

COMMUNICATION ON ENGAGEMENT

September 2017 – September 2019



Table of Contents

I. Letter from the President.....	3
II. NDU Mission, Vision, and Core Values.....	4
III. NDU Sustainability Model.....	6
1. Introduction.....	6
2. Structure.....	9
3. Leadership.....	10
4. Strategy.....	11
5. Measurement and Reporting.....	15
6. Research and Development.....	17
7. Stakeholder Engagement and Partnerships.....	19
8. Campaigns.....	28
9. Initiatives / Activities / Events:.....	34
A. Highlighted Events.....	45
B. SDG Initiated Activities and Events Adopted by the NDU Community (Faculty, Staff, and Students).....	52
IV. National and International Recognitions.....	67
V. Looking Ahead / Future Initiatives / Potential Projects.....	74

I. Letter from the President

September 3, 2019

“We are all responsible for the protection and care of the Environment. This responsibility knows no boundaries” – *Pope Emeritus Benedict XVI.*

Indeed, we are all responsible, and change starts from within. These words of Pope Benedict XVI were re-emphasized by Pope Francis who calls upon all of us to drive change and safeguard our “Common Home” in his encyclical on the environment *Laudato Si.*

I am pleased to confirm that Notre Dame University-Louaize reaffirms its support of the Ten Principles of the UN Global Compact in the areas of Human Rights, Labour, Environment and Anti-Corruption. In this biennial Communication on Engagement, we define our actions and initiatives to improve continuously the integration of the Sustainable Development Goals in our strategy, culture and day-to-day operations. Accordingly, we commit to sharing and submitting our Communication on Engagement provided from September 2017 until December 2019.

Sincerely yours,



Fr. Pierre Najem

President

II. NDU Mission, Vision, and Core Values

Mission

As a Catholic institution inspired by the cultural and spiritual heritage of the Maronite Order of the Holy Virgin Mary, Notre Dame University-Louaize (NDU) seeks to provide comprehensive quality education that fosters excellence in scholarship, lifelong learning, enlightened citizenship, human solidarity, moral integrity, and belief in God. In designing its curricula, NDU is committed to the philosophy and standards of the American model of liberal arts education. Conceiving itself as an authentic academic community, NDU promotes diversity, respect for human dignity and rights, and concern for the common good. Its profound aspiration is to prepare its students to be future leaders who can exercise reason upon knowledge and shape a world of truth, justice, love, and freedom.

Vision

NDU's vision is to:

- Become the venue of choice as Lebanon's Catholic university, offering students access to the finest faculty and a comprehensive curriculum taught in the Maronite tradition;
- Provide a highly personalized academic experience to graduate and undergraduate students
- Integrate a strong, interdisciplinary, liberal arts core with degree-granting programs that offer preparation for professional careers and graduate studies
- Excel in selected highly specialized areas, including signature programs that enhance the university's reputation and serve as regional models for the delivery of educational development in Lebanon and the region
- Foresee the changing needs with time and develop programs and utilize technologies consistent with those needs
- Create and sustain a community in which all aspects of University life is a reflection of its values

Values

As a Catholic university offering a higher education in the Maronite tradition, NDU is determined to practice those core values that respect humanity and the dignity of the individual. This helps students on their life path of learning, and allows them to discover their talents through cooperation while they look for truth, for individual empowerment, and for the enhancement of the world around them. Accordingly, they dedicate themselves to the following core values:

- Faith – As a Catholic university, NDU highlights a strong belief in spiritual motivation and education as a vehicle for a better and more just society
- Excellence – In all activities of university life—teaching, scholarship, service, etc—NDU strives to be a center of quality education
- Scholarship – To seek the truth, with a sense of discovery, through informed and rigorous scholarship, will place NDU among the top-ranking regional universities
- Freedom – Of thought and expression; NDU commits itself to engage and enhance intellectual inquiry in the pursuit of truth by teaching students how to learn, how to think critically, how to conduct responsible research, and how to access and integrate information in preparation for career development and personal growth

- Integrity – Teaching, scholarship, and student service within the university community are characterized by intellectual honesty and a sense of personal morality
- Service – NDU is committed to serve not only its students, faculty and employees, but also society at large
- Diversity – Empathy, tolerance and respect for all people is essential to any university community. NDU encourages students to understand and appreciate the diversity of cultures, which exist locally, nationally, and internationally. It also seeks to promote diversity appreciation through an understanding of the impact human beings have on their environment; and
- Learning for Life – In the tradition of a Catholic liberal arts education, NDU commits itself to lifelong learning, encourages personal responsibility, develops spiritual values, and affirms a philosophy of life which actively supports global economic equity, social justice, and human rights.

Mission Advancement

The Mission Office has the ability to suggest ideas and facilitate their implementation. However, bringing the ideals of the Mission into reality in the daily life of the University depends on the community that embodies it. “It takes a village!” The advancement of the University Mission takes place at various levels: orientation, formation, appropriation, integration and application. Taken together, these five levels reflect our Catholic University’s values that should not only be comprehensively understood, but also capable of implementation.

“Our aim here at Notre Dame University-Louaize (NDU) is to design, develop, implement, evaluate, and coordinate a campus-wide endeavor to integrate the Catholic Identity into the life and ethos of the University. As the Mission Officer, I have crucial responsibilities to develop programs, initiatives, and activities that both educate and engage students, faculty, academic and non-academic staff, and alumni. These initiatives help to further our understanding and embracing of NDU’s Catholic Identity, while maintaining and fostering the inclusivity, openness, and diversity so crucial to our Community.”

Dr. Ziad Fahed
Director, Office of University Mission

NDU Sustainability Statement

As part of its mission, to be a committed and responsible guardian of our planet and people, Notre Dame University-Louaize (NDU) abides by Pope Francis' Encyclical "Laudato Si", which is driven towards a change for the better. From innovation to public engagement, NDUs strive to balance today's economic, environmental, and social issues with related needs for the future. To these ends, NDU has become a member of the United Nations Global Compact (UNGC) with the purpose of abiding all internal sustainability-related initiatives that fall under the umbrella of the 17 UN Sustainable Development Goals (SDG).

III. NDU Sustainability Model

1. Introduction

Notre Dame University-Louaize has adopted a sustainability model towards its educational institutions boosting efficiency, engagement, innovation, achievements, value creation, and change.

What made NDU stand out among other Universities in Lebanon is the innovative sustainability model that NDU introduced. This model brings together initiatives, aligning the University mission with Pope Francis' encyclical on the environment and human ecology: "Care for Our Common Home (Laudato Si')."

The sustainability model includes the following success factors:

- Leadership
- Structure
- Processes
- Strategy
- Measurement
- Reporting
- Partnerships
- R&D

The NDU Sustainability Model illustrates numerous characteristics and functions of different components that made this model a benchmark for Higher Education Institutions. Starting with leadership, multidisciplinary nature and passion driven members, the task force fosters Agility and speed. It also reflects other functions: constant innovation and urgency toward big opportunities, a guiding coalition of volunteers, change vision and strategic initiatives, ever-increasing volunteers, knocking down barriers, celebrating victories, relentless action and institutionalized changes. NDU's case would add clear processes and reporting to all other existing models including: integration in the organization's strategic plan and partnerships and stakeholders' engagement.

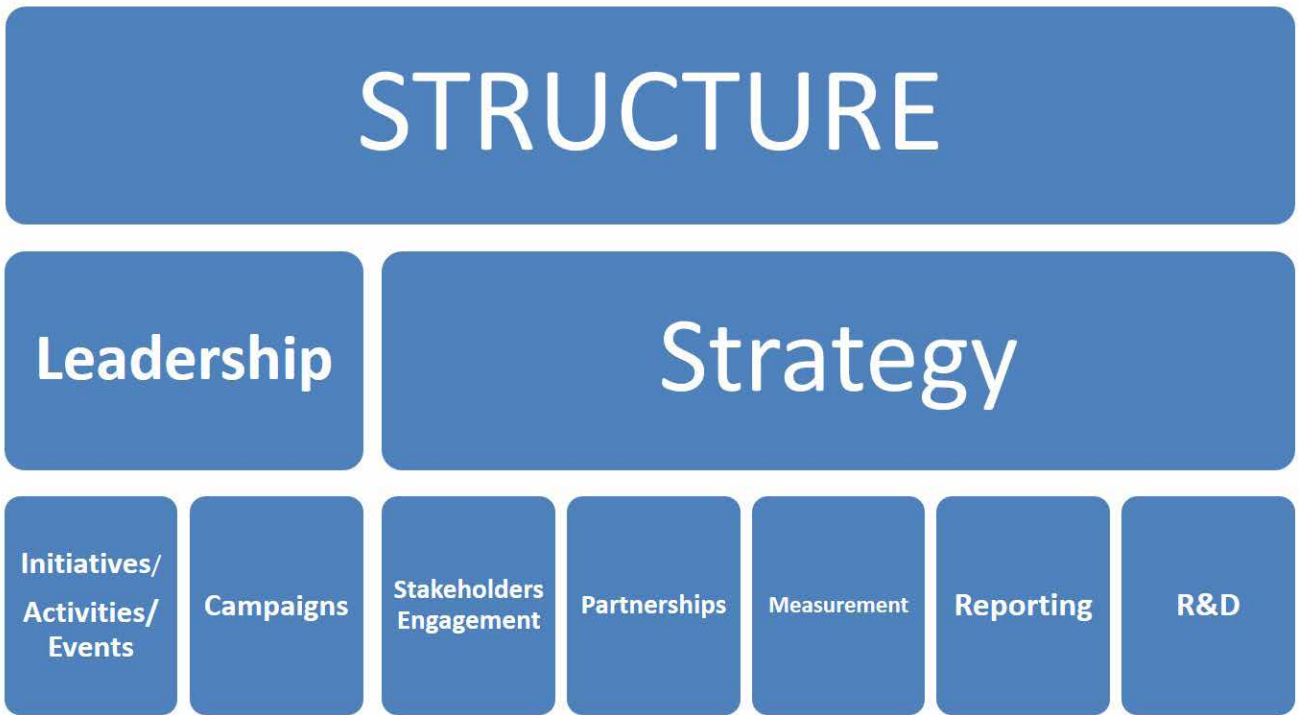


Figure 1 | Sustainability Model

Sustainability is defined as “meeting the needs of the present without compromising the ability of future generations to meet theirs.” It has three main pillars: economic, environmental, and social. These three pillars are also referred to as people, planet and profits.

Covering all aspects of sustainability, the NDU task force started as an environmental taskforce and, while adopting the SDGs, expanded its strategy to comprise all three pillars: environmental, social and economic.



Figure 2 | Three Pillars of Sustainability

The Environmental Pillar

The environmental pillar often gets the most attention. Organizations are focusing on managing waste, reducing their carbon footprint, water usage and their overall effect on the environment. Companies have found that have a beneficial impact on the planet can also have a positive financial impact.

The Social Pillar

A sustainable business should have the support and approval of its stakeholders, employees and the community in which it operates. The approaches to securing and maintaining this support are various: it ranges from employees' fair treatment to engaging stakeholders and contributing to the well-being of the community, locally, nationally, and globally.


The Economic Pillar

The economic pillar of sustainability is where most businesses feel they have solid foundation. To be sustainable, a business must be profitable while considering the two other pillars. "Profit" is only one component of the economic pillar, with other activities including compliance, proper governance and risk management.

Sustainability provides a larger purpose and some new deliverables for organizations to strive for and helps them renew their commitments to the basics: efficiency, sustainable growth and shareholders value.

2. Structure

As a committed educational institution towards sustainability, an established structure must be created to guide the development and implementation of an inclusive plan, hence the creation of the Environmental Sustainability Task Force (ESTF) in NDU.


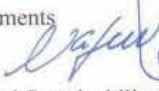


NOTRE DAME
UNIVERSITY
LOUAIZE
جامعة السيدة
اللاذقية

OFFICE OF THE
PRESIDENT

MEMORANDUM

To : All Deans and Heads of Departments
From : Fr. Pierre Najem, President
Date : October 12, 2017
Subject : Announcement of Environmental Sustainability Task Force
Ref : Pr.O/013/F17



“We are all responsible for the protection and care of the Environment. This responsibility knows no boundaries” *Pope Emeritus Benedict XVI.*

Indeed we are all responsible, and change starts from within. These words of Pope Benedict XVI were re-emphasized by Pope Francis who calls upon all of us to drive change and safeguard our “Common Home” in his encyclical on the environment *Laudato Si.*

I was committed as Vice President for Administration and am still committed, today, as President to this. NDU has started years ago environmental initiatives across its 3 campuses, these initiatives should become coordinated and serve one goal: the environmental sustainability action plan. For that, I am announcing the creation of the University “**Environmental Sustainability Task Force**” that I will chair personally with the support of professional and knowledgeable staff and faculty members who are all passionate about the Environment.

This University-wide Task Force committee will support all 3 campuses. Its main mandate is to finalize our environmental sustainability plan (in line with the Strategic Plan section 5.6.8 of Goal V), to monitor, review and evaluate any existing environmental initiative, be it academic or non-academic, to facilitate the creation of synchronized efforts towards the mentioned plan, to lead the way and support all entities as need arises.

The task force will require support from everyone: faculty, staff and students. It is, as of today, your official reference in all matters related to sustainability and will be accountable to leading NDU towards meeting sustainability goals addressing:

- Waste Management
- Water Conservation
- Carbon footprint reduction
- Land use and ecosystem preservation
- Sustainable procurement
- Environmental outreach and service to the community

www.ndu.edu.lb

MAIN CAMPUS
ZOUK MOSBEH, LEBANON
T: +961 9 208 000
F: +961 9 218 771

NORTH LEBANON CAMPUS
BARSA - KOURA, LEBANON
T: +961 6 416 101/2/4
F: +961 6 416 103
P.O. BOX: 72 ZOUK MIKAEL

SHOUF CAMPUS
DEIR EL KAMAR - SHOUF, LEBANON
T: +961 5 511 202
F: +961 5 511 203

WASHINGTON DC OFFICE
SUITE 300, 1529 K STREET, NW
WASHINGTON, DC 20006
T: +1 202 349 1705
F: +1 202 331 3759

NDU started initiating sustainability projects in 2013 when a team of internal experts worked, under the European Union's TEMPUS program, on a self-study to evaluate and report all potential areas for development and growth in that direction. Given responsibility for sustainability implementation, the ESTF was created to develop an action plan and ensure that these sustainability projects are considered a top priority across all three NDU campuses.

One of the latest initiatives executed was the waste management project, which includes the sorting and handling of general waste, hazardous waste, and e-waste products with the aim of redirecting NDU toward the long-term path of "zero-waste."

To ensure the project's success and its commitment to support the 17 SDGs, NDU has signed a Memorandum of Understanding (MoU) with several reputable NGOs and private companies that focus on environmental issues and sustainability.

The Environmental Sustainability Task Force is composed of NDU staff and faculty members who are charged with implementing internal projects and initiatives towards sustainability. Reporting directly to NDU President Father Pierre Najem, the ESTF is divided into Technical and Outreach subcommittees; the Committee members are as follows:

Technical sub-committee

- Dr. Sophia Ghanimeh (co-chair for technical matters) - Associate Professor, FE, Civil and Environmental Engineering
- Dr. Pauline Aad - Assistant Professor, FNAS, Sciences
- Mr. Omar Sakr - Lecturer, FBAE, Hospitality and Tourism Management
- Mr. Sayed Ghossain - Director, Office of Campus Services
- Mr. Salim Iskandar - Director, Office of Physical Plant

Outreach sub-committee

- Mrs. Emma Shaffu Chacar (co-chair for outreach matters) - Director, Office of Communications
- Mrs. Joyce Menassa - AVP for Academic Support
- Mr. Andre Fahed – Creative Director, Office of Communications
- Ms. Nesrine Sfeir – Assistant to the President for University Advancement
- Dr. Lara Khabbaz – Director, Office of Marketing

3. Leadership

The NDU Environmental Sustainability Task Force (ESTF) was created by the University Environmental Sustainability Ad-hoc Committee, which is led and chaired by NDU President Father Pierre Najem, with the support of professional and knowledgeable faculty and staff members.

"To ensure success, we must foster a sense of involvement across the NDU community. It starts with small steps, such as the valorization of our waste through the separate processing of organic and inorganic waste. This approach underlines our target, beyond that of recovery of recyclables only, toward achieving our aim as a zero-waste institution." – President Father Pierre Najem

4. Strategy

As mentioned previously, the sustainability strategy and anything related to past, ongoing, or planned environmental initiatives are adopted by two sub-committees: the Technical sub-committee and the Outreach sub-committee.

The aforementioned committees are branched into 7 working groups with initiatives, action plans, champions, timeline and Key Performance Indicators that are monitored by Working Group VII responsible also for responsible for monitoring and reporting.

The focus areas of the working groups are as follows:

1. Waste Management
2. Water Conservation
3. Carbon Footprint Reduction
4. Land Use & Ecosystem Preservation
5. Sustainable Procurement
6. Environmental Outreach & Service to the Community
7. Monitoring & Review

The seven working groups at NDU aim to raise sustainability awareness and engage with the focus areas mentioned above. Each working group has a leader and a strategy with objectives, action plans and Key Performance Indicators. The groups were formed with the purpose of designing and implementing initiatives related to the focus areas of NDU Environmental Sustainability Action Plan. Progress on the strategic plan of each group is communicated systematically with the taskforce in the meetings and through Working Group VII responsible for monitoring and reporting.

Working Group I: WASTE MANAGEMENT

Members

- Mr. Omar Sakr - Lecturer, Hospitality and Tourism Management - FBAE;
- Mr. Andre Fahed - Creative Director, Office of Communications;
- Ms. Karen Abou Jaoudeh - Assistant Professor, Department of Architecture - Ramez G. Chagoury FAAD;
- Ms. Rita El-Am El-Hajj - Senior Laboratory Instructor, Department of Sciences - FNAS;
- Dr. Leila Khalaf Kayrouz - Associate Professor, Department of Sciences - FNAS;
- Ms. Patricia Eid - Assistant Professor, Department of Psychology, Education and Physical Education - FH

This working group leads NDU's initiatives toward achieving the goals set under Focus Area I (Waste Management) of the NDU Environmental Sustainability Action Plan:

- Developing the scope and approaches for a comprehensive, university-wide, life-cycle materials management
- Deviating the waste from landfills
- Developing a waste reduction policy
- Processing the biodegradable waste
- Promoting a sustainable food system
- Minimizing the generation of hazardous waste when possible
- Developing a complete strategy for storage, collection and disposal of hazardous waste
- Developing an integrated plan for management of e-waste
- Supporting and enhancing reuse programs
- Evaluating current status of wastewater treatment in all campuses
- Ensuring adequate wastewater treatment and/or discharge
- Reusing the treated water
- Managing the bio-solids properly

Working Group II: WATER CONSERVATION

Members

- Dr. Pauline Aad (Lead) - Associate Professor, Department of Sciences - FNAS;
- Ms. Maya Atieh - Department of Civil and Environmental Engineering - FE;
- Dr. Jacques Harb - Director CRSD, Professor, Department of Civil and Environmental Engineering - FE

This working group leads NDU's initiatives toward achieving the goals set under Focus Area II (Water Conservation) of NDU Environmental Sustainability Action Plan:

- Evaluating water usage on campuses
- Reducing water consumption
- Reducing landscaping water use
- Diversifying the sources of fresh water

Working Group III: (Split into two groups)

ENERGY

Members

- Mr. Salim Iskandar (Lead) - Director, Office of Physical Plant;
- Dr. Ghassan Kraidy - Associate Professor, Department of Electrical & Computer & Communication Engineering - FE ;
- Dr. Fakherdine Keyrouz - Associate Professor, Department of Electrical, Computer and Communication Engineering - FE;
- Dr. Mariette Hazoury

TRANSPORTATION

Members

- Ms. Dima Jawad (Lead) - Assistant Professor, Department of Civil and Environmental Engineering - FE;
- Elie Najem - Assistant Director, General Services - Office of Campus Services;
- (Ramez G. Chagoury FAAD Faculty Member);
- (Staff Member);
- (Staff Member)

This working group leads NDU's initiatives toward achieving the goals set under Focus Area III (Carbon Footprint Reduction) of NDU Environmental Sustainability Action Plan:

- Establishing a monitoring system for emissions of Greenhouse Gases
- Reducing energy requirements
- Improving energy conservation
- Switching to cleaner renewable types of energy
- Starting incentive programs to offset transportation related emissions

Working Group IV: LAND USE & ECOSYSTEMS

Members

- Mr. Maher Ghostine (Lead) - Assistant Director, Landscaping - Office of Physical Plant;
- Dr. Tanos Hage - Associate Professor, Department of Sciences - FNAS ;
- Ms. Carole Assaf - Senior Lecturer, Department of Hospitality and Tourism Management - FBAE

This working group leads NDU's initiatives toward achieving the goals set under Focus Area IV (land use and ecosystem preservation) of NDU Environmental Sustainability Action Plan:

- Increasing green areas
- Adopting an Integrated Pest Management approach, which allows prevention, monitoring and control with a limited need for pesticides
- Optimizing water consumption
- Improving resource conservation

Working Group V: SUSTAINABLE PROCUREMENT

Members

- Mr. Omar Sakr (Lead) - Lecturer, FBAE, Hospitality and Tourism Management;
- Mr. Eddy Lteif - Assistant Director, Procurement, Department of Procurement - Office of Campus Services;
- Dr. Nada Maalouf - Senior Lab Instructor, Department of Sciences - FNAS

This working group leads NDU's initiatives toward achieving the goals set under Focus Area V (Sustainable Procurement) of NDU Environmental Sustainability Action Plan:

- Developing a sustainable supply chain system and establishing a management system
- Consulting with and assessing NDU suppliers and help them meet NDU sustainability goals
- Favoring products with lower life cycle impacts
- Favoring local sources and services, wherever possible, to encourage local business and cut down on the need for transportation and distribution
- Buying in bulk to reduce the amount of packaging

Working Group VI: ANNUAL CONFERENCE

Members

- Mrs. Emma Shaffu Chacar (Lead) - Director, Office of Communications;
- Mr. Majed Bou Hadir - Director, Public Affairs and Protocol, Office of Public Affairs and Protocol;
- Mr. Omar Sakr;
- Dr. Sophia Ghanimeh - Associate Professor, FE, Civil and Environmental Engineering;
- Dr. Pauline Aad - Associate Professor, Department of Sciences - FNAS;
- Dr. Lara Khabbaz - Director, Office of Marketing;

This working group prepares for the yearly conference of NDU Environmental Sustainability Task Force. It is an essential component of the communication and outreach activities of the Task Force. Those focus on:

- Turning NDU into a benchmark for environmentally sustainable institutions
- Educating the community through engagement opportunities with student, staff and faculty members
- Providing training and tools for assessment of environmental parameters
- Creating focused programs and competitions
- Providing incentives and rewards

Working Group VII: MONITORING & REPORTING

Members

- Dr. Lara Khabbaz (Lead) - Director, Office of Marketing;
- Ms. Remi Hage - Assistant Professor, Department of Mathematics and Statistics - FNAS;
- Dr. Doris Jaalouk - Professor, Department of Nursing and Health Sciences - FNHS ;
- Mrs. Theresa Hajjar - Director, Office of Institutional Research and Assessment / Senior Lecturer - FNAS;
- Mrs. Maria Tawk Massaad – Officer, Office of Marketing

This working group assists the other WGs in assessing their performance by monitoring KPIs, analyzing the data and reviewing the adopted methods. The working group also compiles the data and develops semester and annual reports.

It works toward achieving the goals set under Focus Area VII (Monitoring and Review) of NDU Environmental Sustainability Action Plan:

- Defining Key Performance Indicators
- Submitting bi-annual reports to the President of NDU
- Publishing an annual Environmental Sustainability Report online showing our objectives, methods, and progress
- Benchmarking NDU's performance against peer institutions
- Reviewing the action plan every two years and incorporating emerging challenges and opportunities

5. Measurement and Reporting

Measurement Technics, Monitoring, Outcomes of Projects, and Reporting are key aspects towards follow-up and assessment for the agenda of Sustainable Development.

As mentioned earlier Working Group VII was created for the purpose of monitoring and reporting and its main objective is to achieve a framework of all working groups' data and indicators, inspired by UI Green Metrics to be able to rapidly and effectively apply to other competitions.

Measurement

Working Groups set their Key Performance Indicators stimulated from the University of Indonesia GreenMetric criteria and indicators that NDU uses as a benchmark. They then send the Indicators to WG VII- (Monitoring and Reporting) for validation. The aforementioned actions help recognize powerful goals to be identified and communicated with the community and stakeholders that will enhance NDU's position. In addition, it contributes to evaluating and highlighting the statistics by which over 50% of financed studies were accomplished for education in sustainability.

The link below portrays a brief clip featuring the latest statistics and measurements regarding the sorting campaign in NDU.

#ourcommonhome

<https://www.facebook.com/NDULEbanon/videos/489744504897350/>

Data Collection

In late Spring 2018, preliminary data collection was initiated. Three groups of students performed the characterization of "general waste". The quantity of recovered material was monitored over two weeks.

During the first six months of campaign implementation, about 3500 kg of landscaping waste was converted into organic (contaminant free) compost; and 6000 kg of paper, 1600 kg of plastic, and 300 kg of aluminum were sorted and delivered to L'Ecoute Association. The income from selling the recovered material to the recycling industry was used to buy a Super Power hearing aid kit (\$750) for Serge, an underprivileged Lebanese young man suffering from cerebral motor infirmity. A summary of the data is provided below.

Spring 2018: Data Collection
Recovery during the first 6 months (April-May 2018)

	Paper	Plastic	Aluminum
Total recycled material in six months	6025 kg	1663 kg	265 kg
Quantity purchased at cafeterias		7561 bottles	1261 cans
Quantity recovered		3848 bottles	714 cans
Recovered proportions		51%	57%

Monitoring

Monitoring progress towards the Sustainable Development Goals requires existing data and monitoring capacity. Accordingly and for tracking SDG progress, three Reporting technics on Sustainability currently are applied at NDU:

1. President’s Annual Report <http://www.ndu.edu.lb/Library/Assets/Micro/Files/Sustainability/Sustainability%20Task%20Force%20Report%202017-2018.pdf>
2. Communication on Engagement (COE); a biannual report presented to the UNGC
3. Public Reporting SDGs Wall (shown below); an SDG color coded wall in the NDU common area displaying all initiatives, actions and projects executed by NDU Faculty, Staff, Students for everybody to see. This way of reporting raises awareness on the importance of the commitment to achieving the SDGs and the Agenda 2030.



A dedicated page can be found on the University website comprising all info pertaining to sustainability: <http://www.ndu.edu.lb/sustainability>

6. Research and Development

At NDU, more than 50 percent of funds are dedicated to sustainability research projects.

Without research, substantial measurable contributions cannot be applied, and trials are therefore being conducted to explore the importance of research to help achieve the Sustainable Development Goals.

The following sustainability research projects were completed by NDU community (Instructors and Students):

Research project title	Funding institution
Novel approach to recycling XLPE as a substitute to concrete aggregates - Influence on the behavioral properties of XLPE-concrete	CNRS* & NDU
Communication systems with renewable Energy micro-grid (COMMED)	CNRS & NDU
Air quality research unit: an attempt to an air pollution observatory	CNRS
Citizenship education for education for environmental sustainability (EfES) in Lebanon	CNRS
Health assessment of earth dams in Lebanon: towards sustainable development (PEER)	USAID**
Development of an interdisciplinary programme on climate change and sustainability policy (CLIMASP)	ERASMUS+***
Optimization of anaerobic-aerobic sequential process applied to the treatment of sewage sludge and food waste in combination with raw wastewater	CNRS
Generation clean energy from waste through an innovative anaerobic plug flow reactor	CNRS
Impact of integrating solar thermal panels in Lebanese buildings on the indoor environment	CNRS & NDU

*National Council for Scientific Research – Lebanon (CNRS)

**United States Agency for International Development (USAID)

***European Union’s programme to support education, training, youth and sport in Europe (ERASMUS+)

NDU students presented the following projects:

Team	Student	Faculty	Project Title	Fund (\$)
1	Meli-Joe Abou Chedid	Engineering	Barriers, Challenges And Opportunities of Wastewater Treatment Systems in Lebanon	5,000
2	Jeffrey Fadlallah	Engineering	Development of a Sustainable Groundwater Quality Management for Accessing Safe Water in Lebanon	10,000
	Stephanie Sarrouf	Engineering		
	Fadi Saliba	Engineering		
3	Jovi Kassab	Engineering	Feasibility of Wetland Treatment in Lebanon	8,000
	Charbel Tannous	Engineering		
4	Tommy Waked	Engineering	Home-Scale Wastewater Treatment: Is it a Feasible Approach in Rural Areas of Lebanon?	5,000
5	Daniel Seif	Dep. Media Studies	Preserving the Water of Lebanon: A Mass Media Flow of Awareness and Action	5,000
6	Samar Yammine	Engineering	Feasibility of Wastewater Treatments in Lebanon: Social, Economic and Legislative Approach	5,000
Student Fund By Usaid, through Lebanon Water Project (LWP) Total				38,000

Among other Sustainability projects are the following:

- Modeling a carbon footprint calculator for university campuses. The team is composed of four NDU Students.

7. Stakeholder Engagement and Partnerships

Building sustainable relationships with stakeholders (Stakeholders Engagement)

NDU is now aware more than ever before of the importance of networking and partnerships to attain its goals, that is why the upper management and the Office of Public Affairs and Protocol are building fruitful/sustainable relationships with stakeholders (major economic, political, social, environmental and academic players) to reinforce the position of NDU as major player in the ecosystem. The Sciences Department at the Faculty of Natural and Applied Sciences initiated inter-institutional academic/research collaboration with PACT-INDEVCO where senior sciences students (chemistry and environmental science majors) were assigned research projects by PACT in FA17 and SU18 in addition to two labs. Instructors who worked on a PACT research project in SP18. The Department of Community Service & Awareness (CSA) teamed up with the NGOs to launch clothes and food donation campaigns, and conducted fundraising activities for Oum El Nour, Anta Akhi, Auxilia, Hike to Cure, Mission De Vie, etc. The CSA welcomed Donner Sans Compter at NDU to collect blood drives from students saving many lives.

Partnerships



A. Collaborations towards a better future

NDU initiated partnerships with Non-Governmental Organizations (NGOs) and environmental companies, including:

NDU and the United Nations Development Programme (UNDP) in Lebanon

The United Nations Development Programme (UNDP) in Lebanon and Notre Dame University-Louaize (NDU) signed a memorandum of understanding (MoU) to collaborate on various environmental issues including climate change, pollution prevention/control, and sustainable solutions. Collaboration will take the form of monitoring, knowledge sharing, awareness raising, and academic research between NDU students and faculty members, and UNDP staff.

Fr. Najem said that NDU upholds its mission of sustainability: to follow the UN Sustainable Development Goals in line with Pope Francis's Encyclical Laudato Si (care for our common home).



This cooperation is part of the on-going program of UNDP at the Ministry of Environment to raise awareness on climate change and to promote action on both adaptation and mitigation within Lebanon's commitments to the UN Framework Convention on Climate Change. In signing this MoU, NDU continues its mission towards sustainable development and outreach programs, both on campus and off, as part of the sustainability taskforce's goals, NDU's dedication towards the UN SDGs, and its aim to be a regional pioneer of sustainability research.

The two parties have agreed to organize events that promote awareness and action in Lebanon, and to encourage the exchange of knowledge and professional development of staff, academics, scholars, and students. The two entities will also exchange data and collaborate, whenever possible, on research capstone projects and other academic work that feed into the national environmental, and climate change agenda. Internship opportunities for NDU's undergraduate and graduate students will be provided as well.



NDU and the Center for Smart Kids with Individual Learning Differences (SKILD)



Notre Dame University-Louaize (NDU) and the Center for Smart Kids with Individual Learning Differences (SKILD) signed a Memorandum of Understanding (MoU) centered around the creation of both a "SKILD-NDU" representative office on NDU's main campus serving NDU students – old and new – with special educational needs as well as a SKILD-NDU center offering support for the wider Keserwan community. The MoU was signed by NDU President, Fr. Pierre Najem and Mr. Samir Abi Chedid, Chairman of the Board of Directors of SKILD.

Presiding over the signing as Master of Ceremonies NDU's Vice President for Academic Affairs (VPAA), Dr. Elie Badr, spoke about the work that both SKILD and NDU have done to further their common goal of helping students reach their full potential.





Dr. Badr discussed how this collaboration will serve both NDU students and the broader Keserwan area, and is in line with the ethos that secured NDU's NECHE accreditation.

NDU President, Fr. Pierre Najem, reflected on the similarities between NDU and SKILD, saying that both have the same mission: "to build a more inclusive society." Fr. Najem reiterated NDU's goal of providing education for all, without discrimination: "We have a responsibility towards the young men and women who come to us ... So when we talk about exceptional education, we must also provide exceptional support ... We want our students to thrive regardless of their individual learning differences."

SKILD's CEO, Dr. Nabil Costa, noted that this is an important step forward in SKILD's journey towards an inclusive community. "We initially focused on providing individualized support to children with learning difficulties at the school level. Today, our students are at university level and so we celebrate the opportunity to further pave the way before them towards the future they deserve. We are proud that we are taking this step in association with NDU that is a strong advocate of inclusion in Lebanon."

The MoU covers two major initiatives between NDU and SKILD:

The first is the establishment of a SKILL-NDU office under the Student Affairs Office (SAO). The office will be staffed by a specialist who will coordinate closely with the NDU Office of Admission to provide the best support possible to incoming NDU students with special educational needs. The new office will also provide consultation to faculty members and students on the best ways to accommodate teaching/learning methods for students with special needs. Finally, the new office will mentor NDU interns majoring in education, psychology, and related fields.

The second is the creation of a new joint SKILD-NDU Center that will be launched in September 2019 to serve the wider Keserwan community. The Center will offer support to students with learning difficulties, raise awareness on the importance of inclusion, organize capacity building workshops for educators and school administrators, and provide proper orientation for learning difficulties. It will also provide internship opportunities for NDU students majoring in education.

This MoU serves an affirmation of both parties' belief in the right to education for all, and the desire to provide students with learning difficulties the appropriate support that will enable them reach their full potential.



NDU and the Lebanese Ministry of Economy and Trade

Under the patronage and in the presence of the Lebanese Minister of Economy and Trade, HE Mansour Bteich, Notre Dame University-Louaize (NDU) signed a Memorandum of Understanding (MoU) with the Lebanese Ministry of Economy and Trade. The MoU comes hot on the heels of a collaborative project between the NDU students of COA 316 (TV Production Techniques for Advertising) and the Ministry to promote the importance and use of electric meters in Lebanon. The agreement commits both NDU and the Ministry to cooperate on a variety of projects including: professional, scientific, and legal consultation; joint conferences; seminars given by the Ministry to NDU's students; internships offered by the Ministry to NDU students; joint awareness campaigns on recent advancements in the relevant sectors; and topics put forward by the Ministry that NDU Master's students can use for their theses.

The signing took place at NDU's Abou Khater Auditorium between NDU President Fr. Pierre Najem, and Minister Bteich, in the presence of prominent NDU faculty and staff, and Ministry representatives including: HE Cesar Abi Khalil, Minister of Energy and Water; HE General Chamel Roukoz, MP; Alia Abbas, General Director of Economy and Trade; and HE Chawki Daccache, MP.



Presiding over the signing as Master of Ceremonies, NDU Director of Public Affairs and Protocol, Majed Bou Hadir, welcomed the attendees and introduced each speaker in turn.

First to the podium was Dr. Maria Bou Zeid, Chairperson of the Department of Media Studies – Faculty of Humanities. Dr. Bou Zeid talked about the project that the COA 316 students collaborated with the Ministry on, and how it strengthened avenues for further cooperation with NDU.

Dr. Bou Zeid was followed by Nancy El Ghou, Senior Officer at the Department of Career and Placement – Office of Student Affairs. El Ghou talked about NDU’s commitment to securing internships, and the University’s ability to place students in top companies: “We are targeting all industries and sectors locally and internationally.” El Ghou placed particular emphasis on the growing number of internships and employment figures that NDU has been able to provide each year.

In his speech on the signing, Fr. Najem thanked the Ministry for its confidence in the University, saying that the MoU strengthens ties between the academic and public sectors. Fr. Najem reflected on NDU’s position as a student centric university, and spoke to the desire of its students to affect real change for the better.

Finally, Minister Bteich spoke, talking about how the Ministry “greatly valued the initiative” of the COA 316 students to educate Lebanese society about their rights, and to reinforce a more positive, proactive approach to improving daily life in the country. Regarding the MoU, Minister Bteich said: “we are keen to begin to exchange experiences and knowledge, and to cooperate on both theoretical and practical projects.” Minister Bteich concluded his speech by emphasizing the cooperation with the students because “they are our brightest future, our hope, and the driving force for real positive change in Lebanon.”



NDU joins E-Ecosolutions as a Green School Partner

As part of its ongoing commitment to sustainability and community outreach, Notre Dame University-Louaize (NDU) is the first University to sign a Memorandum of Understanding (MoU) with e-Ecosolutions, the international sustainability consulting firm, agreeing to become a Green School Partner. The MoU was signed during the Green Schools Annual Ceremony of 2019, and was presided over by the Ministry of Education and Higher Education, with the support of the Ministry of Environment.

The MoU commits both parties to work together to develop sustainable solutions in education, with NDU spearheading various activities to provide schools in the Keserwan and Metn areas with training in sustainability education, technical solutions, and communication tools.

Speaking at the signing, NDU Vice President for Academic Affairs, Dr. Elie Badr, highlighted NDU’s track record of progress and evolution from full academic accreditation by the New England Commission for Higher Education (NECHE), and its para-academic role supporting student and community needs such as service learning, social impact initiatives, sustainability, and entrepreneurship.



In addition, Dr. Badr talked about NDU's involvement in sustainability on many fronts, from research, to spreading awareness, to hands-on initiatives with its students and the surrounding community: "NDU is Number one University in waste management and water conservation according to the UI green metrics, we have won UN Climate act champions in 2018; and United Nations Global Compact (UNGC) Sustainable Development Goals (SDGs) milestones award – in the academia category."



Other partnerships include the following NGOs:

- L'Ecoute Association to collect sorted recyclables;
- Beeatuna to collect and ship electronic waste;
- Compost Baladi SAL to receive and compost landscaping waste.
- Oum El Nour - جمعية أمّ النور
- Teach for Lebanon

Be volunteers in the "Home to Home", "Together against Hunger", and "Dafa" campaigns.

B. Students Involvement in the sustainability approach

Direct participation for students in sustainability projects on campus provides a practical approach to sustainability issues and helps them to comprehend all sustainability objectives. Integrating experiential learning possibilities into schooling, research, activities and community involvement will enhance the enthusiasm of students and promote creative solutions to real-world problems on campus and beyond. Each sustainability project provides an experiential learning chance for students and community as a whole. NDU intends to use all the resources at its disposal to engage communities across the nation, and through dialogue work together to devise solutions that can and will benefit Lebanon and maybe the world.

One of the important roles of a sustainable university is to empower students to learn about sustainability through combining several branches of learning and through student centered instruction hence enabling lifelong learning and independent problem solving in regards to sustainability. On that note and as student involvement plays a major factor, NDU has established and incorporated the following different initiatives for sustainable development empowering students to become representatives for change.

The Center for Research on Sustainable Development (CROSD)

This center aims to investigate sustainability concepts in general with particular attention to regional challenges as regards water, energy, and the environment. Currently operating under the umbrella of the Faculty of Engineering (FE) at NDU, the CROSD and its research activities are multidisciplinary in nature and divided between technical- and management-oriented topics. Researchers from all disciplines are invited to contribute and share their expertise for the benefit of the community the Center serves.

In its dedicated effort to promote a sound and sustainable future, the foreseeable role of the CROSD is to interact with decision-makers and the community, and to secure and supply them with the necessary scientific, economic, and social data.

Two clubs have been set up involving students towards a better change or development in sustainability, the following are:

- NDU Student Chapter of the Air & Waste Management Association (<https://www.awma.org/>)
- The Department of Community Service and Awareness (CSA) (mentioned earlier)

NDU also offers a minor degree in Climate Change and Sustainability Policy, providing students a formal credential through transcript documentation (Euro-Arabpass) adapting the Europass diploma to certify that they have developed leadership in the field of climate change and sustainability policy. <http://www.ndu.edu.lb/sustainability/take-action>



Submitting proposals

Students are motivated to submit proposals i.e. an idea for a project or initiative that would contribute to the environmental sustainability of NDU.

Students were further involved in the Sustainable Development Goal campaigns held at NDU, one of them being the Waste Management Campaign. Student volunteers were recruited and trained to spread awareness about sorting properly in the 50 most-populated classes. Follow

up student booths were set and reminder e-mails were also sent out to the community during this phase.

Follow-up student booth

Preliminary data was collected to monitor the efficiency of the campaign and detect areas for potential improvement. The characterization of "general waste" was performed at the sorting point by three groups of students and the quantity of recovered material was monitored over three weeks.

Students' involvement in waste characterization



NDU Graduate Wins Student Climate Change Competition

Jad Saade, an NDU Master's student, in the Department of Civil and Environmental Engineering was among the winners of the 2nd Annual Climate Change Student Competition. As per the competition guidelines, participants submitted a word research proposal written in English on November 1, 2018. Saade's proposal, written under the guidance of Dr. Sophia Ghanimeh and Dr. Maya Atieh, tackled the impact of climate change on the flow and sedimentation of Lebanon's Nahr-El-Kalb river. The proposal suggested applying state-of-the-art-watershed modeling for assessing the river's state and the projected effect that climate change will have on it over the next 50 years, and won joint 3rd place at the competition.



8. Campaigns

Waste Management Campaign

Throughout the academic year, a campaign was designed and implemented by NDU Environmental Sustainability Task Force. NDU began initiating sustainability projects in 2013 when a team of internal experts worked, under the European Union's TEMPUS program, on a self-study to evaluate and report all potential areas for development and growth in that direction. Further, a new Presidential Environmental Sustainability Task Force (ESTF) was created to develop an action plan and ensure that those sustainability projects were considered a top priority across all three of its campuses, i.e. Zouk Campus, North Lebanon Campus (NLC), and Shouf Campus (SC).

A waste management project is one of NDU's most recent initiatives, and it includes the sorting and handling of general waste, hazardous waste, and e-waste products with the aim of redirecting the University toward the long-term "no-waste" path. In order to ensure high recovery efficiency, a campus-wide campaign was launched during fall 2017. This news was shared with the internal and external community via the website and the social media platforms (<http://www.ndu.edu.lb/news-and-events/news/ndu-supports-ungc-17-sdg>).

Recently, local communities, NGOs, and institutions have begun initiating many waste-sorting campaigns across the country. These waste management campaigns raised awareness on negative environmental impacts in order to create behavioral change; unfortunately, following many trials, this approach failed to resonate with the majority of the audience. The campaign launched at NDU however aimed to tackle things differently and to have a positive twist by focusing on positive social impacts of adequate on-campus waste-sorting. With this in mind, the campaign was titled, "Sort Properly – For All The Right Causes," and was developed in partnership with three local NGOs: L'Ecoute, Beeatuna, and Compost Baladi, which handle different types of waste management in Lebanon.

The objective behind the campaign was two-fold: to explain how one should sort on-campus and to spread awareness about the social benefits of sorting by highlighting the good causes that would be supported in the process. Those causes include buying wheelchairs, respiratory assist devices, and hearing aid kits for the physically challenged by selling of all sorted material. The target audience for this campaign included the internal community (students, faculty and staff members) along with the external audience. Different initiatives were put forward and phased out as explained below in order to reach out to each segment within the target audience. The social impact behind this campaign includes encouraging internal teamwork that results in a positive common goal and making a positive difference on the environment, which in turn results in a humanitarian benefit, as previously explained.

In order to have the campaign spread and reinforced periodically throughout the academic year, it was rolled out in phases as follows:

Phase 1 (Fall 2017-2018) was the visual creative campaign that included the following items:

- Drop-down banners hung around Faculties and digital versions used on internal LED screens (Visuals A, B, C, D);

Visual A is the generic one created to introduce the campaign – this was used as drop down banners across faculties and digitally on the LED screens.



Visual B:
An adaptation of the main visual that highlights one of the humanitarian causes (this one refers to the creation of hearing aids) following the recycling exercise.



Visual C:
An adaptation of the main visual that highlights one of the humanitarian causes (this one refers to the respiratory assist device) following the recycling exercise



Visual D:
An adaptation of the main visual that highlights one of the humanitarian causes (this one refers to the creation of wheelchairs) following the recycling exercise



Stickers used on paper bins used as visual aids to assist in paper sorting



Inside classroom activation: stickers of bins that say "moved out" and "sort properly" to encourage students to dispose of the classroom waste in the sorting bins



Visual aids placed on top of Sorting Bins

From an academic stance, a conference was held in collaboration with Benedict XVI endowed chair at NDU covering several aspects of environmental sustainability with emphasis on the engagement of students and faculty members in promoting environmentally sound behavior on campus (<http://www.ndu.edu.lb/news-and-events/events/announcements/-sustaining-a-green-and-clean-campus>) Students were also invited to submit their projects in environmental sustainability to be part of the conference: <http://www.ndu.edu.lb/news-and-events/news/the-benedict-xvi-chair-call-for-environmental-sustainability>

Professor Victoria Charles, from Santa Monica College, was invited as a keynote speaker. A set of 4 short videos were created and posted on the University's Facebook page: (<https://www.facebook.com/NDULEbanon/videos/vb.11843824738/10156095126534739/?type=2&theater>)

The conference was reported in the media, including the prestigious French Newspaper, L'Orient Le Jour:

(<https://www.lorientlejour.com/article/1083375/la-ndu-renouvelle-son-engagement-en-faveur-de-lenvironnement-et-du-developpement-durable.html>)

In parallel, different e-mails were sent out to faculty, staff, and students—each containing details relevant to the particular audience segment.

Phase 2 (Early Spring 2018) moved into on-ground activations where different student focus groups were established to retrieve student insights about the efficiency and effectiveness of the Phase 1 of the campaign. A simple yet impactful PowerPoint presentation that answers these student concerns was created by ESTF. The peer-education approach, known for its effectiveness, was adopted in the presentation's delivery. Student volunteers were recruited and trained to deliver the presentation and spread more awareness about sorting properly as mentioned earlier.

Phase 3 (late Spring 2018) initiates preliminary data collection to monitor the efficiency of the campaign and detect areas for potential improvement. The characterization of "general waste" was performed, at the sorting point, by three groups of students (as shown and mentioned previously) and the quantity of recovered material was monitored over three weeks. The outcomes so far are very promising and are shown below.

A. General Waste

A.1. Composition

"General waste" is defined here as the waste collected in the blue-black twin bins, i.e. all waste excluding lab waste, e-waste and other special types of waste. The main constituent of NDU general waste is organic material (43%), followed by plastic (32%), carton (12%) and glass (9%). Aluminum and chocolate wraps constitute 3% and 1%, respectively (Figure 1).

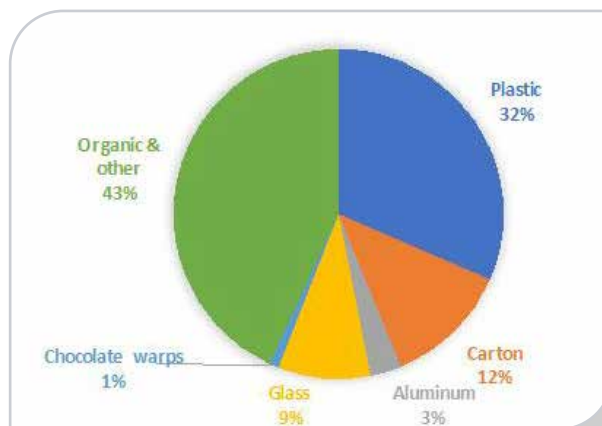


Figure 1. Average composition of campus general waste*

* sample size = 55 kg

A.2. Recycling outcomes

NDU recovers 1000 kg of paper, 280 kg of plastic and about 50 kg of aluminum (Figure 2) every month. The recycling rates of plastic bottles and aluminum cans are 51% and 57%, respectively (Table 1).

During the first six months of campaign implementation, about 6000 kg of paper, 1600 kg of plastic, and 300 kg of aluminum were sorted and delivered to L'Ecoute Association. The income from selling the recovered material to the recycling industry was used to buy a Super Power hearing aid for Serge, an underprivileged Lebanese young man suffering from cerebral motor infirmity.

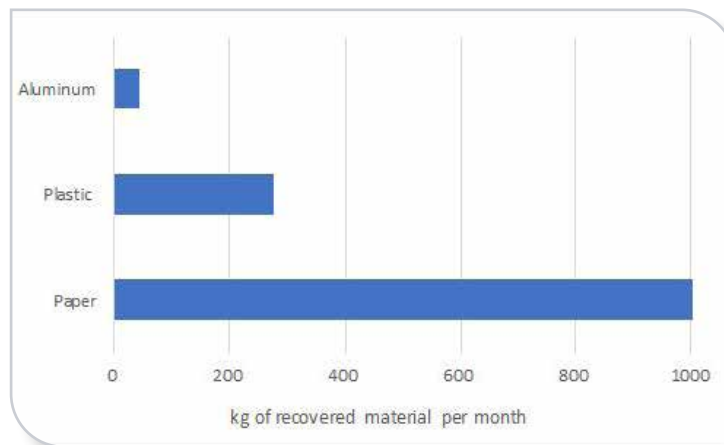


Figure 2. Average monthly recovery of recyclable materials

Table 1. Summary of recycled quantities

	Paper	Plastic	Aluminum
Total recycled material in six months	6025 kg	1663 kg	265 kg
Quantity purchased at cafeterias		7561 bottles	1261 cans
Quantity recovered		3848 bottles	714 cans
Proportion of recovered plastic & aluminum		51%	57%

B. Landscaping waste

B.1. Composition

On average, NDU landscaping waste is 48% weeds and dead leaves, 33% tree trimmings and 19% turf (Figure 3.a). The monthly composition varies with the season, as shown in Figure 3.b.

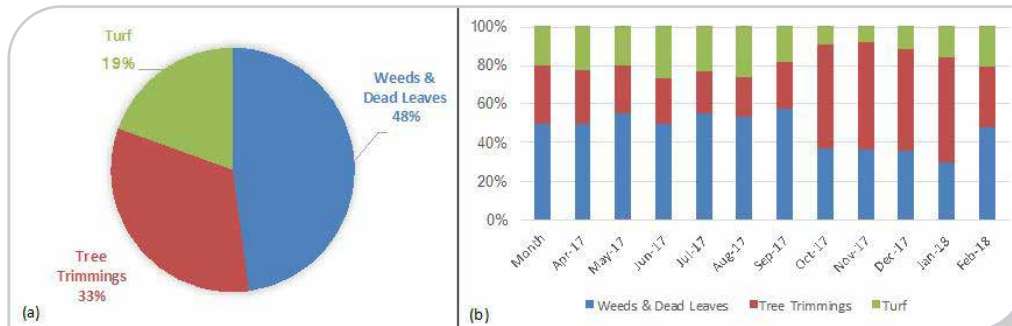


Figure 3. NDU landscaping waste: (a) average composition; (b) monthly composition

B.2. Composting

NDU generates about 2000 kg of landscaping waste monthly. About 30% (tree trimmings) is distributed as fuel replacement for indoor heating. The rest is dried, shredded and sent for composting. During the last six months, about 3500 kg of landscaping waste was converted into a high-quality (contaminant free) soil enhancer at the premises of Compost Baladi (Figure 4).



Figure 4. Quantity of landscaping waste sent for composting

During the first six months of campaign implementation, about 3500 kg of landscaping waste was converted into organic (contaminant free) compost; and 6000 kg of paper, 1600 kg of plastic, and 300 kg of aluminum were sorted and delivered to L'Ecoute association. The income from selling the recovered material to the recycling industry was used to buy a Super Power hearing aid for Serge, an underprivileged Lebanese young man suffering from cerebral motor infirmity – in addition to the indirect contribution to the salary of L'Ecoute personnel, mostly consisting of physically challenged and unprivileged citizens.

Phase 4 (Fall 2018-2019 onward) will consist of a campaign relaunch every semester, mainly for newly-enrolled students by re-activating LED screen announcements and repeating student presentations (i.e. Phase 2) in highly populated sophomore classes. It will include more on-ground activations, namely the creation of short videos that highlight again how sorting should be done and an activity in an open area to encourage students to sort in a creative, game-style way.

In parallel, dedicated containers for e-waste and hazardous chemical waste (along with information stickers) have been designed and are being manufactured. They will be available in labs by the beginning of Fall 2018-2019. Procedures for incineration and disposal of biological wastes are currently being developed. Finally, a webpage for the ESTF is available from the NDU main website to communicate the campaign outcomes and incentivize both internal and external audience at the following link: <https://www.ndu.edu.lb/sustainability/working-groups>

9. Initiatives/Activities/Events

As mentioned earlier, the NDU Environmental Sustainability Task Force (ESTF) was established at the beginning of the academic year 2017-2018. The university-wide task force committee supports all of its three campuses (Zouk Mosbeh, North Lebanon, Shouf). Its main objective is to finalize NDU's environmental sustainability plan, to monitor, review and evaluate any existing environmental initiative, be it academic or non-academic, to facilitate the creation of synchronized efforts towards the mentioned plan, to lead the way and support all entities as need arises.

The ESTF is comprised of working groups , which aim to raise sustainability awareness within the University and beyond the University gates and work closely with a host of partners as well as the larger community to ensure that building a better tomorrow goes beyond ink on paper. The groups were formed with the purpose of designing and implementing initiatives related to the focus areas of NDU Environmental Sustainability Action Plan.

The Following link displays a short video describing NDU's long-term commitments and achievements towards sustainability. <https://www.facebook.com/NDULEbanon/videos/655137651651270/>

The following actions are supervised and led by the working groups titled Waste Management:

Sorting of waste

The NDU recycling program is extensive. It includes sorting and handling of general waste, hazardous waste, and e-waste products with the aim of redirecting the University toward the long-term “no-waste” path. In order to ensure high recovery efficiency, a campus-wide campaign was launched during Fall 2017.

An extensive plan is deployed at NDU for recovery of recyclables. The clean MRF approach is adopted with a twin-bin system. Inorganic materials are collected in blue bins/bags. They are further sorted on-campus, then stored for subsequent delivery to the collection company: ASSOCIATION L'ECOUTE (<http://lecouste-ls.org>). A Memorandum of Understanding is signed with BEEATOONA (www.beeatoona.org) to collect e-waste separately.

A conference was held in collaboration with Benedict XVI endowed chair at NDU covering several aspects of environmental sustainability with emphasis on the engagement of students and faculty members in promoting environmentally sound behavior on campus.



Reduction of paper and plastic waste

Several initiatives and programs were designed to reduce NDU's dependence on plastic & paper material. In cafeterias, where plastic is often contaminated with food, and not easy to sell to recycling industries, plastic is being gradually replaced with biodegradable material (like carton, paper, biodegradable plastic bags) for a lower end-of-life impact.

Organic waste

NDU has three cafeterias, all of which receive pre-processed and cooked food from the main catering company (outside NDU). Only sandwiches are prepared on-campus. As result, the generation of food waste is negligible (< 10 kg per day). The only considerable biodegradable waste is the landscaping waste, which is shredded on-campus and transported to the premises of Compost Baladi (www.compostbaladi.com) according to a Memorandum of Understanding for composting with other types of biodegradable material.

Chemical waste

All chemical hazardous wastes are collected, labeled and stored in a dedicated area for subsequent collection and shipment, following the guidelines of the Ministry of Environment in Lebanon to meet the requirements of Basel Convention

All acids and bases are neutralized before disposal in sewage. All biohazardous wastes are incinerated using an advanced dual-chamber incinerator.

Wastewater

NDU has a full-fledge treatment plant that includes: primary sedimentation, secondary biological treatment, and chlorination. The effluent is discharged into an irrigation channel.

In addition, the Working Group on Water Conservation is currently undertaking systematic testing of the effluent with the purpose of investigating the feasibility of upgrading the effluent quality for more valuable reuse applications.



The following were goals achieved in regards to Water Conservation and Land use and ecosystem preservation of NDU Environmental Sustainability Action Plan:

Water Conservation Program Implementation Sites

The Working Group on Water Conservation (WG III), under NDU Environmental Sustainability Task Force, has been formed in May 2018 in order to develop a water conservation program. WG III is in the process of establishing baseline consumption and defining hotspots. Rainwater harvesting from rooftops is under investigation, considering the suitability of the rooftops – in their current condition. (Appendix 3.A)

NDU campus showing most roof space for rainwater harvesting



Detail of NDU rooftop showing potential for water harvesting



Water Recycling Program

Since its inception, NDU has constructed a complete wastewater treatment plant, with secondary stage treatment and a final chlorination phase seen below. The sedimentation stages reduce the suspended solids, the secondary treatment (aeration tank) reduces the organic content and chlorination disinfects the water. As a result, the effluent can be considered adequate for irrigation of forests and trees. All generated wastewater is treated on-campus and the effluent is discharged into an irrigation channel that feeds into Nahr-El-Kalb valley. Further up-cycling is under consideration.

NDU Wastewater Treatment Plant, with secondary treatment and disinfection



Water Efficient Appliances Usage

NDU has adopted water efficient hand washing taps (automated faucets) and water saving flushing systems in most (>70%) of its bathrooms, break areas, and kitchens. The few (<30%) remaining conventional systems are being replaced progressively.

The following were goals achieved in regards to energy and transportation of NDU Environmental Sustainability Action Plan.

Energy

Smart Building Implementation

Smart buildings are employed in the NDU Campus

- IP Cameras; Automatic Heat Detectors; Automatic Motion Detectors
- Automated General Control and Synchronization Panels of On-Campus Electrical Generators
- Automatic Door Sensors

Green Buildings Implementation

Elements of green building implementation are reflected in all construction & renovation policies. Full natural lighting, natural ventilation and low energy dissipation glass and double glazing are implemented on campus.

Energy Efficient Appliances

The following are examples of phasing out low-efficiency appliances and shifting to energy-efficient technologies: LED light bulbs, ENERGY STAR certified equipment, LED TV Screens, and Variable Refrigerant Flow (VRF) Systems.

The Electricity usage per year (in kilo watt hour) is provided in Appendix 4.C, the total electricity consumption during the year 2017 = 4,630,185 + 1,589,804 = 6,219,989 KWH.

Total Carbon Footprint

The Total (direct) carbon footprint (CO2 emission in the last 12 months, in metric tons) is 5421 metric ton of CO2 equivalent per year, shown in Appendix 4.D

In order to include all carbon sources, considering the specificities of energy generation in Lebanon (including a combination of national and local energy generation with different efficiencies and emission rates), carbon footprint calculations were performed following the guidelines and carbon calculation tool of the Ministry of Environment, Lebanon: <http://climatechange.moe.gov.lb/youandcc> The results were officially reported to the Ministry of Environment through Lebanon Climate Act, in September 2018: <https://www.lebanonclimateact.com>

Renewable Energy Sources

All dormitory buildings at NDU are equipped with solar water heating systems. The equivalent total heat energy generation is 245,191 kWh per year.





Transportation

Pedestrian Path Policy on NDU Campus

Safe and convenient pedestrian paths and area are provided all over NDU campus. All areas are equipped with disabled-friendly access either by ramps or special elevators where needed. Images provided show protected pedestrian path, pedestrian crossing, wheelchair access ramps in different areas around the campus.

Shuttle Service

A shuttle service is provided at NDU campus on a daily basis at fixed times transporting students and staff to/from the NDU campus. The shuttle times at the main gates are the following:
 Monday, Wednesday, Friday: 7:30 a.m. - 8:30 a.m. - 9:30 a.m. - 10:30 a.m. - 12:00 p.m. - 14:00 p.m. - 15:00 p.m.
 Tuesday, Thursday: 7:30 a.m. - 9:00 a.m. - 10:30 a.m. - 12:45 p.m. - 14:45 p.m.

Climate Action Plan

A Climate Action Plan, provided below, was developed to address opportunities of carbon emission reduction in the following areas: Energy, Transportation, Waste Management, Water Conservation, Land use & Ecosystems, Purchasing, Outreach, Monitoring & Review. NDU carbon footprint was calculated; using the model adopted by the Ministry of Environment, and was found to be about 1 Mg CO₂-eq per student.

Climate Topic	Target	Measures	Initiatives
Energy	Determine energy baseline and identify hotspots	Assess NDU's energy profile	- Collect and analyze the data of energy consumption and production at NDU
	Initiate preliminary energy conservation actions	Shift toward energy efficient appliances and systems	- Phase out conventional light bulbs and gradually replace them with LED - Install motion detection sensors - Upgrade heating and cooling equipment for higher energy efficiency
	Involve NDU community	Encourage energy saving behavior	- Launch a campaign to educate the community on the importance and impacts of energy-saving actions, including, but not limited to: <ul style="list-style-type: none"> • Turning off the lights when not needed • Relying on natural means to stay comfortable in cold or hot seasons (window ventilation, convenient clothes, rugs, etc.) • Turning down/off air conditioners when not necessary • Adopt sleep mode when computers are idle and turn them off overnight
		Initiate a "Green Office Program"	- Develop a list of actions to be undertaken by offices, departments and faculties to contribute to achieving NDU's sustainability goals
Transportation	Reduce indirect GHG emissions	Decrease distances travelled by students, staff and faculty members	- Review parking pricing to affect behavior - Promote carpooling, pedestrian and biking to campuses - Increase vehicle occupancy rates through encouraging rideshare programs and mechanisms between campuses by faculty members and students - Encourage class time management and telecommuting to reduce commute distances - Initiate consultations with authorities regarding the planned BRT system as an alternative transit mode to ensure its access to/from NDU. Park and ride facilities are integral to this. - Investigate implementing employee commuter programs and other programs aimed at reducing trips from campuses
Waste Management	Reduce waste-related emissions (GHG & SLCPs)	Deviating NDU waste from landfills and open dumps	- Sort recyclable items and send them for recycling - Collect e-waste and hazardous waste separately; and ship them according to Basel convention on transboundary movements & disposal of hazardous waste - Compost and reuse the landscaping waste - Assess the potential reuse of on-campus treated wastewater

Water Conservation	Reduce energy needed for water pumping	Reducing water consumption	<ul style="list-style-type: none"> - Identify major contributors to high water consumption - Recommend water efficient solutions
Land use & Ecosystems	Protect the surrounding ecosystems	Adopt low-impact management methods	<ul style="list-style-type: none"> - Reduce the impact of landscaping activities by converting gradually to drip irrigation and Integrated Pest Management approach - Assessing the potential of increasing green areas in NDU main campus
Purchasing	Reduce indirect GHG emissions	Adopt sustainable procurement methods	<ul style="list-style-type: none"> - Favor products with low impact on the environment
Outreach	Involve the community outside NDU	Educate the community and providing tools for contribution	<ul style="list-style-type: none"> - Organize a yearly conference on selected topics of sustainability - Provide opportunities for students to take part of planned initiatives - Develop an awareness/communication plan
Monitoring & Review	Secure continuous improvements	Adopt a dynamic approach	<ul style="list-style-type: none"> - Define key performance indicators and monitor them - Review the outcomes and suggest improvements to the plan

Meetings and Trainings

Catering and Cleaning Services

Two yearly training sessions have been held for the catering and cleaning services in NDU to follow up on sorting activities and guidelines. Outcomes of the meeting included: (1) designating a color coding system for the trash generated at NDU where black is organic, yellow is paper and blue is all other, (2) a brief guiding table for collection of the waste.

Location		Bag Color	Frequency	Measure	Other
Cafeteria & Across Campus	Twin Bins	Black	Once a day	Food, tissues, dirty paper	Keep Blue and Black Separate at all times
		Blue	As needed	Anything other than food, tissues, and dirty papers	
	Blue Paper Bin	White	Once a day	Paper only	Take with blue bags to sorting station
	Red Bin and Liquid dispenser	Liquid Dispenser	As needed	Drain	
Blue		As needed	Only plastic bottles and cans	Place with other blue bags	
Offices	Cardboard boxes	No bag	Once a week or as requested	Paper and Books Only	A white bag is needed to collect from offices
	Trash bin	Black	as usual	Black Bag	Merge with other Black Bag Trash
Toilets		Black	as usual	Collect all in black	Send with black bags for disposal

Training sessions for NDU employees



Management of special wastes

Workshops waste – Meetings were held with the Dean of the Ramez G. Chagoury, Faculty of Architecture, Arts & Design (FAAD) to initiate a specific sorting project for their workshops and design rooms.

Electronic waste – A meeting was held with the directors of the computer center in NDU in order to assess the current practices in handling NDU's e-waste. Recommendations were taken into account in designing an e-waste collection scheme, to be adopted starting Spring 2019.

Hazardous waste – Inventory of chemical waste is being developed, while seeking an agreement with a private company to ship the waste according to the requirements of the Basel Convention.

A. Highlighted Events

Donation Campaigns

The Department of Community Service and Awareness (CSA) was implemented at NDU as a subset of the Office of Student Affairs (SAO) the base of outreach for NDU students. It aims at providing students with opportunities to benefit their communities by working with non-profit organizations and by adopting, planning, and completing university-wide projects.

With support of the NDU community (Students, faculty, and staff), the Department of Community Service and Awareness carries out the following donation campaigns throughout the year:



Heart Chain: collecting Clothes, shoes and toys for needy Syrian refugees

“Dafa” Campaign: collecting Clothes, shoes and toys for needy Syrian refugees

Together Against Hunger: collecting food for the FOOD BANK

The Zero Hunger Challenge



Annual Conferences contributing to SDGs

Professor Victoria Charles visit to NDU

An annual conference is prepared each year by the NDU Sustainability Task Force and is considered an essential component of the communication and outreach activities pertaining to sustainability and the SDGs.

Last year's conference, in the fall of 2017-2018, was held in collaboration with Benedict XVI endowed chair at NDU covering several aspects of environmental sustainability with emphasis on the engagement of students and faculty members in promoting environmentally sound behavior on campus. <http://www.ndu.edu.lb/news-and-events/news/our-common-home-201>

Professor Victoria Charles, from Santa Monica College, was invited as a keynote speaker. A set of four short videos were created and posted on the University's Facebook page: (<https://www.facebook.com/NDULEbanon/videos/vb.11843824738/10156095126534739/?type=2&theater>)



The Sustainability Buzz Event

The Sustainability Task Force at Notre Dame University-Louaize (NDU) held on April 2019, the first Sustainability Buzz event, innovative mix of panel debate, case study, and game show. <http://www.ndu.edu.lb/news-and-events/news/sustainability-buzz-event-2019>

A highly interactive event, the format brings together the various elements in the entrepreneurial ecosystem. A round table discussion along with various student case studies was held during the two-hour event.

This event put into the spotlight on many issues, most importantly on how the NDU is spreading the spirit of sustainability amongst its students and faculty, how profit should complement sustainability, which helps achieve ultimate prosperity.



Launching the Holistic Presidency for Internet and Technology at Home (INTA)

Inspired by the NDU mission, Internet and Technology at Home (INTA) is an institute that aims to be a national center of expertise in the areas of prevention, interdisciplinary research, and dissemination of knowledge related to internet and technology overuse and abuse.

The institute aims to prevent and mitigate risks related to internet and technology addiction that have afflicted all tiers of the population while seeking to reinstate the core values of our society, moral integrity, enlightened citizenship, and overall common good that have been threatened by the digital world in the wake of the nation's growing internet and technology addiction and their associated socioeconomic and health problems.

On that note, the Holistic Presidency Initiative towards the Lebanese Institute for Internet and Technology Addiction (INTA) was launched at the annual celebration of NDU Founders' Day, in the presence of His Excellency President of the Lebanese Republic General Michel Aoun where he was conferred an Honorary Doctorate in Humane Letters from the Faculty of Humanities (FH), in recognition of his exemplary and patriotic accomplishments, and selfless service to the nation.

NDU president father Pierre Najem stated: "This year, we wanted to highlight our community role by launching the Holistic Presidency Initiative under the patronage, encouragement, and support of the Lebanese presidency to prevent and mitigate risks related to Internet and technology addiction, afflicting every stratum of society."

Fr. Najem stressed the importance of this initiative and said, "At its core, this sustainable initiative serves to benefit both the campus community and society-at-large. The first-of-its-kind Lebanese Institute for Internet and Technology Addiction (INTA) seeks to continue in its noble quest to research, raise awareness, and prevent Internet and technology addiction."

President Aoun stated: "In today's ceremony, we highlight the 'dangers of Internet and technology addiction' since this addiction has become endemic in many households with observable repercussions in our society. Addiction in itself is a dangerous thing, in all its forms: smoking, drugs, gambling, misuse of the Internet... addiction paralyzes the will and enslaves humankind. You are free as long as you are able to choose, to say 'yes' or 'no.' When you are caged in dependence, however, somewhere and somehow, you lose your freedom."



“It is true the World Wide Web has marked a major revolution in the world of knowledge and technology, opened horizons to new worlds and facilitated access to information. Nevertheless, some of the web’s applications and its websites consume a great deal of our time, demand our undivided attention, and lure us into a labyrinth of futile interaction, oftentimes severing our ties with reality, which in itself represents a clear and present danger across society. As such, suggesting solutions would undoubtedly be one of the key objectives of this campaign.

NDU Launches INTA’s First National Awareness Campaign



Under the patronage and in the presence of His Excellency Jamal Jarrah, Lebanese Minister of Information, Notre Dame University-Louaize (NDU) launched the Institute for Internet and Technology Addiction’s (INTA) first national awareness campaign at the Ministry of Information in Beirut.

Based on the groundbreaking work by NDU professors Dr. Maya Samaha Rupert, Associate Professor at the Department of Computer Science – Faculty of Natural and Applied Sciences (FNAS) and Vice Chair of INTA, and Dr. Nazir Hawi, Associate Professor at the Department of Computer Science – FNAS and Chair of INTA, INTA is the first institute of its kind in Lebanon. The institute’s main purpose is to prevent and mitigate risks related to internet and technology addiction that have afflicted various groups across Lebanon.

The first campaign launched by the institute consists of a series of public service announcements (PSAs) on the dangers of internet and technology addiction to be shown on various media outlets, to help raise awareness about the issue, alongside billboard advertisements to be placed across the country.

Full story in the following link: <http://www.ndu.edu.lb/news-and-events/news/ndu-launches-intas-first-national-awareness-campaign>

Sustainability Taskforce Hosts Round Table on Zero Waste Solutions in Lebanon

The Sustainability Taskforce and Faculty of Nursing and Health Sciences (FNHS) at Notre Dame University-Louaize (NDU) in collaboration with the Health and Environment Association – Lebanon held a round table discussion on the feasibility of various sustainable technologies and their environmental impact in Lebanon.

Guest speaker, Dr. Paul Connett joined Lebanese figures from a variety of fields all of whom brought their expertise of different technologies to help reduce waste in Lebanon, including: Dr. Joseph Asmar, advisor to the Minister of Environment H.E. Fadi Jreissati, representing the minister; Sami Assaf and Souad Assaf, Association of Lebanese Industrialists; Ramzi Shasha, from the Ministry of Interior; Rami El Khoury, Rafik El Khoury and Partners; Hisham Karamah, Al Jihad for Commerce and Contracting; Paul Abi Rached, TERRE Liban; and Rabih Osta, Phoenix. NDU faculty members, and representatives from HEAL were also present. The central feature was a talk by Dr. Connett on the different ways in which waste management can be conducted. His specific focus was on the dangers of opening and incinerator to deal with Lebanon’s waste crisis. According to Dr. Connett, incinerators require strong regulation, adequate monitoring, and stringent enforcement, but the major problem remains to capture nanoparticles, which have high health impacts and are seldom monitored in air pollution control systems. Dr. Connett proposed composting and recycling as part of an Integrated Solid Waste Management program.

The round table discussion concluded with a short summary of the pros and cons of each technology put forward, and a consensus that more studies need to be undertaken before a full solution can be reached.



Launching the Holistic Presidency for “Inclusion”

Under the high patronage of the President of the Lebanese Republic, His Excellency General Michel Aoun, and in the presence of his representative, the Lebanese Minister of Economy and Trade, His Excellency Mansour Bteish, Notre Dame University-Louaize (NDU) held its annual Founders’ Day at the Bechara El-Rahi Theatre on the Main Campus. This year marked the second installment of the Holistic Presidency: a broad initiative under which various NDU projects are launched with the goal of strengthening Lebanon’s governmental, societal, and academic development. Last year saw the launch of the Institute for Internet and Technology Addiction (INTA), which came to full fruition in August 2019.



This year the Holistic Presidency launched its new initiative: “Inclusion.” Inclusion is the practice of ensuring that everyone, regardless of gender, ethnicity, or disability, has equal access to an education that caters to their specific needs. Adopting inclusive practices means recognizing the widespread inequality in the world and taking steps to address it. As per the University’s Mission, NDU is committed to fostering an environment where all are welcome, regardless of ethnicity, gender, or creed, and as such is already working towards a fully inclusive environment. Thanks to this partnership with SKILD, and to the collaboration with its various offices and departments—Academic Affairs Office; Council of Deans; SAO; Human Resources; Communication; Marketing; and Information technology— NDU will train its faculty and staff members in best practices to support students with special needs and offer them quality service.

Through its Division of Continuing Education, the University will offer specialized courses for educators and teachers, who need to update their competencies and skills to keep abreast of the latest developments in special education and of innovations in education technologies.

B. SDG Initiated Activities and Events adopted by the NDU Community (Faculty, Staff, and Students)

Faculty, staff, and students at NDU are embracing and contributing through their actions to create a University-wide sustainability culture to advance toward the achievement of the 17 SDGs by 2030. The following projects, events, and actions, communicated through the various NDU media platforms, contribute towards the achievement of the 17 sustainable development goals of the agenda 2030.

The 2030 Agenda for Sustainable Development aims to promote the entire cluster of 17 SDGs. Following are the SDG Initiated events divided by Event Title, Organizer, and Date:


SDG 1 - No poverty		
Donation Campaign (Old shoes, clothes, etc...)	Student Affairs Office The Department of Community Service and Awareness	Throughout the year
Bake sale fundraising event	Faculty of Natural and Health Sciences	November 7-9, 2017 December 5-7, 2017
Underprivileged children Christmas party (Gift Donation)	Campus Ministry	December 21, 2017
Help refugees and youth achieve potential through programs in education	FH/DPED	May 18, 2018
A visit to the community "Anta Akhi" on the occasion of the World Day of the Sick and the Feast of Our Lady of Lourdes	Campus Ministry	February 9, 2019
SDG 2 – Zero Hunger		
"Together Against Hunger" event and conference part of Zero Hunger Challenge	Faculty of Natural and Health Sciences Office of Student Affairs	November 8, 2017
Food Donation Campaign	SAO Faculty of Natural and Applied Sciences	March 22, 2019

SDG 3 - Good Health and Well-being

3 GOOD HEALTH AND WELL-BEING



Elderly Caregiving Conference	Faculty of Natural and Health Sciences	Throughout the year
Vital Food Safety and Environmental Toxins Conference	Faculty of Natural and Health Sciences	May 22, 2017
Family Violence lecture	Faculty of Natural and Health Sciences	October 16, 2017
Drug Addiction Conference	Faculty of Natural and Health Sciences Office of Student Affairs Faculty of Law and Political Science	December 12, 2017
World Mental Health Day	Faculty of Natural and Health Sciences Faculty of Humanities NDU Library	November 7-9, 2017 December 5-7, 2017
Counseling & Calorie Count Workshop	Faculty of Natural and Health Sciences	November 9, 2017
“Youth & Marijuana” awareness lecture	Faculty of Natural and Health Sciences Faculty of Humanities	November 23, 2017
Food, Nutrition, & Health building workshops	Faculty of Natural and Health Sciences	November 24, 2017 March 2, 2018
Attending & assisting at the Elderly Home	Campus Ministry Pastoral	February 9, 2018
Nutrition Fair	Faculty of Natural and Health Sciences	April 13, 2018
Seminar on Sexually Transmitted Diseases (STDs)	Faculty of Natural and Health Sciences	April 26, 2018
Seminar on maintaining food safety in hospitals	Faculty of Natural and Health Sciences	June 25, 2018
Food safety and new food product development workshop at Rayak Air Base	Faculty of Natural and Health Sciences	July 3, 2018
Launching the Holistic Presidency Initiative to prevent and mitigate risks related to Internet and technology addiction	Office of the President	September 8, 2018

NDU hosts panel to discuss online game addiction	Faculty of Natural and Applied Sciences	November 19, 2018
Workshops on Nutrition and Health for over 80 students from 8 schools across Lebanon	Faculty of Nursing and Health Sciences	February 8, 2019
A generous donation of a high tech Incubator was received from Dräger and Prime Medical to assist with cutting edge research into maintaining the health of premature infants	Faculty of Engineering	March 4, 2019
Working with Global Women's Institute at George Washington University and ABAAD to study the nature of violence against women within the marginalized Lebanese host populations and the refugees in remote regions along the Lebanese-Syrian border	Faculty of Law and Political Science	March 8, 2019
Awareness day on video game addiction for middle school students.	Faculty of Natural and Health Sciences	March 22, 2019
Experts from across Lebanon gathered at NDU to discuss effective public health communication strategies and how that can be used to improve the health of the Lebanese population	Faculty of Natural and Health Sciences	April 8, 2019
SDG 4 - Quality Education		
NECHE Accreditation	Office of the President	September 27, 2018
ABET: Accreditation Board for Engineering and Technology, Inc.	Faculty of Engineering	August 22, 2016
ABET: Accreditation Board for Engineering and Technology, Inc.	Faculty of Natural and Applied Sciences	August 29, 2018
CILECT: Centre International de Liaison des Ecoles de Cinéma et de Télévision	Faculty of Humanities	March 1, 2018
ACCA: Association of Chartered Certified Accountants	Faculty of Business Administration and Economics	April 13, 2018
Introduce Open Educational Resources (OER) for teaching & research	Office of Academic Affairs	October 20, 2017
The Father Walid Moussa Award in Civic Engagement	Lebanon Dialogue Initiative	September 15, 2017



SAIL Exchange Program	Faculty of Humanities / Benedict XVI Chair	September 24, 2017
FE Students Win "Charles T. Main Leadership Award"	Faculty of Engineering	September 29, 2017
Highest Number of Accepted Funding Proposals at National Council for Scientific Research of Lebanon (CNRS-L)		December 6, 2017
NDU Alumnus wins "Christopher Andrew-Michael Handel Prize" for best article		January 9, 2018
"YES NDU" : Entrepreneurship competition for high school students	Faculty of Business Administration and Economics	January 28, 2018
Media Studies Forum (MSF18) - Countering Digital Extremism Through Activism	Faculty of Humanities	April 23, 2018
Alumni Briefcase Event was held. This event aims at connecting students and alumni with talented NDU alumni	Office of Development and Alumni Affairs	April 27, 2018
The graduate division became the first Project Management Institute Registered Education Provider (PMI R.E.P.) in Lebanon, offering courses at the graduate level	Faculty of Business Administration and Economics	May 2, 2018
FBAE NDU students won the AUF-organized "Lebanese Student Entrepreneurship" project and spent three weeks in a PEPITE center in France to develop their entrepreneurship skills	Faculty of Business Administration and Economics	June 2, 2018
NDU student selected as part of the Global UGRAD program to study in the U.S. for one semester	Notre Dame University-Louaize Model United Nations (NDU - MUN)	June 28, 2018
NDU students participated in a Confucius Institute-organized Summer Camp in China this month		July 6 till July 20, 2018
"Computer Science Summer Camp" for school students	Faculty of Natural and Applied Sciences	July 20, 2018
15 selected architecture students took part of the "Bauhaus 100" study trip to Germany, as part of the traveling studio tradition at the department - FAAD	Ramez G. Chagoury Faculty of Architecture, Arts & Design	August 29, 2018
NDU students participated in an Erasmus+ exchange program at Technische Universität Berlin, Germany		December 21, 2018
FE Faculty member and student won 2 nd Prize at the Lebanese Industrial Research Association's (LIRA) 14th forum for their project "the internet of trees," IO Trees		December 1, 2018

Six senior student projects have been published in a renowned academic journal by the Faculties of Architecture, and Civil and Geodetic Engineering at the University of Ljubljana - Slovenia	Ramez G. Chagoury Faculty of Architecture, Arts & Design	January 22, 2019
The Hult Prize Foundation	Faculty of Business Administration and Economics	January 23, 2019
NDU professor secures EU funding to develop a report on plastic waste	Faculty of Engineering	January 31, 2019
NDU hosted the Institute of Internal Auditors (IIA) Lebanon's Home Court Initiative to discuss the world and behaviors of cryptocurrency	Faculty of Business Administration and Economics	February 1, 2019
High School Students broaden their prospects by attending a full day of university-level classes in NDU- FAAD	Ramez G. Chagoury Faculty of Architecture, Arts & Design	February 5, 2019
A multi-year study was conducted to improve breastfeeding education in schools in conjunction with the University of California San Diego	Faculty of Natural and Health Sciences	February 18, 2019
Seminar on environmental building standards	Ramez G. Chagoury Faculty of Architecture, Arts & Design	March 15, 2019
Mathematics Competition for high school students	Faculty of Natural and Applied Sciences	March 18, 2019
Cell Biology Workshop Hosted for School Students	Faculty of Natural and Applied Sciences	March 29, 2019
NDU's Model United Nations chair international conferences in New York and Santander, Spain		April 1, 2019
The Sustainability Task Force at Notre Dame University-Louaize (NDU) held the first Sustainability Buzz event, innovative mix of panel debate, case study, and game show. A highly interactive event, the format brings together the various elements in the entrepreneurial ecosystem. A round table discussion along with various student case studies was held during the two-hour event		April 10, 2019
NDU students participated in the Second 3D printing competition at Antwork Beirut	Faculty of Engineering	May 6, 2019
NDU hosted a panel of experts from various fields whereby a plan was established for integrating robotics into educational environments, as part of the International Educational Association's EdTech Forum	Faculty of Engineering	May 9, 2019
The NDU Course LIR 316 (Lebanese Writers) students got hands on experience learning about the life and works of Ameen Rihani, and Gibran Khalil Gibran, along with live discussions with leading contemporary writer Joumana Haddad.		May 20, 2019

After holding a training session on March 9 and a mock conference on March 16, Notre Dame University-Louaize's Model United Nations (NDU MUN) organized its Third Annual NDU Model United Nations Conference with more than 20 schools and 300 delegates having attended from all over Lebanon.		May 21, 2019
As part of the MoU between NDU and the Bauhaus University in Weimar (BUW) signed in Spring 2019, NDU RC-FAAD Master's students participated in the 'Discovering the post-growth City' conference at BUW 9-14 May 2019.		May 27, 2019
Forbes Middle East has awarded NDU with "Outstanding Impact on the Local Community" as part of its 100 Higher Education Awards.		May 28, 2019
NDU launched a new major in the Faculty of Natural and Health Sciences "Health Communication"		June 29, 2019
ACTEA 4th International Conference was held at NDU bringing together developers and practitioners from both academia and industry to share their research results and pioneering views about recent trends and developments in the field of computational tools.		July 3, 2019
"Real Estate Development" seminar was given by Paul Moawad at The Ramez G. Chagoury Faculty of Architecture, Arts & Design (RC-FAAD), which tackled issues of short & long-term investments & the financial causes behind several defaulted projects.		July 9, 2019
NDU Political Science student founded an NGO titled VISION, which aims to address all aspects of gender equality in Lebanese society.	Faculty of Law and Political Science	October, 2019
The American Society of Mechanical Engineers (ASME) hosted the first EFX conference in the Middle East.	Faculty of Engineering	September 27-28, 2019
The Faculty of Nursing and Health Sciences (FNHS) launched in collaboration with the Lifestyle Medicine Global Alliance the first conference on Lifestyle Medicine in Lebanon	Faculty of Natural and Health Sciences	October 11, 2019
Following are the winning Competition/awards won by NDU Students/Alumni:		
1 st prize "Al-Chadurji Award for Lebanese Students of Architecture" Winner of the Byblos Bank Award for Photography 2017 "IBDAA 2018" project creates a sustainable solution	Ramez G. Chagoury Faculty of Architecture, Arts & Design	
THE KPMG Lebanon Case Competition	Faculty of Business Administration and Economics	

National Rounds of Philip C. Jessup International Law Moot Court Competition	Faculty of Law and Political Science	
NDU students won first prize in the United Nations Development Program (UNDP) Anti-Corruption competition in Lebanon	Faculty of Business Administration and Economics	
"Christopher Andrew-Michael Handel Prize" for best article		
Rhodes works Design Studio (Rhodes works) competition for best proposal in response to "Resolute Arch," the new sculpture by studio principal Richard Rhodes		
"Alfa-Ericsson IoT Awards 2018		
Agence Universitaire de la Francophonie (AUF) for Lebanese Student Entrepreneurship Project		
Popsicle Stick Bridge Competition	Faculty of Engineering	
NDU student won this year's "Inas Abou Ayyash Foundation - IAAF" University Projects Awards Program for student-led startups. The IAAF is an NGO whose goal is to help Lebanese youth by offering them access to prospects that encourage and enable them to pursue their creative ideals		
2018 National ACI Eco-Concrete Student Competition organized by the Lebanese Chapter of the American Concrete Institute (ACI), Advanced Construction Technology Services (ACTS), and the Lebanese Concrete Society		
NDU students won 2 nd Place in the 2 nd Inter-Universities Impact Poster Competition organized by Haigazian University		
Six out of seven student proposals awarded funding by USAID Funded Lebanon Water Project (LWP)		January 16, 2019
NDU Graduate won Student Climate Change Competition		January 9, 2019
NDU film student won Best Short Film at the 25 th European Film Festival		February 3, 2019
Student won first prize in the National Virtual Stock Exchange Competition, 2019	Faculty of Business Administration and Economics	February 12, 2019
Students won the award for Best Poster at the International Conference on Agents and Artificial Intelligence (ICAART)		February 18, 2019
Architecture Alumni won the Shape Diver 2019 Award at the Algorithmic Accessories V4.0 organized by Design Morphine at TU Wien, Vienna - Austria		March 5, 2019
NDU Alumna and Senior Lab Instructor named one of the top 3 women entrepreneurs in the Arab world, and for winning the regional rounds of the Global Social Venture Competition.		March 18, 2019
NDU Law students won the national Jessup competition. Jessup is the world's largest moot court competition		March 29, 2019
Students from the Notre Dame University-Louaize Model United Nations (NDU MUN) team won eight awards, including the Best Delegation Award at this year's Beirut International Model United Nations (BeyMUN) conference.		April 5, 2019

NDU design students won at the International Biodiversity Day (IBDAA) contest		April 12, 2019
NDU American Society of Civil Engineers' (ASCE) Student Chapter were selected by the ASCE Committee on Student Members to receive a Certificate of Commendation		May 10, 2019
NDU students won the "Lebanese Student Entrepreneurship" competition as part of the Développement de l'Entrepreneuriat Etudiant au Liban (DEEL) project		May 14, 2019
NDU alumnus's startup "HUM'NGO" wins at Lebanese Diaspora Energy - LDE competition		June 9, 2019
The Lebanese Research Center for Migration and Diaspora Studies (LERC) at the Faculty of Law and Political Science (FLPS) partnered with the Ministry of Foreign Affairs to curate, manage, and display various collections on the Lebanese Diaspora at the first museum dedicated to Lebanese abroad in Batroun		June 9, 2019
NDU Students won second place in the Serail Creativity Hall Design Competition		June 11, 2019
The Dean of the Faculty of Engineering (FE) at Notre Dame University-Louaize (NDU), Dr. Michel El Hayek, was presented with the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Student Activities Achievement Award at the 2019 ASHRAE Annual Conference		June 23, 2019
NDU Alumna won the American Society of Mechanical Engineers (ASME) Charles T. Main Student Leadership Award Gold Medal		July 12, 2019
SDG 5 - Gender Equality		
Gender Based Violence Studies Workshop	Faculty of Law and Political Science	September 29, 2017
Gender Based Violence (GBV) course launched at NDU	Faculty of Law and Political Science	September 29, 2017
Child Bride Campaign	Faculty of Humanities	October 11, 2017
Campaign against extremism "Box Out Extremism" - FH/DMS	Faculty of Humanities	November 10, 2017
Launching a Code of Conduct (CoC) and a pioneer toolkit regarding protection and mitigation of GBV against women and girls	Faculty of Law and Political Science	June 2, 2018

<p>Women from private and public schools participate in the 8th edition of the 'Girls Got IT' event. The 'Girls Got IT' (GGIT) is a joint Initiative between five Lebanese NGOs, led by Lebanese League for Women in Business (LLWB) with the purpose to grant female students in Lebanon the experience of testing the latest innovations in science and technology</p>	<p>NDU - Shouf Campus</p>	<p>March 2, 2019</p>
<p>For International Women's Day, the first event of the "[Un]spoken" campaign was hosted by the Know Your Place (KYP) initiative, which is a non-profit organization prioritizing female empowerment</p>	<p>Faculty of Law and Political Science</p>	<p>March 5, 2019</p>
<p>SDG 6 - Lean Water and Sanitation</p>		
<p>Environmental Sustainability Plan: NDU Sustainability Task Force</p> <p>Water Conservation:</p> <ul style="list-style-type: none"> • Evaluating water usage on campuses • Reducing water consumption • Reducing landscaping water use • Diversifying the sources of fresh water <p>Waste Management:</p> <ul style="list-style-type: none"> • Developing the scope and approaches for a comprehensive, university-wide, life-cycle • Deviating the waste from landfills • Developing a waste reduction policy • Processing the biodegradable waste • Promoting a sustainable food system 		<p>Faculty of Engineering</p>
<p>SDG 7 - Affordable and Clean Energy</p>		
<p>NDU hosted two emerging start-ups, Lebanon Buses and Smart Bus Stops, that work on the Bus Map Project, a grassroots initiative to fix Public Transport in Lebanon</p>	<p>Ramez G. Chagoury Faculty of Architecture, Arts & Design</p>	<p>February 5, 2018</p>
<p>Solar Power Heating on NDU Campus</p>	<p>NDU Sustainability Task Force</p>	

SDG 8 - Decent Work and Economic Growth



Winning KPMG Leb. case business strategy competition

Faculty of Business Administration and Economics

October 11, 2017

NDU Model United Nations (MUN) is a replication of the United Nations in an academic setting, which permits student to debate issues at the forefront of international relations. It has organized and participated in many International and local activities.

Signed (MOU)s with companies for recruitment purposes:

- ITG Holding (November 28, 2018)
- KPMG (March 9, 2018)
- Lebanese Solar Energy Society (October 25, 2018)
- BMW 9 (December 14, 2018)
- Boecker Public Health (May 9, 2019)

SDG 9 - Industry, Innovation, and Infrastructure



Students Partake in Restoration of Monuments

Ramez G. Chagoury Faculty of Architecture, Arts & Design

October 24, 2017

Passageway Shelter Competition for Students' Parking

Ramez G. Chagoury Faculty of Architecture, Arts & Design

October 25, 2017

Students Win Saida Festival Kiosk Design Competition

Ramez G. Chagoury Faculty of Architecture, Arts & Design

October 30, 2017

Street Renovation Architectural Competition

Ramez G. Chagoury Faculty of Architecture, Arts & Design

October 31, 2017

SDG 10 - Reduced Inequalities



Counseling & Psychotherapy Training session to help faculty members identify students with learning difficulties and to provide instructors with the necessary tools to support those students, depending on their learning difficulties

Office of Students Affairs

September 18, 2017

SDG 11 - Sustainable Cities and Communities






Sustaining a Green and "Clean" Campus Conference	President's Office	November 2017
NDU hosted two emerging start-ups, Lebanon Buses and Smart Bus Stops, that work on the Bus Map Project, a grassroots initiative to fix Public Transport in Lebanon	Ramez G. Chagoury Faculty of Architecture, Arts & Design	February 5, 2018
Initiative to renovate the Phoenicia Hotel Canteen	Ramez G. Chagoury Faculty of Architecture, Arts & Design	April 10, 2018


SDG 12 - Responsible Consumption and Production



<p>Environmental Sustainability Plan:</p> <p>Sustainable Procurement:</p> <ul style="list-style-type: none"> • Developing a sustainable supply chain system and establishing a management system • Consulting with and assessing NDU suppliers to meet NDU sustainability goals • Favoring products with lower life cycle impacts • Favoring local sources and services to encourage local business and decrease need for transportation and distribution. • Buying bulk to reduce the amount of packaging. <p>Waste Management:</p> <ul style="list-style-type: none"> • Developing the scope and approaches for a comprehensive, university-wide, life-cycle • Deviating the waste from landfills • Developing a waste reduction policy • Processing the biodegradable waste • Promoting a sustainable food system 	Faculty of Engineering	
NDU hosted two emerging start-ups, Lebanon Buses and Smart Bus Stops, that work on the Bus Map Project, a grassroots initiative to fix Public Transport in Lebanon - RC-FAAD Sustaining a Green and "Clean" Campus Conference	Ramez G. Chagoury Faculty of Architecture, Arts & Design	February 5, 2018
International Solid Waste Association Seminar about Solid Waste Management	Faculty of Engineering	May 2, 2018
Four NDU Projects selected for LIRA Industrial Oriented Project Funding - FE Projects were: Asthma Device Calibration, Shotgun Cartilage Recycling Machine- CARL, Vertical Axis Wind Turbine- VAWT, and Internet of Trees- IO Tree	Faculty of Engineering	June 27, 2018

<p>Students teamed up to try to find a solution for the main obstacle in the recycling process of shotgun cartridges: the mix of metal and plastic, CARL stands for “Cartridge Recycler.”</p>	<p>Faculty of Engineering</p>	<p>February 8, 2019</p>
<p>SDG 13 - Climate Action</p>		
<p>Environmental Sustainability Plan:</p> <ul style="list-style-type: none"> • Carbon Footprint Reduction: • Establishing a monitoring system for emissions of Greenhouse Gases • Reducing energy requirements • Improving energy conservation • Switching to cleaner renewable types of energy 		<p>Faculty of Engineering</p>
<p>Organized oil and natural gas (ONG) event, addressing technical, operational, environmental, and public policy issues to raise awareness</p>	<p>Department of Civil and Environmental Engineering (DCEE) Department of Government and International Relations (GIR)</p>	<p>May 10, 2018</p>
<p>NDU students from the NDU Air & Waste Management Association participated in a conference called Earth Hour.</p>		<p>March 31, 2019</p>
<p>The Sustainability Taskforce and Faculty of Nursing and Health Sciences (FNHS) at Notre Dame University-Louaize (NDU) in collaboration with the Health and Environment Association - Lebanon held a round table discussion on the feasibility of various sustainable technologies and their environmental impact in Lebanon.</p>		<p>June 20, 2019</p>
<p>SDG 15 - Life on Land</p>		
<p>Environmental Sustainability Plan:</p> <ul style="list-style-type: none"> • Land use and ecosystem preservation: • Increasing green areas • Adopting an Integrated Pest Management approach • Optimizing water consumption • Improving resource conservation 		<p>Faculty of Engineering</p>
<p>Sustaining a Green and “Clean” Campus: Conference on sustainable development</p>	<p>President’s Office</p>	<p>November 2, 2017</p>
<p>Saving the Planet One Cedar Tree at a</p>	<p>Faculty of Natural and Applied Sciences</p>	<p>November 11, 2017</p>
<p>Seminar on Agriculture in Hasbaya</p>	<p>Faculty of Natural and Health Sciences</p>	<p>January 23, 2018</p>

An NDU-supported invitation to clean up our beaches for the "National Beach Cleanup" campaign planned by Operation Big Blue Association (OBBA)	Office of Student Affairs	April 29, 2018
NDU participated in the Association for Forests, Development and Conservation's Green Leadership Academy Project, funded by Friedrich Ebert Stiftung.		September 5, 2019
SDG 16 - Peace, Justice, and Strong Institutions		
Gender Based Violence Studies Workshop	Faculty of Law and Political Science	September 29, 2017
FLPS and German NGOs Pilot Service Learning	Faculty of Law and Political Science	December 5, 2017
Human Rights Trivia Competition	Faculty of Law and Political Science	January 19, 2018
Monroe Price Media Law Moot Court Competition + Oxford University (Freedom of speech)	Faculty of Law and Political Science	January 30, 2018
Young LeaderShe Program	Office of Student Affairs	February 6, 2018
Youth and Elections in Lebanon 2018	Faculty of Law and Political Science	February 26, 2018
A Media Perspective on how to vote for the Elections 2018 from a Media Perspective	Faculty of Humanities	March 22, 2018
Introducing the US Electoral System - Primaries, Midterm Elections, Out-Of-Country Voting debate session	Faculty of Law and Political Science	September 5, 2018
Launching the Holistic Presidency Initiative to prevent and mitigate risks related to Internet and technology addiction. The first-of-its-kind Lebanese Institute for Internet and Technology Addiction (INTA) seeks to continue in its noble quest to research, raise awareness, and prevent Internet and technology addiction.	Office of the President	September 8, 2018
Lecture on the evolution of evidence usage in the international criminal courts given by the General Prosecutor of the Special Tribunal for Lebanon (STL), Norman Farrell. The lecture was delivered to students participating in the Inter-University Programme on International Criminal Law and Procedure (IUP-ICLP).	Faculty of Law and Political Science	December 12, 2018

<p>NDU participated as an expert in Jury Day for the annual "Product of the Year 2019" edition.</p>		<p>February 6, 2019</p>
<p>A roundtable discussion included representatives from the UNDP and UNCHR to commemorate the World Day for Social Justice titled "The Challenge of Providing Social Justice for Lebanese Citizens and Refugees in Lebanon."</p>	<p>NDU MUN</p>	<p>February 20, 2019</p>
<p>SDG 17 - Partnerships for the Goals</p>		
<p>Signed (MOU)s with companies for recruitment and internship purposes:</p> <ul style="list-style-type: none"> • ITG Holding (November 28, 2018) • KPMG (March 9, 2018) • Lebanese Solar Energy Society (October 25, 2018) • BMW 9 (December 14, 2018) • Boecker Public Health (May 9, 2019) • The Center for Smart Kids with Individual Learning Differences (SKILD) (August 2, 2019) • Growth Technology LLC (GT) (August 9, 2019) • Houmal Technology Park (October 1, 2019) 		
<p>Signed (MOU)s with the following institutions:</p> <ul style="list-style-type: none"> • Concordia University in Canada "Agreement of Academic Cooperation in Education and Research." • The ICT Institut Catholique de Toulouse, • The University of Dayton (UD), Ohio - USA • The McDougall School Of Petroleum Engineering, University Of Tulsa (TU) - USA, • Lebanese American University MoU on educational, training, and research cooperation. • Eastern Mediterranean University, North Cyprus • The American Institute of Architects • Ovidius University Of Constanta, Romania • University of Nottingham Ningbo China • The University of Illinois 		
<p>Signed Memorandum of Understanding (MOU)s with NGOs: (Needs to be checked)</p> <ul style="list-style-type: none"> • Association l'Ecoute • Beeatuna - بيتنا • Compost Baladi • Oum El Nour - جمعية أمّ النور • Teach for Lebanon • UNDP - Lebanon (Environmental & Climate Change) 		
<p>Participation (IAA) Apprentice Conference in Dubai</p>		
<p>European Union's Erasmus and funded exchange program to support education, training, youth, and sport, between NDU and UOC (Ovidius University of Constanta)</p>		
<p>Full departmental membership in the American Political Science Association (APSA)</p>	<p>Faculty of Law and Political Science</p>	
<p>Collaboration between MTV Lebanon channel and NDU to shed light on Lebanon's current entrepreneurial ecosystem.</p>		

The Notre Dame University-Louaize International Film Festival (NDUIFF) became an official member of the Belt and Road (B&R) Film Festival Alliance	
NDU signs extension of its agreement with the LIRA Program at the 14th LIRA Forum	February 1, 2019
The Chemical Engineering Society at NDU merged with the American Institute of Chemical Engineers, securing solid career prospects for its students	March 26, 2019
NDU launched an MS in Actuarial Sciences with an MOU with Chedid Capital Holding	May 17, 2019
The Faculty of Nursing and Health Sciences (FNHS) at NDU signed a Memorandum of Understanding (MOU) with the Lebanese Ministry of Industry	May 20, 2019
NDU builds international bridges with a Memorandum of Understanding (MOU) between the Ramez G. Chagoury Faculty of Architecture Art & Design (FAAD) and the University of Nottingham Ningbo China (UNNC), and the FAAD and Eastern Mediterranean University, North Cyprus (EMU)	June 7, 2019
NDU signs a Memorandum of Understanding (MoU) with e-Ecosolutions, the international sustainability-consulting firm, agreeing to become a Green School Partner	June 11, 2019

IV. National and International Recognitions

UNGC SDG Milestones Award

NDU was presented with the award, during the “Multi-Stakeholder SDG Forum” held on October 18, 2018, in the Grand Serail, under the patronage of His Excellency Prime Minister-designate Saad Hariri and in the presence of H.R.H. Crown Princess Victoria of Sweden, Duchess of Västergötland, at the Grand Serail.

The event was organized to recognize and highlight the outstanding efforts of Lebanese businesses and organizations that have adopted and implemented the necessary actions toward the advancement of the 2030 agenda in Lebanon. This ceremony brought together members from the Lebanese network to highlight the most significant achievements of their companies, involving CSR initiatives and their advancements toward achieving the 17 SDGs, the 10 principles of the UNGC and the 2030 agenda.

For its part, NDU has demonstrated dedication toward the UN’s 17 Sustainable Development Goals through the initiatives and projects articulated around the 5P’s of development: People, Planet, Peace, Prosperity, and Partnership. Further details are provided in the following link: <http://www.ndu.edu.lb/news-and-events/news/ndu-wins-sdg-milestones-award>



Global University Ranking

NDU submitted an application to UI-Green Metric World University Ranking on sustainability, administered by University of Indonesia (UI). The ranking process relies on six sustainability areas: setting and infrastructure, energy and climate change, waste, water, transportation, education and research.

Climate Championship

NDU was nominated Climate Champion for year 2018, by The Lebanon Climate Act, an initiative by the United Nations Development Program (UNDP), Lebanon National Bank, The Federation of the Chambers of Commerce in Lebanon, and Green Mind. The initiative aims at encouraging and recognizing private companies and institutions applying climate action plans.

Further information is provided on the following links:

<http://www.ndu.edu.lb/news-and-events/news/ndu-joins-leading-climate-change-champions-2018>

<http://beirutenergyforum.com>



USAID Funding of Student Proposals

Six (out of seven) student proposals were selected for funding (with a total of \$38,000) by the USAID Lebanon Water Project. The competition was organized by the office of Research and Graduate Studies in collaboration with ESTF.



Forbes Middle East - NDU Award



As a result of NDU's dedication to its students, sustainability practices, social impact initiatives, pioneering programs, and international appeal, Forbes Middle East presented an award to NDU "Outstanding Impact on the local community" as part of its 100 Higher Education Awards.

Education is one of the major factors in sustainable development. As such, NDU has adopted several educational resources towards a high standard for sustainability.

Open Education for a Better World

Dr. Lara Khabbaz, Director of the Office of Marketing, and Dr. Sophia Ghanimeh Associate Professor at the Department of Civil and Environmental Engineering-Faculty of Engineering, at Notre Dame University-Louaize (NDU) put forward an Online Open Course project titled “Integrating Sustainability in Educational Institutions” to the Open Education Design Workshop as part of the Open Education for a Better World (OE4BW) program.



The OE4BW program is a joint venture by the University of Nova Gorica (UNG), and the UNESCO Chair on Open Technologies for OER and Open Learning at the Jožef Stefan Institute (JSI). The goal is to provide basic knowledge about open education concepts, and pedagogical, didactic, and content related issues in open education through the support of international mentors/experts from all over the world. It inspired and encouraged participants/facilitators to reach a wider audience and design future projects in the form of Online Open Courses.

Dr. Fawzi Baroud, Assistant VP for IT, was the local mentor and presenter of Dr. Khabbaz and Dr. Ghanimeh’s project in Vipava, Slovenia in addition to being the mentor of Dr. Sandeep Patil, Assistant Professor at the Azad College of Education, Satara (Maharashtra), and India for his project “Evolving as a Facilitative Teacher for Sustainable Development”.

“Integrating Sustainability in Educational Institutions,” is an online open course that targets small Educational institutions of 10,000 students or fewer. It describes the process of embracing the United Nations Sustainable Development Goals (SDGs), and uses NDU as a case study to cover all of the SDGs. It merges key elements of managerial structure, implementation strategy and process pilot testing, with the aim of training the different constituents of educational institutions (students, educators and staff members) on managing sustainability and integrating SDGs in the institutional culture. The course describes the framework components and accelerators that are expected to boost efficiency, engagement, value creation, innovation, and entrepreneurial spirit.



Refugees Education in Lebanon



In order to engage initiatives and cooperate in the quality improvement of formal teacher education, NDU signed a memorandum of understanding with Teach for Lebanon (TFL).

TFL Partners



With this promising collaboration, NDU offers 3 scholarships for TFL teachers (candidates) (Lebanese and Syrian) and has designed special programs/courses for teachers (candidates) education (Diplomas, certificates, degrees, etc.). NDU's scholarships can be provided to renowned Syrian learners on the basis that they do well in college. In addition, NDU has also provided its premises to hold all TFL training and events.

NDU Center of Applied Research in Education (CARE)

The German Embassy Beirut's funded research project, "Syria's Youth in Lebanese Schools", tracks the integration of refugee school children into the primary and secondary educational system in the country. The project was carried by the Center of Applied Research in Education (CARE), professors and students in the Faculty of Law and Political Science at NDU in collaboration with Saint Joseph University of Beirut - USJ and the Lebanese and Brussels based NGO "Relief and Reconciliation". "Innovative approaches and tools in holistic education for refugees: Exploring eight educational programs for Syrian refugees in Lebanon" (2015, in progress)

Events Organized by NDU to Support Refugee Education

CARE organized a symposium titled: "Formal Schooling of Syrian Refugee Children in Lebanon" at Notre Dame University – Louaize (NDU).



CARE organized another Seminar by Ruben Elsinga on refugee children education titled, "Dynamics and Tensions in Education Development for Syrian Refugees in Lebanon: 2014-2015". A symposium on innovation for Syrian refugee education in 2014, titled: "Creating learning spaces"

As part of the Faculty of Humanities (FH) and the DPED commitment to the Notre Dame University-Louaize (NDU) mission to "foster respect for human dignity and rights and concern for the common good," the Education and Teaching Diploma students in EDU 313 worked alongside Jusoor, an independent, nonpolitical, nonreligious organization, founded in 2011 [US 501(c)(3)], to help Syrian and Iraqi refugees, and low-income Lebanese adults, youths, and children achieve their potential through programs in primary, remedial, and tertiary education. During Spring 2018, Dr. Christine Sabieh added a service-learning component to her Educational Psychology course where students worked, throughout the semester, applying the learning theories and conditions to develop learning activities. Students created stand-alone workbooks as well as teacher manuals, lessons, and workbooks for students in K-9 grades. Working since 2013, Jusoor's refugee education program in Lebanon supports about 1,300 children annually in three nonformal educational centers, where it provides remedial education to children, enabling them to transfer to local public schools. One program center is a makeshift tent school in the Bekaa.



The EDU 313 students were exposed hands-on to teaching and learning in formal education settings as well as to the concepts of Service Learning and Emergency Education—all needed in today's challenging world. Dr. Sabieh was proud of her students' commitment to serve Jusoor and the outcome of their professional work that will cater to diverse learners. The pictures show the students presenting their workbooks, sharing their philosophy, objectives, and highlighting samples of the activities.

“Girls for Change” Program -Training young Refugee Girls on how to use audiovisual and film as a tool for change. Supported by: UNICEF Lebanon لبنان وزارة الدولة لشؤون النازحين- and In collaboration with the NDU International Film Festival.



NDU Supports Syrian Students

The Faculty of Engineering at NDU organizes its annual VEX Robotics Competition, the largest and fastest-growing middle and high school robotics program, globally, as observed by the Guinness Book of World Records 2016. Syrian, Iraqi and Palestinian refugee students are participants and winners in this competition.



NDU – Division of Audio Visual Arts (DAVA) Syrian Student Joy Hallak won the third prize in the Mentor Arabia Short Movie Competition. This competition is a regional initiative launched in 2017 to inspire and encourage Arab youth to develop short movies discussing the importance of social and developmental work to help prevent children and youth from risky behaviors and others dealing with the current challenges of drug problems at an early stage and help to prevent them progressing into an addiction. In this first edition, over 100 movies from 12 Arab countries competed in the contest, with only 14 of them making it to the finals. I.D.E.A.L. was chosen among nine other movies from the MENA region and then shortlisted to win the third place. The winners received prizes between US\$1,000 and US\$4,000, in addition to receiving yearlong mentoring by industry experts.



V. Looking Ahead / Future Initiatives / Potential Projects

As a sustainable university, NDU continues to give fresh perspectives into global problems and reduce environmental and social footprints on its campus. To this end, NDU adopted the following initiatives as its potential objectives for the upcoming years.

Accessibility for ALL

Prominent universities; AUB, LAU, USJ, AND NDU are working together on the submission of the project funding proposal under the Capacity Building in Higher Education (CBHE) Action of the Erasmus+ Program titled "Accessibility for a Bolder Learning Experience (ABLE)". This project is aimed at increasing the retention and success rates of students with disabilities and to support their readiness for life after university by developing and deploying accessibility to campus-wide IT resources. The grant proposal for this project will be presented to Erasmus+ in response of its annual call for proposals under Capacity Building in the field of higher education. The ABLE project formulates an inclusive plan to implement digital accessibility on all levels from learning facilities, hardware, software, content, policies to culture and expertise in order to open the door for all students to participate fully in higher education in Lebanon and the region.

University class schedules vary and students will usually have courses throughout the university campus in different buildings. To this end and towards full accessibility, ramps for disabled students are planned to be expanded and located throughout the NDU campus, thus providing easy access to classes.

Community Garden

As an opportunity to provide locally accessible and sustainable food to local populations, community gardens are receiving growing attention. Drawing on its various skills, this garden will emphasize education and sustainability within NDU and the local community. For that purpose, NDU is working on promoting this initiative through the cooperative development of locally cultivated organic food with a complete commitment from its community. With this project, NDU will be prepared to enhance a healthy lifestyle (food safety) while encouraging a feeling of environmental management. In addition to producing organic food, the garden will increase biodiversity and sustainability, for example; absorbing rainwater and more uses for fertilizer i.e. plantation. The vegetables, fruits, and plants will provide a habitat for beneficial organisms such as birds. NDU will contribute to the community by supplying food i.e. fresh fruits and vegetables for people in need as well as engaging, educating, and empowering people to grow their food.

Bicycle Rental

Starting a bicycle rental program and installing a bicycle rack can make transportation on campus easier for students and would encourage a safe environment rather than driving cars, hence reducing vehicle emissions around campus. By developing bicycle rides on campus, NDU would promote exercise and healthy living, and encourage using greener transportation.

Office 365

The University email system was migrated to the online email service Microsoft Office 365. NDU has taken this choice to standardize a strong collaboration platform that provides a unique alternative to the University's activities. One of the characteristics of Office 365 enables peers to communicate and publish tasks online (internally) without needing to write documents, thus creating a paperless office.

More Partnerships for Goals

NDU firmly believes in the necessity of building true partnerships with all constituents of society to achieve its desired objectives. Therefore, we extend our hands today toward all sectors of the Lebanese society to create an all-inclusive team to think and work together towards achieving the Agenda 2030 culture. This can be achieved through conferences and seminars; publication of research; training and raising awareness; enforcing and updating existing laws; and proposing new draft laws when needed. Our society will become an embracing oasis, where all human beings will be able to find their place, according to their challenges and needs, and become happy and productive citizens, who belong to a beautiful country and live in a more sustainable, just and equitable community.

In addition to its role in advancing environmental and economic growth, Higher Education Institutions, and NDU in particular, are main contributors to social progress. Referring to NDU President Fr. Pierre Najem's speech on Founders' Day, September 7, 2019: "...the letter Pope John Paul II titled, *Ex Corde Ecclesiae* on the Mission of the Catholic University, in which he says, The Church is firmly committed to the integral growth of all men and women. The Gospel, interpreted in the social teachings of the Church, is an urgent call to promote the development of those peoples who are striving to escape from hunger, misery, endemic diseases and ignorance; of those who are looking for a wider share in the benefits of civilization and a more active improvement of their human qualities; of those who are aiming purposefully at their complete fulfilment. Every Catholic University feels responsible to contribute concretely to the progress of the society within which it works: for example, it will be capable of searching for ways to make university education accessible to all those who are able to benefit from it, especially the poor or members of minority groups who customarily have been deprived of it. A Catholic University also has the responsibility, to the degree that it is able, to help to promote the development of the emerging nations" (*Ex Corde Ecclesiae* 32-33).