



Responsible Consumption and Production

Ensure sustainable consumption and production patterns



Berhemat Sebelum Habis

SDG 12, which emphasises responsible consumption and sustainable production patterns, is aptly reflected in the classical Malay peribahasa “*Berhemat sebelum habis*” (be frugal before it runs out). This saying reminds us of the importance of using resources wisely and planning ahead to avoid scarcity and waste. At UM, this principle is practised through comprehensive solid waste management initiatives, including the Zero Single-Use Plastics campaign, campus-wide recycling and waste segregation programmes, and the proper disposal of expired or unused medicines.

By cultivating a culture of mindfulness and shared responsibility, UM encourages its community to make conscious choices that minimise waste and conserve resources. This mindset extends beyond compliance to reflect a genuine commitment to stewardship—caring for the environment, valuing what is finite, and ensuring that sustainability becomes a lived habit. Through these collective efforts, UM continues to reduce its environmental footprint while contributing to the global vision of responsible consumption and long-term resource security.

UM Zero Single-Use Plastic Guideline

Universiti Malaya Sustainable Development Centre (UMSDC) under the portfolio of the Associate Vice-Chancellor (Corporate Strategy) has introduced a phased initiative to eliminate single-use plastics on campus that is representative of Universiti Malaya's commitment in addressing plastic pollution. Kicked off on a smaller scale in January 2024, it builds on the Universiti Malaya Action Plan on Single-Use Plastics and Disposable Items Reduction (2022) and UM Green Events Guideline: A Guide to Running Green Meetings and Events (2023). This initiative is implemented through a strategic whole-campus approach that supports one of the university's three new pillars, Communitize UM.

By March 2024, 12 offices and centres had adopted this practice, reflecting UM's commitment to sustainability and setting a positive example for responsible event management within the campus community. In succession, a transitional period began from August 8 to October 31, 2024. Plastic bottles, particularly mineral water bottles, were replaced with sustainable alternatives such as glass bottles and water jugs. The full enforcement of the zero single-use plastics guideline commenced on November 1, 2024.

Guideline compliance on campus is monitored by UMSDC alongside sustainability coordinators appointed across all portfolios and responsible stakeholders. UMSDC is also authorised by the university's management to issue show cause letters to any stakeholders that fail to comply.

Overall, this large-scale transition represents a fast and high-impact initiative that aligns with Universiti Malaya's vision of becoming a sustainable campus, aiming for carbon neutrality by 2030 and net zero emissions by 2050.

Right: UMSDC distributing glass bottles across different faculties and offices in Universiti Malaya to be used during meetings and events



Above: The document for the UM Zero Single-Use Plastics Guideline. Phase 1: Use of glass bottles, water jugs, and similar items across all portfolios and responsibility centres



A full attendance of 20 student leaders was recorded during the briefing session on the Zero Single-Use Plastics Initiative at Universiti Malaya held on 18 November 2024. Special appreciation is extended to Associate Professor Ir. Dr Khairunisa Muhamad, UMSDC Enculturation Coordinator, and Associate Professor Dr Shakirin Mohd Yusof from the Student Affairs Division (HEP) for their informative sharing and support.

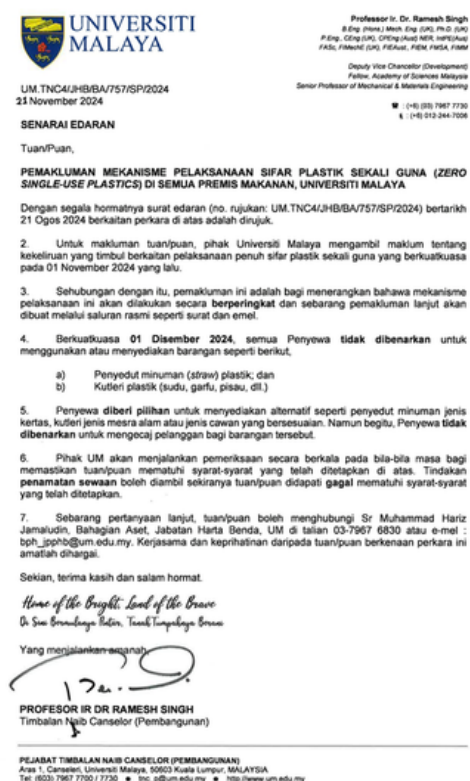


Above: UM student leaders being briefed on the Zero Single-Use Plastics initiative

Subsequently, under the Office of the Deputy Vice-Chancellor (Development) and the Estates Department (JHB), a directive was issued stating that, from 1 December 2024 onwards, all food vendors on campus would be prohibited from using plastic straws and single-use plastic cutlery.

Right: A letter dated 21 November 2024 from the Deputy Vice-Chancellor (Development) regarding the implementation mechanism for zero single-use plastics across all food premises in UM

Below: An infographic for social media outlining the single-use plastics guidelines involving all PTJs and food premises in UM, disseminated to enhance understanding among the UM community



Berkuatkuasa 1 Disember 2024, penyewa premis makanan di Universiti Malaya dilarang menggunakan atau menyediakan penyedut minuman dan kutleri plastik (sudu, garfu, pisau, dll.).

Sumber: Surat Pemakluman Mekanisme Pelaksanaan Sifar Plastik Sekali Guna (Zero Single-Use Plastics) di Semua Premis Makanan, Universiti Malaya [Berterikh: 21 November 2024]



Solid Waste Management in Universiti Malaya

The Universiti Malaya Zero Waste Campaign (UM ZWC) stands as one of the university's most impactful living labs, leading efforts toward a zero-waste and low-carbon campus. Beyond its environmental goals, UM ZWC also serves as a learning and research hub, empowering students and local communities through hands-on experience in sustainable waste management and composting initiatives.

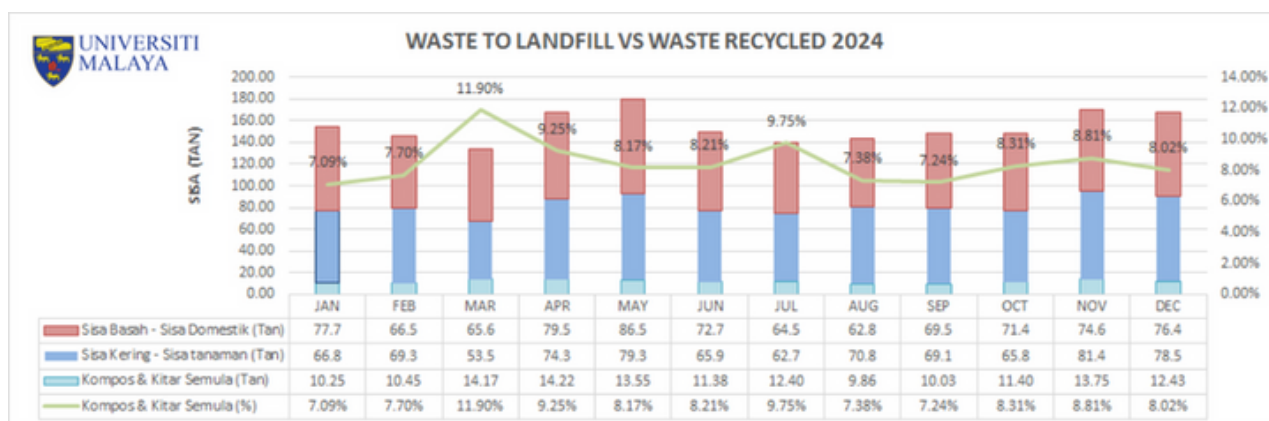
In its fourteenth year, the Universiti Malaya Zero Waste Campaign has since made major impacts towards the environment, the economy and the social aspect. As of 2024, a total of 1,157,000 kg of solid waste has been diverted from landfills. Via the avoidance of landfills, the creation of 5,659,489 kg CO₂ -eq of carbon emission was omitted. In terms of the economy, RM400,000 in waste disposal costs have been saved from the institution's expenditure and a total of RM 130,182 have been generated from training and sale of organic compost and recyclable materials. Aside from that, RM41,000 from textile waste collections have gone towards charity sponsorships and over 13,000 visitors have benefited from knowledge transfer via the program.

Building upon more than a decade of experience, UM ZWC has also refined its composting process by incorporating biochar into its formula, producing a more effective and nutrient-rich soil supplement. This innovation reflects UM ZWC's ongoing commitment to advancing circular economy practices within the campus while enhancing the quality and impact of its sustainability outcomes.



Above: Briefing session of the Zero Waste Campaign on Sustainable Solid Waste Management

Below: A graph depicting the waste to landfill and waste to recycled comparison in 2024, with the total of compost and recyclable waste reaching 143.89 tonnes



Universiti Malaya Zero Waste Recycling and Buyback

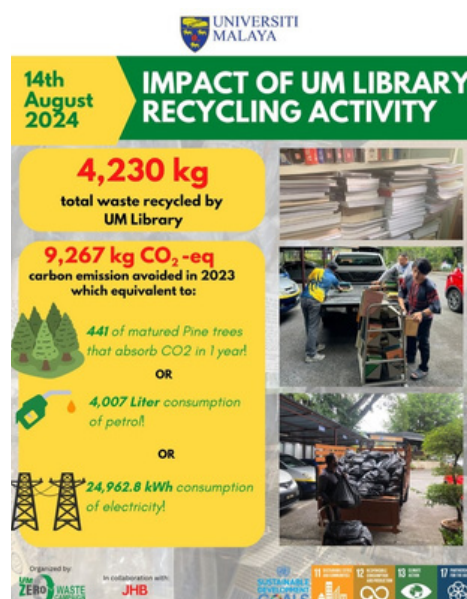
As a continuation from 2023, the Recycling and Buyback program has been consistently carried out throughout 2024 with a total of nine times by Universiti Malaya's own Zero Waste Centre (UM ZWC). With this program being held at least twice per quarter, the capability of the waste centre to take in a multitude of different items also increased.

Some items the Zero Waste Centre accepts as part of the program include paper, aluminium, electronic waste, and used cooking oil. The ongoing success of this program not only reflects UM ZWC's operational continuity but also highlights the increasing awareness and participation of the campus community in sustainable waste practices.



Above: The newest addition to the recyclable materials accepted by Universiti Malaya's Zero Waste Centre: glass and plastic waste

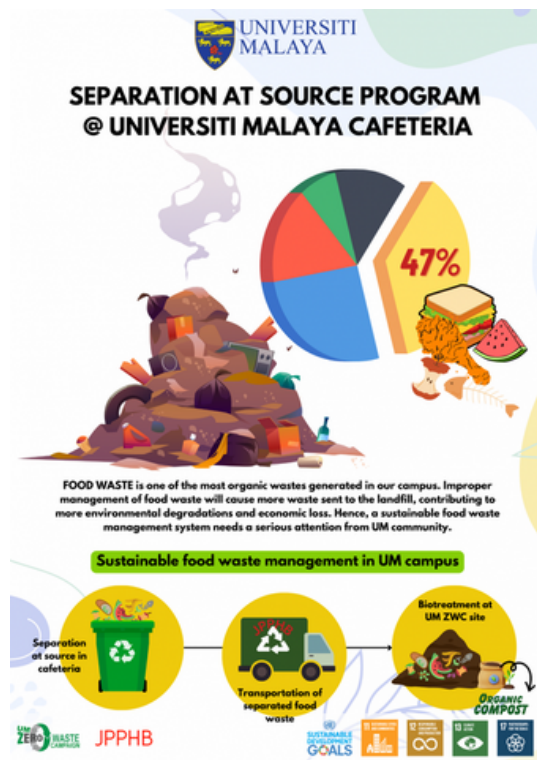
Below: Examples of other types of waste accepted, including used cooking oil; and the impacts of recycling activities carried out by the UM Library



Food Waste Separation at Source Program at Universiti Malaya Cafeteria

The UM Zero Waste Campaign (UM ZWC), in collaboration with the Estates Department (JHB) and the UM Sustainable Development Centre (UMSDC), introduced a food waste separation initiative at source in UM cafeterias. This initiative aims to reduce the amount of food waste sent to landfills, thereby lowering greenhouse gas emissions resulting from improper disposal.

Specially labeled food waste bins were provided to facilitate proper separation, allowing the waste to be collected and treated at the UM ZWC biotreatment site, where it is converted into organic compost. By encouraging proper food waste management, the program supports sustainable campus practices and contributes to broader environmental conservation efforts.



Above: An infographic showing a simplified process of how food waste separation is carried out at the source in Universiti Malaya's cafeterias

Below: The UM Zero Waste Campaign during a briefing session on the implementation of the Food Waste Separation Programme and how it is put into motion

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Sustainable Syawal at Universiti Malaya

Via a combination of cultural celebration and sustainability, University Malaya's Syawal Event was held with no single-use plastic at the event. According to Associate Professor Dr. Zeeda Fatimah Mohamad, it is hoped that the event organised will become a benchmark of other university events with its incorporation of sustainability. As a statement against the norm, event attendees were encouraged to bring their own utensils while mineral water bottles were not provided at the event. It is hoped that the organisation of the celebration will bring Universiti Malaya to become a sustainable and carbon neutral campus aspirations by 2030 and contribute less to the current plastic waste and pollution. The event was well received by over 6000 guests, including university leadership, staff and dignitaries amongst the high profile list of attendees. Following the celebration, a total of 200kg of food waste was collected and turned into compost as is the norm in Universiti Malaya in addressing the disposal of food waste.



Above: Attendees of the Sustainable Syawal event enjoying the celebration while separating food waste and avoiding single-use plastic utensils

Below: A participant showcasing her team's fashionable creations made from recycled materials during the Eco Fashion Show

Eco Fashion Show

As part of the Creative Committee initiatives of the Dayasari Residential College (KK5), an Eco Fashion Show was successfully organised in February 2024. Participants showcased their out-of-the-box creations, including wings, tiered dresses, corsets, and handheld props made from a variety of recycled materials. Awards were presented to the dedicated student teams to recognise their efforts in making sustainability not only meaningful but also fashionable.



Youth Empowerment Soars with YES Program 2.0

The Youth Empowerment for Sustainability (YES) Program 2.0 showcased two remarkable youth-led innovations from Universiti Malaya that are redefining sustainability through creativity and science. The first, “Pills to Art” by the Youth for Global Antimicrobial Stewardship (YGAS) team, guided by Dr. Muhamad Afiq bin Aziz from the Faculty of Science, transforms unused and expired medication into art pieces to promote awareness on responsible disposal and antimicrobial resistance. The second, “Plastic-Eater” by Plantastic 4 under the mentorship of Dr. Fong Chng Saun from the Institute for Advanced Studies (IAS), uses eco-friendly microbes to break down plastic waste into biodegradable materials, offering a sustainable solution to plastic pollution.

Both teams received RM 2,000 in cash and RM 15,000 in grants to develop their projects further, with Dr. Sarah Abdul Razak from the Faculty of Science overseeing their implementation. Strengthened by a new MOU between Universiti Malaya and Watsons, the program bridges academic research and industry collaboration to support youth-led environmental innovation. With groundbreaking ideas, expert guidance, and strong institutional backing, YGAS and Plantastic 4 are set to redefine sustainability in their respective fields as they work toward creating a sustainable and impactful legacy.



Above: Dr. Sarah Abdul Razak addressing attendees at the YES Programme 2.0 at Universiti Malaya, along with a group photo of all participants

Below: The Youth for Global Antimicrobial Stewardship (YGAS) and Plantastic 4 teams with their awards from Watsons



PASUM Eco Culture Explorace

Aligned with the Universiti Malaya Sustainable Development Centre (UMSDC)'s mission to "Inspire, be Inspired," the Centre collaborated with the Centre for Foundation Studies in Science (PASUM) to cultivate a culture of sustainability among new students during orientation week. Through the Eco-Culture Explorace, students were introduced to hands-on sustainable practices such as food waste separation, recycling, reducing single-use plastics, and conserving water and energy. The initiative aimed to encourage students to adopt green practices from the beginning of their academic journey, fostering a long-term commitment to a carbon-neutral and eco-conscious lifestyle within the UM community and beyond.

Clothes Swap

Putting the concept of "one man's trash is another man's treasure" to practical application, UMSDC in collaboration with UM ZWC hosted its first campus-wide clothes swap program. The event, held at the Raja Dr. Nazrin Shah Residential College cafeteria, attracted around 200 participants from the Universiti Malaya community. By the exchange of old garments within the community, the initiative aimed to raise awareness about upcycling, which transforms and repurposes old products into new, usable items. The clothes swap also aimed to bring awareness to the large amount of textile waste that contributes to 5% of Malaysia's landfill content and the overall industry that generates billions of tonnes of greenhouse gasses annually.

Overall, the event was a tremendous success, with new clothes that had price tags attached and traditional wear that were also seen donated within the community.

Right: Universiti Malaya students browsing through the free collection of garments at the Raja Dr. Nazrin Shah Residential College cafeteria



Above: Associate Professor Ir. Dr. Khairunnisa Hasikin engaging with foundation students during the Eco Culture Explorace briefing

Below: Student groups announced as co-winners for their Eco Culture Explorace video submissions



AW@S (Agronomics Waste System)

The Agronomics Waste System (AW@S) was formed by staff from the Institute of Biological Sciences, Faculty of Science, Universiti Malaya. As its name suggests, the main purpose of the system was to address agricultural waste management issues, especially the agricultural waste generated by the Faculty of Science. The huge impact made via the establishment of the system can be illustrated by seeing how 7200 kg of agricultural waste, 8000kg of leftover mushroom chunks from research projects produced yearly, as well as 20 kg of dry goat manure were successfully diverted from landfills and being converted into compost.

Additionally, the staff created a new collapsible composting bin that is easily assembled and portable, which is named the Agroflap. Despite being initially designed for campus use, the innovation was successfully extended to external communities in urban areas in Kuala Lumpur, Kepong, Semenyih as well as Perlis and Terengganu. The significant potential and substantial benefits it offers to students, staff, and local communities is well acknowledged. Overall, AW@S not only exemplifies sustainable waste management within the university but also serves as a model for community-driven environmental innovation across Malaysia.



Above: Group photo of the AW@S team

Below: Associate Professor Dr. Rosazlin Abdullah (second from right) with the Agroflap — a collapsible composting bin



Safe Disposal of Expired or Unused Medicines Initiative

Klinik Universiti Malaya (UM) launched the Safe Disposal of Expired or Unused Medicines initiative in July 2024 to educate the campus community on proper and sustainable methods of medicine disposal.

According to Dr. Zuraidah Mohamed, Director of Klinik Universiti Malaya, expired medicines may lose their effectiveness and pose potential health risks if consumed. Improper storage of medicines also increases the risk of accidental poisoning, particularly among children.

Through this initiative, members of the UM community are encouraged to bring unused or expired medicines to Klinik Universiti Malaya and deposit them in designated collection bins. Accepted items include capsules, liquids, creams, injections, and eye drops.

Dr. Lee Hong Gee, lecturer at the Faculty of Pharmacy and lead researcher of the Safe D.U.M.P. project, highlighted that improper disposal of medicines—such as discarding them into rubbish bins, sinks, or toilets—can negatively impact the environment. Dr. Lee also emphasised the importance of patients completing their prescribed medicines and storing them appropriately to prevent contamination and environmental damage.

Professor Ir. Dr. Abdul Aziz Abdul Raman, Acting Registrar of UM, commended the initiative as an effective educational and awareness programme for both the campus community and the public.

Below: Pictures depicting the officiating of the Safe Disposal of Expired or Unused Medicines Initiative



Circular Economy Fair

The CycleXChange Fair, organised by GBH0033 Semester 1, was held on 21 December 2024 at the Institute for Advanced Studies, Universiti Malaya. The event brought together students and the university community in a vibrant celebration of sustainability and creativity through the circular economy concept. A range of pre-loved items, recycled and upcycled products, arts and crafts, and live busking sessions set the lively atmosphere for visitors to enjoy. Via its engaging and educational activities, the fair successfully promoted mindful consumption and community participation.

Overall, CycleXChange served as a meaningful platform for students to showcase their innovative approaches toward a more sustainable future. The event also reflected Universiti Malaya's commitment to providing a supportive environment that nurtures creativity, environmental awareness, and community-driven sustainability efforts.



Above: A showcase of the registration and handicraft booths at the venue

Below: Students setting up their booths for the Circular Economy Fair, featuring the sale of preloved books and clothes, as well as a plant adoption corner



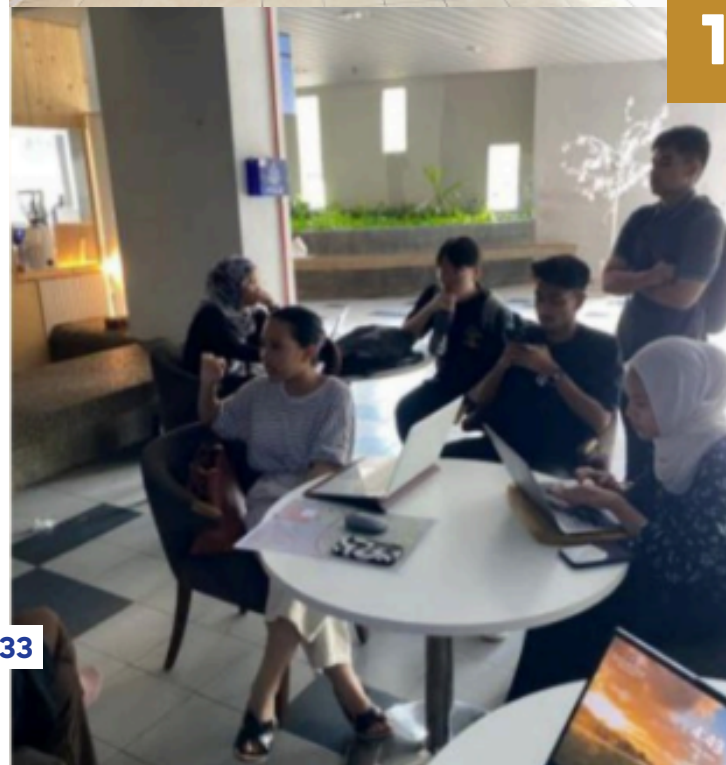
Kitar Semula Pintu ke Pintu

The Kitar Semula Pintu ke Pintu programme, a Service Learning Malaysia–University for Society (SULAM) recycling initiative, was held on 20 April 2024 in collaboration with the community of Kampung Bukit Cherakah. With a population of approximately 700 residents, the project implemented a door-to-door collection system through which community members could exchange recyclable items—such as plastics, cardboard, used clothing, scrap metal, and aluminium cans—for essential daily goods.

This barter-based approach not only encouraged active participation but also served as a practical method to reduce household waste and promote sustainable living practices within the community. To further enhance environmental awareness, the project incorporated educational activities aimed at increasing understanding of sustainability and the importance of recycling. By offering one essential item for every kilogram of recyclable material collected, the initiative provided tangible incentives for participation, fostering long-term behavioural change.

As a result, the program successfully cultivated a recycling culture, contributed to a cleaner environment, and empowered residents to take collective responsibility for sustainable development—reflecting a meaningful and community-driven response to environmental challenges

Right: SULAM students engaging with the local community to plan and host the door-to-door recycling programme



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Preloved For Love

The "Preloved for Love" project is a Service Learning Malaysia-University for Society (SULAM) initiative aimed at addressing environmental and social welfare issues within the university community. Held from 19 to 20 May 2024, the project featured a "thrifting" event promoting the recycling and reuse of preloved items in an effort to reduce domestic waste and environmental pollution. This initiative supports responsible consumption and production, aligning with SDGs 12 and 13. It also provides hands-on learning experiences about the benefits of recycling and social responsibility, contributing to environmental awareness and supporting SDG 15.

Beyond its environmental focus, Preloved for Love offers economic benefits by enabling community members to earn extra income through the sale of gently used goods. This promotes local entrepreneurship and supports SDG 8. The project also strengthens social bonds within the community, fostering inclusivity and unity in line with SDG 11. By reducing waste, the initiative helps protect both terrestrial and marine ecosystems, contributing to SDG 14. Overall, it is a high-impact, multidimensional program that integrates environmental, social, and economic efforts to enhance sustainability within and beyond the university.

Below: Programme attendees taking part in fun activities and browsing preloved items for sale at the Preloved for Love project

