



UNIVERSITI MALAYSIA PAHANG  
**SUSTAINABILITY  
REPORT 2019 /2020**

- **Contents**

**1. Introduction**

**2. Governance**

**3. Setting & Infrastructure**

**4. Energy & Climate Change**

**5. Waste**

**6. Water**

**7. Transportation**

**8. Education**

**9. Engagement & Partnership**

## **I. Introduction**

As an institution of higher learning, UMP is entrusted with a bigger responsibility to make our institution operate sustainably, and to foster more programmes and initiatives towards making the university campuses “green” in our operation. As a teaching university, we embrace our responsibility in our lecture sessions to ensure that the engineers and technologists that we train shall become a new breed of professionals with far-reaching conscience and responsibility as future members of their companies, and as members of the community to always think and act to make the Earth a beautiful and comfortable home to live. As a research university, UMP should be more active in conducting research related to resources-use efficiency and sustainability for the benefits of the global world and future survival and comfort of our future generations.

## 2. Governance

The Centre for Corporate & Quality Affairs observes our sustainability agenda (Appendix I). The main think tank of the sustainability agenda in our campuses is the Centre for Development and Property Management (PPPH) in collaboration with the Registrar Department, Centre of Information and Communication Technology, Students Affairs and Alumni Department, Security Division, and Occupational Safety Health & Management Office.

For 2020 the mentioned responsibility centres are focusing on developing Pelan Kampus Lestari. This sustainable campus plan is a shared idea where all the initiatives and action plans that will be carried out are made by consensus and collective opinion. This guideline is expected to be launched at the end of 2020.

To measure our internal development, we utilise several external benchmarks to evaluate our progress and performance based on six categories under the UI GreenMetric World University Ranking, which includes:

- Setting and Infrastructure (15%)
- Energy and Climate Change (21%)
- Waste Management (18%)
- Water Usage (10%)
- Transportation (18%)
- Education (18%)



### **3. Setting & Infrastructure**

In 2018, the Forest Research Institute Malaysia (FRIM) distributed 1000 trees from 24 species to UMP for collaborative projects and sharing expertise in cultivation forests in UMP Pekan Campus. As the texture of the land at UMP Pekan is comprised of disturbed land (DLD), this cooperation brought expertise from UMP and FRIM to work together in the development of the UMP Pekan landscape and its environment to be more conducive. This Green Sustainable Campus Project was led by the Head of Biomass Technology Program from FRIM, Dr. Wan Asma Ibrahim.

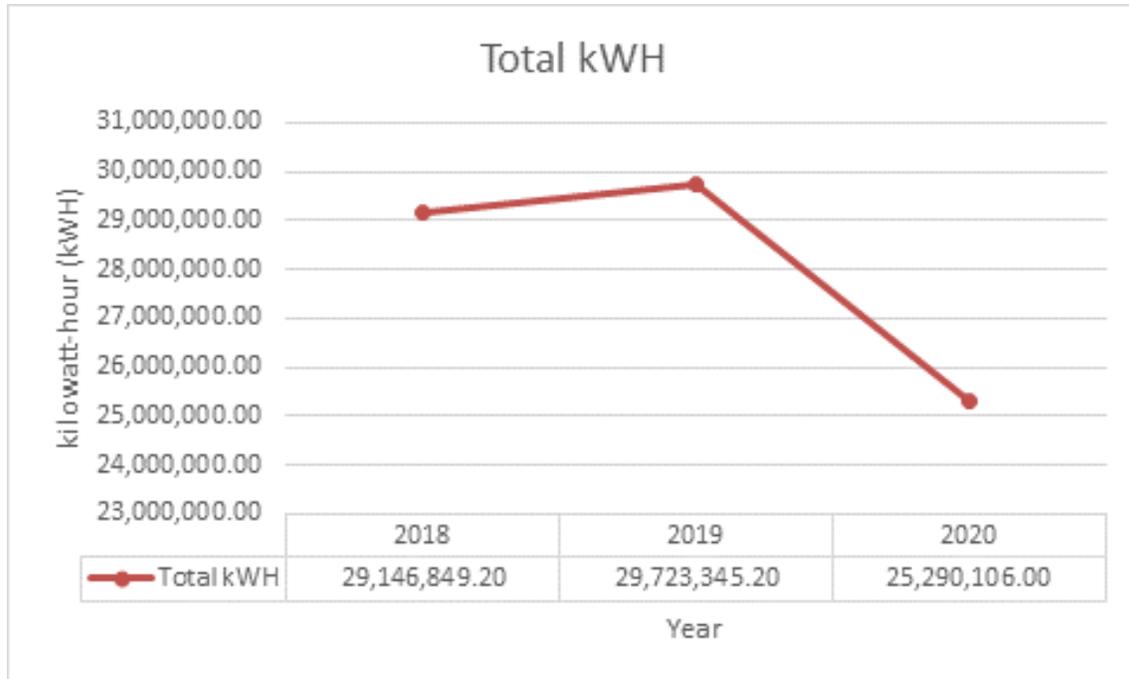
In 2020, this project has been rebranded as Rimba Lestari. It is located between the buildings of the Faculty of Electrical and Electronic Engineering Technology (FTKEE), Faculty of Mechanical and Automotive Engineering Technology (FTKMA), and Faculty of Manufacturing Engineering Technology and Mechatronics (FTKPM). Rimba Lestari can provide an opportunity for UMP residents to improve and cultivate campus sustainability practices. Rimba Lestari, which spans 26.82 acres, allowed the participants to identify more than 800 forest trees and 1,800 acacia trees.

Among the tropical trees found in Rimba Lestari are tongkat ali, light red (meranti tembaga), Indian almond (ketapang), Malacca teak (merbau), chengal, seashore mangosteen (beruas), and jelutong.



#### **4. Energy & Climate Change**

With both campuses ever-growing, UMP faces a slight increase in electricity consumption, due to construction works inside the campus. There is always on-going development of new buildings, and the population of UMP keeps increasing as development occurs. The various energy efficiency measures have offset the increase in energy consumption. The increase would have been more significant had there been no energy efficiency measures pursued by the University.



Total electricity usage (kWh) in UMP in 2018–2020 (September)

Total electricity usage (kWh) in UMP from September 2019 to August 2020

Month	Electricity usage (kWh)		
	Gambang	Pekan	Total
September	1,309,924.00	1,138,278.00	2,448,202.00
October	1,440,842.00	1,342,291.00	2,783,133.00
November	1,424,205.00	1,414,471.00	2,838,676.00
December	1,225,036.00	1,391,449.00	2,616,485.00
January	1,064,554.00	1,192,805.00	2,257,359.00
February	1,239,031.00	1,159,967.00	2,398,998.00
March	1,103,135.00	964,006.00	2,067,141.00
April	652,045.00	489,599.00	1,141,644.00
May	780,960.00	532,841.00	1,313,801.00
June	707,464.00	859,552.00	1,567,016.00
July	846,777.00	1,020,764.00	1,867,541.00
Aug	948,032.00	1,042,078.00	1,990,110.00
<b>Total</b>	<b>12,742,005.00</b>	<b>12,548,101.00</b>	<b>25,290,106.00</b>

The total electricity usage in UMP for the last 12 months (October 2018 – September 2019) was 25,290,106 kWh.

In 2019, UMP consumed 29,785,332.20 kWh of electrical energy. On average, the monthly electrical energy consumption in 2018 was 2,479,861 kWh. Until August 2020, UMP consumed 25,290,106 kWh of electrical energy, with the monthly average of 2,107,508.83 kWh. The electricity usage for this year decreases 14.9% compared to 2019, which is mainly because of the Movement Control Order (MCO) due to the COVID-19 outbreak.

## **5. Waste**

UMP is practicing Public Sector Conducive Ecosystem, which is a guideline provided by the Management Modernisation Unit and Malaysia Management Planning. Public Sector Conducive Ecosystem, commonly known as EKSA, is focusing on five main objectives:

- i. Expanding the implementation of the Government agencies to create a conducive environment,
- ii. Enhancing corporate image,
- iii. Strengthening creativity and innovation activities in line with the demands of the stakeholders,
- iv. Encouraging activities towards creating a green environment through the cultivation of Green Practices, and
- v. Ensuring the auditing elements meet the needs of the various Government agencies. They are provided with recycle bins. Every month they need to measure the amount of wastes and submit a report to the UMP's Public Sector Conducive Ecosystem Committee.

The recycling programme is managed by UMP Holdings. UMP Holdings, with the help of other departments, provides facilities and system to accommodate the recycling process. Recycle bins are provided in the building and also outside of the building. Collection of recyclable waste is monitored and recorded monthly.

Organic waste treatment from September 2019 until September 2020

Waste	Month	Open dumping	Partial (1%–25% treated)	Partial (>25%–50% treated)	Partial (>50%–75% treated)	Extensive (>75% treated)	Amount (metric tonne)
Domestic waste	September	✓					35.14
	October	✓					34.16
	November	✓					46.08
	December	✓					44.95
	January	✓					75.31
	February	✓					42.61
	March	✓					15.47
	April	✓					-
	May	✓					-
	June	✓					-
	July	✓					-
	August	✓					75.74
September	✓					96.05	
Discarded vegetables	September				✓		0.039
	October				✓		0.024
	November				✓		0.051
	December				✓		-
	January				✓		-
	February				✓		-
	March				✓		-
	April				✓		-
	May				✓		-
	June				✓		-
	July				✓		-
	August				✓		-
September				✓		0.039	
Branches, dry leaves & fronds	September	✓					
	October	✓					
	November	✓					

	December	✓					
	January	✓					
	February	✓					
	March	✓					
	April	✓					
	May	✓					
	June	✓					
	July	✓					
	August	✓					
	September	✓					

Inorganic waste treatment from September 2019 until September 2020

Waste	Month	Open dumping	Partial (1%–25% treated)	Partial (>25%–50% treated)	Partial (>50%–75% treated)	Extensive (>75% treated)	Amount (metric tonne)
Discarded papers	September				✓		-
	October				✓		0.075
	November				✓		-
	December				✓		0.084
	January				✓		0.058
	February				✓		0.055
	March				✓		-
	April				✓		-
	May				✓		-
	June				✓		-
	July				✓		-
	August				✓		0.05
September				✓		0.2	
Bottles	September				✓		-
	October				✓		-
	November				✓		-
	December				✓		0.038
	January				✓		1
	February				✓		0.032
	March				✓		-
	April				✓		-
	May				✓		-
	June				✓		-
	July				✓		-
	August				✓		0.03
September				✓		-	
Plastics	September				✓		-
	October				✓		-
	November				✓		-
	December				✓		0.038

	January				✓		0.1
	February				✓		0.032
	March				✓		-
	April				✓		-
	May				✓		-
	June				✓		-
	July				✓		-
	August				✓		0.03
	September				✓		0.006
Metals	September				✓		-
	October				✓		-
	November				✓		-
	December				✓		-
	January				✓		0.37
	February				✓		0.106
	March				✓		-
	April				✓		-
	May				✓		-
	June				✓		-
	July				✓		-
	August				✓		0.1
	September				✓		0.02

The Compost & Recycle Centre in both campuses manages organic and inorganic wastes and handles the collection of recyclable material & composting in UMP. The centre in UMP Pekan is equipped with a rainwater harvesting system and powered by solar energy.



Waste segregation activities

## 6. Water

This year, UMP has built another water pump house at Lake A to support the water irrigation system at Canseleri Tun Abdul Razak and Laman Cendekia landscape area. This project is a part of the water recycling programme.



Water pump house at Lake A

## **7. Transportation**

The University's Green Campus Campaign runs throughout the year. All students and staff are encouraged to use zero-emission vehicles. In some faculties, electric bicycles are used to commute from one place to another inside the campus. UMP also provides free shuttles for students to commute from student residences at UMP@City and DHUAM to UMP Pekan Campus.

Bus schedules from UMP@City and DHUAM to UMP Pekan for Session 2020/2021

<b>UMP@City–UMP Pekan</b>				
<b>Day</b>	<b>Time</b>	<b>From</b>	<b>To</b>	<b>Number of students</b>
<b>Monday–Thursday</b>	7:15	UMP@City	UMP	50
	9:15			30
	13:00			25
	14:00	UMP	UMP@City	50
	16:30			30
	18:30			25
<b>Friday</b>	7:15	UMP@City	UMP	22
	9:15			30
	14:30			26
	10:30	UMP	UMP@City	22
	15:30			30
	17:30			26
<b>Saturday</b>	8:00	UMP@City	UMP	15
	17:00	UMP	UMP@City	15
<b>DHUAM–UMP Pekan</b>				
<b>Day</b>	<b>Time</b>	<b>From</b>	<b>To</b>	<b>Number of students</b>
<b>Monday–Thursday</b>	7:15	DHUAM	UMP	50
	9:15			50
	13:00			25
	14:00	UMP	DHUAM	45
	16:30			50
	18:30			30
<b>Friday</b>	7:15	DHUAM	UMP	40
	9:15			20
	14:30			25
	10:30	UMP	DHUAM	45
	15:30			20
	17:30			20
<b>Saturday</b>	8:00	DHUAM	UMP	15
	17:00	UMP	DHUAM	15

Besides that, our students on both campuses also enjoy public bus services (with minimum payment) to commute from campus to Kuantan.



Public transport facility at both campuses

## 8. Education

More than 100 students of Universiti Malaysia Pahang (UMP) joined the Pahang State Ozone Layer Protection Awareness Programme in conjunction with the World Ozone Day 2020 annually celebrated on 16 September.

The programme was co-organised by the Pahang Department of Environment (DoE) and Alam Flora Sdn. Bhd.

The participants had the opportunity to explore the campus in the Ozone for Life Tour programme through photography competition, plogging, tree planting, lectures, interactive quizzes, collection of used cooking oil and electronic wastes, and free checking of car air conditioner. The event was officiated by the Director of the Pahang DoE, Haji Mohd Sani Mat Daud.

Also in attendance were the Deputy Vice-Chancellor (Academic & International), Professor Ts. Dr. Mohd Rosli Hainin, Deputy Director of Operations of the Pahang DoE, Noor Shahniyati Ahmad Shukri and Manager of Health, Safety and Environment of Alam Flora Sdn. Bhd., Dr. Ramizu Abdul Rahim, Dean of the Faculty of Civil Engineering Technology (FTKA), Ir. Dr. Fadzil Mat Yahaya and Manager of Pahang Service Area 2 of Alam Flora Sdn. Bhd., Mohd Hadzlin Nadzri.

According to Haji Mohd Sani, UMP involvement can strengthen collaboration networking and increase appreciation towards the environment among lecturers and students who are the country's next leaders. This collaboration also promotes the implementation of self-regulation to prevent environmental pollution in the industry.

Meanwhile, UMP also implements the Sustainable Campus initiative. The policy on the development and management of campus facilities that considers the perspective of the environment system and economy.

There are seven major initiatives in the Sustainable Campus Plan, namely Sustainable Development and Green Facilities, Saving Energy and Water Resources, Green Campus, Efficient Transportation, Organic, Inorganic, and Scheduled Wastes Management, Sustainable Technology, and Safe Campus.



Pahang State Ozone Layer Protection Awareness Programme

Fifty-one kilograms of waste that can be recycled and 98 kg of used cooking oil were collected during the programme to instil the awareness of managing waste that can pollute the environment if not managed properly.

## 9. Engagement & Partnership

Sultan Ahmad Shah Environment Trust (SASET) is a non-governmental organisation (NGO) in Pahang. SASET is actively involved in awareness campaigns to the community, especially the young generation on how they can contribute to nature through conservation programmes, such as conservation activities of Ramsar Site in Bera Lake, Pahang. In this initiative, UMP works hand-in-hand with SASET, the Department of Wildlife & National Parks, and the Pahang State Forestry Department in planting the area with native forest species to mitigate land degradation of the area. This year, UMP involved in one tree-planting initiative under SASET at Hutan Simpan Sungai Ichat, Cameron Highlands on 15 February 2020.



## Appendix I

1. Dr. Mohd Hanafiah bin Ahmad  
Director, Centre for Corporate & Quality Affairs
2. Associate Professor Dr. Chong Kwok Feng  
Deputy Director, Centre for Corporate & Quality Affairs,  
Branding Division
3. Mrs. Hazlina binti Faizal  
Secretariat/Senior Executive, Branding Division
4. Mr. Muhammad Aniff bin Mohmad Saleh  
Administrative Assistant, Branding Division