the production of pencils. Rainforest hardwoods and cedar are commonly used to make pencils. Pencils made from recycled materials also provide a good end-use for various kinds of waste newspaper, cardboard, and plastic materials, diverting them from landfills. The ink tube from inside a pen can be made from recycled plastic, the ballpoint can be made from recycled metal and the barrel can be made from a variety of materials, such as unbleached recycled paper, recycled plastic, or rubber.

Toner cartridges

Toner Cartridges are products that are generally used in various types of office appliances such as laser printers, photocopiers, and fax machines. Toner cartridges for laser printers and multifunctional devices are replaced once the monochrome or color toner powder therein is used up. The volume of use of the devices suggests a considerable waste amount of several million empty modules per year unless they are reprocessed and recycled. It is estimated that in the United States alone over 350 million toner cartridges are disposed of on an annual basis. During usage and replacement processes, toner powder may disperse and irritate the human respiratory system and causes disease due to the hazardous constituents of the chemicals and heavy metals used. Production of typical toner cartridges from original equipment manufacturers (OEMs) consume a significant amount of energy (production burns approximately 3 quarts of oil per cartridge) and are composed of various natural resources: approximately 40% plastic, 40% metal and 20% rubber, foam, and paper. Purchasing remanufactured toner cartridges21 and recycling empty cartridges are the most effective ways to reduce the environmental impact of these products. Remanufactured toner cartridges are used toner cartridges refilled with toner whose expendable parts have been replaced as required. Empty toner cartridges should also be managed appropriately at their end of life. That is to say, improperly discarding empty toner cartridges contributes to waste and can also contaminate the natural environment due to their hazardous contaminants. Cartridges can typically be remanufactured three to five times before disposal. When remanufacturing is no longer feasible, recycling should be carried out as 95% of the component weight is recyclable. In Europe, both the Nordic Swan and Blue Angel have criteria for remanufactured toner cartridges themselves which cover a number of environmental impacts. These cover four areas (not all issues are covered by both labels):

Eco- labels covering toner cartridges tend to focus on the following environmental impacts:

- Chemicals contained in the toner powder, which can be harmful to both human health and the environment, for example the use of heavy metals or aromatic amine residues.
- Chlorinated plastics such as PVC used in the cartridge parts or packaging, together with the use of brominated flame retardants in the casing
- Use of recycled materials, reuse and take-back systems
- Release of VOCs (volatile organic compounds) during use

The Nordic Swan background report on toners notes that the greatest environmental problem with toner cartridges is resource consumption. As noted above, the energy which goes into the production of toner cartridges is significant. As such, the encouragement of reuse and recycling of toner cartridges is of most importance in reducing environmental impacts.

Currently two different approaches to reuse are common.

- Remanufacture cartridges for resale.
- Take-back services.

Comparing the environmental impacts of remanufacture rather than the purchase of original cartridges (with manufacturer take-back schemes) is not straightforward. Depending on local waste policy remanufactured cartridges also typically end up in landfill sites, rather than being returned to manufacturers for recycling.

Key social considerations

Corporate social responsibility and the ILO conventions

Procuring responsibly requires a market that produces to responsible standards and clients who are willing to invest accordingly. The definition of such standards is pursued by actors both within and outside the sector and constitutes an indispensable reference point for SRP activities. The basic reference point for workers' rights around the world are the Conventions of the International Labour Organization (ILO). Founded in 1919, the ILO is a tripartite body bringing together governments, employers and workers and promotes decent work, employment rights, job-

related security, and better overall living standards. The ILO Conventions are standards that define basic labour rights. Once adopted by the ILO and ratified by the signatory countries, Conventions are binding in nature. For the office stationery industry the core ILO conventions should be binding over the whole supply chain. This includes suppliers of paper and other office supplies.

The ILO core conventions are as follows:

- Freedom of association
- Freedom of Association and Protection of the Right to Organize (No. 87)
- Right to Organize and Collective Bargaining (No. 98)
- Forced Labour (No. 29)
- Abolition of Forced Labor (No. 105)
- Equality Discrimination (Employment and Occupation) (No. 111)
- Equal Remuneration (No. 100)
- Elimination of Child Labor Minimum Age (No. 138)
- Worst Forms of Child Labour (No. 182)

Labor standards are the rules that govern how people are treated in a working environment. They come in a variety of forms and originate at the local, national, and international levels. Taking account of the spirit of labour standards does not necessarily mean applying complex legal formulae to every situation; it can be as simple as ensuring that basic rules of good sense and good governance have been considered. More information is available at: http://www.ilo.org/public/english/standards/norm/index.htm.

The United Nations Global Compact

The UN Global Impact is a framework for businesses that are committed to aligning their operations and strategies with ten universally accepted principles in the areas of human rights, labour, the environment, and anti-corruption.

The Global Compact is a purely voluntary initiative with two objectives:

- Mainstream the ten principles in business activities around the world.
- Catalyze actions in support of broader UN goals, such as the Millennium Development Goals (MDGs).

The United Nations currently encourages suppliers to sign up to the Global Compact and collects information on the proportion of goods and services procured where the supplier is a signatory. In 2007, 15,50% of suppliers were signatories (as a percentage of orders over 30,000 USD).

The targets set out in this document are considered as a starting point, subject to ongoing scrutiny and revision. They intend to address, in the first instance, the needs and policy that will affect the internal food service operations on campus.

The definition of sustainable development is to meet the needs of the present without compromising the ability of future generations to meet their own needs'.

Sustainability encompasses three distinct areas, financial, social, and environmental durability. All these areas are to bear in mind when considering sustainable food and catering services.

we will tackle the advanced sustainability criteria intended for use by procurers who seek to purchase the most advanced environmentally friendly and socially responsible products available on the market and may require additional administrative effort.

In practice, this means thinking carefully about what the true needs are, as a first step. Then, basing purchasing decisions for products, services and works on the lowest environmental impact and most positive social impact which make the most economic sense over the lifetime of the product. Therefore, the guidance covers the following: key environmental impacts, key social considerations, most appropriate means of verification and information on the availability of sustainable products and lifetime costs (where available).

An important area for changes that can be made to the sustainability of the catering operation are made through the food procurement **1.3**) Release of waste.

process. Selecting the most sustainable ingredients to work which has significant impact. These decisions are made when menus are planned. This responsibility is often with the chef, demonstrating the importance of training and development in sustainable food procurement for chefs. Both institutional menu planning policies and practical assistance for chefs are required to reduce the environmental impacts of a menu.

The factors which have to be considered when menu planning is fairly complex. Cost, preparation time, kitchen skill, storage, wastage, kitchen equipment, health, and consumer demand to name a few must all be taken into consideration. The factors that should be added to this are, increasing carbohydrate-based meals reducing meat, fish, and dairy content, using available local and seasonal goods were produced sustainably, limiting processed foods and the use of eco-labelled or equivalent goods. Restricting ingredients to those available from more sustainable sources when menu planning, rather than planning a menu and then looking to source sustainable ingredients, is the preferable option.

Three broad environmental concerns relate to food production / catering:

1.1) Use of finite resources.

1.2) Disruption of ecosystems, considering climate change and modern agriculture.

1.1) Use of finite resources

Agriculture is a resource intensive industry, occupying more than 50% of the world's habitable land mass, and as much as 8% of the global water use. Each item of food that we consume, as well as the ancillary items required in the growing, cleaning, processing, preparation, cooking and serving of it, requires the use of finite natural resources.

Fertilizer is added to soil (and crops) to increase the levels of mineral elements required for the growth of the crop, where soil health is poor and unable to naturally restore the levels of these elements. Many minerals are extracted for use in fertilizer, with lime and potassium being amongst the most proliferate.

Steel and aluminum are widely used for packaging and kitchen equipment, as well as agricultural machinery. Whilst widely recycled, these metals are also finite resources which need to be used with caution.

Wood is a particular area of concern within the catering industry due to its extensive use for napkins, disposable tableware, furniture, and packaging. Wood is a resource which is very slow to replenish, but which is fast growing enough to be relatively easily managed sustainably, with good forest management, allowing an equal amount of re-growth for the timber removed annually.

Local and seasonal foods that are grown locally potentially reduce energy use for transport, growing and storage; There are a number of advantages to buying foods that are grown and/or processed closer to the point of consumption.

1.2) Disruption of ecosystems, considering climate change and modern agriculture and threat to biodiversity.

The variety of species, genes and ecosystems in existence worldwide are threatened in various ways by modern lifestyles and agricultural practices. 4,000 species of plants and animals and over 87% of bird species are threatened by agriculture; as 15, 33% of livestock varieties have disappeared or are close to it, 30,000 vegetable varieties have become extinct in the last century; one is lost every 6 hours. 16.

Wild Fish Harvesting

In summary the aims for sustainable fish and seafood are as follows:

- Maintenance of species population
- No bottom trawling, poisons, or explosives
- No significant, measurable increases or decreases in aquatic life dependent on the species for food or as a predator.
- Compliance with international and local laws
- Use of equipment designed to minimize by-catch.
- Live release of by-catch or where dead declare and land.
- Limit loss of equipment, oil

Climate Change: Commercial agriculture is energy intensive, requiring powered tractors, irrigators, sprayers, and harvesters. Agrochemical production also requires energy and water. Ruminant livestock raised for meat and dairy, release methane as part of their digestive process. In fact, methane emissions from livestock produce 18% of total GHGs emissions.

31% of climate change can be directly attributed to food, drink, tobacco, and narcotics consumption, 27 and 1.6bn tons of CO2 can be attributed to changes in land use such as deforestation.

Heating / cooking, cooling, and lighting, as well as mechanical food preparation are all energy intensive processes, which are undertaken in kitchens.

Modern Agriculture

Change of land use Intensive agriculture destroys natural habitats, replacing them with monoculture crop or animal production. As well as instigating changes in grassland ecosystems, significant areas of rainforest have been, and are continually being, removed for agricultural usage. Up to 70% of previously forested land in the Amazon is used as grazing pasture, and feed crops cover the majority of the remainder. 33% of arable land is taken up with livestock feed growing and 30% of the world's (ice free) surface area is used for livestock production.

Agrochemicals:

Fertilizer use has grown tenfold since 1950, with a corresponding increase in food production of only three times. As much as 50% of artificial fertilizers can leach into rivers and streams causing eutrophication, a process that starves fish and other water-based animals of oxygen due to excessive plant or algae growth. In extreme cases, this can result in dead zones 'devoid of all plant and animal life. Modern agriculture is reliant on the use of pesticides (including herbicides, fungicides, and bactericides) to ensure that the chosen crop or animal (including fish) is subject to as little competition or attack within its growing environment.

Hormones are administered to livestock to improve growth rates, or production.

Routine use of antibiotics in intensive meat production is common and is undertaken for a number of reasons, as a preventative measure, to minimize animal illness, but also to promote growth (usually in chickens).

Key principles behind organic farming are health, ecology, fairness, and care. More specifically organic farming requires the following:

- 1. Minimized agrochemical input.
- 2. Protection of ecosystems, including maintenance of soil health.
- 3. Avoidance of antibiotics, no hormones
- 4. Natural animal behavior and good welfare standards
- 5. Organic feeds
- 6. Minimal waste and water efficiency
- 7. Breeds and varieties to support all of the above.

1.3) Release of waste

Sorting its waste. Waste creates a number of problems for people and the environment, including contributing to ground and water pollution, increased space demands for landfills, potential leaching of toxins, and increased greenhouse gases.

The University's current goals are to divert 50% of all waste by the end of 2017 and 95% by 2022; we should continue to work toward these goals. Although the University has been actively combating waste on a number of fronts, there is much opportunity for improvement, including moving toward setting an informed goal.

Single-stream recycling is a system in which all recyclables, including cardboard, plastic, aluminum, mop cloths, plastic gloves, cleaning supplies, hair nets, etc. ., are placed in a single bin or cart for recycling. These recyclables are collected by a single truck and taken to a Materials Recovery Facility (MRF) to be sorted into various commodity streams for sale to markets, where it is processed into feedstock, which can be used in the manufacture of new products. All organic waste goes into composting. Some food waste can be converted into compost aerobic digestion (rotting in an environment with oxygen, sometimes with added heat and oxygen and or bacteria/ yeasts/fungi), it is also used to convert the food waste into usable fertilizer, soil conditioner.

The simpler it is to recycle, the more likely a person is to participate. The University attempts to make recycling as simple as possible for its community by, among other things, providing single-stream recycling for most of its waste products. Single-stream recycling relieves users from having to separate their recyclable waste into categories. Rather, all recyclables can be commingled in the same containers (Blue bag for all recyclable materials and Black bag for all organic materials.

Deep Frying Oils: Oils are still valuable, even when they have served their useful purpose for deep-frying. They can be used, almost immediately (if filtered) as biodiesel, or otherwise in power station.

Fats, Oils and Grease Fats, oils and grease accumulate in various locations in kitchens and are notoriously difficult to remove. Traditionally surfactants, and highly toxic solvents and acids are used

to clean and clear ventilation and drainage systems. An alternative solution is enzyme application, through a constant dosage system, and/or in combination with a colony built up around a traditional grease trap (mechanical grease removal system used in kitchen drainage to capture grease).

Prevention methods to reduce waste:

Eating seasonally and locally can reduce the carbon footprint by up to 10%.

Changing diet could help reduce the carbon footprint of food:

- Eliminating waste by eating what you buy 25%
- Going vegan 25%
- Eating in-season, while avoiding hothouses and air freight -10%
- Recycling and avoiding excessive packaging 6%
- Reducing waste by buying items from the front of the shelves,
- Reduced-price items, and misshapen fruit and vegetables 2%
- Cooking using less energy- 5%

Handling leftovers: As you seek to minimize the cost of doing business for your restaurant, discover how reducing the food wastage is important. You cannot afford to continue spending too much money due to the rising cost of food every day. While you cut down on monetary costs, you reduce the rampant dumping of waste in the environment.

Pre-Cooling Hot Items before storing:

Bacteria can easily grow on foods that you place in the refrigerator while hot. It is prudent to pre-cool hot foods first. Take advantage of an ice bath, cooling paddle or a chill blaster. This effectively reduces the volume of food going bad.

Storing products properly: Most wastage occurs because of cross contamination. This is especially true if you do not store food in a standard box or packaging wrap. Make sure you store foods at the right temperatures. Most frozen foods require 0 degrees Fahrenheit and below while refrigerated ones require 41 degrees Fahrenheit and below.

Keeping everything labeled and organized: Having labels on food containers will help you and your restaurant staff identify the contents inside. This way, you will know the perishable foods and cook them first before they go bad.

Organizing your ways to store foods: Adopt the first in first out policy (FIFO) in for storing items in your refrigerator, pantry, kitchen etc. For this reason, place new orders behind older ones so that you use up the older products first.

Ensuring that your refrigerator and freezer maintain appropriate temperatures: Before you invest in a refrigerator, ensure it comes with a freezer/refrigerator thermometer. If your current one does not have one, buy the gadget immediately. This helps you to effectively monitor and control the performance of your food storage and cooling equipment.

The use of HRC's Hydrofluocarbons: Hydrofluorocarbons (HFCs) are a group of industrial chemicals primarily used for cooling and refrigeration. HFCs were developed to replace stratospheric ozone-depleting substances that are currently being phased out under the Montreal Protocol on Substances that Deplete the Ozone Layer.

Many HFCs are very powerful greenhouse gases, and a substantial number are short-lived climate pollutants with a lifetime of between 15 and 29 years in the atmosphere.

Initiating proper portion control: Take advantage of portion control scales to save on money and food. These give you the opportunity to specify certain measurements of food. To increase efficiency, ensure your employees use the specified portions every time.

Anticipating and creating: It is prudent to anticipate the food that your restaurant will actually sell in each day. This controls the amount of food going into the kitchen. If you realize that you will not sell as much as you have prepared then create a temporary special menu. This motivates your customers to buy more of the food, allowing you to obtain returns on investment.

Donating food you will not use: It is inhuman to throw away food while some people in your community or elsewhere have none to eat. For this reason, donate food in your refrigerator before it actually goes bad. One resource states that more than a billion people went hungry in 2009. The predicament of having foods that are about to go bad could be an opportunity for giving back to the society.

Ensuring clarity over your policy on leftovers, and stock containers for storage, as necessary.

Keep an inventory. To have a clear picture of how much food your restaurant wastes, conduct an inventory of the volume you order as compared to the volume you take out in trashcans. Other ways of reducing costs include recycling and investing in a food composter. Additionally, contact Compactor Management Company and buy a trash compactor for your restaurant.

Reduce, reuse and recycle.

The most common approach to the reduction of waste, in all areas, is to reduce, reuse and recycle. Whilst this section focuses on actions that can be taken within the catering operation, changes can also be instigated further up the chain by speaking to suppliers and requesting that they consider making changes based on the same principles.

Reduce the usage of disposables is relatively straightforward; simply encouraging the use of reusable crockery and tableware by providing that option as standard, rather than the disposable option is the first step. Sandwiches and salads in particular should be provided on plates as standard, and then in take away containers as a secondary option.

Discourage users from taking multiples of items by using napkin dispensers dispensing one napkin at a time and ensuring that cups are of the correct thickness to be safe and stable when filled with the

intended drink (too thin plastic cups for hot drinks are too hot to hold and result in people taking two or three as insulators – cardboard insulators or thicker cups would be preferable).

When selecting packaging or disposables, aim to use the lightest and most minimal possible. A simple paper wrap may suffice for a sandwich, rather than a complex box system.

Completing the recycling loop by choosing recycled materials is also very important. The most common items in a foodservice context are recycled paper napkins, kitchen towel, and bags and cardboard sandwich boxes and hot beverage cups.

Using a water bottle. Where on site filtration is not possible, drinking water should be procured in the largest possible containers for internal distribution, with individual sealed water bottles a last resort.

SUSTAINABLE CATERING CHECKLIST FOR EVENTS

 Glasses 	For water and soft drinks
 Pitchers 	Filled with water and ice
• Cold / Hot Beverages	China ware / mugs / glass cups Teapot - Container keeps tea hot and has self-serve nozzle. Coffee pot - container keeps coffee hot and has self-serve nozzle. Milk container - jugs Hot water container - container keeps water hot and has self-serve nozzle. Coffee diffuser - grain Sugar diffuser - grain Tea diffuser - loose Wooden mixers / stencil spoons
• Straws	No plastic straws or paper
 Napkins 	Not bleached / recycled material
 No Cling Film – No Foil Aluminum 	Beeswax wraps, glass jars, reuseable containers
 Hand Sanitizer 	Diffuser
 Tablecloths 	No plastic
 Centerpieces. 	Small plants - natural
Dinner Plate Cover	These cover plates and keep food warm for formal events.
 Stainless Cutlery & Plates - reusable Crockery 	Spoons, forks, knives, tableware, etc.
 Ditch Plastic Wraps 	Encourage natural healthy eating – local fruits, nuts, vegetables

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• Water Carafe

Serve water and other beverages in an attractive way.

- Chalk or Letter Board
- All printed materials such as place cards, menu, program
 Reduce – encourage black board – chalk – reusable board

Attractive way to list your catering menu

SUSTAINABLE CATERING CHECKLIST FOR COFFEE STANDS

 Reused Mugs 	Offer the chance to buy / rent
Cup Holders	Paper or carton
Carton Boxes	To carry small items away
 Plastic Cups 	Glasses or paper cups for juice and cocktails Wooden mixers / stencil spoons
• Straws	No plastic straws or paper
 Napkins 	Not bleached / recycled material
• No Cling Film – No foil Aluminum	Beeswax Wraps, glass jars, reusable containers
 Hand Sanitizer 	Diffuser
• Signage	To promote sustainable consuming.
• Stainless Cutlery & Plates -	
re-usable Crockery	Spoons, forks, knives, tableware's, etc.
 Ditch plastic wraps 	Encourage natural healthy eating – local fruits, Nuts, vegetables

• Chalk or Letter Board

Attractive way to list your catering menu

 All printed materials such as place cards, menu, program

Reduce – encourage black board – chalk – reusable board

SUSTAINABLE CATERING CHECKLIST FOR SANDWICH FOOD STAND

 Reused Cups 	Optional paper ones
 Paper Package 	Salt – gel – cutlery (optional)
Carton boxes	To carry small items away Salads
Paper Sauce Holder	All kind of sauce – Humus – Garlic and dips Wooden mixers / stencil spoons
• Straws	No plastic straws or paper
 Napkins 	Not bleached / recycled material
 No Cling Film – No foil Aluminum 	Beeswax wraps, glass jars, reused containers Font trays for covering and heating
 Hand Sanitizer 	Diffuser
 Salt Diffuser 	
• Ketchup	Diffuser
 Mustard 	Diffuser
 Toothpick 	

- Gloves
- Plastic Apron
 Material washable aprons
- Hair Net
- Signage
- Stainless Cutlery & Plates - re-usable Crockery
- Ditch Plastic Wraps
- Chalk or Letter Board
- all printed materials such as place cards, menu, program
- Material washable hair hat To promote sustainable consuming. Spoons, forks, knives, tableware, etc. Encourage natural healthy eating – local fruits, Nuts, vegetables Attractive way to list your catering menu

Reduce – encourage black board – chalk – reusable board

N.B: straws optional, cutlery optional when asked, Unscrew skewered mashawe on bread. Multiple stations for dispensers to avoid jamming.

APPENDIX 3 - NO-PLASTIC POLICY GUIDELINES

Policy to cut on the distribution of **Single Use.**

A proposition by what we can replace the existing single USE by a more sustainable product:

PRODUCT	USED BY	TO BE REPLACED BY	REMARKS
Plastic Cutlery: • Spoons • Forks • Knives	All offices	Each employee can bring its own.Stainless cutlery in case of events	Cost wise is much better for USEK.
Plastic coffee stirrer	President's office Vice President's office Cafeteria Maintenance	To get small stainless spoon (small)Wooden stirrers (In extreme cases)	
Plastic plates	All offices	 Each employee can bring his or hers. China ware / ready to be washed. 	
Plastic gloves	Laboratories M.R.F. Phoenix Biblioteque Music	 Except in Labs and MRF. Library and dry places can use / cotton materials gloves / reusable 	

APPENDIX 3 - NO-PLASTIC POLICY GUIDELINES

PRODUCT	USED BY	TO BE REPLACED BY	REMARKS
Coffee or water paper cups Plastic cups	All offices	 Each employee can bring his or her cup. To encourage the use of glass cups in all events. In specific events, to use paper cups 	For Christmas instead of card to give away reused cups.
Sticker notes	All offices	• Reused papers with metal clips.	
Paper clips	All offices	To use the simple paper clips.Not the colored paper clips.	
Rubber band	All offices	 Replace by ribbons or reused rubber band. 	
Plastic belts	Maintenance office	 To be replaced by the metal wire. To be replaced by the burlap threads. Except for long time usage. 	

APPENDIX 3 - NO-PLASTIC POLICY GUIDELINES

PRODUCT	USED BY	TO BE REPLACED BY	REMARKS
Envelopes	All offices	 To be replaced internally by reused envelopes. 	
Rubbish bags		• To be replaced by Bio-Degradable.	They are inevitable with our state of waste management / Bio-degradable is better than others.
Plastic ribbons / stop signs	Security Maintenance	 To be replaced by reused no stop chains. Burlap ropes.	
Personal tags / events	For event staff/ attendees	• To use the actual business card with corporate chain.	

APPENDIX 4 - CARPOOLING INITIATIVE

CARPOOLING INITIATIVE TO DECREASE PRIVATE VEHICLES ON CAMPUS



Since transportation is a major source of greenhouse gas emissions and other pollutants. USEK is moving towards a sustainable transportation system. The aim is for a car-free campus coupled with a university-wide private shuttle system to constitute the first and the most vital milestone towards sustainability. USEK strives to push the university community towards alternative transportation programs like carpooling, walking, bicycling, living on campus or taking public transportation to replace single-occupancy vehicle transportation.

a. Green Shuttle:

a system relying on electrical shuttle for students and employees based on the usage of electrical cars that use on-board rechargeable Energy storage.

b. Carpooling:

so far we got around 500 members and the average of 10 cars per day using the program; and in return USEK offers for these people a secured parking spot and a reward scheme.

c. Carpooling results:

Spring Semester 2018-2019	
Carpoolers Total	675
Carpool Total	295

APPENDIX 5 - USEK GREEN MASTERPLAN

Universities are the candles of progress and in an ideal position to halt the current trend that is harming the environment because of often irresponsible development. The USEK's Carbon Neutral Challenge Project encompasses different initiatives and strategies aimed to improve the quality of life inside its campus and spread a green message to the wider community.

By assuming such a leadership role in Lebanon, USEK will become a model institution and show by example how the wider community can move towards a more sustainable way

of living. As part of the challenge the new Campus Masterplan has been designed to optimize the external spaces and improve the quality of life inside the University's campus. This will be by sustainable strategies that have been integrated to maximize the environmental benefits using the highest standards of sustainable design and focusing specifically on daylight, solar access, wind environment, energy reduction and thermal comfort.

In fact, the Masterplan has created opportunities with the natural environment, deferring to contextual issues such as climate, site conditions, hardscape areas, orientation. It also promotes measures such as reducing emissions associated with transportation, protecting surrounding habitats, providing and maintaining open spaces, managing storm water runoff, reducing the heat island effect and eliminating light pollution. As designed, the new sustainable layout of the campus will enable its students and staff to adopt a more ecologically aware, lower carbon lifestyle. The wide eco-garden will encourage students to spontaneously walk around the campus and enjoy different facilities and panoramic views. The objective

of the Masterplan designs is to build High Performance Green Buildings with the aim to satisfy the LEED protocol requirements in its six categories: Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources Indoor Environmental Quality, Innovation in Design.

The inspired green buildings will have both direct and indirect benefits. The immediate and most direct benefit is in the reduction of energy use and water costs right from the first day and during the entire life cycle of the building.



Indirect benefits of the Green Building include increasing productivity and improving the learning environment for students. As an example, the double envelope facade of the new Medical Building is designed to maximize daylight while controlling solar gain – a condition typical of medical faculties dominated by internal heat gains. The interstitial space is used as a protected enclosure for operable vertical shading devices that might otherwise suffer from wind damage and weather exposure.

Solar energy absorbed by the shading devices is returned to the exterior environment by stack ventilation of the entire facade. In parallel, the optimized passive

APPENDIX 5 - USEK GREEN MASTERPLAN

design strategy is adapted to greatly reduce the energy costs of heating, cooling, ventilation and lighting. For example in the new Medical Building, the saved energy obtained just from the passive design is estimated to be around 30% of the building's total needs.

The passive design has two major aspects:

1. The use of the building's location and site to reduce the building's energy profile.

2. The design of the building itself - its orientation, aspect ratio, massing, fenestration, ventilation paths, and others measures and factors, including latitude, altitude, solar insulation, heating and cooling degree days, humidity patterns, annual wind strength and direction, the presence of trees and vegetation, and the presence of other buildings.

Central to the Masterplan is the aim to implement renewable energy options to meet the University's Carbon Neutral Challenge Project. The Masterplan employs a variety of renewable power resources, including wind power, solar energy, geothermal & other alternate energy sources like biomass energy. The use of mini wind turbines in the park area will provide a source of clean and renewable energy for the entire campus without disturbance. Photovoltaic panels will be used as another alternative source of energy; modules will be placed on rooftops where possible to provide supplemental clean solar energy resulting in a significant contribution to energy production efficiency and reductions in CO2 emissions.

To comply with LEED requirements for the recycling programme under its 'Materials and Resources' category, the Masterplan allocates a specific wide area within the campus which will be dedicated to the recycling programme where general collection, sorting and storage of material can take place. In addition there will be educational programmes to create awareness and understanding about the linkage between lifestyle, consumption, waste and environment. The idea is to spread a sense of responsibility among the students by raising awareness of such practices.

A major aspect of the Masterplan is to integrate part of the campus with the neighbouring community by sharing its park, the entertainment area and the multipurpose spaces. The new design will help the University to foster a positive relationship with the community and play a role as a provider of cultural events and facilities within the community.

APPENDIX 5 - USEK GREEN MASTERPLAN



APPENDIX 6 - ENERGY AUDIT REPORT

To view the full Energy Audit Report, please click here

APPENDIX 7 - WASTE MANAGEMENT PURCHASING DEPARTMENT AND WAREHOUSES

Waste is a problematic issue for humankind and the environment, as it contributes to land and water pollution, increased demand for landfill space, potential leaching of toxins, and increased greenhouse gases.

The University's current goal is to achieve 95% waste reduction by 2022. Much progress has been made on several fronts, yet there is still room for improvement and for setting an informed waste management goal.

IMPROVE SINGLE-STREAM RECYCLING ACROSS CAMPUS

Single-stream recycling is a system in which all recyclables, including cardboard, plastic, aluminum, junk mail, etc., are placed in a single bin or cart for recycling. These recyclables are collected by a single truck and taken to a Materials Recovery Facility (MRF) to be sorted into various commodity streams for sale to markets, where they are processed into feedstock, which can be used in the manufacture of new products.

Instead of sorting recyclable waste into categories, organic and recyclable waste each have one container respectively (blue bag for all recyclable materials and black bag for all organic materials). Yet, even with the more simplified system, which is intended to boost community engagement in recycling, the on-campus single-stream recycling rate remains lower than the national average. Adding to the problem is our lack of knowledge of more specific recycling practices.

Waste is not a one-source or one-person problem, nor is it merely an "end-of-product-life-time" problem. The products we choose to bring on campus have an impact on our waste volume and disposal.

To meet the University's waste sustainability goals, all divisions should strive for reducing waste in their individual operations. This entails thinking beyond the amount of waste generated by taking action earlier in the process for more tangible results.

RESPONSIBLE CONSUMPTION AND PRODUCTION

USEK promotes sustainable consumption and production practices through the following:

- Waste management system through its MRF, where 60% of the University's solid waste is sorted and dispatched to local industries.
- Source sorting system (promoting awareness among all community members).
- Reduced paper use, by replacing it with online memos.
- Avoiding single-use plastic and packaging.
- Green catering and procurement.
- Organic waste composting.

APPENDIX 7 - WASTE MANAGEMENT PURCHASING DEPARTMENT AND WAREHOUSES

ACHIEVEMENTS

- Increasing single-stream recycling rate in keeping with overall University objectives.
- Mapping and tracking current recycling signs and containers across all campus facilities.
- Standardizing signage and containers for easier use.
- Conducting routine and standardized waste and recycling audits in more specific areas.
- Promoting recycling during various events by creating a data baseline, providing packaging and service ware options, and improving targeted messaging.
- Tracking and reporting single-stream diversion rates by more specific type and user groups.
- Promoting accountability and responsibility on campus for measurable increased recycling, decreased waste production, and decreased waste sourcing.
- Adapting the P.D.C.A program into a discrepancy tracking scheme:
- Waste for each building is gathered in one location and transported to the MRF using a cart marked by the code of the building.
- Each trash bag is sealed by one color tag.
- MRF staff report any discrepancy based on the cart code and trash bag seal color.
- The students undertaking the recycling audit visit each unit/office at the said building to identify the source of the discrepancy.

- Once the source is identified, a creative and positive approach is developed to improve sorting behavior.
- G.A.E.A Green and Environmental Art
- Students create works of art out of trash.

APPENDIX 8 - GREEN EVENTS ON CAMPUS

EVENTS RELATED TO ENVIRONMENT AND SUSTAINABILITY

This report gives an overview of green events related to environment and sustainability prepared by USEK in alignment with the SDG goals in 2018-2019. Over 60 events related to sustainability took place on and off campus. Here we will present some of these major events.

Before that, a note on 2020. Economic and political collapse in Lebanon along with Coronavirus, and with that, lockdowns and curfews, public events have been temporarily stymied. However, we have seen how quickly we can adapt and change our way of life in the face of such significant challenges. We also see hope in adversity, and how the human spirit of compassion and the willingness to act against the odds has not been thwarted.

On August 4th, 2020, 2750 tons of ammonium nitrate exploded in the port of Beirut, killing more than 200 people, wounding 5000 others, and leaving 300,000 residents temporarily homeless. The explosion, which left Lebanon's main port and surrounding homes and businesses in ruins, has exacerbated the COVID-19 pandemic in a country that's also grappling with inept leadership, a worsening economic crisis, and a 55% poverty rate.

In sympathy and solidarity with the people of Beirut, USEK students and faculty members, armed with brooms and shovels, joined the brigade of civilian volunteers and took to the streets to clean up the city so reconstruction could begin.





APPENDIX 8 - GREEN EVENTS ON CAMPUS

USEK GREEN EVENTS IN ALIGNMENT WITH UN SDGS FROM 2018-2919

SDG1 – No Poverty:

In December 2018, USEK organized the Christmas Market with different NGO stands, Christmas catering, games and music knowing that through his initiative, USEK supports many families that are in need.

In the Fall of 2019 – "T3ish w Yekol Ghayrak" aimed to share food, reduce food waste and support the needy ones.



IN FALL OF 2019: "MI CASA ES SU CASA"



SDG2 – Zero Hunger:

Food drive: The Student Affairs office organized the yearly campaign of food drive in December 2018.

SDG3 – Health and Wellbeing:

Healthy Voice in a Healthy Body: Talking about Performing Arts Medicine, May 2019

USEK organized a lecture entitled: "Healthy Voice in a Healthy Body: Talking about Performing Arts Medicine", given by Alfonso Gianluca Gucciardo, MD., a performing arts medicine expert and bioethics/sexology specialist. This event, hosted by the School of Medicine and Medical Sciences, in collaboration with the Faculty of Music, took place on Friday, May 3, 2019.

USEK Vélo-Paper 2018, April 2019

USEK organized its 5th edition of the USEK Vélo-Paper. This event, hosted by the USEK Pastoral, included physical, cultural, social, and ecological sports activities and was held on Saturday, April 6, 2019, in Bickfaya (Metn District).

Fitness Day, March 2019

USEK organized a Fitness Day, including live fitness classes, fitness competitions, dietitian consultations, physical therapy and supplements consumption awareness sessions, and many more activities. This event, hosted by the Student Affairs Office, in collaboration with Corebox Gym, took place on Thursday, March 28, 2019 at the green space next to the Restaurant.

Free taster workshop about ENCÉFAL brain-training method.

Ended Adolescence, Endless Adolescence?, October 2018

USEK in collaboration with the University of Picardie Jules Verne (France), organized the 2nd international colloquium on Educational Sciences entitled: "Ended Adolescence, Endless Adolescence?"

This event, hosted by the Faculty of Philosophy and Humanities, took place on October 26 and 27, 2018.

SDG4 – Quality Education:

The 1st National Workshop on UI GreenMetric for Lebanese Universities, September 2019

The Holy Spirit University of Kaslik (USEK), in collaboration with UI Green Metric and the University of Indonesia, organized the 1st National Workshop on UI GreenMetric for Lebanese Universities, in the presence of Prof. Gunawan Tjahjono and Dr. Muhammad Fuad, both experts of UI GreenMetric in the University of Indonesia and Prof. Habib Fardoun, Coordinator Regional of UI GreenMetric for Middle Eastern Universities and Professor of King Abdul Aziz University. In this occasion, a tree was planted under the workshop title. This event took place on Tuesday, September 24, 2019. Album



Accreditation for Reshaping Business Education in the MENA Region BE mena - Beirut 2019, February 27 and 28, 2019

Under the patronage of the President of the Council of Ministers, H.E. Mr. Saad Hariri, USEK organized a conference entitled "Accreditation for Reshaping Business Education in the MENA Region", in partnership with The Association to Advance Collegiate Schools of Business (AACSB). Link to website: <u>https://www.usek.edu.lb/bemenabeirut2019</u>

SDG5 – Gender Equality:

Girls and Math: An Illuminating Equation, March 2019

The Agence pour l'enseignement français à l'étranger (AEFE) and USEK organized a workshop, entitled "Girls and Math: An Illuminating Equation". This event, hosted by the Faculty of Sciences, took place on Tuesday, March 12, 2019.

SDG6 - Clean water and sanitation:

Waterfull Initiative

You have the right to clean drinking water, and at USEK, we take this to heart, as we do our commitment to a more sustainable earth. That's why we've teamed up with talaya to ensure that every member of our community has access to fresh drinking water all year round. Using top-of-the-line food and beverage-grade piping, we now deliver crystal-clear drinking water straight to you through a network of 5 fountains, so you can have refill your bottle at any time of the day. We have called it the USEK-talaya Waterfull Initiative, because it truly is a wonderful way to make sure our bottles are always full of water. By encouraging the reuse of bottles, the initiative also helps us all cut down on the plastics sent to our landfills and protect our health and environment. Thirsty? Just grab your bottle, fill it up, and have a Waterfull day



SDG7 – Affordable and clean energy:



Ceremony of Signature of the Memorandum of Understanding between USEK and IPTEC Energy Center



Hosting of the event: Sustainable Energy in Lebanon: From 2020 Concrete Targets to 2030 Vision organized by the Ministry of Energy

SDG8 – Decent work and economic growth:

2019 Job Fair, May 2019

The Career Services Office (CSO) organized the annual Job Fair on Thursday, May 9, 2019. This Job Fair is a window opportunity – an employment strategy – for employers and job seekers to come together to establish professional relationships, discuss potential job and/ or internship opportunities.

SDG9 – Industry, innovation and infrastructure:

Entrepreneurship and Innovation Technology, March 2019

USEK organized a lecture on "Entrepreneurship and Innovation Technology", given by H.E. Mr. Nicolas Sehnaoui, Chairman of UK Lebanon Tech Hub. This event, hosted by the Faculty of Sciences and the Asher Center for Innovation and Entrepreneurship (ACIE), took place on Thursday, March 28, 2019 at 11:00 a.m. in the Jean El Hawa Auditorium.
Digital Technologies in Educational Models: Realities, Challenges and Prospects, April 2019

As part of the 50th anniversary of the International Federation of Teachers of French (FIPF), the Lebanese Association of Teachers of French (ALEF), in partnership with the Lebanese University's Foreign Languages Bureau, the Holy Spirit University of Kaslik (USEK), the Jinan University and the Institut français du Liban, organized an international colloquium on "Digital Technologies in Educational Models: Realities, Challenges and Prospects." This event took place from April 3 to April 5, 2019.

Ethics of Research Involving Human Subjects and Biosamples, February 2019

USEK organized a three-day workshop entitled: "Ethics of Research Involving Human Subjects and Biosamples", from Thursday, February 14 to Saturday, February 16, 2019. This event was hosted by the Center for Ethics and Bioethics of the Higher Center for Research, in partnership with the Lebanese National Consultative Committee on Ethics, the Ministry of Public Health, the National Council for Scientific Research, the UNESCO Office in Beirut, and the World Health Organization.

SDG10 – Reduce inequality:

Autism is not a disability, it's a different ability, April 2019

On the occasion of World Autism Awareness Day, USEK organized a lecture entitled "Autism is not a disability, it's a different ability". This event, hosted by the Department of Psychology of the Faculty of Philosophy and Humanities, and the Center for Ethics and Bioethics of the Higher Center for Research, took place on Tuesday, April 2, 2019.

Panel discussion on the Promotion of Human Rights, December 2018

On the occasion of the seventieth anniversary of the Universal Declaration of Human Rights, USEK organized a panel discussion on the promotion of human rights. This event, hosted by the School of Law and Political Sciences, took place on Tuesday, December 4, 2018. The panel was composed of:

- Andre Chidiac, Esq., President of the Beirut Bar Association
- Prof. Antoine Messara, member of the Constitutional Council
- Mr. Martin Borgeaud, Chief Technical Adviser, Access to Justice and Rule of Law, UNDP
- Joe Karam, Esq., Director of the USEK Human Rights Center, lawyer at the Beirut Bar Association

Human Life: Ethics of the Beginnings, December 2018

As part of the "Ethics for All" series, USEK organized a panel discussion on "Human Life: Ethics of the Beginnings", given by Dr. Zaki Ghorayeb, Head of Pediatric Surgery at the Centre Hospitalier Universitaire Notre-Dame des Secours (CHU-NDS) and Associate Dean for Medical Affairs at the USEK School of Medicine and Medical Sciences. This event, hosted by the Center for Ethics and Bioethics of the Higher Center for Research, took place on Monday, December 3, 2018.

SDG11 – Sustainable cities and communities:

Hike to Bentael: In Their Footsteps, May 2019

The purpose of this event was to rekindle USEK's ties to the Bentael Reserve and to honor the memory of Father Etienne Sacre. As part of this day, USEK installed permanent information boards that shed light on the history of the region, the architecture of the hermitages, the journey of Rev. Fr. Sacre, and the biosphere of the reserve.

Green Reporters: To motivate the future Journalists of USEK to the environmental causes and issues; matters which can be beautiful as much as harmful. An award was giving to the first four Journalists.

Welcoming St Rock School to provide them with Awareness Sessions: USEK welcomed a group of students, teachers and staff, janitors and maintenance staff to offer them awareness sessions:

- Session to a small Club to prepare them to be themselves the caretakers of this project.
- Session to all teachers and staff
- Session to all janitors and maintenance.
 - o At later stage, this club will teach the students along with teachers.
 - o This club will customize the info according to each section and comprehension.
 - o Adopting new and innovative ideas.
 - o To state all over the school campus on the state of School:
 - We are Recycling.
 - The how
 - The contact, in need to ask questions.

- Green Pots: Planting new and flowery cement flower pots (Existing)
- Each section will adopt these planters and make sure it is healthy and thriving.
 - o This will nurture at the students the sense of greenery, dedication and commitment.
- Maybe to do a competition for best planter.

SDG12 – Responsible consumption and production:

Highly engaged in extracurricular activities as well as academic pursuits, USEK students participate in a variety of national and international contests. During 2018-2019, the University was honored by many achievements.

In October 2019 – Green Committee organized a set of games which can relate to the environment and to sorting the waste, in a fun and playful way. It aimed to promote awareness in an easy approach way.





USEK Faculty Members Research Awards, May 2019

USEK organized the USEK Faculty Members Research Awards. This event, hosted by the Higher Center for Research, took place on Monday, May 6, 2019.

SDG13 – Climate action:

Gaia Award 2018 hosted by USEK

During this event USEK received the GAIA Award 2018 for the protection of the Mediterranean environment

http://www.usek.edu.lb/photo-gallery/gaia-award-2018

Under the High Patronage of His Excellency the President of the Republic General Michel Aoun, and upon the initiative of the MED 21 Program, the Holy Spirit University of Kaslik (USEK) organized the GAIA Award 2018 for the protection of the Mediterranean environment, followed by a colloquium on sustainable development.

This event took place on Tuesday, June 5, 2018.



SDG14 – Life below water:

August 2020" No to plastic – Clean our Sea" – in collaboration with Mr. Samer Halwani, his team and our students; an event was set to clean our famous site "Raouche" in an aim to clean our sea, chores and showcase the quantity of plastic floating in our sea.



Maritime and Marine Governance in Lebanon: Taking Stock for Action, June 2019

USEK organized a colloquium entitled "Maritime and Marine Governance in Lebanon: Taking Stock for Action" in collaboration with Robban Assafina, a leading Arabic-English magazine specialized in shipping and marine technology.

Lebanon is still grappling to tap into the prospects of offshore oil and gas exploration and development in the hope of making comeback as an effective player in the regional and global maritime and logistics arena. Meanwhile, Lebanon's coastal features have witnessed largescale devastation from the combined effects of wars, instability and misguided public policies. Today, Lebanese communities along the coast experience some of the highest rates of environmental pollution and health hazards ever recorded.

In order to shed light on the importance of sound maritime and marine governance policies and laws, this colloquium will address the merits and challenges of the Lebanese nation as a country bordering the sea.

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SDG15 - Life on land:

Fly among our Cedars: This birdwatching event – organized by the Green Committee was held on Saturday 13th of October, 2018 in Tannourine Reserve

Among the rules: P.S: bring your own camera or binoculars, Wear dark colored or natural shades clothes, Jacket for chilly weather, No shining objects or loud instruments.

Sawweb Sawtak for Sustainable Hunting, August 2019

In the presence of H.E. Mr. Fady Jreissati, Minister of Environment, USEK organized a conference entitled "Sawweb Sawtak for Sustainable Hunting". A group of birdwatchers were exhibiting their bird photos to offer an alternative to hunting and to promote birdwatching.

SDG16 – Peace, Justice and Strong institutions:

3rd International Colloquium on Commercial Law: Capital Markets Law, April 2019

USEK organized its 3rd international colloquium on commercial law, entitled "Capital Markets Law".

This research activity is a continuation of the study conducted for two consecutive years in the context of the 75th anniversary of the Code of Commerce and brings together several eminent personalities from the world of education, research, business, and economics. Our 3rd edition of the colloquium will focus on Lebanese capital markets law and on the various international experiences of this new and highly technical set of rules.

Writing and Geopolitics in the Contemporary Arab and Mediterranean World, April 2019

USEK organized an international symposium on "Writing and Geopolitics in the Contemporary Arab and Mediterranean World". This event, hosted by the Faculty of Letters, in collaboration with the Institut national des langues et civilisations orientales – INALCO (France) and the Ibn Tofail University (Morocco), took place on April 11 and 12, 2019.

Latin American Contributions to Peace and International Law, March 2019

USEK organized a lecture on "Latin American Contributions to Peace and International Law", delivered by H.E. Mr. Mauricio Alice, Ambassador of Argentina to Lebanon, and moderated by Dr. Joseph Al Assad, Associate Professor at the Faculty of Engineering. This event, hosted by the School of Law and Political Sciences and the International Affairs Office, took place on Thursday, March 7, 2019.

UNIFIL: 40 Years in Southern Lebanon – Lessons and Future Prospects , October 2018

USEK organized a conference entitled "UNIFIL: 40 Years in Southern Lebanon – Lessons and Future Prospects", given by Brig Gen Raouf Sayah, Mr. Sultan Sleiman and Dr. Nassif Hitti, moderated by Dr. Nicolas Badaoui.

This event, hosted by the Higher Institute of Political and Administrative Sciences (affiliated to the School of Law and Political Sciences), took place on Tuesday, October 30, 2018.