

MEU Sustainability and Climate Change Actions Plan



Introduction

The Middle East University (MEU) Sustainability Plan is the University's roadmap and critical step forward for building and operating a healthier, more sustainable and vibrant campus community to learn work and live. MEU aligns this plan with its central accountability obligations in contributing to the UN sustainable development goals to ensure a more sustainable future. MEU has committed to achieving sustainability and fighting climate change challenges through research, teaching and investments in college sustainability programs; by installing solar panels, encouraging low-carbon transportation, limiting waste and increasing awareness among its students, faculties and the wider community. This document demonstrates the ways and action plans MEU is considering in achieving sustainability and tackling climate change on campus.

Sustainability Actions Plan

The MEU Sustainability Plan is organized around five core targets namely: Reduce Emissions & Energy Consumption; Alternative Mode of Transportation; Food Consumption; Water Usage and Recycling; Increase Sustainability Education and Awareness. Each of these targets includes areas of focus with specific actions as follows:

Target 1: Reduce Emissions & Energy Consumption

MEU is trying to reduce its energy consumption by the maximum practicable rate by

- refurbishing older and more energy intensive buildings and constructing new structures that are in line with green building standards and prioritize campus sustainability.
- Installing more solar panels on buildings to maintain renewable energy sources and help colleges lower their reliance on fossil fuels and reduce greenhouse gas emissions.
- Using energy efficient technologies and devices across the campus
- Obtaining LEED-certification for campus buildings to meet high standards for sustainability.
- Obtaining approval for building monitoring equipment to manage and operate buildings in a sustainable and efficient manner
- Producing annual reports for energy consumption in real-time identify any inefficiencies and make recommendations for improvement.

Target 2: Alternative Mode of Transportation

Colleges can encourage alternative transportation modes to limit emissions by using university's free busses. Moreover, the university imposed a tariff for using university car parking. These procedures help students commute to campus with a lower carbon footprint. Colleges can also invest in low-carbon transportation for their needs.

Target 3: Food Consumption

Food waste represents a major challenge for campus sustainability. Colleges play a major role in tackling food waste and related issues like consumption and food shortages. For example, colleges can reduce the amount of meat they serve in cafeterias, support local and organic farming, and reduce food waste to make a more sustainable campus.

Target 4: Water Usage and Recycling

- Invest in recycling bins and compost bins can reduce trash waste and build a more sustainable campus.
- Recycle or dispose of hazardous, chemical, electronic materials and wastes in a responsible and ethical manner
- Installing on-campus water refill stations encourages reusable water bottles and limits plastic waste.
- Limit water waste in buildings by implementing grey water systems.

Target 5: Increase Sustainability Education and Awareness

- Students can research sustainability and climate change as part of their academic studies. Middle East University is increasingly offering courses in fields related to sustainability and climate change, including Media and Sustainability; Environmental Engineering; Introduction to Solar Energy; Green Buildings; Energy Economics and Management; Wind Energy; Microeconomics and Energy Legislations and Energy Efficiency; Environmental Interior Design; Environmental Graphic Design; Lighting and Acoustics in Architecture; Green Buildings and Sustainable Design; Environmental Control at both the faculty of Engineering & the Faculty of Architecture and Design.
- Encourage students to design sustainable solutions through their capstone projects that tackle the adverse impacts of climate change challenges and provide sustainable design solutions.

- Introduce unique course options related to climate change and sustainability as part of university elective courses like Renewable Energy in Our Lives Course.

Engaging Stakeholders to Ensure Sustainability Practices

Local Communities

MEU is devoted to not just teaching citizens about climate change, but also to prepare communities to adapt to an uncertain future and construct resilient communities. MEU's activity on this front is centred on research, teaching, and community involvement.

Faculty and Staff

Colleges are crucial in addressing climate change because they are thought leaders equipped with the financial and intellectual resources necessary to effect permanent change. Colleges are tasked with the responsibility of nurturing the brains of students who will one day become world leaders. Students that become involved throughout their college years frequently continue to make a positive difference beyond graduation.

Numerous MEU academics and staff collaborate to develop sustainability-focused class projects for a variety of courses, promoting multidisciplinary action on sustainability issues. MEU also promotes participation through its academic programming. Students are encouraged, for example, to complete an internship related to sustainability and to conduct research or complete a capstone project in this field.

Students

MEU will continue to evaluate initiatives aimed at increasing student engagement in environmental action in order to cultivate future environmental leaders. MEU also has a number of environmental student organizations that work on initiatives that try to change the way the university runs and educate the community about the importance of climate change and pro-environmental action. MEU recently signed an agreement with Jordan's Green Building Council to collaborate on green building projects.

Numerous student organizations concentrate on various areas of sustainability, allowing students to tailor their involvement to their specific interests. For instance, one student organization works to implement

operational reforms, while another educates the student body through green advocacy campaigns.

Students might begin by becoming aware of the impact their actions have on the natural world. Following that, individuals can work to improve their behaviour in areas such as energy and water consumption, waste management, and transportation. Additionally, they can campaign for pro-environmental policy and the implementation of programs and improvements at their homes and places of employment.

Sustainability Practices to tackle climate change impacts and enhance sustainable development goals during the Academic Year 2020-2021

A. Regarding target 1: MEU outlines different actions & practices to realize emissions reduction through key focus areas including:

- Green Power: This project, which is one of the largest and most important projects implemented by the University of the Middle East, comes aligned with the university's goals of transforming into an environmentally friendly "green university". The university have implemented the project in cooperation with (Shams El Fosoul) Company for Renewable Energy by installing renewable energy devices on top of buildings roofs of and car parking.



Figure 1: Solar cells at MEU Car Park

- MEU employs different energy saving strategies for its campus. Energy efficient appliances are an important part of the university's sustainability efforts. A rated air conditioning units, LED indoor and outdoor lighting units.

Table 1: Number of Energy Efficient Appliances

Appliance	Total Number	Total number energy Efficient appliances	Percentage
LED Lamp	500	500	100%
Air conditioning Units	524	524	100%
Computers	990	990	100%
Average Percentage			100%

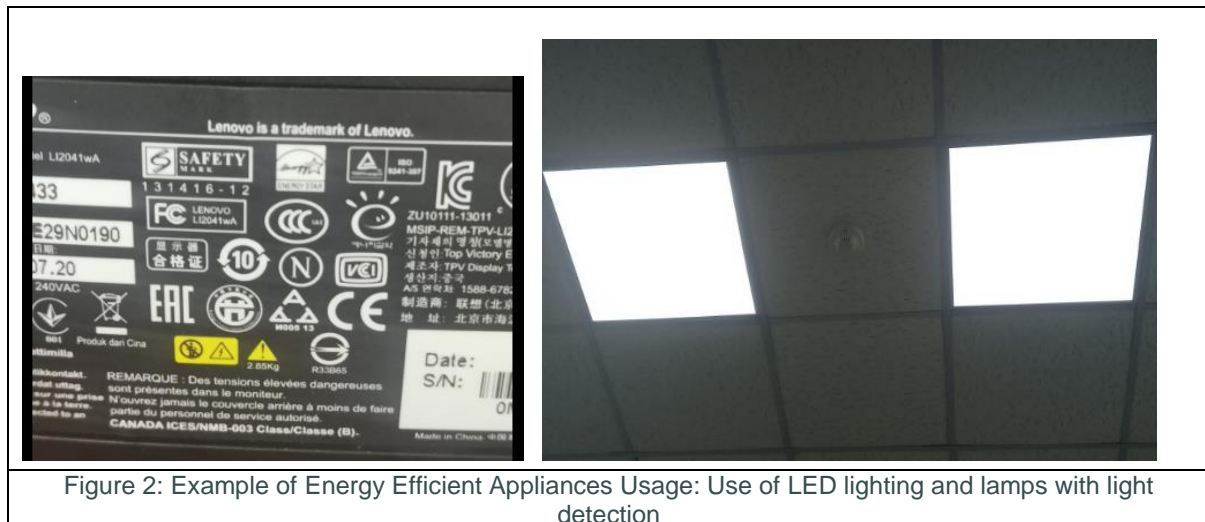


Figure 2: Example of Energy Efficient Appliances Usage: Use of LED lighting and lamps with light detection

- Electricity Usage/ total electricity consumed per Year (in Kilowatt hour) for the past two academic years: The total electricity usage of MEU decreased to 1537310 kWh in academic year 2020-2021 comparing with the academic year 2019-2020 as shown in the figure below.

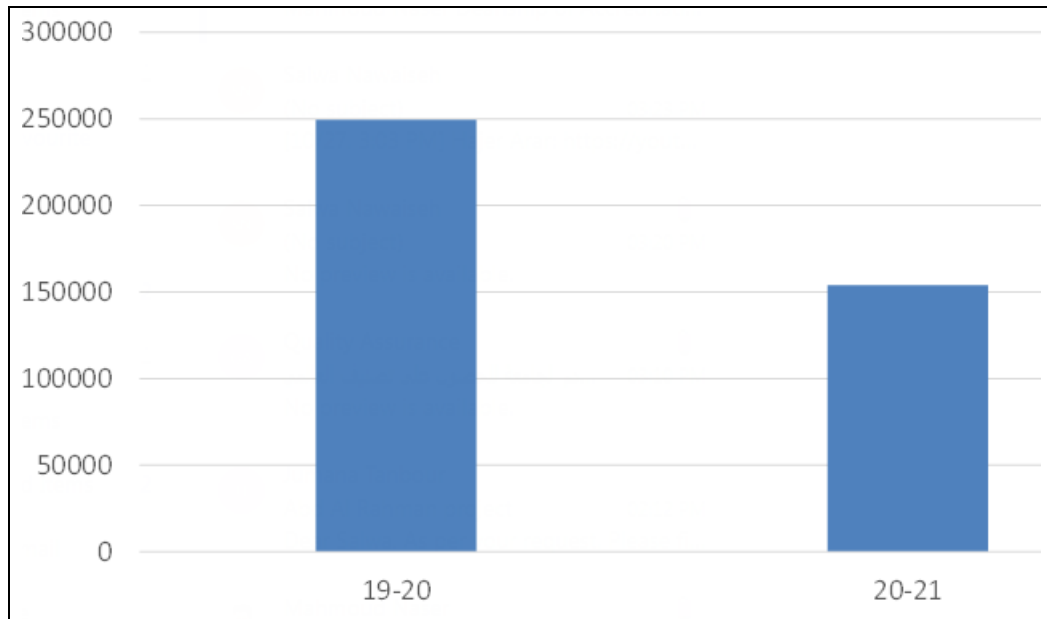








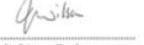
Figure 3 The total electricity usage

Ratio of renewable energy production divided by total energy usage per year

No	Renewable Energy	Production (in kWh)
1	Solar panel	3294032

$153731 / 294032$ (Electricity usage) = 46 % of the electricity in the campus is generated using solar power.

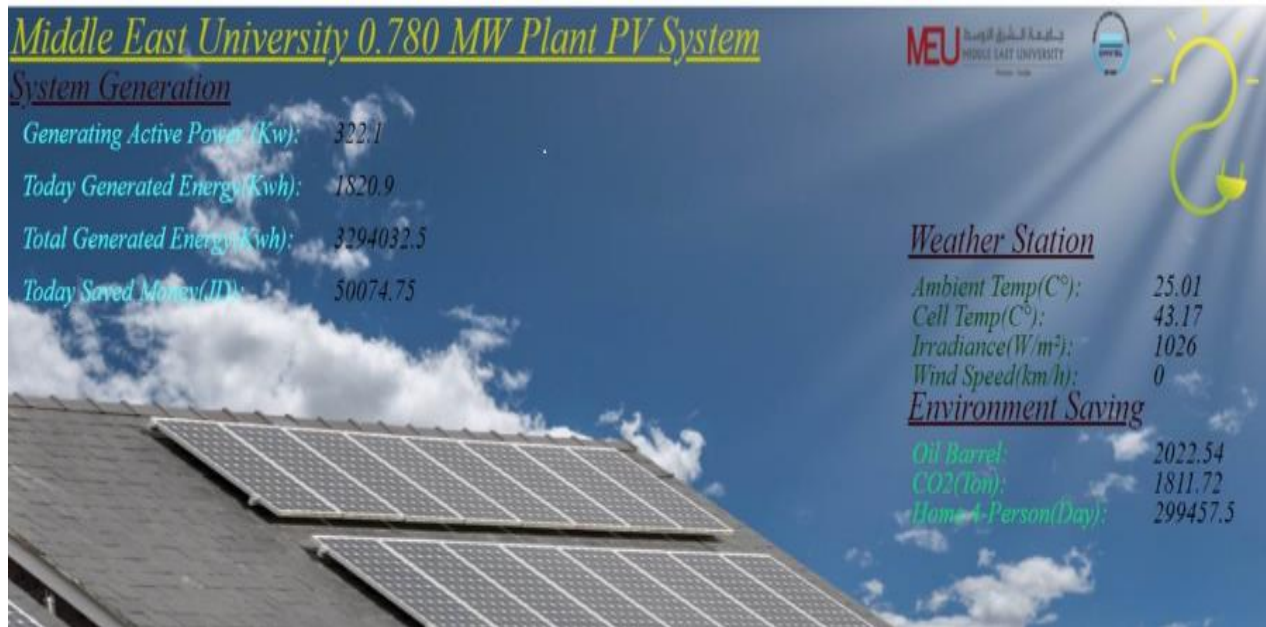
- Elements of green building implementation as reflected in all construction and renovation policies: MEU has been accredited by many independent bodies in many aspects such as health and safety, risk management, facilities, and teaching

 <p><i>Middle East University</i></p> <p>The QS Intelligence Unit has, through rigorous and independent data collection and analysis of performance metrics as set out in the QS Stars™ methodology, rated Middle East University as a Three Star institution.</p>  <p>The QS Stars™ rating system is operated by the QS Intelligence Unit, the independent compiler of the QS World University Rankings™ since 2004. The system evaluates universities across a wide range of important performance indicators as set against pre-established international standards. By covering a broader range of criteria than any world ranking exercise, QS Stars™ shines a light on both the excellence and the diversity of the rated institution.</p> <table border="1"> <thead> <tr> <th>CATEGORY</th> <th>STAR RATING</th> </tr> </thead> <tbody> <tr> <td>Teaching</td> <td>★★★★★</td> </tr> <tr> <td>Employability</td> <td>★★★★★</td> </tr> <tr> <td>Internationalization</td> <td>★★★★★</td> </tr> <tr> <td>Facilities</td> <td>★★★★★</td> </tr> <tr> <td>Social Responsibility</td> <td>★★★★★</td> </tr> <tr> <td>Inclusiveness</td> <td>★★★★★</td> </tr> <tr> <td>Program Strength - Law</td> <td>★★★★★</td> </tr> <tr> <td>Overall</td> <td>★★★★★</td> </tr> </tbody> </table> <p>Ben Sower - Head of QS Intelligence Unit</p> <p>QS Stars™ - © 2019 QS Intelligence Unit (a division of QS Quacquarelli Symonds Ltd) </p>	CATEGORY	STAR RATING	Teaching	★★★★★	Employability	★★★★★	Internationalization	★★★★★	Facilities	★★★★★	Social Responsibility	★★★★★	Inclusiveness	★★★★★	Program Strength - Law	★★★★★	Overall	★★★★★	 <p>CERTIFICATE OF ACCREDITATION</p> <p>This is to certify that</p> <p>MIDDLE EAST UNIVERSITY Queen Alia International Airport Road, 11831 Amman, Jordan</p> <p>is accredited by Accreditation Service for International Schools, Colleges & Universities (ASIC) as a</p> <p>PREMIER INSTITUTION</p> <p>Period of Accreditation: 4th November 2020 – 3rd November 2022 Accreditation No: AS91149/1120</p> <p>Middle East University has been awarded commendable grades in the following areas:</p> <table border="0"> <tr> <td>A. Premises and Health & Safety</td> <td>B. Management and Staff Resources</td> </tr> <tr> <td>D. Quality Assurance and Enhancement</td> <td>E. Student Welfare</td> </tr> <tr> <td>G. Marketing and Recruitment</td> <td></td> </tr> </table> <p>Chairman:  CEO: </p> <p>Head of Accreditation:  Date: 10/11/2020</p> <p>ASIC</p>	A. Premises and Health & Safety	B. Management and Staff Resources	D. Quality Assurance and Enhancement	E. Student Welfare	G. Marketing and Recruitment	
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- One of the smart applications in MEU is the smart card for both staff & students, the idea came to make students campus life easier, enhancing students and staff safety and increasing campus security.



- MEU Continues to explore and evaluate other energy supply research and partnership
- The total carbon footprint (co2 emissions in the last 12 months, in metric tons)



B. Regarding Target 2: alternative Mode of Transportation

MEU works to reduce vehicle usage to cut down on energy waste and keep its campus free from congestion and pollution, MEU combines restrictive on-campus parking with free bus passes to reduce the need for personal vehicles on campus. Today, more than 95 percent of students and 70 percent of staff commute sustainably around MEU campus

In order to ensure the use of a sustainable transportation that serves the environment, from one side, and maintains the University's resources, from the other, Middle East University adopts a special policy for transportation. Through this policy, the University aims at providing safe transportation means from and to the University on the individual and environmental levels. It also seeks to encourage its members to implement better practices regarding transportation by reducing the use of private cars and facilitating the use of buses or car-sharing. The University also endeavours to provide all help for its members to use electric cars to reduce carbon emissions produced as a result of using traditional means of transportation.

No.	Vehicle	Total Number
1	Car managed by the university	15
2	Cars entering the university	85
3	Motorcycles entering the university	2
	Total	102

The total number of vehicles (cars and motorcycles) divided by total campus' population $102 / 1200$ (population) = 0.085



Example of MEU Shuttle Services

MEU جامعة الشرق الأوسط
MIDDLE EAST UNIVERSITY
Amman - Jordan

جدول الحركة للفصل الدراسي الثاني من العام الجامعي 2021/2020

اسم الخط	من الجامعة	من المرافق	نوع التسيير	من الجامعة	من المرافق
الزرقاء	MEU	جسر طريق 100	جسر مشاة (المدخل الرئيسي)	6:30	6:30
	4:15	7:20	6:50	6:45	
ماركا	MEU	مستشفى ماركا	نادي السباحة	6:30	6:30
	4:15	7:45	6:55	6:45	6:40
رعدان	MEU	مكتبة الجامعة	خندق الخارج	7:00	6:30
	12:30	7:45	7:25	7:20	7:15
	2:10	8:50	8:30	8:25	8:15
	4:15	10:45	10:30	10:15	10:05
طبربور	MEU	مقابل طريق	شارع طبربور	6:30	6:30
	2:10	7:35	6:40	6:35	6:30
	4:15	9:15	7:40	7:35	7:30
الهاشمي الشمالي	MEU	مكتبة الجامعة	شارع الهاشمي	6:30	6:30
	4:15	7:35	6:55	6:45	6:40
الاستقلال	MEU	مجمع بنك	الاستقلال	6:30	6:30
	2:10	7:20	6:45	6:40	6:35
	4:15	8:15	-	7:55	7:50
ش الجامعة (مخار مزل)	MEU	مقابل طريق	جسر	6:30	6:30
	12:30	7:15	6:50	6:45	6:35
	2:10	8:15	8:20	8:15	8:10
	4:15	10:45	10:15	10:10	10:05
ضاحية الرشيد	MEU	مدرسة المنهل	مبنى	6:30	6:30
	4:15	7:25	6:45	6:40	6:35
ش المدينة المنورة	MEU	مجمع بنك	شارع المدينة	6:30	6:30
	12:30	7:35	7:10	7:00	6:55
	2:10	8:15	8:45	8:40	8:35
	4:15	10:45	10:30	10:25	10:20
الجامعة الأردنية	MEU	مقابل طريق	شارع الجامعة	6:30	6:30
	12:30	7:30	6:45	6:40	6:35
	2:10	8:45	8:30	8:25	8:20

Bus Timetable

MIDDLE EAST UNIVERSITY

Legend:

- A] BUILDING A - UNIVERSITY FACILITIES
- B] BUILDING B - UNIVERSITY FACILITIES
- C] BUILDING C - SERVICES
- D] BUILDING D - ENGINEERING LABORATORIES
- E] BUILDING E - CAFETERIA
- F] BUILDING F - SPORTS HALL + LIBRARY
- G] PROPOSED FOOTBALL PLAYGROUND

Site Plan Details:

The site plan shows the layout of the university campus. It includes a large central area labeled 'MIDDLE OF ASPHALTED STREET'. The buildings are labeled A through F. Building A is a large rectangular building. Building B is a smaller building. Building C is a long, narrow building. Building D is a large, rectangular building. Building E is a smaller building. Building F is a large, rectangular building. The proposed football playground is labeled G. The plan also shows parking areas, roads, and landscaping.

Legend:

- A] BUILDING A - UNIVERSITY FACILITIES
- B] BUILDING B - UNIVERSITY FACILITIES
- C] BUILDING C - SERVICES
- D] BUILDING D - ENGINEERING LABORATORIES
- E] BUILDING E - CAFETERIA
- F] BUILDING F - SPORTS HALL + LIBRARY
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- D] BUILDING D - ENGINEERING LABORATORIES
- E] BUILDING E - CAFETERIA
- F] BUILDING F - SPORTS HALL + LIBRARY
- G] PROPOSED FOOTBALL PLAYGROUND

Moreover, MEU apply the following Procedures:

- ✓ Applying public safety and periodical inspection procedures on buses to provide safe and healthy environment.
- ✓ Subscribing in bus transportation through accredited forms.
- ✓ Preparing transportation schedules in accordance with the applications registered.

- ✓ Providing transportation cards by the student services at the University after filling the accredited form.
- ✓ Handling emergency cases such as accidents and malfunctions quickly by adopting the correct and safe procedure

C. Regarding Target 3: food Consumption

MEU consistently encourage different cafeterias at campus to use local organic food, fruits and vegetables and minimize food waste and encourage a healthy life style.

D. Regarding Target 4: Water Usage & recycling

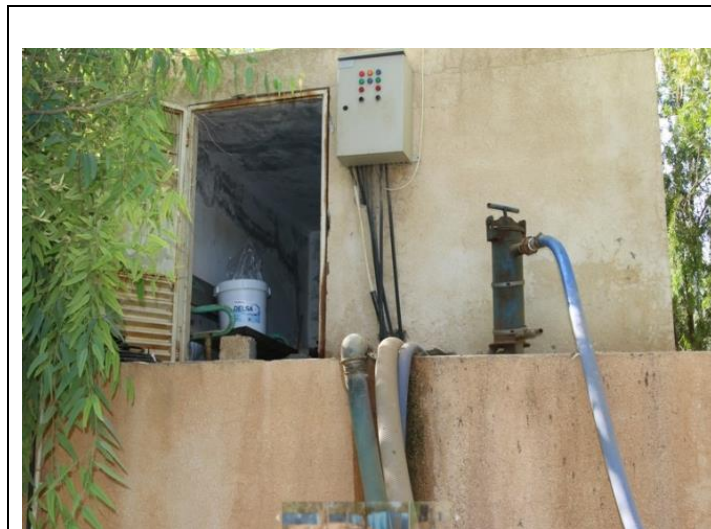
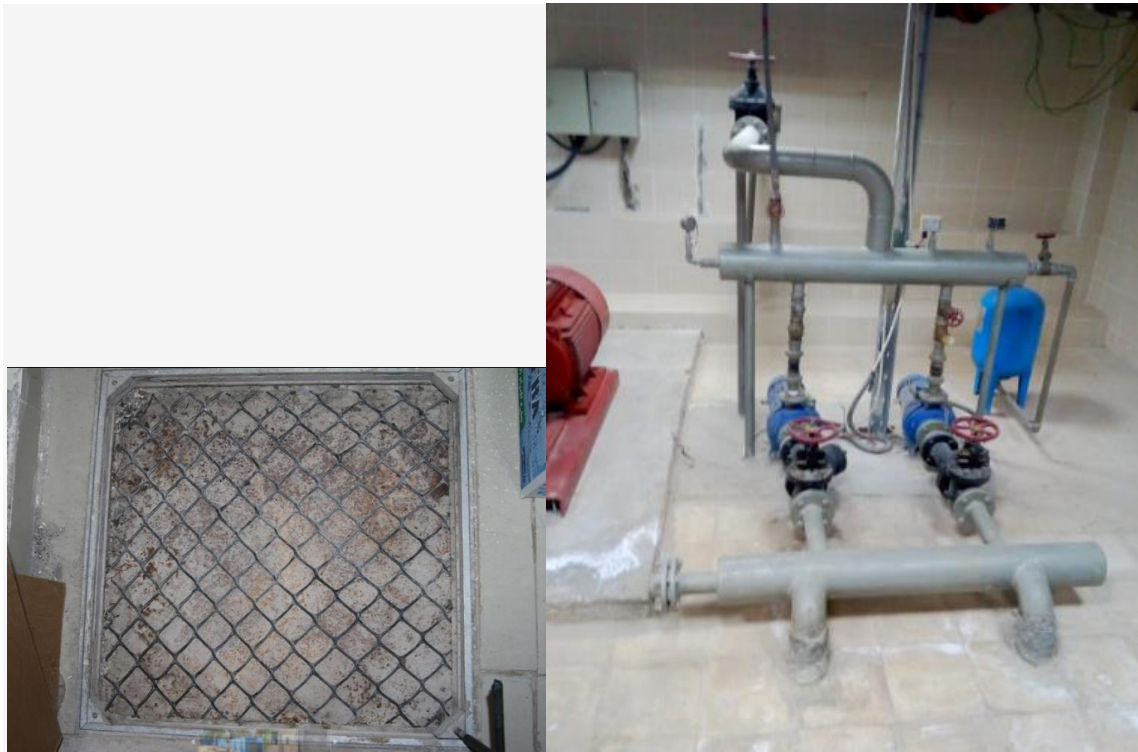
Jordan suffering from water scarcity, it is the second most water scarce country in the world,

Accordingly, MEU considers Water Management vital issue, Water is the source of life, and achieving water security comprising a serious challenge on the national and international levels. Therefore, MEU adopts special policy for water management, sustainability and maintenance.

This policy aims at firstly, reducing the consumption of water. Secondly protecting the environment by reducing pollution. And thirdly providing appropriate green areas.

These objectives achieved by the following procedure

1. Using water harvesting techniques through collecting rainwater on the roofs of buildings in containers for reuse in agriculture.
2. Using several technologies to reduce the consumption of water at several locations (toilets).
3. Improve sewage treatment plants to use treated water for irrigation purposes.
4. Raising awareness of rationalizing water consumption at the University.
5. Using drip irrigation systems.





Example of Water Recycling Program





➤ Waste Management at MEU

Solid waste recycling is prioritized at Middle East University. The University is totally aware of the positive impact of this process on all human beings, from one side, and the environment, on the other. Therefore, the University adopts a special policy for recycling that enables it to achieve the ultimate use of solid wastes by recycling them. This clearly shows the University's efforts to sustain its resources and properties and its active role in preserving the environment and its surroundings.

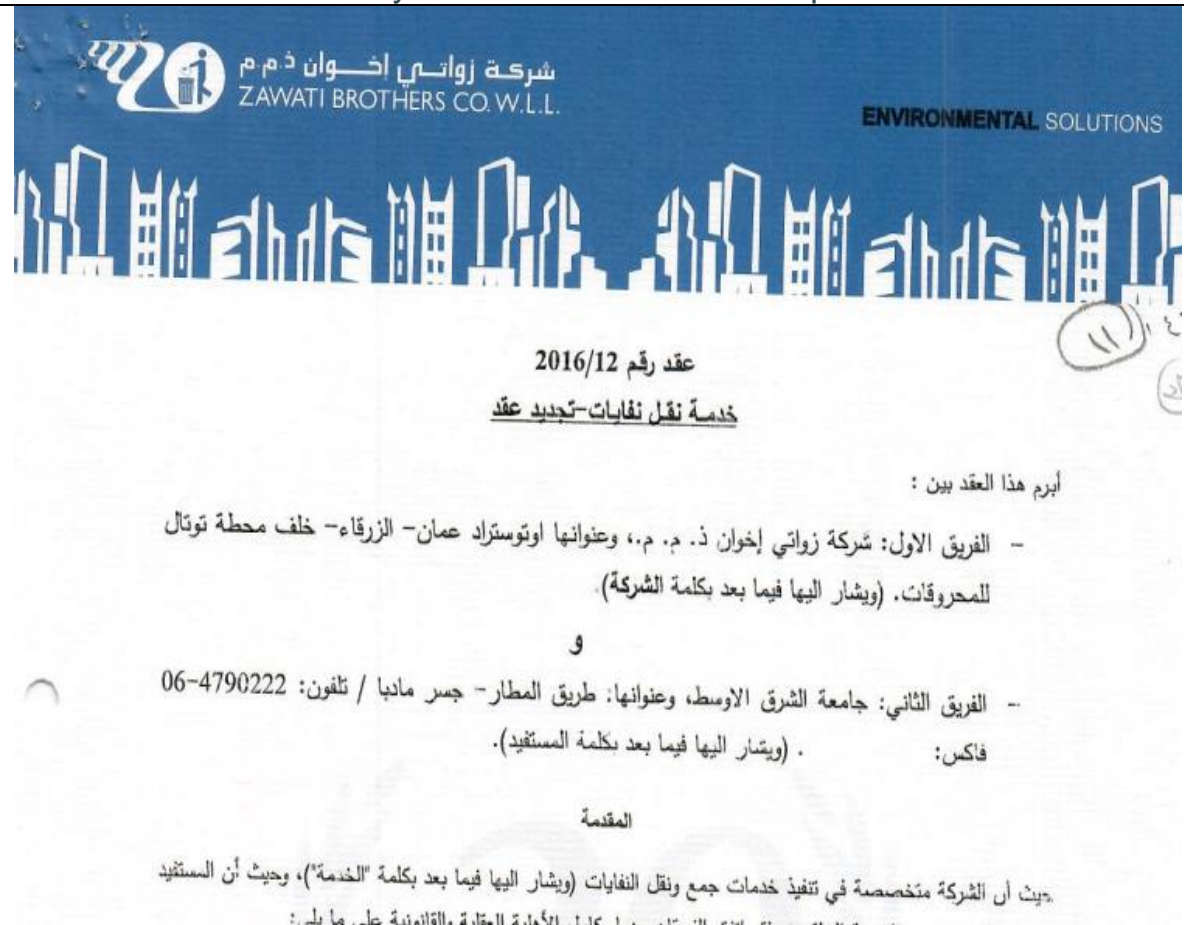
Managing the solid waste in a clear strategy framework that serves the University environment and its surrounding. Therefore, MEU adopts specific policy for waste management, this policy aims at: reducing environmental pollution, utilizing materials by re-using or classifying them and reducing the negative effects of waste accumulation.

This can't be achieved without applying the following:

1. Providing special containers for collecting solid wastes according to their types at the University's facilities.
2. Moving organic (health-care) waste to the official landfills approved at the Kingdom level.
3. Collecting inorganic (solid) waste that can be reused (recycled)
4. Conveying them to special committees for recycling



Recycle containers at the campus



Contract with Zawati Company for waste treatment

Subjects Related to Sustainability Offered: below are examples of the courses with embedded sustainability principles offered by MEU. The courses include a selective university course in addition to compulsory and selective faculty and department courses.

[illegible]

- Total Research Funds Dedicated to Sustainability Research (in US Dollars)
- Total research fund dedicated to sustainability research in 2018 = 1,379 US Dollars
- Total research fund dedicated to sustainability research in 2019 = 5,410 US Dollars
- Total research fund dedicated to sustainability research in 2020 = 5,275 US Dollars
- The averaged annum last 3 years of research fund dedicated to sustainability research = 4,021 US Dollars

Details	2,017	2,018	2,019
University Total budget in US Dollar	14,709,946	17,947,634	19,804,425
University Total budget for Sustainability efforts in US Dollar	12,628,949	17,639,138	16,129,508
Percentage of the university's total budget for sustainability efforts in US dollars	85 9%	98 3%	81 4%
allocated budget for sustainable environment research in US dollars	883	1,379	5,410
allocated budget for research in US dollars	498,214	576,623	618,439
Ratio of sustainability research funding to total research funding in US dollars	0 2%	0 2%	0 9%

MEU Organizes the IREC 2021 in Cooperation with GIZ

BY MEDIA / SATURDAY, 17 APRIL 2021 / PUBLISHED IN UNIVERSITY-NEWS

Examples of Events Related to Sustainability

MEU NEWS

جامعة الشرق الأوسط MEU Middle East University

أخبار الجامعة / أخبار الجامعة / أخبار الجامعة / أخبار الجامعة / أخبار الجامعة

جامعة الشرق الأوسط MEU Middle East University

أخبار الجامعة / أخبار الجامعة / أخبار الجامعة / أخبار الجامعة / أخبار الجامعة

The screenshot displays the MEU website's news section. At the top, there are logos for MEU, accreditation bodies (DNV-GL, ISO 9001), and the QS STARS rating system. A navigation bar includes links for 'الرئيسية' (Home), 'أخبار الجامعة' (University News), 'إصدارات' (Publications), 'التقرير الصحفي' (Press Report), 'رسائل الماجستير' (Master's Theses), 'مقالات ودراسات' (Articles and Studies), 'مجتمع الجامعة' (University Community), 'اعلانت' (Announcements), and 'أخبار' (News). The main content area features a headline: 'جامعة الشرق الأوسط تختفي: فتوح "مؤسسة الدولة الأردنية" إشراك طلبتها في برامج تطوعية' (Middle East University disappears: Victories of "Jordanian State Foundation" involving its students in voluntary programs). Below this, there are several news items with images and titles, such as 'مكافحة المخدرات في جامعة الشرق الأوسط' (Drug control in Middle East University) and 'مكافحة المخدرات في جامعة الشرق الأوسط' (Drug control in Middle East University). The sidebar on the left contains a list of recent news items with dates and categories.

Examples of cultural activities on campus

➤ Number of events related to sustainability

Many events related to sustainability hosted /organized by MEU for the last three academic years for instance:

1. IREC 2021
2. Solar and Wind Energy

➤ Number of student organizations related to sustainability

Student bodies that have a relationship with sustainability

1. Entrepreneurship Club
2. Societal Peace Club
3. Disability club
4. Volunteer Work and Community Service Club

➤ MEU copes with Covid-19 pandemic by applying different number programs specifically:

1. Moodle application

Switching to E-Learning during COVID 19 pandemic




This mission has as objective to maintain the relationship with the students locked down home and reassure them as well as their families about the fate of the courses and the diplomas. Nevertheless, professors were not ready to switch to total distance learning and some were completely not familiar with eLearning platforms and or software.

2. E-mail & MS teams

This link contains guidelines for the operation and various related information. This page updated regularly.

1. Exam System
2. online payment system via E-fawateercom

<https://www.meu.edu.jo/how-to-pay-online-via-e-fawateercom/>

<p>How to download the Moodle application on a mobile phone</p> <div> <p>How to use elearning system</p> <p>how to use E-mail & Msteams</p> <p>How to pay online via E-fawateercom</p> <p>How to download the Moodle application on a mobile phone</p> </div> 	<p>How to pay online via E-fawateercom</p> <div> <p>How to use elearning system</p> <p>how to use E-mail & Msteams</p> <p>How to pay online via E-fawateercom</p> <p>How to download the Moodle application on a mobile phone</p> <p>How to download and use MEU application via mobile</p> </div> 
	<p>)</p>

Security and safety facilities at MEU include:

1. CCTV covering all the university area
2. fire detection alarm systems including detectors, Fire Hydrant
3. Security system and department



1. Panic button

2. Fire Hydrant



Alarm detectors



CCTV

How to use fire hose reel

كيفية استخدام خرطوم الحريق

<p>1</p> <p>Turn on the stop valve افتح الصمام بالكامل</p>	<p>2</p> <p>Run out the hose إسحب الخرطوم</p>
<p>3</p> <p>Turn the nozzle open افتح الفوهة</p>	<p>4</p> <p>Aim jet at the base of fire صوب الخرطوم على قاعدة اللهب</p>

Do not use on live electrical equipment
لا تستخدم على المعدات الكهربائية الحية



fire detection alarm systems

