ENVIRONMENTAL SUSTAINABILITY Report 0727

Universiti Teknologi MARA Sarawak





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TABLE OF CONTENT



Description Organisation Setup The Organisation's Core Values The Organisation's Core Business



ENVIRONMENTAL QUALITY STANNDARDS

Enviromental Quality Standards		
Aspects Prioritisation	22	
Environmental Objectives and Targets	24	
Environmental Projects and Programmes	25	



RECOGNITION

Green Sustainable Campus Awards	48
(AKLH) 2021	
TIMES for Higher Education Awards	51
UITM 2021	
10th Premier of Sarawak Environmental	52
Award 2021/2022	
Green Sustainable Campus Award	53
(AKKH) 2022	



ENVIRONMENTAL Policy

Enviromental Policy				
Sustainable Development Goal Policy				
Energy Management Policy	9			
Bring-Your-Own-Container Policy	10			
Dissemination of Environmental Policy	10			
Relevancy to Current Global Status on				
the Environment				
Generation of Waste	12			
Wastes Treatement and Disposal	13			
Methods				
Potential Strategies & Planning				



ENVIRONMENTAL PROGRAM AND IMPLEMENTATION

Green Initiatives Survey	28
Affordable Automated Smart Agriculture	33
System (AASAS)	
Carbon Footprint Monitoring	36
Portable Water Treatment Plant Project	38
Biological Treatment for Polluted Water	39
Establishing Memorandum of	39
Understanding with Industry Expert	
Research on Sewerage Treatment Plant	40
Establishinng Local Fertilizer From	
Poultry Project	40
Aquaponic Project	42
Bamboo Garden	43
Trainer For Green Projects For Suppliers	44
and Contractors in Sarawak	



Potential Environmental Impacts Enviromental Management Plan



ENVIRONMENTAL REVIEW AND CONTINUAL IMPROVEMENT

Research on Internet of Things (IoT)				
Research on Water Treatment				
Monitoring of Electric Usage				
Hydroponic Project				
Air Quality				48
e-Reporting	System	of	Sustainable	49
Initiatives	-			

Conclusion List of Committed Writers Editorial Board Members 54 55 57

ASPECTS PRIORITISATION

The Risk Priority Number (RPN) for each aspect description is determined by the following formula based on EMS ISO 14001. The impact ranking is important in determining the significant environmental impacts and in prioritising the mitigation measures. The rating description for aspects of prioritisation is shown in Table 4.2

Risk priority number (RPN) = Severity x Magnitude x Occurrence x Control

Rating	Severity	Severity	Occurrence	Control
1	Insignificant, easily correctable	Minimal quantity	Annuall/ seldom	Effective automatic control
2	Mild – small potential of harm	Small quantity	Quarterly	Effective documented procedures
3	Moderate – somewhat harmful	Medium quantity	Monthly	Documented procedures established
4	Serious – significant damages	Large quantity	Weekly to daily	Verbal procedures
5	Severe – Immediate threat, huge damages	Very large quantity	Continuous	No control



Table 4.3 shows the RPN results for environmental aspects identified in UiTMCS. The RPN is ranked from the largest to the smallest value to depict the highest to the lowest risk of aspect description to the environmental repercussions. The highest RPN is 150, which refers to the energy consumption that is used by most of the activities or operations in the university. Carbon emission and climate change are environmental issues directly tied to energy production and consumption. To mitigate the impact, UiTMCS has an energy management policy that focuses on improving the efficiency of the electrical appliances and lowering energy use.

Chemical waste is generated during teaching and learning, as well as research works. The severity of chemical waste exposure is determined by the length and dose or concentration of the exposure. The occupational safety and health committee (JKKP) of UiTM Sarawak has conducted hazards identification, risk assessment and risk control (HIRARC) at the chemical laboratory for determining the risk posed by the usage of chemicals. The magnitude of the chemical waste is in the medium quantity and the disposal is managed by a competent staff. Institutional waste is generated mostly as a result of daily operations, but the severity is minimal because it is carefully managed.

Aspect Description	Aspect Category	Severity	Magnitude	Occurrence	Control	RPN
Energy Consumption	Air Emission	3	5	5	2	150
Chemical Waste	Scheduled Waste	5	3	3	3	135
Institutional Waste	Solid Waste	2	4	5	3	120
Pesticide	Scheduled Waste	4	3	4	2	96
Wastewater	Liquid Waste	3	5	5	1	75
Clinical Waste	Scheduled Waste	4	3	3	3	72
Ambient Noise	Noise And Vibration	1	3	5	4	60
Green Waste	Solid Waste	2	3	5	2	60
Oil And Grease	Water Pollution	2	3	5	2	60
Food Ingredients	Material Use	1	5	4	3	60
Biological Waste	Scheduled Waste	3	2	3	3	54
Organic Waste	Solid Waste	2	3	3	3	54
Medicines	Material Use	2	3	3	3	54
Exhaust Gas And Particles	Air Emission	2	2	4	3	48
Diesel And Gasoline	Air Emission	2	2	4	3	48
Used Lubricants	Water Pollution	2	2	4	3	48
Paper And Stationery	Material Use	1	3	4	3	36
Hand Tools And Machinery	Noise And Vibration	3	3	3	1	27
Paint And WaterColour	Liquid Waste	3	2	1	3	18
Dust	Air Emission	2	2	1	3	12
Chemical Spillage	Unplanned Release	5	1	1	2	10
Electronic Waste	Solid Waste	5	1	1	2	10
Fuel Spillage	Unplanned Release	1	1	1	3	3

Table 4.3 Risk Priority Number For Each Environmental Aspect

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ENVIRONMENTAL SUSTAINABILITY REPORT 202





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