



ENVIRONMENTAL SUSTAINABILITY *Report* 2022

Universiti Teknologi MARA Sarawak





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Ts. Dr. Nurzawani Md Sofwan

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Research on **SEWERAGE TREATMENT Plant**

A sewerage treatment plant (STP) is a process of removing contaminants from wastewater through physical, chemical and biological processes to remove contaminants known as effluent. For the system to be effective, the system requires both oxygen and food for the bacteria and protozoa to consume in the biodegradable solution of organic contaminants and the binding of the much less soluble fractions into sludge where it settles to the bottom of the tank. The research was done to evaluate and identify the condition and problem of all STPs in UiTM Sarawak, to conduct research on STP with the best method and approach to produce a system to maintain industry standards, and to come out with a guideline for the operation of the STP. The research was completed, and the findings were published in three different publications, two



Figure 5.14 Site Visit To Sewage Treatment Plant At UiTM Sarawak

indexed journals, specifically in the Journal of Asian Scientific Research and one in the International Journal of Environment and Waste Management indexed by Scopus.

Establishing **LOCAL FERTILIZER** from Poultry Project

SDG 12 recognises that long-term development and economic growth depend on changing how we produce and consume goods. It demands more efficient and environmentally friendly management of materials across the lifecycle, through production, consumption, and disposal. The food supply chain is the pathway by which food moves from farms to our plates. Food is produced, stored, processed, and distributed before being sold by retailers to consumers

In conjunction with this goal, UiTM Sarawak has started the Program Tunas Mekar: Projek Ternakan Ayam Daging UiTM Kampus Mukah since 2021 to support the local demand for fresh chicken in Mukah area (Figure 5.15 and 5.16). The staff responsible for this project are



Figure 5.15 A Visit From Top Management During The Commencement Of Project

En. Muhamad Nasarudin bin Sulaiman and En. Mohamad Indera Indi, assisted by 2 students; Mohd Hishammudin Bin Mohd Denial and Petrus Emang. The project was supervised by Head of Department for Centre of Science, Plantation and Agrotechnology, En. Muhamad Syukrie bin Hj. Abu Talip.

In Mukah, the supply of fresh and organic chicken is rarely available in the wet market. The survey which was conducted before pandemic has shown that there is a demand for fresh market (halal) and organic from local people. Therefore, UiTM Mukah Campus has taken an effort to support this effort by establishing the short-term project of producing chicken. In this project, the chicken feed was supplied from organic waste and nutrient to ensure the optimal growth of chicken. The growth of chicken in terms of their sizes and health were monitored and reported to the supervisor by the assistant.

This ensures that the quality of products meets the requirements highlighted by Department of Agriculture, in terms of size and weight. The waste from the chicken is used as manure to fertilise the plants in Farm Unit such as local vegetable and corn as shown in Figure 5.17. This

effort was taken to ensure that the recycling of manure can be managed properly and contributed to the organic farm production. In addition, the usage of manure in farm production helps in reducing the emission of green house and costs. The percentage of cost to purchase the fertiliser was reduced by half after the utilisation of compose from the waste.



Figure 5.16 Poultry in UiTM Sarawak Mukah Campus



Figure 5.17 Fertiliser Making From Chicken Manure

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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