ENVIRONMENTAL SUSTAINABILITY Report 0727

Universiti Teknologi MARA Sarawak





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Wastes Treatment and Disposal Methods Institutional waste

Majlis Perbandaran Kota Samarahan (MPKS) and Majlis Daerah Dalat dan Mukah (MDDM) collect institutional garbage three times per week. There are 144 collecting storages in the Samarahan, Samarahan 2 and Mukah campuses combined. Institutional waste composed of paper, plastics, packaging, cardboard and woods from the operations in the classroom and office. Recyclable items are segregated at source into different bins before being collected by recycling company. Non-recyclable waste is sent to the disposal site managed by MPKS and MDDM respectively.



Recycling Bins In The Campus

Organic waste

Food waste accounts for 50% of all trash in the campus. Organic waste from food and agricultural waste are the most significant components of solid waste. Agricultural waste from landscaping activities, such as twigs and leaves, are sent to the Samarahan Campus Farm Management Unit to be collected and composted and recycled to cultivate the crops around the campus. Meanwhile, Mukah Campus Aqua and Agrotech Centre produces organic fertilisers where chicken manure is dried and mixed, and these are used for crops and plants on campus. The researchers from UiTM Sarawak Campus have also collaborated with the local authority such as North Kuching City Hall (DBKU) in a project to produce compost from green waste.

Inorganic solid waste

The waste from renovation activities, construction, building maintenance, students' workshops, and research cannot be simply composted. Therefore, the composition of solid inorganic waste. including alass. aluminum, iron, concrete, and wood, is collected, and picked up by the assigned contractor. UiTM Sarawak also resells used computers with expired rental periods by vendors to its staff at low prices. It is one of the efforts to reduce electronic waste disposal and promote the concept of waste reuse. The Infostructure Division also collects used electronic equipment such as computers, cables and printers that are no longer functioning for disposal and returns them to the vendors as shown in Figure 1.4.



Collection Of Electronic Waste

Scheduled waste

Scheduled waste disposal is handled by a contractor registered with the Department of the Environment. The contractor will identify the scheduled waste code following the First Schedule of the Environmental Quality (Scheduled Waste) Regulations 2005. Scheduled waste is stored in durable and suitable containers and can prevent any spillage or leakage that could harm the environment. Science Officers and Laboratory Assistants have also attended courses related to scheduled waste management to ensure the handling of scheduled waste under established procedures. The collection is made three times a week. In the case of clinical trash, Trienekens collects it once every six months from the health care facilities in the campus.



Scheduled Waste Collection And Disposal

Wastewater

The sewage treatment plant at UiTM Sarawak Campus uses the extended aeration method as shown in Figure 1.6. The Facility Unit constantly monitors the quality of wastewater that has been treated from the sewage plant, according to the scheduled period. In addition, three types of research were also conducted at UiTM Sarawak Campus determine the to achievements in the processes and designs of the existing sewage plants. Biological treatments using bacteria are also being studied to improve the existing processes. The research

results found that the treated water from the Environmental Quality (Sewage) Regulations 2009 before being discharged to nearby water sources. Hence, the researchers have also developed a manual on the standard operating processes and procedures of sewage treatment plants at UITM Sarawak Campus.



Sewage Treatment Plant

Editorial Board Members

Honorary Patron Profesor Dato Dr. Jamil Haji Hamali

Advisor Yussri Sawani

Chief of Editor Ts. Dr. Nurzawani Md Sofwan

Authors

Ts. Dr. Nurzawani Md Sofwan Ts. Hemyza Budin Sr. Dr. Ahmad Faiz Abd Rashid Mohd Yazid Mohd Anas Khan Nur Afisha Yusuf Nur Ain Abu Bakar Wan Juliana Emeih Wahed Sr. Dr. Asmah Alia Bohari Affidah Morni Aiza Johari Ts. Madeleine Elna Perreau

Contributors

Assoc. Prof. Dr. Hasmah Mohidin Assoc. Prof. Dr. Juferi Idris Muhamad Syukrie Abu Latip Hamzah Mohamad Ts. Dr. Siti Kartina Abdul Karim Adib Sarkawi Mohamad Husaini Mohd Saleh Muhammad Nazmi Nazarudin Mohd Razif Mohd Rathi



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