



SUSTAINABILITY

REPORT

2024



Wisdom in Words

The cover of the Universiti Malaya Sustainability Report 2024 features a batik design as a visual gateway to the report's deeper narrative—one that is grounded in classical Malay *peribahasa*. While the batik symbolises our national identity and cultural heritage, the heart of this report lies in the integration of *peribahasa* to frame all 17 Sustainable Development Goals (SDGs). These timeless proverbs encapsulate values of wisdom, balance, collective responsibility, and respect for the environment. By interpreting the SDGs through *peribahasa*, UM localises global aspirations into principles that are familiar, meaningful, and rooted in the moral fabric of our community. The batik on the cover therefore serves as a cultural prelude—an introduction that reflects the spirit of tradition—while the true narrative unfolds through the *peribahasa* that guide and deepen our sustainability commitment.

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Vice-Chancellor's Introduction

Where Bright Minds Lead a Sustainable Future



It gives me great pleasure to present the Universiti Malaya (UM) Sustainability Report 2024, which reflects our collective dedication to shaping a more resilient, inclusive, and sustainable future. As Malaysia's leading university, UM recognises that our responsibility extends beyond academic excellence — we are a catalyst for sustainable transformation and a living model of environmental stewardship for the nation and region.

The year 2024 marked a pivotal step in UM's journey towards a carbon-neutral campus with the drafting of the UM Net Zero Blueprint 2030 and the introduction of the Guideline for Zero Single-Use Plastics across the university. These initiatives mark significant strides in our journey towards carbon neutrality aspirations, reaffirming our commitment to decarbonisation through responsible consumption, energy efficiency, and sustainable campus governance.

A defining moment of the year was the unveiling of our renewed strategic direction, which places innovation, inclusivity, and sustainability at the heart of UM's future. In conjunction with this, we introduced the university's new statement — “Home of the Bright, Land of the Brave” (*Di Sini Bermulanya Pintar, Tanah Tumpahnya Berani*) — a phrase that captures the spirit of Universiti Malaya as a place where bright minds flourish and courageous hearts lead. This statement embodies our shared commitment to nurture excellence, courage, and resilience within the UM community, inspiring all to contribute boldly towards a sustainable and inclusive future.

Guided by the principles of the 17 United Nations Sustainable Development Goals (SDGs), UM continues to embed sustainability across its governance, teaching, research, and community engagement. These global goals serve as the foundation of our actions — ensuring that every initiative contributes to environmental stewardship, social well-being, and economic prosperity in balance.

Looking ahead, UM will continue to strengthen partnerships, accelerate innovation, and foster a culture of responsibility that bridges disciplines and communities. Sustainability is not a destination but an enduring journey — one that unites us in the pursuit of knowledge, virtue, and service. Together, we will ensure that Universiti Malaya continues to stand as a beacon of sustainability, courage, and hope for generations to come — to Inspire, and Be Inspired.

Professor Dato' Seri Ir. Dr. Noor Azuan Abu Osman
Vice-Chancellor, Universiti Malaya





No Poverty

End poverty in all its forms everywhere



Berat Mata Memandang, Berat Lagi Bahu Memikul

SDG 1, which seeks to eradicate poverty in all its forms, is powerfully reflected in the classical Malay *peribahasa* “*Berat mata memandang, berat lagi bahu memikul*” (“heavy are the eyes that see, but heavier still the shoulders that carry”). This proverb reminds us that while hardship may be observed, the weight of lived experience is far greater, and it is this understanding that shapes Universiti Malaya’s (UM) approach to poverty alleviation. Within the university, comprehensive financial and welfare assistance ensures that students are not denied access to education due to economic constraints. These efforts are strengthened by initiatives that foster resilience and opportunity, enabling students to complete their studies with dignity and confidence.

Beyond campus, UM partners with communities to enhance economic capacity and access to essential services, combining skills development, enterprise support, and humanitarian outreach to promote social well-being. Such initiatives reflect a holistic commitment that addresses both immediate needs and long-term aspirations. At the policy level, UM contributes thought leadership and evidence-based recommendations across local, national, regional, and global platforms, advancing inclusive frameworks that respond to the multidimensional nature of poverty. In doing so, UM upholds its responsibility not only to witness hardship but to act with empathy and purpose, striving to ensure that no one is left behind.

Providing Support for Students from Low-Income Families

Universiti Malaya (UM) offers a broad range of assistance to ensure that students from low-income households can continue and complete their studies without undue financial strain. In 2024, this included over RM2.3 million in welfare assistance covering food, allowances, tuition fees, laptops, and transportation, alongside affordable and prioritised housing in residential colleges and off-campus facilities. Free campus buses, subsidised travel programmes such as Jom Balik Kampung and FLYsiswa, and targeted disaster relief further strengthened this support system.

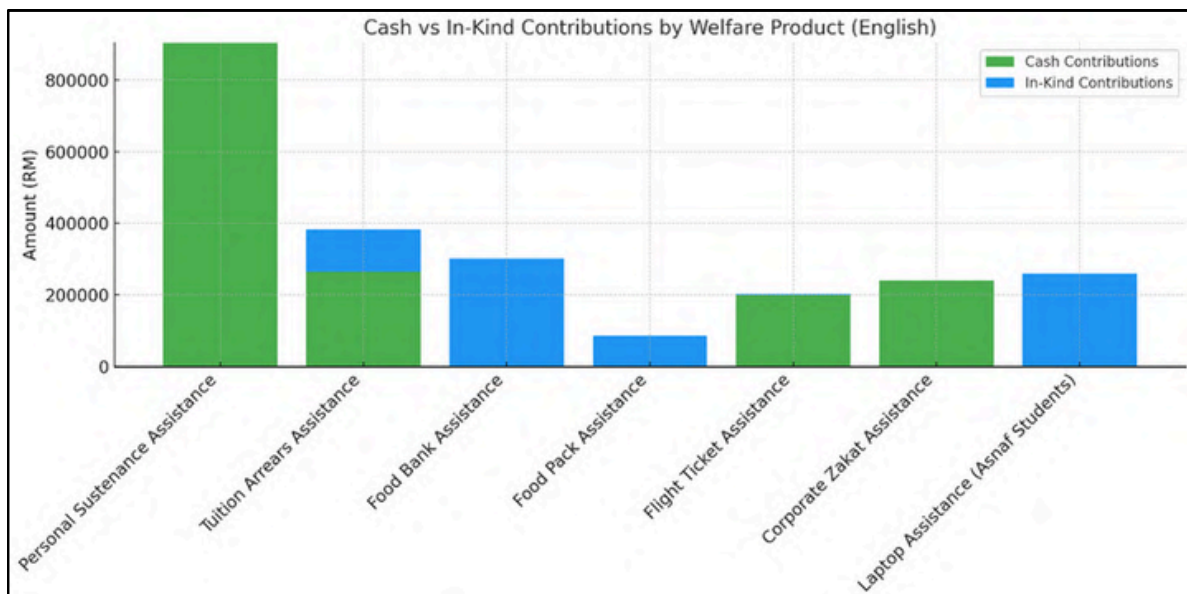
In addition, laptops were distributed to underprivileged students, while student leaders and associations contributed food packs, academic supplies, and other essentials. Student food insecurity and hunger intervention is reported under SDG 2 (see page 42 - 49). Together, these initiatives reflect UM's commitment to safeguarding student wellbeing and enabling equitable access to higher education.

Welfare Assistance Distribution at UM in 2024

In 2024, the Student Affairs Department distributed a total of RM2,378,841.20 in welfare assistance to 7,744 students at UM. The types of support provided included living allowances, tuition fee arrears assistance, food bank aid, food packs, flight tickets, corporate zakat, and laptops for students from the asnaf category.

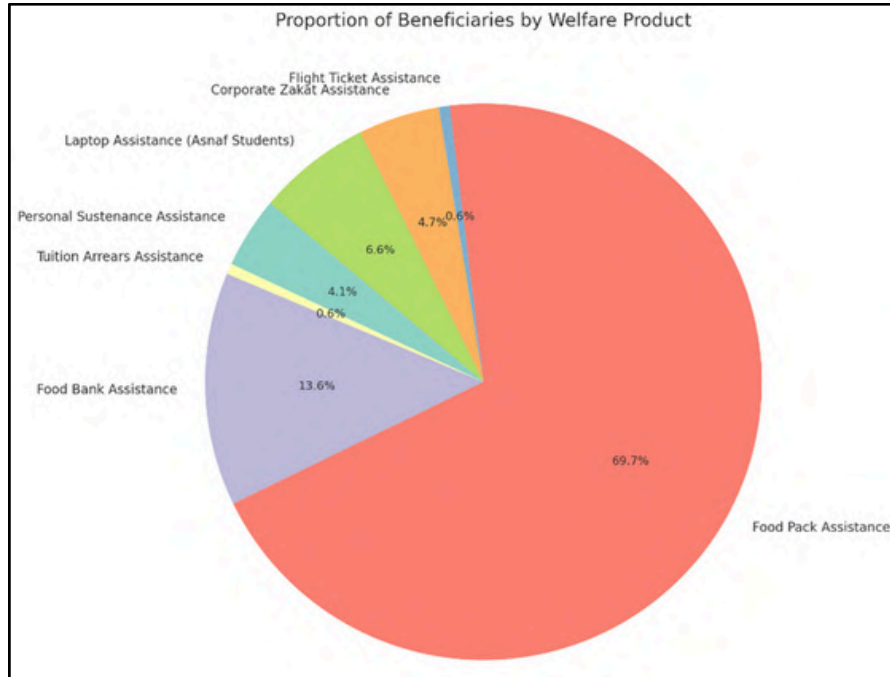
UM extends its heartfelt appreciation to all contributors who made this initiative possible (in no particular order): Tabung Haji, Bodhi Meditation Charity Foundation, Yayasan Pelajaran MARA, Public Islamic Bank Berhad, Federal Territories Islamic Religious Council (MAIWP), Ministry of Domestic Trade and Cost of Living (KPDN), National Higher Education Fund Corporation (PTPTN), PLUS Berhad, Kuala Lumpur City Hall (DBKL), Yayasan Bank Rakyat and Public Bank.

Graph: Data on welfare assistance, showing cash and in-kind contributions by type of assistance



Data source (2025): UM Student Affairs Department

Chart: Data on welfare assistance, showing the proportion of beneficiaries for each welfare product.



Data source (2025): UM Student Affairs Department

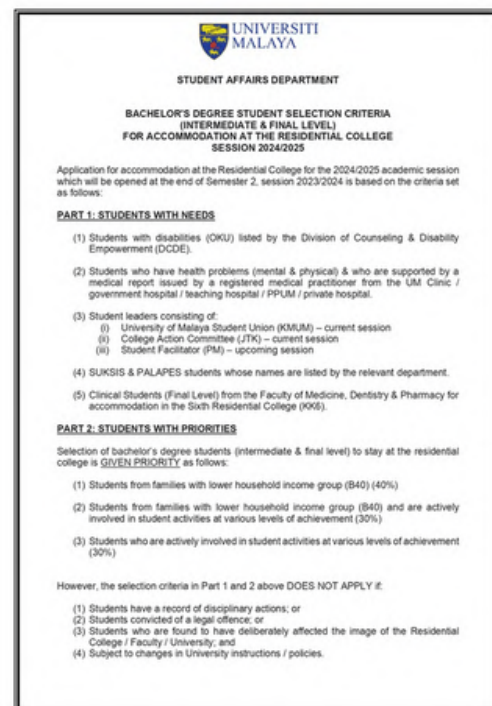
Supporting Low-Income Students through Affordable and Prioritised Housing

All first-year undergraduates are guaranteed accommodation at one of the university's thirteen residential colleges. Beyond the first year, placement follows established selection criteria, grouped into two main categories. Part 1 prioritises students with specific needs, such as differently-abled students, those with health concerns, student leaders, members of SUKSI and PALAPES, as well as clinical students. Part 2 gives priority to students from lower-income households (B40) and those who are actively engaged in student activities across various levels of achievement.

The University provides subsidised on-campus and off-campus housing options to ensure affordability for all students, particularly those from B40 households. This initiative helps to alleviate financial strain and supports students in completing their studies. For instance, at the residential colleges, single rooms are available for as low as RM20.00 per day, while quadruple-sharing rooms cost just RM6.50 per day, offering accessible accommodation without compromising on affordability.

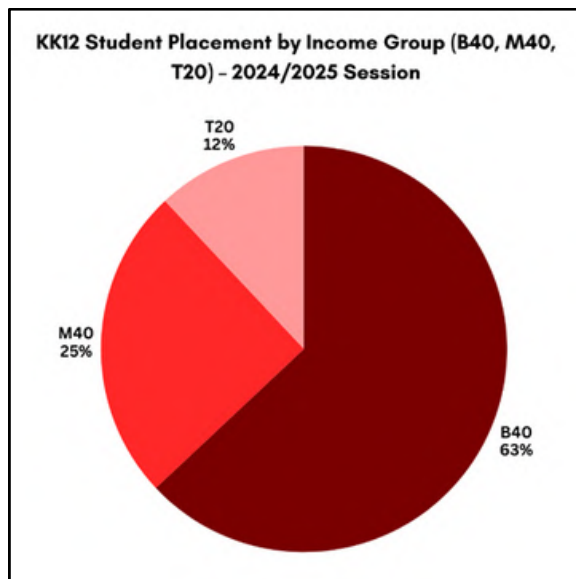
Student accommodation:

<https://hep.um.edu.my/accommodation>



Above: Notice of Bachelor's Degree student selection criteria for accommodation at the residential college session 2024/2025

For example, in the 2024/2025 academic session at Raja Dr. Nazrin Shah Residential College (KK12), out of a total of 656 students accepted into the college, the following is the percentage breakdown by income group (B40, M40, and T20) under Part 2 of the selection criteria: B40 (63%), M40 (25%), and T20 (12%).



Additionally, the Student Affairs Department (JHEP), in collaboration with the UM Student Union (UMSU), provides off-campus housing options for students, particularly those who did not secure placement in a residential college. These include more affordable bungalow-style residences located on Universiti Malaya's properties outside the main campus, collectively known as Rumah Kediaman Siswa KMUM (RKS) or UMSU Student Residential House (SRH). This initiative also serves as an important support system for low-income students by offering them continued access to secure and affordable housing near campus.

Chart: Income group distribution (B40, M40, T20) of students placed at Raja Dr. Nazrin Shah Residential College (KK12) for the 2024/2025 academic session, based on Part 2 selection criteria (students from lower-income families and those actively involved in student activities). **Data source (2024):** Raja Dr. Nazrin Shah Residential College (KK12)



Above: YBr. Prof. Dr. Zamri Radzi, Deputy Vice-Chancellor (Student Affairs), visited the 3rd and 8th Residential Colleges to observe current conditions and facilities, accompanied by the respective Principals

Transport Support for Students

UM provides free campus bus services from 7.30 a.m. to 10.00 p.m. daily — with the exception of certain days such as public holidays and weekends — to ensure safe, reliable, and cost-free transportation for all students. This service particularly benefits students from low-income backgrounds who rely on campus mobility to attend classes, access university facilities, and fully participate in campus life.

Aside from that, several free transportation services were also provided, such as:

- Student facilitators assisted in welcoming students from Kuala Lumpur International Airport to UM, especially those from Sabah and Sarawak who were not familiar with Peninsular Malaysia.
- The Office of the Deputy Vice-Chancellor (Student Affairs) and the UM Student Affairs Department partnered with Touch 'n Go eWallet and Easybook to jointly sponsor the return of more than 80 Universiti Malaysia students to their hometowns in Kelantan and Terengganu for the Hari Raya Aidiladha celebrations. The initiative, which took place on 15 June 2024, involved two buses. The collaboration aimed to alleviate transportation costs for students during the holiday season, reducing their financial burden while ensuring a safe and comfortable journey home.
- As shown in the earlier graph (see page 6), flight ticket assistance under the 'Jom Balik Kampung' initiative, supported by Majlis Agama Islam Wilayah Persekutuan (MAIWP), was also offered to students from low-income families, as monitored by the UM Student Affairs Department. The total amount of assistance provided was RM198,475.00.



Above: Student facilitators providing airport pick-up service to UM

Below: Free transportation for students returning to their hometowns



Additionally, UM facilitates the implementation of the government's FLYsiswa initiative. FLYsiswa is a government subsidy programme aimed at reducing the financial burden of air travel for students in public universities, polytechnics, and community colleges under the Ministry of Higher Education (MoHE), as well as matriculation colleges and Institutes of Teacher Education (IPGs) under the Ministry of Education (MoE). The subsidy covers domestic flight routes between Peninsular Malaysia, Sabah, Sarawak, and the Federal Territory of Labuan for the coming year.

UM students participated in the FLYsiswa Carnival Launch Ceremony, organised by the Ministry of Transport (MoT) at Universiti Teknologi MARA (UiTM), Shah Alam, which was officiated by the Prime Minister of Malaysia. During the event, the Prime Minister announced an increase in the FLYsiswa flight subsidy, from RM300 to RM400 per eligible student.

Right: UM students during the launch of FLYsiswa Carnival Launch Ceremony at UiTM



Disaster Relief Assistance for Students

In late November to early December 2024, severe floods caused by the Northeast Monsoon affected several states in Malaysia, with Kelantan and Terengganu being the hardest hit. Over 140,000 people were displaced nationwide. In response, the UM Student Affairs Department, through its Student Welfare Division, provided disaster relief to affected students. Financial aid was channelled through the UM Student Affairs Prihatin Fund to support those whose accommodation, transport or belongings were impacted by the floods.

The fund also provided assistance to students whose vehicles were damaged during a flash flood on the UM campus in Kuala Lumpur caused by a thunderstorm.



Above: Poster for disaster relief assistance for students

Laptop Assistance for Underprivileged Students: Supporting Learning Needs on Campus

On 15 January 2024, the Student Affairs Department (JHEP) distributed laptops to 39 selected students from underprivileged (asnaf) backgrounds. The handover ceremony was officiated by YBrs. Prof. Dr. Sabri Musa, Deputy Vice-Chancellor (Student Affairs), and attended by the JHEP management team. This initiative is intended to assist students in obtaining laptops, which are essential tools for their academic pursuits and learning activities on campus. Recognising that not all students have the financial means to afford such devices, this effort seeks to bridge the digital divide by ensuring equitable access to the technological resources necessary for completing assignments and engaging in academic-related tasks.



Above: Laptop distribution for UM students

Mobilizing Support: Initiatives by Student Leaders and Student Associations

Additional support from student leaders and student associations provides students with access to essential academic resources:

- During the Ihya' Ramadan programme at the Faculty of Law, the Islamic Law Students Association of Universiti Malaya (LISA) provided cash contributions and iftar kits specifically for B40 students.
- Universiti Malaya Students' Union (UMSU) - Faculty of Business and Economics distributed free stationery before final examination week.
- Universiti Malaya Students' Union - Faculty of Business and Economics' free umbrella initiative.



Right: *Ihya' Ramadan programme at the Faculty of Law (top) and UMSU distribution of stationery sets and umbrellas to UM students (middle and bottom)*



Bottom Financial Quintile Student Support

Universiti Malaya (UM) provides targeted financial assistance to students from the Bottom 40% (B40) income group, ensuring that economic hardship does not prevent them from completing their studies. Through the Student Affairs Department, faculties, and the Kesatuan Kakitangan Am Universiti Malaya (KKAUM), support includes scholarships, living allowances, tuition arrears aid, disaster relief, and other tailored schemes. Key initiatives such as the Bantuan Tabung Zakat Pendidikan Pelajar, Program Pembangunan Siswa Sulung 3.O, faculty-based scholarships, and the Bantuan Tabung Biasiswa Pelajaran KKAUM reflect UM's commitment to student welfare.

Postgraduate students also benefit from dedicated schemes including the Universiti Malaya Scholarship Scheme (UMSS), alumni tuition fee reductions, and fee waivers for persons with disabilities and senior citizens. Together, these initiatives reinforce UM's role in supporting students from lower-income households to pursue and complete higher education.

Bantuan Tabung Zakat Pendidikan Pelajar

One of the main sources of financial support is zakat, an Islamic practice of almsgiving distributed to eligible individuals in need, including students. At UM, this assistance is available exclusively to Muslim Malaysian undergraduate students.

Eligibility criteria include:

- Household income below RM5,249
- Not receiving any other scholarship or loan exceeding RM4,500 per semester
- Having at least three siblings currently studying



Above: Poster for Bantuan Tabung Zakat Pendidikan Pelajar session 2023/2024

Bantuan Tabung Biasiswa Pelajaran KKAUM

The Bantuan Tabung Biasiswa Pelajaran KKAUM is managed by the Kesatuan Kakitangan Am Universiti Malaya (KKAUM), a union representing UM's general staff. This financial aid scheme invites applications from KKAUM members or associate members to support the educational needs of members and their children. Eligibility requires applicants to be enrolled in a Bachelor's Degree programme or an equivalent qualification.

Below: Notice for Tabung Biasiswa Pelajaran KKAUM



Program Pembangunan Siswa Sulung 3.0

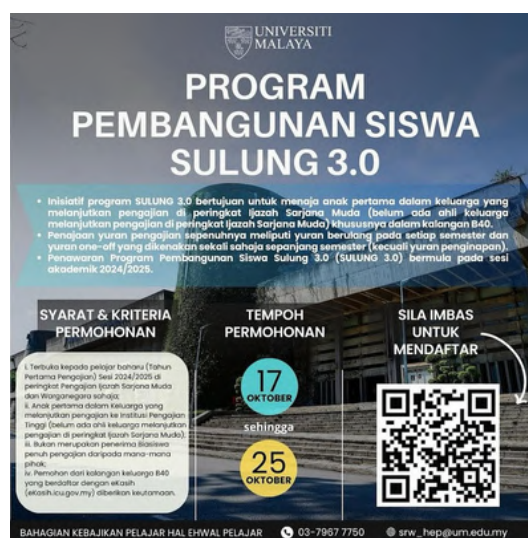
In 2024, UM continued the Program Pembangunan Siswa Sulung 3.0, an initiative aimed at sponsoring the first child in a family to pursue undergraduate studies (i.e., families with no prior members who have attained a Bachelor's degree), particularly among the B40 group. Through this programme, tuition fees are fully sponsored, covering both recurring semester fees and one-off fees charged throughout the course of study.

A total of 94 first-generation students benefited from this initiative, receiving total financial support amounting to RM119,653.60. In addition, 3,609 instances of fee reductions were recorded under this initiative, based on various types of fees such as tuition, service, sports and recreation, library, health, and others.

Table: The number of Siswa Sulung students in 2023 and 2024, along with the amount of fees sponsored

YEAR	NUMBER OF SISWA SULUNG STUDENTS	AMOUNT (RM)
2023	143	304,438.60
2024	94	119,653.60
TOTAL	237	424,092.20

Data source (2025): UM Bursar Office



Above: Poster for Siswa Sulung 3.0

Below: UM Vice-Chancellor presenting offer letters for the First-Generation Student Development Programme



Support for Financial Aid from Various Organisations

UM continues to strengthen partnerships with various external organisations to provide financial aid and support services. These collaborations not only ease the financial burden on students from B40 families but also reflect the shared responsibility between the university and its partners in promoting equitable access to higher education.

For example, a collaboration between UM and the Bodhi Meditation Charity Foundation (BMCF) was formalised through the signing of a Document of Donation (DoD). Through this DoD, BMCF will contribute financial assistance amounting to RM200,000.00 to support non-Muslim UM students from B40 families. Mr. Eng Ging Kiat, Chairman of the BMCF Board of Trustees, signed the DoD on behalf of BMCF, while Professor Dr. Sabri bin Musa, Deputy Vice-Chancellor (Student Affairs) of UM, signed on behalf of the university.

The Bantuan Awal Pengajian initiative provided by Yayasan Bank Rakyat, awarded to 100 selected UM students from B40 income families. Each student received a one-off contribution of RM1,000.00. The award ceremony was successfully held and attended by YBhg. Datuk Nurul Amal Mohd Fauzi, Deputy Chairperson of Yayasan Bank Rakyat; YBrs. Professor Dr. Sabri bin Musa, Deputy Vice-Chancellor (Student Affairs); and the management team of the Student Affairs Department.

Under the Asy-Syakirin Petronas Zakat Fund, a total zakat contribution of RM100,000 was distributed to 100 eligible students at Universiti Malaya. Each recipient received RM1,000. Of the total beneficiaries, 84 were students from the Academy of Malay Studies, while the remaining 16 were from various other faculties across the university.

Below: Mock cheque handover ceremony to UM by an external organisation to support financial aid for students



Scholarships and Financial Aid Provided by UM Faculties

Faculty of Medicine

In the Faculty of Medicine five students from low-income families received financial assistance totaling RM35,897.00 from the Faculty of Medicine Welfare Fund. The assistance covered various purposes, including one-off tuition fee payments, food aid, and living expenses support. The recipients included students from the Bachelor of Medicine and Bachelor of Surgery (MBBS) programme as well as postgraduate (Master's) students. In addition, two MBBS students were awarded full scholarships for the entire five-year duration of their studies. These scholarships were contributions from individual donors.

The Faculty of Medicine manages a Welfare Fund that supports a range of welfare initiatives within the faculty. One of the main objectives of this fund is to provide financial assistance to students and/or staff in need, subject to the approval of the Fund Management Committee. The Welfare Fund is sustained by various sources of contributions, including donations from academic staff of the Faculty of Medicine, individual donors, corporate organizations, and other appropriate sources. In addition, the faculty ensures an annual allocation is provided to the Welfare Fund through internal resources.

Faculty of Computer Science & Information Technology

The Faculty of Computer Science & Information Technology (FCSIT) continues to provide various types of student welfare funds such as the FCSIT B40 Financial Aid (for local only) covering food coupon, internet and others, Special Case Fund, and Disaster Relief Fund (local and internal) – for student's death, close family members' death, accident (involves severe injuries), natural disaster/fire involving loss of property.

Right: Information on financial aid from the Faculty of Computer Science & Information Technology (top) and the Faculty of Science (bottom)

Faculty of Science

The Faculty of Science Student Assistance Fund (SAFFS) has provided support to 15 students in 2024, based on data from the Faculty of Science. This fund is designed to assist Faculty of Science students, both citizens and non-citizens, who face financial challenges. To be eligible, students must have insufficient grants, scholarships, or student loans and must not have received assistance from any other parties. The types of assistance offered include living allowances, tuition fees, hostel or college fees, and house rental. Additionally, the fund provides emergency aid in cases of natural disasters or other critical situations such as the death of parents or guardians, fire, flood, theft, accidents, or medical treatment not covered by the Student Health Clinic. Support is also extended for learning-related purposes, including the purchase of gadgets, internet data, secondary data, or expenses related to fieldwork.

SYARAT KELAYAKAN
Status : Aktif
Program : Ijazah Dasar / Ijazah Tinggi

ELIGIBILITY CRITERIA
Status : Active
Program : Undergraduate / Postgraduate

HUBUNGI KAMI:
Timbalan Dekan (Hal Ehsan Pelajar)
Fakulti Sains Komputer & Teknologi Maklumat
+603 7967 6428
tdhep_fsktm@um.edu.my

CONTACT US:
Deputy Dean (Student Affairs)
Faculty of Computer Science and Information Technology
+603 7967 6428
tdhep_fsktm@um.edu.my

BANTUAN KEBAJIKAN PELAJAR / STUDENT WELFARE FUNDS

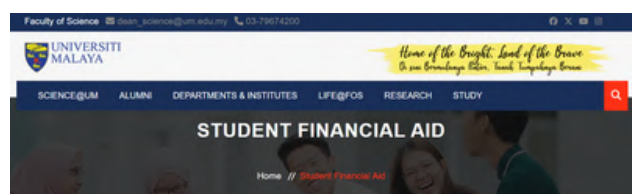
BANTUAN B40 FSKTM / FCSIT'S B40 FINANCIAL AID
BANTUAN B40 FSKTM (TEMPATAN SAHAJA)
• Pelajar Ijazah Dasar
• Pelajar Ijazah Tinggi
FCSIT'S B40 FINANCIAL AID (LOCAL ONLY)
• Undergraduate Student
• Postgraduate Student

BANTUAN KES KHAS / SPECIAL CASE FUND
BANTUAN KES KHAS (TEMPATAN SAHAJA)
• Pelajar Ijazah Dasar yang memerlukan bantuan khas
SPECIAL CASE FUND (LOCAL ONLY)
• Undergraduate Student who requires special assistance

BANTUAN MUSIBAH PELAJAR / DISASTER RELIEF FUND
BANTUAN MUSIBAH PELAJAR (TEMPATAN DAN ANTARABANGSA)
• Pelajar Ijazah Dasar
• Pelajar Ijazah Tinggi
1. Kematian Pelajar
2. Kematian Keluarga (Ibu / Bapa / Penjaga / Anak)
3. Kemalangan (yang melibatkan kecederaan serius)
4. Bencana Alam / Korbakan (Melibatkan kehilangan harta benda)
DISASTER RELIEF FUND (LOCAL AND INTERNATIONAL)
• Undergraduate Student
• Postgraduate Student
1. Student's Death
2. Close Family Member's Death (Parent / Guardian / Child)
3. Accidents (involves severe injuries)
4. Natural Disaster / Fire (involve loss of property)

*Tersedia kepada mahasiswa JK Tatabahasa
*Pelajar M40 yang memerlukan bantuan sila berhubung terus dengan Pejabat Timbalan Dekan Hal Ehsan Pelajar
*Subject to Fund Committee approval
*Students in M40 Category that needed financial assistance, please contact directly to Deputy Dean of Student Affairs Office

<https://faktm.um.edu.my/> https://instagram.com/hep_fsktm



UM's Financial Assistance for Postgraduates

Universiti Malaya remains committed to supporting student welfare, particularly by ensuring access to scholarships and financial assistance that enable students to continue their studies despite economic challenges. Full-time postgraduate students are encouraged to apply for various scholarships, financial aid, and tuition fee reduction schemes offered by the university to ease their financial burden and support their academic journey.

These include:

- The Universiti Malaya Scholarship Scheme (UMSS), which applies to postgraduate students (Master's or Doctor of Philosophy) appointed as Graduate Research Assistants (GRA).
- The Universiti Malaya Alumni Privilege, which offers a 10% tuition fee reduction for postgraduate studies.
- A tuition fee reduction scheme for local postgraduate candidates who are persons with disabilities (PWD) or senior citizens.



Above: Poster of Universiti Malaya Alumni Privilege tuition fee reduction

Financial Aid List Offered by Government, Private and Statutory Body Agencies

The Academic Services Department (ASD) has also provided an exhaustive list of financial aid options for both undergraduate and postgraduate students, including scholarships, financial assistance, and loans offered by government, private, and statutory agencies.

- Financial aid for undergraduate: <https://aasd.um.edu.my/financial-aid-for-undergraduate>
- Financial aid for postgraduate: <https://aasd.um.edu.my/financial-aid-for-postgraduate>



Support for Students from Lower-Middle Income Country

Universiti Malaya (UM) recognises the profound barriers faced by students from lower-middle income nations such as Palestine.

In the spirit of solidarity and equitable access to education, UM offers tuition fee reduction schemes to ease financial hardship and enable students to pursue their academic aspirations.

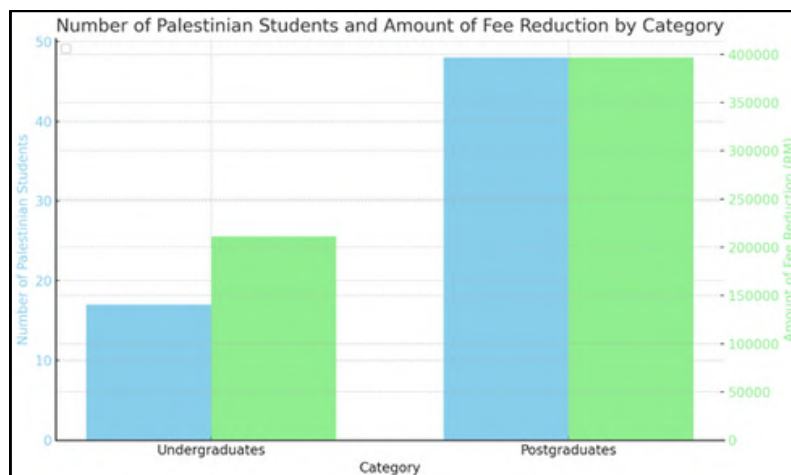
UM Grants Tuition Fee Reductions for Palestinian Students and Children of International Staff

For the 2024/2025 academic session, UM continues to implement the tuition fee reduction to local rates for Palestinian students (undergraduate and postgraduate levels) and children of international staff. The reduction is set at seventy-five percent (75%) for undergraduate programmes and forty-five percent (45%) for postgraduate programmes. This policy will be applied for three academic sessions, from 2024/2025 to 2026/2027 (a period of three years).

In the 2024/2025 academic session alone, a total of 65 Palestinian students (both undergraduate and postgraduate) benefitted from this fee reduction, amounting to RM 607,783.35 in total.

In addition, the Hashim Sani Centre for Palestine Studies — dedicated to advancing academic work in the field of Palestine studies through research, teaching, and intellectual collaboration within and beyond Universiti Malaya — also provides financial support for visiting fellows and research fellows through the Al-Fitrah Foundation.

Figure: Breakdown of number of Palestinian students (academic session 2024/2025) and the amount of fee reduction by category



Data source (2025): UM Bursar Office



Local Start-up Assistance

Universiti Malaya (UM) plays an active role in supporting the creation of financially and socially sustainable enterprises within the community. Through the Program Pembasmian Kemiskinan Tegar (BMT), UM works with urban poor households in public housing neighbourhoods — PPR Kerinchi, PA Desa Rejang, PPR Kg. Muhibbah, and PPR Taman Mulia — to provide skills training, entrepreneurship support, and access to resources. Under BMT, selected participants were also nurtured through the Kudap Kukis initiative, which helped them professionalise food products and reach wider markets.

At the same time, UM fosters entrepreneurship through initiatives such as the UM Deep Tech Startup Accelerator (UMDT) and student-focused programmes under the UM Entrepreneurship Secretariat (UMES). These efforts combine mentorship, workshops, industry partnerships, and market exposure to help participants transform ideas into viable and sustainable businesses. Together, they demonstrate UM's commitment to strengthening economic capacity both within the community and among its students.

National Poverty Eradication: Program Pembasmian Kemiskinan Tegar (BMT)

Universiti Malaya (UM), through the Ungku Aziz Centre for Development Studies (UAC), was selected as a strategic partner for the Program Pembasmian Kemiskinan Tegar (BMT), alongside other public universities in Malaysia. UM was appointed to implement the programme in the Central Zone, focusing on four (4) localities: PPR Kerinchi, PA Desa Rejang, PPR Kg. Muhibbah, and PPR Taman Mulia. These areas are recognised as affordable housing neighbourhoods for low-income groups, particularly those from the urban poor. As a strategic partner for BMT 2022 to 2025, UM holds full responsibility for supervising and monitoring programme implementation to ensure progress toward the national goal of eradicating hardcore poverty by 2025.

Through this initiative, UAC seeks to strengthen the economic capacity of target groups by enabling income generation, the central aim of the programme. This is carried out through an action-based approach whereby heads of households (KIR) receive entrepreneurship and motivational training, complemented by skills development courses in both food-related and non-food-related areas based on their personal interests.

Between 2023 and 2024, participants were supported with in-kind financial assistance in the form of business tools such as sewing machines, blenders, rice cookers, electric ovens, refrigerators, and mixers. Training was offered in hot meal preparation, bakery and pastry, *sambal* and paste production, healthy food products, as well as non-food skills such as floor tiling and sewing.

This integrated approach not only builds confidence but also equips participants with practical skills to generate and increase household income. It enables families to become more financially independent and gradually break the cycle of hardcore poverty. Activities under the programme include motivational and personal development sessions, entrepreneurship development initiatives, and equipment handover ceremonies. Through these efforts, participants have been able to start micro-enterprises and financially sustainable home-based businesses, demonstrating how education, training, and resource provision can directly support poverty eradication.



Kudap Kukis

The Ungku Aziz Centre for Development Studies (UAC) identified high-potential participants to be nurtured and showcased through the Kudap Kukis brand, enabling them to access opportunities in the corporate market. Their participation at the Employees Provident Fund (EPF) Carnival provided a vital platform to introduce Kudap Kukis to a wider audience, bridging community enterprises with corporate buyers and partners. UAC played an active role in strengthening the entire product cycle — from improving sales channels, professionalising packaging and labelling, to streamlining delivery and distribution systems. This holistic support equipped participants with the tools and knowledge to compete more effectively, while building a stronger entrepreneurial foundation. Through Kudap Kukis, UAC reinforced its role as a leader in poverty alleviation by advancing entrepreneurship, strengthening product quality, and building strategic networks that created long-term community impact.



Above: UAC showcasing the Kudap Kukis brand at an exhibition

Below: BMT participants invited to introduce Kudap Kukis at the EPF Carnival

Video Pengenalan Peserta Karnival KWSP 2024:



Puan Rozita



Puan Norziah



Puan Nor Hasimah



Puan Masrusaimi

Continuous Partnership for BMT Project

On 17 April 2024, the Ungku Aziz Centre for Development Studies (UAC) and the Employees Provident Fund (EPF) held a meeting to further develop the direction of the Cookies @UAC – Hardcore Poverty Eradication Initiative Programme (I-BMT), one of UAC's initiatives to support hardcore poor communities in generating income.

Following this, on 3 May 2024, UAC, in collaboration with Agrobank, convened a session with selected I-BMT participants who will be featured at the upcoming EPF Carnival. This engagement was designed to assist participants in promoting their products, expanding business networks, and increasing their income.

A meeting and discussion between UAC and Singer (Malaysia) Sdn. Bhd. was held on 29 February 2024 with the aim of establishing a collaboration for the BMT project as part of a corporate social responsibility (CSR) initiative, specifically for participants involved in sewing activities. Present during the discussion were representatives from UAC, including Datin Sri Prof. Dr. Suhaiza Hanim, Director of UAC, and Dr. Samsul Farid, Deputy Director. Representing Singer (Malaysia) Sdn. Bhd. were Mr. Ken Chan, Manager, and Mr. David Loo, Assistant Manager.

On 23 April 2024, UAC, Universiti Malaya, in collaboration with Kuala Lumpur City Hall (DBKL), organised a Townhall Session for the Hardcore Poverty Eradication Initiative Programme (I-BMT) at the Taman Mulia Multi-Storey Car Park Hall. The session was held to brief new participants on the I-BMT programme, collect data, and distribute voucher contributions to the participants.

In addition to this event, and not directly related to the townhall, another 99 I-BMT recipients from PPR Kerinchi, PA Desa Rejang, PPR Muhibbah, and PPR Taman Mulia also received Bantuan Infaq ANGKASA consisting of essential goods, vouchers for the purchase of daily necessities at Mydin, as well as basic necessity items produced by FGV.



Above: Discussion between EPF and UAC to expand the Projek Cookies @UAC

Below: BMT recipients receiving vouchers to purchase essentials (left) and discussion with Singer on collaboration for BMT projects (right)



UM Deep Tech Startup Accelerator (UMDT)

The UM Deep Tech (UMDT) Accelerator Programme was a structured six-month initiative organised by the UM Centre of Innovation and Enterprise (UMCIE). Its primary objective was to bridge the funding gap between laboratory proof-of-concept (PoC) research and market readiness. The programme supported deep tech startups in transitioning from the early research stage to a commercially viable phase, with validated assumptions and market-ready prototypes. The UMDT Accelerator Programme continued in 2024, reflecting UM's ongoing commitment to fostering innovation, entrepreneurship, and the successful commercialisation of research-driven technologies. The programme was open to all UM researchers, including permanent or contract staff, PhD students, and post-doctoral researchers, all of whom were required to serve as Project Leaders.

UMCIE launched the 2024 cohort of the UM Deep Tech Startup Accelerator (UMDT) in January. On the first day, all participating startups came together for a unique "speed dating" session, designed to foster early connections and set the tone for a transformative journey ahead.



Above and below: Scenes during the launch of the 2024 cohort of the UM Deep Tech Startup Accelerator (UMDT) in January



Building Future Innovators: UMCIE's Public Training Highlights 2024

The Universiti Malaya Centre of Innovation and Enterprise (UMCIE) organised several free online and physical training programmes that were open to the public, specifically targeting aspiring entrepreneurs, researchers, and UM students. These programmes included:

- **China Market Gateway: Entrepreneurial and Innovation Opportunities Workshop** (January 2024) - Aimed to connect tech startups, researchers, and entrepreneurs with the vast opportunities available in the Chinese market.
- **TECH PLANTER Information Session** (February 2024) - Organised in collaboration with Leave A Nest and UMCIE, this session served as a vital platform for researchers and startups applying science and technology across industries. It focused particularly on early-stage startups and pre-startup research teams in sectors such as MedTech, Robotics, IoT, EcoTech, MarineTech, Biotech, Healthcare, FoodTech, AgriTech, and other real-tech domains.
- **Intellectual Property Rights (IPR) Talk** (March 2024) - Covered the fundamentals of patents, copyrights, trademarks, and industrial designs, with practical insights into their real-world applications in fostering innovation and protecting creative works.
- **Patent Novelty Search and Claim Analysis Talk** (May 2024) - Focused on techniques for conducting novelty searches and analysing patent claims to strengthen intellectual property protection.
- **Intellectual Property Talk Series** (June 2024) - Provided valuable insights and practical knowledge on patent-related topics, including novelty searches and patent drafting.
- **Understanding Copyright Talk** (July 2024) - Explored the basics of copyright and its importance in safeguarding entrepreneurs' creative works.

- **Luxury Luggage and Accessories Appraisal with Intellectual Property Insights** (July 2024) - Featured industry experts sharing insights on the appraisal process and the role of intellectual property in the luxury goods sector.
- **Bridging the Gap: From Academic Research to Pharmaceutical Innovation in Drug Discovery Talk** (September 2024) - Examined the challenges and opportunities in translating academic research into pharmaceutical innovation, especially in drug discovery and development.



Above: Selected posters of UMCIE's public trainings in 2024

Student Entrepreneurship and Development Centre and UM Entrepreneurship Secretariat

In 2024, the UM Entrepreneurship Secretariat (UMES) invites UM students who own any form of business or start-up to register under the official list of student entrepreneurs of UM. The primary objective of this registration is to establish a dynamic entrepreneurial community within the university, while providing valuable benefits under the university's support framework. These benefits include in-depth entrepreneurship workshops, opportunities to represent UM in external competitions and programmes, and access to various developmental resources. Through this initiative, students have the opportunity to share experiences, learn from one another, and further develop their entrepreneurial potential with the guidance and support provided.

The Universiti Malaya Startup Apprenticeship Programme (Business Accelerator Course), jointly organised by the Student Entrepreneurship and Development Centre (PKPP), UMES, and the Student Affairs Department, was held between December 2023 and January 2024. The programme was conducted in two phases.

Phase 1: Business Acceleration Course took place from 8 December 2023 to 7 January 2024, delivered across three series (8–9 December, 15–16 December, and 5–7 January). It included talks, training sessions, industry visits, and group pitching activities, with 45 students participating. The course aimed to provide participants with knowledge, exposure, and practical skills in business management. Its objectives included developing a module for the Startup Apprenticeship Programme, introducing group pitching sessions, setting criteria for selecting startup or SME leaders in technology and innovation as mentors, and establishing student selection criteria for apprenticeships.

Phase 2: Startup Mentorship Phase was a three-month mentoring programme focused on startup development. Participants gained valuable entrepreneurial knowledge, experience, and skills, with many expressing hopes that similar initiatives will continue as they inspire interest and broaden students' perspectives in the field of entrepreneurship.



Right: Student entrepreneurs during Phase 1 of the Start-up Apprenticeship Programme 2024





Above: Student entrepreneurs during Phase 1 of the Start-up Apprenticeship Programme 2024

UMES also organised the UMPreneur Expo & Fair 2024, held in May 2024. Among the featured activities were an entrepreneurship forum entitled “How to Start and Fly Up” and an entrepreneurship exhibition, which showcased student-led businesses and innovative ventures.

An entrepreneurship forum entitled “Content Creator: An Opportunity for Entrepreneurs” was organised by UMES in March 2024 during FRENSTER at the 12th Residential College. The programme focused on how content creation can be leveraged to enhance brand engagement. It also provided participants with the opportunity to build networks and connect with other entrepreneurs.



Above: Poster for UMPreneur Expo & Fair 2024

Additionally, UMES collaborated with JKP Academic and Intellectual KK5 to organise the Inspire Lab innovation and coaching sessions, which were held in November and December 2024. This programme was designed to guide participants through each stage of the entrepreneurial process —ranging from ideation and validation to prototyping and commercialisation of their ideas. Among the key activities were sharing sessions by experienced speakers from the business world; the “Timed Think Tank” session, where groups of participants were required to brainstorm and discuss innovative and creative business ideas; a poster design brainstorming session; personalised mentoring sessions for discussions and consultations; and the Market Presentation, where participants confidently showcased their ideas in front of peers and mentors.



Above and below: Inspire Lab innovation and coaching sessions



Local Start-up Financial Assistance

Universiti Malaya (UM), through the Ungku Aziz Centre for Development Studies (UAC), contributes to the Program Pembasmian Kemiskinan Tegar (BMT) by providing in-kind financial assistance to urban poor households in PPR Kerinchi, PA Desa Rejang, PPR Kg. Muhibbah, and PPR Taman Mulia. Between 2023 and 2024, participants received essential business tools such as sewing machines, blenders, and ovens to help them start micro-enterprises and generate household income (see SDG 1 report page 18).

Complementing this, UM also supports student entrepreneurs through initiatives such as the Student Mall, which offers six shop lots and three kiosks at a subsidised rental rate of RM500 per month, significantly lowering start-up costs. In addition, the HatchQuest Bootcamp 2024 provided participants with both training and prize money for winning teams, serving as seed funding for technology and innovation-driven startups. Together, these initiatives demonstrate UM's role in providing financial assistance for sustainable business development within both local communities and its student body.

Entrepreneurship Starts at Student Mall

The Entrepreneurship and Student Development Affairs Division (UKP) at Universiti Malaya is committed to facilitating and supporting students in exploring the possibility of pursuing entrepreneurship as a career pathway. Its mission is to cultivate entrepreneurial mindsets among graduates and to produce graduate entrepreneurs equipped with the right attributes, knowledge, and skills to become sustainable and competitive in the business world.

As part of this commitment, UKP manages the Student Mall, which consists of six shop lots and three kiosk units made available to UM students and alumni to kick-start their businesses. This initiative serves as a form of in-kind financial assistance, where commercial space is provided at a highly subsidised rate of only RM500 per month—well below the typical market rental value.

By providing access to affordable retail space, this support significantly reduces the initial start-up costs faced by student entrepreneurs. This enables them to allocate more resources towards essential aspects of business development such as inventory, branding, and customer outreach.

As a result, the initiative enhances the likelihood of business viability and sustainability. Through this strategic support, UKP plays a key role in fostering real-world entrepreneurial experiences and nurturing a vibrant culture of innovation among UM students and alumni.

Student mall:

<https://hep.um.edu.my/entrepreneurship-amp-volunteerism>

UNIVERSITI MALAYA

STUDENT MALL

KOMPLEKS PERDANASISWA UNIVERSITI MALAYA

RUANG NIAGA UNTUK DISEWA

- Khas buat pelajar / alumni Universiti Malaya sahaja
- Proposal Perniagaan
- Senarai produk / perkhidmatan beserta harga
- Sijil Pendaftaran SSM yang berdaftar di atas nama pelajar/alumni yang memohon (jika ada)

Sila emelkan dokumen berikut ke pengarah_pkpp@um.edu.my sebelum 23 Februari 2024.

Sebarang pertanyaan sila hubungi:
03-7967 7067

HARGA SEWA SEBULAN RM500
TIDAK TERMASUK UTILITI

PUSAT KEUSAHAWANAN & PEMBANGUNAN PELAJAR HEP

Above: Poster for Student Mall rental space

Igniting Startups: UM Students at HatchQuest Bootcamp

UM participated in organising the university-level HatchQuest Bootcamp 2024, a programme designed to empower students to build technology and innovation-driven startups. Over the course of the two-day intensive bootcamp, participants engaged in collaborative learning and innovation with their teams as they prepared to launch their startup ideas.

They received comprehensive training on mastering essential startup strategies, including business model development, market validation, and the creation of compelling pitch decks. On the second day, the programme culminated in a Pitching Challenge, where participants showcased their startup ideas through live presentations and pitch decks, with winning groups receiving prize money as financial assistance and the opportunity to represent UM at the national-level finals.



Above and right: Students during the HatchQuest Bootcamp 2024



Programmes for Services Access

UM implements training and community-based programmes to improve access to basic services for all, particularly among underserved groups. These initiatives address key aspects of health—such as nutrition and hygiene—and standard of living, including housing, shelter, and essential assets, while also providing immediate relief during crises. In Sabah, the 2024 Borneo Local Humanitarian Mission reached remote communities through motivational sessions for schoolchildren, environmental improvements at Rumah Anak Kesayangan Sabah, and food basket distribution to low-income families. Flood-affected communities in Johor and Kelantan likewise benefitted from MASKUM-coordinated relief missions, which provided food aid, post-flood clean-up, and restoration of essential facilities with active participation from UM staff and student volunteers.

Complementing these efforts are targeted programmes that combine training with direct service provision. For Indigenous and rural communities, the H.A.T.I. Project in Pos Betau, Pahang, promoted healthy nutrition through awareness workshops and food preparation activities, while Project REAL in Negeri Sembilan coupled food aid distribution with cultural engagement and housing improvements. Mahabbah Care4Ummah 5.0 in rural Sabah supported new Muslim converts with nutritional aid, educational workshops, and Back to School assistance. Beyond Malaysia, the international BRAVO 7.0 Project in Cambodia focused on health awareness, classroom refurbishment, and hygiene education. Student-led SULAM initiatives—such as Sentuhan Budi Health Journey and Program 3S—further addressed malnutrition, menstrual hygiene, and healthy lifestyle training for children and adolescents. While health-related interventions by Universiti Malaya Medical Centre are discussed in more detail in the SDG 3 report (see page 75 - 80), other forms of support, such as the SWRC Community Outreach Programme, also enhanced financial literacy and social protection awareness, equipping participants with knowledge and tools to strengthen resilience and improve their overall standard of living.



Borneo Local Humanitarian Mission

From 8 to 13 July 2024, a dedicated team of 20 volunteers, under the coordination of the Universiti Malaya Volunteer Secretariat (Sekretariat Sukarelawan UM), carried out a humanitarian mission in Kota Kinabalu and Bongawan, Sabah. This initiative was part of UM's ongoing efforts to improve access to basic services for underserved and remote communities. During the mission, the team conducted motivational and educational sessions with students at SK and SMK Pekan Bongawan, aimed at encouraging academic resilience and fostering personal development.

The volunteers also enhanced the living environment at Rumah Anak Kesayangan Sabah by repainting worn walls, donating furniture, and providing financial assistance. To support food security among low-income families, the MKTB team distributed 30 food baskets to underprivileged residents in the Bongawan area. This multifaceted programme demonstrates UM's commitment to ensuring equitable access to education, shelter, and essential support, particularly for vulnerable communities in Sabah.



Above: UM Volunteer Secretariat humanitarian mission at Kota Kinabalu and Bongawan

Johor Flood Relief Mission

During the flood season in Malaysia, UM, through the Student Affairs Department (Jabatan Hal Ehwal Pelajar, HEP), organised a relief mission under the programme "Misi Menyantuni Mangsa Banjir Johor MASKUM 2024: Phase 2 – UM". A total of five HEP staff members and four student volunteers departed for the Kota Tinggi Parliamentary Service Centre on 17 January 2024 to deliver nutritional food aid to flood victims in Johor. The UM volunteer team successfully distributed 50 food aid boxes to affected families. Kota Tinggi was among the areas impacted during this flood.

Flood relief missions are a well-established responsibility of HEP. In times of crisis, public universities, under the coordination of the Majlis Kesukarelawanan Universiti Awam (MASKUM), consistently mobilise resources to provide assistance to affected communities. Such efforts typically include the distribution of essential food aid, the implementation of post-flood clean-up operations, and the provision of psychosocial support to flood victims.

Kelantan Flood Relief Mission

UM was honoured to take part in the MADANI Volunteer Relief Mission, a national initiative jointly organised by the Ministry of Higher Education (KPT) and the Council of Malaysian University Volunteer Units (MASKUM). This collaborative effort aimed to support communities in Kelantan affected by severe flooding through coordinated humanitarian assistance. On 5 December 2024, the volunteer team from UM, led by the Student Affairs Department and including representatives from the UM Bachok campus, comprised 48 student and staff volunteers. Equipped with the necessary logistics, the team contributed their efforts at Sekolah Kebangsaan Rahmat, Pasir Mas, focusing on post-flood cleanup and restoration.

The volunteers demonstrated strong commitment and high spirits, assisting with the cleaning of key areas in the school, including toilets, the canteen, classrooms, and the school compound. They also helped relocate and clean furniture and equipment that had been damaged by the floods. Additionally, the team worked to resurface broken premix pathways to ensure the safety of the schoolchildren. These collective efforts were part of a broader mission to support flood victims and contribute to the rebuilding of affected communities.



Above: Johor flood relief mission

Below: Kelantan flood relief mission



Health Aid to Indigenous (H.A.T.I.)

The Health For All Project, under the Health and Wellbeing Cluster of the Universiti Malaya Volunteer Secretariat (SEKURUM), conducted a 3-day, 2-night outreach visit to Pos Betau, Pahang to implement the Health Aid to Indigenous (H.A.T.I.) programme. The objective of the H.A.T.I. programme was to raise awareness and provide health assistance to the Orang Asli community in the area.

Among the activities conducted were healthy and nutritional awareness workshops, which included food preparation activities with boarding students of SMK Pos Betau, carried out in a designated kitchen facility. The programme emphasised the importance of practising nutritional and healthy eating habits to maintain physical well-being and prevent various illnesses.



Above: SEKURUM during the Health Aid to Indigenous (H.A.T.I.) programme

Mahabbah Care4Ummah 5.0'

A community service programme organised by students from the Academy of Islamic Studies, Universiti Malaya (UM), was carried out in remote communities in Pitas and Ranau, Sabah, as part of an initiative aimed at nurturing compassionate individuals who are socially conscious and engaged with the surrounding community. A total of 24 student volunteers from the Department of Shariah and Management took part in the programme, titled 'Mahabbah Care4Ummah 5.0', which reached nearly 300 new Muslim converts (*muallaf*) from the Bajau and Dusun ethnic groups.

In addition to Care4Asnaf as a strategic partner, the programme was also supported by Little Caliphs International Sdn. Bhd. and the Universiti Malaysia Sabah Four Wheel Drive Volunteer Club (UMS 4WDVC), who assisted with logistics and transportation. Through a range of activities—including workshops on prayer, funeral management, Qur'an recitation, distribution of nutritional food aid, and Back to School assistance—we were given the opportunity to experience firsthand the lives of remote communities, many of whom face significant challenges, particularly in navigating life as new Muslims.



Above: Academy of Islamic Studies students during the Mahabbah Care4Ummah 5.0 programme

Regain Experience Asli's Life Project

The Regain Experience Asli's Life Project, more affectionately known as Project REAL, was a community engagement initiative organised by the Welfare and Community Development Committee of Tuanku Kurshiah Residential College, Universiti Malaya (UM). Project REAL provided students with the opportunity to gain a deeper understanding of the customs and culture of the Orang Asli community, while also fostering the spirit of volunteerism among UM students.

Held on 4 and 5 May 2024 at Kampung Orang Asli Ulu Chembong, Negeri Sembilan, the programme involved students distributing food items door to door, reaching approximately 80 families. In addition, the students painted a mural on the wall of the village community hall and conducted interactive activities with Temuan Orang Asli children.

Below: UM students from Tuanku Kurshiah Residential College during the Regain Experience Asli's Life Project



BRAVO 7.0 (Borderless Aid Volunteering Project)

An international volunteer mission project, conducted in August and September 2024, involved 53 volunteers and was a collaborative effort involving BRAVO 7.0 (Borderless Aid Volunteering Project), the management team of Kolej Kediaman Raja Dr. Nazrin Shah, Pertubuhan Ilmu Kebajikan Dakwah Malaysia (PIKDM), Muslim Care Malaysia, the UM Student Health Clinic, Islamic Medical Association of Cambodia (IMAC), Wedo Educational Center Phum Thmey, and Madrasah Norol Iman. The mission focused on four main areas: healthcare, education, infrastructure, and social engagement in Ponhea Kraek District, Thoug Khmum, Cambodia.

Among the activities conducted, on 29 August 2024, the "*Projek Kelas Ceria*" was carried out, during which all volunteers worked together to beautify classrooms at Wedo Educational Center Phum Thmey. This initiative aimed to create a more vibrant and encouraging learning environment for the students. The following day, on 30 August 2024, the "Personal Hygiene Project" took place at the same school. Activities focused on promoting personal care and hygiene among students, including a briefing on oral hygiene, a toothbrushing demonstration, a demonstration on how to wash one's hair, and a handwashing demonstration. On the same day, the BRAVO team also conducted a home visit programme and distributed kitchen packs to several families in need within the community.

This international mission aligns with Universiti Malaya's commitment to improving access to basic services for all. By focusing on educational support, health awareness, and community infrastructure, the programme exemplifies the university's broader efforts to extend meaningful outreach beyond national borders and uplift underserved communities through action-based volunteerism.



Above: BRAVO team volunteering to improve infrastructure and hygiene in a community area in Cambodia

Sentuhan Budi Health Journey: Thrive to Strive

On 12 May 2024, a group of students from the Bachelor of Nursing Science programme conducted a community project titled "Sentuhan Budi Health Journey: Thrive to Strive." The project was held at Rumah Sentuhan Budi, an orphanage located in Petaling Jaya. The primary objective was to engage and empower adolescent girls residing in the home to make informed dietary choices that could help prevent malnutrition and support healthy development. In addition, the project aimed to enhance knowledge and skills related to menstrual hygiene, thereby strengthening reproductive health awareness among pre-adolescent girls.

A preliminary needs assessment revealed that 85.7% of the pre-adolescent girls possessed very limited knowledge of menstrual hygiene, while 78.6% lacked the ability to make appropriate choices regarding balanced nutrition. Furthermore, Body Mass Index (BMI) analysis indicated that nearly 50% of the girls were either underweight or on the lower threshold of a healthy weight. Based on these findings, the project team focused on delivering targeted health education sessions on menstrual hygiene management and balanced nutrition.

***Below:** Students sharing about healthy food and menstrual hygiene at Rumah Sentuhan Budi orphanage*



Program 3S: 'Santai, Sihat, dan Senyum'

Students from the Bachelor of Early Childhood Education programme, Faculty of Education, conducted a community initiative titled Program 3S: 'Santai, Sihat, dan Senyum' at Taska Sinaran Ceria Montessori on 24 May 2024. The programme engaged four-year-old children in a series of fun and educational activities aimed at promoting healthy lifestyles from an early age. The activities included simple physical exercises and zumba sessions, interactive storytelling focused on nutritious eating, and hands-on experiences such as preparing healthy sandwiches and fruit salads. These activities were designed to be both enjoyable and educational, helping the children learn through play.

In addition to engaging the children, the programme also aimed to educate parents and teachers on healthy food preparation methods that are both appealing and beneficial. By sharing practical approaches, the students hoped to support adults in reinforcing the importance of balanced nutrition and healthy living in young children's daily routines. This initiative reflects the students' commitment to providing a holistic education experience that nurtures children's physical well-being and cultivates healthy habits from an early age.



Above: Students sharing about healthy lifestyle and healthy food at Taska Sinaran Ceria Montessori

SWRC Community Outreach Programme

The SWRC Community Outreach 2024 was held on 12 November 2024 at the Dewan Serbaguna, Faculty of Economics and Administration, Universiti Malaya, organised by the Social Wellbeing Research Centre (SWRC). The event aimed to improve financial literacy and raise awareness on social security, by providing practical knowledge on personal finance, retirement planning, and protection schemes. The programme began with welcoming remarks by Professor Datuk Norma Mansor, Director of SWRC, who emphasised the importance of financial knowledge in building long-term security and resilience.

The first session, “*Urus Wang, Minda Tenang*” by Encik Mohd Khairil Ashraf Mohamad Karid (AKPK), emphasised effective money management to ease financial stress. This was followed by Puan Mastura Rambli (SOCSO), who outlined the benefits of the Skim Caruman PERKESO in managing risks such as injury, disability, and unemployment. In the third session, “*Menyimpan untuk Persaraan*,” Puan Farizan Kamaluddin (EPF) highlighted the need to save for retirement to ensure financial security. The final session, “*Belanjawanku*” by Puan Nik Noor Ainoon Nik Osman (SWRC), introduced a practical budgeting tool for better expense management. Overall, the SWRC Community Outreach 2024 equipped participants with knowledge and tools for sound financial decisions, raising awareness on personal finance and social protection to strengthen individual well-being and economic resilience.



Above: Poster of the SWRC Community Outreach 2024 and sessions on financial literacy

Policies Addressing Poverty

UM actively contributes to policy-making at local, national, regional, and global levels to support the implementation of programmes and policies aimed at ending poverty in all its dimensions. Through the Ungku Aziz Centre for Development Studies (UAC) and the Social Wellbeing Research Centre (SWRC), UM engages in evidence-based research, formal consultations, and high-level dialogues that shape strategies to tackle multidimensional poverty, economic insecurity, and vulnerability among diverse groups. UM's partnerships with multilateral organisations such as the United Nations Development Programme (UNDP), United Nations Children's Fund (UNICEF), and the Asian Development Bank (ADB) also extend its influence into global-facing policy discussions on social protection and inclusive development.

At the local level, UM provides policy guidance and support to state governments and city councils, particularly in Greater Kuala Lumpur, by advising on multidimensional poverty mapping and social protection strategies. These engagements enable the translation of research into practical policy applications that directly improve community well-being and access to services.

At the national level, a significant milestone in 2024 was the formal consultation process for the National Poverty Policy Framework, led by UAC in collaboration with the Ministry of Economy. The study, *From Vision to Action: Proposal for the National Poverty Policy*, underscored the need for targeted interventions, multidimensional strategies, and inter-agency cooperation to eradicate poverty in Malaysia. Complementing these efforts, SWRC's Director, Professor Datuk Norma Mansor, contributed to major national policy platforms, including the Symposium Kebangsaan Menoktah Kemiskinan 2024, convened by the Ministry of Economy and officiated by the Prime Minister.

At the regional level, UM played a central role in the 2nd Regional Social Policy Conference for East Asia and the Pacific, co-organised with UNICEF and Malaysia's Ministry of Women, Early Childhood, and Community Wellbeing Development. The conference convened over 250 delegates from 14 countries and emphasised investment in children as a foundational poverty reduction strategy, while also feeding into wider Asia-Pacific policy dialogues.

At the global level, UM's thought leadership is reflected through contributions to high-impact reports and multilateral dialogues. These include the Asian Development Policy Report 2024: *Aging Well in Asia*, addressing poverty risks among older populations across the region; the SWRC-UNICEF Policy Paper on fiscal space for social investment, particularly child-sensitive protection; and the policy paper *Building a Cradle-to-Grave Care Economy*, which highlighted inclusive approaches to reduce poverty and gender inequality through a robust care economy. In addition, UM's collaboration with UNDP on Malaysia's Multidimensional Poverty Index demonstrates its integration into global UN-led frameworks for poverty measurement and eradication.

Collectively, these contributions demonstrate UM's commitment to shaping inclusive, multidimensional policies that address poverty across life stages and reinforce social protection systems at the local, national, regional, and global levels.

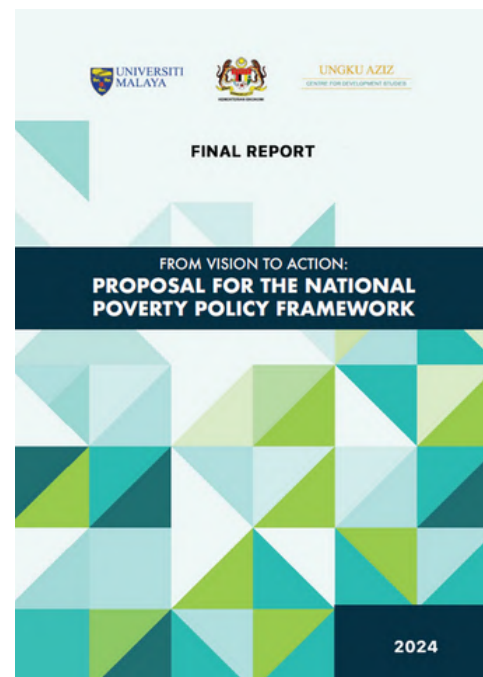
Ungku Aziz Centre's Contribution to National Policy-Making: Formal Consultation for the National Poverty Policy Framework

On Wednesday, 29 May 2024, a pivotal roundtable discussion was held, bringing together representatives from both the private and public sectors to finalize the framework proposal for the National Poverty Policy. This comprehensive study, titled "From Vision to Action: Proposal for The National Poverty Policy," was conducted by the Ungku Aziz Center in collaboration with the Ministry of Economy. The overarching aim of the study was to propose a robust national policy aimed at eradicating poverty in Malaysia.

The event saw active participation from various agencies, each contributing their unique perspectives and expertise to review the proposed policies and suggest potential improvements. The collaborative environment fostered a thorough examination of the framework, ensuring that all aspects were scrutinized and refined for maximum impact and feasibility.

1. During the discussion, agencies engaged in a detailed review of the policy proposals. They provided valuable feedback and constructive criticism, drawing on their experiences and insights from previous poverty alleviation initiatives.
2. Key points of discussion included the need for targeted interventions through the categorization of productive, nonproductive, and vulnerable groups of the poor, as well as the importance of multidimensionality in addressing and eradicating poverty.
3. Participants emphasised the significance of inter-agency cooperation and the necessity of aligning the national poverty policy with broader socio-economic goals.

Following the extensive review and discussion, the research team from the Ungku Aziz Center presented the final framework proposal to the Ministry of Economy.



Above: Cover page of the final report titled "From Vision to Action: Proposal for the National Poverty Policy," led by the Ungku Aziz Centre for Development Studies

Below: Roundtable discussion between Universiti Malaysia and the Ministry of Economy to review the proposed poverty framework policy



Asian Development Policy Report 2024: Aging Well in Asia

Universiti Malaya Social Wellbeing Research Centre (SWRC)'s Director and the President of Malaysia Economic Association (MEA), Professor Datuk Norma Mansor was invited as one of the panellists for the launch of the Asian Development Policy Report 2024: Aging Well in Asia. The inaugural Asian Development Policy Report 2024: Aging Well in Asia explores key dimensions of well-being in old age, including health, employment and retirement, economic security, and social engagement. While its primary focus is on aging populations, it also addresses the risks of poverty and financial insecurity among the elderly. By promoting inclusive policies such as accessible healthcare, adequate pension systems, opportunities for older adults to remain economically active, and strong social support networks, the report supports efforts to reduce poverty and vulnerability in aging societies across Asia.

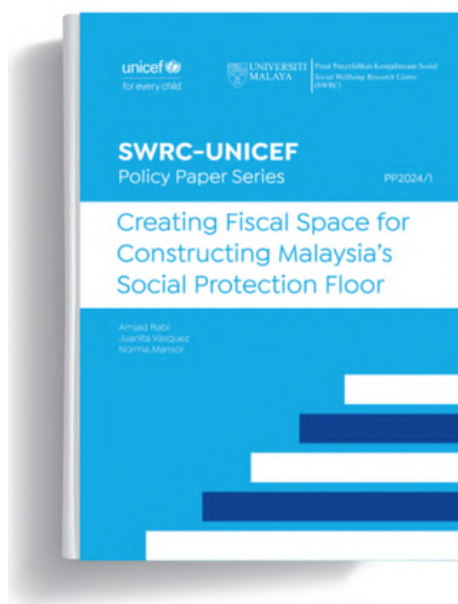
SWRC-UNICEF Policy Paper

A roundtable discussion on Malaysia's fiscal landscape, moderated by Universiti Malaya SWRC Director Professor Datuk Norma Mansor and featuring representatives from SWRC, UNICEF, and Institute of International and Strategic Studies Malaysia (ISIS), highlighted the critical need to create fiscal space for key social investments. The discussion focused on the importance of government allocations towards education, healthcare, and especially child-sensitive social protection measures. These investments are essential for sustainable development and are directly aligned with SDG 1: No Poverty, as they aim to reduce vulnerability, prevent intergenerational poverty, and strengthen social safety nets. The event also marked the launch of a joint policy paper by UM SWRC and UNICEF, reinforcing the call for more inclusive and development-oriented fiscal planning in Malaysia.



Above: Panelist session during the launch of Asian Development Policy Report 2024. Refer to SWRC Bulletin (page 22-23): [HERE](#)

Below: SWRC-UNICEF Policy Paper (2024) and roundtable discussion during the launch. Refer to SWRC Bulletin (page 23-24): [HERE](#)



Policy Paper Launch & Panel Discussion “Building A Cradle-To-Grave Care Economy”

On 21 June 2024, ISIS Malaysia launched a policy paper titled "Building a Cradle-to-Grave Care Economy for Malaysia," addressing the urgent need for a comprehensive care system in response to the country's ageing population and shrinking workforce. The policy paper was written by Lee Min Hui, Calvin Cheng, Shazana Agha, and Anis Farid, with contributions from Professor Datuk Dr Norma Mansor (Director, Social Wellbeing Research Centre, Universiti Malaya) and Dr Teoh Ai Hua (Universiti Malaya), alongside Sofea Azahar. The paper warns that without strategic planning, rising care demands may hinder economic growth and exacerbate gender inequality, particularly affecting women and vulnerable communities.

A panel discussion featuring Professor Datuk Dr Norma Mansor and other experts focused on building an equitable and inclusive care economy that supports all life stages. Investing in a robust care economy helps reduce poverty and economic insecurity among caregivers—especially women—and ensures better social protection for the elderly and other dependents.



Above: Policy paper launch and panel discussion “Building a Cradle-to-Grave Care Economy”. Refer to SWRC Bulletin (page 25): [HERE](#)

Below: Poster for a session during the Simposium Kebangsaan Menoktah Kemiskinan 2024. Refer to SWRC Bulletin (page 25): [HERE](#)



Simposium Kebangsaan Menoktah Kemiskinan 2024

Simposium Kebangsaan Menoktah Kemiskinan 2024 was organised by the Ministry of Economy on 30 September 2024 in PICC Putrajaya. The symposium brought together experts and stakeholders to discuss strategies and initiatives for poverty alleviation in the country. UM SWRC's Director, Professor Datuk Norma Mansor, moderated a session titled “Peranan dan Pendekatan Kerajaan dalam Menoktah Kemiskinan: Perlukan Penyusunan Semula?”.

She was joined by Associate Professor Datuk Ts Dr Ramzah Dambul (CEO Institute for Development Studies Sabah) and Professor Dr Yeah Kim Leng (Member of the Policy Advisory Committee to the Prime Minister) as panelists. The symposium contributed to the development of effective policies and programmes aimed at addressing poverty and improving the lives of Malaysians. The Prime Minister, Datuk Seri Anwar Ibrahim officiated the symposium.

2nd Regional Social Policy Conference for East Asia and the Pacific: Prioritizing Investments in Children in a Changing Region

The 2nd Regional Social Policy Conference for East Asia and the Pacific, held on 22–23 October 2024 in Kuching, Sarawak, brought together a diverse range of stakeholders to address critical regional challenges under the theme “Prioritizing Investments in Children in a Changing Region.” This impactful two-day event was co-organised by the United Nations Children’s Fund (UNICEF) and the Social Wellbeing Research Centre (SWRC), Universiti Malaya, in collaboration with the Ministry of Women, Early Childhood, and Community Wellbeing Development (KPWK), Sarawak. The conference drew over 250 participants, including 100 international delegates from 14 countries across East Asia and the Pacific, highlighting its importance as a platform for high-level dialogue, policy innovation, and cross-border collaboration.

The event commenced with welcoming remarks by Dr Myo-Zin Nyunt, Deputy Regional Director for UNICEF East Asia and the Pacific, and Professor Datuk Norma Mansor, Director of SWRC. In her address, Professor Norma underscored the vital importance of investing in children to ensure a resilient, inclusive, and prosperous future for the region. The opening expert presentation by Professor Naohiro Ogawa of the Asian Development Bank Institute (ADBI) explored ageing trends in the region. This was followed by a panel discussion moderated by Professor Datuk Norma Mansor, which examined demographic shifts and social policy challenges, drawing lessons from China, Thailand, and Malaysia. This two-day conference served as a vital platform for knowledge-sharing and strategic dialogue on social policy across the region. The conference is closely aligned with SDG 1: No Poverty, as it emphasised the importance of early and sustained investments in children as a foundational strategy to break the cycle of poverty. By focusing on child-sensitive policies and inclusive social protection systems, the discussions highlighted how governments and development partners can work together to reduce long-term vulnerabilities and build equitable societies.



Left and below: Photos taken during the 2nd Regional Social Policy Conference for East Asia and the Pacific





Zero Hunger

End hunger, achieve food security and improved nutrition and promote sustainable agriculture



Ringan Tulang, Berat Perut

SDG 2, which aims to end hunger, achieve food security, improve nutrition, and promote sustainable agriculture, is reflected in the classical Malay peribahasa “*Ringan tulang, berat perut*” (those who work hard will never go hungry). This proverb underscores the relationship between effort and sustenance, encouraging a culture of shared responsibility and mutual support for those in need.

At UM, this value is embodied through initiatives such as campus food banks, subsidized meal programs, sustainable urban farming, and food waste reduction efforts. These actions demonstrate UM’s commitment to ensuring that every member of its community has access to nutritious food. By addressing hunger directly and compassionately, the university contributes not only to student well-being but also to the broader global mission of eradicating hunger in all its forms.

Towards a Hunger-Free Campus: UM's 2024 Drive for Student and Staff Food Well-being

In 2024, Universiti Malaya (UM) continued to demonstrate its strong commitment to tackling food insecurity and promoting well-being among its campus community in alignment with Sustainable Development Goal 2: Zero Hunger. Throughout the year, the university implemented a series of comprehensive initiatives at multiple levels central, faculty, residential college, and hospital to ensure equitable access to nutritious food and to support those facing financial hardship. Led by the Student Welfare Matters Department (HEP) and strengthened through collaboration with faculties, student bodies, and external partners, these initiatives reflected UM's holistic and inclusive approach to welfare.

From the UM Food Bank and financial aid schemes to widespread meal distribution programmes such as Iftar Ramadan, Happy Lunch for Needy, and faculty-based food assistance projects, each effort aimed to reduce hunger while fostering a culture of empathy, solidarity, and community care. By sustaining these impactful interventions in 2024, Universiti Malaya reaffirmed its dedication to creating a compassionate and resilient campus environment where every student and staff member can thrive academically, socially, and emotionally without being hindered by food insecurity.

Student Welfare Matters (HEP) in Action: Ensuring No Student Faces Hunger

Universiti Malaya (UM) acknowledges that food insecurity can significantly impact students' well-being, concentration, and academic performance. To address this concern, the Student Welfare Matters (HEP) Unit plays a central role in providing support systems designed to alleviate hunger and ensure that students' fundamental needs are met. The unit is responsible for planning, managing, and implementing welfare assistance programmes that contribute to the holistic development of students, thereby enabling them to thrive in their studies.

A key initiative under this unit is the UM Food Bank (Food Bank Siswa UM), which serves as a vital resource for students experiencing financial hardship and food insecurity. Through this programme, essential food supplies are distributed to students in need, reducing the burden of hunger and promoting equitable access to basic nutrition. This initiative underscores UM's ongoing commitment to student welfare and to cultivating an environment in which academic success is not hindered by economic challenges.



In 2024, the Department of Student Affairs (*Jabatan Hal Ehwal Pelajar, JHEP*) received a substantial food product contribution worth RM344,446.20 from the Persatuan Empayar Kebajikan Malaysia (Empire Project) in collaboration with the Majlis Agama Islam Wilayah Persekutuan (MAIWP). The donation was transferred to the Student Welfare Division, JHEP for distribution to students in need through the Food Bank Siswa UM initiative. This contribution aims to help ease the financial burden faced by underprivileged students in meeting their daily food needs, while also providing moral support and encouragement.

JHEP extends its appreciation to the Empire Project and MAIWP for their generosity and continued concern for student welfare, which reflects their shared commitment and determination to ensure that Universiti Malaya students' well-being remains in optimal condition.



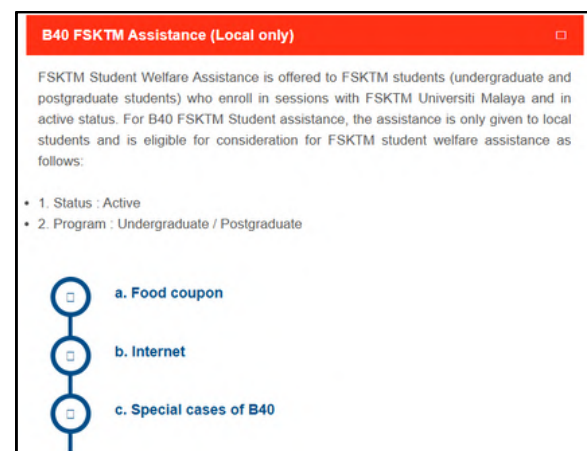
Above: Food Bank Siswa UM

Faculty-Led Initiatives to Address Student Food Insecurity

In addition to the central university initiative, several faculties and responsibility centres have also taken proactive steps to address student food insecurity and ensure that no student is left behind. These efforts demonstrate a collective commitment across Universiti Malaya to uphold student welfare and promote equitable access to basic needs support.

One notable example is the Food Coupon Programme for FSKTM Students, implemented by the Faculty of Computer Science and Information Technology (FSKTM). This initiative forms part of the FSKTM Student Welfare Assistance, which is designed to support both undergraduate and postgraduate students who are actively enrolled in any academic session at the faculty. The programme provides eligible students with food coupons that can be redeemed for meals, helping to ease their daily financial burden and ensure they have access to adequate nutrition.

In particular, the faculty extends special consideration to students from the B40 income group, prioritising local students who meet the established eligibility criteria for FSKTM welfare support. Through this targeted approach, the faculty ensures that assistance reaches those most in need, thereby contributing to Universiti Malaya's broader goal of fostering a supportive and inclusive learning environment.



Above: FSKTM Student Welfare webpage, which includes information on financial assistance and the Food Coupon Programme

APIUM Happy Lunch for Needy: A Continuous Annual Initiative to Support Underprivileged Students

Another noteworthy initiative is the Happy Lunch for Needy 9.0, a continuous programme organised annually by the Academy of Islamic Studies (APIUM), Universiti Malaya. This meaningful initiative aims to provide free nutritious meals to underprivileged students, ensuring that financial hardship does not affect their access to food and overall well-being.

The 2024 edition, known as Happy Lunch for Needy 9.0, marks the ninth consecutive cycle of this ongoing effort. Each cycle continues to uphold the same noble objective to ease the financial burden faced by students in need, promote a caring campus culture, and encourage a spirit of solidarity among staff, students, and the wider university community.



Above: Poster of application for Happy Lunch for Needy 9.0

Faculty and Department-Based Student Financial Aid Initiatives at Universiti Malaya

Apart from these central initiatives, several faculties and departments in Universiti Malaya have developed their own financial aid schemes to support students facing economic hardship. These schemes ensure that no student is left behind due to financial constraints, especially those struggling to afford daily necessities such as food. This faculty-level assistance complements the university's broader welfare efforts by providing targeted and timely support within each academic community.

For instance, the Faculty of Science offers financial aid through its Student Financial Aid Programme, which provides financial support to students experiencing monetary difficulties. Similarly, the Academic Services Department (ASD) manages a dedicated Financial Aid for Undergraduate Students scheme to assist students in overcoming financial challenges during their studies.

These initiatives reflect Universiti Malaya's holistic approach to student welfare one that extends beyond centralised programmes to include faculty-driven support systems, ensuring that all students, regardless of background, have equitable access to educational opportunities and essential living needs.

Furthermore, faculties across Universiti Malaya offer various forms of student aid, ranging from financial assistance to food-related support. Students are encouraged to explore the comprehensive list of available aids and programmes under SDG 1 (No Poverty) page 15, where detailed information and links to each faculty's assistance schemes are provided. These initiatives including food aid demonstrate UM's ongoing commitment to reducing student poverty and ensuring equitable access to education and well-being for all.

No One Left Hungry: Universiti Malaya's Mission Toward Zero Hunger

Under SDG 2 (Zero Hunger), Universiti Malaya (UM) remains committed to ensuring the well-being of its campus community by addressing food insecurity among students and staff. Through a series of targeted interventions, the university provides continuous support to reduce hunger and promote equitable access to nutritious food. These efforts include the establishment of food assistance programmes, meal distribution initiatives, and collaborations with external partners to enhance food accessibility on campus.

In 2024, Universiti Malaya strengthened its commitment to addressing food insecurity through university-wide interventions supporting students and staff in need. Led by the Student Welfare Matters Department (HEP) and supported by student bodies, these initiatives ensure consistent and accessible food assistance throughout the year.

Campus Iftar and Meal Support Initiatives

During 2024, numerous iftar and meal distribution programmes were organised across campus to foster solidarity and provide support for both students and staff. Among them, the Student Off-Campus Committee (JPLK), in collaboration with Wang Zheng Corporation Sdn. Bhd., organised a Special Iftar Ramadan Programme at Masjid TNB, Jalan Bangsar on 23 March 2024, which brought together 120 Universiti Malaya students, particularly those residing off campus. The initiative not only provided meals for breaking fast but also strengthened social and spiritual bonds among participants.

In addition, the Department of Human Resources, together with the Persatuan Kakitangan Akademik UM (PKAUM), Persatuan Pegawai Tadbir dan Ikhtisas (PEKERTI), and Kesatuan Kakitangan Am Universiti Malaya (KKAUM), hosted a Ramadan Iftar Programme on 27 March 2024. This event aimed to reinforce fraternity and cooperation between UM management and the wider university community, reflecting UM's holistic approach to staff well-being.

The Kesatuan Mahasiswa Universiti Malaya (KMUM) also implemented several inclusive initiatives such as “*Jelajah Iftar Ramadan*”, distributing free iftar meals across residential colleges, and the “Free Iftar Distribution at UM Central” on 26 March 2024. Prior to the mid-semester break, KMUM also organised a Free Bread and Water Distribution Drive, ensuring students returning home for Hari Raya had adequate refreshments for their journeys. These central initiatives reflect UM's strong sense of social responsibility and its proactive measures to alleviate hunger within the campus community.

Right: Poster of the Iftar food distribution initiative by Kesatuan Mahasiswa Universiti Malaya (KMUM)



2 Faculty-Led Food Bank and Food Support Programmes

Faculty of Languages and Linguistics

The Faculty of Languages and Linguistics (FBL), through Project B40 & Foodbank 3.0, successfully organised the third edition of its Foodbank Initiative on 18 January 2024, demonstrating the faculty's continuous commitment to student welfare and social responsibility. The programme involved the distribution of essential dry food items and snacks to students from the B40 income group, aiming to ease their financial burden and ensure that their basic needs are met.

This initiative, spearheaded by the FBL Student Union, represents a strong embodiment of empathy in action and highlights the faculty's proactive role in addressing issues of student food insecurity within the university community. Beyond providing immediate assistance, Project B40 & Foodbank 3.0 also fosters a sense of belonging and solidarity among students, encouraging a caring campus culture where peers look out for one another.



Above: Project B40 & Foodbank 3.0 Program at FBL

Faculty of Education

The Faculty of Education continued its long-standing annual tradition of organising the Bubur Lambuk & Iftar Perdana 2024 Programme, held in conjunction with the holy month of Ramadan. This meaningful initiative serves as a platform to strengthen unity and foster the spirit of togetherness among staff and students.

The programme was made possible through the collaborative efforts of the Faculty's Staff Welfare Club (Kelab Kebajikan Kakitangan Fakulti Pendidikan) together with various student associations, including the PhD Student Association, Undergraduate Student Association (Persatuan Pelajar DPP), TESL Student Association, Early Childhood Education Association (PAKK), and the Counselling Student Association.

Their teamwork and dedication were evident throughout the gotong-royong food preparation and distribution activities. This year, more than 600 servings of bubur lambuk were successfully distributed to members of the faculty community as well as students across Universiti Malaya, symbolising the values of compassion, generosity, and shared gratitude that define the spirit of Ramadan.

Faculty of Law

The Faculty of Law also played an active role in supporting student welfare during Ramadan through its meaningful charitable efforts. In 2024, the Islamic Students Association of Law (LISA) led an initiative to provide Ramadan kits and cash assistance to students from the B40 income group, helping to ease their financial burdens and ensure that they could observe the holy month with comfort and dignity. The programme also included the Iftar Perdana, a communal breaking-of-fast gathering that brought together students and staff, fostering a sense of unity, compassion, and gratitude within the faculty community.



Above: Islamic Students Association of Law (LISA) distributed food aid on Iftar Perdana

Residential Colleges Driving Student Welfare and Food Security

Residential colleges across Universiti Malaya (UM) play a vital and sustained role in addressing student hunger, promoting welfare, and nurturing community solidarity through various in-house programmes, food bank initiatives, and inclusive engagement activities. These efforts are instrumental in ensuring that all students, regardless of financial background, have access to adequate nutrition and emotional support, key components for their well-being and academic success.

First Residential College (KK1)

The First Residential College (Kolej Kediaman Pertama – ASTAR) continued its tradition of togetherness through the annual Iftar Perdana on 13 March 2024, the first day of Ramadan. The event offered free meals and beverages to residents and concluded with congregational prayers, fostering unity and spiritual reflection. Beyond festive gatherings, ASTAR also operates its own college food bank, providing ongoing food aid and essential supplies to students in need — reflecting the college's sustained commitment to student welfare.



Above: Iftar Perdana (left) and foodbank (right) at First Residential College

Third Residential College (KK3)

The Third Residential College (Kolej Kediaman Ketiga – KK3) took a proactive step in supporting students facing financial challenges by launching the “*Sarang Kebajikan Serigala*” initiative. Spearheaded by the College Welfare and Social Secretariat, this programme provides free daily essentials and food items accessible to students through the Student Storage Room near Dewan Gemilang Kurshiah. The initiative not only alleviates financial burdens but also fosters a culture of care and mutual assistance among the college community.

Sixth Residential College (KK6)

At the Sixth Residential College (Kolej Kediaman Keenam – KK6), innovation meets compassion through The Gastric Pit, a 24/7 shared cooking space established in collaboration with the University Malaya Medical Alumni Association. This initiative offers residents the convenience of preparing their own snacks and meals at any time, promoting food accessibility, healthy eating habits, and independent living skills. The space has become a focal point for student interaction and collaboration, encouraging a sense of ownership and responsibility within the residential community.



Above: Poster of Sarang Kebajikan Serigala programmes

Below: Opening ceremony of Gastric Pit in Sixth Residential College



Seventh Residential College (KK7)

The Seventh Residential College (Kolej Kediaman Ketujuh – KK7) operates the Gerobok Zaba Foodbank, an initiative made possible through direct contributions from the Pusat Pungutan Zakat (PPZ) in the form of regular food supply donations.

In addition to providing basic food aid, KK7 also champions cultural inclusivity through events such as the Chinese New Year Mandarin Orange Distribution Programme, reflecting the college's commitment to fostering harmony, diversity, and unity among its residents.



Above: Seventh Residential College foodbank programme

Ninth Residential College (KK9)

The Ninth Residential College (Kolej Kediaman Kesembilan – KK9) carried out “*Nine Prihatin*,” a welfare initiative focused on student well-being and community care. In collaboration with the Federal Territories Islamic Religious Council (MAIWP) and Universiti Malaya’s Student Affairs Department (HEP), the programme aimed to ease food insecurity and nurture empathy among residents.

From 5–15 December 2024, more than 150 students received packed meals, bread, and essential food items to meet their immediate nutritional needs. Besides providing support, the initiative strengthened solidarity and social responsibility among participants. This effort reflects KK9’s proactive commitment to student welfare and highlights the value of cross-agency collaboration in sustaining long-term support systems within Universiti Malaya.



Above: Distribution of food items to student

Strengthening Care Through Nutrition Support for UMMC Staff

At the Universiti Malaya Medical Centre (UMMC), several key interventions are implemented to ensure the nutritional well-being, performance, and morale of hospital staff, particularly those engaged in high-demand medical and support roles. Recognising that adequate nutrition is essential to both health and productivity, UMMC has established structured meal provision systems managed by the Department of Dietetics, with a strong focus on food safety, hygiene, and dietary balance.

One of the centre's core initiatives is the provision of daily lunch meals for Operating Theatre (OT) staff, fully funded by the hospital. These meals are carefully planned by qualified dietitians to be halal, balanced, clean, safe, and of high nutritional quality, catering to the diverse dietary needs of staff members. The menu operates on a nine-day rotation, with both regular and vegetarian options provided to encourage dietary variety. Each day, approximately 80 meal packs are freshly prepared and distributed in food-grade disposable containers to ensure hygiene and convenience. In compliance with hospital safety standards, the appointed food contractor is required to submit food samples for microbiological testing twice a year, ensuring continuous monitoring of food quality and adherence to strict safety protocols. This initiative not only safeguards the physical well-being of the surgical and medical teams but also acknowledges their critical contribution to patient care.



In addition to regular meal provisions, UMMC allocates a yearly-funded dry ration and meal budget for on-call staff, recognising the long and irregular hours often required in medical operations. This initiative, managed by the Dietetic Department, ensures that healthcare workers have access to nutritious, convenient, and safe food options during extended shifts. The rations typically include high-fibre biscuits, wholemeal bread, cereal-based beverages, and low-fat or skimmed milk, all designed to provide sustained energy and maintain alertness. Beneficiary departments include Nursing, Emergency Medicine, Security, Pharmacy, Engineering, Forensic Pathology, Biomedical Imaging, Pathology/Laboratory Medicine, and Operations, among others. By addressing the nutritional needs of on-call staff, this initiative enhances energy levels, concentration, and overall staff satisfaction, ensuring optimal performance even during demanding work conditions.

Furthermore, UMMC has implemented a hospital-funded hospitality budget dedicated to the provision of healthy and high-quality food during meetings and official gatherings across its 48 departments and units. Managed by the Department of Dietetics, this initiative ensures that all meeting meals are aligned with Healthy Meeting Guidelines, promoting a consistent culture of wellness within the hospital's professional environment. By offering nutritious options instead of high-calorie or processed foods, UMMC encourages healthier eating habits among its workforce and integrates nutrition awareness into everyday work settings.

Left: Free pack food for UMMC staff

Access to Knowledge, Skills, and Technology for Local Farmers and Food Producers

Ensuring local farmers and food producers have access to knowledge, sustainable agricultural and aquaculture practices, and modern technologies is central to achieving SDG 2: Zero Hunger. Strengthening community capacity for responsible and efficient food production supports national food security while enhancing rural livelihoods and socio-economic resilience. Universiti Malaya (UM) supports this mission through knowledge transfer programmes that equip farmers and aquaculture practitioners with practical skills and updated technologies.

By collaborating with government agencies, industry experts, and local communities, UM expands opportunities for adopting sustainable practices, ensuring scientific advancements are shared widely and inclusively with those driving food production. Refer to the topic “Educational Outreach on Sustainable Land Management for Agriculture” under SDG 15, page 303 - 310, for additional agriculture-related events.

Aquaculture Related Events: IOES Scientific Seminar Series – Sustaining Seaweed Aquaculture

The Institute of Ocean and Earth Sciences (IOES) organised a seminar, “Sustaining Seaweed Aquaculture”, highlighting its importance for nutrition, livelihoods, and ecosystem services in Malaysia’s coastal communities. Marine scientists, producers, entrepreneurs, and policymakers shared knowledge on sustainable cultivation, post-harvest processing, and ecological management, emphasising biodiversity, pollution reduction, and environmentally responsible practices.

The seminar also explored market potential for seaweed-based products in food, pharmaceuticals, and biodegradable materials, showing how sustainable aquaculture can boost local income and economic diversification. By fostering collaboration between academia, industry, and coastal communities, the initiative reinforced Universiti Malaya’s role in advancing the blue economy and promoting knowledge transfer for conservation and food security.



Above: Poster of IOES Scientific Seminar Series – Sustaining Seaweed Aquaculture

Glami Lemi Biotechnology Research Centre

Ensuring access to food security knowledge, skills, and technology among local farmers and food producers is vital to achieving Sustainable Development Goal (SDG) 2: Zero Hunger, particularly in strengthening local agricultural systems, promoting sustainable production practices, and enhancing community resilience. Universiti Malaya (UM), as a premier institution of higher learning and a driver of sustainable innovation, continues to play a pivotal role in empowering communities through agricultural education, knowledge transfer, and technology dissemination.

One notable initiative is the Small Ruminant Management and Breeding Training (LPPRK) Series 3/2024, organised by the Glami Lemi Biotechnology Research Centre (PPBGLUM) in collaboration with the Negeri Sembilan Department of Veterinary Services. This program, held from 8 to 9 June 2024, brought together 26 small ruminant farmers from across Negeri Sembilan to enhance their technical and practical understanding of modern livestock production systems.

The two-day intensive training introduced participants to assisted breeding technologies, emphasizing innovative methods to improve livestock productivity and genetic quality. Farmers also gained exposure to veterinary health management, disease prevention, feed optimization, and animal welfare practices, all critical components in ensuring the sustainability and profitability of small ruminant farming. Beyond technical instruction, the program fostered a collaborative learning environment, enabling farmers to share challenges and best practices while strengthening linkages with experts and government agencies.

By providing a platform for knowledge exchange between academia, industry, and local communities, PPBGLUM's initiative underscores UM's commitment to bridging the gap between scientific research and real-world agricultural application. Such capacity-building programs not only improve farmers' livelihoods but also contribute to national goals in food security, rural development, and sustainable livestock management.

Below: Activities during Small Ruminant Management and Breeding Training (LPPRK) Series 3/2024



UM Empowers Communities to Produce Organic Plant Materials

In addition to research and livestock-focused initiatives, Universiti Malaya (UM) extends its expertise in food security, sustainable agriculture, and environmental stewardship to urban and peri-urban communities. These outreach activities demonstrate UM's proactive role in sharing scientific knowledge, practical skills, and sustainable technologies with local farmers, food producers, and residents to strengthen community resilience and promote sustainable food systems.

This hands-on approach empowered local participants with the knowledge and technical skills to grow their own food using environmentally responsible methods. It also promoted circular resource use, reducing organic waste generation and dependence on external food sources. The programme thus served as both an educational and capacity-building platform, connecting academic expertise with real-world community applications.

On 8 September 2024, the initiative “Strategi Menjamin Pencapaian Sekuriti Makanan Melalui Transformasi Sisa Kebun Kepada Biochar-Kompos (KOMBI)” was implemented in Kepong. UM researchers and students collaborated with local residents to educate them on organic waste recycling and sustainable urban farming practices. Participants learned to convert household organic waste into biofertilisers and compost, which were then used to grow vegetables and herbs in community and home gardens.



Above: A gardener producing organic matter from biochar and compost

Below: Assoc. Prof. Dr. Rosazlin (right) pictured with Universiti Malaya staff and the Sungai Keroh Mutiara Magna community in Kepong, Kuala Lumpur



Strengthening Skills and Partnerships Among Local Farmers and Food Producers

Universiti Malaya (UM) remains committed to supporting Sustainable Development Goal (SDG) 2: Zero Hunger through its ongoing efforts to engage, educate, and empower local farmers and food producers. By organizing and participating in diverse events across agricultural and aquaculture fields, UM acts as a bridge between scientific innovation and community application, enabling sustainable food production, responsible resource management, and resilient local economies.

In 2024, UM hosted and collaborated on a series of impactful agriculture and aquaculture events designed to foster knowledge transfer, strengthen networks, and build local capacity for sustainable practices.

Faculty Science Open Day – Community Engagement through Agricultural Innovation

The Glami Lemi Biotechnology Research Centre (PPBGLUM) proudly participated in the Faculty of Science (FS) Open Day, where a wide range of research, technology, and agricultural innovations were showcased to the broader public. The event served as a dynamic platform for farmers, small-scale producers, and community members to engage directly with Universiti Malaya researchers and students. Through interactive exhibitions, demonstrations, and knowledge-sharing sessions, participants were introduced to the latest advancements in biotechnology applications such as sustainable crop cultivation, organic waste utilization, and biofertilizer development that can enhance agricultural productivity while preserving environmental health.

This initiative not only highlighted UM's commitment to advancing agricultural innovation but also strengthened the bridge between academic research and community practice. The collaboration with the UM Biotechnology Club further underscored the university's strong culture of student-led engagement and empowerment through scientific outreach. In line with UM's sustainability agenda, the FS Open Day contributed to broader efforts to create accessible events and learning opportunities for local farmers and food producers. Such initiatives facilitate the exchange of knowledge, promote adoption of sustainable farming technologies, and support the growth of resilient, environmentally responsible agricultural communities.

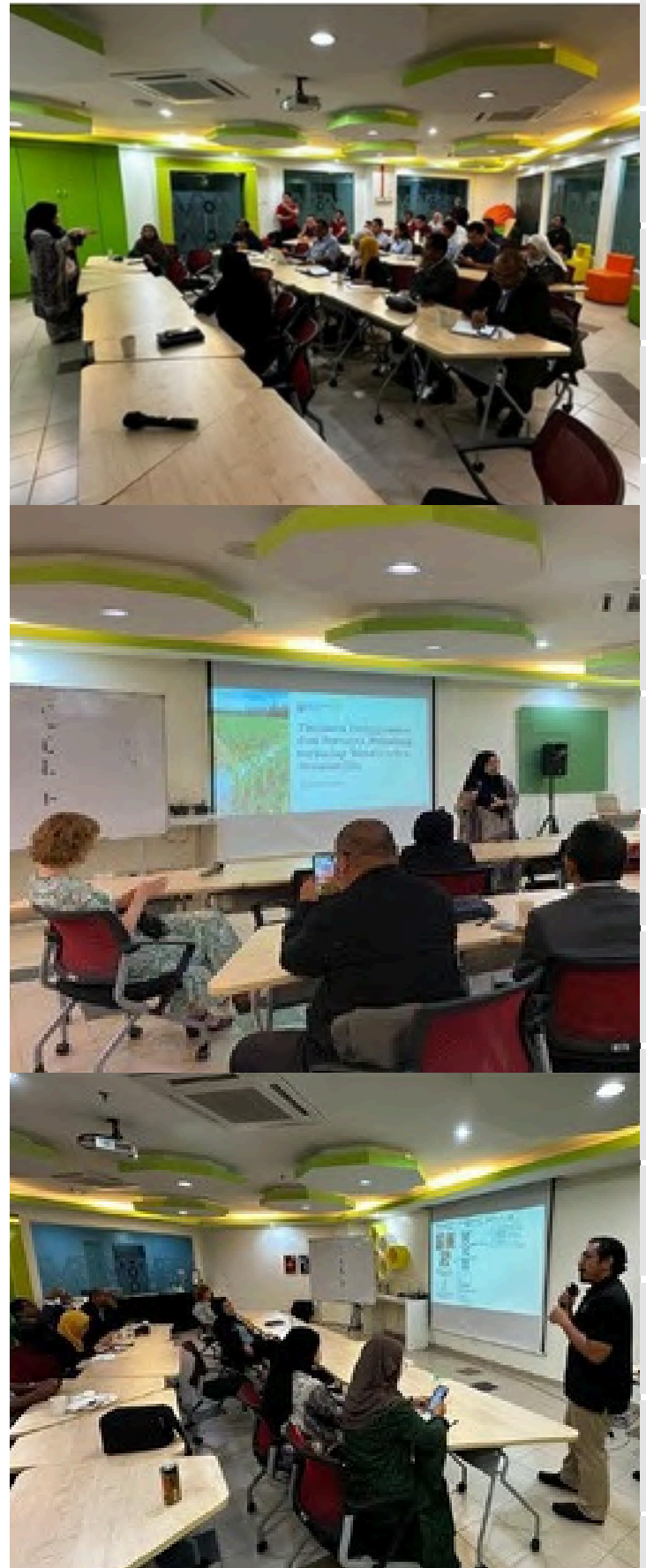
Below: Faculty Science Open Day



Held at The Cube, KPPI Building on 14 October 2024, this stakeholder engagement session was led by Dr. Zuliana Razali, with the support of Dr. Mohd Fadhli Hamdan, Dr. Nurzatil Sharleeza Mat Jalaluddin, and Ms. Nor Nadirah Abd Hamid from the Centre for Research in Biotechnology for Agriculture (CEBAR). The session aimed to strengthen understanding and acceptance of biostimulants among Malaysian farmers as a sustainable and environmentally friendly alternative to conventional chemical fertilizers.

The event convened a diverse group of stakeholders, including representatives from the Department of Agriculture (DOA), Malaysian Agricultural Research and Development Institute (MARDI), Malaysia Pepper Board (MPB), Lembaga Pertubuhan Peladang (LPP), and private sector partners such as IBG Manufacturing Sdn. Bhd., INO Nature Sdn. Bhd., and LKB Group Sdn. Bhd. Through interactive discussions and evidence-based sharing of data from prior farmer perception surveys, participants collaboratively identified key barriers to biostimulant adoption—such as cost constraints, limited awareness, and inconsistent product knowledge.

The dialogue fostered by this session provided a valuable platform for cross-sector collaboration between researchers, government agencies, and industry players. It also facilitated the co-creation of strategies to improve farmer education, policy support, and market accessibility for sustainable agricultural products. This initiative reflects Universiti Malaya's continued effort to engage directly with local and national agricultural stakeholders, bridging the gap between scientific innovation and practical implementation to support Malaysia's transition towards eco-efficient and resilient farming systems.



Right: CEBAR stakeholder engagement session

CEBAR Expert Seminar Series 2/2024 – Sustainable Agriculture & Water Technology for Sustainability

Organised by the Centre for Research in Biotechnology for Agriculture (CEBAR), this seminar provided a high-level knowledge exchange platform focusing on innovations in sustainable agriculture and water technology. Bringing together researchers, farmers, policymakers, and agricultural entrepreneurs, the session explored critical topics such as precision irrigation systems, biotechnological applications in crop management, and bioresource utilization for enhanced productivity.

Discussions underscored the importance of adopting climate-resilient agricultural practices to safeguard food security while conserving water resources and protecting natural ecosystems. By facilitating dialogue between academia and industry, the seminar supported knowledge transfer and collaboration toward developing sustainable agricultural systems. Together with community-oriented events such as the FS Open Day, the CEBAR seminar exemplifies UM's holistic approach to engaging local farmers and food producers—bridging scientific innovation with practical implementation to foster a sustainable, resilient food system.

CENTRE FOR RESEARCH IN BIOTECHNOLOGY FOR AGRICULTURE (CEBAR) PRESENTS
CEBAR EXPERT SEMINAR SERIES 2/2024

7 MAR 2024 | **TIME** 2:30 PM - 4:00 PM (MALAYSIA TIME) | **ONLINE SESSION**
LINK: [HTTPS://MSTEAMS.LINK/GLYL](https://msteams.link/glyl)

PRESENTER #1
 ASSOC. PROF. BALAKRISHNA S MADDODI
 (MANIPAL INSTITUTE OF TECHNOLOGY)

NANOBUBBLE GENERATOR FOR GREEN AND SUSTAINABLE AGRICULTURAL AND AQUACULTURE APPLICATIONS

In response to the growing demand for green, sustainable and efficient solutions in agricultural and aquaculture industries, we present a novel nanobubble generator with a patent-worthy design. Nanobubbles, which are ultrafine bubbles with diameters on the nanometer scale, hold tremendous potential in enhancing various processes crucial to the productivity and green environmental sustainability of these sectors. The proposed nanobubble generator leverages cutting-edge nanotechnology and innovative engineering principles to produce a stable and high-density stream of nanobubbles. Our design ensures a consistent nanobubble size distribution, with diameters typically ranging from tens to hundreds of nanometers. The implementation of our nanobubble generator in green and sustainable agricultural spaces promise to revolutionize irrigation practices. Nanobubbles have shown remarkable capabilities in improving water infiltration, soil oxygenation, and nutrient uptake, leading to higher crop yields and reduced water consumption. For aquaculture applications, the nanobubble generator holds immense potential in promoting the health and growth of aquatic species. The tiny bubbles carry dissolved oxygen efficiently, alleviating oxygen deficiencies in densely stocked aquaculture systems. Our nanobubble generator design not only presents a ground-breaking technological advancement but also addresses critical environmental challenges faced by these industries. Our patentable nanobubble generator has the potential to revolutionize green sustainable agricultural and aquaculture industries by significantly improving productivity, resource efficiency, and ecological sustainability.

PRESENTER #2
 MR. AMIT KAPUR
 (MANIPAL INSTITUTE OF TECHNOLOGY)

NANOBUBBLE TECHNOLOGY AND INDUSTRIAL APPLICATIONS - A FUTURE WATER TECHNOLOGY FOR SUSTAINABILITY

Nanobubble technology holds promise for various industrial applications, particularly in enhancing water sustainability efforts. Here's how it can contribute:

- Water Treatment:** Nanobubbles can be employed in water treatment processes to improve the efficiency of removing contaminants such as heavy metals, organic pollutants, and pathogens. Their small size and high surface area facilitate better interaction with pollutants, leading to more effective treatment.
- Agriculture:** In agriculture, nanobubbles can be infused into irrigation water to enhance soil health and crop yield. They can improve oxygen levels in the soil, stimulate root growth, and increase nutrient uptake by plants, thereby reducing the need for chemical fertilizers and promoting sustainable farming practices.
- Aquaculture:** Nanobubbles offer potential benefits in aquaculture by increasing dissolved oxygen levels in water, which is crucial for the health and growth of aquatic organisms. Improved oxygenation can help prevent fish kills, enhance fish growth rates, and mitigate the build-ups of toxic substances in aquaculture ponds or tanks.
- Food and Beverage Industry:** In the food and beverage industry, nanobubbles can be utilized for various purposes such as sterilization, wastewater treatment, and enhancing the quality of food and beverages. They can help remove impurities, extend the shelf life of products, and improve overall product quality while reducing the need for chemical additives.
- Mining and Metal Extraction:** Nanobubbles can be used in mining and metal extraction processes to facilitate the flotation of minerals from ore. By generating a high concentration of nanobubbles, the efficiency of flotation processes can be increased, leading to higher recovery rates of valuable minerals and reduced environmental impact.
- Oil and Gas Industry:** In the oil and gas industry, nanobubble technology can be applied in processes such as enhanced oil recovery and wastewater treatment. Nanobubbles can help improve the efficiency of oil extraction operations and aid in the removal of contaminants from produced water, thereby minimizing environmental pollution.

Overall, nanobubble technology holds great promise for advancing water sustainability efforts across various industrial sectors by improving water treatment processes, enhancing agricultural practices, and promoting environmentally friendly solutions in various applications.
 Key word: water treatment, nanobubbles technology, water sustainability

Centre For Research In Biotechnology For Agriculture
 Level 3, Research Management & Innovation Complex,
 Universiti Malaysia, 50603, Kuala Lumpur
 Tel: +603 7967 6990/6993 | Fax: +603 7967 6991
 Email: cebar@um.edu.my

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Above: Poster of CEBAR Expert Seminar Series 2/2024 – Sustainable Agriculture & Water Technology for Sustainability

Community-Based Project – Vegetable Cultivation by OKU Participants

This community-based initiative was designed to empower Persons with Disabilities (OKU) through hands-on agricultural training and inclusive participation in sustainable food production at Akademi Permata Impian (APIM), Semenyih, Selangor. The project introduced participants to a structured learning pathway consisting of four key modules namely vegetable planting, plant care and monitoring, composting, and digital marketing to provide both technical and entrepreneurial skills in agriculture.

Throughout the programme, participants actively engaged in practical sessions such as seedling transplantation, soil preparation, pest management, and harvesting, supported by facilitators and agricultural trainers. Beyond technical instruction, the project also emphasised environmentally responsible farming practices, highlighting composting as a method to recycle organic waste and maintain soil health.

Right: Recipient of the 2024 Community Garden Project grant, Dr. Maisarah Hasbullah

Below: Community-based project on vegetable cultivation involving OKU participants

This initiative not only strengthened participants' agricultural knowledge but also fostered social inclusion, self-reliance, and economic empowerment among vulnerable groups. By integrating sustainability education with inclusive capacity building, the programme exemplifies Universiti Malaya's commitment to ensuring that opportunities for learning, livelihood, and environmental stewardship are accessible to all segments of society. It also contributes to broader institutional goals under SDG 2 (Zero Hunger) and SDG 10 (Reduced Inequalities), while promoting community resilience through sustainable agriculture.



UM Advancing Sustainable Farming Practices for Local Communities

Universiti Malaya (UM) continues to strengthen its role as a national leader in advancing sustainable agriculture and biotechnology innovation.

Through the provision of access to state-of-the-art research facilities, laboratories, and technological expertise, UM empowers local farmers, agri-entrepreneurs, and food producers to adopt science-based, sustainable farming practices. UM provides access to university facilities to local farmers and food producers to improve sustainable farming practices.

The university's facilities managed primarily under the Centre for Research in Biotechnology for Agriculture (CEBAR) serve as key enablers for knowledge exchange, technology transfer, and capacity building within Malaysia's agricultural sector

These facilities not only support academic research but also open their doors to external collaborators, industry partners, and local farming communities seeking to enhance productivity, ensure food safety, and embrace environmentally responsible agricultural methods.

Molecular Biology Laboratory – Strengthening Research Capacity and Knowledge Transfer in Agricultural Biotechnology

The Molecular Biology Laboratory, housed under the Centre for Research in Biotechnology for Agriculture (CEBAR), is a vital research and training facility that supports Universiti Malaya's mission to advance modern agricultural biotechnology and sustainable crop management. Equipped with state-of-the-art instruments such as quantitative Real-Time PCR systems, spectrophotometers, gel documentation units, and 2D gel electrophoresis platforms, the laboratory facilitates both fundamental and applied molecular research essential for enhancing crop health, yield, and resilience to environmental stressors.

The laboratory regularly hosts customized workshops and training sessions in areas such as molecular diagnostics, genetic diversity analysis, biosafety protocols, and DNA-based crop identification. These programmes are designed to strengthen technical competencies among users while ensuring that scientific advances are translated into practical, field-level expertise.

Through this sustained effort, the Molecular Biology Laboratory plays a pivotal role in expanding Malaysia's agricultural research and innovation capacity. By empowering local producers, agronomists, and start-ups to apply molecular insights in crop management and breeding, the laboratory contributes to the national goals of achieving sustainable, high-value, and data-driven farming systems.

Beyond serving the university's research community, the Molecular Biology Laboratory operates on an open-access and collaborative model, providing facilities and technical expertise to associate partners, farmers' cooperatives, agricultural agencies, and biotechnology enterprises. This inclusive approach encourages the co-creation of solutions and promotes the direct application of molecular tools in agriculture.

Plant Biotech Facility (PBF) - Advancing Sustainable Agriculture through Biotechnology Access

The Plant Biotech Facility (PBF), established on 1 December 2009, stands as a cornerstone of Universiti Malaya's commitment to advancing plant biotechnology and biosafety research. Designed and constructed in full compliance with International Biosafety Standards at Physical Containment Level 2 (PCL-2), the PBF enables both fundamental and applied research in transgenic plants, crop improvement, and biosafety management. The facility is a gated, certified complex that undergoes annual inspections to ensure adherence to biosafety protocols aligned with Australian and New Zealand containment guidelines.

Comprising three state-of-the-art greenhouses, the PBF offers independently controlled environmental systems that simulate diverse climatic conditions suitable for a variety of plant species. Each greenhouse is equipped with advanced infrastructure, including:

- Air-conditioning, humidifiers, and thermal screens for precise environmental regulation.
- Twin-walled polycarbonate glazing to optimize insulation and light transmission.
- An automated building management system featuring temperature, humidity, irrigation, and fertigation control.
- Comprehensive safety mechanisms such as emergency showers, eye-wash stations, sterilization units, and automated waste treatment systems.
- Secure access via biometric (thumbprint) verification to maintain biosafety integrity.

Beyond serving as a premier research facility for UM academics and students, the PBF extends its services to external stakeholders, including local farmers, agrotech start-ups, and agricultural industry collaborators. Through this inclusive approach, the facility provides:

- Controlled spaces for growing and monitoring biotechnologically enhanced plants.
- 24-hour climate and biosafety monitoring support.
- Training, consultancy, and research partnership programmes to facilitate knowledge transfer and skill development.
- Sustainable biological waste management systems ensuring compliance with environmental safety standards.

By providing access to cutting-edge laboratory infrastructure, technology, and plant resources, the PBF enables local agricultural producers and entrepreneurs to experiment, innovate, and refine sustainable farming solutions. This collaboration bridges scientific research with community application—supporting the development of resilient crops, efficient production systems, and biosafe agricultural technologies. Ultimately, the PBF exemplifies Universiti Malaya's role in strengthening university-industry-community linkages and advancing sustainable agriculture through shared access to innovation and expertise.

Below: Plant Biotech Facility (PBF)



Plant Biotechnology Incubator Unit (PBIU) – Accelerating Innovation and Technology Transfer in Agriculture

Complementing the capabilities of the Plant Biotech Facility (PBF), the Plant Biotechnology Incubator Unit (PBIU) functions as an innovation hub that bridges academic research and real-world agricultural applications. Established under the Centre for Research in Biotechnology for Agriculture (CEBAR), the PBIU advances market-driven and knowledge-driven (K-driven) research and development, focusing on translating scientific discoveries into practical solutions that directly benefit farmers, agribusinesses, and local communities.

The PBIU plays a pivotal role in supporting biotechnology startups, agricultural entrepreneurs, and small producers through a range of targeted programmes and services, including:

- Training and capacity-building programmes in plant biotechnology, biosafety, and agricultural innovation to enhance technical skills and awareness of sustainable practices.
- Research contracts and consultancy services that assist local producers and industry partners in adopting modern biotechnology tools for improved crop productivity and resilience.
- Hatchery and incubation services, where innovative agricultural concepts are developed, tested, and refined before being scaled up for commercial or community implementation.

By serving as a bridge between scientific discovery and field application, the PBIU empowers farmers and agrotechnology enterprises to enhance yield, improve crop quality, and adopt climate-smart, resource-efficient farming techniques. Its focus on rapid technology transfer ensures that cutting-edge agricultural solutions, such as biofertilizers, biostimulants, and improved plant varieties are deployed effectively to address real-world agricultural challenges.

Through these efforts, the PBIU reinforces Universiti Malaya's mission to facilitate access to university research facilities, technology, and expertise for local farmers and food producers. The unit's initiatives contribute to sustainable food production, rural economic growth, and the national agenda of building a resilient and innovation-driven agricultural sector.



Above and below: Plant Biotechnology Incubator Unit (PBIU)





Good Health and Well-being

Ensure healthy lives and promote wellbeing for all at all ages



Mencegah Lebih Baik Daripada Mengubati

SDG 3, which focuses on ensuring healthy lives and promoting well-being for all at all ages, is closely reflected in the Malay proverb "*Mencegah lebih baik daripada mengubati*" (prevention is better than cure). At UM, this wisdom is embodied through efforts to promote preventive healthcare, mental health awareness, and holistic well-being among students and staff.

Initiatives such as free health screenings, mental health counselling, wellness campaigns, and access to recreational facilities demonstrate UM's proactive approach to health. By encouraging early action and healthy lifestyles, the university not only reduces health risks but also nurtures a resilient, informed, and thriving campus community—contributing to the broader global mission of improving health and well-being for all.

Collaborations with Local, National, and Global Health Institutions

Universiti Malaya Medical Centre (UMMC) actively fosters collaborations with a wide range of local, national, and global health institutions to strengthen healthcare delivery, advance medical research, and promote community well-being. These strategic partnerships reflect UMMC's vision of improving health outcomes through innovation, education, and shared expertise. By working closely with hospitals, government agencies, corporate partners, and international research networks.

UMMC is able to expand access to quality healthcare, enhance clinical and academic capacity, and contribute to national and global health goals. The following section highlights UMMC's ongoing collaborations that collectively aim to enhance the quality of care, support preventive health initiatives, and drive transformative developments in medical science and patient well-being.

Local Collaboration: Universiti Malaya Medical Centre (UMMC) and the Department of Social and Preventive Medicine (SPM), UM Promote Healthy Ageing

On 12 October 2024, the Department of Sports Medicine, Universiti Malaya (UM), together with Universiti Malaya Medical Centre (UMMC) and the Department of Social and Preventive Medicine (SPM), organised a one-day workshop titled "Keeping Fit and Healthy for Older Adults." The workshop aimed to promote healthy ageing by improving physical, mental, and social well-being among older adults and equipping caregivers with practical knowledge.

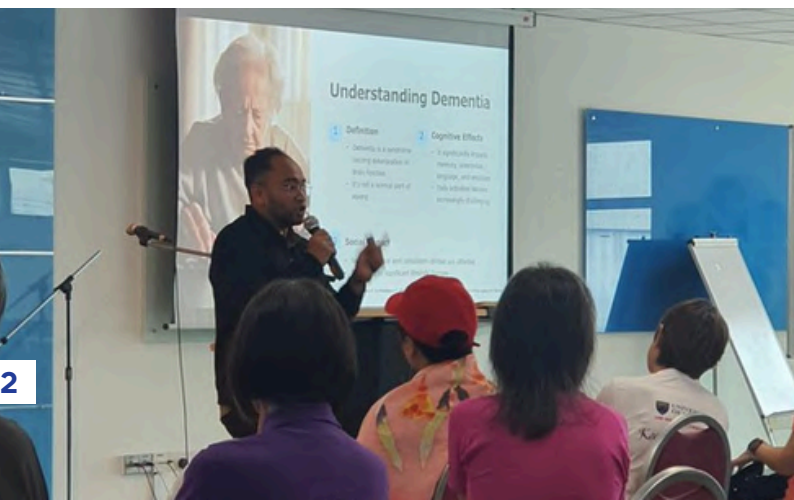
More than 50 participants attended the workshop at The Cube, Faculty of Medicine, UM. The programme included lectures and hands-on sessions on exercise, nutrition, healthy ageing, communication, and caregiver stress management.

Key lecture highlights:

- Exercise for Older Adults – Benefits of physical activity for maintaining fitness.
- Nutrition and Diet – Importance of eating well for physical and mental well-being.
- Healthy Ageing – Coverage of topics including sleep hygiene and lesser-known issues such as andropause.
- Caregiving Skills – Identifying dementia versus typical ageing, effective communication, and managing caregiver stress.

In the afternoon, participants joined practical exercise sessions focusing on resistance training, flexibility, stretching, and balance to support injury prevention and functional mobility.

Below: Workshop "Keeping Fit and Healthy for Older Adults" at Faculty of Medicine



Local Collaboration: Universiti Malaya and Hospital Tunku Azizah in Organising a Manuscript and Research Publication Writing Workshop

A manuscript write-up workshop held at Hospital Tunku Azizah on the 10th and 30th of September 2024, brought together esteemed lecturers and researchers from Universiti Malaya and the Ministry of Health. The event featured prominent speakers including Professor Dr Lucy Lum Chai See, Professor Dr Anna Marie Nathan, Professor Dr Khoo Ee Ming, Professor Dr Karuthan Chinna, Associate Professor Dr Farizah Mohd Hairi, and Dr Siti Idayu Hasan.

This workshop aimed to enhance the manuscript writing skills of doctors, fostering collaboration between Universiti Malaya and the Ministry of Health. Participants engaged in knowledge sharing, skill-building, and networking, making it a rewarding experience for both attendees and facilitators. The workshop helped refine writing techniques, guided participants through the complexities of research publication, and provided valuable feedback on challenges that medical professionals face.

By collaborating in this initiative, our faculty showcased its expertise in academic writing and strengthened partnerships with the Ministry of Health, paving the way for future collaborations and research projects. This event reflects Universiti Malaya's commitment to advancing medical research and education, and it highlights the importance of continuous professional development in healthcare.

This write-up was prepared by Associate Professor Dr Farizah Mohd Hairi and Dr Siti Idayu Hasan from the Department of Social and Preventive Medicine, Faculty of Medicine, Universiti Malaya.

Below: Group photo of participants at the Manuscript and Research Publication Writing Workshop



National Collaboration: Inter-Hospital Partnership with UCSI Hospital to Advance Healthcare and Clinical Training

3

In addition, Universiti Malaya Medical Centre (UMMC) has strengthened its network of institutional partnerships through an inter-hospital collaboration initiative with UCSI Hospital. A working visit led by Prof. Dr. Nazirah Hasnan, Director of UMMC, was warmly received by YBhg. Tan Sri Dr. Noor Hisham Abdullah, Chairman of UCSI Healthcare Group, and his team.

The visit served as a valuable platform for both institutions to exchange insights and best practices in healthcare delivery, cutting-edge medical technologies, and the integration of Traditional and Complementary Medicine (T&CM). Discussions during the visit explored avenues for collaboration in medical education, professional training, and clinical research, with a shared goal of enhancing healthcare standards and patient care outcomes.

Through this partnership, UMMC and UCSI Hospital aim to leverage their respective strengths and expertise to promote innovation in healthcare and create learning opportunities that benefit both medical professionals and patients. The collaboration also envisions the joint development of training modules and knowledge exchange in T&CM, aligning with the growing emphasis on holistic approaches to treatment and patient well-being.

Ultimately, this inter-hospital collaboration contributes directly to improving health and well-being outcomes, as it encourages continuous learning, research excellence, and the delivery of more comprehensive, patient-centred care across Malaysia's healthcare ecosystem.

Below: Group photo of the Universiti Malaya Medical Centre (UMMC) and UCSI Hospital teams during a working visit to strengthen inter-hospital collaboration in healthcare, education, and clinical research



Local and National Collaboration: Klinik Kesihatan Lembah Pantai and the National Blood Centre (Pusat Darah Negara) in Organising Health Carnival Day

UMMC also partnered with Klinik Kesihatan Lembah Pantai and the National Blood Centre (Pusat Darah Negara) in organising the Health Carnival Day on 20 April 2024 at Universiti Malaya's Kompleks Perdana Siswa. The event was coordinated by the Health for All Committee under the Health and Well-being Cluster of the Universiti Malaya Volunteer Secretariat (SEKRUM) for the 2023/2024 session.

The Health Carnival Day provided the campus community with direct access to essential healthcare services, including free health screenings for blood pressure, glucose, and cholesterol levels, as well as consultations with medical officers. In addition, a blood donation drive was conducted in collaboration with the National Blood Centre to encourage voluntary blood donation and support the national healthcare system.

This collaborative effort reflected UMMC's commitment to promoting preventive health practices, raising health awareness, and encouraging early detection of non-communicable diseases among students, staff, and the surrounding community. By making healthcare services more accessible in an engaging and educational setting, the initiative directly contributed to improving health and well-being outcomes, fostering a culture of proactive health management within the university environment.

Below: Health Carnival Day on 20 April 2024 at Universiti Malaya's Kompleks Perdana Siswa



National Collaboration: Partnering with Tun Hussein Onn National Eye Hospital (THONEH) to Improve Vision Care for Underprivileged Patients

On 22 April 2024, Universiti Malaya Medical Centre (UMMC) signed a Memorandum of Understanding (MoU) with the Tun Hussein Onn National Eye Hospital (THONEH) at the THONEH Auditorium. The signing ceremony was witnessed by YAM Tengku Panglima Besar Pahang, Tan Sri Dato' Seri Tengku Azlan Ibni Sultan Abu Bakar Ri'ayatuddin Al-Mu'azzam Shah, representing THONEH, while UMMC was represented by YBhg. Prof. Dr. Nazirah Hasnan, Director of UMMC.

Through this collaboration, THONEH contributed RM50,000 to UMMC under the "Remove Cloudy Vision Project", which provides financial assistance for cataract patients requiring intraocular lenses and viscoelastic materials. The initiative was witnessed by Encik Michael Goh, Chief Executive Officer of THONEH, Puan Chew Yee Yean, UMMC Deputy Director (Professional Services), and Prof. Dr. Tengku Ain Fathlun Tengku Kamalden, Head of the Department of Ophthalmology, UMMC. This partnership directly supports improving health and well-being outcomes by enabling access to essential vision-restoring treatment for underprivileged patients, thereby enhancing their quality of life and promoting equitable healthcare access.



Above: Signed MoU ceremony between UMMC and THONEH

National Collaboration: Enhancing Health Outcomes through Robotic Rehabilitation with Fourier Rehab Sdn. Bhd.

UMMC also entered into a strategic Memorandum of Understanding (MoU) with Fourier Rehab Sdn. Bhd., marking a significant step in integrating healthcare expertise with advanced robotics technology to enhance rehabilitation services. This partnership aims to address workforce shortages and expand access to robotic rehabilitation, enabling patients to receive innovative therapies that restore mobility, dignity, and independence. Through this collaboration, UMMC reaffirms its commitment to improving health and well-being outcomes by advancing medical technologies that strengthen recovery and quality of life for patients.



Above: Signed MoU ceremony between UMMC and Fourier Rehab Sdn. Bhd.

National Collaboration: Auxi Therapeutics Sdn. Bhd.

In April 2024, Universiti Malaya Medical Centre (UMMC) established a landmark national partnership with Auxi Therapeutics Sdn. Bhd. through the launch of Malaysia's first GMP CAR-T & CGT Laboratory, located within the UMMC compound. The 6,000-square-foot facility, built with an investment of RM6 million, is dedicated to the research, development, and clinical application of Chimeric Antigen Receptor-T cell (CAR-T) and Cell and Gene Therapy (CGT)—a major milestone in advancing Malaysia's precision medicine capabilities.

The collaboration focuses on developing innovative and accessible cancer treatments, with joint research and clinical trials currently underway for patients with aggressive B-cell lymphoma, and future expansion planned for multiple myeloma. The facility integrates cell collection, manufacturing, and clinical testing under one roof, enabling seamless translation from research to treatment.

This partnership not only enhances research and clinical capacity but also provides training and technology-sharing opportunities for students and researchers from Universiti Malaya's Faculty of Medicine, fostering local expertise in advanced immunotherapy. Ultimately, the initiative directly contributes to improving health and well-being outcomes by offering cutting-edge, targeted cancer therapies to patients, supporting Malaysia's National Biotechnology Policy 2.0 and the nation's broader goal of strengthening public health through innovation and precision medicine.

Below: GMP LAB grand launching ceremony



PUSAT PERUBATAN
UNIVERSITI
MALAYA

GMP LAB GRAND LAUNCHING

Majlis Auxi Therapeutics GMP CAR-T
& CGT Laboratory Official Launch



Date
17 April 2024



Time
2.00 PM



Venue
UMMC Petaling Jaya



Global Collaboration: Sirindhorn National Medical Rehabilitation Institute (SNMRI), Thailand and UMMC on Rehabilitation Medicine

On 2 August 2024, UMMC renewed its long-standing collaboration with the Sirindhorn National Medical Rehabilitation Institute (SNMRI), Thailand, in a signing ceremony held in Bangkok. The MoU, witnessed by Thailand's Director-General of Public Health, Dr. Amporn Benjaponpitak, marks the continuation of a successful partnership spanning from 2016 to 2029. This renewed agreement strengthens joint efforts in hosting symposia, training, and knowledge exchange in rehabilitation medicine, ultimately enhancing the quality of patient care and improving global health and well-being outcomes.



Above: MoU Signing Ceremony between Sirindhorn National Medical Rehabilitation Institute (SNMRI) and UMMC

Global Collaboration: UMMC and Shanghai Renji Hospital on Paediatric Liver Transplant Program

In 2024, Universiti Malaya Medical Centre (UMMC) strengthened its international partnerships and expanded its research collaborations with renowned health institutions to enhance clinical research, education, and patient care. One of the most notable milestones was the renewal of the Memorandum of Understanding (MoU) between UMMC and Shanghai Renji Hospital, Shanghai Jiaotong University. The signing ceremony marked a significant moment for the UMMC Liver Transplant Team, reaffirming collaboration in the Paediatric Liver Transplant Program that initially began in July 2019. The MoU renewal, which had been delayed due to the COVID-19 pandemic, was officially signed by Professor Dr. Nazirah Hasnan representing UMMC and Professor Michael Wang Chun Ming from Shanghai Renji Hospital. Both institutions expressed optimism that the renewed agreement would foster deeper cooperation in research, training, teaching, and clinical excellence.



Above and below: MoU Signing Ceremony between UMMC and Shanghai Renji Hospital



Global Collaboration: UMMC and China's County Hospitals on Healthcare Innovation and Hospital Management

On November 8, 2024, UMMC welcomed a distinguished delegation from China's top county hospitals, including Xindu People's Hospital of Chengdu, Jin Tang First People's Hospital, and Mian Yang People's Hospital. The visit featured an engaging sharing session with the Department of Biomedical Engineering, during which innovative ideas on hospital management and engineering solutions were exchanged. This visit served as a valuable platform for fostering mutual understanding and exploring ways to enhance healthcare systems at the county level in China. The session was graciously hosted by Dr. Mohmmad Salleh Yahya, UMMC's Deputy Director (Clinical – Medicine).



Above: Universiti Malaysia Medical Centre welcomed a distinguished delegation from China's top county hospitals, including Xindu People's Hospital of Chengdu, Jin Tang First People's Hospital, and Mian Yang People's Hospital

Global Collaboration: UMMC joins the International Clinical Trial Center Network (ICN) as a Regular Member

Another major achievement was the Clinical Investigation Centre (CIC), UMMC becoming a Regular Member of the International Clinical Trial Center Network (ICN) in April 2024. This membership highlights UMMC's growing commitment to excellence in healthcare services, education, and clinical research. As part of this milestone, UMMC delegates attended the ICN Annual General Meeting (AGM) on 31 October 2024 at Kyoto University, Japan.

The AGM gathered clinical research leaders from around the world to discuss innovations in clinical trials, patient engagement, digital platforms for clinical operations, and ethical considerations in global research. The meeting provided valuable opportunities for strengthening professional networks and translating international insights into local clinical improvements at UMMC.

Below: UMMC delegates attended the ICN Annual General Meeting (AGM) on 31 October 2024



Global Collaboration: UMMC with ICN, ARISE, Kyoto University Hospital, and Intel on Clinical Research and Digital Innovation

3

In addition to these international engagements, the Clinical Investigation Centre (CIC) actively collaborated with several local, national, and international health institutions. Local and national collaborations included partnerships with Clinical Research Malaysia (CRM) and the National Pharmaceutical Regulatory Agency (NPRA). On the international front, UMMC collaborated with key partners such as the International Clinical Trial Center Network (ICN), ARO Alliance for ASEAN and East Asia (ARISE), Kyoto University Hospital, Japan, and the Liverpool School of Tropical Medicine, United Kingdom. These collaborations focused on advancing early-phase clinical trials, digitalizing research processes, and strengthening regional research capacity.

In August 2024, UMMC also participated in the REACTA Forum 2024 held in Taipei, which emphasized the development of early-phase clinical trials in Asia. The UMMC team met with representatives from Kyoto University Hospital, including Dana Lin, to discuss launching UMMC's own Phase I Trial Centre, as well as developing internship opportunities and enhancing investigator-initiated trials (IITs) and industry-sponsored research (ISRs). These efforts are expected to solidify UMMC's position as a regional leader in early-phase clinical research. UMMC is slated to become an official REACTA member in 2025, further strengthening its role in collaborative clinical research across Asia.

As a member of ARISE, UMMC played an active role in initiatives that promote clinical trial readiness and digitalization across Asia. The CIC represented UMMC at the 2nd ARISE-PMDA Joint Symposium for Asian Clinical Trials, held on July 20, 2023, under the theme "How to Collaborate as One Asia." The symposium focused on regulatory harmonization, decentralized clinical trials, and patient-centered research. Additionally, UMMC participated in the 4th NCGM International Symposium on the digital transformation of clinical trials in low- and middle-income countries. Furthermore, UMMC co-led the Malaysia ARISE Operational Working Group, working closely with CRM, NPRA, and other regulatory bodies to enhance national coordination and digital infrastructure for clinical research.

In addition, UMMC established a strategic collaboration with Intel and the Chinese Medical University Hospital, Taiwan, to develop an Artificial Intelligence (AI) platform for diagnostics using pathology specimens. This initiative aims to revolutionize medical diagnostics through cutting-edge AI applications, enhancing both accuracy and efficiency in clinical pathology.

Collectively, these collaborations demonstrate UMMC's unwavering commitment to advancing healthcare research, clinical excellence, and international partnership. Through strategic alliances, participation in global networks, and shared expertise, UMMC continues to elevate its standing as a leading institution in clinical innovation and medical education.

YUEM Medical Assistance Programme

At the national level, Universiti Malaya Medical Centre (UMMC) continues to strengthen partnerships with corporate and medical institutions to enhance healthcare access. On 18 April 2024, UMMC received a RM500,000 contribution from Yayasan UEM under the YUEM Medical Assistance Programme 2024, aimed at supporting underprivileged patients requiring life-saving treatments.

The cheque presentation ceremony, held at Panorama Terrace, Mercu UEM, Kuala Lumpur, was officiated by YBhg. Dato' Mohd Izani Ghani, Managing Director of UEM Group Berhad and Trustee of Yayasan UEM, and attended by representatives from UMMC, HCTM, and HUSM.



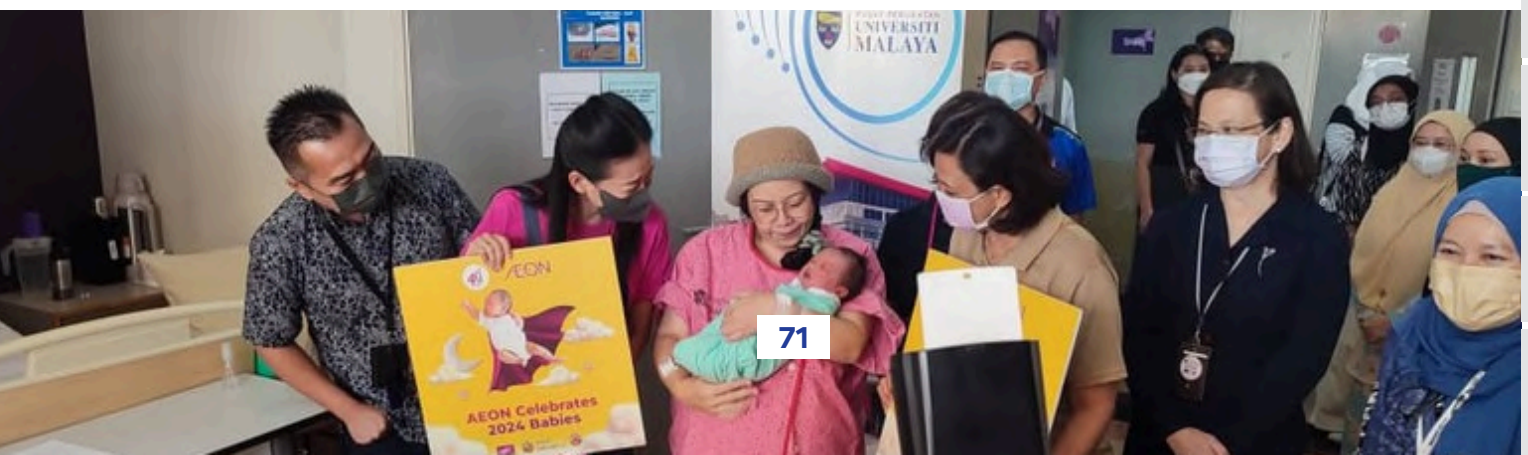
Above: UMMC received a RM500,000 contribution from Yayasan UEM under the YUEM Medical Assistance Programme 2024

UMMC-AEON Collaboration: Welcoming 2024 Babies

UMMC actively engages with various local partners to promote community health and well-being. On 1 January 2024, UMMC collaborated with AEON Malaysia to launch the “AEON Celebrates 2024 Babies” campaign at the hospital. The initiative, part of AEON’s 40th anniversary celebration, offered essential mother-and-baby care products and cash vouchers worth RM1,000 to 40,000 newborns delivered in 2024. The event was officiated by AEON Malaysia’s Chief Merchandising and Marketing Officer, Ms. Low Ngai Yuen, alongside UMMC Director, Professor Dr. Nazirah Hasnan. UMMC, recognized as a Baby-Friendly Hospital, expects over 4,000 births this year, making this collaboration particularly impactful for new mothers and infants.



Above and below: AEON celebrates 2024 babies at UMMC



Charity Art Exhibition 2024

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Universiti Malaya Medical Centre (UMMC), in collaboration with Art Market Malaysia, organised the Charity Art Exhibition 2024 from 19 February to 3 March 2024 at the UMMC Plaza Building. This inaugural collaboration represented a meaningful convergence of art, community, and healthcare, aimed at fostering compassion and promoting holistic well-being.

The exhibition showcased a vibrant array of artworks by local artists, including differently-abled creators (OKU), whose unique perspectives reflected resilience, hope, and the healing power of creativity. Beyond serving as a platform for artistic expression, the event also featured handicraft sales that further enriched the cultural experience and encouraged public engagement.



Above: Poster of Pameran Amal Karya Seni @ UMMC

A portion of the exhibition's proceeds was channelled to the PPUMCare Fund, a dedicated fund that provides financial assistance and medical support to underprivileged patients receiving treatment at UMMC. Through this initiative, the exhibition directly contributed to improving health and well-being outcomes, ensuring that patients in need receive timely care and emotional support.

The event was officiated by YB Tuan Lee Chean Chung, Member of Parliament for Petaling Jaya, who commended the collaboration for its social impact. The Charity Art Exhibition 2024 exemplified how creative partnerships can bridge the gap between art and healthcare—cultivating empathy, community participation, and sustained efforts toward improving public health and overall well-being.



Above and below: Pameran Amal Seni Exhibition Program



Creative Collaborations for Therapeutic Care and Well-being

UMMC continues to promote holistic approaches to health and healing through creative collaborations within Universiti Malaya. On 25 March 2024, UMMC partnered with the Academy of Malay Studies (APM), Universiti Malaya, to organise an Art Therapy Programme at the Plaza Building. This initiative integrated art as a therapeutic medium, offering patients an opportunity to express emotions, relieve stress, and enhance mental well-being through creativity. The programme reflected UMMC's commitment to exploring non-clinical interventions that complement traditional medical treatment, nurturing both emotional and psychological health.

In another creative endeavour, UMMC collaborated with the Faculty of Creative Arts (Music Department), Universiti Malaya, to bring the joy of music into the hospital environment. Between 17 May and 7 June 2024, weekly piano performances were held at the UMMC Plaza Lounge, featuring talented students from the Music Department. The performances created a soothing and uplifting atmosphere for patients, visitors, and staff, transforming the public space into a zone of calm and comfort.

Both initiatives illustrate UMMC's innovative approach in integrating arts into healthcare, aligning with its mission to improve health and well-being outcomes by addressing the emotional, social, and psychological aspects of patient care. Through these collaborations, UMMC demonstrates that healing extends beyond medicine, encompassing creativity, connection, and compassion.



Above: Art Therapy Programme at the Plaza Building, held on 25 March 2024

Below: Students from the Faculty of Creative Arts (Music Department), Universiti Malaya, brought the joy of music to the hospital lobby



Advancing Community Health and Inclusion: UM Health Outreach Initiatives for All

3

Universiti Malaya (UM) and Universiti Malaya Medical Centre (UMMC) are steadfast in their commitment to enhancing community well-being through a wide range of health outreach programmes. These initiatives aim to deliver meaningful outreach programmes and projects within the local community, including student volunteering activities, that promote health awareness and positive lifestyles. Focus areas include hygiene, nutrition, family planning, sports and exercise, ageing well, and other essential aspects of physical and mental well-being.

Beyond the campus, UM and UMMC extend their reach to serve local communities, disadvantaged groups, and refugee or immigrant communities through targeted health education, screenings, and wellness activities. These inclusive efforts embody UM's mission to create equitable access to healthcare and empower every individual—regardless of background or circumstance—to lead a healthier and more fulfilling life.

Community and Health Outreach Initiatives 2024

Community Service through E-Book Reading Programme for Children

On 17 April 2024, the Academy of Malay Studies, Universiti Malaya, conducted a heartwarming Community Service through E-Book Reading Programme at the School in Hospital, engaging young patients from the Paediatric Ward. Eight children, accompanied by their parents, participated in storytelling sessions, video-based picture narration, colouring activities, and mask-making. The event was graced by Associate Professor Dr. Tengku Intan Marlina Tengku Mohd Ali and other faculty members, alongside Associate Professor Dr. Azanna Ahmad Kamar from UMMC's Paediatric Department.

“Santai-Santai BME” Biomedical Engineering Department Open Day

Held on 10 July 2024, the Santai-Santai BME Open Day offered an insightful glimpse into the Biomedical Engineering Department's vital role at UMMC. The programme served as an interactive platform for staff and the public to understand the department's responsibilities in ensuring seamless hospital operations. Visitors enjoyed free equipment calibration and demonstrations, medical device exhibitions, and complimentary coffee in a relaxed and engaging environment.

Below: Community service through e-book reading programme for children at UMMC (left) and Santai-Santai BME Open Day programme (right)



Sentuhan Kasih & MEKAR Komuniti @ UMMC

On 1 October 2024, the National Registration Department (JPN WPKL) collaborated with UMMC to host the Sentuhan Kasih and MEKAR Komuniti Programme in conjunction with National Registration Day. The initiative featured the MEKAR mobile van, offering on-site services including MyKad applications, identity card replacements, and registration of births and deaths. This event exemplified the collaboration between healthcare and government agencies to enhance community accessibility and convenience.



Above: Poster of Sentuhan Kasih & Mekar Komuniti at UMMC

Influenza Awareness Campaign with Feminine Magazine and the Ministry of Youth & Sports

In collaboration with Feminine Magazine and the Ministry of Youth and Sports, UMMC participated in a health campaign officiated by YB Hannah Yeoh. The event, themed #FluPreventionIsAnActOfLove, featured a talk by Dr. Kejal Hasmukharay on influenza prevention, health screenings for older adults, and discounted vaccine offers by the National Pharmacy Malaysia. Importantly, B40 communities received free influenza vaccines, reinforcing the spirit of inclusive healthcare.

World Diabetes Day Celebration with the Ministry of Higher Education (KPT)

In conjunction with World Diabetes Day, UMMC partnered with the Ministry of Higher Education (KPT) to organise a large-scale health event officiated by Datuk Mohamad Azhan bin Md. Amir. The programme offered a variety of health screenings—blood glucose, cholesterol, BMI, and foot care—as well as nutrition and diabetes counselling booths. A total of 230 participants benefited from these screenings, fostering greater awareness of diabetes prevention and healthy lifestyles.



Above: Health Screening Activity on World Diabetes Day, UMMC partnered with the Ministry of Higher Education (KPT)

HOPE@PPUM Health Outreach Initiatives

The HOPE@PPUM (Hospital Outreach for Public Engagement) initiative represents Universiti Malaya Medical Centre's (UMMC) commitment to enhancing community health and well-being through proactive engagement and accessible healthcare services. This outreach program aims to bridge the gap between hospital-based care and community needs by offering on-site health screenings, consultations, and educational activities across Malaysia.

The HOPE@PPUM team conducted a series of health outreach programs in collaboration with local authorities and institutions across multiple states, including Putrajaya, Kedah, Pulau Pinang, Kajang, Pahang, Petaling Jaya, Perak, Kelantan, Langkawi, Pulau Pangkor, Hulu Selangor, and Manjung.

Right and below: The Committee of HOPE@PPUM and the health screening activities



Ambulatory and Emergency Medicine Day Celebration 2024

The Ambulatory and Emergency Medicine Day celebrated the importance of accessible outpatient care under the theme “Healthcare Partners for Life.” The programme emphasised collaboration between healthcare providers, patients, and families to ensure continuous, patient-centred care beyond hospital walls—promoting comfort, healing, and shared responsibility in health management.

Oral Health Outreach by the Faculty of Dentistry

The Faculty of Dentistry, Universiti Malaya, took an active role in community education through a series of Oral Health Talks and free dental screenings. Initiatives included health talks at local schools such as Sekolah Tinta and SK Pendidikan Khas Kg Baharu KL, where dental students provided demonstrations and practical oral hygiene tips. A mobile dental bus also offered free screenings around campus, extending the faculty’s reach to the wider UM community.



Above: Oral health outreach by the Faculty of Dentistry using a dental bus

Programme on Strengthening Elderly Care and Support Systems: “Dignified Ageing”

On 30 November 2024, the Programme on Strengthening Elderly Care and Support Systems: Dignified Ageing was held at UMMC’s Sekapur Sirih Hall. Organised by the Board of Visitors in collaboration with the Governance, Planning, and Policy Department, the event aimed to empower senior citizens and their caregivers through expert talks, health screenings, and exhibitions.

Health Education through Media Engagements and Talk Shows

Beyond physical outreach, UMMC leveraged media platforms to disseminate vital health information to the public. Through popular talk shows such as Helo Doktor, Wanita Hari Ini (TV3), Malaysia Hari Ini (MHI), and Borak Seeni (Astro Prima), UMMC experts discussed critical health topics including dementia, emotional stress, smoking and vaping, waterborne diseases, alternative health products, and wound-healing diets. These media engagements played a crucial role in raising nationwide awareness of health issues, bridging the gap between medical expertise and public understanding.



Above: Poster of health talk shows in WHI

Health Outreach Programmes for Disadvantaged Communities: H.A.T.I Programme at Pos Betau, Pahang and HOPE@PPUM Outreach to the Orang Asli Semai Community in Raub, Pahang

From 2 to 5 May 2024, the Sekretariat Sukarelawan Universiti Malaya (SEKRUM) organised a meaningful three-day, two-night community engagement programme titled Health Aid to Indigenous (H.A.T.I) at Pos Betau, Pahang. The programme aimed to raise health awareness and provide essential healthcare assistance to the Orang Asli community in the area. Throughout the visit, Universiti Malaya volunteers worked closely with local residents to share health knowledge, conduct basic health checks, and promote preventive care practices. The initiative created a significant positive impact by enhancing the community's understanding of hygiene, nutrition, and disease prevention, fostering long-term well-being and empowerment among the indigenous population.

Additionally, the Health Outreach Programme and Education Team of Universiti Malaya Medical Centre (HOPE@PPUM) joined forces with the Universiti Malaya Volunteer Team, Perlis Plantation Berhad (PPB) Group, and several non-governmental organisations (NGOs) to conduct a large-scale community service initiative for the Orang Asli Semai community in Raub, Pahang.

Held from 26 to 28 July 2024 at Sekolah Kebangsaan Satak, the programme was led by Dr. Ng Aik Hao from the Faculty of Medicine, Universiti Malaya, and involved 42 dedicated volunteers. Over the course of the event, approximately 500 Orang Asli residents from nearby villages received free medical screenings and consultations. Services provided included deworming treatments, dental examinations and basic oral care, breast and cervical cancer screenings, HPV vaccinations, and health talks focusing on nutrition and cancer prevention. The programme not only addressed immediate healthcare needs but also fostered trust and awareness among the Orang Asli community regarding the importance of preventive health practices.

Right: Health outreach programmes (health screening) for disadvantaged communities



Health Outreach Programmes for Refugee and Immigrant Communities: Oral Well-being for Street Children of Chow Kit

In an effort to promote healthcare equity, students from Universiti Malaya (UM) initiated a community outreach project to provide essential dental care to undocumented and immigrant children at Buku Jalanan Chow Kit (BJCK), Kuala Lumpur. This initiative formed part of the Service-Learning Malaysia, University for Society (SULAM) programme introduced by the Ministry of Higher Education, which empowers students to apply academic knowledge and professional skills to address real-world community issues.

Due to their undocumented or immigrant status, BJCK children face multiple barriers, including poverty, lack of formal education, and limited access to healthcare, that make them particularly vulnerable to oral health problems.

Recognising these challenges, ten dedicated fourth-year UM dental students, supported by faculty members and industry partners, launched a series of outreach visits in January, April, and June 2024 to deliver much-needed dental support.

The programme's objectives were to provide oral health education and basic dental services such as examinations, scaling, and fluoride therapy. Interactive learning sessions were also conducted to teach children and caregivers proper brushing techniques and preventive dental care. These sessions not only improved the children's oral hygiene knowledge but also built their confidence and trust.



Above: Dental Care Program for undocumented and immigrant children at Buku Jalanan Chow Kit (BJCK), Kuala Lumpur

Health and Dental Outreach for UNHCR Children at The Arch Place, Petaling Jaya

On 16 March 2024, postgraduate students from the Master of Oral Science (MOSc) programme, Faculty of Dentistry, Universiti Malaya, conducted a meaningful community outreach programme at The Arch Place @ The Assumption House, Petaling Jaya. The participants were refugee and immigrant children holding United Nations High Commissioner for Refugees (UNHCR) cards and currently enrolled in educational programmes at The Arch Place.

The initiative aimed to empower the UNHCR children community by providing comprehensive health education that covered both oral and general body health, as well as offering medical and dental screening. Beyond health services, the programme also included the donation of educational aids to support holistic well-being and academic growth among the children.

This outreach not only enhanced the children's understanding of proper hygiene and self-care but also nurtured their confidence and sense of belonging. It underscored Universiti Malaya's commitment to ensuring that refugee and immigrant communities—often marginalised and underserved—receive equitable access to essential healthcare and education.

Through this initiative, the MOSc students also gained valuable hands-on experience in community service and public health advocacy, reinforcing their sense of empathy, professionalism, and social responsibility. The programme served as a reminder that improving health equity begins with compassion, collaboration, and a shared vision of inclusivity for all members of society.

Below: Health and dental outreach for UNHCR children at The Arch Place, Petaling Jaya



Comprehensive Sexual and Reproductive Health Access at Universiti Malaya

3

Universiti Malaya (UM) and Universiti Malaya Medical Centre (UMMC) are strongly committed to promoting sexual and reproductive health awareness within the campus community. In alignment with Sustainable Development Goal (SDG) 3 – Good Health and Well-being, UM and UMMC ensure free and inclusive access for all UM students and staff to a range of reproductive healthcare services, consultations, educational resources, and awareness programmes.

Through dedicated clinics, expert forums, and outreach activities, these initiatives aim to empower individuals with accurate information, encourage responsible health choices, and reduce stigma surrounding reproductive and sexual health. From fertility and reproductive care to HPV screenings and HIV/AIDS awareness campaigns, UM and UMMC continue to foster an informed, supportive, and equitable healthcare environment for the entire university community.

Sexual and Reproductive Health-Care Services: UMMC Infertility and Reproductive Services

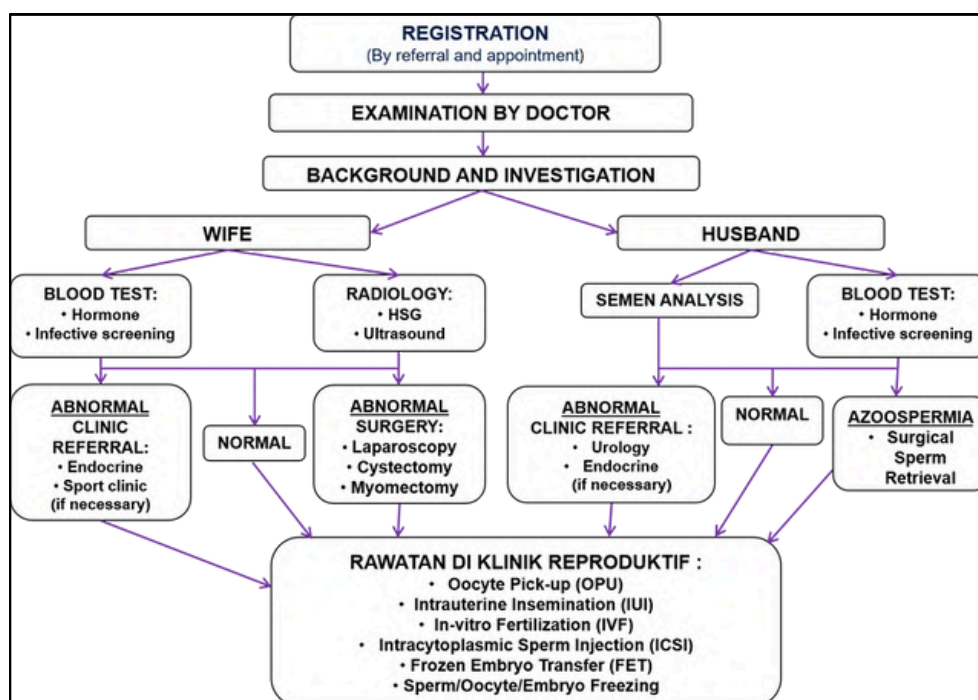
UMMC's Infertility and Reproductive Clinic offers a comprehensive range of fertility treatments to support individuals and couples in their journey toward parenthood. The clinic's objective is to provide fertility treatment for infertile couples and help fulfil their dreams of having a child.

Infertility is defined as the inability of a couple to conceive after one year of regular, unprotected sexual intercourse (at least twice a week) despite no known gynaecological issues. Couples facing this condition are encouraged to seek specialist consultation for appropriate diagnosis and treatment.

Through these treatments, UMMC provides advanced reproductive healthcare options supported by medical expertise, modern technology, and compassionate counselling — offering hope to couples and individuals navigating fertility challenges.

Available Treatments and Procedures:

- Oocyte Pick-up (OPU): Collection of eggs from the ovary under light anaesthetic.
- Intrauterine Insemination (IUI): Washed sperm is transferred into the uterus during ovulation.
- In Vitro Fertilisation (IVF): “Test tube baby” procedure where an oocyte is fertilised by sperm in a lab culture dish and developed into an embryo.
- Intracytoplasmic Sperm Injection (ICSI): A single sperm is injected directly into an oocyte for fertilisation.
- Semen Analysis (SA): Comprehensive testing of sperm count, motility, quality, and morphology.
- Sperm Freezing: Long-term storage of sperm in liquid nitrogen for future use.
- Oocyte/Embryo Freezing: Preservation of oocytes or embryos for future fertility attempts.
- Frozen Embryo Transfer (FET): Thawed embryos from previous IVF cycles are transferred into the uterus.
- Surgical Sperm Retrieval (SSR): Surgical extraction of sperm directly from the testes or epididymis.



Above: Flowchart of treatment in the reproductive clinic

UMMC Fertility Public Forum 2024

In response to growing concerns and challenges surrounding fertility among couples, UMMC organised the Fertility Public Forum on 17 August 2024. The forum aimed to provide valuable information and emotional support for individuals and couples facing fertility issues.

Participants had the opportunity to engage with medical experts and explore key topics such as:

- How infertility is diagnosed
- Signs and symptoms of infertility
- The role of diet and lifestyle in fertility
- When to seek specialist consultation
- The impact of previous pregnancies on fertility
- The effects of PCOS and endometriosis
- Male fertility and available treatment options

This public forum served as a safe and supportive space where participants could learn from professionals, share experiences, and find encouragement from others going through similar journeys.

UMMC FERTILITY PUBLIC FORUM 2024

TENTATIVE PROGRAM

Time	Topic	Speaker
0830am - 0900am	Registration	
0900am - 0915am	Opening Remark	Prof Dr Mukhlis bin Hamdan Fertility Consultant, University of Malaya Medical Centre
0915am - 0945am	The Journey of Becoming A Parent	Dr Raymond Lim Chung Siang Fertility Specialist, University of Malaya Medical Centre
0945am - 1015am	What Should I Eat To Conceive Easier?	En. Muhammad Hazrin bin Rusli Personal Dietitian, University of Malaya Medical Centre
1015am - 1045am	Fertility Challenges - You, I or Us?	Prof Mukhlis bin Hamdan Fertility Consultant, University of Malaya Medical Centre
1045am - 1115am	Pathway To Success for TTC Couple - Is There A Hope?	Prof Huguette bin Rosati Fertility Consultant, University of Malaya Medical Centre
1115am - 1200pm	Q & A Followed by Clinic & Lab Tour	
1200pm - END	Lunch	

OUR SPEAKERS

Prof Dr Mukhlis bin Hamdan
Fertility Consultant, UMMC

Dr Raymond Lim Chung Siang
Fertility Specialist, UMMC

En. Muhammad Hazrin bin Rusli
Dietitian, UMMC

Prof Huguette bin Rosati
Fertility Consultant, UMMC

DATE: 17th AUGUST 2024 (SATURDAY)

VENUE: SEMINAR ROOM, LEVEL 7, F&A HALL, 12th Floor, RUMAH & KANAK-KANAK, UNIVERSITI MALAYA MEDICAL CENTRE

FEES: 60.00 MYR/PAX

SCAN THE CODE FOR MORE INFO

WhatsApp: 03-7948 6855 / 2336
Registration: +603 - 2955 08 (for more info)

FREE CLINIC TOUR **FREE LUNCH** **COUPON**

Above: Poster of the Fertility Public Forum 2024 organised by UMMC

Focus on Reproductive Medicine UM (FORUM) 2024

The Focus on Reproductive Medicine UM (FORUM) 2024, held at the Sheraton Petaling Jaya Hotel, aimed to deepen understanding of both male and female infertility. Open to all participants, the event featured distinguished speakers who shared insights on reproductive health issues, treatment advancements, and holistic fertility management.

By providing free registration and open access to the public, FORUM 2024 demonstrated UM's commitment to creating inclusive educational platforms that empower individuals to make informed reproductive health decisions.

Right: Poster of Focus on Reproductive Medicine UM (FORUM) 2024



Program ROSE: Free HPV Screening for Cervical Cancer Prevention

In November 2024, UMMC introduced the Program ROSE (Removing Obstacles to cervical ScrEening) to promote cervical cancer awareness and early detection among women in the community. The programme offered free HPV PCR screening every Monday from 4 to 25 November 2024 for the UMMC community and nearby residents.

This initiative empowered women, including students, to take charge of their reproductive health with greater privacy, comfort, and confidence.

Below: Poster of Program ROSE: Free HPV Screening for Cervical Cancer Prevention



Program Kesedaran Kesihatan Reproduksi UM 2024

In conjunction with World Sexual Health Day, Universiti Malaya organised Program Kesedaran Kesihatan Reproduksi UM 2024 on 19 September 2024 at the Auditorium Kompleks Perdana Siswa. The event was led by Klinik Universiti Malaya with collaboration from Pusat Asasi Sains UM, Pejabat Kesihatan Daerah Lembah Pantai, and UMSDC. The programme raised awareness on sexual and reproductive health, covering family planning, sexual education, and prevention of sexually transmitted infections (STIs). Dr. Zuraidah Mohamed, Director of Klinik Universiti Malaya, emphasised that greater awareness can help reduce the spread of HIV/AIDS and other STIs.

More than 500 students participated in health talks, exhibitions, private consultations, and free health screenings. Participants shared that the programme improved their understanding of reproductive rights and personal responsibility. Professor Ir. Dr. Abdul Aziz Abdul Raman, Acting Registrar of UM, stated that the programme supports students' well-being and aligns with UM's mission to nurture a healthy and informed campus community.



Above: UM reproductive health awareness programme 2024

World AIDS Day 2024 Celebration and Awareness Campaign

The World AIDS Day 2024 celebration at UMMC on 5 December 2024 was organised by the Infectious Disease Unit, Department of Medicine, with support from other departments. The event promoted HIV/AIDS awareness and carried the theme “*Tunaikan Hak Yang Saksama*” (Fulfil Equal Rights).

UMMC launched the Bakti-ID Fund to support patients living with AIDS and infectious diseases. The Plaza Building was lit in red from 1–8 December, symbolising solidarity and commitment to ending HIV/AIDS.

UMMC continues to advocate for equal healthcare access and the elimination of stigma, aligning with the global goal to end AIDS as a public health threat by 2030.

Through clinics, forums, screenings, and awareness programmes, Universiti Malaya and UMMC strengthen leadership in reproductive and sexual health education, improving health literacy and expanding access to care for students, the community, and immigrant populations.

Promoting Mental Wellness: Comprehensive Support for UM Students and Staff

Universiti Malaya (UM) recognises that mental well-being is the foundation of a healthy, balanced, and thriving university community. Through its comprehensive network of counselling, psychological, and wellness initiatives, UM ensures that both students and staff have free access to mental health support, alongside active promotion of positive mental health practices. The Psychology and Counselling Matters Unit, under the Student Affairs Department (HEP), spearheads the planning, implementation, and coordination of programmes that nurture emotional resilience, self-awareness, and mental stability.

UM's commitment is further reinforced through structured intervention procedures, inclusive residential support systems, and dedicated faculty mental health liaisons. Together, these efforts demonstrate UM's proactive approach to fostering a compassionate and supportive environment where every individual can flourish emotionally and academically.

Center for Counseling & Disability Empowerment (CCDE)

The Center for Counseling & Disability Empowerment (CCDE) is Universiti Malaya's one-stop centre providing free and confidential emotional, psychological, and disability-related support services to students and staff. Guided by its strategic objective to increase mental health awareness and inclusiveness on campus, CCDE delivers a comprehensive range of services through several key functions. The Counselling & Intervention unit offers individual and group counselling, psychological interventions, and consultation while ensuring uniform service standards and quality. The Psychology & Programme unit provides psychological assessments, psychotherapy, expert consultation, and develops psychological management policies, alongside conducting research, publications, and psychometric instrument development.

The Disability & Inclusion unit coordinates support services for students and staff with disabilities, manages disability data, implements empowerment programmes, and oversees financial support such as BKOKU assistance. Administrative and financial functions ensure smooth operations through data management, documentation, inventory control, and coordination of training and reporting. Additionally, CCDE manages social welfare initiatives, including financial aid, zakat assistance, Takaful and SOCSO matters, and emotional support during emergencies or bereavement. Through these integrated services, CCDE enhances mental health literacy, strengthens support systems, and promotes an inclusive and caring campus community.



Integrated Mental Health Support Systems for Students and Staff

UM has established a structured Integrated Intervention Management Guideline (*Garis Panduan Pengurusan Intervensi Bersepadu Universiti Malaya – Pelajar*) which outlines detailed procedures for managing both mental health and general welfare cases. Pages 14–18 of this document provide a comprehensive Standard Operating Flowchart for handling emotional well-being cases (Kes Kesejahteraan Emosi di Universiti Malaya), specifying clear responsibilities and referral pathways. This ensures that students in distress receive timely, confidential, and professional assistance from the appropriate departments and mental health professionals.

PROSEDUR TERPERINCI PENGURUSAN INTERVENSI BERSEPADU MENGIKUT KES

1. KES KESIHATAN MENTAL

- Kesejahteraan Emosi
- Percubaan Bunuh Diri
- Histeria

2. KES UMUM/LAIN-LAIN KES YANG BERKENAAN

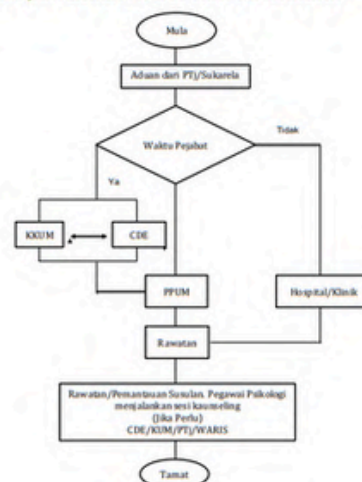
- Akademik
- Kewangan
- Lain-lain kes yang berkaitan

KES KESIHATAN MENTAL

a) KES KESEJAHTERAAN EMOSI DI UNIVERSITI MALAYA

Bil	Perincian	Tindakan
1	Pihak CDE/KUM menerima kes yang dirujuk daripada PTJ atau secara sukarela.	Staf CDE/KUM
2	Pihak CDE memaklumkan kepada KKP atau sebaliknya.	Staf CDE/KUM
3	Menghantar pelajar ke KUM/PPUM. Sekiranya di luar kawasan, pelajar dihantar ke hospital/klitik berhampiran oleh pegawai pengiring.	Staf PTJ/Pegawai Pengiring/CDE
4	Pelajar mendapat rawatan di PPUM/ hospital berhampiran.	PPUM/Hospital/ Pelajar
5	Memaklumkan kepada pihak PTJ/waris.	Staf PTJ/CDE/Waris
6	Menguruskan rawatan dan memantau keadaan pelajar selepas rawatan. Pegawai psikologi menjalankan sesi kaunseling (jika perlu).	Staf PTJ/CDE/KUM/Waris
7	Merekod kes pelajar di dalam fail.	Staf PTJ/KUM/CDE

CARTA ALIR TATACARA PENGENDALIAN PIAWAI KES KESEJAHTERAAN EMOSI DI UNIVERSITI MALAYA



Above: The procedure for emotional well-being cases at Universiti Malaya and the intervention

Faculty-Based Mental Health Liaison Officers

Each faculty within UM has appointed a Mental Health Liaison Officer—a trained representative who acts as the first point of contact for students experiencing psychological challenges. For example, at the Faculty of Computer Science and Information Technology (FSKTM), the Student Affairs Division and Psychology & Counselling Unit provide accessible mental health guidance and referrals, ensuring that emotional support is always within reach.

Right: FSKTM Student Welfare webpage, which includes information on mental health Liaison Officers

Mental Health Liaison Officer (MHLO)

- Associate Prof Dr Suraya Hamid
suraya_hamid@um.edu.my
- Associate Prof Dr Maizatul Akmar Ismail
maizatul@um.edu.my
- Associate Prof Ts Dr Sri Devi Ravana
sdevi@um.edu.my

OKU Liaison Officer

- Associate Prof Dr Suraya Hamid
suraya_hamid@um.edu.my
- Siti Nurul Aisyah Zulzaidi
aisyahzulzaidi@um.edu.my

UM World Mental Health Day 2024 & Counselling Month Celebration

In conjunction with World Mental Health Day on 10 October, UM's Department of Psychological Medicine and Counselling & Disability Empowerment Centre organised the UM-level Counselling Month and Mental Health Day Celebration 2024 at Kompleks Perdana Siswa. The event was officiated by YBr. Professor Dr. Zamri Radzi, Deputy Vice-Chancellor (Student Affairs), and enlivened by performances from UM's OKU students.

Carrying the theme "Prioritise Mental Health in the Workplace," the celebration featured talks, exhibitions, role-plays, and Q&A sessions that equipped participants with strategies for maintaining emotional well-being. This annual initiative strengthens UM's culture of empathy and mutual support among staff and students.

Right: Photo of activities during the UM World Health Day 2024

Below: The poster of the UM World Mental Health Day 2024 & Counselling Month Celebration



Program Sambutan

BULAN KAUNSELING & HARI KESIHATAN MENTAL SEDUNIA

10 OKTOBER 2024 | KOMPLEKS PERDANASISWA, UNIVERSITI MALAYA

12pm - 12.35pm :	Behind the Curtain: Unveiling the Truth about Substance Use in University Life (Di Sebalik Tirai: Kebenaran Tentang Penggunaan Bahan Terlarang di Universiti)
12.35 - 1.00pm :	Inside the Mind: Live Interviews on Mental Health Issues Case demonstration
2.15 - 2.45pm :	Navigating Mental Health Challenges in the University and Workplace (Menangani Cabaran Kesihatan Mental di Universiti dan Tempat Kerja)
2.45 - 3.20pm :	Building Resilience: Thriving in University and Beyond (Rahsia Sukses: Pembinaan Kecekalan)
3.20 - 3.45pm :	Mindfulness
3.45 - 4.00pm :	Ask the Expert: Open Q&A with A Psychiatrist (Tanya Pakar: Sesi Soal Jawab bersama Pakar Psikiatri)
4.00 - 4.30pm :	Breaking Through: A Journey to Recovery and Empowerment (Mengatasi Cabaran dan Perjalanan ke Arah Pemulihan)

ANJURAN BERSAMA:

- PUSAT KAUNSELING & PEMERKASAAN OKU (CDE)
- JABATAN PERUBATAN PSIKOLOGI, UNIVERSITI MALAYA

"Tekad Empati, Sejahtera Insani"

"It's Time to Prioritise Mental Health in the Workplace"

Kelab Empati Universiti Malaya: “Lepak & Luah” Initiative

The Kelab Empati Universiti Malaya promotes openness and empathy through its “Lepak & Luah” sessions — informal sharing circles designed to break mental health stigma and provide a safe space for expression. These gatherings encourage meaningful peer connections and nurture a culture of compassion, emotional understanding, and acceptance within the UM community.

Right: The picture of Kelab Empati UM’s “Lepak & Luah” session



Continuous Mental Health Awareness Campaigns

UM actively promotes mental health through posters, social media campaigns, and UMInfoMail broadcasts. During Ramadan 2024, the Counselling Centre launched “Psikologi Ramadan: 30 Refleksi Kesejahteraan Jiwa”, a month-long digital reflection series sharing daily quotes and positive messages to promote mindfulness, gratitude, and inner peace throughout the fasting month.

Right and below: Mental health awareness posters displayed on social media and UMInfoMail

7 Tips Kekal Positif di Tempat Kerja

Mulakan Hari dengan Pemikiran Positif

- Amalkan bersyukur setiap pagi.
- Fokuskan diri kepada perkara-perkara yang ingin dicapai sepanjang hari.

Ambil Rehat yang Mencukupi

- Istirahat sekurang-kurangnya 7 jam untuk mengekalkan ketahanan.
- Manfaatkan waktu makan tengah hari untuk berehat dan melegakan tekanan.

Berinteraksi dengan Rakan Sekerja

- Luangkan masa untuk bertukar dan membina hubungan baik.
- Saling dan tolong rakan sekerja anda.

Kekal Teratur dan Berdisiplin

- Selesaikan tugas-tugas anda dengan teratur dan tepat pada waktunya.
- Tempatkan matras dan hiasan di bilik anda untuk kekal berdisiplin.

Jaga Kesihatan Fizikal dan Mental

- Amalkan gaya hidup sihat dengan bersenam dan makan secara seimbang.
- Meditasi atau amalkan teknik pernafasan untuk mengurangkan stres.

Fokus pada Penyelesaian, Bukan Masalah

- Hadapi cabaran dengan sikap positif dan cari jalan penyelesaian.
- Elakkan daripada membesar-besarkan masalah.

Raikan Kejayaan, Kecil atau Besar

- Beri penghargaan kepada diri sendiri atas pencapaian dan usaha.
- Berikong kejayaan dengan rakan sekerja.

"We Care We Serve"

PUSAT KAUNSELING & PEMERKASAAN OKU
PORTFOLIO PENDAFTAR
UNIVERSITI MALAYA
03-79673322/3244 | kounseling@um.edu.my

TWITTER: @ccoum
IG: @ccoum
FB: CCUM
TikTok: @ccoum

Santapan Minda Kampus UM Bil 2/25

OVERTHINKING

"Lepaskan, Bukan Fikirkan: Mind Detox, Buang Toksik Overthinking"

OVERTHINKING?

Overthinking berlaku apabila anda terlalu banyak berfikir tentang sesuatu perkara, yang membawa kepada tekanan mental, emosi, dan fizikal yang berlebihan.

5 STRATEGI MENGATASI DAN MENANGANI OVERTHINKING

- AMALKAN 90/10 (Check, Bekerja, Digital)**
 - Check: Periksa semua apa yang sedang anda fikirkan.
 - Bekerja: Jangan teresa memikirla apa yang sedang anda fikirkan, sebaliknya cuba penapisan terasulit. Periksa betul atau tidak betul atau perlu atau tidak perlu.
 - Digital: Digital atau cari pembaikan yang lebih sihat.
- FOKUS KEPADA 5 PERKARA**
 - Penyelesaian Praktikal
 - Perkara Dalam Kawalan
- TOLAK**
 - Visualisasi, berfikir dan rancangan apa yang sedang anda fikirkan.
- AMALKAN PRAKTIK YANG MEMBANTU ANDA TENANG**
 - Deep Breathing, Progressive Muscle Relaxation (PMR) & Mindfulness (teknik melatih diri untuk fokus).
- LIBATAN DIRI DENGAN PELAKSI AKTIVITI**
 - Situasi diri anda dengan melakukan pelbagai jenis aktiviti.

"We Care We Serve"

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TikTok: @ccoum

Santapan Minda Kampus UM Bil 4/24

BREATHING

Bernafas Dalam-dalam: Seni Mindfulness untuk Kesihatan Mental

"We Care We Serve"

PERNAFASAN DALAM (DEEP BREATHING)

- Cara Melakukan: Duduk atau berbaring dengan mata tertutup, tangan di atas kepala, dan lakukan pernafasan dalam-dalam dengan perlahan-lahan.
- Manfaat: Mengurangkan tekanan darah, mengurangkan stres, meningkatkan fokus, dan meningkatkan ketahanan mental.

PERNAFASAN 4-7-8

- Cara Melakukan: Tarik nafas dalam melalui hidung selama 4 saat, tahan nafas selama 7 saat, dan hembuskan pernafasan melalui mulut selama 8 saat.
- Manfaat: Mengurangkan tekanan darah, mengurangkan stres, meningkatkan fokus, dan meningkatkan ketahanan mental.

PERNAFASAN 10-10-10

- Cara Melakukan: Tarik nafas dalam melalui hidung selama 10 saat, tahan nafas selama 10 saat, dan hembuskan pernafasan melalui mulut selama 10 saat.
- Manfaat: Mengurangkan tekanan darah, mengurangkan stres, meningkatkan fokus, dan meningkatkan ketahanan mental.

PERNAFASAN TERATUR (DIAPHRAGMATIC BREATHING)

- Cara Melakukan: Duduk atau berbaring dengan mata tertutup, tangan di atas kepala, dan lakukan pernafasan dalam-dalam dengan perlahan-lahan.
- Manfaat: Mengurangkan tekanan darah, mengurangkan stres, meningkatkan fokus, dan meningkatkan ketahanan mental.

PERNAFASAN TERATUR (DIAPHRAGMATIC BREATHING)

- Cara Melakukan: Duduk atau berbaring dengan mata tertutup, tangan di atas kepala, dan lakukan pernafasan dalam-dalam dengan perlahan-lahan.
- Manfaat: Mengurangkan tekanan darah, mengurangkan stres, meningkatkan fokus, dan meningkatkan ketahanan mental.

"We Care We Serve"

PUSAT KAUNSELING & PEMERKASAAN OKU
PORTFOLIO PENDAFTAR
UNIVERSITI MALAYA
03-79673322/3244 | kounseling@um.edu.my

Twitter: @ccoum
IG: @ccoum
FB: CCUM
TikTok: @ccoum

Santapan Minda Kampus UM Bil 2/24

JOM CEGAH BULI SIBER

Buli siber - Sebarang bentuk gangguan, ancaman, atau penghinaan yang berlaku melalui platform dalam talian, seperti media sosial, e-mel, atau aplikasi pesanan.

KESAN SIBER BULI

- Emosi - Buli siber boleh menyebabkan kesan emosi yang mendalam seperti kemurungan, kebimbangan, dan perasaan sendiri.
- Sosial - Mengapa mungkin menarik diri dari interaksi sosial dan merasa terasing daripada rakan-rakan atau keluarga.
- Academik/Kerjaya - Tekanan dari buli siber boleh mengganggu fokus dan prestasi akademik/kerjaya.
- Persekitaran - Buli siber boleh mengganggu persekitaran sosial dan kehidupan seharian.

LANGKAH MENGATASI

- Kendali dan Pendidikan - Mendidik pelajar, ibu bapa, dan guru tentang risiko dan tanda-tanda buli siber.
- Selatan dan Laporan - Menghentikan mangsa untuk melaporkan insiden buli siber kepada pihak berkuasa atau platform media sosial.
- Sokongan Emosi - Memberikan sokongan psikologi dan kaunseling kepada mangsa buli siber untuk membantu mereka menangani tekanan.

"We Care We Serve"

HUBUNGI KAMI

PUSAT KAUNSELING & PEMERKASAAN OKU
PORTFOLIO PENDAFTAR
UNIVERSITI MALAYA
03-79673322/3244 | kounseling@um.edu.my

TWITTER: @ccoum
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Quality Education

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

4



Ilmu Pelita Hidup

SDG 4, which aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, is well reflected in the Malay proverb "*Ilmu pelita hidup*" (Knowledge is life's guiding light). This proverb highlights how education lights the way throughout a person's journey, not only during school years but across a lifetime.

At Universiti Malaya (UM), this principle is demonstrated through various lifelong learning initiatives, such as micro-credential programs, community education, public lectures, and online learning platforms. By fostering a culture of continuous learning, UM empowers individuals to adapt, grow, and contribute meaningfully to society at every stage of life—truly embodying the spirit of lifelong learning envisioned in SDG 4.

UM's Commitment to Lifelong Learning

Universiti Malaya (UM) actively promotes lifelong learning by hosting a wide range of public educational events that are open to all members of society. These programmes, held across faculties and disciplines, provide free access to expert knowledge, hands-on experiences, and meaningful dialogue between academia and the community. From large-scale research carnivals and scientific open days to online lecture series and public policy forums, UM ensures that learning remains accessible, inclusive, and relevant to the evolving needs of society.

Scan the QR code below: Additional free public events organised by Universiti Malaya faculties, academies, and centres throughout 2024 that are not covered in this SDG 4 report.

Note: The events listed in the table are only highlights and not exhaustive.



Throughout 2024, UM's public events—such as the UM Health Academia Month & Research Carnival, Science Open Day, SEAADE Conference, and Breakfast@UMHealth Lecture Series—demonstrated the university's deep commitment to lifelong learning. These initiatives connected diverse audiences including students, educators, professionals, and community members through open dialogues on health, technology, sustainability, and social well-being. By removing financial barriers and extending educational opportunities beyond its campus, UM continues to embody the spirit of SDG 4 (Quality Education), fostering a culture of curiosity, empowerment, and lifelong learning for all.



Public Events (Lifelong Learning): UM Health Academia Month & Research Carnival

In 2024, Universiti Malaya organised the UM Health Academia Month & Research Carnival (8–10 October 2024), themed “*Brave New Frontiers of Research, Bright Futures of Education.*” This three-day flagship event was held at the Faculty of Medicine, Universiti Malaya, and was open to the general public at no cost, directly fulfilling the Impact Rankings requirement for lifelong learning initiatives.

Keynote lectures, forums, and panel discussions featuring local and international experts across medicine, dentistry, and pharmacy. Topics addressed issues such as:

- Ethical considerations of social media in dental education
- Digital technology in treatment innovations and oral cancer diagnosis
- Frontiers in robotic surgery, telemedicine, kidney disease research, and minimally invasive clinical trials.
- Adapting healthcare education to AI and emerging social media trends.

Below: Event posters for the UM Health Academia Month & Research Carnival 2024

Interactive parallel programmes that encouraged active community participation:

- Live webinars accessible to the general public
- STEM invention competitions for youth engagement
- Pharmacy research exhibitions, organ puzzle challenges, and pilot plant tours
- Research poster showcases bridging academic knowledge with real-world applications

By providing equitable access to knowledge without financial barriers, this carnival successfully:

- Expanded lifelong learning opportunities for diverse stakeholders including students, professionals, and community members.
- Strengthened public understanding of scientific and medical innovation through accessible talks, hands-on demonstrations, and interactive learning.
- Fostered interdisciplinary dialogue and collaboration between healthcare experts, researchers, and society.



Public Events (Lifelong Learning): 35th South East Asia Association for Dental Education – Embracing IR 5.0

In alignment with SDG 4, UM hosted the 35th Annual Scientific Conference of the Southeast Asia Association for Dental Education (SEAADE) on 25–27 November 2024 at the Majestic Hotel, Kuala Lumpur.

This international event was open to the public as well as the academic community, reinforcing UM's vision of widening access to knowledge. It attracted a diverse audience including educators, practitioners, students, and stakeholders from across Southeast Asia and beyond.

Key highlights include:

- Distinguished talks: Keynote by Dato' Prof. Dr. Adeeba Kamarulzaman and a special lecture by Ms. Phillipa Davis (Australian Dental Council).
- Expert-led plenaries: Sessions by UM's Prof. Dr. Firdaus Hariri and Dr. Marhazlinda Jamaludin on advances in dental education, research, and practice.
- Inclusive participation: Oral and poster presentations offered opportunities for students and early-career researchers, with awards to recognize excellence and encourage innovation.
- Regional collaboration: Enhanced cross-border academic and professional networks, promoting Southeast Asia as a centre of educational growth.



By bridging academia, industry, and the public, SEAADE 2024 provided an accessible platform for lifelong learning, professional development, and community engagement.

Through SEAADE 2024 and related educational initiatives, UM has:

- Strengthened inclusive education pathways by welcoming diverse learners and professionals.
- Promoted regional and global cooperation in education, showcasing UM's leadership role.
- Fostered lifelong learning, reflecting UM's mission as a university that serves society at large, not only enrolled students.

In essence, *Ilmu pelita hidup* is not only nurtured within UM's lecture halls but also shared with the world, ensuring UM continues to illuminate pathways toward sustainable, equitable education for all.



Above: During the launch of the scientific conference (left, photo credit: Program Kesihatan Pergigian KKM); and the event poster (right)

Public Events (Lifelong Learning): Community Oral Health Research Talk

The Community Oral Health Research Talk was organised by the Community Oral Health Research Group (COHRG), Faculty of Dentistry. On 2 August 2024, COHRG hosted a public research talk titled “Silver Diamine Fluoride Application as the Restorative Treatment for Root Caries” at the Dental Specialist & Research Tower, UM.

The session featured:

- Invited Speaker: Dr. Chloe Meng Jiang (Hong Kong University)
- Moderator: Assoc. Prof. Dr. Jacob John (Universiti Malaya)

This open-access educational event provided free lifelong learning opportunities for students, researchers, practitioners, and members of the wider community. The objectives were to:

1. Disseminate Research-Based Knowledge: Share clinical applications, benefits, and evidence-based outcomes of Silver Diamine Fluoride (SDF) as a restorative treatment.
2. Encourage Collaborative Learning: Discuss potential avenues for cross-institutional collaboration in research, clinical practice, and education.
3. Promote Lifelong Learning and Inclusivity: Foster interdisciplinary dialogue and community engagement through free public access to cutting-edge research.



Right: Event poster for “Silver Diamine Fluoride Application as the Restorative Treatment for Root Caries” (top) and a glimpse of the talk session (bottom)

Public Events (Lifelong Learning): 10th Edition of Pidato Piala Tuanku Kurshiah

In May 2024, Universiti Malaya (UM) proudly hosted the Pidato Piala Tuanku Kurshiah 2024 (PPTK'24), a prestigious national speech competition open to secondary school students across Malaysia. Held at Dewan Gemilang Kurshiah, Kolej Kediaman Tuanku Kurshiah, UM, this year's event marked the 10th edition, reinforcing UM's role in nurturing oratory excellence and strengthening national identity through the Malay language.

Organised with the strong support of the Ministry of Education Malaysia and Dewan Bahasa dan Pustaka, PPTK'24 was guided by the theme "*Mengutuhkan Nusa Bangsa Berpaksikan Bahasa Melayu.*" This theme underscored the role of language in fostering unity, national identity, and critical thought among Malaysia's youth.

Participation and Impact

- **Youth Engagement:** Fifteen finalists, aged 15–17, from diverse regions and school backgrounds showcased their eloquence in the grand finale.
- **Inclusivity:** Participants represented urban and rural schools, highlighting UM's outreach and inclusivity across socio-economic divides.
- **Skill Development:** Competitors demonstrated critical thinking, confidence, and persuasive communication, key skills aligned with SDG 4.
- **Recognition:** The champion, Nik Nadzif Dhamir Nazhin Jazli (SMK Ismail Petra), received RM 800, a trophy, and a commemorative memento. Runner-up and third-place winners were also honoured with cash prizes, trophies, and certificates to celebrate their achievements.

Through this initiative, UM strengthens its mission of lifelong learning and public engagement, creating educational opportunities beyond formal classrooms. By providing a national platform for youth to articulate their visions confidently in Bahasa Melayu, PPTK'24:

- Promotes inclusive and equitable quality education
- Enhances skills for employability and empowerment through public speaking
- Encourages cultural continuity and the appreciation of national language as an intellectual medium, thus linking education to identity and social cohesion.



Above: Photos during the National Speech Competition.
Photo credit: Dewan Bahasa dan Pustaka

Public Events (Lifelong Learning): Graduate Upskilling Training (GUT)

On 9–10 December 2024, Universiti Malaya's Graduate Employability & Career Centre (GECC) organised the Graduate Upskilling Training (GUT): Microsoft Excel Popular Tools, a two-day hands-on workshop open to all graduates and the public.

The programme focused on enhancing digital literacy and workplace readiness, addressing one of the most in-demand competencies in the 21st century: data handling and analysis. Participants gained practical knowledge in widely applied Excel functions such as Pivot Tables, VLOOKUP, Charts, and Data Validation, tools essential for evidence-based decision-making, efficiency, and innovation across industries.

Led by Mr. Hailan Hamid, the workshop received highly positive evaluations. Participants reported:

- Increased confidence in applying digital skills in their professional contexts.
- Improved readiness for competitive job markets requiring analytical and technological agility.
- Greater motivation to continue pursuing self-directed learning opportunities.

Right: A screenshot of participants during the Microsoft Excel Popular Tools webinar

This initiative demonstrates UM's commitment to SDG 4: Quality Education by providing inclusive, lifelong learning opportunities that extend beyond traditional classrooms. By equipping graduates and members of the public with industry-relevant skills, UM actively supports graduate employability, community empowerment, and national talent development

4



Public Events Through Lifelong Learning: Ungku Aziz Thoughts and Public Policy

4

Topic: “The Hidden Load: Unequal Domestic Labor Among Working Couples in Malaysia”

Date: 14 November 2024

Universiti Malaya hosted this public lecture featuring Dr. Diana Abdul Wahab (FBE UM) and moderated by Dr. Sharifah Muhairah Shahabudin (FBE UM). The discussion highlighted the often-overlooked burden of unequal domestic labor among working couples and its implications for social policy and family well-being.

Held online via Zoom and open to the general public, the session engaged students, academics, policymakers, and community members. It provided an accessible platform for lifelong learning and critical dialogue on gender equity, work-life balance, and inclusive policymaking. This initiative advances inclusive access to lifelong learning and reinforces UM’s role in making research-based insights available to the broader community.



Above: Event poster for the public lecture on unequal domestic labour

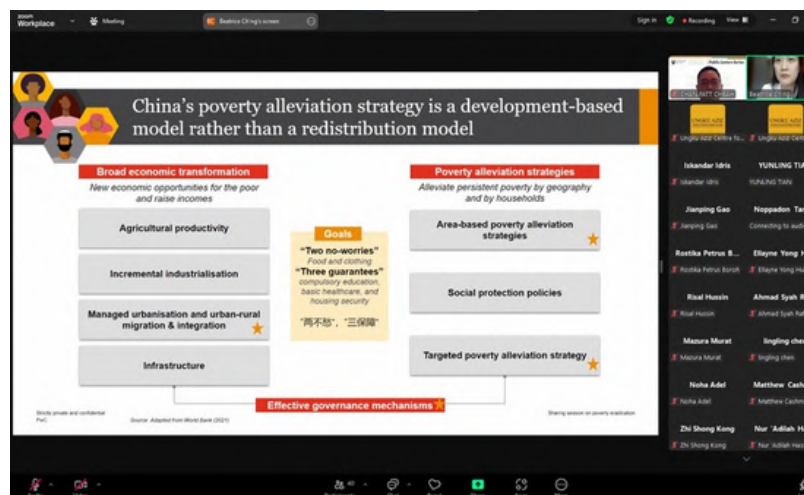
Right: A screenshot from the public lecture on poverty eradication in China (top), and other public lectures organised by the Ungku Aziz Centre for Development Studies

Topic: “Poverty Eradication in China”

Date: 26 September 2024

The session featured Beatrice Sin Yi Ch’ng (PwC Malaysia) with Dr. Cheah Chan Fatt (UAC UM) as moderator. The lecture explored China’s poverty reduction strategies, policy frameworks, and lessons applicable to Malaysia’s development context.

Conducted online and open to the public, it attracted participants from diverse backgrounds and encouraged dialogue on global best practices in sustainable development. By sharing international case studies and connecting them to local challenges, UM strengthens lifelong learning, inclusivity, and the global relevance of higher education.



Public Events (Lifelong Learning): Breakfast@UMHealth 2024 Online Public Lecture Series

4

In 2024, Universiti Malaya demonstrated its commitment to lifelong learning and public engagement through the [Breakfast@UMHealth](#) Online Public Lecture Series, organised by the Faculty of Medicine in partnership with UMHealth (Faculty of Medicine, Faculty of Dentistry, Faculty of Pharmacy, UM Specialist Centre, and UM Medical Centre). This Continuing Medical Education (CME) initiative opened access to high-quality medical knowledge not only to clinicians but also to the broader public. Delivered entirely online, the series exemplified inclusivity, flexibility, and sustainability, key elements aligned with THE Impact Rankings (SDG 4).

2024 Impact Snapshot

- Format: Online webinars (Zoom)
- Number of episodes: 46 (January–December 2024)
- Audience: Clinicians, healthcare professionals, students, and the public
- Topics: Wide-ranging, including global disease burden, pediatric ICU analgesia, cancer staging updates, health equity, and preventive care
- Accessibility: Live attendance and archived recordings for on-demand learning



Scan the QR code on the left: Full list of Breakfast@UMHealth recorded episodes from 2020–2025

Contribution to SDG 4: Quality Education

- **Inclusivity & Reach:** Free access for diverse groups: health professionals, students, and community members.
- **Flexibility:** Digital format enabled participation across time zones and work schedules.
- **Educational Relevance:** Expert-led content addressed pressing global and national healthcare challenges.
- **Sustainability of Knowledge:** Archived recordings allowed participants to revisit and reuse educational resources beyond the event.

The series directly contributes to Lifelong learning measures and Public resources for education by:

- Expanding professional and community learning opportunities at no cost.
- Providing enduring open-access educational materials that extend UM's educational impact beyond campus boundaries.
- Embedding UM's role as a knowledge hub that bridges academic expertise with public need.

As the Malay proverb reminds us, “*Ilmu tidak lapuk dek hujan, tidak lekang dek panas.*” Knowledge shared through Breakfast@UMHealth transcends barriers of time, distance, and circumstance. It reinforces Universiti Malaya's role as a regional leader in accessible, equitable, and lifelong education.

Lifelong Learning through Inaugural Lecture Series by Professors at UM (Faculty of Medicine)

In 2024, the Faculty of Medicine spearheaded UM's public engagement efforts by launching the Inaugural Lecture Series, a platform for newly appointed professors to share their expertise with the wider community. These lectures not only celebrated academic achievement but also extended free, open access to world-class knowledge. Events were held at the TJ Danaraj Auditorium and simultaneously livestreamed via the Faculty of Medicine YouTube Channel, ensuring broad and inclusive participation.

Highlights of 2024 Inaugural Lecture Series:

- 23 July 2024 – *Create to Rehabilitate* with Prof. Dr. Nazirah Hasnan (Rehabilitation Medicine): Emphasised innovation in rehabilitation and patient-centered care.
- 3 September 2024 – *Reimagine Ageing in Malaysia: Finding the Perfect Balance* with Prof. Dr. Shahrul Bahyah Kamaruzzaman (Geriatric Medicine): Explored strategies for healthy ageing and integrated care.
- 10 September 2024 – *The Portrait of a Woman* with Prof. Dr. Anushya Vijayanathan (Radiology): Focused on women's health and advancements in diagnostic imaging.
- 15 October 2024 – *A Journey of Discovery: The Road Less Travelled & Obesity and Public Health: Challenges and Opportunities for National Prosperity* with Prof. Dr. Victor Hoe Chee Wai & Prof. Dr. Sanjay Rampal (Occupational/Public Health): Addressed occupational health, epidemiology, and national challenges in obesity and public health.
- 10 December 2024 – *Paediatric Endocrinologist as a Change Agent* with Prof. Dr. Muhammad Yazid Jalaludin (Paediatrics): Highlighted the transformative role of paediatric endocrinologists in child health.

Impact on SDG 4: Quality Education

1. Inclusive and Open Access: Lectures were free and open to all, both in-person and online, advancing SDG 4 (equal access to affordable and quality education).
2. Promotion of Lifelong Learning: The diverse topics, ranging from rehabilitation and healthy ageing to women's health and child care, fostered lifelong learning among students, professionals, policymakers, and the public.
3. Community Empowerment: The events encouraged active dialogue across multiple sectors, strengthening links between academia, healthcare, and society.
4. Digital Outreach and Equity: Livestreaming via YouTube extended UM's reach nationally and globally, aligning with SDG 4 (creating inclusive learning environments supported by technology).
5. Societal Relevance: Each lecture addressed urgent issues in public health and wellbeing, reinforcing UM's role as a thought leader contributing to Malaysia's development goals.

Below: Examples of lecture posters. The full list of the Faculty of Medicine's Inaugural Lectures can be viewed on their website



Public Events (Lifelong Learning): Science Open Day 2024 – Faculty of Science, UM

4

In conjunction with its 65th anniversary, the Faculty of Science at Universiti Malaya organised a three-day Science Open Day from 14–16 May 2024 to ignite public interest in science and to inspire the next generation of learners.

Key Highlights

- Attended by more than 600 secondary school students, alongside teachers and members of the Universiti Malaya community.
- Officiated by Tan Sri Zarinah Anwar, Chairperson of the University Board, who described the event as “a celebration of knowledge, discovery, and innovation”.
- Featured open laboratories, interactive exhibitions, research showcases, quizzes, and academic sharing sessions across six units: Biological Sciences, Mathematical Sciences, Physics, Chemistry, Geology, and Science & Technology Studies.
- Guided tours introduced participants to UM’s unique learning spaces such as the Mini Farm (Institute of Biological Sciences), Rimba Ilmu, the Zoology Museum, and the Geology Museum.

Contribution to SDG 4: Quality Education

- **Inclusivity and Access:** The event welcomed students, teachers, and the public, making scientific learning accessible to all.
- **Experiential Learning:** Hands-on exposure to laboratories, fieldwork, and research highlighted practical, inquiry-based learning as key to lifelong education.
- **Inspiring Future Scientists:** Students interacted with scientists, explored STEM pathways, and gained motivation for higher studies and research careers.
- **Community Engagement and Literacy:** By connecting UM with the wider community, the Open Day promoted scientific literacy, curiosity, and awareness of science’s role in national progress.

The Science Open Day exemplifies UM’s role as a regional leader in SDG 4, advancing the THE Impact Rankings criteria by:

- Promoting lifelong learning through open, community-focused education.
- Inspiring STEM interest among youth as Malaysia’s future innovators.
- Strengthening university–community partnerships to extend the impact of higher education.



Left: Event poster for the Science Open Day

Below: A group of school students at one of the exhibitions during the event



Vocational Training Events (Lifelong Learning)

In 2024, Universiti Malaya upheld its commitment to lifelong learning through a mix of programmed and ad-hoc vocational and executive education events open to the public. Among its programmed initiatives were the Silent Mentor Program by the Faculty of Medicine, which blended surgical training with humanistic values, and the FLL Fiesta 2024 by the Faculty of Languages and Linguistics, an annual celebration of multilingualism and cultural exchange. The 4th International Malaria Workshop by the Department of Parasitology further strengthened UM's role in global health education through a periodic, hands-on platform for malaria diagnosis and elimination tools.

Complementing these recurring programmes, UMCares delivered Ped-KA-21, an ad-hoc 21st-century pedagogy and curriculum module tailored for TVET teachers from Sungai Buloh Vocational College. Together, these initiatives exemplified UM's vision of Ilmu Pelita Hidup — knowledge as the lamp of life — by extending quality education and practical skills to diverse learners beyond the university, in alignment with SDG 4: Quality Education.

Silent Mentor Programme (Faculty of Medicine)

The Silent Mentor Programme is one of UM's most profound public education initiatives, blending vocational training with humanistic values. Originating from a 2012 MoU with Tzu-Chi University Taiwan, the programme relies on voluntary body donations by members of the public, who are honoured as *Silent Mentors*.

In 2024, UM continued to deliver intensive training workshops where medical students, doctors, and surgeons refined surgical techniques while cultivating empathy, respect, and compassion. Participants first studied the life stories of their Silent Mentors, ensuring that training was grounded in both professional competence and human dignity.

Key highlights include:

- Experiential, holistic training combining medical science and ethics.
- Public participation through voluntary body donation.
- Research applications that improve disease management and medical pedagogy.

The Silent Mentor Corridor, established in 2019, remains an enduring commemorative and educational space, accessible to students, staff, and visitors. By weaving together technical training, ethical awareness, and societal engagement, the Silent Mentor Programme embodies lifelong learning and contributes directly to SDG 4 (equal access to affordable technical, vocational, and tertiary education).

Below: Medical students with their Silent Mentors



4

- 13 interactive booths featuring European and Asian language programmes.
- Hands-on language demos, games, and cultural showcases.
- Cultural performances, short film screenings, karaoke, and alumni storytelling.
- Competitions and prizes fostering enthusiasm for lifelong language learning.

The fiesta created a vibrant space for cross-cultural dialogue, directly advancing SDG 4.7 (ensure all learners acquire knowledge and skills to promote sustainable development, global citizenship, and cultural understanding).

Right: FLL Fiesta 2024 featuring booths, performances, and dialogue

By transferring critical technical knowledge to researchers, technicians, policymakers, and health professionals outside UM, the workshop strengthened global capacity to combat malaria while advancing lifelong learning in tropical medicine. This directly contributes to SDG 4 (increase the number of people with relevant skills for employment and sustainable development).

- Hands-on sessions in malaria diagnosis, monitoring, and elimination tools.
- Lectures and case discussions led by global experts.
- A keynote by Dr. Elkhan Gasimov (WHO Global Malaria Programme) on global malaria elimination strategies.



Above: A Hands-on sessions in malaria diagnosis, monitoring, and elimination tools

Ped-KA-21: 21st Century Pedagogy and Curriculum Module for TVET Teachers (UMCares)

In early 2024, Universiti Malaya through UMCares delivered the Pedagogi dan Kurikulum Abad ke-21 (Ped-KA-21) module to 74 TVET teachers from Sungai Buloh Vocational College. The programme addressed Malaysia's transition to IR 4.0 by equipping educators with cutting-edge pedagogical skills.

Feedback confirmed that teachers gained innovative tools for active learning and digital literacy, enhancing student engagement in vocational contexts. This initiative directly supports SDG 4 (substantially increase the supply of qualified teachers, especially through international cooperation).

Focus areas:

- Blended learning for technical and vocational education.
- 21st-century pedagogy and technology integration.
- Technical communication strategies in curriculum design.

Below: UMCares delivered the Pedagogi dan Kurikulum Abad ke-21 (Ped-KA-21) module



Education Outreach Activities Beyond Campus

In 2024, Universiti Malaya strengthened its educational mission beyond campus through a balanced mix of programmed and ad-hoc outreach initiatives that brought learning, skills, and empowerment directly into the community. Programmed initiatives such as the Orang Asli Health and Lifeways Project (OA HeLP), Community Health Outreach & Parasitic Disease Awareness, and the Skin Microbiome & Fungal Infections Project focused on sustained collaboration with indigenous and rural communities. These long-term efforts combined field-based research, free health screenings, and educational workshops to promote health literacy while providing UM students with immersive, practice-oriented learning experiences.

Meanwhile, ad-hoc outreach programmes including the Head Lice Awareness Programme, Breathe Boldly, Projek BaktiSiswa, the K2K STEM & AI Programme, and Klinik Khidmat Nasihat Kewangan UMCares extended UM's reach to schools, low-income neighbourhoods, and adult learners. Through interactive activities ranging from hygiene education and anti-smoking campaigns to STEM learning and financial literacy workshops, these initiatives strengthened UM's role as a community-engaged institution dedicated to advancing inclusive, lifelong learning beyond campus boundaries.

Orang Asli Health and Lifeways Project (OA HeLP)

The Orang Asli Health and Lifeways Project (OA HeLP) is an ongoing initiative (2022–present) that continued its impactful activities across Peninsular Malaysia in 2024. Led by Prof. Yvonne Lim Ai Lian and a multidisciplinary team from UM, in collaboration with international partners from the University of Utah, University of Calgary, University of New Mexico, and Vanderbilt University, the project integrates field-based education, health research, and community engagement. Key Malaysian partners include Hospital Orang Asli Gombak (HOAG), the Jabatan Kemajuan Orang Asli (JAKOA), and Orang Asli community leaders.

In 2024, OA HeLP conducted a series of free health screenings, diagnostic tests, and medical referrals, alongside health education sessions designed to promote better health-seeking behaviour within Orang Asli communities. The initiative actively engaged PhD students, postdoctoral researchers, and volunteers, providing them with valuable experience in community-based education. Through these collaborative efforts, OA HeLP helped reduce health disparities, strengthen community trust, and train over 30 UM students and researchers in applied, socially responsive education — advancing lifelong learning for indigenous communities and capacity-building among future health professionals.

Below: Health screening and health education session with the Orang Asli communities



Community Health Outreach & Parasitic Disease Awareness

The Community Health Outreach & Parasitic Disease Awareness programme, held from 9 to 10 March 2024 in Ulu Kuang, was organised by a multidisciplinary team from the Faculty of Medicine, comprising senior lecturers, medical doctors, researchers, postdoctoral fellows, research assistants, and five Master of Medical Parasitology and Entomology students. The outreach featured a range of activities including free health screenings for vision, muscle strength, and blood pressure, as well as testing and treatment for parasitic diseases and hygiene education sessions aimed at improving community health practices.

Through this initiative, more than 200 Orang Asli participants benefited from enhanced health literacy, while UM students gained practical experience in applying classroom knowledge to real-world settings. The programme exemplified UM's integration of education, research, and community service beyond campus boundaries, promoting accessible health education and addressing learning inequality in line with SDG 4: Quality Education.

Below: Free health screenings with the Orang Asli communities in Ulu Kuang



Exploring Vector Dynamics of Zoonotic Brugia Filariasis

The Exploring Vector Dynamics of Zoonotic Brugia Filariasis project, led by Dr. Junaid Olawale Quazim from the Faculty of Medicine, ran from April to December 2024 as part of a broader research initiative continuing through 2025. Conducted across several sites in the Klang Valley — including Pulau Carey, Sungai Buloh, Puncak Alam, and Kampung Sungai Penchala — the project integrated research with community education to raise awareness of filariasis prevention and control. Activities included educational sessions, public awareness campaigns, and free diagnostic testing, supported by the donation of 100 diagnostic kits for community use.

The programme empowered over 150 local residents with essential disease-prevention knowledge while also training UM students in translational and field-based research. By combining scientific investigation with public engagement, this initiative advanced knowledge transfer, health education, and applied learning, aligning with UM's mission to bridge research and community impact through inclusive educational outreach.



4

Above: Public awareness sessions on filariasis prevention and control

Head Lice Awareness Programme

The Head Lice Awareness Programme, held from October to December 2024, was led by Dr. Aida Syafinaz Mokhtar together with undergraduate and postgraduate students. Conducted across eight welfare homes and refugee schools, the programme provided screenings and treatments using donated resources and delivered hygiene education sessions for children. It directly benefited over 300 participants while enabling UM students to develop advocacy and leadership skills through experiential community engagement.



Above: Hygiene education on head lice at welfare homes and refugee schools

Breathe Boldly Programme

The Breathe Boldly Programme, held on 9 July 2024 at SMK Dato' Mohd Said, was organised by Universiti Malaya Medical Society (UM MEDSOC) in collaboration with Dr. Mohd Hafyuzuddin. The event featured an interactive lecture on the harms of vaping, along with student-led games, poster-making activities, and Kahoot quizzes to engage participants. Over 200 secondary students took part and made an anti-smoking pledge, strengthening health literacy and youth empowerment while enhancing UM students' leadership and advocacy skills through community-based outreach.

Below: Lecture on the harms of vaping at a public school



Projek BaktiSiswa

Projek BaktiSiswa 2024, held from 28 to 30 September 2024 in Kuala Kubu Bharu, was organised by UM MEDSOC in collaboration with the Orang Asli community. The programme featured health education sessions on hygiene, nutrition, and chronic diseases, along with free medical screenings and consultations, motivational talks, cultural exchange activities, and tailored lessons in local schools. It reached over 400 community members, strengthening trust between the Orang Asli and UM while enabling students to develop teamwork, empathy, and cultural competence through hands-on experiential learning.

Skin Microbiome & Fungal Infections Project

The Skin Microbiome & Fungal Infections Project, led by Prof. Yvonne Lim in collaboration with the National Institutes of Health (NIH), USA, and the Hospital Orang Asli Gombak (HOAG), runs from April 2024 to April 2028. In 2024, the project delivered hygiene and disease-prevention education to Orang Asli families, conducted free screenings and treatments, and distributed hygiene kits. It also held knowledge-sharing workshops with local health authorities to strengthen community health practices. The initiative benefited over 200 Orang Asli community members while contributing valuable data to global skin microbiome research and integrating scientific inquiry with education and community service.



Above: Health education session and medical screenings with the Orang Asli community in Kuala Kubu Bharu

Below: Hygiene and disease-prevention education for Orang Asli families



Klinik Khidmat Nasihat Kewangan



The Klinik Khidmat Nasihat Kewangan UMCares, held on 13 October 2024 in Petaling Jaya, was jointly organised by Universiti Malaysia (UM) with the Petaling Jaya City Council (MBPJ), Agensi Kaunseling dan Pengurusan Kredit (AKPK), and the Employees Provident Fund (EPF). The event featured talks on financial literacy, retirement planning, and scam prevention, alongside health and family well-being workshops, free health screenings, and interactive exhibitions. It successfully empowered over 250 retirees and pre-retirees with practical knowledge on financial management, healthy living, and social resilience, promoting lifelong learning and holistic community well-being.

Left: Talk on financial literacy jointly organised by UM, MBPJ, AKPK, and KWSP

4

K2K STEM & AI Programme



The K2K STEM & AI Programme, conducted in 2024 within PPR (low-income housing) communities, was a collaborative effort between Universiti Malaysia (UM) and Think City. The programme featured STEM workshops involving hands-on experiments on basic science concepts, along with AI and robotics training sessions designed for children. It successfully engaged over 150 participants, inspiring interest in science, technology, and digital literacy while promoting inclusive access to emerging technology education among underserved communities.

Left: STEM workshop with PPR community members



Gender Equality

Achieve gender equality and empower all women and girls

5



Duduk Sama Rendah, Berdiri Sama Tinggi

SDG 5, which promotes gender equality and empowerment for all, is aptly reflected in the classical Malay peribahasa “*Duduk sama rendah, berdiri sama tinggi*” — signifying that all stand and sit as equals, regardless of gender. At UM, this spirit is realised through women’s access schemes that provide scholarships, mentoring, and supportive provisions to help women pursue their academic and professional goals. These initiatives ensure that women are equipped with the opportunities and resources needed to succeed in their chosen fields.

UM also encourages applications by women in underrepresented disciplines through active outreach and collaboration with schools, universities, and community groups. Women’s mentoring schemes further strengthen these efforts by offering guidance, leadership development, and peer support. Together, these initiatives build confidence, foster role models, and promote inclusion, reinforcing UM’s commitment to advancing gender equality and empowering women to thrive in all areas of academia and beyond.

Women's Access Schemes at Universiti Malaya

Universiti Malaya (UM) actively promotes women's empowerment and equal opportunities through comprehensive access schemes that encompass provision, mentoring, and scholarships in alignment with SDG 5: Gender Equality. These initiatives ensure that women across academic and professional levels receive holistic support — from addressing basic welfare needs to developing leadership capacities and securing financial aid for education. Through these schemes, UM fosters an inclusive environment where women's participation, well-being, and achievements are recognised and advanced.

Under provision-based initiatives, UM introduced the Sanitary Pad Restocking Initiative, ensuring continuous access to menstrual hygiene products for female students, thereby removing barriers that can affect attendance and academic participation. Complementing this, mentoring programmes such as the Asia Pacific Women in Leadership (APWiL) Mentoring Program, the “Our Time is Now” Empowerment Talk, and the International Women's Day celebrations cultivate leadership, resilience, and professional growth among women. Additionally, scholarship support such as the Yayasan Perkasa Siswa Fund exemplifies UM's commitment to financial inclusion, enabling deserving women from disadvantaged backgrounds to pursue higher education. Collectively, these schemes demonstrate UM's sustained efforts to institutionalise gender equality through tangible welfare support, mentorship, and financial empowerment that benefit present and future generations of female leaders.



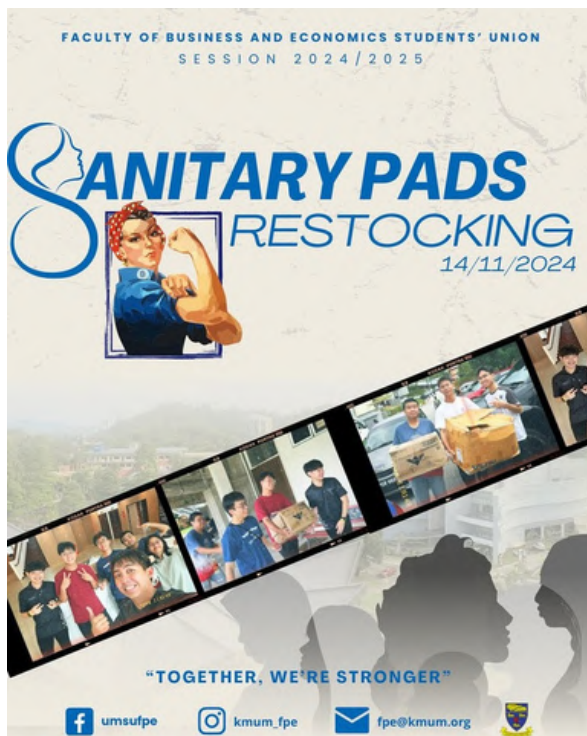
Women's Access Schemes (Provision): Sanitary Pad Restocking Initiative

As part of Universiti Malaya's commitment to SDG 5: Gender Equality, the Universiti Malaya Students' Union (UMSU) Faculty of Business and Economics (FPE) introduced the Sanitary Pad Restocking Initiative in November 2024. The programme aims to break down barriers to education caused by inadequate access to menstrual hygiene products and to promote a more supportive and inclusive campus environment for female students.

Under this initiative, sanitary pad racks have been installed in multiple female restrooms across FPE buildings. Pads are restocked weekly on a consistent basis, with a clear plan to expand coverage to all female toilets within the faculty. This effort is led by student representatives, demonstrating strong student leadership and ownership in promoting gender-sensitive welfare measures.

While initially launched at FPE, the programme is intended to serve as a model for wider adoption across other faculties and residential colleges, benefitting an even larger population of female students. Beyond ensuring access, the initiative also raises awareness about menstrual health and helps normalize conversations around menstrual equity aligning with global best practices on gender-responsive campus policies.

By addressing this essential need, Universiti Malaya demonstrates its commitment to advancing gender equality and empowering female students through tangible welfare support, directly contributing to SDG 5 targets on equal opportunities and inclusive access schemes.



Above: Publicity posters on sanitary pad restocking and their locations in female restrooms, an initiative under the Universiti Malaya Students' Union (UMSU) Faculty of Business and Economics (FPE)

Women's Access Schemes (Mentoring): International Women's Day Celebration

On 8 March 2024, Universiti Malaya hosted its International Women's Day celebration at the Za'ba Memorial Library, officiated by Her Royal Highness Raja Permaisuri of Perak, Tuanku Zara Salim. This event formed part of UM's strategic commitment as a member of the Association of Pacific Rim Universities (APRU) to champion gender equality and recognise women's contributions across diverse sectors, locally and globally.

The programme featured an art exhibition themed around women, with guided explanations by artist Ms. Zahirah Noor, offering a platform to showcase women's creativity and perspectives.

The event also provided opportunities for dialogue, networking, and appreciation of women's achievements, supporting UM's efforts to create an inclusive academic and cultural environment.

With the collaboration of multiple UM units including the Deputy Vice-Chancellor (Academic & International) Office, Corporate Communications Centre, Estates Department (JHB), International Relations Centre (IRC), Security Office, and others, the celebration drew 120 participants and received highly positive feedback. This initiative exemplifies UM's proactive approach to empowering women, fostering recognition of their achievements, and creating access schemes through cultural and academic platforms, directly advancing SDG 5: Gender Equality.

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Right: A screenshot highlighting International Women's Day 2024 at UM. The full video can be viewed on [UM's YouTube page](#)



INTERNATIONAL WOMEN'S DAY 2024 UM | HIGHLIGHT

Below: Photos from the launch of International Women's Day 2024 at UM



Women's Access Schemes (Mentoring): "Our Time is Now" Empowerment Talk

On 26 April 2024, Watsons Malaysia, in collaboration with UMCares, hosted an empowering International Women's Day event at Universiti Malaya titled "Our Time is Now". The programme featured prominent female role models from diverse fields who shared practical strategies for personal and professional growth, applicable to women and men alike.

Key themes included:

- Work-life balance and holistic well-being (Caryn Loh, MD Watsons) – encouraging self-care, career excellence, and community engagement.
- Self-investment and resilience (Sonya Donita Charles, Vitiligo Association Malaysia) – promoting compassion and confidence.
- Stress management and pursuing dreams (Goh Liu Ying, Olympic medallist; Nor 'Phoenix' Diana, pro-wrestler) – inspiring participants to step outside comfort zones.
- Perseverance and support networks (Dr. Welyne J. Jehom and Dr. Acga Cheng, UM lecturers) – highlighting the role of traditional values, science, and strong support systems.

The event provided a platform for mentoring, knowledge-sharing, and inspiration, fostering an inclusive environment where women's voices and achievements are celebrated. It reflects UM's ongoing efforts to expand access schemes for women, empower future leaders, and advance SDG 5: Gender Equality.

Left: Event poster for Watsons' "Our Time is Now" International Women's Day talk at UM

Below: Photo with six inspiring Malaysian women who shared their stories, experiences, challenges, and achievements



Women's Access Schemes (Mentoring): Asia Pacific Women in Leadership (APWiL)

Universiti Malaya continues to advance SDG 5: Gender Equality through its leadership role in the Asia Pacific Women in Leadership (APWiL) Mentoring Program, a flagship initiative of the Association of Pacific Rim Universities (APRU). Co-led by UM and the University of California, Davis, APWiL addresses gender imbalance in academia by providing structured mentoring, leadership development, and intercultural exchange for aspiring female leaders across APRU member universities.

Starting in September 2024 – October 2025, UM is actively involved in the 5th APWiL cohort, with Professor Dr. Yvonne Lim Ai Lian serving as Co-Chair and UM representatives Professor Dr. Yong Zulina Binti Zubairi and Dr. Suat Yan Lai contributing to the Core Group. The programme matches female academic staff (mentees) with senior leaders (mentors) across the Asia Pacific, fostering international exposure, professional growth, and access to leadership pathways.

Through APWiL, participants gain:

- Cross-border mentoring that builds leadership skills and expands professional networks.
- Intercultural exchange addressing unique gender equity challenges across diverse social and academic contexts.
- Role-modelling and advocacy opportunities to inspire systemic change within higher education.

UM's leadership and participation in APWiL demonstrate its commitment to empowering women, strengthening leadership pipelines, and institutionalising access schemes that help close the gender gap in academia and beyond.

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Above: (From left to right) Professor Dr. Yvonne Ai-Lian Lim – Co-Chair of the Asia Pacific Women in Leadership (APWiL) Program; Professor Dr. Yong Zulina Binti Zubairi and Dr. Lai Suat Yan – Members

Women's Access Schemes (Mentoring): APWiL International Women's Day Webinar & Mentorship

On 8 March 2024, Universiti Malaya participated in the Asia Pacific Women in Leadership (APWiL) International Women's Day webinar themed "Breaking Barriers, Building Bridges." The event highlighted women's diverse roles in society and emphasised the importance of gender equity and equal opportunities across academia and beyond.

The webinar was designed to inspire APWiL mentors, mentees, and other participants by featuring accomplished female leaders as role models who shared personal journeys, leadership strategies, and the value of cross-cultural collaboration. It provided a platform for networking, knowledge-sharing, and mentorship, helping participants overcome structural and cultural barriers while building confidence and leadership skills.

Through UM's membership in APWiL, female academic staff and students gain access to structured mentoring programmes, leadership development opportunities, and regional networking initiatives.

In 2024, UM's APWiL participation has enabled mentees to connect with senior leaders across the Asia Pacific region, fostering a stronger pipeline of female leaders in higher education and research.

This initiative directly contributes to SDG 5: Gender Equality by advancing women's access schemes through:

- Mentorship and role-modelling opportunities for emerging female leaders.
- Capacity-building and leadership skills development for female academics and students.
- Regional collaboration that expands career visibility and professional networks.

By actively engaging in APWiL activities like this webinar, UM demonstrates its commitment to empowering women and building a more inclusive, equitable academic community.



Above: Event poster for the Asia Pacific Women in Leadership (APWiL) International Women's Day webinar

Women's Access Schemes (Mentoring): Forum on Empowering Voices – ASEAN Centrality and Women, Peace & Security

In 2024, Universiti Malaya's Asia-Europe Institute (AEI) organised the Forum on Empowering Voices: ASEAN Centrality and Women, Peace and Security (WPS), advancing SDG 5: Gender Equality and the global WPS agenda. The forum aligned with the UN 2030 Agenda's pledge to "leave no one behind" and built upon frameworks such as UN Security Council Resolution 1325, CEDAW, and the ASEAN Regional Plan of Action on EVAW.

The programme brought together diplomats, scholars, and practitioners, including female leaders who have broken gender barriers, to discuss ASEAN's role in mainstreaming women's advocacy within peacebuilding and regional security.

Key themes included:

- Women's participation in conflict prevention, peacebuilding, and diplomacy within ASEAN's institutional frameworks.
- Addressing systemic barriers such as domestic violence, trafficking, and limited career mobility in patriarchal societies.
- Promoting ASEAN Community Vision 2045 goals to empower women and girls as agents of peace and stability.

By providing a platform for dialogue, knowledge exchange, and networking, AEI's forum serves as a women's access scheme that equips participants with insights and strategies to influence policy, foster inclusive security approaches, and advance leadership opportunities for women in the region.



Forum on Empowering Voices: ASEAN Centrality and Women, Peace and Security

Above: A screenshot from the forum recording. The full video can be viewed on the [Asia-Europe Institute, Universiti Malaya YouTube channel](#)

Below: Event poster for the Asia Pacific Women in Leadership (APWiL) International Women's Day webinar



Women's Access Schemes (Scholarships): Scholarships for Access and Empowerment

On 23 September 2024, Universiti Malaya (UM) extended financial support to Nur Fatihah Mohammad, a young woman from Batu Gajah, Perak, enabling her to pursue a Bachelor's degree in Geography. Coming from a financially challenged background and having lost both parents, she initially had to decline UM's offer due to financial constraints.

Through the intervention of UM's Deputy Vice-Chancellor (Student Affairs) and the Yayasan Perkasa Siswa fund, UM fully sponsored her tuition fees and accommodation for the first year, with provisions for continued assistance or scholarships until graduation. This direct financial aid, coupled with mentoring and support, ensures that women from disadvantaged communities are not excluded from higher education opportunities.

Right: The Deputy Vice-Chancellor (Student Affairs) presented financial assistance to a female student to enable her to continue her studies in Geography at the Faculty of Arts and Social Sciences, UM

By providing scholarships and structured support, UM strengthens its women's mentoring schemes, empowering students like Nur Fatihah to achieve their academic aspirations. Such initiatives ensure that women from underrepresented or vulnerable backgrounds can participate in higher education, in line with SDG 5 on Gender Equality.



Women's Mentoring Schemes – Recognition and Reward in Research

On 8 March 2024, Emeritus Professor Datuk Dr. Norma Mansor, Director of the Social Wellbeing Research Centre (SWRC), Universiti Malaya, was honoured with the Tokoh Wanita Kebangsaan CUEPACS 2024 Award. This national recognition celebrates her outstanding contributions to social policy, leadership, and academic excellence.

Prof. Norma's achievement reflects not only her personal distinction but also her longstanding role as a mentor to female students, researchers, and young professionals in the field of social sciences. Her recognition at the national level underscores the visibility of female leaders from UM and serves as a motivating example for the next generation of female scholars.

Right: Photo taken during the award ceremony

By honouring female leaders and showcasing their impact, UM strengthens its mentoring schemes through recognition and reward, inspiring greater female participation in leadership, research, and governance.



Women's Mentoring Schemes – Recognition and Reward in Academia

In conjunction with International Women's Day 2024, two distinguished female academics from Universiti Malaya, Associate Professor Dr. Reena Rajasuriar (Faculty of Medicine) and Professor Dr. Siti Nursheena Mohd Zain (Faculty of Science) were awarded the prestigious Fulbright Malaysia Visiting Scholar Award 2024–2025, sponsored by the U.S. Government.

Both were recognised for their academic excellence and leadership potential, with Dr. Reena collaborating with Columbia University on HIV clinical outcome research and Dr. Siti Nursheena contributing to global efforts in combating neglected tropical diseases at the U.S. National Institutes of Health.

Right: Photo of two UM women academics receiving the Fulbright Malaysia Visiting Scholar Award 2024–2025

Their national and international recognition not only rewards excellence but also strengthens UM's mentoring ecosystem by providing role models for female students and early-career researchers. By showcasing female leaders in science and medicine, UM advances SDG 5 by promoting recognition, reward, and greater female participation in research and global collaboration.

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Women's Mentoring Schemes – Recognition and Reward in Leadership

In 2024, Professor Dr. Hasniza Zaman Huri, Dean of the Faculty of Pharmacy, Universiti Malaya, was honoured with the Malaysian Pharmacist Society (MPS) Outstanding Leadership Award 2024. This prestigious recognition highlights her exemplary leadership, outstanding achievements, and contributions to advancing pharmacy practice in Malaysia.

Under her stewardship, the Faculty of Pharmacy achieved the top KPI ranking at UM, was recognised as Malaysia's number one pharmacy school, and secured 72nd place globally in QS rankings for Pharmacy & Pharmacology. Her award not only rewards individual excellence but also serves as an inspiring model for female students and young pharmacists. By celebrating and recognising female leaders in academia and professional practice, UM strengthens its mentoring schemes through role-modelling and rewards, encouraging more women to pursue leadership pathways.



Above: Congratulatory poster for a UM female academic receiving the Malaysian Pharmacist Society (MPS) Outstanding Leadership Award 2024

Women's Mentoring Schemes: Recognition in Technology

In April 2025, Universiti Malaya (UM) was honoured with the Women in Technology Award at the Huawei ICT Asia Pacific Competition 2024–2025, recognising the innovation and excellence of three female talents from UM, namely, Cheu Zi Yuan, Kek Yi Ci, and Chew Ying.

The regional finals, held in Kuala Lumpur, gathered over 110 participants from 12 countries, with UM standing out as a leading institution in nurturing women in ICT. Competing across key areas such as networking, cloud, computing, and innovation, UM's female representatives not only advanced to the Asia Pacific stage but also served as role models for peers across the region.

Right: Female students from UM receiving the Women in Technology Award

This recognition reinforces UM's women's mentoring schemes by rewarding female students who excel in underrepresented fields such as ICT, while motivating wider participation from women in STEM. By celebrating their achievements, UM advances SDG 5 by strengthening pathways for women to gain visibility, recognition, and leadership in the global technology landscape.



Women's Mentoring Schemes: Financial Rewards for Sporting Excellence

On 8 May 2024, Universiti Malaya honoured its outstanding athletes at the Majlis Anugerah Sukan Universiti Malaya (ASUM 2024), celebrating both student and staff contributions to sports development. Among the highlights, national track cyclist Nurul Izzah Mohd Asri, a student of Universiti Malaya, was named Olahragawati UM (UM Female Athlete) after breaking the Asian record in the women's 1 km time trial event at the Asian Track Cycling Championship (ATC) 2025, where she also secured two gold medals.

The award, presented by the Ministry of Higher Education, provided not only recognition but also financial reward, serving as vital encouragement for female athletes to continue excelling at the highest levels. Such incentives strengthen UM's mentoring ecosystem by motivating female students to pursue sports alongside academics, while fostering resilience, leadership, and national pride.

Through structured recognition and financial rewards, UM's sports mentoring schemes ensure that female athletes are supported and celebrated, directly contributing to SDG 5 by empowering women to thrive in both academic and non-academic fields.



Above: A female student-athlete receiving recognition during the Majlis Anugerah Sukan Universiti Malaya

Women's Mentoring Schemes: Recognition and Reward in Sports

In 2024, Universiti Malaya (UM) played a leading role in the Majlis Sukan Universiti Malaysia (MASUM), hosting the Phase 1 Sports Carnival (6–12 May 2024) and the MASUM–UM Alumni Open Chess Championship (14 December 2024). These events not only promoted sports excellence but also highlighted UM's commitment to recognising and rewarding female athletes.

UM presented financial incentives to female medallists, including RM300 to gold medal winners, and significantly, RM3,000 for Olympic-bound athletes. National track cyclist Nurul Izzah Mohd Asri, who broke the Asian record in the 1 km time trial, received a special incentive award of RM10,000 in recognition of her historic achievement.

Such recognition and rewards serve as powerful mentoring mechanisms, encouraging female students and athletes to strive for excellence in sports while reinforcing their value as role models for peers. By embedding structured recognition in sports, UM strengthens women's mentoring schemes and empowers female talents to excel nationally and globally.

Right: Female medallists receiving recognition and rewards



Women's Mentoring Schemes: Recognition and Reward in the Arts of KARVITER

At the Karnival Teater Universiti Malaya (KARVITER'24) held from 22–30 April 2024, Universiti Malaya presented the Anugerah Khas KARVITER to Seniwati Datuk Fauziah Nawi, recognising her excellence and leadership in theatre and the arts. As a respected figure in Malaysia's performing arts scene, her recognition provided students, particularly female participants in theatre, with a visible role model and mentor figure.

The annual carnival, involving nine residential colleges, showcases student-directed productions and honours achievements across multiple categories, including Pelakon Wanita Terbaik and Pelakon Wanita Harapan. By awarding female icons and celebrating women's contributions, UM creates pathways for mentoring, inspiration, and recognition that encourage greater female participation in the creative industries.

Through recognition and reward mechanisms such as KARVITER, UM strengthens its women's mentoring schemes, ensuring female students engage in structured guidance, peer support, and talent development within the arts and cultural sphere while advancing SDG 5 on Gender Equality.



Above: Female icons receiving recognition during Malam Anugerah KARVITER 2024

Encouraging Women's Applications in Underrepresented Subjects

Universiti Malaya (UM) is committed to promoting gender equality in higher education by encouraging women's participation in disciplines where they are traditionally underrepresented. Through proactive outreach and strategic collaborations with schools, community groups, and student associations, UM nurtures awareness, motivation, and confidence among young women to pursue diverse academic fields. These efforts align with SDG 5: Gender Equality, ensuring equitable access and representation across all areas of study.

UM's outreach programmes, such as educational visits and motivational sessions with secondary and pre-university students, offer first-hand exposure to campus life, academic pathways, and career possibilities. Collaborations with schools like SMK Sri Perak and SMK Seri Keledang, supported by UM's faculties and the Student Affairs Division, connect young women with inspiring lecturers and student mentors. By building aspirations and demystifying university entry, these initiatives strengthen the pipeline for women in underrepresented subjects—empowering future scholars and leaders while advancing national and institutional goals for inclusive education.

Women's Applications in Underrepresented Subjects: Outreach & Motivation

In line with SDG 5, the Department of Anthropology and Sociology, Faculty of Arts and Social Sciences (FSSS), Universiti Malaya, organised an educational visit with students from SMK Sri Perak, Parit Buntar, Perak. The programme provided secondary school students, many of them girls, with first-hand exposure to university life and academic pathways, aiming to inspire confidence to pursue tertiary studies, including disciplines where women remain underrepresented.

The initiative featured interactive sharing sessions with UM lecturers and students, such as “*Meniti Masa Depan yang Gemilang*” by Dr. Syed Abdul Razak, focusing on self-belief and overcoming perceived limitations. Activities allowed students to explore their potential, engage with academic role models, and gain practical insights into admission processes and university experiences.

By partnering with local schools and fostering social ties with the community, UM helps build motivation and awareness among young women about the possibilities of higher education. Such outreach programmes encourage students to aspire towards diverse fields of study, directly supporting national efforts and UM's vision to expand women's participation in all academic disciplines.

Below: An educational visit with students from SMK Sri Perak, Parit Buntar, Perak



Women's Applications in Underrepresented Subjects: Outreach & Motivation

In December 2024, Universiti Malaya (UM) welcomed 41 Form 6 students and 10 teachers from SMK Seri Keledang, Menglembu, Perak, for an educational campus visit. Hosted by the Student Affairs Division (HEP) with support from the Perak Student Association (PEMARAK), the programme aimed to expose pre-university students, particularly girls, to opportunities for further study at UM, including fields where women are traditionally underrepresented.

The visit included motivational remarks by UM's Deputy Vice-Chancellor (HEP), Prof. Dr. Zamri Radzi, briefings on admission requirements, and tours of key academic units such as the Faculty of Law and Faculty of Medicine. Interactive Q&A sessions with HEP officers and student ambassadors inspired participants to explore diverse academic pathways with confidence.

By engaging directly with young women and their teachers and providing visible female student role models, this outreach helps raise awareness of higher-education options and fosters aspirations to join UM. Such initiatives support SDG 5 by encouraging women's participation across all disciplines through collaboration with schools and student associations.



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Above and below: Students and teachers from SMK Seri Keledang, Menglembu, Perak, during an educational campus visit to Universiti Malaya



Women's Mentoring Schemes at Universiti Malaya

Universiti Malaya (UM) continues to strengthen mentoring initiatives that support women's learning and leadership development across disciplines. Programmes such as the Training of Trainers (TOT) Buddies Programme under the Counselling and Disability Empowerment Centre (CCDE) and CareerKit: Makeup Till You Make It! organised by the Graduate Employability & Career Centre (GECC) provide structured peer support and confidence-building opportunities for female students. These initiatives align with SDG 5 by fostering a campus environment that values inclusivity and empowerment.

UM also integrates mentoring elements through community engagement and creative platforms. Activities such as the Women's Day Forum and Mini Carnival by the Faculty of Built Environment, the theatre production "*Wanita dan Senjatanya*" by the Faculty of Creative Arts, and the '*Seminar Pemikiran Pengarang Wanita Serantau 2024*' by the Academy of Malay Studies offer spaces where students can interact with academic staff, professionals, and writers. Through these programmes, UM enhances access to guidance, peer learning, and cross-generational exchange, helping women gain the confidence and networks to navigate academic and professional pathways.

Women's Mentoring Schemes: Outreach & Supportive Campus Culture

From 8 to 10 November 2024, Universiti Malaya organised the Training of Trainers (TOT) Buddies Programme at Seri Menanti Resort, Negeri Sembilan. The initiative prepared UM Buddies peer mentors under the Counselling and Disability Empowerment Centre (CCDE) to act as mental health ambassadors for students across the university.

Through workshops on communication, peer-support techniques, and inclusive mental health awareness, the programme helps create a supportive and safe learning environment for all students, particularly young women. By equipping Buddies with skills to provide guidance and encouragement, this outreach strengthens female students' confidence and wellbeing, enabling them to pursue diverse academic paths, including fields where women are underrepresented.

Such initiatives complement UM's broader efforts to encourage women's participation in all disciplines by ensuring they have access not only to academic opportunities but also to the social and emotional support needed to thrive.



Above: UM Buddies peer mentors under the Counselling and Disability Empowerment Centre (CCDE)

Women's Mentoring Schemes: Career Readiness & Confidence Building

On 30 October 2024, the Graduate Employability & Career Centre (GECC) of Universiti Malaya organised CareerKit: Makeup Till You Make It! — an exclusive workshop designed to enhance female students' professional image and confidence as they transition into the workforce.

Held at Dewan Perdanasiswa 1, the session combined practical grooming techniques with communication skills training, providing mentorship on how to present oneself effectively in interviews and professional settings. Female participants gained hands-on guidance from industry-aligned trainers, empowering them to project confidence and credibility in their career journeys.

This initiative contributes to UM's women's mentoring schemes by equipping female students with soft skills and professional support networks that complement academic learning.



Above: Event poster for CareerKit: Makeup Till You Make It!

Women's Mentoring Schemes: Empowerment Through Creative Arts

From 5–7 February 2024, the Department of Drama, Faculty of Creative Arts, Universiti Malaya, staged “*Wanita dan Senjatanya*” (Fefu and Her Friends by María Irene Fornés, adapted and directed by Dr. Marlenny Deenerwan). The production, performed at UM's Experimental Theatre, brought together female students and creative mentors in a powerful exploration of women's experiences, resilience, and trauma.

The theatre project not only served as artistic expression but also functioned as a mentoring platform where female students collaborated closely with academic staff and industry practitioners. Through this engagement, students gained guidance in performance, stage management, and critical storytelling, skills that build confidence and leadership capacities transferable beyond the arts.



Above: Theatre poster for a production by female students and creative mentors

Women's Mentoring Schemes: Inspiring Female Leadership

On 22 March 2024, the Faculty of Built Environment, Universiti Malaya, held the Ramadhan Celebration: Women's Day Event featuring a mini carnival and inspirational forum. The programme highlighted female leaders, including Dr. Siti Norwahida Shukeri (CEO of The Prayer Mat Malaysia, Assistant Professor at UBD, Brunei) and Dr. Noor Aniah Azmi (Ophthalmologist, Ikonik Eye Specialist Centre), who shared their journeys in leadership, entrepreneurship, and healthcare.

Through open dialogue with female role models, the event offered mentoring opportunities and showcased diverse career pathways. The involvement of student associations and community entrepreneurs fostered idea-sharing and support networks. Supporting SDG 5, the initiative embeds women's mentoring schemes into campus activities, encouraging mentorship, confidence-building, and leadership among women in the UM community.



Above: Ramadhan Celebration: Women's Day event poster

Women's Mentoring Schemes: Empowering Women Writers Across Borders

On 7 November 2024, the Academy of Malay Studies, Universiti Malaya, with PENA, GAPENA, and Dewan Bahasa dan Pustaka (DBP), hosted the *Seminar Pemikiran Pengarang Wanita Serantau 2024* at Dewan Semarak. The event brought together 178 participants, including 16 female presenters from Malaysia, Indonesia, Brunei, Singapore, and Thailand, to discuss women writers' roles in addressing humanitarian issues.

The seminar offered mentoring opportunities for female students and emerging writers to engage with established authors such as Sasterawan Negara Datuk Zurinah Hassan. Discussions examined women's evolving voices in literature, from traditional narratives to modern debates on humanism, liberalism, and Islam. By fostering mentorship and dialogue, the initiative strengthened women's participation and cross-generational engagement in regional literary discourse.



Above: Photo taken during the Seminar Pemikiran Pengarang Wanita Serantau 2024 event

To Girls for Girls

The “To Girls for Girls” (TGFG) project, conducted under SULAM (Service Learning Malaysia – University for Society), was initiated by law students from Universiti Malaya to address workplace discrimination faced by women, including challenges related to maternity leave and career progression. In alignment with SDG 5 (Gender Equality), the project adopted a multi-phase approach to raise awareness and educate the public on women’s employment rights. It began with a social media campaign on Instagram, followed by physical and online surveys to gauge students’ awareness and understanding of these issues.

The initiative advanced with public exhibitions featuring NGOs that shared information and resources on workplace equality and women’s rights. It culminated in a public forum that brought together speakers and stakeholders to discuss gender-based challenges and legal protections in employment. Through awareness-building, collaboration, and community engagement, the project empowered young people to advocate for fairness and inclusivity in the workplace, reflecting UM’s ongoing commitment to gender equality and social responsibility.

Below: Photos taken during the “To Girls for Girls” (TGFG) project





Clean Water and Sanitation

Ensure availability and sustainable management of water and sanitation for all

6



Buang Yang Keruh, Ambil Yang Jernih

In 2024, Universiti Malaya advanced SDG 6—ensuring access to clean water and sanitation for all—through initiatives that integrate cultural wisdom, education, and practical action. This commitment aligns with the Malay proverb “*Buang yang keruh, ambil yang jernih*” (“discard what is impure and keep what is clean”), which reflects the principle of maintaining water purity and promoting responsible stewardship. UM provided educational opportunities for local communities to learn about good water management, supported off-campus water conservation, and engaged citizens in activities that foster awareness, shared responsibility, and sustainable practices.

On campus and beyond, UM promoted conscious water usage and strengthened cooperation on water security at local, regional, national, and global levels. These efforts included campaigns, community engagement, research, and knowledge-sharing initiatives designed to reduce water waste, improve water quality, and encourage sustainable water habits among students, staff, and the wider community. Collectively, these initiatives demonstrate UM’s holistic approach to water stewardship, combining education, practical action, and collaborative governance to safeguard water resources for present and future generations.

Local Community Water Management Education

In 2024, Universiti Malaya provided a range of educational opportunities for local communities to learn about good water management through hands-on engagement, research, and public outreach. Campus-based initiatives included annual gotong-royong river clean-ups at Sungai Pantai, Tasik Varsiti, involving UM Global Buddies and SEKRUM volunteers to remove debris and prevent downstream pollution. Complementing these efforts, the “Guarding Our Water Together” project at Tasik Taman Aman, implemented jointly with Monash University Malaysia under the Petaling Jaya Sustainable Community Grant, engaged citizen scientists in regular water monitoring, addressing microplastics, algal blooms, and other water quality issues. Public forums, exhibitions, and workshops—including lake clean-ups, composting sessions, and recycling programmes—provided practical guidance for sustainable water practices and fostered community stewardship.

Universiti Malaya also extended its educational impact through research and professional training. Studies such as the soundscape ecology assessment of campus streams highlighted ecological and emotional values of urban water bodies, while workshops like WWF-Malaysia’s flood preparedness training strengthened local capacity for disaster and water management. Faculty members delivered talks on place-based citizen science, watershed management, and community-driven environmental stewardship, emphasising the role of citizens in sustainable water governance. Together, these initiatives demonstrate UM’s commitment to combining scientific research, hands-on learning, and public engagement to promote effective water management within and beyond the campus community.

6

Campus Volunteers in Action: Protecting Sungai Pantai

Within the Universiti Malaya campus, Sungai Pantai, located beside Tasik Varsiti, has become an annual site for volunteers to join UM Water Warriors in gotong-royong (community clean-up) activities along this urban river. On 18 May 2024 and 7 June 2024, UM Global Buddies (UMGB) and the Sekretariat Sukarelawan Universiti Malaya (SEKRUM) collaborated in river clean-up efforts, removing rubbish and debris to prevent them from being carried downstream into Sungai Klang.

Below and right: Students entering Sungai Pantai to participate in the clean-up activity



Guarding Our Water Together with Local Community at Tasik Taman Aman, Petaling Jaya

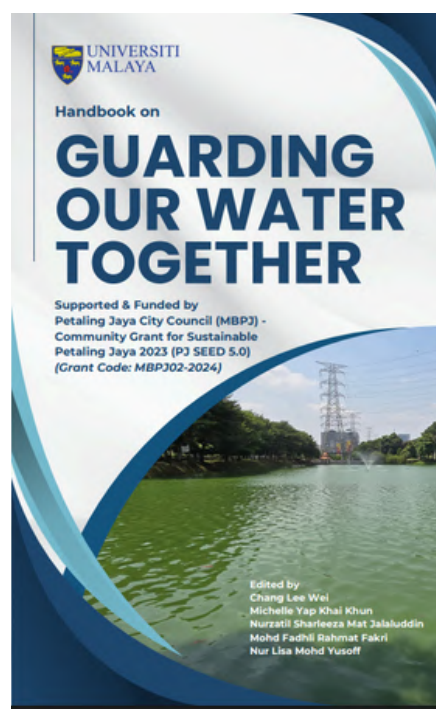
The “*Guarding Our Water Together*” project, awarded under the Petaling Jaya Sustainable Community Grant (PJ SEED 5.0) by the Petaling Jaya City Council (MBPJ), is a 12-month initiative launched on 1 January 2024. Jointly implemented by Universiti Malaya (UM) and Monash University Malaysia, the project adopts an action-oriented, participatory approach to investigate and address water quality issues at Tasik Taman Aman.

Central to its strategy is the engagement of citizen scientists in the continuous monitoring of key water parameters, including dissolved oxygen, pH, turbidity, microalgae identification, cyanotoxin levels, and the presence of microplastics and heavy metals. Sampling activities were conducted twice monthly from March to May, and monthly from June to August, totalling nine sampling sessions in 2024. The project focuses on the dual threats of microplastics and algal blooms, combining scientific research with community involvement to develop targeted interventions.

Below: Event poster for the Mini Exhibition @ Taman Aman (left) and the front cover of the Handbook on Guarding Our Water Together (right)

Key outreach activities included stakeholder engagement during the Friends of Taman Aman (FoTA) AGM and a progress presentation held on 18 May 2024. A public forum on 24 June 2024, co-organised with Monash University Malaysia during the World Environment Day Symposium, spotlighted environmental issues such as water conservation and plastic pollution. In July, the project introduced the SAMPAH SNAGGER 002—a waste interception system installed at the Taman Aman lake to prevent pollution at its source. Community engagement culminated in a mini exhibition on 23 November 2024 at Taman Aman, featuring activities such as lake and park clean-ups, awareness talks, composting workshops, and a recycling buy-back programme. The Handbook on Guarding Our Water Together was published for public viewing by the Universiti Malaya Centre for Civilisational Dialogue (UMCCD) in 2024.

Through its integrated scientific and community-based approach, the project aims to serve as a model for sustainable freshwater management in urban public spaces.





Above: Water sampling activities at Tasik Taman Aman

Below: The Sampah Snagger 002 installed at Tasik Taman Aman prevents waste from entering the lake



Below: Activities during the Mini Exhibition @ Taman Aman



Soundscape Ecology of an Urban Green Campus Water Body: A Tale of Two Streams

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A recent study published in the *Malayan Nature Journal* (2024) titled “Soundscape Ecology of an Urban Green Campus Water Body: A Tale of Two Streams” highlights Universiti Malaya’s innovative approach to sustainability through the lens of soundscape ecology. Conducted at the Rimba Ilmu Botanic Garden and the Faculty of Science, the research revealed how natural and built environments shape the acoustic quality and ecological health of campus water bodies. The Rimba Ilmu stream, flowing through a largely natural landscape, exhibited rich biophonic and geophonic elements such as birdsongs and flowing water—indicators of a calm, vibrant, and healthy ecosystem. In contrast, the Faculty of Science stream, heavily modified by urban structures like drains and culverts, produced harsh, noisy soundscapes, reflecting reduced ecological quality and disrupted water flow.

The study introduced the Natural Soundscape Quality (NSQ) framework as a useful tool for assessing the environmental and emotional value of campus landscapes. It emphasises the importance of integrating soundscape-based monitoring and design into sustainability planning to enhance biodiversity, human well-being, and ecological empathy.

Overall, the research reinforces the need to preserve natural water bodies and manage urban streams with ecological sensitivity, ensuring that UM’s green campus continues to function as both a living laboratory and a sanctuary for biodiversity. By valuing the “music of nature”, Universiti Malaya demonstrates how sustainability can harmonise science, art, and environmental stewardship.

Right: Photos of the water bodies at Universiti Malaya



Strengthening Flood Preparedness Through Municipal Training

On 12–13 December 2024, WWF-Malaysia, in collaboration with several strategic partners, organised a training workshop titled “Enhancing Municipal Preparedness for Flood Hazards: A Practical Approach.” The workshop served as a platform for discussion and exchange of knowledge on various aspects of flood management including preparedness measures before, during, and after flood events and featured training on the Town Watching method.

A total of 36 participants attended, comprising representatives from local authorities, government agencies, non-governmental organisations, and universities across Selangor and the Federal Territory of Kuala Lumpur, including Universiti Malaya. Participants actively engaged in discussions, planning, and strategy development to enhance municipal readiness and strengthen effective flood disaster management. Associate Professor Dr. Fauziah Shahul Hamid represented Universiti Malaya and delivered a presentation titled “Flood-Driven Solid Waste Pollution: Challenges and Strategies for Urban Resilience.”



Above: Associate Professor Dr. Fauziah Shahul Hamid presenting during the training workshop (top), and the group photo (bottom)

Place-based Citizen Science as a “Heartware” Tool to Build Shared Values and Capacity for Watershed Management

In October 2024, Associate Professor Dr. Zeeda Fatimah Mohamad spoke at the Open Science Forum, sharing her expertise on community engagement and environmental stewardship. Her presentation, “Place-based Citizen Science as a ‘Heartware’ Tool to Build Shared Values and Capacity for Watershed Management,” emphasised the importance of involving citizens in sustainable natural resource governance.

She highlighted how place-based citizen science strengthens community connection to local ecosystems, values local knowledge, and builds trust. This collaborative approach encourages shared responsibility and improves decision-making for effective watershed management.

Below: Associate Professor Dr. Zeeda Fatimah Mohamad at the Open Science Forum



Extending Water Conservation Beyond Campus

In 2024, Universiti Malaya promoted practical water conservation beyond campus through community engagement, education, and hands-on projects. Initiatives included the SULAM programme at Sungai Lalang, combining geotourism awareness with hot spring revitalisation, and water quality monitoring at Sungai Hulu Langat with 54 Geography undergraduates. UM Water Warriors also led talks on waste management and water protection at Kolej Sultan Abdul Hamid, Kedah, and participated in the “*Air Kita, Tanggungjawab Bersama*” campaign in Labuan.

UM researchers addressed local water challenges in Bachok, Kelantan, including low-cost rice husk-based filtration solutions. Off-campus advocacy extended to KLEFF 2024, youth water webinars, and workshops on freshwater bioindicators and sustainable waste practices. Associate Prof. Dr. Zeeda Fatimah Mohamad delivered a keynote at the Webinar for Signpost to Bali: Youth for Water, highlighting youth engagement and intergenerational collaboration in water governance. These efforts demonstrate UM’s commitment to promoting water conservation through research, education, and community outreach.

Reviving The Sungai Lalang’s Hot Spring for Geotourism

A two-day SULAM (Service Learning Malaysia–University for Society) project was carried out in the Sungai Lalang area, Semenyih, organised by students from the Faculty of Science, Bachelor of Applied Geology programme. The project aimed to raise community awareness about local geology and promote the Sungai Lalang Hot Springs as a potential geotourism destination. On 25 May 2024, the project began with a community engagement programme in Kampung Pasir Baru, featuring a geology exhibition and door-to-door outreach. The exhibition showcased infographics on geotourism and geo-disasters, along with rock and prehistoric fossil displays. In the afternoon, volunteers visited households to distribute brochures and introduce residents to the geological uniqueness of their surroundings.

On 26 May 2024, the project continued with a *gotong-royong* (communal work) activity to revitalise the Sungai Lalang Hot Springs. Volunteers distributed brochures to visitors and carried out improvement works, including cleaning algae, collecting litter, painting, and washing the hot spring area. The initiative encouraged the community to appreciate and care for their natural assets, supporting geotourism development while fostering environmental stewardship.



Above: UM students explaining hot spring formation using an infographic poster (top), and distributing brochures to local residents with a brief explanation about the hot springs (bottom)

A Socio-economic Impact Assessment of Water and Sanitation Needs Among Poor Households in Kelantan

A community engagement visit was conducted on 23 July 2024 in Kampung Repek, Bachok, Kelantan, as part of the research project “A Socio-economic Impact Assessment of Water and Sanitation Needs among Poor Households in Kelantan” under Grant IIRG003C-2021IISS, led by Dr Adilah Abdul Ghapor. The visit aimed to present findings collected from 2022 to 2023 and to discuss local water issues with community representatives. Residents highlighted several ongoing problems, including low or inconsistent piped water pressure, poor confidence in tap water quality, and contamination of groundwater particularly in areas near paddy fields where the water emits an unpleasant odour or appears discoloured.

The research team shared key findings on water quality and the development of a rice husk-based filtration membrane designed to treat groundwater. Laboratory tests showed that Kampung Repek’s water, with a pH of 6.5, falls within acceptable limits for consumption but still requires filtration. The team explained that the rice husk membrane, made from organic materials, can reduce odour and discolouration at a low cost and minimal environmental impact, though further research is needed before commercial use.

The session also included a socio-economic presentation, which revealed that all respondents were in the B40 income group, with 77% relying on groundwater and 20% purchasing bottled water for daily use, including religious practices. Despite challenges, most respondents expressed satisfaction with recent improvements in water access through local efforts.

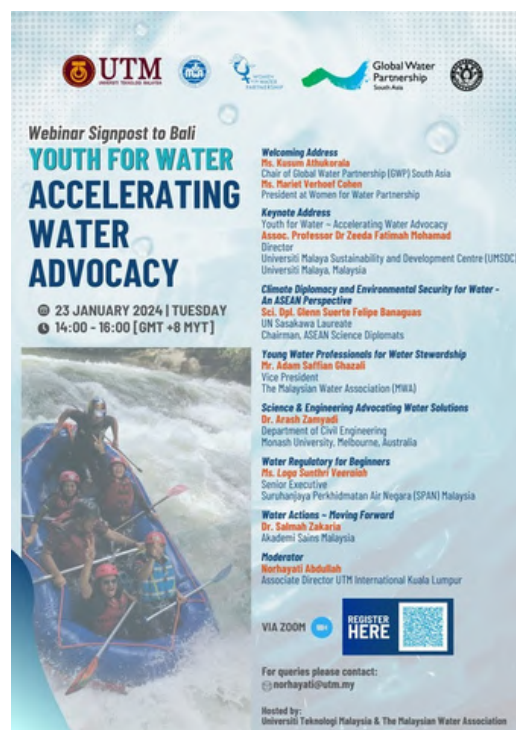
Right: Community engagement visit in Bachok, Kelantan, presenting local water issues based on research findings (top and middle), and the poster displayed during the session (bottom)



Signpost to Bali Youth for Water ~ Accelerating Water Advocacy

On 23 January 2024, Associate Prof. Dr. Zeeda Fatimah Mohamad was invited as a keynote speaker for the “Webinar for Signpost to Bali: Youth for Water ~ Accelerating Water Advocacy.” The event was jointly organised by Universiti Teknologi Malaysia (UTM) and The Malaysian Water Association (MWA).

The webinar aimed to empower youth in preparation for the 10th World Water Forum in Bali, by strengthening their advocacy, communication, and leadership skills in addressing global and local water challenges. Dr. Zeeda shared valuable insights on the importance of youth participation in water governance, highlighting how intergenerational collaboration and community-driven initiatives can contribute to more sustainable water management.



Above: Event poster for the webinar

Water Quality and Benthic Monitoring at Sungai Hulu Langat

On 9 November 2024, the Department of Geography, UM, organised a Water Quality and Benthic Monitoring programme at Sungai Hulu Langat, in collaboration with Bamboo Camp & Resort Hulu Langat. A total of 54 undergraduate Geography students participated in the activity, which was led by Dr. Nik Noor Athirah. The programme aimed to expose students to physical, chemical, and biological methods of water quality monitoring while fostering greater awareness of river conservation and the importance of protecting freshwater ecosystems. This initiative reflects UM's contribution to off-campus water conservation efforts and supports the indicator on practical water conservation initiatives beyond campus.

Right: Geography students conducted water quality and benthic monitoring at Sungai Hulu Langat



KLEFF 2023: UM Highlights Water Stewardship and Sustainable Living

Universiti Malaya Sustainable Development Centre (UMSDC) received an invitation from EcoKnights to participate as an exhibition partner and invited judge for the esteemed 15th International Kuala Lumpur Eco Film Festival (KLEFF) 2023, held from 17 to 28 February 2024. Associate Professor Dr. Zeeda Fatimah Mohamad, Director of UMSDC, served on the judging panel for the KLEFF 2023 submissions. KLEFF is Malaysia's first and longest-running creative platform promoting sustainable living.

As an exhibitor at the KLEFF x AirKita Exhibition, UMSDC and Water Warriors had the opportunity to showcase campus sustainability efforts in promoting eco-friendly practices and advancing the green agenda within the context of Higher Education Institutions (HEIs).

Highlights included an exhibition on urban rivers and sustainable lifestyle activities, as well as submissions featured in the Kita Jaga Air Challenge, which aimed to raise public awareness of water stewardship and responsible urban living. From sustainable initiatives to pioneering action research projects under the UM Living Labs, visitors engaged with informative displays, participated in interactive sustainability workshops and forums, and experienced firsthand the award-winning eco films showcased at the festival. Two workshop sessions were conducted by the UM team: 'Creepy, Crawly & Aquatic'—a sharing session on freshwater macroinvertebrates as biological indicators of water quality; and 'From Waste to Melting Plastic-Keychain'—a hands-on activity turning plastic waste into useful items.

Right: UM team at KLEFF 2023 (top) and exhibition booth highlighting urban rivers, freshwater macroinvertebrates, and plastic waste upcycling (middle and bottom)



Awareness Talk on Domestic Waste and Water Protection with UiTM Kedah

On 12 October 2024, Forum Air Malaysia, in collaboration with UiTM Kedah, organised “Program Anugerah Hijau: Cekap Air Kita” to promote water efficiency and environmental awareness among youth. UMSDC and UM Water Warriors, invited by EcoKnights as Water Ambassadors, delivered a talk on domestic waste management and water source protection. The session engaged 120 students from Kolej Sultan Abdul Hamid, Kedah, in discussions and activities highlighting the link between waste disposal and water pollution. Practical guidance on waste segregation, composting, and responsible plastic use was shared, inspiring students to adopt sustainable habits and advocate for water and environmental protection in their communities.

Water Stewardship Message in Labuan

On 28 October 2024, Jabatan Bekalan Air Wilayah Persekutuan Labuan and EcoKnights jointly organised the Program Hari Bertemu Pelanggan Bahagian Bekalan Air Wilayah Persekutuan Labuan, featuring a session under the *Air Kita, Tanggungjawab Bersama* (Our Water, Our Shared Responsibility) campaign. Affan Nasaruddin from Universiti Malaya delivered an engaging talk on water conservation, sustainable water management, and community participation.

The session highlighted collective responsibility in safeguarding water resources and how behavioural change and community-driven initiatives contribute to national water sustainability goals. Insights from UM’s water conservation programmes, including campus projects like Tasik Varsiti restoration and citizen-focused water education, were shared. This collaboration underscored the importance of multi-stakeholder partnerships in addressing water challenges.



Above: Awareness session with students from Kolej Sultan Abdul Hamid, in collaboration with UiTM Kedah

Below: Awareness session during Program Hari Bertemu Pelanggan by Bekalan Air Wilayah Persekutuan Labuan



Cooperation on Water Security

In 2024, Universiti Malaya (UM) intensified its commitment to strengthening water security through collaborations with multiple stakeholders across various governance levels—local, regional, national, and global. At the local level, UM partnered with Majlis Bandaraya Petaling Jaya (MBPJ) through the “Guarding Our Water Together” project at Tasik Taman Aman (see page 128 - 129 in this SDG 6 report), focusing on community-based lake monitoring, water quality awareness, and citizen stewardship. At the regional level, UM collaborated with Air Selangor Sdn. Bhd. (Air Selangor)’s management to support initiatives on sustainable water management and resilient water supply systems, contributing scientific expertise and knowledge-sharing platforms. Also at the regional level, Water Warriors—an initiative under the UM Sustainable Development Centre, were officially recognised as Friends of Rivers (FOR) Negeri Selangor.

At the national level, UM participated in the National Seminar on Sustainable Management of Lakes and Wetlands, organised by Perbadanan Putrajaya, to contribute research insights supporting national strategies on lake and basin sustainability. Global collaboration was further strengthened as UM served as a co-organiser for the Water Security: 14th International Symposium on Southeast Asian Water Environment (SEAW-14), a platform that gathered international researchers, policymakers, and water agencies to exchange ideas on water governance and resilience in Southeast Asia and beyond. Together, these partnerships demonstrate UM’s leadership in championing multidisciplinary and multilevel cooperation to ensure secure, sustainable water futures.

Recognition as Friends of Rivers (FOR) Negeri Selangor for Water Warriors and Inspirasi Kawa (2024)

In 2024, Water Warriors—an initiative under the UM Sustainable Development Centre—and its former spin-off social enterprise, Inspirasi Kawa, were officially recognised as Friends of Rivers (FOR) Negeri Selangor for their dedication to river stewardship and community education. Their initiatives encompass regular river clean-ups, water quality monitoring, and educational programmes that raise public awareness about sustainable water management and the importance of protecting freshwater ecosystems. By partnering with state agencies, local communities, and other stakeholders, Water Warriors and Inspirasi Kawa have fostered a culture of shared responsibility for river conservation, encouraging active participation from citizens of all ages. This recognition highlights not only their tangible contributions to safeguarding Selangor’s rivers but also reinforces UM’s role as a leader in promoting environmental sustainability and nurturing impactful, community-driven initiatives.

Below: Certificate for Friends of Rivers Negeri Selangor for Inspirasi Kawa and UM Water Warriors



Let's Get Candid! Engagement with Air Selangor

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On 10 June 2024, Universiti Malaya was invited by Air Selangor's Customer Experience Department (CXD) to participate in the Let's Get Candid! 2024 programme, held at the Sg. Semenyih Water Treatment Plant, Putrajaya. This annual engagement initiative serves as a two-way communication platform to exchange ideas and gather feedback through focus group discussions, aimed at improving the quality of water supply services for all consumers. Since its inception in 2021, the programme has received highly positive responses from participants across various sectors.

The 2024 edition focused on key themes such as Water Tariff and the Value of Water, Water Quality, Water Conservation, and Non-Revenue Water (NRW) Mainstream. The programme began with a guided tour of the water treatment plant, providing participants with first-hand exposure to the water treatment process, followed by roundtable discussions and dialogues attended by Air Selangor's top management, including the Acting Chief Executive Officer (ACEO).

In addition, on 21 August 2024, Air Selangor Petaling Region invited Universiti Malaya to another engagement session at the Tropicana Golf & Country Resort. This session centred on discussions related to water quality, e-billing systems, and water tariffs, providing a deeper understanding of the operational and service improvement measures undertaken by Air Selangor.

These engagements represent regional cooperation on water security, as Air Selangor is the largest water service provider in Malaysia, supplying treated water across multiple districts and municipalities within the state of Selangor and the Federal Territories of Kuala Lumpur and Putrajaya. By contributing expertise in community engagement, water stewardship, and sustainable management practices, Universiti Malaya supported regional-level decision-making on water service delivery, conservation strategies, and consumer-focused improvements.

Below: Documentation of the focus group discussion involving Air Selangor representatives, UM delegates, and invited experts



National Seminar on Sustainable Management of Lakes and Wetlands

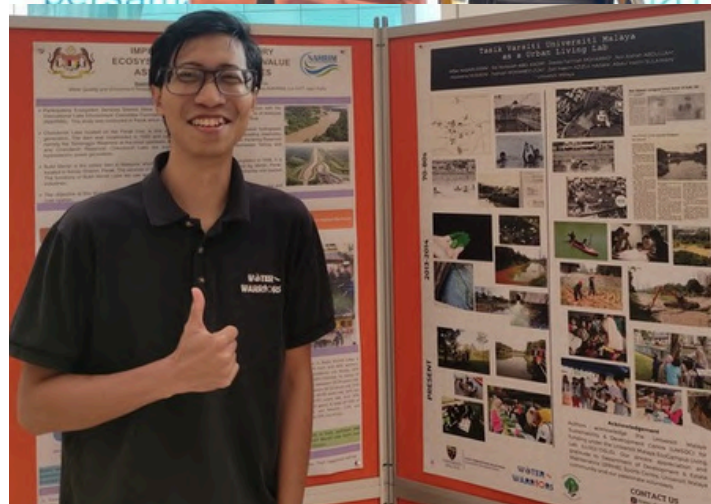
The National Seminar on Sustainable Management of Lakes and Wetlands, organised by Perbadanan Putrajaya, was held from 7 to 9 February 2024 at Dewan Seri Melati, Kompleks Perbadanan Putrajaya. The seminar brought together around 250 participants from various government agencies, non-governmental organisations, research institutions, universities, local authorities, developers, and organisations involved in water body management and sustainable development across Malaysia. The event served as a key platform for sharing knowledge, exchanging best practices, and promoting collaboration towards integrated and sustainable freshwater ecosystem management.

This year's seminar highlighted the ecosystem services provided by lakes and wetlands, focusing on their roles in supporting the economy, promoting sustainable development, enhancing eco-tourism, and preserving conservation and research sites. Discussions also covered innovative practices such as the creation of constructed wetlands, green area conservation, and the integration of Nature-based Solutions (NbS) in large-scale urban and commercial projects across the country.

Associate Prof. Dr. Zeeda Fatimah Mohamad from Universiti Malaya served as one of the moderators for the Sustainable Development session, facilitating discourse on the intersection between environmental conservation and sustainable urban growth. Meanwhile, Affan Nasaruddin presented a poster titled “Tasik Varsiti Universiti Malaya as an Urban Living Lab,” showcasing the lake’s transformation into a centre for research, education, and community engagement in sustainability. The participation of Universiti Malaya in this national platform reflects the university’s ongoing commitment to sustainable water management, interdisciplinary collaboration, and evidence-based policymaking in support of Malaysia’s sustainability agenda.



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Above: Group photo with representatives from Perbadanan Putrajaya (top), Associate Prof. Dr. Zeeda Fatimah Mohamad serving as session moderator (middle), and Affan Nasaruddin presenting the research poster (bottom)

Global Cooperation on Water Security: 14th International Symposium on Southeast Asian Water Environment (SEAW-14)

Universiti Malaya demonstrated global cooperation on water security through its active involvement in the 14th International Symposium on Southeast Asian Water Environment (SEAW-14), held from 3 to 5 December 2024 in Kuala Lumpur. The symposium was co-organised by the Sustainable Process Engineering Center (SPEC), Universiti Malaya, in collaboration with the Research Center for Water Environment Technology (RECWET), The University of Tokyo, along with participation from regional government agencies, research institutions, and international organisations.

SEAW-14 provided a scientific and policy dialogue platform focused on freshwater quality, sustainable water management, wastewater treatment innovations, aquatic ecology, and climate-resilient water governance within Southeast Asia. The symposium strengthened multi-country partnerships, enabling the exchange of expertise and solutions on transboundary river basin management and sustainable water practices in rapidly urbanising regions.

As a co-organiser, Universiti Malaya played a key role in shaping the programme and contributing research insights, demonstrating the university's leadership in advancing water security beyond Malaysia. UM researchers delivered oral presentations based on ongoing research in water quality management, wastewater treatment technologies, and freshwater ecosystem monitoring.

UM presenters included:

- Dr. Mohamad Fairus Rabuni (Universiti Malaya) – presentation on water treatment process development and innovation.
- Tan Yan Ying (Universiti Malaya) – research presentation on water chemistry and pollutant analysis.

Through this international symposium, Universiti Malaya not only shared scientific findings but also strengthened research cooperation with global partners. Its role as a collaborating organiser and presenter demonstrates the university's commitment to advancing global water security and contributing to evidence-based solutions for sustainable water environments.



Above: SEAW-14 opening ceremony attended by speakers, delegates, and organisers

Below: Official symposium poster featuring Universiti Malaya as a co-organiser



The 14th International Symposium on Southeast Asian Water Environment

3-5 Dec 2024, Kuala Lumpur, Malaysia

Conscious Water Usage Promotion on Campus

In 2024, Universiti Malaya actively promoted conscious water usage on campus through a combination of awareness initiatives and practical interventions. In response to the revised domestic water tariff starting 1 February, the UM Water Warriors, under the Sustainable Development Centre and in collaboration with Pengurusan Air Selangor Sdn. Bhd., distributed over 100 free water thimbles to staff and students. This simple, easy-to-install device helps reduce water flow from taps and showerheads while maintaining consistent pressure, encouraging the campus community to adopt efficient water-use habits in daily life.

Complementing these efforts, the university implemented innovative technologies and infrastructure improvements to enhance water efficiency. Regenerative precoat filters (AQUASWIFT RPF) were installed at the UM Swimming Pool, achieving up to 90% water savings compared with traditional filtration systems. At UMMC, tap aerators were introduced in surgical hand-scrubbing stations, and 16 automated bidets were installed in Faculty of Engineering toilets under a new MoA with Coway Malaysia to optimise water use while improving hygiene. Together with routine maintenance of water pipes, storage tanks, and related infrastructure carried out by the Estates Department, these initiatives demonstrate UM's holistic approach to conserving water, fostering sustainability, and engaging the campus community in responsible water management.

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UM Water Warriors Promote Water-Saving with Free Water Thimbles

Starting from 1 February 2024, the domestic water tariff in Peninsular Malaysia and Labuan was revised, prompting increased attention to water conservation efforts among consumers. In response, the UM Water Warriors, under the Universiti Malaya Sustainable Development Centre (UMSDC), in collaboration with Pengurusan Air Selangor Sdn. Bhd., launched an initiative to promote efficient water use within the campus community.

As part of this campaign, the team distributed over 100 free water thimbles to Universiti Malaya staff and students. This small, easy-to-install device can be fitted manually onto taps and showerheads to reduce water flow while maintaining a steady and consistent stream, regardless of pressure. The initiative aimed to help the community lower household water consumption, reduce utility costs, and cultivate sustainable water habits in daily life.



Above: Awareness stickers on water savings and toilet etiquette were placed in various campus toilets to promote conscious water usage

Saving Life, Saving Water at UM Medical Centre

A pilot study conducted in one of the operating theatres at Universiti Malaya Medical Centre (UMMC) revealed significant wastage of unused clean water during the surgical hand scrubbing process. In response, a team led by Prof. Dr. Shireen Anne Nah Han Yien, in collaboration with the UM Water Warriors, initiated an effort to conserve water by installing tap aerators to reduce water flow without compromising hygiene standards.

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This initiative demonstrated that aerator installation is a low-cost, low-maintenance solution compared with replacing existing taps or plumbing systems. The simple yet effective modification not only minimises water wastage but also supports sustainable water management practices within healthcare facilities. The pilot study serves as an important step towards developing green hospital initiatives at UMMC.



Above: Water taps at Dewan Bedah Pediatrik, UMMC, fitted with tap aerators to reduce water flow

AQUASWIFT - Regenerative Precoat Filtration (RPF) -Sustainable/ Green technology installed at University Malaya Swimming Pool managed by NADIM Swim School.

A key initiative is the installation of regenerative precoat filters at the Universiti Malaya swimming pool, operated by Nadim Swim School. This advanced filtration system has significantly reduced both water and chemical consumption, marking a major milestone in the university's efforts toward environmental stewardship and resource efficiency.

Unlike traditional sand filters, regenerative precoat filters utilise a fine perlite or diatomaceous earth medium to trap impurities. Through a unique “bumping” process, the system cleans and reuses the filter medium instead of discharging large volumes of water for backwashing. This innovative technology enables up to 90% reduction in water usage, saving thousands of cubic metres of water each month, while also minimising chemical demand and associated costs.

Below: The AQUASWIFT at UM's swimming pool



Pilot of Automated Bidet Technology to Promote Water Efficiency on Campus

Coway Malaysia officially signed a Memorandum of Agreement (MoA) with Universiti Malaya to advance collaborative research on automated bidet technology, exploring innovative ways to enhance hygiene, optimise water flow, and improve everyday living. As part of the initiative, 16 bidet units were installed in faculty toilets across the campus in 2024.

This project demonstrates UM's commitment to promoting conscious water usage on campus by integrating advanced sanitation technology with sustainable practices. The automated bidets help reduce unnecessary water use compared with conventional flushing systems, while maintaining comfort and hygiene for users. By combining infrastructure innovation, research, and behavioural awareness, UM encourages staff and students to adopt responsible water habits, reflecting a holistic approach to water efficiency and resource management.



Above: Coway Malaysia officially signed a Memorandum of Agreement (MoA) with Universiti Malaya

Regular Maintenance by UM Estates Department

To ensure the quantity and quality of water supply across all buildings, the UM Estates Department actively carries out regular maintenance of water pipes, storage tanks, and related infrastructure. These proactive measures play a vital role in preventing leaks, improving water efficiency, and reducing non-revenue water (NRW) within the campus. Routine inspections and timely maintenance help ensure that the university's water systems remain reliable and operate at optimal capacity.

The campus community is also encouraged to play an active role in maintaining water sustainability by reporting any leaks, faults, or irregularities through the UM Helpdesk system. Reports submitted through this platform allow the Estates Department to respond promptly, with repair works prioritised according to the level of urgency and technical complexity.



Right: Photos showing maintenance work on water pipes

Encouraging Responsible Water Use in the Community

In 2024, Universiti Malaya promoted conscious water usage through public engagement and practical solutions. The UM Sustainable Development Centre, in collaboration with UM Water Warriors, participated in the Kuala Lumpur Eco Film Festival (KLEFF). At the festival, visitors learned ways to reduce water consumption at home through interactive displays and demonstrations, and received free water-saving devices with guidance on installation.

Complementing these outreach efforts, UM developed the Solar-Powered Automated Ultrafiltration Self-Cleaning System, SMART AQUA-EZ, to provide safe and sustainable drinking water to rural and disaster-affected communities. One installation at Sekolah Kebangsaan Kuala Sungai, Gua Musang, Kelantan, included a sharing session with schoolchildren on the system and practical water-use habits. Together, these initiatives reflect UM's commitment to raising awareness and fostering sustainable water practices in the wider community.

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Promoting Water Conservation at Kuala Lumpur Eco Film Festival 2024

From 24 to 27 October 2024, the Universiti Malaya Sustainable Development Centre (UMSDC), in collaboration with UM Water Warriors, participated in the Kuala Lumpur Eco Film Festival (KLEFF) organised by EcoKnights, held at Semua House, Kuala Lumpur. The festival, Malaysia's premier platform for environmental awareness and sustainable living, attracted a diverse crowd of visitors eager to learn about eco-friendly practices and green innovations.

At the UMSDC-Water Warriors booth, the team engaged with members of the public through interactive demonstrations and educational displays on water conservation and sustainable water management. Visitors learned practical ways to reduce water consumption at home and gained insights into UM's ongoing environmental initiatives. As part of the outreach, the team also distributed free water-saving devices and provided hands-on guidance on how to install them, encouraging participants to take immediate action towards reducing daily water use.

Right: UM team demonstrating installation of water restrictor devices on household pipes (top) and engaging visitors on water conservation at the booth (bottom)



SMART AQUA-EZ: Solar-Powered Self-Cleaning Ultrafiltration System for Sustainable Drinking Water

The Solar-Powered Automated Ultrafiltration Self-Cleaning System, known as SMART AQUA-EZ, is an innovative and self-contained solution developed to provide safe, reliable, and sustainable drinking water from various raw water sources. Designed to serve rural and disaster-affected communities, this system integrates solar power and automated ultrafiltration (UF) technology to deliver clean water efficiently and affordably. The project is led by Prof. Emeritus Dr. Ir. Mohd Azlan Hussain, with team members Dr. Mohd Usman Mohd Junaidi, Dr Mohamad Fairus Rabuni, Dr Faidzul Hakim Adnan, and Dr Zulhelmi Amir from the Faculty of Engineering. Supported by NBOS, MyIS Komuniti, and the UAE Water Aid Foundation, the system evolved from extensive research, including a PhD project on UF process control and a real-world deployment during the 2014 Kelantan floods.

SMART AQUA-EZ incorporates an automatic self-cleaning mechanism, eliminating the need for chemical cleaning agents and ensuring easy, low-maintenance operation. It can filter water from rivers, wells, lakes, and ponds into safe drinking water, producing up to 1,000 litres per hour—enough to meet the daily needs of over 1,000 people. The system's solar-powered design allows for low energy consumption and continuous operation even in off-grid locations, functioning at lower pressure compared to conventional systems such as nano-filtration or reverse osmosis.

Locally assembled at Universiti Malaya, the system benefits from reduced manufacturing costs, local expertise, and IoT-ready capabilities that enable remote monitoring and control. One successful installation took place at Sekolah Kebangsaan Kuala Sungai, Gua Musang, Kelantan, where the system now provides a consistent and sustainable clean water supply to the local community. A sharing session was also conducted with the schoolchildren, educating them about the system, its operation, and practical water usage habits, fostering early awareness of sustainable water management.

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Right: UM researchers from the Faculty of Engineering briefing school representatives (top) and students (middle) on the SMART AQUA-EZ system, followed by a group photo (bottom)

7 AFFORDABLE AND CLEAN ENERGY



Affordable and Clean Energy

Ensure access to affordable, reliable, sustainable and modern energy for all.



Sedikit-sedikit, lama-lama Jadi Bukit

SDG 7, which aims to ensure access to affordable, reliable, sustainable, and modern energy for all, is well reflected in the classical Malay peribahasa “*Sedikit-sedikit, lama-lama jadi bukit*” (small efforts, over time, make great changes). This proverb highlights how consistent and steady actions can lead to meaningful, long-term impact. At UM, this principle is demonstrated through a range of sustainable energy initiatives—such as installing solar panels, promoting energy-saving practices on campus, integrating energy efficiency in building designs, and encouraging student-led innovation in green technology.

These actions, though often incremental, collectively contribute to reducing the university’s carbon footprint and fostering a culture of energy responsibility. By embracing steady progress towards clean energy, UM plays a vital role in advancing global efforts to build a sustainable and energy-secure future. Through persistence and collaboration, the university continues to demonstrate that every small step forward strengthens the foundation for a cleaner and more resilient tomorrow.

Upgrading Campus Buildings for Energy Efficiency

Universiti Malaya has long recognised that improving the efficiency of its physical infrastructure is fundamental to achieving a sustainable campus. In 2024, this commitment was strengthened through the implementation of the Net Zero Blueprint 2030, which emphasises structured plans to retrofit existing facilities with modern, energy-efficient systems. Buildings across the campus were evaluated using the Building Energy Index (BEI) and Power Usage Effectiveness (PUE) indicators, providing quantifiable measures of progress.

These upgrades extend beyond hardware improvements; they are supported by systematic monitoring processes and targeted interventions in high-consumption areas such as laboratories, lecture halls, tutorial rooms, offices, and residential colleges. By embedding energy efficiency standards into capital planning and refurbishment projects, UM is ensuring that every new investment reinforces its long-term sustainability goals. These actions reflect the aspirations of SDG 7.2 — to increase the share of renewable energy and energy efficiency in infrastructure development — ensuring that UM's built environment aligns with global sustainability benchmarks.

UM has also planned the installation of solar panels on the rooftops of selected buildings on the main campus. This initiative will provide financial benefits through reduced electricity bills and potential income from selling excess power back to the grid, while also reducing the University's carbon footprint and promoting energy independence. The installation of solar photovoltaic systems will be carried out through the Solar Energy Purchasing under the Self-Consumption (SELCO) programme or the Net Energy Metering for Government Ministries and Entities (NEM GoME) scheme. The request for proposals and evaluation process were completed in 2023, and the approval process is currently ongoing. The total installed capacity is expected to reach around 13 MWp, capable of supplying approximately 20% of the University's current electricity demand.

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Energy Efficiency Planning and Governance

In 2024, Universiti Malaya strengthened institutional governance in energy management by formalising a dedicated Energy Management Committee, supported by a full-time Energy Manager. This body was tasked with coordinating and monitoring energy performance across faculties and departments, ensuring that sustainability is not approached in isolation but integrated into daily operations.

The committee introduced a comprehensive Energy Efficiency Plan encompassing energy audits, energy performance contracting, and targeted retrofits. For instance, lighting systems and air-conditioners in selected buildings were replaced with high-efficiency alternatives, while air-conditioning systems were optimised to reduce energy consumption. Through these structured measures, UM has embedded sustainability into its operational framework.

These efforts align with SDG 7.3 — to double the rate of improvement in energy efficiency — and reflect the University's transition from ad hoc sustainability actions to a systematic governance framework, where accountability, measurable targets, and periodic reporting drive continuous progress.



Identifying and Reducing Energy Wastage

Another highlight of 2024 was the implementation of a multi-year energy audit programme, made possible through a grant from the Sustainable Energy Development Authority (SEDA) Malaysia. The audits systematically reviewed energy consumption patterns across buildings, identifying hotspots of inefficiency.

The findings have already informed early interventions such as installing motion-sensor lighting, replacing current lighting with energy efficient lighting, optimizing Heating, Ventilation, and Air Conditioning (HVAC) scheduling, and recommending improved insulation in selected spaces. We anticipate that these corrective measures will result in significant long-term electricity cost savings and a reduction in carbon intensity.

Conducted over a five- to seven-year cycle, these audits ensure continuous improvement and foster a culture of evidence-based energy management. This initiative directly contributes to SDG 7.3: ensuring energy is used more efficiently and sustainably, while also serving as a model for other Malaysian universities and institutions.



Local Community Outreach for Energy Efficiency

Universiti Malaya (UM) actively engages the local community in understanding and adopting energy-efficient and clean energy practices through outreach, innovation, and collaborative learning. UMPEDAC, led by Dr. Tan Chia Kwang, carried out a field study in Selangau, Sarawak, working directly with remote longhouse communities to assess energy consumption and living conditions. This initiative not only aimed to identify low-carbon electrification models but also served as a hands-on outreach effort, promoting energy-efficient practices and raising awareness of sustainable energy solutions among local residents. The “*Solar Untuk Sekolah*” programme, led by students from the Faculty of Science in collaboration with the Low-Dimensional Materials Research Centre, introduced secondary school students to solar energy through creative model-building using recycled materials. This hands-on initiative not only cultivated awareness of renewable energy but also reflected UM’s broader efforts to extend sustainability education beyond campus. Alongside this, UM strengthens community learning through seminars and research showcases by centres such as the Centre for Energy Sciences, NANOCAT, and UMPEDAC, which feature accessible discussions on smart power flow controllers, photocatalytic coatings for energy efficiency, and nanomaterials for clean energy systems. These activities collectively promote scientific literacy, encourage responsible energy use, and connect the public with the latest advances in sustainable technology.



Complementing these outreach and educational efforts, UM continues to demonstrate applied innovation in energy management through research and knowledge sharing. The solar-powered smart monitoring device, developed at the Faculty of Engineering, exemplifies this commitment—using AI and IoT technologies to optimise electricity usage and reduce energy waste on campus. Its deployment and demonstration across the UM community provide a practical example of how smart systems can enhance energy efficiency. Meanwhile, the International Conference on Sustainable Energy, Infrastructure and Environment 2024 (ICSEIE2024) gathered national and international experts to explore pathways for accelerating the global energy transition. Together, these initiatives deepen local understanding of clean energy, foster sustainable practices, and strengthen Malaysia’s pursuit of a low-carbon future.

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Bringing Sustainable Energy to Rural Communities in Sarawak

In 2024, Dr. Tan Chia Kwang from the Universiti Malaya Power Energy Dedicated Advanced Centre (UMPEDAC) led a field study on rural electrification for longhouse communities in Selangau, Sibü, Sarawak. Conducted from 8 to 10 October, the research assessed living conditions, transport access, and energy use in Rh Rony and Rh Himly. Through on-site surveys and data collection, the study identified viable low-carbon electrification models and conducted a lifestyle life-cycle analysis (LCA) for rural households. In collaboration with a student from Ritsumeikan University, Japan, this initiative reflects UM's commitment to combining scientific research with local community outreach to enhance energy efficiency and sustainable living.

The outcomes of this study are expected to inform policy recommendations for rural energy access, particularly in areas where conventional grid connection remains economically or geographically challenging. Insights gained from this project will support the development of hybrid renewable energy systems and community-scale microgrids, promoting energy-efficient practices at the local level. Furthermore, the findings will serve as an academic reference for interdisciplinary research on sustainable electrification, helping to shape future UMPEDAC initiatives and national dialogues on equitable energy transition and infrastructure development for rural Malaysia.



Above: Survey interview with Mr. Nyindang, a senior resident of Rh Rony in Selangau, Sibü, Sarawak (top left). The dilapidated condition of the longhouse at Rh Rony (top right) highlights the need for improved infrastructure and sustainable electrification. Dr. Tan Chia Kwang (UMPEDAC) is pictured in front of Rh Rony during the field visit. “Rh” stands for “Rumah,” meaning house; here it refers to a “Rumah Panjang” or longhouse

Below: Survey interview with residents of Rh Himly in Selangau, Sibü, Sarawak (bottom left). An exchange student from Ritsumeikan University, Japan, joined the team to support cross-cultural learning and data collection on rural electrification. The main mode of transport in the village is the perahu panjang (bottom right)



Solar Untuk Sekolah: Empowering Students with Clean Energy Innovation

The “Solar Untuk Sekolah” programme, organised by students from the Faculty of Science, Universiti Malaya, in collaboration with the Low-Dimensional Materials Research Centre (LDMRC), aimed to engage Form Three students in designing school infrastructure models powered by solar cells using recycled materials. This three-day solar model design competition was held on 30 April, 7 May, and 14 May 2024. Participants were guided to creatively construct school infrastructure models incorporating recycled materials and solar panels. The programme included a briefing on the National Energy Transition Roadmap (NETR), a workshop to assist participants in building solar models, and an evaluation day where innovative designs such as solar sirens and solar vans were showcased. This initiative not only enhanced students’ creativity and technical skills but also raised awareness about sustainable energy and the importance of reducing reliance on fossil fuels among young learners.

By fostering understanding and appreciation of clean energy technologies, the programme supports the United Nations’ Sustainable Development Goals, particularly SDG 7 (Affordable and Clean Energy) and SDG 13 (Climate Action). It empowers the community with knowledge of solar energy applications, encouraging local participation in environmental sustainability efforts. Additionally, the programme benefits LDMRC by sparking interest among students in pursuing advanced studies in sustainable energy research. For the student organisers, it provided invaluable experience in research, event management, communication, and leadership, ultimately deepening their commitment to sustainable development and community engagement.

Below: UM students from the Faculty of Science, together with UM researchers, during the “Solar Untuk Sekolah” programme briefing and hands-on workshop for school children and teachers



Global Intellectual Discourse on Energy and Sustainability

Beyond campus operations, UM has demonstrated leadership in international sustainability dialogues. The Global Intellectual Discourse 2024 (The Malaya Dialogue), hosted at Dewan Tunku Canselor in January, convened policymakers, diplomats, academics, and industry leaders to deliberate on the future of energy and global cooperation. The dialogue examined the prospects for power and sustainability, with ambassadors from the United States, India, and Australia emphasising the interconnectedness of energy, peace, and security.

The event also featured YB Senator Tengku Datuk Seri Utama Zafrul Tengku Abdul Aziz, Minister of International Trade and Industry, who addressed climate change and energy insecurity in the context of international trade and Malaysia's leadership role in the Global South.

A Global Science and Energy Roundtable followed, with experts from the World Nuclear Association, Tenaga Nasional Berhad, and Malakoff Corp Berhad. The discussion highlighted the critical role of science-driven solutions and industry partnerships in accelerating the global energy transition.



Above: The Malaya Dialogue; Session 2: The Future of Power in the 21st Century: East-West Divide and the Roles of Energy, Economic, and Security Leadership in Peace, Sustainability, and Conflict Guardrails

Below: The Malaya Dialogue; Session 3: Global Science and Energy Roundtable 2024



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The Top 2% Research Scientists Lecture Series, held in January, featured Prof. Kamal Sharma (GLA University, India) and UM's Assoc. Prof. Dr. Nurhidayatullaili Binti Muhd JULKAPLI. Their lectures focused on battery recycling for electric vehicles and nanohybrid photocatalysts for pollutant mitigation—two fields that directly contribute to cleaner, more sustainable energy technologies.

NANOCAT also hosted a Public Seminar on Environmentally Friendly Pb-free Perovskite Solar Cells, presented by Prof. Dr. Tetsuo Soga of the Nagoya Institute of Technology, Japan. His presentation highlighted innovative nanomaterials for energy conversion devices that avoid toxic components, making them safer and more sustainable for large-scale deployment.

In addition, a seminar on The Chemistry of Reactive Carbon Compounds was presented by Prof. Dr. Ong Tiow-Gan of Academia Sinica, Taiwan, and another seminar on Solution-Processed Functional Metal Oxide Thin Films for Energy Applications was delivered by Prof. Dr. Jiban Podder, FRSC, FBAS, of Bangladesh University of Engineering and Technology, Dhaka, Bangladesh. These seminars further strengthened NANOCAT's engagement with cutting-edge research in catalysis, materials chemistry, and functional energy materials.

These engagements reinforce UM's reputation as a regional leader in energy research and innovation while also fostering international collaboration.

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Public Seminar

**Towards environmentally friendly
Pb-free perovskite solar cell**

Prof. Dr. Tetsuo Soga

Department of Electrical and Mechanical Engineering, Nagoya Institute
of Technology, Nagoya, 466-8555, Japan
Title of the talk: Nanomaterials for energy conversion device

9 JAN 2025

2.30 - 3.30 pm

Angker seminar room, Level 3,
Institute for Advanced Studies,
Universiti Malaysia

All are welcome. The seminar is free-of-charge. Light refreshment and e-certificate will be provided to registered participants.
(a QR Code will be provided during the event for registration).

SEMINAR

The Chemistry of Reactive Carbon Compounds

13 December 2024 (Friday)

Time: 03:00-04:00 pm
Venue: Research Nest, Institute for Advanced Studies, Universiti Malaya

Biodata:

Professor Ong Tiow-Gan is an inorganic chemist who has distinguished himself for his work for non-carbon chemical synthesis using a "ligand-design strategy". He is currently a Research Fellow and Academic Deputy Director at the Institute of Chemistry, Academia Sinica, Taiwan, and a joint-appointment Professor at National Taiwan University and the University of Central Florida. He is also a visiting professor at the Nanotechnology and Catalysis Research Center, Universiti Malaya. Prof. Ong is internationally recognized for his contributions to organometallic chemistry and catalysis, which have led to several key breakthroughs, including selective C-H/C-O bond activation, new class of carbonates and carbodioxides, isolation of unstable dicarbon, which was published in Nature Chemistry. Prof. Ong's scientific contributions have been widely recognized at the national and international levels. He has received several prestigious awards, including the University of Ottawa Visiting Research Award (2020), the Outstanding Research Award from the Taiwan Ministry of Science and Technology (2019), and the Academia Sinica Presidential Scholar Program Award (2021 and 2024).



**Professor Dr. Ong
Tiow-Gan**
Academia Sinica, Taiwan.

All are welcome. The seminar is free-of-charge, light refreshment and a certificate will be provided to registered participants.
 In QR Code will be provided during the event for registration.



**UNIVERSITI
MALAYA**



NANOCAT

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Solar-Powered Smart Monitoring: Optimising Energy Use at UM

In terms of innovation, Professor Dr. Hazlee Azil Illias from the Department of Electrical Engineering, Universiti Malaya, and his collaborator, Mr. Nasiru Yahaya Ahmed, have developed a solar-powered smart monitoring device under the UM EcoCampus Living Labs Research Grant 2023/2024. This device uses a combination of artificial intelligence (AI), the Internet of Things (IoT), image processing technologies, and renewable energy technology to optimise electricity usage based on the real-time occupancy of selected lecture halls at the Faculty of Engineering.



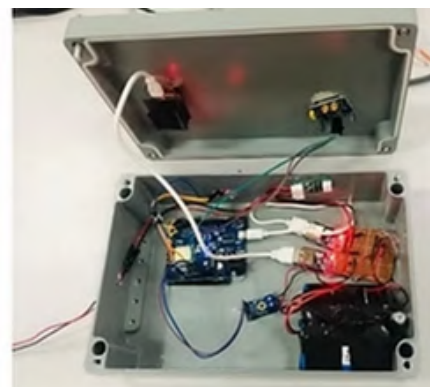
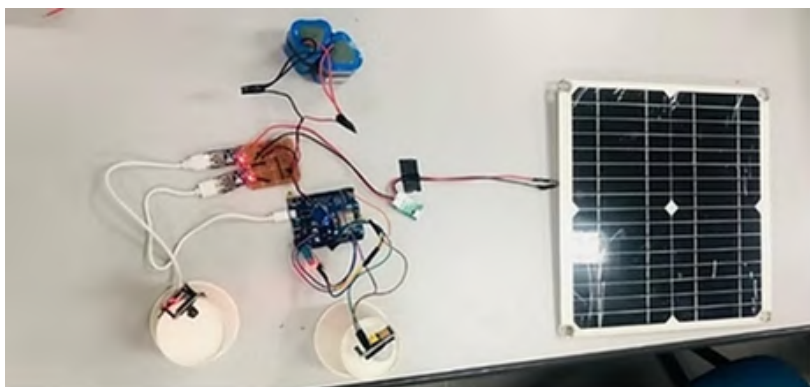
The smart monitoring device works by continuously tracking both room temperature and occupancy. Temperature sensors detect whether the air conditioning is running—if the temperature is below 25°C, it indicates that the air conditioning is likely on. The device then activates motion sensors to determine if anyone is present in the room. If no movement is detected after a preset time, the system automatically alerts the building manager via a Telegram message that the air conditioner should be turned off. This automated process ensures that energy is only used when necessary, reducing energy consumption by at least 40% in the monitored lecture rooms.



The system has also been shared with the UM community, allowing students and staff to benefit from this smart energy management technology and promoting sustainable energy practices across the campus.

Above: Briefing on the solar-powered smart monitoring system for occupancy and energy use in a lecture room to the UM community

Below: The developed prototype



Seminar on Photocatalytic Innovation for Energy Efficiency

A research seminar on energy efficiency was organised by the Centre for Energy Sciences, Faculty of Engineering, UM, on 14 February 2024. The seminar, titled “*Effective Photocatalytic Technology for Improving Environmental and Energy Performance of Submerged Water Surfaces and Systems*,” was delivered by Professor Dr. Dennis Y. C. Leung from the Department of Mechanical Engineering, University of Hong Kong.

During the seminar, a newly developed nano-sized photocatalytic coating that effectively controls the growth of microorganisms on yacht hulls and seawater gates was introduced. By utilising these materials, the need for frequent removal of deposited microorganisms is minimised, thereby reducing maintenance costs and improving energy efficiency.



Above: Research Seminar — *Effective Photocatalytic Technology for Improving Environmental and Energy Performance of Submerged Water Surfaces and Systems*

Seminar on Smart Power Flow Controllers

The Faculty of Engineering, UM, in collaboration with the Institute of Electrical and Electronics Engineers (IEEE) Power and Energy Society Malaysia Chapter, hosted a Seminar on Smart Power Flow Controllers on 18 April 2024 at the Faculty of Engineering, UM. The seminar was delivered by Dr. Kalyan K. Sen from Sen Engineering Solutions Inc., India.

During the seminar, Dr. Kalyan highlighted how smart power flow controllers can maximise power transfer, minimise energy losses, avoid congestion by rerouting power, and stabilise the power grid. This initiative directly advances SDG 7.1: ensuring access to sustainable and modern energy technologies.



Right: Event poster for the Seminar on Smart Power Flow Controllers (top) and photo of participants attending the seminar (bottom)

Seminar on Advanced Sliding Mode Control

The UM Power Energy Dedicated Advanced Centre (UMPEDAC) organised a hybrid seminar entitled “Advanced Sliding Mode Control for Electrical Machines and Drive Systems” on 23 August 2024. The seminar was presented by Dr. Abdul Khaliq Junejo, an Assistant Professor at Quaid-e-Awam University of Engineering, Science and Technology (UEST), Nawabshah, Sindh, Pakistan, and a Postdoctoral Fellow at Huazhong University of Science and Technology, China.



Right: Event poster for the Seminar on Advanced Sliding Mode Control

International Conference on Sustainable Energy, Infrastructure and Environment 2024 (ICSEIE2024)

The International Conference on Sustainable Energy, Infrastructure and Environment 2024 (ICSEIE2024) was co-organised by the UM Power Energy Dedicated Advanced Centre (UMPEDAC), Universiti Tenaga Nasional, and other local institutions from 14 to 15 October 2024 at Le Méridien Putrajaya, Malaysia. The conference theme was “Embracing Sustainability: Accelerating Energy Transition for a Greener Tomorrow.”

The conference focused primarily on green energy technologies such as solar, wind, and bioenergy harvesting technologies, hydrogen and nuclear energy, environmental sustainability, as well as energy efficiency and management. It brought together leaders and experts in sustainability, energy, infrastructure, and environmental protection to share knowledge, forge collaborations, and inspire collective action.



Right: Call for papers for the conference (top) and a photo from the main forum (bottom). Photo credit: Universiti Tenaga Nasional (UNITEN)

International Workshop on Renewable Energy for Carbon Neutrality

The School of Energy Management at Shri Mata Vaishno Devi University (SMVDU), Katra, in collaboration with the UM Power Energy Dedicated Advanced Centre (UMPEDAC), Universiti Malaya, conducted a one-day International Workshop on Renewable Energy for Carbon Neutrality on 12 December 2024. The event brought together leading academics, researchers, and professionals from around the world to explore innovative renewable energy strategies and solutions aimed at achieving global climate goals and addressing the challenges of carbon neutrality. The workshop's keynote address was delivered by Prof. Jeyraj Selvaraj, Executive Director of UMPEDAC, Universiti Malaya, on the topic "Carbon Neutrality through Solar Energy-Based Systems." Prof. Selvaraj presented pioneering research on solar energy technologies, including photovoltaic systems and solar thermal solutions, and highlighted their crucial role in reducing carbon emissions and advancing sustainable energy transitions.



Above: Participants at the International Workshop on Renewable Energy for Carbon Neutrality

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Showcasing Self-Cleaning Solar Panel Coating at Global Intellectual Discourse 2024

On 22 January 2024, UMPEDAC participated in the exhibition of its product, the Self-Cleaning Coating for solar panels, at the Global Intellectual Discourse (*Wacana Pemikir Global*) 2024, organised by Universiti Malaya. The event was inaugurated by the Prime Minister of Malaysia, Yang Amat Berhormat Dato' Seri Anwar Ibrahim. Following the officiation, the Prime Minister visited the exhibition booths featuring research by Universiti Malaya's scholars. The Self-Cleaning Coating for solar panels was demonstrated to him by Dr Vengadaesvaran and Dr Amirul Syafiq.



Right: The UMPEDAC team with their Self-Cleaning Coating for solar panels

Energy Efficiency Services for Industry

Universiti Malaya (UM) continues to extend its expertise beyond campus boundaries to support local industries in advancing energy efficiency and clean energy innovation. Through research collaborations, technology transfer, and specialised consultancy, UM delivers practical solutions that improve energy performance and sustainability in industrial operations. These initiatives reflect the University's commitment to translating research into impactful applications that benefit both national development and the environment.

A key milestone in 2024 was the memorandum of agreement between UM's Nanotechnology & Catalysis Research Centre (NANOCAT) and Smart EnerG Pte Ltd to develop a functionalised titanium dioxide (TiO₂) nanocoating for photovoltaic panels, improving efficiency and reducing maintenance costs. UM also partnered with Guoann Dot Com Bhd to advance smart energy and carbon-neutral technologies. Alongside innovations like the Cross-Axis Wind Turbine (CAWT) and the Master of Renewable Energy programme, these initiatives strengthen industry capacity for cleaner, more efficient energy solutions.

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Cross-Axis Wind Turbine Innovation

UM's impact in 2024 extended beyond its campus through direct services to local industry. A standout achievement was the innovation of the Cross-Axis Wind Turbine (CAWT) by Professor Ir. Dr. Chong Wen Tong from the Department of Mechanical Engineering, Faculty of Engineering, UM, developed to harness Malaysia's low wind speeds more effectively. Unlike traditional designs, the CAWT integrates vertical and horizontal axis technologies to capture wind energy from both the horizontal and vertical directions of oncoming winds, offering higher energy efficiency, improved reliability, and easier maintenance. Currently in prototype testing, UM is collaborating with industry partners, including PETRONAS, for potential commercialisation. This innovation underscores UM's commitment to advancing industrial energy efficiency through practical, research-driven solutions.



Above: Prototype of Universiti Malaya's Cross-Axis Wind Turbine (CAWT), designed for efficient energy capture in Malaysia's low-wind environment (top), and the Prime Minister's visit to the booth featuring the CAWT at an exhibition in UM (bottom)

Below: Researchers with the CAWT during wind tunnel testing at CPP



MoA on Carbon Neutral Research and Smart Renewable Energy Collaboration

In January 2024, a Memorandum of Agreement (MoA) was signed between UM, Guoann Dot Com Bhd, and several parties from China for a RM14 billion R&D investment in carbon-neutral research and smart renewable energy initiatives. The MoA aims to establish a joint research and development centre for carbon neutrality, deepening technical and knowledge exchange in clean energy between Malaysia and China, while injecting green intelligence into the Belt and Road projects. Through this collaboration, UM aims to transform into a smart campus focused on research and innovation to address carbon challenges.



Above: MoA signing ceremony between UM, Guoann Dot Com Bhd, and several parties from China

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Master of Renewable Energy Programme

The Master of Renewable Energy Programme, offered by the UM Power Energy Dedicated Advanced Centre (UMPEDAC), was launched in 2016 and continues until today. It provides specialised postgraduate education in renewable energy technologies and management, tailored for professionals seeking to deepen their expertise in sustainable energy practices and contribute to building a skilled workforce capable of driving energy efficiency across various sectors.

The programme emphasises practical learning through industry-relevant technical field trips and exposure to the latest technologies and best practices, ensuring that students are prepared to meet the evolving demands of the renewable energy sector.

Below: Briefing deck for the Master of Renewable Energy Programme



Enhancing Solar Efficiency through UM-Smart EnerG Collaboration

On 29 April 2024, Universiti Malaya (UM), through the Nanotechnology & Catalysis Research Centre (NANOCAT), extended its research expertise to support the local renewable energy industry in improving solar power efficiency and reducing maintenance costs. This collaboration demonstrates UM's direct contribution to advancing clean energy technologies within Malaysia's industrial sector.

A memorandum of agreement (MoA) was signed between NANOCAT and Smart EnerG Pte Ltd to evaluate and enhance the performance of photovoltaic (PV) panels using a functionalised titanium dioxide (TiO₂) nanocoating. The project focuses on improving power generation efficiency while reducing the need for frequent cleaning, thereby lowering operational costs and environmental impact. By leveraging UM's research capabilities in nanomaterials and catalysis, the partnership provides industry-level solutions that strengthen Malaysia's solar energy infrastructure.

This collaboration aligns closely with the objectives of the National Energy Transition Roadmap (NETR), which promotes the deployment of renewable energy technologies and the growth of the local solar manufacturing ecosystem. Beyond joint research, UM also offered technical consultation and performance assessments, ensuring that the developed coating technology meets both industrial standards and energy efficiency benchmarks.

Through such industry partnerships, UM continues to provide tangible energy efficiency services—ranging from applied research to technical evaluation—that directly support Malaysia's transition towards a low-carbon economy. The initiative underscores UM's role as a leading university in fostering innovation and delivering sustainable energy solutions for industrial application.



Above: Group photo of Smart EnerG Pte Ltd representatives with Professor Mohd Rafie Johan, Director of the Nanotechnology & Catalysis Research Centre (NANOCAT), and Associate Professor Lai Chin Wei, Principal Investigator

Policy Development and Advocacy for Clean Energy

Universiti Malaya (UM) has contributed to the development of clean energy and energy-efficient technology policies through research, collaboration, and strategic planning at multiple levels. At the local level, the UM Net Zero Blueprint 2030, drafted in 2024, outlines a pathway for achieving a carbon-neutral campus by 2030 and net zero by 2050. Developed through a workshop involving UM experts and external partners, including the Sustainable Energy Development Authority (SEDA) Malaysia, the blueprint sets out frameworks for renewable energy deployment, green electricity adoption, and operational efficiencies across six core sectors. By combining research findings with operational insights, the blueprint provides evidence that can inform policy and practical decision-making in energy and sustainability.

At the regional and national levels, UM has participated in initiatives that support policy development more broadly. The university co-authored ASEAN Policy Brief No. 13 (2024) on private-sector climate investment and helped establish the ASEAN Universities Climate Change Network to encourage research collaboration and knowledge sharing among universities. At the national level, UM contributes to Malaysia's hydrogen economy through research, partnerships, and engagement with the Hydrogen Economy and Technology Roadmap. Internationally, UM participated in forums such as The Malaya Dialogue and COP29, sharing research-based perspectives that can inform policy discussions. These activities illustrate UM's ongoing role in supporting evidence-informed approaches to clean energy and energy-efficient technology policy development.

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Local Level: UM Net Zero Blueprint 2030

In 2024, UM reached a strategic milestone with the drafting of the UM Net Zero Blueprint 2030, which establishes a roadmap for achieving a carbon-neutral campus by 2030 and ultimately net zero by 2050. Although still in draft form as of early 2025, the blueprint received in-principle endorsement from the Universiti Management Committee (JKPU) on 11 December 2024, demonstrating strong institutional commitment.

The blueprint was developed through the UM Net Zero Campus Strategic Workshop, held on 14–15 August 2024 and hosted by UM Eco Campus under the Sustainable Development Centre (UMSDC). The workshop convened experts and taskforce members from UM and external partners, including representatives from the Sustainable Energy Development Authority (SEDA) Malaysia. Participants reviewed the previous Eco-Campus Blueprint (2016) and designed a robust strategic framework to support UM's net zero ambitions, ensuring alignment with national clean energy objectives.

Grounded in the UM Master Plan 2050 and informed by the Sustainable Development Solutions Network's Net Zero on Campus guide—adapted for UM's context—the blueprint outlines six core sectors: Energy, Mobility, Facilities, Waste Minimisation & Recycling, Value Chain, and Beyond Campus Operations. These sectors are further divided into 17 thematic focus areas, supported by 57 actionable plans to ensure systematic, measurable progress.

Within the Energy sector, the blueprint places particular emphasis on:

- Renewable Energy Installation Framework: Establishing a comprehensive framework to evaluate and recommend the installation of renewable energy systems across campus facilities, including solar panels and wind turbines.
- Green Electricity Tariff (GET): Continuing the adoption of TNB's Green Electricity Tariff to support the transition to sustainable energy sources and reduce reliance on fossil fuels.

By integrating academic research, operational data, and stakeholder engagement, UM's blueprint provides actionable insights that can inform and support government policy development in clean energy and energy-efficient technologies.



Above: UM Net Zero Blueprint 2030 document

Right: Two-day workshop with experts from various sectors to prepare the blueprint



Regional Level: Contribution to ASEAN Policy Brief on Climate Investment

In the same year, UM contributed to policy development through its participation in the ASEAN Socio-Cultural Community (ASCC) Research and Development Platform on Climate Change. The resulting policy document, Policy Brief No. 13 (2024), titled “Facilitating Private Sector Climate Investment Decision-Making: Leveraging on Data and Regulation in ASEAN”, was co-authored by Associate Professor Dr. V. G. R. Chandran Govindaraju from UM and Mr. S. Sarpaneswaran from C&G Analytica, Malaysia.

The policy brief analyses the regional policy environment influencing private-sector investment in renewable and low-carbon initiatives. It highlights barriers related to data transparency, cross-border regulation, and financing mechanisms, and proposes policy solutions to enhance regulatory coherence, improve data governance, and promote sustainable investment across the ASEAN energy landscape.

Through this contribution, UM provided expert insights into innovation systems, energy policy, and industrial efficiency, strengthening evidence-based policymaking at the ASEAN level. The brief forms part of the ASCC’s official publication series, supporting the ASEAN Strategy on Climate Change and Energy and the ASEAN Plan of Action for Energy Cooperation (APAEC) 2021–2025. This initiative reinforces UM’s role as a regional knowledge partner and policy contributor in advancing clean energy and climate-resilient development across Southeast Asia.

Right: A photo of Prof. Dr. V. G. R. Chandran A/L Govindaraju, Department of Political Science, Public Administration and Development Studies, Faculty of Business and Economics, Universiti Malaysia



Above: Policy Brief No. 13 (2024), titled “Facilitating Private Sector Climate Investment Decision-Making: Leveraging on Data and Regulation in ASEAN” including the executive summary and policy recommendations



Regional Level: Establishing the ASEAN Universities Climate Change Network

In 2024, Universiti Malaya (UM) strengthened its regional presence in climate policy and governance through the establishment of the ASEAN Universities Climate Change Network (AUN-CCN). The initiative was formalised on 2 September 2024 with the signing of a Memorandum of Understanding (MoU) between the NUS Centre for International Law (CIL) and UM, represented by the Climate Change Advisory Committee (CCAC). The ceremony, held during the regional conference “*Post-GST and the Road to 2025*”, was officiated by Prof. Ir. Dr. Kaharudin Dimiyati, UM’s Deputy Vice-Chancellor (Research and Innovation), and witnessed by Dr. Helena Varkkey, Chair of the CCAC, alongside representatives from NUS including Mr. George Loh, Associate Vice-President (Strategic Partnership), and Dr. Nilufer Oral, Director of CIL.

The Network aims to build a collaborative academic platform across ASEAN to advance research and policy innovation in climate change law, governance, and sustainable development. It also seeks to serve as a regional knowledge hub, supporting interdisciplinary studies, sharing institutional expertise, and fostering capacity building among ASEAN universities. This partnership underscores UM’s commitment to advancing regional dialogue and policy-relevant research in line with ASEAN’s collective climate ambitions. During the launch, Prof. Dimiyati emphasised the importance of cross-border academic collaboration, while Dr. Varkkey contributed to a closing panel on “The International Climate Change Regime – 2030 and Beyond”, further reinforcing UM’s policy engagement in the ASEAN context.

Below: MoU signing ceremony for the ASEAN Universities Climate Change Network (AUN-CCN). Photo credit: NUS Centre for International Law (CIL)



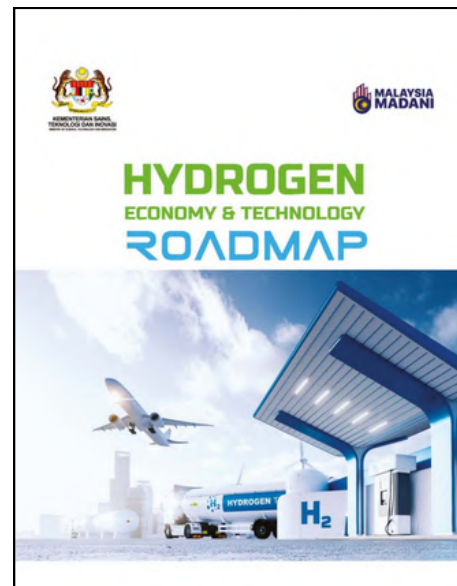
National Level: Universiti Malaya's Involvement in Malaysia's Hydrogen Economy and Clean Energy Development

Universiti Malaya (UM) has emerged as a key contributor to Malaysia's clean energy transition, particularly in advancing hydrogen technology. The university's research efforts and strategic collaborations directly support national objectives to develop a sustainable hydrogen economy and achieve net-zero emissions by 2050.

The Hydrogen Economy and Technology Roadmap (HETR), launched by Malaysia's Ministry of Science, Technology, and Innovation (MOSTI) in October 2023, outlines the nation's strategic approach to developing a hydrogen economy. The roadmap aims to position Malaysia as a leading hydrogen economy in the ASEAN region by 2050. It identifies several challenges in developing a hydrogen economy, including high production costs, transportation and storage issues, and the need for a clear regulatory framework. UM's contributions are acknowledged in the HETR, reflecting the university's active involvement in hydrogen research. According to the roadmap, UM has published 171 research papers on hydrogen technologies, underscoring its role in driving innovation and addressing the technical and practical challenges of a hydrogen-based energy system.

In May 2024, UM formalised a Memorandum of Agreement with TNB Fuel Sdn Bhd (TNBF) and Energise Sdn Bhd to accelerate the development of hydrogen-fuel applications. The collaboration focuses on creating efficient and scalable hydrogen solutions aligned with Malaysia's National Energy Transition Roadmap. The signing ceremony was attended by Associate Professor Ts. Dr. Aznul Qalid Md Sabri, Chair of the Cluster Industry, Innovation & Sustainable Sciences at UM, and Professor Ir. Dr. Hazlie Mokhlis, representing UM's Centre of Innovation & Enterprise (UMCIE). Energise Sdn Bhd was represented by its Managing Director, Tuan Syed Faisal Algadrie.

Through this partnership, UM plays a central role in translating research into practical applications, facilitating the commercialisation of hydrogen technologies, and supporting policy-aligned innovation in the energy sector.



Above: The front cover of the Hydrogen Economy and Technology Roadmap (HETR)

Below: UM formalised a Memorandum of Agreement with TNB Fuel Sdn Bhd (TNBF) and Energise Sdn Bhd.



Global Level: The Malaya Dialogue

In early 2024, Universiti Malaya (UM) hosted The Malaya Dialogue (Global Science and Energy Roundtable), an international forum that convened diplomats, policymakers, and global energy experts to deliberate on technology transitions and sustainable-energy cooperation. The Dialogue provided a forum for research, policy and industry participants to exchange perspectives on sustainable-energy transitions and international cooperation. By convening diplomats, policymakers and technical experts, UM furthered its role in connecting academic enquiry with policy-oriented discussion.



Above: Special Address via video conference by Dr. Sama Bilbao y León, Director General of the World Nuclear Association, during The Malaya Dialogue – Session 3: Global Science and Energy Roundtable 2024

Global Level: UM's Participation in COP29 and International Policy Dialogues

In November 2024, Universiti Malaya (UM) participated as part of Malaysia's official delegation to the 29th Conference of the Parties (COP29) in Baku, Azerbaijan. The UM delegation contributed actively to the Malaysia Pavilion and associated policy forums, where its researchers shared evidence-based insights on clean-energy transition, climate finance, and energy-efficient technologies. Through these engagements, UM strengthened the linkage between academic research and international policy dialogue, supporting Malaysia's stance on renewable energy deployment and sustainable technology pathways. By taking part in global deliberations on climate action, UM's involvement at COP29 served as a tangible mechanism through which the university informed and supported governments in clean-energy policy development — translating research expertise into real-world policy relevance.



Above: Professor Dr. Surinderpal Kaur from the Faculty of Languages and Linguistics and Associate Professor Dr. Zeeda Fatimah Mohamad from UMSDC and the Faculty of Science representing Universiti Malaya at the COP29 Malaysia Pavilion: Opening Plenary Session

Empowering Low-Carbon Start-ups

In 2024, Universiti Malaya (UM) continued to provide strong institutional support for start-ups advancing a low-carbon economy through dedicated accelerator programmes and strategic partnerships. Led by the UM Centre of Innovation and Enterprise (UMCIE) and UM Innovations Sdn. Bhd. (UMI), these initiatives offer targeted assistance to deep-tech and sustainability-driven start-ups through mentorship, business development training, venture-building support, and alternative financing channels.

By fostering innovations in renewable energy, clean technology, and sustainable production, UM plays a pivotal role in nurturing entrepreneurial talent and translating research into market-ready solutions that contribute to Malaysia's carbon-neutral and green growth agenda.

UM Deep Tech (UMDT) Accelerator Programme

Universiti Malaya (UM) continued to advance low-carbon innovation through the UM Deep Tech (UMDT) Accelerator Programme, managed by the UM Centre of Innovation and Enterprise (UMCIE). The six-month programme provides targeted assistance to research-based start-ups, including those developing green and low-carbon technologies, by supporting their journey from laboratory research to market readiness. UMDT offers structured mentorship, business development training, and access to funding opportunities through strategic partnerships with industry and venture capital networks. The programme specifically identifies Green Technology as one of its priority domains, encouraging innovations that reduce carbon emissions, improve energy efficiency, and promote sustainable production.

Participating start-ups in 2024 under UMDT advanced solutions such as renewable energy systems, waste-to-fuel conversion, and clean technology applications, demonstrating UM's commitment to fostering a low-carbon economy. Through this accelerator initiative, UM not only nurtures entrepreneurial talent among researchers and students but also strengthens Malaysia's innovation ecosystem in line with national sustainability and carbon-neutral goals.

Below: The Nanotechnology and Catalysis Research Centre (NANOCAT) and other members of the third cohort of the UMDT Programme attending the UM Deep Tech Start-up Accelerator Mini Exhibition in November 2024. NANOCAT aims to commercialise its research innovations through the establishment of a start-up company



UM Innovations Forges Strategic Partnerships to Boost University Start-Ups

In 2024, Universiti Malaya (UM), through its wholly owned subsidiary UM Innovations Sdn. Bhd. (UMI), strengthened its support for start-ups driving a low-carbon and innovation-led economy by establishing strategic partnerships with Origgin Ventures Sdn. Bhd. and Pitch Platforms Sdn. Bhd. (pitchIN). These collaborations aim to accelerate the commercialisation of UM's research innovations and empower emerging ventures in clean and sustainable technologies.

Under this initiative, Origgin will invest in selected deep-tech spin-off companies under UMI's programme, providing seed capital and venture-building support to advance prototypes into minimum viable products (MVPs). The partnership also connects start-ups to Origgin's international network, positioning them for future growth and funding opportunities.

Meanwhile, pitchIN, Malaysia's leading equity crowdfunding (ECF) platform, will collaborate with UMI to facilitate public and alumni investments into UM's Start-Up and Spin-Off (SUSO) companies. A dedicated microsite will be developed for UMI spin-offs to host ECF campaigns, expanding funding access for start-ups founded by UM students, alumni, and faculty.

Among the early beneficiaries is Xcess Pressure Sdn. Bhd., a UM spin-off led by Dr. Iswadi Jauhari, which developed the Super Butterfly Hydropower System—a clean-energy innovation that captures excess water pressure in pipelines to generate electricity. The system has been successfully piloted with Air Selangor and Pengurusan Aset Air Berhad, contributing directly to Malaysia's sustainable energy goals.

Complementing these efforts, the pitchIN Academy Fundraising Accelerator Programme equips UM-affiliated start-ups with entrepreneurial and fundraising skills. Together, these partnerships underscore UM's commitment to nurturing a dynamic innovation ecosystem that supports national aspirations for a low-carbon and sustainable economy.



Above: Representatives from Origgin Ventures Sdn. Bhd. and Pitch Platforms Sdn. Bhd. (pitchIN), together with UM Innovations Sdn. Bhd. (UMI), during the formalisation of the strategic partnership



Decent Work and Economic Growth

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.



8

Usaha Tangga Kejayaan

SDG 8, which promotes sustained, inclusive, and sustainable economic growth and decent work for all, is aptly reflected in the classical Malay peribahasa “*Usaha tangga kejayaan*” (effort is the key to success). This proverb highlights the value of perseverance and diligence as the path toward meaningful progress and achievement. At UM, this spirit is embodied through employment practices that support continuous improvement, fair opportunities, and empowerment for all staff.

These include providing living wages, protecting union rights, upholding non-discrimination policies, enforcing safeguards against modern slavery, and ensuring pay scale equity and gender pay transparency. By cultivating a culture that values effort, integrity, and fairness, UM not only honours the essence of this proverb but also strengthens its commitment to creating decent and equitable work for all—advancing both individual growth and collective success.

Union Acknowledgement and Employee Entitlements: Enhancing Worker Representation

Recognising the essential function of unions in championing employee rights, Universiti Malaya (UM) has proactively collaborated with them to ensure that staff perspectives are duly acknowledged and valued. The institution officially recognises key unions, including the Management and Professional Staff Association (PEKERTI UM), the UM General Staff Union (KKAUM) and the Academic Staff Association of UM (PKAUM). These unions serve as formal platforms for employees to negotiate fair working conditions, equitable benefits and opportunities for professional advancement. In 2024, UM's commitment to union recognition was further reinforced through increased engagement between university management and union leaders, particularly in addressing issues of work-life balance, job security and career development.

This approach is consistent with the Public Service Circular No. 6 Year 2020, which reaffirms the government's policy on employer-employee relations through the National Joint Council (Majlis Bersama Kebangsaan, MBK). The circular preserves the three existing MBK structures: Management and Professional (MBK P&P), Science and Technology (MBK S&T), and General Workers (MBK Am) each providing an official avenue for dialogue between government officers and employee representatives. It outlines mechanisms for worker participation in discussions concerning remuneration, allowances, facilities and service conditions; grants official leave for union representatives attending meetings or conventions and provides financial support for union programmes and professional development workshops. By institutionalising these provisions, the policy underscores the principles of fairness, participation and mutual respect between employers and employees.

Aligned with SDG 8 (Target 8.8), which seeks to protect labour rights and promote safe and equitable working environments, UM's endorsement of union activities mirrors national policy priorities. Through active participation in recognised unions and open communication with management, UM ensures that all personnel particularly women and international staff are adequately represented, thereby reinforcing the university's dedication to diversity, equity, and inclusion.



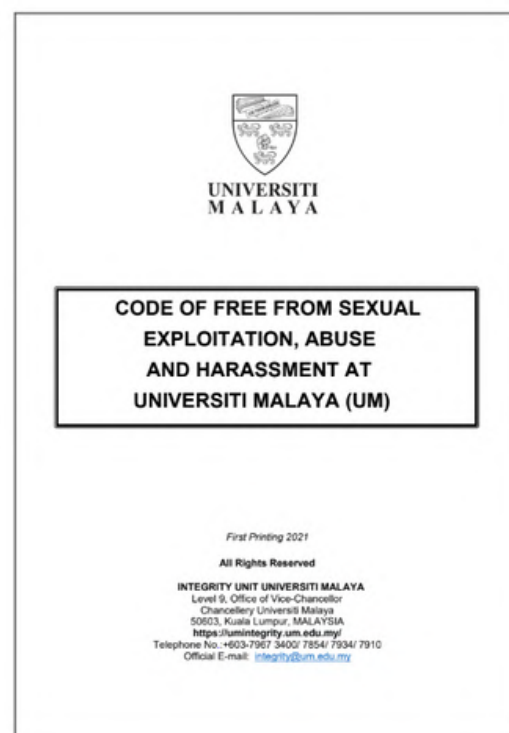
Right: Activities by the Management and Professional Staff Association, PEKERTI UM (top); and the Academic Staff Association of UM, PKAUM (bottom)

Anti-Discrimination and Modern Slavery Policies: Fostering Inclusivity and Ethical Standards

UM has adopted a robust position against all manifestations of discrimination and contemporary slavery, guaranteeing that its workplace is both equitable and inclusive. In 2024, UM strengthened its Equality, Diversity and Inclusion (EDI) Policy, which forbids discrimination based on gender, age, religion, sexuality or refugee status. This policy is integral to UM's comprehensive Sustainability Policy 2021-2030, specifically under Pillar 5: "Social - Promoting a peaceful, inclusive and just society and institution through partnerships," and it has been pivotal in cultivating an environment conducive to the flourishing of all employees, irrespective of their backgrounds. In 2024, the institution intensified its initiatives to oversee supplier chains and guarantee that all its business associates adhere to ethical employment standards. Systematic audits and training initiatives were implemented to enhance awareness among personnel and stakeholders regarding the need for upholding ethical business practices.

Universiti Malaya (UM) is resolutely dedicated to eradicating modern slavery and human trafficking in all facets of its operations. This dedication corresponds with Article 6 of the Federal Constitution of Malaysia (Part II, Slavery and Forced work Prohibited, page 22), which unequivocally forbids slavery and all types of forced work within the nation. Under Pillar 5 of the UM Sustainability Policy 2021-2030, entitled "Social - Promoting a peaceful, inclusive and just society through partnerships," UM reiterates its opposition to modern slavery. The institution routinely evaluates and revises its workplace rules and procedures to ensure they effectively identify and mitigate risks associated with modern slavery. UM is dedicated to ethical behaviour and integrity in all business interactions. We have established robust procedures and controls to avert slavery and human trafficking within our organisation. This entails a definitive obligation to disclose procedures that ensure all facets of our business are devoid of forced labour.

Furthermore, Universiti Malaya (UM) has reinforced its dedication to human rights via its Code of Freedom from Sexual Exploitation, Abuse, and Harassment, aimed at guaranteeing a secure and respectful atmosphere for students and staff alike. This extensive policy encompasses explicit descriptions of forbidden conduct, organised reporting protocols, and specialised support systems for victims. All reports are subject to strict confidentiality, and the code advocates for preventive actions, including frequent training and awareness initiatives, to inform the campus community. In accordance with UM's overarching integrity objectives, the Code complies with national legislation and international conventions, affirming a zero-tolerance policy towards harassment, exploitation, and abuse.



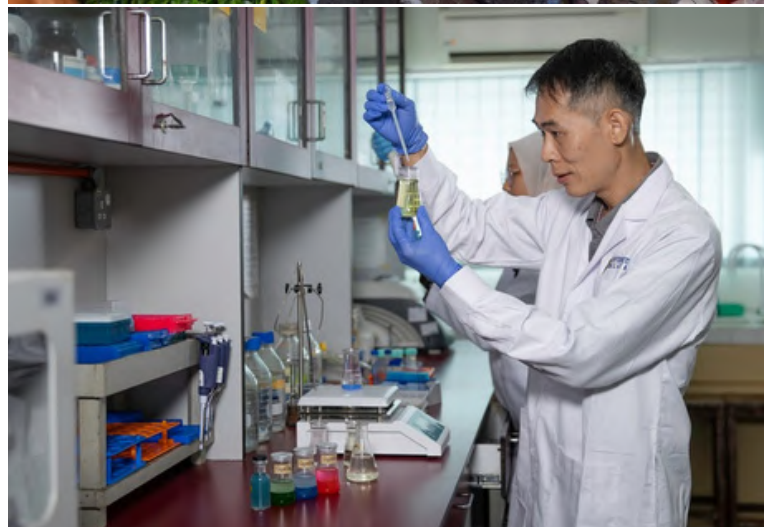
Above: The front cover of the Code of Freedom from Sexual Exploitation, Abuse and Harassment

Employment Practices and Living Wage: Promoting Fairness and Economic Stability

UM's dedication to offering a decent wage beyond compliance with national standards; it is a fundamental principle that informs its employment decisions. The institution has continually guaranteed that its compensation framework is both competitive and responsive to the requirements of its varied workforce.

In accordance with the government's Sistem Saraan Perkhidmatan Awam (SSPA), UM guarantees that all employees, both academic and non-academic, get remuneration that surpasses the national minimum wage. This policy embodies UM's overarching objective to mitigate economic disparities and foster economic stability for all employees. UM follows the public service circulars and policies endorsed by the Public Service Department (JPA). The revised salary and employment packages implemented at UM are in line with the latest. The university's employment policy exceeds legal requirements, guaranteeing equitable compensation for all employees' efforts. The Universiti Malaya extensive remuneration and benefits framework (Service Number 1 Year 2016, section 11.11) encompasses fixed allowances, performance-based incentives, medical insurance and pension fund contributions via the Employees Provident Fund, so ensuring financial stability and a strong social safety net for all personnel.

The Universiti Malaya's emphasis on living wage regulations is a crucial component of its plan to cultivate a stable and efficient workforce that enhances the institution's sustained performance. This promise not only bolsters the financial security of employees but also coincides with SDG 8's objective 8.5, which advocates for full and productive employment and decent work for all, including equitable remuneration for labour of comparable worth.



Wage Equity and Pay Scale Transparency: Guaranteeing Fairness Throughout the Workforce

UM's commitment to wage equity goes beyond compliance—it is an intentional practice to eliminate gender-based pay disparities and ensure fairness. In 2024, the university conducted pay scale audits to identify and address any compensation gaps, ensuring that factors such as gender or nationality do not influence salary decisions. Remuneration is determined solely by merit, qualifications and experience, in line with national principles of equity and transparency. This approach is reflected in UM's merit-based promotion system, which recognises outstanding performance impartially and supports an inclusive workplace.

The Universiti Malaya's continuous initiatives to assess and enhance pay equity directly align with Sustainable Development Goal 8, specifically objective 8.5, which emphasises the attainment of equitable remuneration for labour of comparable worth. Through the implementation of wage transparency and the execution of regular salary audits, UM guarantees that its compensation practices foster a more equitable workforce, thereby advancing gender equality and social justice inside the institution.

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Employment Practice: Living Wage

Universiti Malaya (UM) has implemented a structured payment system for both non-academic and academic staff, in line with Sistem Saraan Perkhidmatan Awam (SSPA). This system defines pay in three categories: individual pay, position pay and performance pay, as set forth in the Report of the Special Cabinet Committee on Salaries for the Public Sector 1991. The new remuneration structure comprises the following key components:

- **Basic Salary:** The basic salary represents a fixed amount allocated to public sector employees. This salary is determined according to the concept of a reasonable wage, ensuring that basic living costs are met.
- **Fixed Allowances:** Fixed allowances include civil service benefits such as housing rental subsidies, entertainment allowances and other monthly civil service allowances. These are provided in accordance with established criteria and principles to support employees' regular financial needs.

- **Variable Component:** This includes allowances that vary according to specific service requirements and are not permanent. As a result, the monthly takehome pay for both non-academic and academic staff exceeds the locally defined minimum wage (RM1,700.00). Other benefit components, such as medical coverage and the pension fund (KWSP), further enhance the financial support provided to staff.

In addition to these, position pay components include a professional incentive, honorary allowance and managerial allowance. Performance-based pay encompasses overtime incentives, incentives for international scientific publications, innovation incentives, and the Award and Performance (APC) incentives, all of which recognise and reward staff for exceptional achievements.

Employment Practices and Equivalent Rights in Outsourcing

Universiti Malaya (UM) is committed to fostering equitable employment practices, including for outsourced professionals, in accordance with national legislation and ethical standards.

Protocols for Engagement of Non-Academic Personnel

Universiti Malaya has instituted the “Guidelines for the Involvement of Non-Academic Staff,” highlighting equitable rights and ethical standards. These standards emphasise UM's dedication to combating modern slavery and human trafficking, especially in the acquisition of goods, services and works.

Integrity Agreement for Suppliers

All vendors must execute an integrity pact pledging to equitable employment practices and the protection of workers' rights. This agreement is consistent with UM's ethical principles, contributing to the protection of workers' rights in all outsourced services.

Management of Supplier Risk

UM does systematic evaluations of its suppliers to evaluate and mitigate risks associated with workers' equal rights, modern slavery, human trafficking, and adherence to ethical labour standards. These evaluations guarantee elevated standards of integrity in all outsourcing endeavours, reaffirming UM's dedication to fair and equitable treatment of all workers.

Monitoring Compensation Structure for Gender Parity

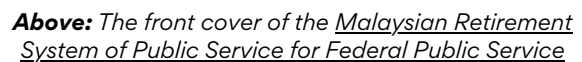
Universiti Malaya (UM) is dedicated to providing just and equal compensation for all employees, irrespective of gender or sexual orientation. Our salary evaluation and review procedures are executed transparently and in accordance with national directives. UM adheres to Skim Saraan Perkhidmatan Awam (SSPA), which delineates rules for the rationalisation of the service scheme for federal public services within the Malaysian Salary System.

The UM Sustainability Policy 2021-2030, within the Economic pillar of Sustainable Economic Growth and Working Environment, reaffirms our dedication to prohibiting any differential treatment based on gender or sexual orientation. These principles guarantee equitable implementation of salary evaluations, bonuses and other compensation modifications at all levels.

Besides equitable compensation, UM provides merit-based promotions according to explicit criteria. Specialised expertise is acknowledged through policies like Circular Letter Number 8 of 2010, which offers incentive payments for medical instructors in public higher education institutions, recognising their distinctive contributions.

Through these comprehensive rules and practices, UM ensures that compensation decisions align with government salary frameworks and the university's sustainability objectives. Sustainability objectives through these comprehensive rules and practices. Frequent evaluations of compensation policies promote an inclusive and supportive workplace, demonstrating UM's commitment to fairness in employment.

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No. Siri:



KERAJAAN MALAYSIA

PEKELILING PERKHIDMATAN BILANGAN 12 TAHUN 2008

**DASAR DAN PROSEDUR PELANTIKAN SECARA PEMINJAMAN,
PERTUKARAN SEMENTARA DAN PERTUKARAN TETAP**

TUJUAN

1. Pekeliling Perkhidmatan ini bertujuan menjelaskan mengenai dasar dan prosedur bagi peminjaman, pertukaran sementara dan pertukaran tetap pegawai Perkhidmatan Awam Persekutuan ke agensi lain supaya pelaksanaannya lebih cekap, teratur dan seragam.

LATAR BELAKANG

2. Peminjaman atau pertukaran sementara adalah merupakan salah satu daripada kaedah pelantikan pegawai sedang berkhidmat yang boleh digunakan oleh sesebuah agensi untuk mendapatkan perkhidmatan pegawai yang berpengalaman, berkemahiran, berwibawa dan berosuaian dengan keperluan agensi berkenaan. Ia juga merupakan langkah jangka pendek untuk membantu sesebuah agensi, terutamanya agensi yang baru ditubuhkan bagi menastapkan operasi masing-masing. Pertukaran tetap pula ialah kaedah pelantikan secara tetap pegawai yang sodang dipinjam ditukar sementara ke jawatan yang disandang di agensi peminjam.

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<https://hr.um.edu.my/acts-constitution-statutes-rules-regulation-guidelines>

Appeal Process for Employment Practices

Universiti Malaya (UM) upholds equitable employment practices through the establishment of clear appeal procedures and relevant regulations governing faculty, staff, contract employees and students. These mechanisms reflect UM's steadfast commitment to transparency, fairness and adherence to international standards, particularly the Sustainable Development Goals (SDGs). In alignment with SDG 8, which advocates for decent work and economic growth, UM's governance framework ensures that institutional processes promote equality, accountability and integrity. The following sections outline UM's systematic approach in managing appeals, performance evaluations, student conduct, and grievance protocols.

1. Performance Evaluation – Duties and Obligations

UM recognises that a fair and precise performance appraisal system is essential to sustaining employee development, motivation, and organisational excellence. To ensure procedural fairness, staff are permitted to contest their performance assessment ratings within a designated appeal period. Each January, employees are accorded a 30-day window to submit appeals should they believe their evaluation results do not accurately reflect their performance. This provision reinforces UM's dedication to maintaining a transparent and equitable appraisal framework.

Consistent with the *Pekeliling Perkhidmatan Sumber Manusia: Sistem Pengurusan Prestasi Pegawai Perkhidmatan Awam Malaysia Versi 1.0 (2024)* issued by the Public Service Department (Jabatan Perkhidmatan Awam, JPA), the performance management system integrates an official review mechanism under the *Panel Pembangunan Sumber Manusia (PPSM)*. Each department is mandated to establish a formal procedure (*tatacara pengurusan semakan semula hasil penilaian prestasi*) enabling officers (*Pegawai Yang Dinilai, PYD*) to request a review within a prescribed period.

The PPSM is responsible for investigating such appeals, convening deliberations and communicating outcomes to the appellants. All processes must be concluded within six (6) months from the initial decision and applications submitted beyond this timeframe or in breach of established procedures will not be entertained.

Anchored upon five core principles: *adil* (fair), *telus* (transparent), *objektif* (objective), *kompeten* (competent) and *akauntabiliti* (accountable) this national framework embodies the Government's commitment to ensuring transparent and equitable evaluation practices. Correspondingly, UM's implementation of a defined appeal period exemplifies its alignment with these principles, guaranteeing that performance assessments remain constructive, impartial, and consistent with employee expectations within a clearly governed and time-bound process.

2. Request for Advancement

UM has instituted an equitable and open mechanism for professors and staff to appeal promotion decisions, guaranteeing that all qualified personnel possess a definitive avenue to challenge such determinations. Employees may submit an appeal within six months of receiving the official promotion notification. This appeals process is based on UM's dedication to meritocracy, offering employees a fair opportunity for professional advancement. By permitting appeals, UM reaffirms its dedication to acknowledging the contributions and qualifications of its personnel in an impartial manner that complies with internal norms of equity.

3. Appeals Regarding Student Discipline

UM is similarly dedicated to protecting the rights of students, especially in disciplinary issues. In accordance with Section 16C of the Universiti dan Kolej Universiti Act 1971 [Act 30], UM guarantees that all student disciplinary proceedings are executed equitably and transparently. This act ensures students possess the ability to contest disciplinary rulings, so safeguarding their rights and upholding due process. The university's compliance with this statute highlights its commitment to student welfare and its function in cultivating a supportive academic atmosphere. This method adheres to legal criteria and embodies UM's ethical position on student rights and duties.

4. Universiti Malaya's Disciplinary Committee

To guarantee equitable treatment of all personnel, UM has instituted a Disciplinary Committee responsible for overseeing the execution of equal rights and impartiality in employee disciplinary measures. This committee is responsible for overseeing disciplinary procedures to guarantee compliance with UM's ethical and legal norms. Through the establishment of this committee, UM fosters a work environment in which all employees receive their due protections, and disciplinary measures are administered with integrity and uniformity. The committee's existence underscores UM's dedication to transparency and accountability in all employment issues.

5. Procedure for Addressing Grievances

UM offers a systematic grievance resolution process that enables staff to express any outstanding issues or grievances. This strategy functions as a crucial avenue for resolving issues that remain inadequately addressed by conventional methods. It allows personnel to elevate complaints concerning workplace matters, promoting a culture of transparent communication and receptiveness. Through the implementation of a structured grievance process, UM emphasises its commitment to fostering a just and supportive workplace in which employee complaints are recognised and resolved expeditiously. This method is consistent with UM's overarching dedication to employee welfare and ethical labour practices.



Assistance for Secure Employment and Work Opportunities: Empowering Personnel and Students

Universiti Malaya (UM) acknowledges that stable employment is essential for cultivating a motivated and high-performing workforce. In 2024, the university continued prioritising long-term employment contracts, providing staff with stability and security in a competitive job market. This commitment to job security enables employees to plan confidently for their future while contributing to a positive and supportive work culture.

In parallel, UM has continued to invest in student work placement programmes, which provide students with meaningful real-world experience. These placements, typically lasting more than one month, allow students to apply their academic knowledge in professional settings and strengthen their career readiness. In 2024, UM expanded collaborations with industry partners, creating more opportunities for students to gain hands-on experience in fields aligned with their studies.

Job on Campus (JoC) Initiative at UM

The Graduate Employability and Career Centre (GECC) is dedicated to improving the employability of undergraduate students by providing diverse part-time employment options on campus via the Job on Campus (JoC) programme. This project offers students the chance to engage with the university's responsibility centres (PTj) at competitive remuneration rates: RM8.00 per hour for Research Assistance roles and RM6.00 per hour for administrative and clerical posts.

Students may work a maximum of 15 hours per week throughout the semester and up to 30 hours per week during semester breaks. The programme is available to all students enrolled in bachelor's, master's, or PhD programs, excluding first-year undergraduate students in their inaugural semester. Applications may be submitted through the HEP website at <https://hep.um.edu.my/career-amp> advertising by completing the appropriate forms and obtaining approval from the PTj or Project Leader. Universiti Malaya seeks to provide students with real job experience through this programme, facilitating the equilibrium of academic and professional growth while fostering a constructive work culture within the school community.



UNIVERSITI MALAYA

JOB ON CAMPUS (JOC)

JoC is a program that offers part-time job opportunities on campus at the responsibility centers (PTj) of the Universiti Malaya

JOIN OUR BEST TEAM

HOW TO APPLY

- Get the application form at hep.um.edu.my under service@HEP> Graduate Employability and Career Centre> Job on Campus (JoC) Application Form
- Submit the completed form to the PTj/Project Leader for approval

PAYMENT RATE

Position	Rate
RESEARCH ASSISTANCE	RM 8.00 / HOUR
ADMINISTRATION & CLERICAL WORK	RM 6.00 / HOUR

WORKING HOURS

	15 HOURS A WEEK	DURING SEMESTER
PART TIME		
FULL TIME	30 HOURS A WEEK	SEMESTER BREAK

FOR MORE INFORMATION

+603-7967 3505/7793/7794/7057

gecc@um.edu.my

Graduate Employability and Career Centre (GECC), Student Affairs Department, Universiti Malaya

Open to all students

- Bachelor's degree (except for first-year students in the first session)
- Master's degree
- PhD

Above: Poster explaining the Job on Campus (JoC) initiative at UM, open to all UM students

Staff Welfare Open Day 2024: Fostering a Culture of Compassion at Work

On 28–29 August 2024, Universiti Malaysia (UM) organised the Staff Welfare Open Day 2024, themed “Minda Pemudahcara Sebagai Asas Kebajikan dalam Pekerjaan” (“The Facilitator Mindset as the Foundation of Workplace Well-being”). The event, held at the Auditorium KPS, Dewan Perdana 1 & 3, Ruang Legar Garden KPS, and Gazebo, was coordinated by the Counselling and Disability Empowerment Centre, under the Registrar’s Portfolio.

The programme aimed to promote a compassionate and inclusive workplace culture by highlighting the importance of empathy, emotional intelligence, and facilitative leadership among UM staff. Throughout the two-day event, participants engaged in interactive sessions, exhibitions, and wellness activities designed to strengthen mental well-being and foster mutual support among colleagues.

Exhibitions showcased various staff welfare initiatives, counselling services, and support mechanisms available within the university. Staff members also had the opportunity to consult with professional counsellors and explore self-care resources that encourage work-life balance and psychological resilience. Through initiatives such as this, UM reaffirms its commitment to staff welfare as a cornerstone of sustainable institutional growth.



Above: Event poster for the Staff Welfare Open Day 2024

Below: Opening ceremony of the Staff Welfare Open Day 2024 (left) and group photo of UM staff (right)





Industry, Innovation and Infrastructure



9

Zaman Beralih, Musim Bertukar

SDG 9, which focuses on building resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation, is reflected in the Malay expression “*Zaman beralih, musim bertukar*” (times change, seasons shift). This phrase highlights the need for continuous adaptation and progress in an ever-evolving world.

At UM, this spirit is embraced through initiatives that support innovation, research, and technological advancement. By fostering a culture of creativity, knowledge exchange, and practical solutions, UM contributes to sustainable development while preparing students and researchers to meet the challenges of a changing world—embodying the vision of SDG 9.

UM Spin-Offs and Ventures: Driving Innovation for Society and Industry

In 2024, Universiti Malaya (UM) continued to solidify its role as a catalyst for innovation, industry, and infrastructure development, transforming academic research into practical solutions that address societal challenges and promote sustainable growth. Through the UM Centre of Innovation and Enterprise (UMCIE), the university nurtures a dynamic ecosystem of spin-offs, start-ups, and deep-tech ventures spanning healthcare, green energy, digital transformation, biotechnology, and advanced materials.

These enterprises, including pioneering ventures such as Musculoskeletal BioHeal, CARE Passport App, NeoGuard, Xcess Pressure, UMTechVis, Zephyron, Qubios, eProfiler, Essentinutrien, Biofusion+, and Malphene, exemplify UM's commitment to equity, sustainability, and socially impactful innovation. In 2024, these ventures advanced cutting-edge therapies, renewable energy solutions, AI-driven healthcare, microbiome-based wellness products, and frontier materials technologies—demonstrating how UM-driven innovation not only strengthens Malaysia's industrial and technological capacity but also improves quality of life, empowers communities, and contributes to a low-carbon, resilient future. The following sections highlight UM's achievements across key thematic areas, illustrating the university's distinctive role in fostering transformative, inclusive, and sustainable enterprise.

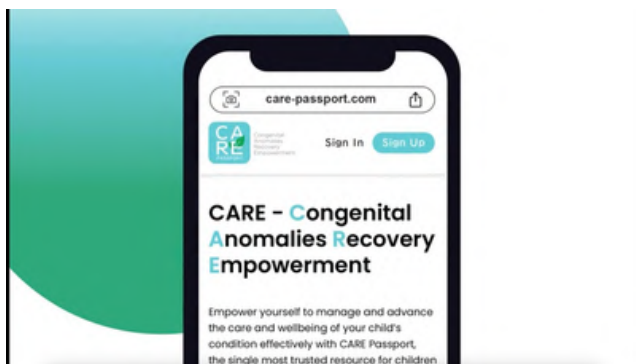


Healthcare and Biomedical Innovation

UM's healthcare spin-offs are translating cutting-edge research into therapies and tools that significantly improve patient outcomes. Musculoskeletal BioHeal, a minimally invasive regenerative treatment for osteoarthritis, providing long-term relief and enhanced joint function while reducing dependence on surgery or steroids. CARE Passport App addresses the challenges of managing complex congenital anomalies by offering patients and caregivers a secure, centralised digital platform to store, update, and share medical records, ensuring continuity of care and empowering patients to actively participate in their treatment. NeoGuard delivers AI-powered fetal monitoring tools customised for Southeast Asian populations, enabling early detection of high-risk conditions and supporting timely interventions to improve maternal and neonatal health outcomes. Together, these ventures exemplify how UM is bridging clinical research, digital health, and patient-centred innovation.

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Below: The CARE Passport App



Above: The inventor of Musculoskeletal BioHeal (top), Dr. Chong Pan Pan (Department of Orthopaedic Surgery, Faculty of Medicine, UM); the inventor of CARE Passport App (middle), Dr. Tan Yew Mei (Department of Surgery, Faculty of Medicine, UM); and the inventor of NeoGuard (bottom), Dr. Saw Shier Nee (Department of Artificial Intelligence, Faculty of Computer Science and Information Technology, UM)

Green Energy and Environmental Sustainability

UM-linked enterprises are developing renewable energy and environmental technologies that combine practicality with sustainability. Xcess Pressure Sdn. Bhd. harnesses excess pressure in urban water pipelines to generate electricity through in-pipe hydropower systems, offering a scalable and low-impact energy solution without major infrastructure changes. UMTechVis designs automated solar panel cleaning systems equipped with advanced sensors and robotic mechanisms, improving energy efficiency, reducing maintenance costs, and extending the lifespan of solar installations in tropical climates. Zephyron addresses the automotive sector's carbon footprint with a hydrogen-based engine cleaning system that removes carbon deposits efficiently and safely, reducing fuel consumption and environmental pollutants. These initiatives demonstrate UM's commitment to advancing low-carbon technologies that are both innovative and applicable in real-world settings.

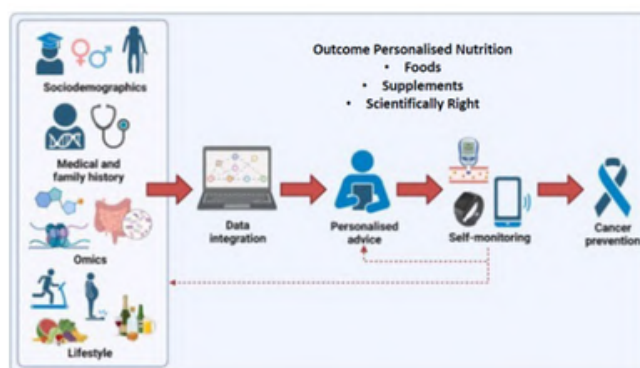
Right: In-pipe hydropower technology by Xcess Pressure Sdn. Bhd. (top); testing, witnessed by representatives from the Ministry of Energy Transition and Water Transformation (PETRA), SPAN, PAAB, and Air Selangor (middle); and pilot project prototype testing (bottom)



Above: UMTechVis (left) led by Prof. Tan Chou Yong; and Zephyron (right) led by Dr. Muhammad Shakeel Ahmad

Digital Transformation and Artificial Intelligence

UM's ventures in digital and AI technologies are redefining healthcare, diagnostics, and industrial processes. Qubios, led by Prof. Dr. Vannajan Sanghiran Lee from the Department of Chemistry, leverages AI and quantum computing to deliver personalised cancer care, supporting early detection, genome-based treatment planning, and predictive analytics to optimise patient outcomes. eProfiler Solution Ltd., founded by Prof. Dr. Vengadesh Periasamy, offers a portable, chemistry-free platform for rapid diagnostics and material characterisation, enhanced with blockchain-enabled data traceability, enabling accurate and reproducible testing for clinical, industrial, and environmental applications. These start-ups exemplify how UM's innovation ecosystem integrates frontier computational technologies with practical solutions that are scalable, inclusive, and data-driven.



Above: Diagram explaining Qubios

Below: The portable eProfiler device



9



Above: Photos during the product launch and demo workshop of eProfiler Solution

Biotechnology and Natural Products

UM spin-offs are turning Malaysia's rich biodiversity into innovative biotech solutions with societal and health benefits. Essentinutrien Sdn. Bhd. develops health supplements from Tiger Milk Mushroom, combining traditional knowledge with scientific research to enhance immunity, improve respiratory health, and offer natural alternatives to synthetic interventions. The company also supports rural cultivators through training, sustainable farming, and inclusive supply chains that empower local communities. Biofusion+, founded by Dr. Lee Hai Yen, applies microbiome science to create consumer-focused wellness products such as LactiShield+, a probiotic designed to strengthen gut health and immunity, especially for travellers. By translating advanced research into accessible formulations, Biofusion+ addresses practical health needs while advancing evidence-based wellness and ongoing innovation in microbiome applications.

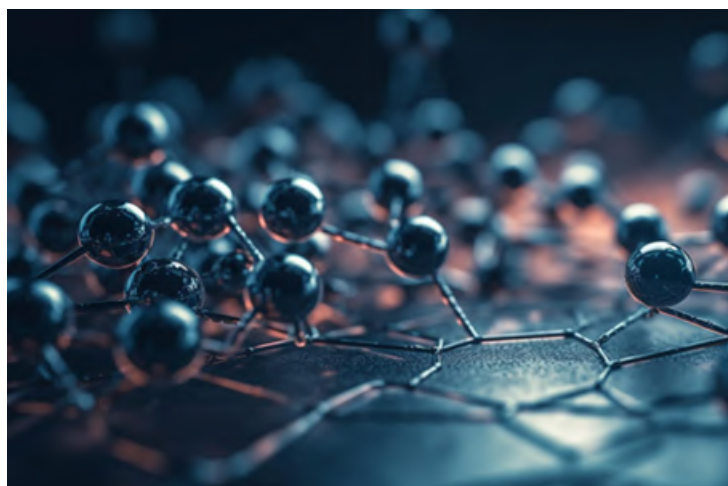
Right: Researchers from Essentinutrien Sdn. Bhd. with their health supplements (top), and researchers from Biofusion+ showcasing their LactiShield+ probiotic product



9

Advanced Materials and High-Tech Solutions

UM's deep-tech ventures are advancing frontier materials for industrial and research applications. Malphene, led by Associate Prof. Dr. Hairul Anuar Tajuddin from the Department of Chemistry, specialises in the production and customisation of nanographene, a versatile material used in energy storage, electronics, and advanced manufacturing. With stable supply, competitive pricing, and tailored solutions, Malphene supports innovation across multiple industries while establishing Malaysia as a growing contributor to the global advanced materials market. This demonstrates how UM-driven deep-tech enterprises translate scientific expertise into tangible industrial and economic impact.



Advancing Innovation and Technology at Universiti Malaya

In 2024, Universiti Malaya (UM) solidified its role as a national hub for research, innovation, and technological advancement, demonstrating a multi-faceted approach to fostering creativity and problem-solving. From hosting the inaugural RoboCup Malaysia Open, where UM emerged as Overall Major League Champion, to co-organising MakersFest 2024, the university provided platforms that showcase cutting-edge robotics, artificial intelligence, and hands-on innovation. These events not only positioned UM at the forefront of national and international innovation ecosystems but also highlighted its commitment to nurturing the next generation of innovators through mentorship, collaborative projects, and community engagement.

Complementing these high-profile initiatives, UM strengthened strategic partnerships with industry and government stakeholders, including the Malaysia Rubber Council and iTrademark Sdn. Bhd., while hosting pivotal events such as Innovathon Season 2 auditions, Konvensyen Kumpulan Inovatif & Kreatif (KIK) 2023/2024, and the 2nd Research Officers National Symposium (ReONS 2024). Through these collaborations, the university actively promoted the commercialisation of research, intellectual property management, and translational solutions that address societal challenges. Collectively, these efforts reflect UM's holistic approach to advancing science, technology, and innovation, reinforcing its contribution to sustainable industrial development and Malaysia's broader research and innovation agenda.

UM Hosted the First RoboCup Malaysia Open 2024

In September 2024, Universiti Malaya (UM) made history as the host of the first RoboCup Malaysia Open 2024, held from 5 to 9 September at the UM Exam Hall. The event represented a national milestone, positioning Malaysia within the global robotics and artificial intelligence (AI) research community.

The competition provided a dynamic platform for local talents to demonstrate their skills in AI robotics innovation and to benchmark their capabilities at the international level. The RoboCup Malaysia Open 2024 featured two leagues — the Major League and Junior League — bringing together university and school teams from across Malaysia and abroad.

RoboCup, first established in 1996, is one of the world's leading annual robotics competitions, founded by a group of academics to advance AI and robotics research. The event's long-term vision — to develop a robot team capable of defeating the FIFA World Cup champions by 2050 — continues to inspire innovation, education, and collaboration in intelligent robotics.



Above: Recording of the RoboCup Malaysia Open 2024 Opening Ceremony, held on 5 September 2024. The full video is available on [Universiti Malaya's official YouTube channel](#)

Below: Scenes from the opening ceremony



UM Emerged as Overall Major League Champion at RoboCup Malaysia Open 2024

UM concluded the inaugural RoboCup Malaysia Open 2024 as the Overall Major League Champion, marking a significant achievement in AI robotics excellence. Team UM competed in the @Home and @Home Education Major Leagues, focusing on intelligent service robotics for domestic applications.

In the @Home Education category, UM teams Homies and Enigma placed second and fourth, respectively, in a highly competitive field that included participants from universities such as UTM, USM, UNIMY, UNIMAP, UPM, UTP, UTHM, and international institutions from Thailand and Japan. In the elite @Home category, UM teams Terminator and TwiggiesAid showcased remarkable skill and resilience, maintaining top positions throughout the four-day challenge and outperforming seasoned teams with international RoboCup experience.

Beyond the competitions, UM students mentored school teams participating in the Junior Leagues @OnStage, where their mentees won first prize — a success that reinforced the university's commitment to STEM education, knowledge transfer, and community mentorship.

The success of Team UM reflected strong institutional support from the Vice-Chancellor, Professor Dato' Seri Ir. Dr. Noor Azuan Abu Osman, and Deputy Vice-Chancellor (HEP), Professor Dr. Zamri Radzi, alongside dedicated mentoring from the Faculty of Computer Science and Information Technology (FCSIT) and the Faculty of Engineering. Over 40 student volunteers and 100 staff members from across UM faculties and departments contributed to the event's success, embodying the spirit of collaboration that defines UM as One.

With more than 1,500 visitors and 100 participants at the closing symposium, the RoboCup Malaysia Open 2024 positioned UM as a national leader in AI robotics research, innovation, and education, setting a new benchmark for Malaysia's advancement in intelligent technology.

Below: Photos from the competition, featuring Team UM with their winning trophies and robots



Fostering Innovation Through MakersFest 2024

In 2024, Universiti Malaya co-hosted MakersFest 2024 on 10–11 December at the Kompleks Perdanasiswa UM, a strategic platform designed to nurture a culture of innovation and creativity in Malaysia. The event was organised by STEM4ALL Makerspace Malaysia, in collaboration with Makerspace @ Universiti Malaya, with MRANTI Makerslab as Strategic Partner and Digital News Asia (DNA) as Ecosystem Partner. MakersFest brought together the makers community and celebrated creativity through hands-on workshops, exhibits, engaging forums, and ideathons. It showcased innovators, start-ups, and researchers while promoting living labs and interactive experiences, connecting educational institutions, industry partners, and the community to develop high-impact solutions addressing future challenges.

As a centre of excellence in education and innovation, Universiti Malaya continues to play a key role in cultivating the next generation of globally competitive innovators. MakersFest 2024 demonstrated the university's commitment to inclusive innovation, knowledge exchange, and collaborative problem-solving for sustainable development.



Above: Event poster for MakersFest 2024

Below: Photos from the event launch and selected exhibits during MakersFest 2024



UM Strengthens Partnership with Malaysia Rubber Council

Universiti Malaya has formalised a memorandum of understanding (MOU) with the Malaysia Rubber Council, reinforcing the university's commitment to the commercialisation of advanced rubber technologies. This strategic collaboration seeks to enhance the competitiveness of local industries, stimulate innovation, and support sustainable growth within the rubber sector.

Right: Photo from the MOU signing with the Malaysia Rubber Council



Strategic Alliance Between Universiti Malaya and iTrademark

Universiti Malaya has entered into a Strategic Alliance and Licensing Agreement with iTrademark Sdn. Bhd., establishing a collaborative framework to advance knowledge sharing in intellectual property (IP) management. This partnership aims to support the innovation and commercialisation of new ideas, strengthen market competitiveness, and advance research and development initiatives.

Under this collaboration, the UM Centre of Innovation and Enterprise (UMCIE) will co-organise IP-focused training, workshops, seminars, and programmes in partnership with iTrademark, covering topics such as the fundamentals of intellectual property, trademarks, copyrights, patents, and industrial design. This initiative underscores Universiti Malaya's commitment to equipping researchers, innovators, and industry stakeholders with the knowledge and skills necessary to protect, manage, and commercialise intellectual property effectively.

Right: Photos from the Strategic Alliance and Licensing Agreement with iTrademark Sdn. Bhd.



Strengthening Digital Talent through Partnership with Alibaba Cloud

In 2024, Universiti Malaya (UM) strengthened its commitment to digital innovation and talent development through a strategic partnership with Alibaba Cloud, the digital technology and intelligence backbone of Alibaba Group. Formalised under the Alibaba Cloud Academic Empowerment Program (AAEP), this collaboration aims to enhance cloud computing and artificial intelligence (AI) education for UM students and educators while building a sustainable pipeline of local digital talent.

The partnership marked the establishment of the Alibaba Cloud Academy Skills Centre at UM, which serves as a hub for workshops, boot camps, and training sessions. Each month, the centre will feature themed programmes covering areas such as AI, database management, and elastic computing—ensuring that both students and educators are exposed to a wide range of emerging digital technologies. Through the AAEP, participants gain access to over 300 certification courses, hands-on labs, and global learning resources that bridge the gap between academia and industry.

In conjunction with this initiative, Alibaba Cloud also launched the “Future Star” internship programme, with UM selected as the pioneer university in Malaysia. The programme offers students three to six months of structured, real-world training, blending technical learning with mentorship and career development opportunities.

This partnership reflects UM’s strategic vision to integrate frontier technologies into education and research. By equipping students and educators with advanced digital competencies, UM continues to play a pivotal role in nurturing Malaysia’s future-ready workforce. The collaboration also underscores a shared commitment between academia and industry to drive sustainable digital transformation—strengthening national innovation capacity and supporting inclusive industrial growth in alignment with SDG 9.

Below: Photos taken during the establishment of the Alibaba Cloud Academy Skills Centre at UM



Universiti Malaya Hosts Innovathon Season 2 Auditions

Universiti Malaya (UM) was selected to host the auditions for the second season of the prestigious Innovathon, an event that brings together the brightest minds from diverse fields to showcase innovative ideas and projects. The auditions were held on 22–24 June at the Research Management and Innovation Complex, UM, highlighting the university's status as a leading institution in research and innovation.

UM's state-of-the-art facilities and its strong commitment to fostering a culture of creativity and enterprise provided an ideal setting for the auditions, which attracted hundreds of participants from various institutions and professional backgrounds. Contestants presented their innovative solutions and prototypes to a panel of judges comprising industry experts, academics, and UM specialists.

The event was graced by YB Tuan Chang Lih Kang, Minister of Science, Technology and Innovation, underscoring government support for innovation and technological advancement in Malaysia. Professor Ir. Dr. Kaharudin Dimyati, Deputy Vice-Chancellor (Research & Innovation), was also present, further emphasizing UM's commitment to advancing research, innovation, and entrepreneurial excellence.



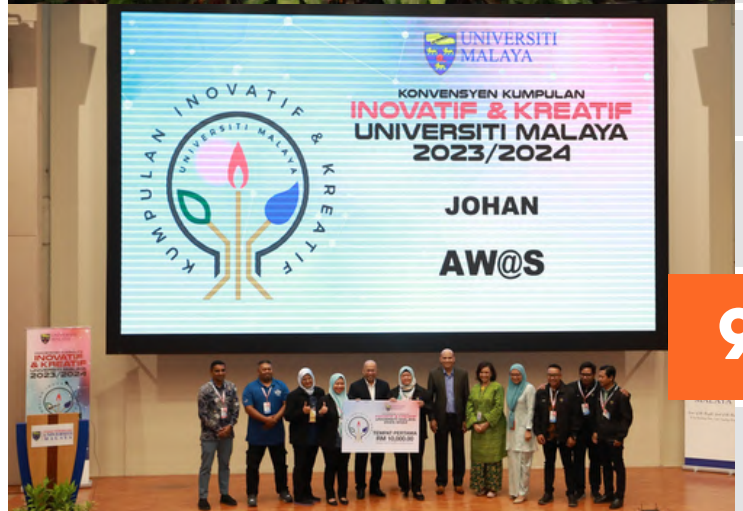
Right: Photos from the Innovathon Season 2 auditions, showing the judging sessions

Konvensyen Kumpulan Inovatif & Kreatif (KIK) 2023/2024

Universiti Malaya successfully held the Konvensyen Kumpulan Inovatif & Kreatif (KIK) 2023/2024 at the Auditorium, 13th Floor, Menara Selatan, Pusat Perubatan Universiti Malaya (PPUM). The convention aligns with Pillar 4: Talent – Reviving Innovative Circle (KIK) of the Universiti Malaya Strategic Plan 2021–2025, which in 2023 saw the successful implementation of multiple projects, equipment improvements, and service enhancements driven by creative and innovative ideas from the UM community.

The Johan (first-place) award was presented to Kumpulan Agronomics Waste System (AW@S), formed by staff from the Institute of Biological Sciences, Faculty of Science, for their proposal to implement an Integrated Agricultural Waste Management System. Two projects from PPUM achieved recognition: Green Angels (Department of Nursing) secured third place, while Happy Pills (Departments of Pharmacy and Dietetics) received the Anugerah Inovasi Harapan.

The event highlights Universiti Malaya's ongoing commitment to fostering creativity, innovation, and practical solutions that enhance institutional services and advance its vision as a model sustainable campus.



Right: Photo from the Konvensyen Kumpulan Inovatif & Kreatif (KIK) 2023/2024, showing the award ceremony and exhibitions

2nd Research Officers National Symposium (ReONS 2024) at Universiti Malaya

YBhg. Dato' Ts. Dr. Hj. Aminuddin bin Hassim, Chief Secretary of MOSTI, officiated the 2nd Research Officers National Symposium (ReONS 2024), themed “From Research to Community: Translational Research and Commercialization”, at the Auditorium, High-Impact Research Building, Universiti Malaya, Kuala Lumpur. The two-day symposium aims to empower and inspire research officers from universities and research institutions across Malaysia to become leading scientists of the future.

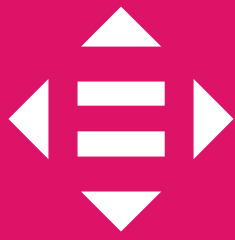
The symposium featured 80 participants, including eight plenary speakers, 25 oral presenters, and 22 poster presenters. Also present at the opening ceremony were Professor Ir. Dr. Kaharudin Dimiyati, Deputy Vice-Chancellor (Research & Innovation), Universiti Malaya, Dr. Chen Chee Dhang, Chairman of ReONS 2024, and Dr. Norfaryanti Kamaruddin, President of MROS.

In his keynote address, YBhg. Dato' Ts. Dr. Hj. Aminuddin highlighted the availability of research grants for competent researchers in translational research, emphasising the importance of connecting research outcomes to community solutions. He also stressed effective science communication among researchers to industry stakeholders and funding agencies. Strong, long-term collaboration between universities, policy-making agencies, and industry players was underscored as essential for driving high-impact research that delivers measurable benefits to the economy and society.



Right: Photos from the 2nd Research Officers National Symposium (ReONS 2024) at Universiti Malaya. Photo credits: Ministry of Science, Technology and Innovation (MOSTI) and Malaysian Research Officers Society (MROS)

10 REDUCED INEQUALITIES



Reduce Inequalities

Reduce inequalities for all.



10

Yang Berat Sama Dipikul, Yang Ringan Sama Dijinjing

SDG 10, which aims to reduce inequality within and among societies, is well captured by the Malay proverb “*Yang berat sama dipikul, yang ringan sama dijinjing*” (“We bear the heavy together, the light we share as one”). This proverb highlights the spirit of unity, equity, and shared responsibility in addressing social and economic disparities. At Universiti Malaya (UM), this value is embodied through inclusive policies and initiatives that support students and staff from diverse socioeconomic backgrounds.

From needs-based financial aid and accessible education programmes to disability-friendly infrastructure and diversity-focused student engagement, UM is committed to creating a more equitable and inclusive campus. By ensuring that every member of the community has the opportunity to succeed, the university contributes meaningfully to the broader goal of reducing inequality in all its forms.

A Caring University

Universities, as a centre of academic excellence, must free themselves from the nuances of exclusivity of an ivory tower; instead, they have the responsibility of advancing civilisational wisdom while nurturing values and principles amongst their campus community, in the hope of inspiring equitable actions for the betterment of society. In embracing the aspirations, Universiti Malaya embedded the Equality, Diversity, and Inclusivity (EDI) virtues into the operations, governance, and myriads of campus initiatives and activities to promote a welcoming and honourable environment for its cherished community—creating a safe space where individuals are recognised and supported without prejudice or malice.



Creating A Nurturing Environment

In Universiti Malaya, we believe that everyone, regardless of their socio-economic upbringing or varying life challenges, deserves the right to quality education and access to an ecosystem of growth. This includes persons with disabilities (PWD), who, more often than not, were deprived of a dedicated support system to accommodate their uniqueness,

thus limiting them from reaching their fullest potential. In doing so, the university had created an intricate network of empathy to ensure a level playing ground for all of its students and staff, leading to a more fulfilling and enriching campus experience.

10



A Two-Pronged Approach



Institutional

Centre for Counselling and Disability Empowerment (CCDE)

CCDE is a centre under the purview of the Registrar's Office, which functions as a one-stop centre for complementary professional psychological and emotional support for the UM campus community. It is also entrusted with coordinating and facilitating the social welfare care services of PWD students and staff members.



Organic

Persatuan Mahasiswa Istimewa Universiti Malaya (PERMIUM)

PERMIUM is a registered student association under the UM Student Affairs Department that provides a platform for growth and collective voice for PWD students. As a recognised body, it sends representatives to the UM Student Congress to raise concerns on development and welfare, contributing to a more inclusive agenda.

Enhanced Support for PWDs

Disability Liaison Officer

In creating an inclusive and nurturing environment for all, UM empowers and trains dedicated staff members to act as DLOs at every responsibility center (PTJs): academic and non-academic. In 2024, more than 30 DLOs have been trained and deployed to respective PTJs. **#CCDE**



Community Support

UM empowers its community to embark on a journey of self-discovery and co-creation. As such, PERMIUM as a student-founded, student-led collective, which draws its ranks of familiarity, provides a solace and platform to promote tolerance. **#PERMIUM**

10



Buddies@CCDE

In supporting the university's caring community vision, CCDE welcomes the voluntary students' participation in a peer support system. The Buddies will be trained and serve as the bridge between the centre and the campus community. **#CCDE**



A Year of Inclusion: Throwback to 2024

Hari Interaksi PERMIUM, PERMIUM's Day Out, Majlis Apresiasi PERMIUM

In creating a strong community for students with disabilities on campus, PERMIUM regularly held gathering events targeted to PWDs that is also open to all community members of Universiti Malaysia. The aim is to increase interaction between the association members, solidifying the relationship between the members. The events held are generally field with interactive activities where all members could take part in. By providing these opportunities to the new students, it will help them to connect with the existing communities and senior students where they

can share their experience and act as mentors to the new students coming into the university. These events were done in the hope of instilling the spirit of togetherness knitting a strong bond where members and general communities could rely with each other. Such motivation was captured by the following quotes.

*Only if we **understand**, can we **care**. Only if we care, we will help. Only if we help, we shall be saved.*

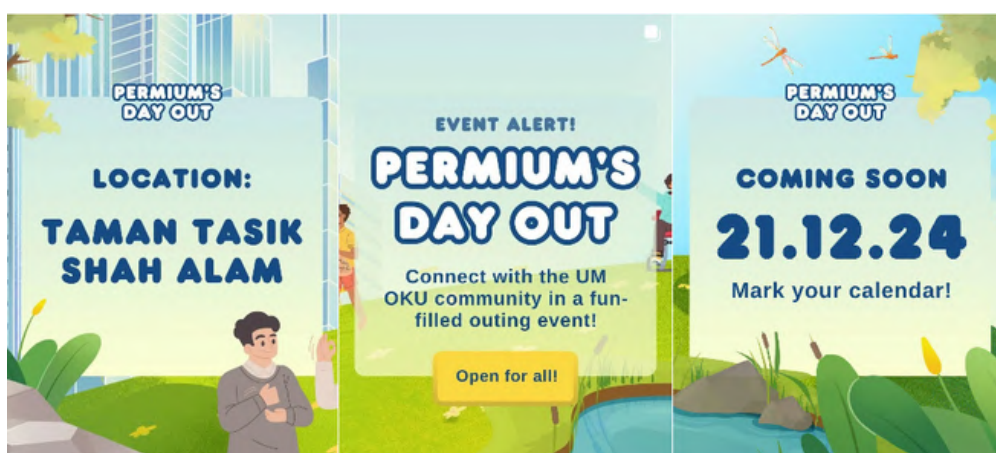
— Jane Goodall, UN Messenger of Peace



Above: “Malam Apresiasi PERMIUM” activity poster held on 1st June 2024



Above: “Hari Interaksi PERMIUM 2024/2025” activity poster held on 15th December 2024



Above: “PERMIUM's Day Out” activity poster held on 21st December 2024

Future for Disabled: Industrial Visit

Apart from interaction events, PERMIUM also conducts other events. In collaboration with the Hong Leong Foundation Scholars Club, PERMIUM had organised an industrial visit for its members on the 17th of May 2024 at the Hong Leong Tower. The aim of the visit is to empower disabled students in their career path while boosting awareness on work opportunities open for PWDs. The day started with a company tour where students were exposed to the operation of Hong Leong Bank and the landscape of the financial sector in Malaysia.

It was followed by a career talk session led by Hong Leong employees where they shared their workplace experiences and opportunities within the banking industry. A mini forum/discussion session was also held so that students can get better insights and curated answers to their inquiries throughout the whole day. The execution of events such as this highlights the emphasis that the university puts on ensuring the availability of pathways and opportunities for the PWDs after graduation.



Above: Activities snapshots of the "Future for Disabled: Industrial Visit" held on 17th May 2024

Irama Bahasa

On the 26th of May 2024, *Sekretariat Rakan Muda Universiti Malaya* had organised a one-day sign language workshop called “Irama Bahasa” for the campus community. The name Irama Bahasa which is translated to the rhythm of language in linguistics studies refers to the natural flow and beat within a language. In this specific context, it would refer to the motion and pattern done in producing a fluid sign language. The event which was held with the support of #SIGNON, a non-profit independent organisation focusing on creating awareness on the usage of sign language, has attracted participation from staff and students alike. The focus on the day is to teach basic sign language with the aim of achieving basic communication using the sign languages taught.



Above: Activities snapshots of “Irama Bahasa” held on 28th May 2024

Dining as If Blind



Above: “Dining as If Blind” activity poster held on 7th June 2024

Empathy is seeing with the eyes of another, listening with the ears of another, and feeling with the heart of another
— Alfred Adler, renowned psychiatrist

The quote encapsulates the concept of empathy as the ability to understand another person's wants, needs, fears, and viewpoints by putting oneself in their place and experiencing their perspective without them having to articulate it. Understanding this concept, CCDE had organised an event on the 7th of June called “Dining as If Blind” which is an event that provides the participants experience on how visually impaired individuals navigate mealtimes. By momentarily stepping into their world, participants gained valuable insight into the daily challenges faced by visually impaired individuals and developed a deeper appreciation for their lived experiences. By understanding others better, we can strive to live together in harmony while accommodating each other's needs.

Karnival Sukan Inklusif

Another event organised by CCDE on campus for the PWD community is **Karnival Sukan Inklusif**. It was held on the 14th of December 2024 with the help from UM Sports Centre and the Faculty of Sports and Exercise Science. The activities conducted on the day include kayak, petanque, beach volleyball, and aerobics exercise. With registration open to all campus communities, it provided the opportunity for university residents to participate in sports activities together with the PWDs community. The event was conducted with the intention of fostering the spirit of inclusivity within the campus community.



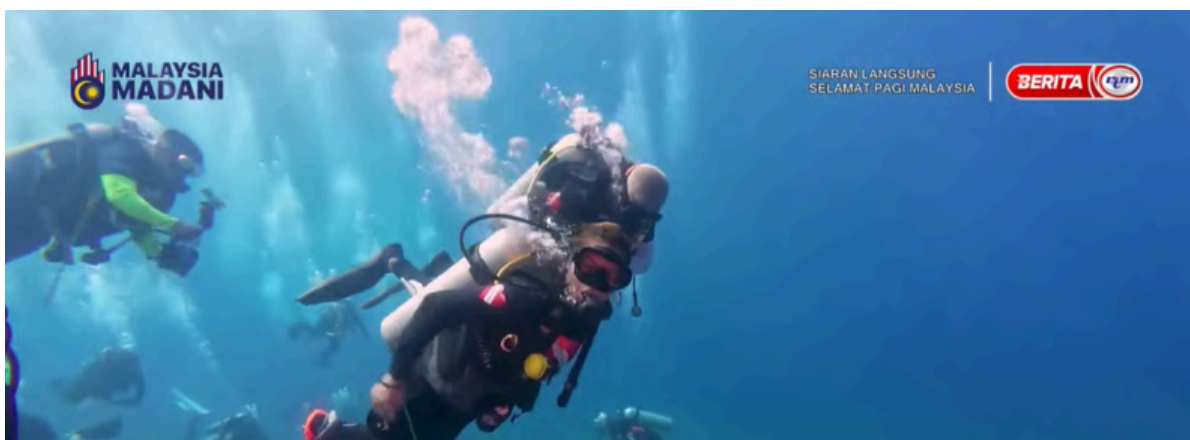
Above: “Karnival Sukan Inklusif Universiti Malaysia 2024” activity poster held on 14th December 2024

RHB Ocean Harmony 2024



Above: Prof. Dr. Nazirah Hassan, UMMC Director, giving an TV interview, held on 26th October 2024, extracted from Berita RTM YouTube Channel

Universiti Malaysia in collaboration with RHB Bank, Universiti Malaysia Medical Centre, and Universiti Malaysia Terengganu had organised **RHB Ocean Harmony 2024**, an environmental conservation initiative which focused on marine life protection. The unique aspect of the programme is the integration of scuba diving as a method of therapy for disabled patients. With assistance from Adaptive Diveheart, a non-profit organisation that provides and supports educational scuba diving programmes for the PWDs community, the scuba diving rehabilitation initiative was successfully held with the attendance of UMMC Director, Prof. Dr. Nazirah Hassan and representatives from the Rehabilitative Medicine Department.



Above: “Selamat Pagi Malaysia” episode on RHB Ocean Harmony 2024 programme, extracted from Berita RTM YouTube Channel

Shaping the Future of Higher Learning

Driving Inclusivity Policies Across Campuses



Above: Engagement Session with PWDs for the development of the Malaysian Higher Education Development Plan (PPPTM) 2026-2035, held on 24th October 2024

Universiti Malaya as the nation's premier public higher education institution has always provided its expertise and support in the formulation and execution of national plans. On 24th October 2024, an engagement session was organised between the Ministry of Higher Education Malaysia (MOHE) and the PWDs community in Malaysia at Auditorium Kompleks Perdana Siswa, Universiti Malaya. The purpose is to get feedback and suggestions directly from the PWDs community on the National Higher Education Plan 2026-2035.

The session was attended personally by the Minister of Higher Education, YB Dato' Seri Diraja Dr. Zambry Abd Kadir, Secretary General MOHE, Dato' Seri Ir. Dr. Zaini Ujang, experts, and representatives from various PWDs communities in Malaysia. With involvement directly from PWDs in the formulation, a more robust and inclusive Education Plan could be constructed that considers the needs and restrictions faced by PWDs in navigating their daily life at higher education learning institutions.

10



Above: Highlights of the engagement session, extracted from MoHE activities broadcast

Mainstreaming Accessibility and Inclusivity

Other than involvement in formulation of national plans such as the Malaysian Higher Education Development Plan (PPPTM) 2026-2035, the University also offers their expertise by sharing their knowledge through media appearances. Over the year 2024, several media appearances have been made by staff and students of Universiti Malaya discussing the topic of disability and inclusivity, providing critical insights grounded on their lived experiences to bring awareness onto the potential and ways to overcome the preconceptions and biases against the PWDs communities. In hope of promoting a tolerance towards creating a caring society.



Above: Promotional posters of RTM's "Selamat Pagi Malaysia" slots, featuring UM PWDs staff and students, held on 15th October 2024 and 30th December 2024

Vibrant Campus Community

Celebrating the Pioneers through "Sulung 3.0"



Above: Promotional poster of "SULUNG 3.0" for academic session 2024/2025

Program Pembangunan Siswa Sulung (SULUNG) has come again in 2024, offering financial aid to first generation students from underprivileged families. Continuing the mission of providing equitable education, the University has steadily participated in this initiative introduced by the MOHE. First introduced as a pilot program in 2022 involving 8 pioneer public universities, the programme model has been refined to ensure the sustainability of its execution. Students accepted into the programme enjoy the benefit of being exempted from academic fees throughout their whole study period. The aim of the programme is to break the cycle of poverty by giving these students opportunities, support, and resources so that they and their families can have better socio-economic outcomes. Going forward, the University will always work towards providing avenues for underprivileged and underrepresented communities to further their studies in higher education institutions.

Empowering Accessible Higher Education

The inclusivity aspect on campus is not only limited to local students, but the University has also increased its efforts to recruit talented students from low income and lower middle-income countries. Throughout the year 2024, the University has actively participated in student fairs all around the world to promote academic programmes offered by the university. To better engage with international audiences, UM has built a partnership with Education Malaysia Global Services (EMGS), a company limited by guarantee under the purview of the Ministry of Higher Education (MOHE). EMGS operates a One-Stop Centre for international student services pursuing higher education in Malaysia which operates by leading marketing and promotional activities for Malaysian education institutions and products globally, including tours and participation in international exhibitions and conferences. Through the partnership, with a strategic marketing and branding approach, UM could push itself as one of the preferred education institutions in the world. To date, our campus was represented by more than 80 nationalities, making us a truly global university.



Above: Highlights of UM Recruitment Drive in 2024 aimed at promoting global exchange of ideas and talents



Above: Promotional posters for international students' aid offered by UM and its partners

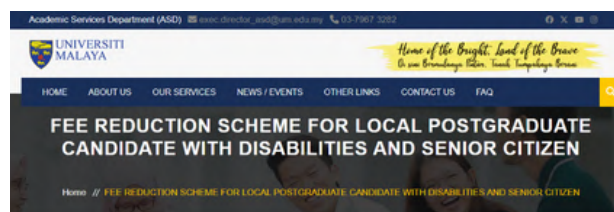
International Students Aid

Dedicated to assisting in providing equitable education for all, Universiti Malaya has offered several financial support programmes that are open to international students. These opportunities provide a medium for international students especially from underprivileged or underrepresented backgrounds to complete their postgraduate studies in one of the top universities in the region. The application period of each programme differs from each other so interested students should regularly check with the Marketing and Recruitment Division or Academic Services Department on the availability of support programmes for application.

Disabled Students Aid

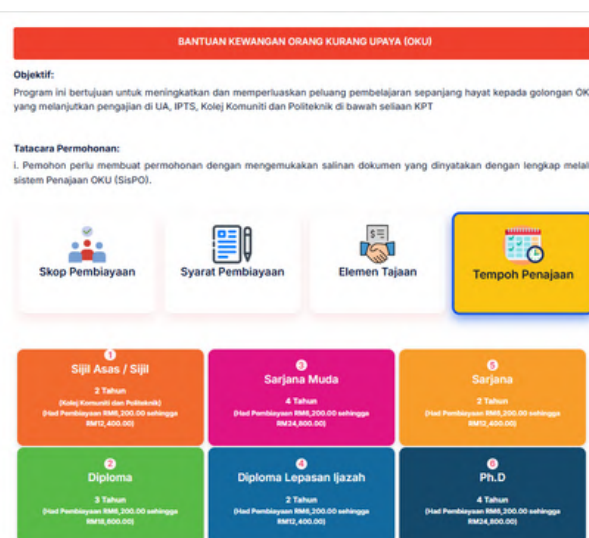
Not forgetting students with disabilities, Universiti Malaya also provides a series of financial aid targeted to support PWDs complete their studies on campus. Reflecting the wish of the Ministry of Higher Education in providing accessible education, the University offers a 50% fees reduction scheme for postgraduate students with disabilities. To further expand the range of support, the scheme is also extended towards senior citizens.

Other than that, as a public university, Universiti Malaya benefited from the initiative done by the Ministry of Higher Education. Bantuan Kewangan OKU (BKOKU) is a continuous support programme designed to provide PWDs with financial assistance in the form of monthly allowances and tuition support. Interested individuals may contact our Academic Services Department and Centre for Counselling and Disability Empowerment for further details.



This scheme is open to local candidates enrolled (active status) in a Masters or Doctoral programme.
The fee reduction for the Disabilities and Senior Citizens is only 50%, which is the teaching fee and the research fee.

Above: UM's Fee Reduction Scheme for PWDs and Senior Citizen



Above: Financial Assistance Scheme for PWDs Students (BKOKU) by the MoHE





Sustainable Cities and Communities

Make cities and human settlements inclusive, safe, resilient and sustainable.



Di Mana Bumi Dipijak, Di Situ Langit Dijunjung

SDG 11, which focuses on creating inclusive, safe, resilient, and sustainable cities and communities, is deeply reflected in the Malay proverb “*Di mana bumi dipijak, di situ langit dijunjung*,” meaning wherever we live, we respect and uphold its customs and responsibilities. This proverb reminds us to honour and care for the place we inhabit by acting responsibly and respectfully towards both the environment and the community.

At UM, this principle is embodied through initiatives such as sustainable campus design, heritage conservation, inclusive public spaces, and green mobility systems. These efforts demonstrate how UM values the natural, cultural, and social environments it inhabits. By fostering a sense of place-based responsibility, the university actively contributes to building a sustainable and liveable future in line with the vision of SDG 11.



Preserving Culture, Advancing Sustainable Development

As reflected in the 17 SDGs goals, sustainability transcends the notion of environmental conservation, it constitutes every aspect of life— our living spaces, lifestyles, expression of arts, among others. Universiti Malaya (UM), as the nation’s foremost knowledge producer, has the responsibility to harmonise between scientific and scholarly discovery, with the preservation and promotion of the Malaysian rich cultural heritage. This commitment echoes the spirit of SDG 11: Sustainable Cities and Communities, which emphasises on building inclusive, safe, and resilient communities, capable of tackling contemporary global challenges, while providing an optimum environment for growth.

With the university being located at the heart of bustling urban progress, it is imperative for UM to spearhead the transformational journey, serving as the model for university-community partnership, brokering solutions for common urban challenges, including housing, connectivity, green spaces, climate resiliency, etc. Through strategic investments and enabling policies, UM continues to innovate ways to create a community-centered learning hub that is driven by modern technology yet grounded on the preservation of local culture and traditions for all.



11

Our Contribution to National Arts and Heritage

UM, since its founding in 1905, was present and engaged in every step of the country’s development, serving as the vessel for civilisational progress for Malaysia. This proud institution is a living embodiment of the unwavering pursuit of human excellence, driven by the ethos of “*Ilmu Puncak Kemajuan*” or “knowledge is the source of progress”. With every turn of the year, with every batch of graduating seniors, and initiating juniors, UM stood the test of time, a testament of national resolve. Therefore, with the collective wisdom and legacy of its

predecessors, it is only natural that UM contributes to the preservation and promotion of national arts and heritage through academic consultations, expert-sharing, research projects, and arts performances— the UM community is well regarded in this aspect for its professional production value, especially during the annual *Festival Seni Universiti Malaya (FESENI)* and *Karnival Teater Universiti Malaya (KARVITER)* which showcases students’ ingenuity and aptitude for arts and heritage performances.

Uplifting Cultural Identity

Bicara Tokoh Seni Budaya

In supporting the propagation of arts and culture initiatives on campus, Universiti Malaya, in collaboration with the National Department of Culture and Arts (JKKN) had organised “*Bicara Tokoh Seni Budaya*” on 5th November 2024 at the Experimental Theatre, Universiti Malaya. It is an educational forum focusing on the advancing digital arts in the local arts scene. Present were representatives of the academic, media and communication, and prominent arts practitioners. The forum highlighted the reality of the local arts industry, and the needs for future-driven policies to create a resilient creative arts scene. The forum was also graced by Malaysia's National Songstress (*Biduanita Negara*), Dato' Sri Siti Nurhaliza, who left the audience mesmerized with pieces of her iconic songs.



Above: Highlights of the “*Bicara Tokoh Seni Budaya*” held on 5th November 2024

Learning Beyond the Classroom

Humans learn best by doing— learning becomes fun, memorable, and impactful when theories are put into practice and mistakes are made and ratified. This is the design philosophy behind most courses in Universiti Malaya, in support of its educational goals. In realising this vision, the lecturers from the Department of Building Surveying, Faculty of Built Environment, embedded the practical aspect of learning in their teaching and learning processes. As part of their curriculum, “*Heritage Building Measurement and Analysis*”, undergraduate students embark on an academic excursion to study heritage buildings in the region. In 2024, the class visited Langkawi Island in Kedah, an island rich with cultural and historical significance of the ancient maritime kingdom of Langkasuka, tracing its origin to the 14th Century CE. This excursion not only provides academic insights, but fosters deep appreciation for history, culture, and human spirit, each necessary to support individual personal and professional development.



Above: Highlights of the academic excursion hosted by the Department of Building and Surveying, Faculty of Built Environment in 2024

Arts Performance

Arts and culture go beyond creative expression and interpretation of life phenomenons, it represents the identity of a community. As the beacon of civilisation progress, UM takes on the duty of preserving and promoting the unique and rich Malaysian cultures for the present-and-future generations to enjoy. It achieves this mission by organising a series of arts and

culture showcases to hone the craft and foster understanding and appreciation to our local history and traditions. The Faculty of Creative Arts, Universiti Malaya, have been championing this effort by arranging impactful and refreshing showcases throughout the year in the form of drama, dance, music, and visual arts.

Drama Production

Annually, the UM Drama Department will screen a theatre production as part of their curriculum. The year 2024 saw the production of “*Wanita dan Senjatanya*” performed. The production is an interpretation and adaptation of “*Fefu and Her Friend*”, a modern American play depicting the story of a group of friends exploring women's issues and concerns. One unique aspect of the production is it features an all-female cast. With pre-production works starting in late 2023, the show successfully wrapped up with its last performance at the Experimental Theatre on 6th February 2024.



Above: Highlights of the “*Wanita dan Senjatanya*” Drama Production held on 6th February 2024



Above: “*KESUMA & UMa Dance Showcase 2024/2025 Semester 1*” promotional poster

Dance Show

The UM Dance Department houses several dance companies and ensembles. Among the major ones is KESUMA which was initially formed by a group of Universiti Malaya students in 1971 to promote traditional Malay dances on campus. In 2005, it was formally adopted as the Faculty of Creative Arts’ traditional dance ensemble and integrated into the Bachelor of Dance’s curriculum. The other major ensemble is Uma, established by the faculty in 2007 to provide dance students with a platform to showcase contemporary works featuring innovative and challenging choreography. Since its formation, the group has grown into a well-seasoned performance group recognised in the industry. Throughout the year, the groups had been involved in performances both inside and outside the university.



One of the major events held by the UM Dance Department is the KESUMA and UMa Dance Showcase. This annual event marks the first performance for the year 2024, which encapsulates the rigorous lessons the students went through in completing their first semester. It features repertoires, choreographies, and classwork learned by students throughout the semester. The KESUMA segment, accompanied by live music, showcases six types of dance genres, highlighting the diversity of Malaysian dances, including Malay classical dance, Malay folk dances, Chinese folk dance, Indian folk dance, and ethnic dances from Sabah and Sarawak. The UMa segment includes seven dances, including Teringkas Tawas, Jazz, and five contemporary dances.



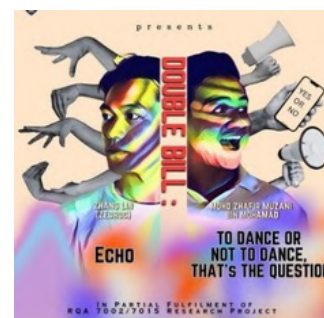
Celebrating the completion of study for final year undergraduate students, the faculty had organised a graduation performance where the students could display the results of their study. The event, named UMotion, features 7 performance track students and 1 choreography track student, presenting a diverse array of 12 dances encompassing classical and contemporary dances. The event, which was held on the 17th of May 2024 at the Experimental Theatre marks the end of their students' journey, where they would move on to contribute to the development of the local arts scene.



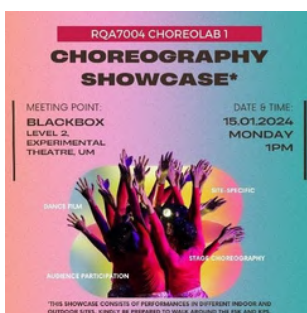
Dance showcase organised in celebration of International Dance Day. Offering Malay Folk Dance Workshop for visitors.



Festival Tari Malaysia, translated into Malaysian Dance Festival, was held in promoting the various dance forms all around Malaysia.



The event presents a graduation dance performance by two Master of Dance students which includes a double-bill dance performance.



This showcase will display choreographic explorations of the first-year master's students that comprise dance films, site-specific, and stage choreographies.



Presented in partnership with the Faculty of Music and Performing Arts, Universiti Pendidikan Sultan Idris. These works are derived from and inspired by the Ajat dance of the Iban people

Music Showcase

Another pillar in the Faculty of Creative Arts is the Music Department. Established in 1997, it is one of the core programmes in the faculty. The programme aims to develop students' musical craft and creativity in performance and theoretical studies in related domains. As part of the programme structure, performances are held to equip the students with the skills and experience of performing in front of a live audience.



Above: Highlights of the Universiti Malaysia Wonderland Music Showcase 2024, photo credit: @winz_01.jpg.



Above: "Universiti Malaysia Music Showcase 2024 - Wonderland" promotional poster

One of the annual events in the UM Music Department is its music showcase. It comes back in the year 2024 with the theme of "Wonderland", where listeners will embark on a journey accompanied by a magical musical landscape. It was successfully held for two days from the 8th to the 9th of May 2024 at the Experimental Theatre. The performance saw a range of diverse lineups from solo performances to ensembles, ready to captivate the listeners as they groove through the night.

11

There are also other events conducted by the department, including:



Mini Recital performed by 11 recitalists. In preparation for graduation recitals.



Graduation Recitals for 11 recitalists, for taking place at the Experimental Theatre on June 24-25 as part of study completion.



In celebration of National Day, a collaboration between UM Symphony Orchestra, Faculty of Creative Arts and Malaysia Airport Holdings Berhad was held 31st August 2024.



Visual Arts

Visual arts serve as a vital medium for creative exploration and cultural expression within Universiti Malaya through diverse forms ranging from painting, sculpture, and photography to digital media. It fosters intellectual curiosity, critical reflection, and innovation among students and the wider campus community. They not only enhance aesthetic appreciation but also act as a platform for dialogue, allowing individuals

to interpret and express social realities, values, and aspirations. In embracing both tradition and modernity, Universiti Malaya continues to cultivate a dynamic environment where the visual arts contribute meaningfully to Malaysia's broader cultural and creative landscape. With this aspiration, several arts showcases have been organised for the campus community and the public alike to revel in.



A collaboration between Universiti Malaya and Universitas Brawijaya showcasing a collection 1000+ postcards from Indonesia.



This event featured insightful Artist Talks and a remarkable Open Gallery, showcasing artworks that explored the fusion of Art, Science, and Technology.



Clockwise: Highlights of the "Post Card Collaborative Exhibition" project

Counter Clockwise: Highlights of the "Surfers of Time: The Intersection of Art, Science and Technology" forum

A Safe Space For Self-Expression Through Arts

Though the Faculty of Creative Arts plays a pivotal part in promoting arts and culture on campus, they are not the only one with this commitment. Within the student community, the Student Affairs Department has been active in organising events to enculturate the appreciation of the arts. Annually, there are two major events where students can showcase their performances, which are Festival Seni Universiti Malaya (FESENI) and Karnival Teater Universiti Malaya (KARVITER).

Universities as institutions should not be constrained to teaching and research only; instead, it should be a place where students can develop holistically. These events embodied that spirit by providing a platform where students could display their creative spirit through a healthy competition.

Below: A snapshot of the “*Orang Asing*” theater production for Karnival Teater Universiti Malaya (KARVITER) 2024



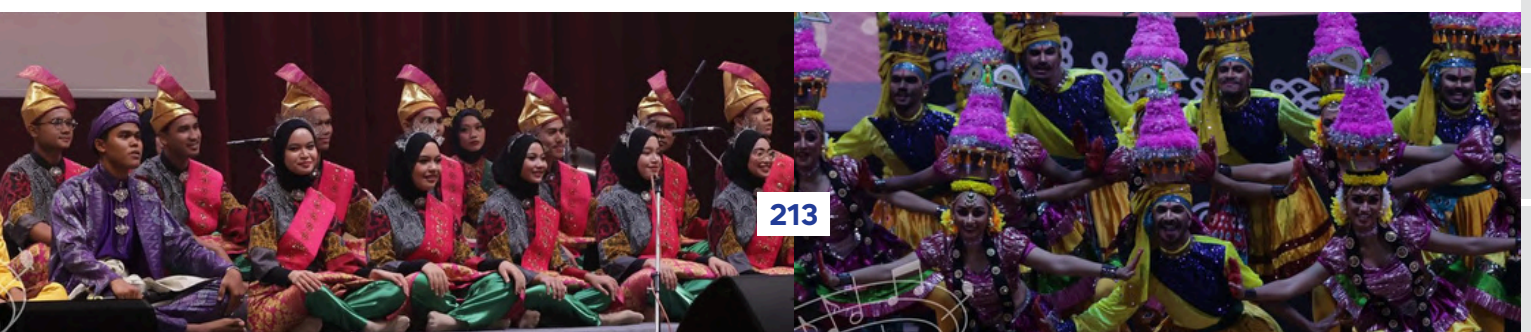
Festival Seni Universiti Malaya

The year 2024 featured a total of fifteen categories encompassing singing, dancing, band performances, poetry recitals, and traditional arts. The festival took place over two weeks, from 6 to 9 May 2024, celebrating the diverse artistic talents within the university community. The highlight of the event was the final night, where winners from each category captivated the audience with their remarkable performances. The overall champion for this year's edition was the 12th Residential College.

Karnival Teater Universiti Malaya

The 2024 edition of KARVITER saw participation from 9 theatre companies aiming to bring glory to each Residential College. The two weeks concluded on the 5th of May 2024, where Royal Aslara Production from the 12th Residential College was announced as the winner. Their stage production, “*Deja Vu Seorang Perempuan*,” portrayed the experiences of individuals confronting social prejudice while striving to build meaningful lives. The performance centred on the story of an immigrant couple navigating the challenges of resettlement in a foreign land, capturing the emotional and social hardships that accompany displacement and the search for belonging.

11



UM Students: Academically Driven, Culturally Engaged

UNIVERSITI MALAYA
JABATAN HAL EHWAL PELAJAR
Student Affairs Department

FESTIVAL SENI UNIVERSITI MALAYA 2024
TIKET: RM5

6 - 19 MEI 2024 • 8:30 MALAM • AUDITORIUM PERDANASISWA, UNIVERSITI MALAYA
19 MEI 2024 • MALAM JUARA-JUARA FESANI' 24

5 SARANGAN NYANYIAN BM/BI/ TRADISIONAL	10 TARIAN RAKYAT CINA	15 DIKIR BARAT
6 PERINGKAT AKHIR NYANYIAN BM/BI	11 KOMPANG (3 pgt) TARIAN RAKYAT INDIA (8:30 mlm)	16 MUZIK AKUSTIK
7 KOIR	12 TARIAN KREATIF	17 POP BAND
8 NASYID	13 BORIA	18 RAPTAI MALAM JUARA-JUARA
9 TARIAN TRADISIONAL KEBANGSAAN	14 MANIFESTASI PUISI	19 NYANYIAN TRADISIONAL KEBANGSAAN

Anjuran: JABATAN HAL EHWAL PELAJAR, UNIVERSITI MALAYA
Dengan kerjasama: FAKULTI SENI KREATIF, KOLEJ KOLEJ KESAMAAN, PUSAT KOMUNIKASI KORPORAT, JABATAN TEKNOLOGI MAKLUMAT, JABATAN PEMBANGUNAN DAN PENYELANGKARAN HARTA BENDA, BILIK UNIVERSITI MALAYA DAN PEJABAT KESELAMATAN



UNIVERSITI MALAYA
JABATAN HAL EHWAL PELAJAR
Student Affairs

KARNIVAL TEATER UM
KARVITER 24
KARNIVAL TEATER UNIVERSITI MALAYA 2024
22 APRIL - 5 MEI 2024 • 8:30 MALAM
PANGGUNG EKSPERIMEN, UNIVERSITI MALAYA

22/4 KK8 ORANG ASING Karya : HARRY JALIL Anjukan : SYAMU GABRI KELANA PRODUCTION	23/4 KK7 RATNA KADHAL Karya & Anjukan : KHARIMAZZAN RODZY KUMPULAN TEATER LAYAR ZABA	24/4 KK10 BILIK NOMBOR 7 Karya & Anjukan : NAWAL MOCH ZAKRI PENTAZ PRODUCTION	25/4 KK3 LANTERA Karya : FATHAH FAWZY Anjukan : AZIZ HAZRI STAKASH PRODUCTION
26/4 KK12 DEJAVU SEORANG PEREMPUAN Karya : ISMAIL KASSAN Anjukan : FIDYUS KASSAN ASLARA PRODUCTION	27/4 KK2 AVAH, RAGUDAN, MAKAN MALAY YANG PILU Karya & Anjukan : KHARIMAZZAN RODZY SECHOLIAN PRODUCTION	28/4 KK1 PIRING CANGKIR Karya & Anjukan : FATHAH FAWZY PRODUKSI SUTERA	29/4 KK4 VILLA Karya : ISHAK LAZAROD & CHEH Anjukan : ISHAK LAZAROD LASYKARTISTIK PRODUCTION
30/4 KK9 WARNA LUNATIK Karya & Anjukan : HAFIDEE HATTA TITIAN9	MALAM ANUGERAH KARVITER' 24 5 MEI 2024 • 8:00 MALAM PANGGUNG EKSPERIMEN, UNIVERSITI MALAYA TIKET RM5		

Anjuran: JABATAN HAL EHWAL PELAJAR, UNIVERSITI MALAYA
Dengan kerjasama: FAKULTI SENI KREATIF, KOLEJ KOLEJ KESAMAAN, PUSAT KOMUNIKASI KORPORAT, JABATAN TEKNOLOGI MAKLUMAT, JABATAN PEMBANGUNAN DAN PENYELANGKARAN HARTA BENDA, BILIK UNIVERSITI MALAYA DAN PEJABAT KESELAMATAN





Above: Highlights of the “An Evening with Universiti Malaya Symphony Orchestra & Azman Hashim” held on 8th October 2024, photo credit: [@simplenn](#)

UM Symphony Orchestra

The Universiti Malaya Symphony Orchestra (UMSO) history began in the late 1990s when the Cultural Centre of UM experienced a paradigm shift from its nature as a cultural event management and service centre to an academic entity. This shift then led to the formation of a brass and woodwind ensemble known as the UM Symphonic Band. The band expanded into

Universiti Malaya Symphony Orchestra, debuted during the 2001 Convocation at Putra Stadium Bukit Jalil, and was launched by His Royal Highness Sultan Azlan Shah of Perak Darul Ridzuan, the Chancellor of UM, on the 26th of March 2003.



Above: “*UM Symphony Orchestra: A Royal Concert*” promotional poster

UM Symphony Orchestra: A Royal Concert

UM Symphony Orchestra (UMSO) blends new musical ideas with retro influences, offering an evening that bridges generations through the universal language of music. The Royal Concert with “Fusion and Retro,” themes symbolize the journey through the revival of musical traditions and the blending of diverse styles. The selected pieces, reimagined by our conductor and his protégés, range from semi-classical to traditional, pop, and jazz, drawing from both Eastern and Western influences. The orchestra was conducted by Professor Dr. Mohd Nasir Hashim, who is a prominent figure in the music arena of the University and the homeland.

Our Commitment to Cultural Preservation

Heritage refers to attributes such as traditions, practices, or languages that are specific and unique to certain communities. Oftentimes, it could also refer to simple things like clothing or even past-time activities. These heritages are what mirror our identity and should be passed on for generations to come, and not be left to fade into oblivion. Universiti Malaya, recognising the importance of protecting this legacy of the past, has taken proactive actions through its various centres in the hope of preserving and transmitting the cultural heritage to the younger generations.



Timeless Pattern: Exploring Traditional Chinese Hanfu & Art in the Modern Era" Exhibition

In celebration of the Kongzi Institute's 15th Anniversary, an exhibition was organised on October 10 for the public to delve into the heritage of Hanfu. The Hanfu exhibition celebrates one of China's most ancient and elegant traditional garments. "Hanfu," meaning "Han people's clothing," refers to the traditional attire worn by the Han ethnic group, the largest ethnic group in China, for over 4,000 years. This exhibition offers a rich exploration of Hanfu's history, culture, and evolution, reflecting the grandeur of China's imperial dynasties.

Above: *"Chinese Hanfu & Art Exhibition"*
promotional poster

The Long Lost Kain Limar

The history of Kain Limar could be dated back to the 17th century. It is one of the oldest textile production methods in the Malay community. It was once used to craft exotic fabrics for royalty and nobility alike. On the 24th of April 2024, Universiti Malaya, through the Museum of Asian Arts had brought back the Kain Limar for the public to see the elegance and significance of our cultural heritage. Gracing the event is Her Royal Highness Tuanku Zara Salim, the Raja Permaisuri of Perak Darul Ridzuan willing to honour the event with her presence. The exhibition was open to the public until the 24th of August 2024.



Above: *Some of the exhibits displayed at "The Long Lost Kain Limar Exhibition"*

Pameran Piring Hitam

On the 1st of July 2024, the Malay Ethnographic Museum displayed an exhibition of gramophone records of Malay classic songs. Not to be confused with vinyl records, gramophone records are the predecessor of vinyl, which was used from the 1930s to the 1950s. It was open until the 31st of August for music enthusiasts and the general public to enjoy.

Right: *"Pameran Piring Hitam"* promotional poster



Sustainable Cities – Enhancing Connectivity

Universiti Malaya, strategically located at the heart of Kuala Lumpur, a vibrant and dynamic metropolitan, presented an opportunity for the UM Campus Community to engage and innovate sustainable cities and communities solutions for the rapidly urbanising population, which includes an integrated public transportation

management ecosystem to ease the on-campus mobility, smart city technology and innovation, and industrial best practices for green transition towards net-carbon lifestyles— for the university, community, and the country.

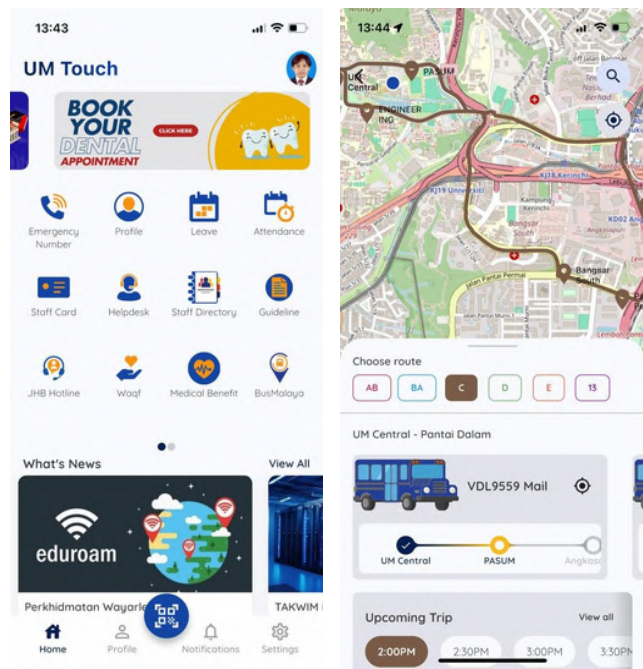
Below: Free Shuttle Bus services to facilitate mobility on campus, photo credit: @Sksbus Malaysia Sdn. Bhd.



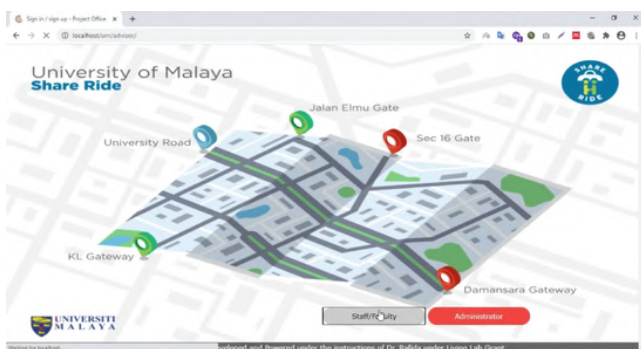
UM Touch App – Bus Update

A new addition to improve the efficiency of the public transport system at Universiti Malaya is the integration of automated bus system functions into the UM Touch application. UM Touch is the main mobile application developed by Universiti Malaya for its students and staff. Within the application, a centralised management system has been established for ease of use. With the addition of the automated bus update feature, it is now easier for the campus community to plan and schedule their journeys.

To use the function, users simply need to tap the BusMalaya feature, as shown in the graphic above. They can then select their preferred destination based on the available routes. There are six bus routes operating in Universiti Malaya, serving both on-campus and selected off-campus locations. After choosing a route, the application will display bus availability and the estimated arrival schedule.

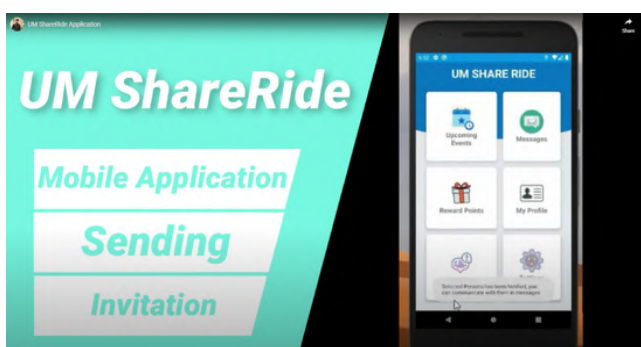


Above: Highlights on “UM Touch” mobile application functions



UM ShareRide

Another initiative undertaken by a group of researchers at the university is to develop an application called UM ShareRide. It is targeted towards the staff members of the university to promote carpooling on campus. This application consists of two parts: the first part is a Web-Based Application where staff members/event organisers will use the system to initiate or encourage the participant to use the ShareRide Apps for travelling to the event’s venue. In the second part, a mobile application (Android and iOS) manages the functionalities such as changing ride sharing status, requesting for ride share to other colleagues, accepting the requests, communication between rider and captain, giving the notification, guiding towards the destination through the shortest route, among others.



Above: Highlights on “UM ShareRide” innovation

Active Transportation Living Lab

The Active Transportation Living Lab at Universiti Malaya encourages staff and students to embrace sustainable, active modes of transport while fostering a culture of health, well-being, and environmental responsibility on campus. Participants are invited to record a 14-day journey, encompassing round trips to and within the campus, using various forms of active transportation, including walking, cycling, rollerblading, and electric scooters.

As part of the programme, participants are encouraged to share their positive experiences on social media, highlighting the benefits of active transportation and inspiring their peers to adopt similar practices. The initiative aims to increase awareness of sustainable mobility, reduce reliance on motorised transport, and promote greener, healthier lifestyles within the UM community.



The poster is titled "CAMPUS AMBASSADOR RECRUITMENT ACTIVE TRANSPORTATION". It features the logos of Universiti Malaya, Pusat Pembangunan Kestabilan (Sustainability & Development Centre), and The Global Goals. The poster includes a QR code for registration, an application closing date of 27th Nov 2023, and a list of tasks and benefits. The tasks include recording a 14-day journey, sharing experiences on social media, and promoting active transportation. The benefits include contributing to walkable campus initiatives and receiving monetary incentives.

Who can apply?

- UM students (undergrad or postgrad) or staff
- Having an interest in inspiring the campus community to engage in active transportation.
- Possess the creativity to develop content related to active transportation. **Preferably active social media users with a substantial number of existing followers.**

Tasks

- Record a 14-day journey round trip to and within the campus using various modes of active transportation (walking, cycling, rollerblading, electric scooter, etc.).
- Share positive experience with active transportation on social media.
- Promote active transportation among the social media community and inspire them to embrace and utilize active forms of transportation.

Benefits:

- Contribution to walkable campus initiatives
- Monetary incentives to the task performed

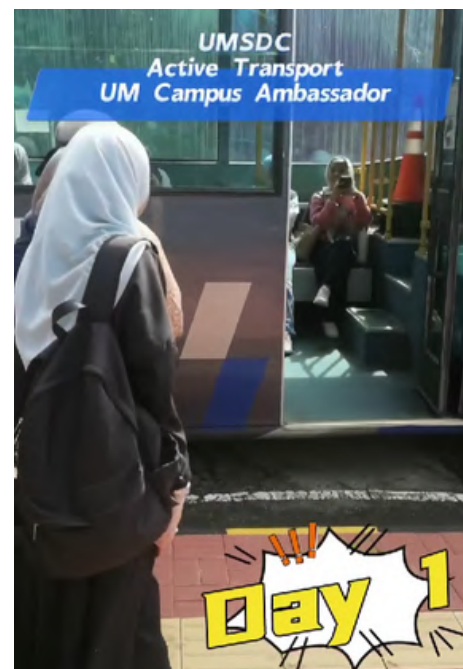
Application closing date:
27th Nov 2023

Register here

For further information, please contact
+01128971819
(Haridah Alias)

Funder: UMSDC (LL2023-ECO016)

The principal investigator for this project is Associate Prof. Dr. Lim Yin Cheng, from the Department of Social and Preventive Medicine, Faculty of Medicine. This project is supported under the UM EcoCampus Living Lab Grant and forms part of the broader EcoCampus@UM initiative by the UM Sustainable Development Centre (UMSDC), reflecting UM's commitment to sustainability, active lifestyles, and campus-wide environmental stewardship.



Above: Poster for campus ambassador recruitment for active transportation (left) and a student's daily active transportation record shared on the *Eco Varsity's* Instagram page (right, top and bottom)

Collaboration for Development

The mission to create a sustainable city is not restricted to the boundary of Universiti Malaya, it extends beyond the university to benefit the surrounding community. Located at the heart of the Klang Valley area, it is one of the most densely populated areas in Malaysia. According to the census done in 2020 by the Department of Statistics Malaysia, the total residents living in Lembah Pantai, Petaling Jaya, Subang, and Damansara areas amounts to more than 1 million people. This posed a challenge in planning for urban developments especially in the housing aspect.

Universiti Malaya acknowledging this issue has actively supported local authorities through research and advisory to advance sustainable urban development in the area. In 2024, a group of researchers from Faculty of Built Environment, Universiti Malaya led by Sr. Dr. Ainoriza Binti Mohd Aini with support from Ministry of Housing and Local Government, conducted research on Retirement Village Development Studies. As Malaysia is moving towards an aging society, this research will be beneficial in future urban developments considering the needs of demographic in urban areas.

One major issue in urban development is abandoned projects which eat through area for development and could lead to hazardous incidents if left unmonitored. With the support from Real Estate and Housing Developers' Association (REHDA), a project to conduct research and review on the laws relating to abandoned housing projects was completed. The report on Abandoned Housing: Challenges, Insights & published by REHDA was officially launched during the International Strata Symposium on 8th April 2025, officiated by the Minister of Housing and Local Government (KPKT), YB Tuan Nga Kor Ming. The report will assist developers and other stakeholders in the Housing Industry for future developments.

As one of the leading research universities in Malaysia, it is imperative that the university offers support to the government in areas that is possible. With this contribution, it will contribute in turning not just Universiti Malaya but its surrounding area into a sustainable city that fosters resilience, growth, and inclusivity.





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

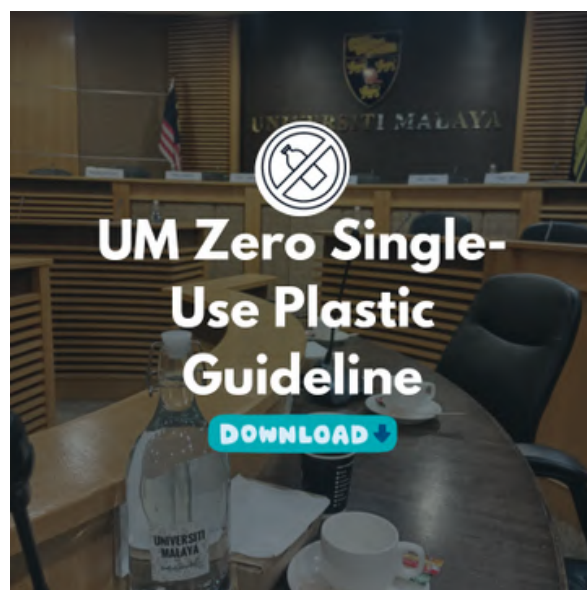
Universiti Malaya Sustainable Development Centre (UMSDC) under the portfolio of the Associate Vice-Chancellor (Corporate Strategy) has introduced a phased initiative to eliminate single-use plastics on campus that is representative of Universiti Malaya's commitment in addressing plastic pollution. Kicked 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.

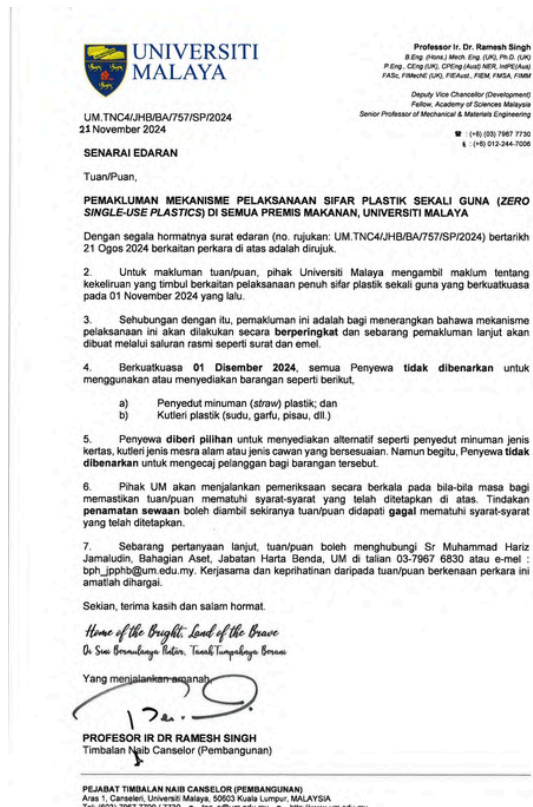


Above: UM student leaders being briefed on the Zero Single-Use Plastics initiative

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.

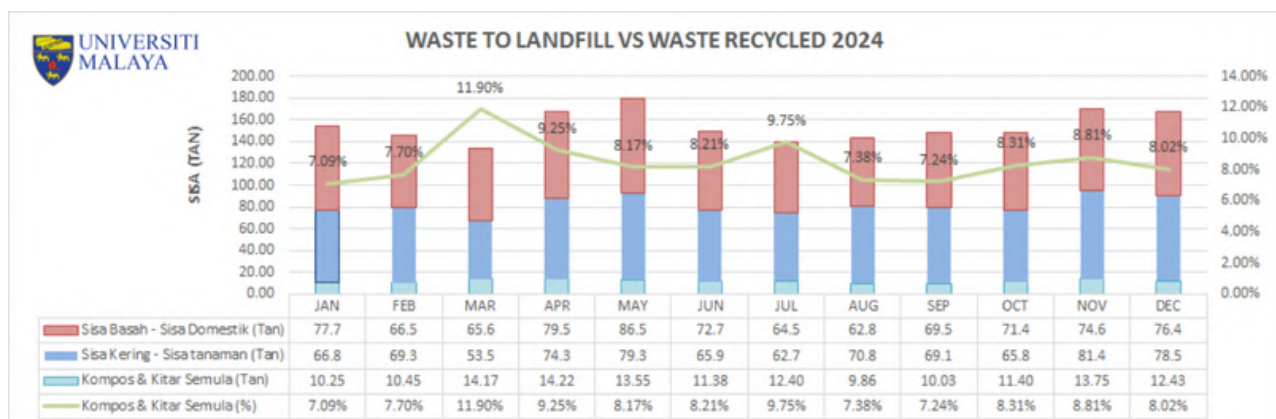
In its fourteenth year, the Universiti Malaya Zero Waste Campaign has since made major impacts towards the environment, the economy and the social aspect. As of 2024, a total of 1,157,000 kg of solid waste has been diverted from landfills. Via the avoidance of landfills, the creation of 5,659,489 kg 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

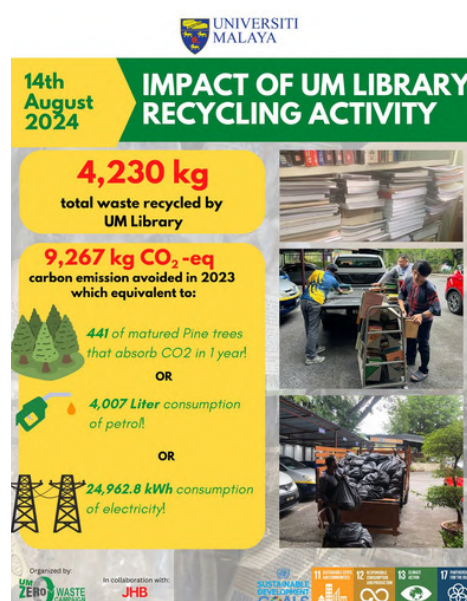
As a continuation from 2023, the Recycling and Buyback program has been consistently carried out throughout 2024 with a total of nine times by Universiti Malaya's own Zero Waste Centre (UM ZWC). With this program being held at least twice per quarter, the capability of the waste centre to take in a multitude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

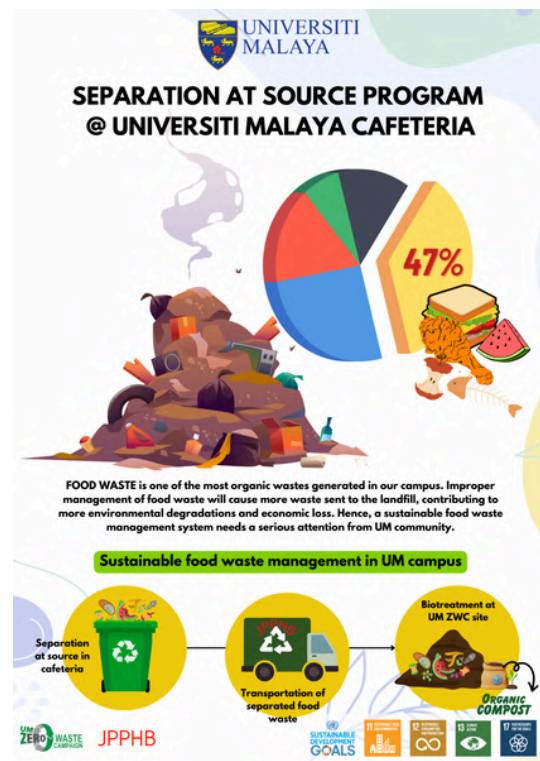
Below: Examples of other types of waste accepted, including used cooking oil; and the impacts of recycling activities carried out by the UM Library



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.



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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.



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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



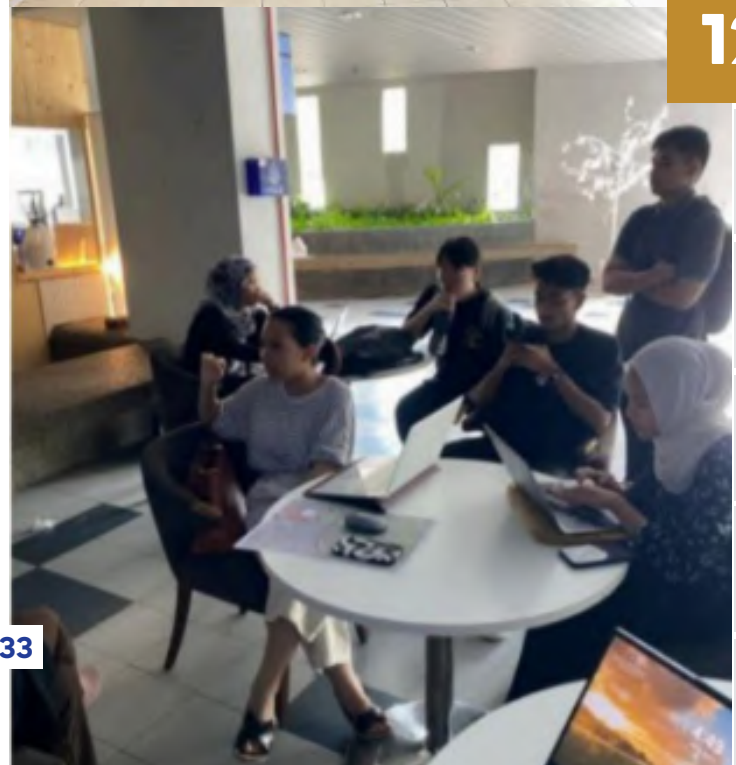
Kitar Semula Pintu ke Pintu

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





Climate Action

Take urgent action to combat climate change and its impacts.



Sediakan Payung Sebelum Hujan

SDG 13, which urges urgent action to combat climate change and its impacts, is captured in the classical Malay peribahasa “*Sediakan payung sebelum hujan*” (prepare an umbrella before it rains). This proverb highlights the importance of foresight and preparedness—essential principles in addressing climate risks.

At UM, this ethos is reflected in proactive initiatives such as strategies for a carbon-neutral and net zero campus, local climate education, cooperative planning with government agencies for disaster preparedness, and climate action through NGO partnerships in environmental education. By acting early and deliberately, UM not only reduces its environmental impact but also cultivates a generation equipped to respond responsibly and knowledgeably to the global climate crisis.

UM Net Zero Blueprint 2030

In 2024, Universiti Malaya marked a strategic milestone with the drafting of the UM Net Zero Blueprint 2030, which lays the foundation for a carbon-neutral campus aspirations by 2030—and ultimately net zero by 2050. As of early 2025, this blueprint remains in draft form but has already been endorsed in principle by the Universiti Management Committee (JKPU) on 11 December 2024, reflecting strong institutional support.

This key development emerged from the UM Net Zero Campus Strategic Workshop, held on 14–15 August 2024. Hosted by the UM Eco Campus initiative under the Sustainable Development Centre (UMSDC), the workshop brought together experts and taskforce members from both within UM and external partners. Together, they revised the prior Eco-Campus Blueprint (2016) and developed a robust strategic framework tailored for UM's path toward net zero.

Grounded in the vision of the Universiti Malaya Master Plan 2050 and informed by the SDSN's Net Zero on Campus guide—adapted specifically to UM's context—the blueprint outlines a comprehensive approach spanning six core sectors: Energy, Mobility, Facilities, Waste Minimisation & Recycling, Value Chain, and Beyond Campus Operations. These are further structured into 17 thematic focus areas, supported by 57 actionable plans to ensure systematic, measurable progress.

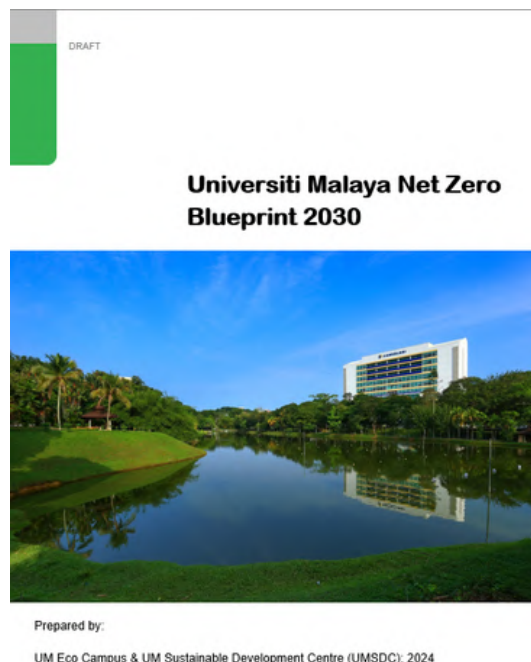
Special recognition goes to Ts. Dr. Muhammad Azzam bin Ismail, Director of UM Eco Campus for the year 2024, for leading the blueprint's formation. The initiative also benefitted from contributions by Prof. Dr. Yahaya Ahmad, Associate Vice-Chancellor (Corporate Strategy), Associate Prof. Dr. Zeeda Fatimah Mohamad, Director of UMSDC, and representatives from numerous faculties, departments, and external collaborators such as the Sustainable Energy Development Authority (SEDA) Malaysia.



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Above: UM Net Zero Blueprint 2030 document

Left: Two-day workshop with UM experts from various sectors to prepare the document

Local Climate Education for Awareness, Action, and Resilience at UM

In 2024, Universiti Malaya (UM) continued to deliver diverse local education programmes and campaigns to raise awareness on climate change risks, impacts, mitigation, adaptation, impact reduction, and early warning. Through initiatives such as the Planetary Health Symposium, Reflections from COP28 and Looking Forwards COP29, and the launch of the Sustainability in Action e-book, UM engaged students and the wider community in discussions on global warming, greenhouse gas reporting, carbon neutrality, and resilience strategies. These events highlighted both scientific knowledge and practical solutions to address climate challenges.

Complementing these initiatives, the Institute of Ocean and Earth Sciences (IOES) HICoE Seminar, the Power of Language and Climate Crisis Communication Forum, and the Nanomaterials for Climate Mitigation Seminar provided targeted platforms for knowledge exchange on climate adaptation and mitigation.

Meanwhile, creative approaches such as Storytelling for Impact on Climate Change and the Climate Courage Workshop addressed eco-anxiety, promoted community resilience, and introduced hands-on practices like water monitoring and composting.

UM also advanced climate preparedness through applied training, including a fire drill simulation at the Universiti Malaya Medical Centre, strengthening early warning, response capacity, and inter-agency coordination. Beyond events, continuous teaching of the Bite-Size Climate Action module under the Students Holistic Empowerment (SHE) course ensured that students received structured education on greenhouse gas emissions, sustainability practices, and climate risks. Together, these efforts demonstrate UM's commitment to fostering informed, resilient communities through sustained climate education and action.



IAS's Planetary Health Symposium

Co-organised by the Institute for Advanced Studies (IAS) and the course GQH0055 Healthy Planet, Healthy Life, the Planetary Health Symposium was held as a two-day event in January 2024 to promote awareness and action on climate issues. Activities during the symposium included Save the Ocean, Global Warming, Draw the Earth in Your Mind, Swap Bestie's Item, and Cross Carbon.

The Greenhouse Gas Reporting Workshop, held on 9 January 2024, featured Ts. Raja Shazrin Shah Raja Ehsan Shah, Director of Galaxy Tech Solutions (KL) Sdn Bhd. During the two-hour session, participants were introduced to the fundamentals of greenhouse gas (GHG) reporting and examined its relevance for universities, particularly in the context of sustainability goals and climate action. The Carbon Neutrality Webinar: The Role of Universities Towards Carbon Neutrality Acceleration, held on 16 January 2024, featured Dr. Fong Chng Saun. Over the course of one hour, participants explored the fundamentals of carbon neutrality and discussed the pivotal role universities can play in accelerating progress towards this goal. The session provided valuable insights into strategies and initiatives that could unlock pathways to a more sustainable future.

Below: Webinar, seminar, and booth posters for the Planetary Health Symposium 2024



Hosted by
UM Living Lab Project
LL2022CN003 and GQH0055
Healthy Planet Healthy Life

INSTITUT PENGAJIAN TERMAJU
Institute for Advanced Studies

UNIVERSITI
MALAYA

Dr Fong Chng Saun
Senior lecturer

**CARBON NEUTRALITY
WEBINAR**

The Role of University Towards
Carbon Neutrality Acceleration

LIVE WEBINAR

Microsoft Teams

Tuesday
16th January, 2024

Start At
12:00noon - 1:00pm

JOIN US

<https://shorturl.at/eBT46>



INSTITUT PENGAJIAN TERMAJU
Institute for Advanced Studies

UNIVERSITI
MALAYA

**GREENHOUSE GAS
EMISSION REPORTING
WORKSHOP**

09 January 2024

10 am - 12 pm

Auditorium, Institute
for Advanced Studies

Scan it for registration!

TS Raja Shazrin Shah Raja Ehsan Shah,
Director of Galaxy Tech Solutions (KL) Sdn Bhd.

TS Raja Shazrin Shah, a Chemical Engineer and seasoned sustainability consultant, brings over 18 years of expertise in ESG and GHG-related fields. His career, spanning technical and C-suite roles, has cultivated knowledge in the multidisciplinary facets of sustainability. He has published extensively in 12 peer-reviewed journals and collaborates with governmental, private, and international agencies. Actively engaged in professional working groups, Raja Shazrin plays a vital role in shaping frameworks for sustainability analytics.

<https://shorturl.at/svyC7>

Only 30 seats available!

Hosted by :
UM Living Lab Project LL2022CN003 &
GQH0055 Healthy Planet Healthy Life



Make
**SIGNIFICANT
CHANGES**
with **MINIMAL
EFFORT**

INSTITUT PENGAJIAN TERMAJU
Institute for Advanced Studies

UNIVERSITI
MALAYA

BOOTH OPENING

Date: 8 Jan 2024 (10AM-2.30PM)
9 Jan 2024 (10AM-4PM)

Venue: Institute advanced studies (IAS)

Activities:

- Save the Ocean
- Global Warming
- Draw the Earth in your mind

Registration:
<https://forms.gle/s8Eu7LfAB1asyoPs6>

SCAN IT

8 & 9
JAN

For any inquiries,
feel free to contact

- 016-996 5687
(Stephanie)
- 011-2432 6092
(Jingil)

Reflections from COP28 and Looking Forwards COP29

This panel discussion, Hybrid Panel Discussion: Reflections from COP28 and Looking Forwards COP29, was held on 1 July 2024 to commemorate UM's first-ever delegation to a UNFCCC COP meeting. Four UM academicians attended the COP28 meeting in Dubai in 2023 as Party Overflow under the Malaysian Delegation, where each had a speaking role at various COP events. In this panel discussion, members and friends of the UM delegation engaged in a candid conversation about the journey to COP28, their lived experiences, key takeaways, and next steps. The UM Climate Change Advisory Committee consisted of UM academics—Associate Prof. Dr. Helena Muhamad Varkkey, Associate Prof. Dr. Sheeba Nettukandy Chenoli, Professor Ir. Dr. Shaliza Ibrahim, and Associate Prof. Dr. Jillian Ooi Lean Sim—who worked on various aspects of climate change. The committee advised the university leadership on the university's research priorities in climate change and facilitated UM's involvement in climate change governance at the international level.



Above: Event poster for the Reflections from COP28 and Looking Forward to COP29 panel discussion

Sustainability in Action: Universiti Malaya's Climate Change and Resilience Research

The e-book Sustainability in Action: Universiti Malaya's Climate Change and Resilience Research, compiled by the UM Climate Change Advisory Committee, was launched during the Hybrid Panel Discussion: Reflections from COP28 and Looking Forwards COP29 on 1 July 2024. The publication underscores the university's commitment to addressing one of the most pressing challenges of our time and showcases pioneering climate change and resilience projects at Universiti Malaya.

Structured into five chapters—(1) Physical Sciences, (2) Mitigation, (3) Vulnerability, Impacts, and Adaptation, (4) Early Warning, and (5) GHG Inventory—the e-book highlights the transformative impact of UM's research in these fields. It offers a valuable reference for those passionate about environmental sustainability and seeking inspiration for innovative solutions to global challenges.

The e-book highlights UM's climate initiatives and key academics, showcasing the university's commitment to a sustainable future.



Above: Cover page of the Sustainability in Action e-book

Air-Ocean-Land Interactions in a Changing Climate

The IOES HICoE Seminar 2024, held on 25 July 2024, featured a range of engaging sessions, including a forum, keynote speech, and oral and poster presentations. The seminar's theme, "Air-Ocean-Land Interaction in a Changing Climate", underscored the critical role of air-sea and air-land interactions as mechanisms driving changes in the atmosphere-ocean-biosphere system. The event provided a platform for researchers and postgraduate students from the Institute of Ocean and Earth Sciences (IOES) to present their research findings, share insights, and exchange the latest knowledge on Air-Ocean-Land Interaction in a Changing Climate and marine science more broadly. The keynote speech was delivered by Prof. Dr. Jin-Yi Yu from the University of California, Irvine, on "The Changing El Niño in the 21st Century". A forum on "Impact and Adaptation to Climate Change: A Malaysian Context" was moderated by Emeritus Professor Dato' Dr Azizan Abu Samah.

Right: A glimpse of the forum at the IOES HICoE Seminar 2024



The Power of Language, Urgency and Effective Communication in Addressing the Climate Crisis

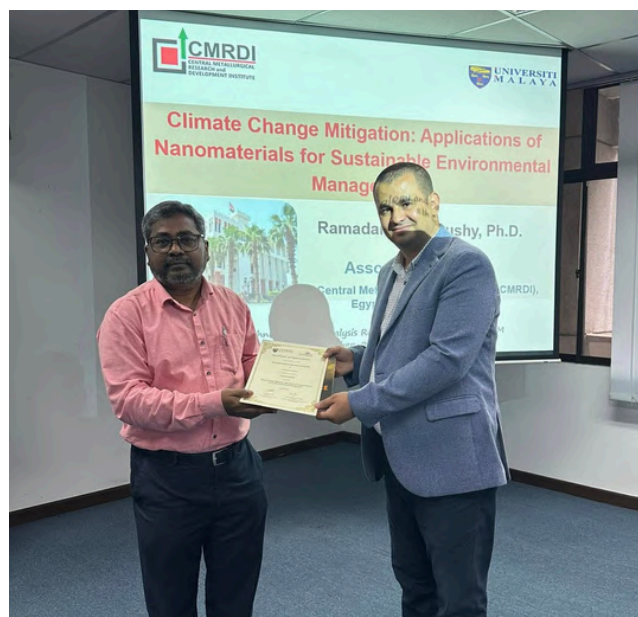
An online forum organised by UM on 12 September 2024, in conjunction with the National Climate Governance Summit 2024 (NCGS 2024) hosted by Climate Governance Malaysia (CGM) and partners, featured a panel discussion titled *The Power of Language, Urgency, and Effective Communication in Addressing the Climate Crisis*. The discussion highlighted how language and narratives shape public perception, policy responses, and societal behaviours needed to tackle climate change and build resilience. From UM, the session was moderated by Professor Dr. Surinderpal Kaul, Dean of the Faculty of Languages and Linguistics, with opening remarks by Professor Ir. Dr. Abdul Aziz Abdul Raman, Acting Registrar of the university.

Right: Event poster



Climate Change Mitigation: Applications of Nanomaterials for Sustainable Environmental Management

The Nanotechnology & Catalysis Research Centre (NANOCAT) organised a seminar on *Climate Change Mitigation: Applications of Nanomaterials for Sustainable Environmental Management*, delivered by Associate Professor Ramadan A. Geioushy from the Central Metallurgical R&D Institute (CMRDI), Egypt, on 8 October 2024. The talk explored the use of advanced nanomaterials in catalysis to recycle CO₂ into sustainable fuels and valuable chemicals, offering clean solutions to pressing energy and environmental challenges.



Above: Climate change mitigation talk on the application of nanomaterials, organised by NANOCAT

Storytelling for Impact on Climate Change

On 24 October 2024, the Universiti Malaya Sustainable Development Centre (UMSDC), in collaboration with the Department of Science and Technology Studies (STS) and the Department of Media and Communication Studies, and with support from the U.S. Embassy in Malaysia, organised the *Storytelling for Impact on Climate Change* event. The programme brought together aspiring filmmakers, academics, and climate enthusiasts to explore how art and storytelling can fuel environmental activism. The keynote speaker, Emmy Award-winning journalist and filmmaker Julia Hoppock, drew on her more than 15 years of experience in journalism, documentary production, and nonprofit work to demonstrate how storytelling can inspire change, raise awareness, and drive action on pressing global issues. The event examined the powerful intersection of art, narrative, and climate advocacy, encouraging participants to harness their creative skills in support of climate action.

Below: Talk on using storytelling to address climate change



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Climate Courage Workshop

In collaboration with the Sunway Centre for Planetary Health, the Institute of Advanced Studies (IAS), and the Universiti Malaya Sustainable Development Centre (UMSDC), the Climate Courage Workshop was held on 11 November 2024. The programme commenced with welcoming addresses by Associate Professor Dr. Zeeda Fatimah Mohamad, Director of UMSDC, and Professor Dr. Ramesh Subramaniam, Dean of the Institute of Advanced Studies, followed by an overview presented by Dr. Fong Chng Saun.

A session by the Sunway Centre for Planetary Health explored the concept of climate anxiety and its impacts on individuals. In the afternoon, Dr. Nor Aishah Abdullah, leader of UM Water Warriors, delivered a briefing on the group's initiatives, after which the Water Warriors team presented the history and restoration efforts of Universiti Malaya's Tasik Varsiti. Participants then engaged in physical, chemical, and biological monitoring of the water quality in Tasik Varsiti and a nearby stream adjacent to the Samali Treehouse. The Universiti Malaya Zero Waste Centre (UM ZWC) conducted a hands-on composting demonstration, providing guidance on tools, materials, and techniques for home composting. Each participant received a bag of compost from UM ZWC for use in home gardening.

The Climate Courage Workshop supported mental health and climate action initiatives under the Planetary Health Roadmap and Action Plan. It addressed eco-anxiety—psychological distress resulting from environmental change—by providing a supportive space for participants to process their emotional responses while building resilience through community support and self-reflection. The event also promoted sustainable practices, aligning with the roadmap's objective of integrating individual well-being with planetary health.



Right: Climate anxiety workshop, water conservation session, and composting demonstration during the Climate Courage workshop

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Technology & Data Platforms for Climate Adaptation and Mitigation

16 Nov [Boku] 05.30pm - 04.45pm [MY] 07.30pm - 08.45pm
E11 Blue Zone Malaysia Pavilion

Moderator

Speakers

**Assoc. Prof. Dr Zeeda
Mohammed**
Department of Science &
Technology Studies
Universiti Kebangsaan

Chor Chee Hong
Co-ordinator &
Chief Executive Officer
(Borneo)

**Professor Ja. Dr Shazila
Binti Ibrahim**
Professor
Faculty of Science and Technology
Universiti Kebangsaan Malaysia

**Prof. Dr. Jeyraj A.V.
Selvaraj**
Professor
Department of Computer Science
Universiti Kebangsaan Malaysia

**Dr. Noor Izzah Mohd
Hussein**
Principal Assistant Secretary
Ministry of Natural Resources and
Environmental Sustainability

**Hydrometeorologist Sy Izzati
Ibrahim**
Principal Secretary
Ministry of Natural Resources and
Environmental Sustainability

*Disclaimer: The information provided is accurate as of the
time of publication. For the latest updates, please refer the
GRI code.

Malaysia Pavilion



Below: Talk on the relationship between climate change, health, and ethics

PUBLIC EVENT

CLIMATE CHANGE, HEALTH & ETHICS

 22 November 2024,
3.00p.m. - 5.00p.m.

Auditorium Tun Suffian, Faculty of Law,
Universiti Malaya (UM)

Panel of Speakers



Ms Katherine Littler,
Co-Head, Health Ethics and
Governance Unit,
World Health Organization,
Switzerland



Professor Tony Capon,
Director, Monash Sustainable
Development Institute,
Monash University, Australia



**Associate Professor Amelia
Turagabeci,**
Acting Dean College of
Medicine, Nursing and
Health Sciences,
Fiji National University



Dr Yasna Palmeiro Silva,
Research Fellow, The Lancet
Countdown on Health and
Climate Change, UK



**Associate Professor
Caesar Atuire,**
University of Oxford and
University of Ghana



Professor Tin Tin Su
Director, SouthEast Asia Community
Observatory (SEACO)
Professor of Global Public Health
School of Medicine and Health Sciences
Monash University Malaysia

"Explore how climate change is impacting health and the ethical issues we face in addressing these challenges. This event features global and regional experts sharing insights on climate-related health policies and solutions for Southeast Asia."

Join us for engaging talks, a panel discussion, and an open Q&A to be part of this crucial conversation for a healthier, more sustainable future.

ADMISSION IS FREE OF CHARGE!

Fire Drill Simulation Strengthens Disaster Preparedness and Climate Resilience

On 4 December 2024, Universiti Malaya Medical Centre (UMMC) conducted an Internal Disaster Simulation Exercise (Fire Drill) at the Women and Children's Health Complex. Organised by the PPUM Disaster Management Committee, the exercise involved collaboration with multiple agencies, including the Fire and Rescue Department of Malaysia (Balai Pantai), the Royal Malaysia Police (Balai Pantai), Pantai Hospital Kuala Lumpur, UM Specialist Centre (UMSC), and the PPUM Emergency Response Team (ERT). The objectives were to enhance building evacuation procedures during emergencies, familiarise participants with real-time emergency scenarios and rescue measures, and strengthen inter-agency coordination. Key activities included fire suppression drills, building evacuation, emergency communication, patient transfer, and the testing of fire safety systems. More than 200 staff members, patients, and members of the public participated, with Dr Mohammad Salleh Bin Yahya, Deputy Clinical Director (Medical), serving as Incident Commander.

The exercise served as both an adaptation measure and an impact reduction strategy by improving institutional preparedness and community resilience in the face of disasters. It strengthened early warning and response capacity through practical training in emergency communication, evacuation, and rescue procedures. Recognising that climate change increases the likelihood of extreme weather events and related hazards, such as fires from heatwaves or electrical faults caused by storms, the drill formed part of a broader disaster risk reduction education programme aimed at enhancing climate resilience.



Right: Scenes from PPUM's disaster simulation exercise

Bite-Size Climate Action as Part of SHE: Student Empowerment for Climate Preparedness

The Bite-Size Climate Action module is embedded within the Students Holistic Empowerment (SHE) programme at Universiti Malaya as course GQA0022, offered under the cluster Global Issues and Community Sustainability. Continuously taught in 2024 to UM students, the course provides both conceptual knowledge and practical approaches for understanding the connections between climate change, sustainability, and everyday life. Through a structured learning experience, students explore greenhouse gas emissions in key sectors such as energy, transport, food, forests, and waste, while also developing habits and projects that reflect their personal and collective responsibilities toward sustainability.

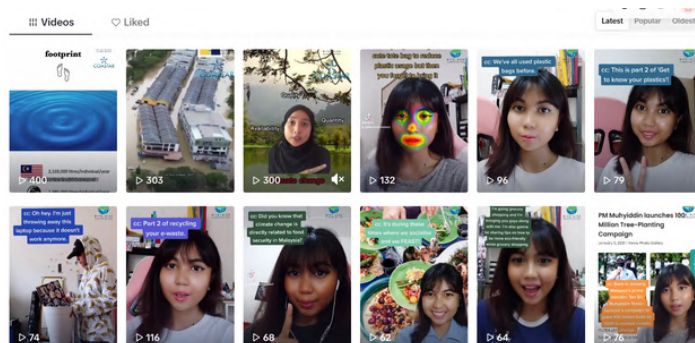
Aligned with the objectives of Bite-Size Climate Action, the course emphasises accessible, small-scale actions that can be replicated and multiplied across communities. Students are encouraged to not only adopt sustainable practices themselves but also engage peers, families, and local networks in dialogue and behavioural change. In this way, the module goes beyond classroom learning to act as a bridge between academic study and practical climate action.

The SHE course directly contributes to climate education by equipping students with knowledge on the risks, impacts, and mitigation strategies of climate change. By focusing on practical topics such as energy, transport, food, forests, and waste, it helps students understand both the challenges and the everyday actions that can reduce their carbon footprint. As the course is continuously delivered in 2024, it functions as an ongoing local education programme that raises awareness of climate risks, adaptation measures, and early warning preparedness. This ensures that climate awareness is embedded in the student community and extended into broader society through their engagement.



Above: Screenshot of the Bite Size Climate Action module website page

Below: Bite-size climate videos on social media



Strengthening Cooperative Planning and Government Support for Climate Disaster Preparedness

In 2024, Universiti Malaya (UM) continued to contribute to cooperative planning for climate change disasters and to supporting government agencies with science-based strategies and early warning systems. Through the UM Climate Change Advisory Committee, the university supported national climate policy discussions, while initiatives such as the RESPIRE 2 Early Warning System for Asthma explored innovative health-focused disaster alerts. Collaboration with agencies like MetMalaysia was strengthened through the UM Bachok Marine Research Station, where ongoing atmospheric monitoring informs policy and planning.

UM also facilitated multi-stakeholder dialogues on air quality, haze resilience, and climate preparedness, creating platforms where the government, researchers, and communities could exchange perspectives. Beyond national borders, the PANACEA project in Sabah demonstrated how participatory, nature-based solutions can integrate scientific expertise with local knowledge to support coastal adaptation efforts. Taken together, these initiatives show UM's role in linking research, governance, and community engagement to help improve Malaysia's capacity to anticipate, respond to, and recover from climate-related risks.

UM Strengthens Role in National Climate Advisory Efforts

In 2024, Universiti Malaya (UM) continues to play an active role in shaping Malaysia's response to climate change through the UM Climate Change Advisory Committee under the Ministry of Natural Resources and Environmental Sustainability (NRES). UM contributes expertise through the Technology and Innovation Cluster, chaired at the national level by YBhg. Tan Sri Zakri Abdul Hamid. The UM Climate Change Advisory Committee is co-chaired by Associate Prof. Dr. Helena Binti Muhamad Varkkey and Associate Prof. Dr. Sheeba Nettukandy Chenoli. The committee brings together experts from across UM to support the development of effective climate policies, share research insights, and strengthen Malaysia's preparedness for climate challenges. In 2024, the Committee facilitated the participation of UM academics and students in UNFCCC COP29, held in Baku, Azerbaijan, ensuring that the voices of Malaysian researchers and youth are represented in global climate discussions.



Above: Co-chairs and members of the UM Climate Change Advisory Committee, as featured in the *Sustainability in Action e-book*

Integrating Planetary Health into National Climate Preparedness and Policy

The support for the National Planetary Health Action Plan (NPHAP) highlights Universiti Malaya's contribution to strengthening Malaysia's policy response to the interconnected challenges of climate change and health. Spearheaded by the UM Sustainable Development Centre (UMSDC), the UM Civilizational Dialogue Center, and individual researchers, the initiative showcases how academic expertise can be mobilized for federal-level planning. Notably, Dr. Fong Chng Saun served as a module writer for the Translational Leadership Sustainability Module, designed to cultivate decision-makers who can integrate planetary health principles into governance and long-term planning.

A key feature of this initiative is its close collaboration with the Ministry of Science, Technology, and Innovation (MOSTI), working through Akademi Sains Malaysia (ASM). By embedding climate-health risk indicators into the framework of the NPHAP, the effort ensures that Malaysia's leadership is equipped with practical tools to anticipate and address risks such as worsening haze events, extreme weather, and potential displacement of affected communities. The focus on leadership development ensures that federal agencies are not only informed by scientific research but also supported in applying it to future-oriented policy decisions.

In its 2024 policy development stage, the work feeds directly into Malaysia's national strategy for planetary health. Rather than functioning as a technical warning system, this contribution strengthens the government's capacity at a structural level—by embedding sustainability, health, and climate resilience into the country's governance frameworks. The collaboration demonstrates how universities can bridge science and policy to enhance Malaysia's preparedness for complex climate-related challenges while ensuring communities remain safeguarded through informed, cooperative planning.



Above: Group photos following the discussion on the National Planetary Health Action Plan (NPHAP) between UM, MOSTI, and ASM



Multi-Stakeholder Policy Dialogue for Air Quality, Haze Resilience, and Climate Preparedness

On 30–31 May 2024, Universiti Malaya, through the Interdisciplinary Policy Prioritization for Tackling Air Pollution (IPPTA) Research Team, convened a policy-focused workshop at CCEC, Nexus Bangsar South. The event, co-chaired and facilitated by Dr. Fong Chng Saun as Group 4 Moderator, brought together key government stakeholders, including the Ministry of Health (MOH), the Department of Environment (DoE), the Malaysian Meteorological Department (MetMalaysia), and the All Party Parliamentary Group Malaysia on SDG (APPGM-SDG). Civil society and community voices were also strongly represented, with participation from Greenpeace, the Kuala Lumpur Residents Action for Sustainable Development, and local leaders from haze-affected communities such as Johan Setia.

The workshop's central goals were to identify gaps in Malaysia's air quality policies, co-develop solutions to enhance resilience against haze and pollution-related health risks, and generate actionable recommendations for national climate-health strategies. By engaging government agencies alongside NGOs and communities, the process created a space for dialogue that bridged scientific research, policymaking, and lived experience.

The outcomes included policy mapping and priority-setting, where both government and community perspectives were integrated into planning processes. Importantly, the recommendations developed during the workshop have a direct pathway to informing government actions on air quality management, early warning mechanisms, and public communication strategies. This reflects how universities can act as convenors of cooperative planning platforms for climate-linked disasters such as haze, while simultaneously strengthening government capacity to anticipate and respond to environmental risks.

Through this initiative, Universiti Malaya played a catalytic role in connecting academic expertise with government priorities and grassroots perspectives, ensuring that Malaysia's strategies for climate and health resilience are grounded in both science and inclusivity.

Below: Photos from the air quality policies discussion



UM and MET Malaysia Strengthen Collaboration on Climate and Atmospheric Research

A Memorandum of Understanding (MoU) was signed between the Government of Malaysia, represented by the Malaysian Meteorological Department (MET Malaysia), and Universiti Malaya (UM) to strengthen collaboration in climatology, air quality modelling, and atmospheric science. The MoU also covers the maintenance of acid deposition and reactive gas monitoring equipment at the Global Atmospheric Watch (GAW) Station, located at UM's Bachok Marine Research Station (IOES), Kelantan. The objective of this MoU is to foster joint research and scientific studies in climatology, air quality modelling, and atmospheric science, while ensuring the proper upkeep of equipment for acid deposition and reactive gas measurements at the GAW IOES-UM Bachok Station.

Through this collaboration, MET Malaysia and IOES-UM will support the government's climate change agenda by providing critical data on acid deposition and reactive gases, which are closely linked to global warming. The MoU signing ceremony between MET Malaysia and UM's Institute of Ocean and Earth Sciences (IOES) was held on 29 May 2024 at the Exhibition Hall, Research Management and Innovation Complex (KPPI), Universiti Malaya.



Above and below: Scenes from the MoU signing between MET Malaysia and UM

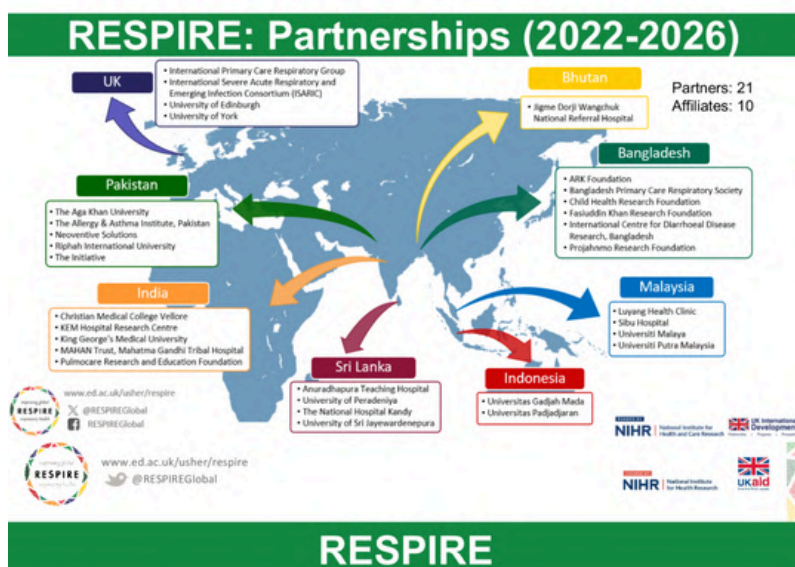


Strengthening Early Warning and Government Collaboration for Climate-Related Health Risks in Malaysia

RESPIRE 2: Early Warning System for Asthma via Air Quality Forecasting is a collaborative research project titled “Developing and evaluating a mobile phone-based early alert system using high-resolution air quality forecasts to improve asthma control in Malaysia.” Led by Universiti Malaya in collaboration with the University of Edinburgh under the RESPIRE Programme, the study is ongoing in 2024–2025. Key collaborators include Cambridge Environmental Research Consultants (CERC), Malaysian Meteorological Department (MetMalaysia), and the Department of Environment (DoE).

The project aims to co-develop a mobile-based early warning system using high-resolution pollution data, such as PM_{2.5} and NO₂, to deliver personalised alerts to asthma patients. Beyond improving individual health outcomes, the system is designed to integrate into Malaysia’s broader public health and disaster early warning ecosystem, particularly during haze episodes that pose widespread health risks. By engaging directly with MetMalaysia and the DoE, the initiative exemplifies cooperative planning between academic institutions, government agencies, and international partners to address climate-related disasters through science-based tools.

Expected outcomes include enhanced preparedness for air pollution-related health threats, greater resilience during haze events, and strengthened predictive capacity via sustained national partnerships. The project also provides research evidence, technical expertise, and practical applications to support local and national agencies, contributing scalable tools for early warning and risk communication. Through these efforts, RESPIRE 2 strengthens Malaysia’s capacity to respond to air pollution and climate challenges, ensuring vulnerable groups, such as asthma patients, are better protected.



Above: Information on the RESPIRE 2 research project, co-directed by Honorary Professor Dr. Khoo Ee Ming from UM's Faculty of Medicine

PANACEA: Participatory Approaches for Nature-based Solutions for Climate Adaptation and Mitigation, and Empowering Southeast Asian Coastal Communities

The PANACEA project is an international collaboration between universities in the Philippines, Indonesia, Malaysia, and the United Kingdom. Its goal is to co-create innovative nature-based adaptation and mitigation strategies through a participatory approach that empowers communities and integrates indigenous knowledge with scientific expertise to support coastal livelihoods and enhance resilience.

In Malaysia, the project focuses on the Tun Mustapha Park area in Sabah. In December 2024, activities included focus group discussions (FGDs) and Net-Map sessions with stakeholders at multiple levels to co-create planning and implementation strategies for Nature-based Solutions (NbS). These sessions introduced NbS concepts, identified climate-related challenges, and mapped institutional relationships and responsibilities for NbS planning and execution.

Government agencies actively engaged in this process included the Kota Marudu District Office, Pitas Forest Office, Kota Marudu Forest Office, Kota Marudu District Council, and the Malaysia Cooperative Societies Commission (Kota Marudu Branch). The initiative also involved local communities such as Kampung Rosob in Pitas and Kampung Darau in Kota Kinabalu, as well as local businesses like D'Pagung. The project was made possible through close collaboration with community-based NGOs, particularly Darau Wetland Ecotourism (DWET) and Kudat Turtle Conservation Society (KTCS), which played key roles in facilitating access and engagement with local communities.

The Universiti Malaya team, comprising Prof. TPr. Dr. Goh Hong Ching, Dr. Lee Soon Loong, Nur Fatin Nabilah binti Ruslan, Ainul Salsabila binti Affandi, Edelyn Kellie Kuni, and Sofia binti Johari, led the Malaysian component of the project, ensuring that scientific research and local knowledge were effectively integrated. These efforts provided government agencies with critical insights, strengthened partnerships for climate adaptation, and enhanced local capacity for sustainable, community-driven solutions.



Left: PANACEA project kick-off meeting

Below: PANACEA team visit to the Tun Mustapha Park area in Sabah



Climate Action Through NGO Partnerships in Environmental Education

In 2024, Universiti Malaya (UM) strengthened its commitment to climate action by collaborating with a range of NGOs across six initiatives, integrating environmental education with community-driven climate adaptation strategies.

The PANACEA Project worked closely with Darau Wetland Ecotourism (DWET) and the Kudat Turtle Conservation Society (KTCS) to empower coastal communities in Sabah through participatory approaches to nature-based solutions. Similarly, the Student Empowerment in Climate Action (SECA) Programme, co-organised by UM and the Sabah Environmental Trust (SET), and supported in the field by KTCS, engaged secondary school students and teachers in mangrove replanting, workshops, and climate action training.

The Weather Station Educational Hub partnered with the Tropical Rainforest Conservation & Research Centre (TRCRC) to provide hands-on environmental learning at UM's weather station, integrating biodiversity conservation and climate literacy for students and the wider community.

In Kuala Lumpur, the Green Warriors with Rays of Hope initiative collaborated with the Alliance Chin Refugee (ACR) Learning Centre and the Free Tree Society (FTS) to deliver environmental awareness and composting workshops for refugee students, fostering inclusivity and ecological literacy (refer to the SDG 15 report, page 289).

Food-related sustainability projects also highlighted strong NGO partnerships. Students from Universiti Malaya's Centre for Foundation Studies collaborated with The Lost Food Project, rescuing surplus fruits and vegetables for redistribution to vulnerable communities, thereby reducing food waste and emissions. Likewise, the Clean Our Plate Project by AIESEC in UM partnered with Free Tree Society, TTDI Edible Community Garden, Feeding the Needy, and Yayasan Chow Kit, combining youth volunteer training with biodiversity workshops, food planning sessions, and food distribution to address both environmental and social challenges.

Through these collaborations, UM demonstrated the importance of NGO partnerships in advancing environmental education, strengthening climate adaptation, and empowering diverse communities to adopt sustainable practices.



Student Empowerment in Climate Action (SECA) Programme

The Student Empowerment in Climate Action in Sabah (SECA) programme was carried out in two phases, with Phase 1 running from January 2022 to June 2024, followed by Phase 2 from October 2024 to August 2025. Jointly organised by Universiti Malaya (UM) and the Sabah Environmental Trust (SET), and financially supported by Yayasan Sime Darby (YSD), the initiative aims to strengthen the knowledge and capacity of secondary school students as active citizens in addressing climate issues, particularly within coastal rural communities.

On 1 October 2024, the opening ceremony for SECA Phase 2 was held at SMK Tandek, Kota Marudu, with the participation of around 130 students from Kudat, Kota Marudu, and Pitas. The event featured a seminar and hands-on workshop on climate action and the role of mangrove forests as carbon sinks, delivered by Dr. Aldrie Amir Ahmad (UKM) and Dr. Rahimatsah Amat (SET). The programme involved 130 Form 1 and Form 2 students together with 26 teachers from 13 secondary schools across three districts. Activities in 2025 includes online workshops, teacher's workshops, mangrove replanting, and the installation of rainwater harvesting devices.

The programme was led by Prof. Dr. Goh Hong Ching (Universiti Malaya) as project leader, with Dr. Lee Soon Loong serving as postdoctoral researcher. It was further supported by UM experts and facilitators, including Assoc. Prof. Dr. Amy Then Yee-Hui (Institute of Biological Sciences, Faculty of Science) and Dr. Ponmalar A/P Alagappan (Department of Management & Marketing, Faculty of Business and Economics) as expert consultants for SECA Phase 1. Ms. Sofia binti Johari, President of the Kudat Turtle Conservation Society (KTCS), served as field coordinator for both phases. Additional support included Ms. Wan Nur Syazana binti Wan Mohamad Ariffin (project facilitator, Phase 1), Ms. Eva Vivian Justine (field assistant, Phase 1), and Ms. Edelyn Kellie Kuni (field assistant, Phase 2). From SET, a Sabah-based NGO facilitating internal matters with funders and government sectors, the programme was guided by Dr. Rahimatsah Amat (Chief Executive Officer & Founder) and Ms. Noreenawati Nordin (Head of Operation). Their leadership, together with UM's expertise and community engagement, ensured SECA delivered practical, impactful outcomes in building climate awareness and action among Sabah's youth.

Below: Photos from the opening ceremony of SECA Phase 2 with 130 students in Sabah



Weather Station Educational Hub

The Weather Station Educational Hub was a SULAM initiative organised by Geography students from AIX1005 (Group 4 – Unity in Diversity) under the supervision of Dr. Nik Noor Athirah binti Nik Yusoff. Held on 19 May 2024 at the Department of Geography's Weather Station, Universiti Malaya, the initiative—under the slogan “Together We Explore the Nature”—promoted environmental education and awareness. The project involved 22 participants from various faculties, academic staff, and representatives from the Tropical Rainforest Conservation & Research Centre (TRCRC), a non-governmental organisation focused on rainforest restoration and conservation. Students led the planning, developed proposals, secured funding, and carried out five days of *gotong-royong* to clean and prepare the site.

The programme addressed gaps in exposure to weather, climate, and local plant species, particularly for students from faculties whose curricula did not cover these topics in depth. Participants were introduced to weather station instruments, facilities, and surrounding plant species, while also learning practical steps to address climate change and protect flora.

Students developed four main hub components: Weather Instruments Demonstration Site, Tree Monitoring Education Site, Weather History Classroom, and Weather and Climate Change Classroom. Collaboration with TRCRC enabled fieldwork on native plant species, emphasising ecosystem health.

Serving as an interactive educational platform, the initiative enhanced knowledge in meteorology, biodiversity, and conservation through hands-on learning. The programme engaged the wider community, including school visits such as that by Sekolah Menengah Kebangsaan Sultan Abdul Samad on 23 May 2024, and transformed the weather station into a dynamic learning site for university and school students alike. By combining practical fieldwork, environmental literacy, and community engagement, the hub fostered awareness of climate and ecological challenges while equipping participants with the knowledge to respond responsibly to environmental issues.

Below: UM Geography students at the Weather Station Educational Hub, together with students from SMK Abdul Samad



PASUM Students Join Forces with NGO to Rescue Food

A total of ten students from the Foundation in Social Science programme at Universiti Malaya's Centre for Foundation Studies (PASUM) recently collaborated with the non-governmental organisation (NGO) The Lost Food Project to rescue over 100 kilograms of vegetables and fruits from markets and suppliers across the Klang Valley. Operating from a warehouse in Jalan Chan Sow Lin, Kuala Lumpur, the NGO works with nearly 80 charitable bodies to sort discarded produce from selected suppliers and supermarkets, collecting edible items for distribution to residents of designated People's Housing Project (PPR) locations in Kuala Lumpur. The activity, held on 28 February 2024, not only supported vulnerable communities by improving access to nutritious food but also contributed to climate adaptation by reducing food waste, lowering greenhouse gas emissions from organic matter in landfills, and promoting more sustainable resource use.



Right and below: PASUM students rescuing vegetables and fruits for distribution to PPR housing in Kuala Lumpur



Clean Our Plate Project by AIESEC in Universiti Malaya

The Clean Our Plate project, led by AIESEC in Universiti Malaya, tackles food waste by engaging Malaysian youths, refugee students, and community organisations to promote sustainable practices and environmental stewardship. Under the guidance of AIESEC in UM, Malaysian Youth Volunteers (MYVs) participated in the one-month project where they were first equipped with essential skills and knowledge through structured training sessions. These preparations enabled MYVs to engage actively in both community volunteering and youth-focused education initiatives.

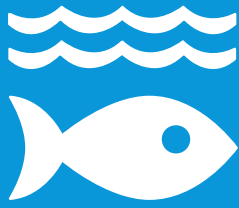
The programme progressed through a series of collaborative activities with local NGOs. On 19 July 2024, the Free Tree Society hosted an educational biodiversity workshop at Taman Tugu Nursery, which introduced MYVs to the importance of biodiversity through a guided jungle walk, followed by practical gardening and composting activities. On 23 July 2024, MYVs worked with the TTDI Edible Community Garden, receiving hands-on training in edible planting techniques designed to enhance food security awareness. Collaboration with Feeding the Needy on 1 August 2024 saw MYVs volunteer in Chow Kit by distributing meals and assisting in a street cleaning initiative, directly supporting the welfare of marginalized communities. Later, on 18 August 2024, the TTDI Edible Community Garden once again engaged MYVs, this time in composting practices using kitchen and yard waste, under the guidance of Mr. Kernail.

Building on this foundation, MYVs channelled their knowledge into a series of interactive workshops for secondary school students at Yayasan Chow Kit held between 15 July and 11 August 2024. These workshops aimed to educate students on the food waste issue, practical methods to utilise food waste effectively, and existing initiatives currently practiced to manage food waste. The sessions covered food planning, composting and gardening, eco-enzyme production, zero waste practices, and pitching skills. The programme concluded with a pitching competition, providing students with the opportunity to present innovative ideas to reduce food waste while applying the knowledge acquired throughout the workshops.

Through this combination of structured training, youth-led education, and NGO-led volunteering activities, AIESEC in UM successfully empowered young leaders and strengthened community engagement. The partnerships with the Free Tree Society, TTDI Edible Community Garden, Feeding the Needy, and Yayasan Chow Kit were central to the project's success, each contributing their unique expertise to amplify impact in addressing food waste and promoting environmental responsibility.

Below: AIESEC in UM, together with Malaysian Youth Volunteers (MYVs), visited an urban farm (left) and held a workshop at a secondary school to raise awareness about food waste (right)





Life Below Water

Conserve and sustainably use the oceans, seas and marine resources for sustainable development.



Seperti Ikan Pulang ke Lubuk

SDG 14, which focuses on the protection and restoration of aquatic ecosystems, is embodied in the Malay proverb “*seperti ikan pulang ke lubuk*”—“like a fish returning to its spawning ground.” This saying reflects the idea that life flourishes when it returns to its natural habitat, just as healthy aquatic ecosystems sustain biodiversity and ensure the resilience of our planet. At Universiti Malaya (UM), this principle is put into action through educational programmes that emphasise sustainable water management, conservation of marine and

freshwater environments, and outreach initiatives on responsible fishing and water usage. Efforts at UM also extend to direct actions aimed at protecting aquatic life, from campus-based initiatives to community involvement in safeguarding local wetlands and waterways. Through research, events, and collaboration with local communities, UM plays an active role in restoring aquatic ecosystems, raising awareness, and ensuring that life below water continues to thrive for future generations.

Community Outreach on Fresh-water Ecosystems

Universiti Malaya carried out a range of initiatives in 2024 for community outreach on freshwater ecosystems. At Tasik Varsiti, the campus lake, programmes combined fish population studies with the release of native species, supported by educational activities on invasive species, responsible fishing, and ecosystem conservation.

The yearly Sungai Pantai clean-up further strengthens local stewardship of the river and encourages sustained volunteer participation (see page 127). Beyond the campus, activities such as Guarding Our Water Together at Tasik Taman Aman (pages 128–129) expand community engagement by empowering residents to take collective action in caring for shared water bodies.

Fish Inventory Study and Native Fish Release Programme at Tasik Varsiti

On 20–21 May 2024, the UM Water Warriors, under the UM Sustainable Development Centre (UMSDC), with the support of the UM Sports Centre and the Estates Department (JHB), and in collaboration with the Department of Fisheries (DoF), Federal Territories of Kuala Lumpur and Putrajaya, conducted a Fish Inventory Study Programme at Tasik Varsiti (Varsity Lake), Universiti Malaya (UM). The objective of the study was to identify the fish species present and assess their population in Tasik Varsiti. This programme forms part of a long-term strategic initiative aimed at conserving and maintaining the biodiversity of the campus lake's ecosystem.

Findings from the 2024 study indicated that Tasik Varsiti is currently dominated by non-native fish species, particularly Tilapia and Cichlid, while only a few native species were recorded. The study also documented the presence of *Hypostomus* spp., and the presence of *Cichla* spp. (Peacock Bass) was previously recorded in 2023. Both species are invasive alien species and are considered harmful to Malaysia's aquatic ecosystems.



Right: Fish inventory study at Tasik Varsiti

UM, in collaboration with the Department of Fisheries (DoF) Malaysia, organised a half-day event — the Juvenile Fish Release Program — on Thursday, 18 July 2024, focused on the release of juvenile and adult fish into the urban lake. This initiative marked DoF's first official programme of its kind on a university campus in Malaysia. Held at Tasik Varsiti, UM, the event was attended by distinguished guests including Tuan Haji Wan Muhammad Aznan Abdullah, Deputy Director-General of Fisheries (Management), DoF; Prof. Ir. Dr. Kaharudin Dimiyati, Deputy Vice-Chancellor (Research and Innovation), UM; Prof. Ir. Dr. Ramesh Singh a/I Kuldeep Singh, Deputy Vice-Chancellor (Development), UM; Prof. Dr. Yahaya Bin Ahmad, Associate Vice-Chancellor (Corporate Strategy), UM; and Dr. Muhammad Azzam Ismail, Director of the Eco Campus, UMSDC, along with staff from both UM and DoF.

The event was part of a strategic collaboration established through a Memorandum of Understanding (MoU) signed between UM and DoF in 2022.

A total of approximately 36,600 native fish were released into the lake, including species such as Terbul (*Osteochilus hasseltii*), Kelah (*Tor tambroides*) at both juvenile and adult stages, Baung (*Hemibagrus bleekeri*), and Lampam Sungai (*Barbonymus schwanenfeldii*), among others. The estimated value of the released fish was RM24,400, reflecting the significance and scale of this conservation effort. This initiative aims to enhance local aquatic biodiversity, promote freshwater ecosystem conservation, and support long-term sustainable resource management, in line with national environmental goals.

Right: Native fish release programme at Tasik Varsiti, in collaboration with the Department of Fisheries (DoF) Malaysia



As part of the event, educational booths and public engagement sessions were held by the DoF and UM Water Warriors, highlighting the impacts of overfishing, the importance of sustainable catch limits, and the dangers of illegal, unreported and unregulated (IUU) fishing. Visitors were shown examples of prohibited fishing gear, introduced to regulations for legal fishing practices, and informed about destructive fishing techniques that damage aquatic habitats. The outreach also emphasised the ecological risks of introducing alien species, which can outcompete native fish and disrupt food chains.

During the ceremony, the findings of the Fish Inventory Study were shared with attendees. It was also shared with the UM community via UMLInfo (Universiti Malaya emailing list), and the public via social media. As part of this outreach, the community was reminded: *“To ensure the biodiversity ecosystem of Tasik Varsiti is preserved, members of the Universiti Malaya community are advised not to release any fish or aquatic organisms into Tasik Varsiti without the permission and approval of the management. If this occurs, the lake’s biodiversity ecosystem will be disrupted, and the use of the lake will also be affected.”*

Right: Booth by the Department of Fisheries (DoF) during the native fish release programme at Tasik Varsiti, UM, highlighting issues of overfishing, prohibited equipment, and fish species permitted or prohibited in public waters (Photo credit: Department of Fisheries Malaysia)

Below: Notice on ‘Suspension of All Fishing Activities at Tasik Varsiti, Universiti Malaya’ issued on 7 August 2024 by Prof. Dr. Yahaya Ahmad, Associate Vice-Chancellor (Corporate Strategy)

An official advisory was also issued stating that all fishing activities in Tasik Varsiti are suspended for one (1) year — until 18 July 2025 — to allow the newly released fish to grow and reproduce as intended. Research, inventory studies, and educational activities may continue with written permission from the Director of UMSDC, and the Security Office will assist in monitoring to ensure no fishing activities take place without authorisation. In addition, to maintain ecosystem balance, the campus community is requested not to release alien fish species such as Tilapia, suckermouth catfish (*Hypostomus* spp.), African catfish, Peacock Bass, or pets such as turtles into the lake, as such releases will affect the fish population and disrupt the biodiversity of Tasik Varsiti.

This advisory forms part of UM’s ongoing educational and outreach efforts under sustainable fisheries management, aimed at fostering responsible stewardship of aquatic biodiversity and preventing the introduction of invasive species.



PEMAKLUMAN PENANGGUHAN SEBARANG AKTIVITI PENANGKAPAN IKAN DI TASIK VARSITI UNIVERSITI MALAYA

Dengan hormatnya saya merujuk kepada perkara di atas.

2. Sukacita dimaklumkan bahawa pada 18 Julai 2024 yang lalu, Universiti Malaya melalui Pusat Pembangunan Lestari Universiti Malaya (UMSDC), Pusat Sukan, dan Jabatan Harta Benda (JHB) dengan kerjasama Jabatan Perikanan telah menganjurkan Program Pelepasan Benih Ikan di Tasik Varsiti. Sebanyak 36,000 benih ikan bersama induk daripada pelbagai spesies air tawar telah dilepaskan. Tujuan pelepasan ini bagi memastikan kelangsungan spesies ikan tempatan serta menjadikan Tasik Varsiti sebagai bank ikan tempatan bagi Kuala Lumpur.

3. Oleh yang demikian, segala aktiviti penangkapan ikan di Tasik Varsiti ditangguhkan selama **satu (1) tahun (sehingga 18 Julai 2025)** untuk memberi masa bagi ikan tersebut membesar dan membiak dengan baik sebagaimana dihasratkan. Walau bagaimanapun, bagi aktiviti penyelidikan, kajian inventori dan pembelajaran masih boleh diteruskan dengan mendapatkan kebenaran bertulis kepada Pengarah Pusat Pembangunan Lestari Universiti Malaya (UMSDC). Pusat Keselamatan juga akan membantu memantau bagi memastikan tiada aktiviti penangkapan dilakukan tanpa kebenaran.

4. Sementara itu, bagi memastikan keseimbangan ekosistem, komuniti kampus dimohon agar tidak melepaskan spesies ikan asing seperti tilapia, bandaraya, keli afrika, peacock bass dan lain-lain ikan beserta haiwan peliharaan seperti kura-kura di Tasik Varsiti. Pelepasan ini akan menjejaskan populasi ikan di Tasik Varsiti malah mengganggu kepelbagaian biodiversiti.

Raising Awareness on Overfishing and Sustainable Fisheries

Universiti Malaya (UM) carried out a range of initiatives in 2024 to raise awareness and share knowledge on the sustainable management of fisheries, aquaculture, and related ecosystems. These efforts reflect UM's commitment to addressing issues of overfishing and destructive fishing practices through research, education, and community engagement.

Assoc. Prof. Dr. Amy Then, from the Institute of Biological Sciences, contributed scientific data that supported the nomination of two Important Shark and Ray Areas (ISRAs) in Malaysia, with Mukah in Sarawak successfully recognised.

At the community level, programmes at Tasik Varsiti combined fish inventory studies, fish release initiatives, and educational activities to highlight concerns such as illegal, unreported and unregulated (IUU) fishing, invasive species risks, and the importance of sustainable resource management. This initiative has been featured earlier in this SDG 14 report (see pages 258–260).

Beyond the campus, UM's research seminars and outreach events explored the sustainability of seaweed aquaculture under climate change, while also highlighting the vital role of seagrass in supporting fisheries and coastal communities through both scientific and artistic approaches.

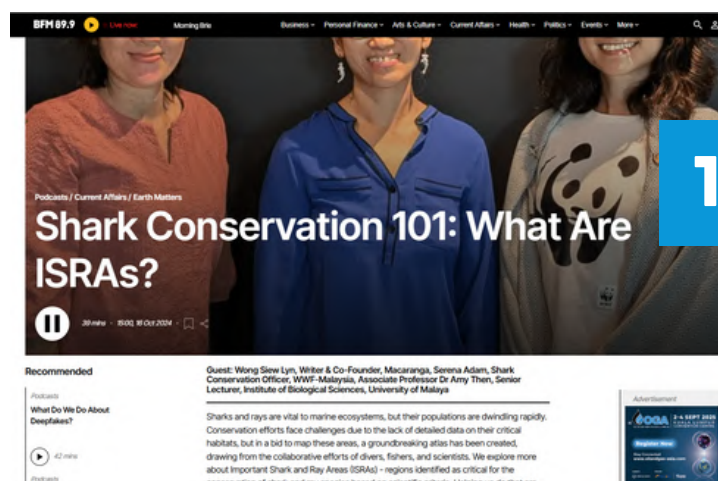
Important Shark and Ray Areas (ISRAs) in Sarawak, Malaysia

Universiti Malaya, under the lead of Assoc. Prof. Dr Amy Then, Institute of Biological Sciences, contributed to the nomination of two Important Shark and Ray Areas (ISRAs) in Malaysia, based on UM's data. One of these, the Mukah ISRA in Sarawak, was successfully accepted. In Mukah, Dr Then combined research on shark and ray landings with interviews of local fishers, who shared decades of catch history and pinpointed where they set their nets. This valuable local ecological knowledge revealed Mukah as a critical breeding site for Scalloped Hammerheads. The new atlas of ISRAs offers a scientific foundation for sustainable fisheries management while strengthening the case against overfishing, by guiding where regulations, enforcement, and awareness should focus.

On 16 October 2024, Dr Then further highlighted these issues on BFM, a Malaysian independent business and current affairs-oriented radio station. Joining Serena Adam (Marine Conservation Officer, WWF-Malaysia, IUCN member) and environmental journalist Wong Siew Lyn, she discussed the urgent need to protect sharks and rays, whose populations are rapidly declining.

Their conversation underscored how ISRAs—developed through collaboration between divers, fishers, and scientists—can safeguard biodiversity, inform conservation strategies, and support sustainable fisheries. Dr Then emphasised the importance of bridging scientific research and practical conservation to ensure that critical marine habitats receive the protection they urgently need.

Below: BFM webpage on “Shark Conservation 101: What Are ISRAs?”



Sustaining Seaweed Aquaculture in a Changing Climate

The IOES Scientific Seminar Series on “Sustaining Seaweed Aquaculture” was organised by the Institute of Ocean and Earth Sciences (IOES), Universiti Malaya, in conjunction with the celebration of World Oceans Day. The seminar featured expert presentations including “Sustaining Eucheumatoids Aquaculture Amid Global Climate Change” by Prof. Dr. Lim Phaik Eem (IOES, Universiti Malaya); “Seaweed Biosecurity and the Progressive Management Pathway” by Prof. Elizabeth Cottier-Cook (Scottish Association for Marine Science, United Kingdom); and “Conserving Wild Seaweeds for the Future of the Global Seaweed Industry” by Prof. Juliet Brodie and Dr. Sophie Corrigan (Natural History Museum, London). The seminar highlighted critical discussions on the sustainability, resilience, and future directions of seaweed aquaculture under the pressures of climate change and global industry demand.



Above: Event poster for “Sustaining Seaweed Aquaculture”

Seruan Setu: The Secret Gardens of the Sea through Science and the Arts

On 1 March and 20 March 2024, UM was represented by Dr. Jillian Ooi in two international engagements highlighting Seruan Setu, a programme that bridges science and the performing arts to promote seagrass conservation.

The first was an online talk organised by iConserve China in conjunction with World Seagrass Day, titled “Seruan Setu: Illuminating Seagrass Conservation through the Performing Arts.” The second, part of the ALAM-ADFIM Merubah Minda Talk 2024, carried the theme “Harmonizing and Integrating Science with the Arts – Seruan Setu: The Secret Gardens of the Sea.” Delivered to an audience comprising representatives from banking and finance agencies affiliated with the Association of Development Finance Institutions of Malaysia (ADFIM), the presentation underscored the importance of seagrass to society, particularly its role in fisheries and tourism.



Right: Event poster for the talk organised by iConserve China (top) and Dr Jillian as one of the speakers during the Merubah Alam Minda Talk 2024 (bottom)

Conservation for the Future: Events on Oceans, Lakes, and Rivers

In 2024, a wide range of events were organised and supported to promote the conservation and sustainable utilisation of oceans, seas, lakes, rivers, and marine resources. These included student-focused programmes such as the Science Camp & Research Gallery: Polar and Marine Science Exploration, educational visits to the Bachok Marine Research Station, and the service-learning initiative XPLORESEAS in Terengganu.

The Institute of Ocean and Earth Sciences (IOES) hosted seminars on topics ranging from marine biodiversity to jellyfish taxonomy, while collaborations with partners extended outreach through public talks, exhibitions, and international workshops. From engaging secondary school students to sharing expertise with policymakers and the finance sector, these efforts highlighted the role of marine science in raising awareness and promoting stewardship of aquatic ecosystems. Related events on lakes and rivers are reported under both SDG 6 and SDG 14 report (see page 127 - 129, 134 and 258 - 260).

Science Camp & Research Gallery: Polar and Marine Science Exploration Programme

Life Education Academy Malaysia (LEAM), the Institute of Ocean and Earth Sciences (IOES), the National Antarctic Research Centre (NARC), and Yayasan Penyelidikan Antartika Sultan Mizan (YPASM) hosted the Science Camp & Research Gallery: Polar and Marine Science Exploration Programme on 29 May 2024. This event aimed to immerse students in the wonders of world-class marine science research and to inspire a passion for STEAM fields (Science, Technology, Engineering, Arts, and Mathematics). The day was filled with enriching experiences for 40 secondary school students aged 13 to 19. Participants had the unique opportunity to attend marine science lectures delivered by scholars from Universiti Malaya, engage in interactive discussions, and gain insights into cutting-edge research.

The programme also featured a variety of engaging activities designed to spark curiosity and deepen understanding. These included a Polar & Marine Science Exploration podcast session led by IOES researchers Dr Poong Sze Wan and En Affendi Yang Amri, an exhibition of selected research findings in the fields of polar and marine science, a guided tour of the HICoE IOES research laboratories, and a visit to the Research Gallery. Throughout the day, students witnessed first-hand the intricacies of scientific investigation and the real-world application of theoretical knowledge. One of the programme's highlights was the marine research exhibition, which showcased the diversity of marine life and underscored the importance of marine conservation.

Below: Talk on polar and marine sciences by IOES researchers (left) and participants engaging with the exhibition (right)



IOES Seminar Series on Marine Science and Conservation

The Institute of Ocean and Earth Sciences (IOES) organised and contributed to several talks and lectures in 2024, highlighting diverse aspects of marine science and conservation:

- 29 February 2024 – *AI and Systems Design for Marine Challenges* by Assoc. Prof. Dr. Sai-Kit Yeung (Hong Kong University of Science and Technology), focusing on the transformative role of artificial intelligence—particularly computer vision and graphics—in addressing complex and dynamic marine issues.
- 12 March 2024 – IOES Marine Biodiversity Seminar Series: *Challenges of APMBON (Asia-Pacific Marine Biodiversity Observation Network)* by Prof. Dr. Masahiro Nakaoka (Hokkaido University), discussing efforts to fill gaps in marine biodiversity data and promote better conservation and ecosystem management.
- 20 May 2024 – *The Role of Viruses in Marine Polar Environments and Their Response to Change* by Prof. Andrew McMinn (University of Tasmania), exploring the ecological significance of marine viruses in polar ecosystems and their responses to climate-driven environmental change.
- 27 May 2024 – Lecture on harmful algal blooms delivered by Assoc. Prof. Dr. PoTeen Lim, invited by the Ministry of Health (MOH) to share insights with ministry staff.
- 17 October 2024 – *Beautiful Jellyfish: Taxonomy and Husbandry* by Prof. Hiroshi Miyake (Kitasato University), covering techniques for identifying jellyfish species and approaches to maintaining and displaying them in aquaria and museums, with emphasis on their care in both research and public exhibition contexts.



Right: Photos from the Institute of Ocean and Earth Sciences (IOES) Seminar Series

UniSZA Students Explore Marine Science at BMRS

On 11 January 2024 and 17 November 2024, the Bachok Marine Research Station (BMRS) of the Institute of Ocean and Earth Sciences (IOES), Universiti Malaya (UM) had the privilege of hosting educational visits for 53 first-year Aquatic Science students from Universiti Sultan Zainal Abidin (UniSZA). During both visits, the BMRS team organised a range of engaging and hands-on activities. These included insightful lectures—on 11 January, a session on harmful algal blooms by Dr Monaliza Mohd Din, and on 17 November, a lecture on harmful algae, toxins, and harmful algal bloom (HAB) research by Dr Hii Kieng Soon.

Students also participated in microscope-based sessions to examine microorganisms, observed demonstrations of various scientific sampling instruments, and enjoyed an introductory scuba diving experience. The visits provided an inspiring and enriching experience for all involved. They offered students a valuable opportunity to apply classroom learning in a real-world research setting, deepening their understanding of marine science while creating lasting memories and fostering a greater appreciation for aquatic ecosystems.



Above: UniSZA students observing microorganisms and a demonstration on sampling equipment

Below: A lecture on harmful algal blooms and an introduction to scuba diving equipment



XPLORESEAS

XPLORESEAS was a one-day Service-Learning Malaysia-University for Society (SULAM) initiative carried out by first-year students from the Southeast Asian Studies programme (AIX1005) on 25 May 2024, in collaboration with the Turtle Conservation and Information Centre (PKPP) in Rantau Abang, Terengganu. The project was designed to address the declining awareness and concern for marine life, particularly endangered sea turtles. Despite being a valuable part of Malaysia's biodiversity, sea turtles continue to face serious threats such as ocean pollution, illegal poaching, and the unregulated trade of their eggs.

XPLORESEAS aimed to reintroduce these marine creatures into public consciousness and inspire a renewed commitment to marine conservation through active community engagement and education. Held over a single day from 8:00 a.m. to 7:00 p.m., the programme included a talk on local turtle species, a community service effort to clean turtle ponds, mural painting at the conservation centre, and a symbolic release of baby turtles at Rantau Abang Beach. A total of 28 Universiti Malaya students participated in these meaningful activities. Through XPLORESEAS, students not only contributed to the preservation of a national treasure but also cultivated a deeper sense of environmental responsibility within themselves and the wider community.



Above: Group photo of UM students at Rantau Abang Beach and hatchlings of the green sea turtle (*Chelonia mydas*)



Educational Talk on Sustainable Seas

The Educational Talk on Sustainable Seas: Investing in Malaysia's Coastal Ecosystems and Charismatic Fauna featured UM's Dr. Jillian Ooi, Mr. Affendi Yang Amri, and Dr. Nur Adilla Mohamad Fauzi as guest speakers. Organised by EXIM Bank on 23rd July 2024, the session brought together staff from the banking and finance sector to explore the links between ocean sustainability and financial practices.

Right: Mr. Affendi Yang Amri, a Research Officer from UM, as the guest speaker (top) and group photo with UM researchers and participants from EXIM Bank (bottom)



Fishy February

On 23–24 February 2024, the Rimba Ilmu Botanic Garden, UM, organised "Fishy February", a series of talks featuring three young explorers in the aquatic field as they shared their journeys exploring freshwater and marine ecosystems. An exhibition on seagrass by Team Sea Habitats was also featured in Rimba Ilmu's exhibition hall. The first talk, "Fish & Fishermen: A Naive Perspective," explored the speaker's experience entering the scientific world and the lessons learnt from the Jakun fishermen on sustainable living. Next was "What Do 'Yu' Know About Sharks in Malaysia?", which highlighted local shark and ray diversity and their relationship with fisheries in Malaysia. The speaker shared insights from fieldwork and captivating footage from the field. Lastly, "Of Seagrass Meadows & Friends – An Analog Diary" showcased the beauty and importance of seagrass meadows through a conservation lens. The speaker focused on the ecological and cultural significance of seagrass, particularly in relation to coastal communities.



Above: Event poster for Fishy February, co-organised by Rimba Ilmu and The Habitat Foundation

Workshop on Advancing Holistic Marine Ecosystem Restoration

Two speakers from UM, Dr. Jillian Ooi and Mr. Affendi Yang Amri, participated as international panelists in the Workshop on Advancing Holistic Marine Ecosystem Restoration, held at Universitas Hasanuddin, Makassar, Indonesia, on 21st December 2024. They provided insights into seagrass and coral reef restoration approaches in Malaysia and in particular, restoration techniques developed at Universiti Malaya. The workshop was organised by Universitas Hasanuddin in collaboration with the Pew Fellows Programme in Marine Conservation (USA).



Right: Event poster for the Workshop on Advancing Holistic Marine Ecosystem Restoration

Guardians of the Blue: Protecting Biodiversity for the Ocean

From 24–26 June 2024, the Association of Pacific Rim Universities (APRU) convened its 28th Annual Presidents' Meeting in Auckland, New Zealand. The event, themed “Oceans – The World’s Challenges Divide Us, the Ocean Currents Connect Us,” brought together representatives from APRU’s 60 member institutions to discuss critical issues facing the world’s oceans.

Professor Dr Yatimah Alias, Deputy Vice-Chancellor (Academic & International) of Universiti Malaya, participated as a panellist in the session titled “Guardians of the Blue: Protecting Biodiversity for the Ocean.” She highlighted Universiti Malaya’s significant contributions to marine conservation, demonstrating the institution's strong commitment to safeguarding ocean biodiversity.



Above: APRU’s event titled “Oceans – The World’s Challenges Divide Us, the Ocean Currents Connect Us” featuring Professor Dr. Yatimah Alias as one of the panellists

Maintaining Ecosystems and Biodiversity: Research, Industry, and Community Efforts

In 2024, Universiti Malaya (UM) engaged in direct research, partnerships, and community initiatives to help maintain ecosystems and their biodiversity, particularly in areas under environmental stress. A preliminary survey in Pahang, commissioned by the Department of Fisheries and the Regent of Pahang, documented extensive seagrass meadows and dugong feeding trails—providing the first scientific evidence of dugongs in the state. Research collaborations such as Risks and Solutions: Marine Plastics in Southeast Asia (RaSP-SEA), supported by UK Research & Innovation, combined scientific investigation with community engagement through initiatives like TrashBlitz@Pantai Jeram.

UM researchers also contributed to biodiversity assessments in mangrove ecosystems at Sungai Melayu, seahorse use studies with Save Our Seahorses Malaysia, and eDNA-based monitoring of fish in mud-volcano-impacted rivers. Freshwater studies addressed microbial dynamics, including *E. coli* persistence in urban lakes. Coral reef restoration and invasive species management were advanced through cross-sector collaborations, including the RHB Ocean Harmoni programme with industry partners and the Pleco Pupus Project, which involved community groups and local government. Socio-ecological research, such as studies on seagrass gleaning livelihoods, further highlighted the link between biodiversity and community well-being. Collectively, these initiatives demonstrate UM's role in producing scientific evidence, sharing expertise with industry and government, and engaging communities to support the stewardship of aquatic ecosystems.



Scientific Report on Dugong Presence and Seagrass Distribution at Pulau Seri Buat-Sembilang, Pahang, for the Department of Fisheries, Pahang

UM research team, led by Dr. Jillian Ooi and Mr. Affendi Yang Amri, was commissioned by the Department of Fisheries Malaysia and the Regent of Pahang to conduct a preliminary survey on seagrass distribution and the presence of dugongs around Pulau Seribuat and Pulau Sembilang. Tourist access to these islands had previously been restricted following anecdotal reports of dugong sightings, and UM's expertise was sought to provide scientific confirmation. Dugongs (*Dugong dugon*), often called "sea cows," are gentle marine mammals that rely almost entirely on seagrass meadows for food. Classified as Vulnerable on the IUCN Red List, they are under threat globally due to habitat loss, boat strikes, entanglement in fishing gear, and declining seagrass ecosystems.

Through detailed field surveys, the UM team identified extensive subtidal seagrass meadows at both sites and documented clear dugong feeding trails, including signs of juvenile presence. This work, compiled as a formal report for the Department of Fisheries Pahang, represents the first scientific record of dugongs in Pahang waters and suggests possible herd migration between Johor and Pahang. The findings not only provide rare evidence of this elusive species in the region but also highlight the vital role of UM's marine research expertise in informing conservation strategies and strengthening protection measures for dugongs and their fragile seagrass habitats.

FINAL REPORT

PRELIMINARY SURVEY OF SEAGRASS DISTRIBUTION AND DETECTION OF DUGONG PRESENCE AT PULAU SERI BUAT-SEMBILANG, PAHANG



Jillian Ooi Lean Sim
Affendi Yang Amri
Siti Nabila binti Mohd Sharif
Muhaffiz bin Hamid
Muhammad Aminul Siddiq bin Abd Rashid

Submitted to the Department of Fisheries, Pahang
21st October 2024

Citation: Ooi, J. L. S., Affendi, Y. A., Siti Nabila, M. S., Muhaffiz, H., & Muhammad Aminul Siddiq, A. R. (2024). Preliminary survey of seagrass distribution and detection of dugong presence at Pulau Seri Buat-Sembilang, Pahang. Report prepared for the Department of Fisheries Pahang, Malaysia.

Above: Ooi, J. L. S., Affendi, Y. A., Siti Nabila, M. S., Muhaffiz, H., & Muhammad Amirul Siddiq, A. R. (2024). Preliminary survey of seagrass distribution and detection of dugong presence at Pulau Seri Buat-Sembilang, Pahang. Report prepared for the Department of Fisheries Pahang, Malaysia



Risks and Solutions: Marine Plastics in Southeast Asia

In 2024, researchers from UM continued to collaborate with the University of Exeter on investigating and mitigating the impact of plastic pollution on marine ecosystems in Southeast Asia through the research project titled "Risks and Solutions: Marine Plastics in Southeast Asia" (RaSP-SEA), funded by UK Research & Innovation (UKRI). As part of the research activities, Universiti Malaya Sustainable Development Centre (UMSDC) together with the Department of Science and Technology Studies (STS) and Institute of Biological Sciences (ISB) - Faculty of Science successfully hosted the TrashBlitz@Pantai Jeram programme on 21 January 2024. The programme, which engaged over 30 postgraduate students and staff from the Universiti Malaya, aimed to investigate the impact of plastic pollution in the oceans surrounding Southeast Asia. This Citizen Science and Action Research approach called TrashBlitz@Pantai Jeram initiative demonstrated a collective commitment to environmental conservation with both theory and on-site practical application.

Participants actively contributed to beach cleanup and trash auditing activities, diligently identifying and cataloging various types of litter found along the shoreline of Pantai Jeram, Kuala Selangor. On 6 December 2024, another TrashBlitz@Pantai Jeram programme was held with a different group of STS students, along with staff and researchers from UM and the University of Exeter, who participated in the citizen science fieldwork.

The Centre for Research in Waste Management and the Institute of Biological Sciences, Faculty of Science, Universiti Malaya, organised a seminar on Risks and Solutions to Plastic Pollution (RASP-SEA), featuring collaborators from the University of Exeter. Prof. Dr. Brendan Godley delivered a talk titled "Plastics and Sea Turtles: A Forward Look with the Benefit of Hindsight", while Dr. Daniel Wilson presented on "Plastic in the Ocean: From North to South and Micro to Macro."



Above: UM students conducting a beach cleanup and trash audit as part of the TrashBlitz@Pantai Jeram programme

Below: Event poster for a seminar on plastic pollution featuring speakers from the University of Exeter



SEMINAR

**RISKS AND SOLUTIONS
TO PLASTIC POLLUTION
(RASP-SEA)**

Venue
i-Cube, Faculty of Science, Universiti Malaya

2 December 2024
2:00 - 4:30 PM

SPEAKERS

Prof. Dr. Brendan Godley
DIRECTOR, GRADUATE SCHOOL OF ENVIRONMENT AND
SUSTAINABILITY, UNIVERSITY OF EXETER

**Plastics and sea turtles: a forward
look with the benefit of hindsight**

Biography
Brendan Godley is a Scottish conservation scientist with wide ranging interests in biodiversity conservation. He is the Marine Strategy Lead for the University of Exeter (UK). His research has largely focussed on the study of marine vertebrates (turtles, mammals, birds) and he has always been an early adopter of novel technology such as satellite tracking to understand animal movements. In the last few years, he has spent ever more efforts on interdisciplinary approaches to conservation research, including focussing on the impact of plastics in our oceans, methods to mitigate bycatch in fisheries, and the design of marine protected areas. This work is undertaken in a highly collaborative way with academic, government and non-governmental organisations and industrial partners in the UK and overseas. He takes these approaches into his educational work focusing particularly on fostering employability skills and opportunities for undergraduates and masters students to interact with a wide range of stakeholders whilst working on real world problems and solutions.

Dr. Daniel Wilson
POSTDOCTORAL RESEARCH ASSOCIATE,
UNIVERSITY OF EXETER

**Plastic in the ocean: from north to
south and micro to macro**

Biography
Daniel Wilson is a Physical Oceanographer with a particular interest in understanding how plastic pollution is transported around the global oceans. He is currently a Postdoctoral Research Associate at the University of Exeter. Here he works closely with Professor Brendan Godley and our partners in Southeast Asia on a pioneering project that uses GPS tagged plastic bottles to improve our understanding of the ocean transport of plastic bottles. Previously he completed a PhD at the University of Exeter, where his research developed a computer model to simulate the transport of microplastic pollution around the Southern Ocean and Antarctica. He has also spent time sampling microplastics on beaches in England and has run an at sea microplastic sampling campaign onboard a research ship.

Kindly scan the QR code to confirm the attendance



Assessing Fish Biodiversity through a Mini Expedition at Sungai Melayu, Johor

Associate Professor Dr. Amy Then, a marine fisheries expert from Universiti Malaya, joined Kelab Belia Prihatin—a youth organization dedicated to environmental awareness and community development—in the Mangrove Forest Mini Expedition and Assessment at Kampung Sungai Melayu, Iskandar Puteri, from 6 to 10 May 2024. This expedition forms part of Kelab Belia Prihatin Malaysia's Mangrove Restoration & Conservation Initiative, which unites leading experts to evaluate and safeguard the rich biodiversity of Kampung Sungai Melayu's mangrove ecosystem.

The programme was led by Dr. Aldrie Amir (UKM LESTARI) and supported by a panel of distinguished experts: Dr. Alison Wee (University of Nottingham Malaysia), Dr. Amy Then (Universiti Malaya), Dr. Ng Wei Lun (Xiamen University), Dr. Nada Badruddin (FRIM), and Shahfiz Azman (FRIM). Their efforts focused on assessing the ecological health of mangroves and highlighting their vital role in climate resilience. Through scientific assessments, bio diversity documentation, and on-ground conservation activities, this initiative underscores the importance of protecting and restoring Malaysia's mangrove forests for future generations



Left: Mangrove forest mini expedition and assessment at Kampung Sungai Melayu, Iskandar Puteri. Video credit: Kelab Belia Prihatin

Socio-Cultural Influences on Seahorse Use in Malaysia

Researchers from Universiti Malaya and Save Our Seahorses (SOS) Malaysia—Reana Ng, Associate Prof. Dr. Amy Then, and Dr. Adam Lim Chee Ooi—conducted a study published in *Oryx* (2024) titled “Cultural and Socio-Demographic Drivers Shape Seahorse Uses in Malaysia: Implications for Conservation.”

Reference: Ng, R.M.Y., Then, A.Y.H., Lim, A.C.O. (2024). Cultural and socio-demographic drivers shape seahorse uses in Malaysia – way forward for conservation. *Oryx*. doi: [10.1017/S0030605324000425](https://doi.org/10.1017/S0030605324000425)

The research explores how cultural practices and socio-demographic factors shape the use of seahorses in Malaysia, whether for traditional medicine, cultural rituals, or other purposes, and analyses the resulting conservation challenges. It also proposes strategies to harmonize cultural sensitivities with conservation goals, ensuring the sustainable protection of seahorse populations for the future.



Exploring Fish Communities in the Mud Volcano Polluted River

Researchers at UM (Dewi et al., 2024) conducted the study “Exploring Fish Communities in the Mud Volcano Polluted River Using Environmental DNA Metabarcoding”, which applies eDNA technology to assess fish biodiversity in a river severely impacted by mud volcano pollution—a highly stressed and vulnerable aquatic ecosystem.

Reference: Dewi, F.R.P., Kim, H-W, Kim, A.R., Lee, S.R., Then, A.Y.H., Zamroni, M., Palimirmo, F.S., Wahyuni, H.T., Fu'adil Amin, M.H. (2024). *Exploring fish communities in the mud volcano polluted river using environmental DNA metabarcoding. Environmental Advances* 16. [doi:10.1016/j.envadv.2024.100534](https://doi.org/10.1016/j.envadv.2024.100534)

By identifying species presence in such degraded conditions, the research provides crucial insights into community structure and species resilience, supporting strategies for ecosystem recovery and conservation. It enables science-based decision-making and targeted interventions to maintain biodiversity in ecosystems under significant environmental pressure.

Environmental Drivers of Vibrio Bacteria in Tropical Marine Waters

Wong et al. (2024) investigated the environmental factors regulating the abundance and community structure of *Vibrio* spp. in tropical marine waters around Peninsular Malaysia, covering estuarine, coastal, and offshore habitats. The study found that more than 85% of *Vibrio* spp. in nearshore waters were attached to suspended particles, with strong correlations to total suspended solids (TSS) and chlorophyll A concentration. Growth dynamics were influenced by dissolved organic carbon (DOC) and shaped by competition with other bacteria, while high-throughput sequencing revealed six dominant *Vibrio* taxa and their relative contributions to the bacterioplankton community.

By identifying the key roles of suspended solids and dissolved nutrients in shaping *Vibrio* populations, the research provides essential insights into microbial biodiversity and ecosystem functioning in tropical marine waters. Such understanding is critical for monitoring water quality, anticipating ecological shifts, and guiding conservation strategies.

Reference: Wong YY, Lee CW, Bong CW, Lim JH, Ng CC, Narayanan K, Sim EUH, Wang AJ (2024) *Environmental factors that regulate Vibrio spp. abundance and community structure in tropical waters. Anthropocene Coasts* 7: 21



Understanding E. coli Persistence in Tropical Freshwater Systems

Liu et al. (2024) investigated the role of sediments as reservoirs of *Escherichia coli* in five urban lakes in Kuala Lumpur and Petaling Jaya, Selangor. Using a newly developed method, the study quantified habitat transition rates of *E. coli* from sediment to the water column and compared these to bacterial decay rates in water. Results showed that sediment contained significantly higher concentrations of *E. coli* than the water column, with transition rates ($0.03\text{--}0.41\text{ h}^{-1}$) often exceeding decay rates ($0.02\text{--}0.16\text{ h}^{-1}$). This indicates that sediment release can replenish *E. coli* populations in the water, contributing to their persistence in tropical freshwater ecosystems.

By providing the first quantitative evidence of *E. coli* habitat transition in tropical lakes, this study advances understanding of microbial dynamics in urban aquatic ecosystems. Such insights are essential for accurate water quality assessment, ecosystem health monitoring, and the management of biodiversity in freshwater habitats under pressure from urbanisation and pollution.

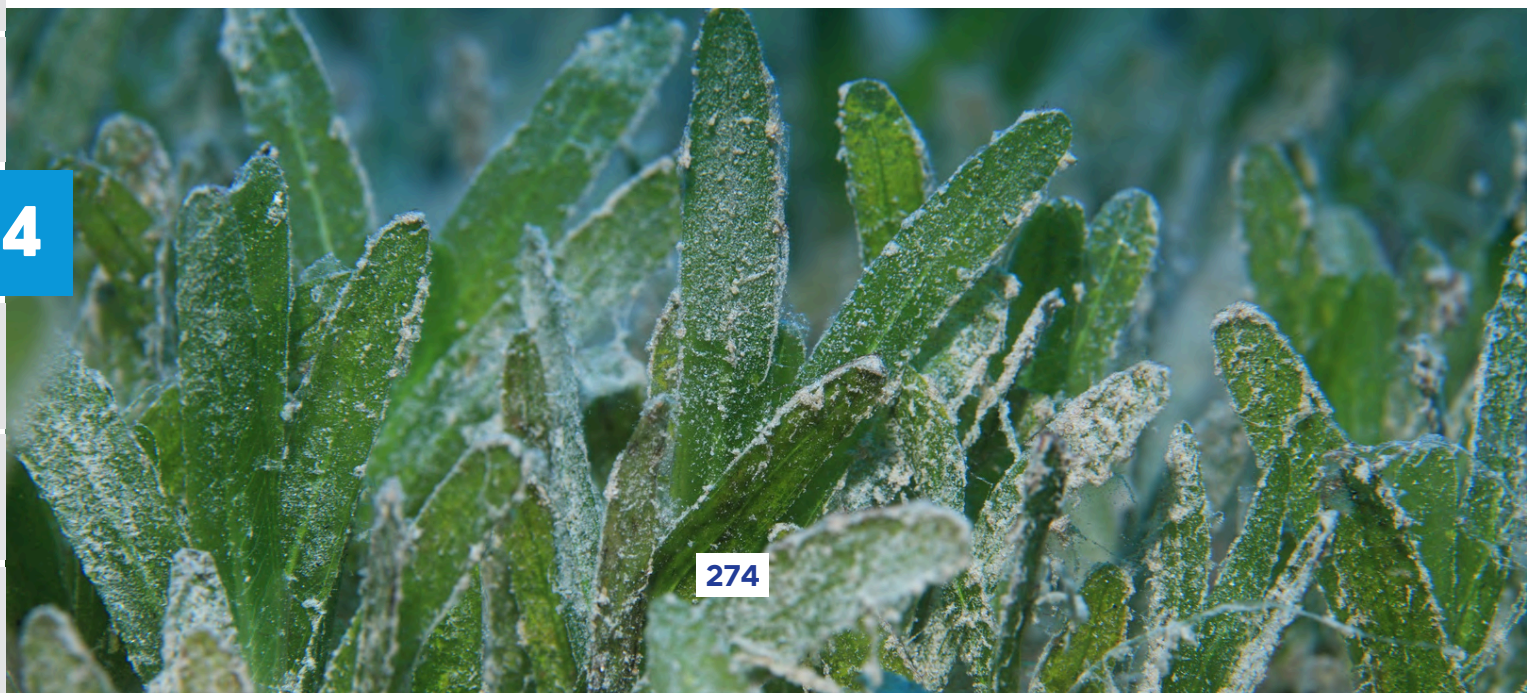
Reference: Liu B, Lee CW, Bong CW, Wang A-J (2024) *Investigating Escherichia coli habitat transition from sediments to water in tropical urban lakes*. *PeerJ* 12:e16556

Seagrass Gleaning and Livelihoods in the Sungai Johor Estuary

David et al. (2024) explored the socio-ecological significance of seagrass-gleaning fisheries in Kampung Perigi Acheh, within the Sungai Johor estuary. Using ethnographic methods such as participatory mapping and focus group discussions, the study documented six main gleaning sites and the wide variety of marine resources harvested there. The research emphasised the central role of women in gleaning, not only in providing food and supplemental income but also in strengthening community cohesion, sustaining cultural identity, and supporting recreational practices.

By highlighting the intertwined ecological, social, and cultural values of seagrass ecosystems, the study shows how these habitats contribute to both biodiversity conservation and community well-being. It draws attention to informal coastal resource use that often goes unnoticed in official records but remains critical for livelihoods.

Reference: David, A. D., Fadzil, K. S., Amri, A. Y., & Ooi, J. L. S. (2024). *Gleaners, gleaning activities, and livelihoods in Peninsular Malaysia*. *JATI—Journal of Southeast Asian Studies*, 29(2), 99–142. <https://doi.org/10.22452/jati.vol29no2.5>



UMMC Joins RHB Ocean Harmoni for Coral Reef Conservation

Universiti Malaya Medical Centre (UMMC) collaborated as a strategic partner with RHB Islamic Bank Berhad in the RHB Ocean Harmoni Programme: Crown of Thorns (COT) Balancing Dive. Held at the B&J PADI 5-Star CDC Dive Centre in Pulau Tioman, Pahang, from 11–13 October 2024, the programme also involved Diveheart Malaysia and the Department of Fisheries Malaysia. The programme was joined by YBr. Prof. Dr. Nazirah Binti Hasnan, Director of UMMC, along with a team of volunteer scuba divers from the Department of Rehabilitation Medicine, UMMC.

The initiative focused on underwater diving activities aimed at the conservation and restoration of coral reefs, specifically through the control of the Crown of Thorns starfish (COT) population in the waters of Pulau Tioman. This effort aims to stabilise the marine ecosystem in the area, aligning with Sustainable Development Goal (SDG) 14: Life Below Water. Two adaptive Diveheart divers, Nooraishah binti Arshad and Nur Nabilah binti Mohd Azahar, carried the mission of supporting the Persons with Disabilities (OKU) community through the promotion of Water Therapy.

Right and below: Participants of the RHB Ocean Harmoni Programme: Crown of Thorns (COT) Balancing Dive, together with UM, Dive Heart Malaysia, and the Department of Fisheries Malaysia



Pleco Pupus 2024: Managing Alien Fish Species through Community Empowerment

The influx of alien fish species in Malaysian waters is a deeply concerning situation. The uncontrolled and widespread breeding of these non-native species has led to ecological damage, imbalance in aquatic biodiversity, and a decline in native fish populations. Alien fish species, being more resilient and aggressive than local species, have begun to dominate freshwater ecosystems across the country. One such species that currently dominates major waterways in the Klang Valley is *Hypostomus plecostomus*, more commonly known as the “Bandaraya” or Suckermouth catfish.

Universiti Malaya (UM), through UM Sustainable Development Centre (UMSDC), in collaboration with Universiti Selangor (UNISEL), Universiti Tun Hussein Onn Malaysia (UTHM), and the Komuniti Pemburu Ikan Bandaraya (KPIB), organised a fishing competition targeting this invasive species through the Pleco Pupus Project 2024: Nurturing Rivers, Empowering Communities. The competition was jointly sponsored by Menteri Besar Selangor Incorporated (MBI) and Landasan Lumayan Sdn. Bhd.

Held on 25 August 2024 along the Damansara River in Shah Alam, the event attracted 32 public participants. Remarkably, in just two hours, more than one tonne of ikan bandaraya was successfully removed from the river. However, this substantial amount is not a source of pride—it serves instead as a stark reminder that the alien fish invasion has reached a critical and alarming stage.

Following this, a community knowledge transfer programme led by UNISEL began in September 2024, focusing on the production of fish feed using ikan bandaraya. This initiative not only supports sustainable waste management by turning invasive biomass into a useful product, but also enhances community engagement in protecting and restoring freshwater ecosystems through practical, circular solutions.



Above and below: Participants capturing suckermouth catfish at the Damansara River



Coral Reef Restoration at Pulau Rubiah

In May 2024, UM joined Universitas Syiah Kuala (USK), Universiti Sains Malaysia (USM), and Universiti Teknologi MARA (UiTM) in supporting a community-based coral transplantation initiative at Pulau Rubiah, Sabang, Aceh. This effort, organised in conjunction with National Coral Reef Day and Biodiversity Month, was led by USK's Master of Environmental Management (MPL) programme in collaboration with Serangkai Community Center and Yayasan Coral Oasis.

UM's participation was represented by Prof. Gs. Dr. Rosmadi Fauzi, a Geographic Information Systems (GIS) expert from the Faculty of Arts and Social Sciences, together with UM students. They took part directly in the transplantation activities and contributed to the academic exchange under USK's visiting lecture and summer school programme. The coral transplantation involved the deployment of three spider-web modules carrying 60 coral fragments, designed to restore reef habitats and support marine biodiversity in the Pulau Rubiah area.

By sharing GIS expertise, Prof. Rosmadi provided valuable insights into spatial mapping and monitoring approaches that can strengthen coral reef restoration efforts. Through this initiative, UM contributed both scientific knowledge and student involvement to enhance academic partnerships and community engagement in marine conservation.



Above: Participants with the three spider-web modules for coral transplantation. Photo credit: ANTARA News Aceh, 2024



Technologies Towards Aquatic Ecosystem Damage Prevention

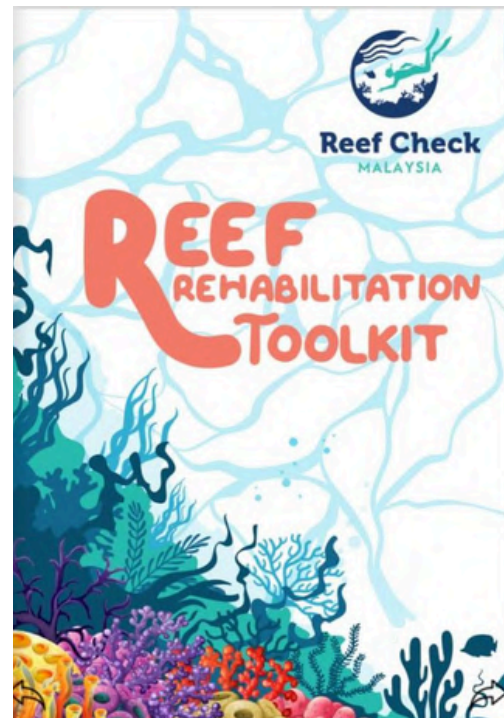
Universiti Malaya (UM) engages directly with industries and partners to advance technologies and practices that help minimise and prevent damage to aquatic ecosystems. These efforts range from advanced atmospheric monitoring at the Bachok Marine Research Station, which informs marine and coastal management, to molecular tools for early-warning of harmful algal blooms that safeguard aquaculture and fisheries.

Projects such as the National Community-based Coral Rehabilitation Toolkit, low-impact seaweed farming using deep seawater, coral damage-mitigation techniques, and novel disease management approaches in freshwater aquaculture reflect UM's applied research focus. By working alongside government agencies, NGOs, and marine operators, these initiatives not only contribute to ecosystem resilience but also strengthen the sustainability of industries that depend on healthy aquatic environments.

National Community-based Coral Rehabilitation Toolkit

UM, through Affendi Yang Amri, supported Reef Check Malaysia and Coralku in developing the National Community-based Coral Rehabilitation Toolkit, a resource to strengthen local reef restoration and marine management. Drawing on UM's research in marine ecology and community engagement, the toolkit provides science-based guidance on site selection, rehabilitation, monitoring, and maintenance. Funded by the National Conservation Trust Fund under the Ministry of Natural Resources and Environmental Sustainability, the initiative shows UM's commitment to turning research into practical solutions for protecting aquatic ecosystems.

This collaboration bridges science and community action, enabling groups like the Redang Marine Conservation Group (RMCG) to carry out coral rescue and rehabilitation. The toolkit also promotes ecotourism-linked livelihoods, reinforcing conservation as a shared responsibility. By equipping communities and marine operators with reliable practices, UM supports both coral reef resilience and the sustainable future of Malaysia's marine industries.



Above: The Reef Rehabilitation Toolkit developed by Reef Check Malaysia with the support of a UM researcher

Atmospheric Monitoring Technologies Supporting Aquatic Ecosystem Protection at Bachok Marine Research Station

At the Universiti Malaya Bachok Marine Research Station (BMRS), advanced atmospheric monitoring is conducted through the Global Atmospheric Watch (GAW) station and an Automatic Weather Station (AWS). These technologies provide continuous, high-quality measurements of meteorological and atmospheric parameters, including wind, rainfall, aerosols, greenhouse gases, and reactive gases. The resulting datasets are crucial for understanding climate-ocean interactions and assessing pressures on marine ecosystems. By supporting predictive modelling, improving assessments of acid deposition, and informing sustainable practices in marine and coastal management, the monitoring system contributes to broader efforts aimed at preventing damage to aquatic ecosystems.

In 2024, BMRS welcomed key collaborators whose visits reinforced the station's technological advancement and its role in environmental stewardship. From 20 to 22 November, the First Institute of Oceanography (FIO), Ministry of Natural Resources, China, conducted maintenance of the AWS and installed new sensors to enhance observation capacity. This visit also included IOES researcher Dr. Wee Cheah and his collaborator, Prof. Dr. Liew Chee Sun from the Faculty of Computer Science and Information Technology, Universiti Malaya, who worked on a data integration system unifying all GAW sensor outputs, including those from FIO's AWS, into a single platform. By consolidating atmospheric data streams, this system strengthens the ability to detect early signals of atmospheric and oceanic stressors that can harm marine ecosystems.

Earlier that year, on 22 April, the Malaysian Meteorological Department (MetMalaysia) visited the BMRS GAW facility, further aligning national efforts with international monitoring standards. Together, these initiatives demonstrate UM's commitment to applying atmospheric technologies and collaborative research towards minimising and preventing damage to aquatic ecosystems.

Below: Visits by the First Institute of Oceanography (FIO), Ministry of Natural Resources of China, and the Malaysian Meteorological Department to Universiti Malaya Bachok Marine Research Station (BMRS)



Early-Warning for HAB Risk to Aquaculture & Fisheries

Harmful Algal Blooms (HABs) occur when certain algae multiply rapidly, producing toxins or causing environmental changes that can kill fish, contaminate shellfish, and damage marine ecosystems. In aquaculture and fisheries, HAB outbreaks can lead to mass stock mortality, economic losses, and public health risks. Because HABs often develop quickly and unpredictably, early-warning systems and monitoring technologies are essential to protect livelihoods and ecosystems.

In 2024, researchers at UM's Bachok Marine Research Station published a study in *Marine Environmental Research* that compared qPCR and metabarcoding approaches for eDNA detection of the toxic dinoflagellate *Alexandrium tamiyavanichii*.

This species is a well-known HAB former in tropical waters. Their research demonstrates that eDNA-based molecular tools can provide rapid and sensitive detection of harmful species before blooms become visible. Such molecular monitoring represents a deployable early-warning technology that directly supports aquaculture and fisheries by allowing operators to anticipate HAB risks, reduce stock losses, and prevent wider ecosystem harm. The study reflects UM's role in developing practical technologies that safeguard both marine ecosystems and the industries that depend on them.

Reference: Hii KS, Abdul Manaff AHN, Gu H, Lim PT, Leaw CP. A comparative analysis of real-time quantitative PCR and metabarcoding methods for eDNA-based detection of the toxic dinophyte *Alexandrium tamiyavanichii* (Dinophyceae). *Mar Environ Res.* 2024 Jul;199:106593. doi: [10.1016/j.marenvres.2024.106593](https://doi.org/10.1016/j.marenvres.2024.106593). Epub 2024 Jun 6. PMID: 38852495

Lower-Impact Seaweed Aquaculture Practice Using Deep Seawater (DSW)

Seaweed aquaculture is one of the fastest-growing sectors in marine farming, but conventional near-shore cultivation often faces environmental challenges such as eutrophication, coastal pollution, and competition for space with fisheries and tourism. These pressures can lead to lower-quality biomass and increased ecological stress on coastal ecosystems.

In 2024, UM researchers from the Institute of Ocean and Earth Sciences (IOES), Nur Fatin Solehah Husin, Emeritus Prof. Dr. Phang Siew Moi, Dr. Yeong Hui-Yin and Fiona She-Lin Keng, together with collaborators, published a study in *Aquaculture International* entitled "Sustainable high-quality seaweed production from deep seawater." The research explored the use of deep seawater (DSW)—naturally rich in stable nutrients and free from surface-level contaminants—for cultivating seaweed.

The study demonstrated that DSW-supported cultivation produces higher-quality seaweed biomass while simultaneously reducing the reliance on nutrient-enriched near-shore waters, which are more vulnerable to pollution and overuse.

This approach provides a lower-impact alternative for the marine aquaculture industry, as it lessens nutrient loading in coastal waters, minimizes disease risks, and reduces conflicts with other near-shore activities. By shifting some cultivation offshore and tapping into DSW, the practice not only improves the sustainability of seaweed farming but also supports the long-term resilience of marine ecosystems.

Reference: Husin, N.S., Yeong, H.Y., Keng, F.S.L. et al. Sustainable high-quality seaweed production from deep seawater. *Aquacult Int* 32, 7319–7353 (2024). <https://doi.org/10.1007/s10499-024-01517-0>

Coral Damage-Mitigation Technique for Restoration Programmes

In 2024, UM researchers Kok Lynn Chew (Institute of Biological Sciences, Faculty of Science) and Affendi Yang Amri (Institute of Ocean and Earth Sciences) co-authored a paper in *Regional Studies in Marine Science* titled “In situ lesion recovery of scleractinian branching coral wild colonies from asexual coral propagation.” The study details a practical restoration technique for accelerating the recovery of lesions in branching corals, which are highly susceptible to damage from storms, anchoring, and physical contact. By applying asexual propagation methods—attaching healthy coral fragments to injured colonies—the approach supports faster tissue regeneration and colony survival.

The methodology is field-deployable and designed to be taken up by NGOs, reef restoration practitioners, and reef-dependent tourism operators seeking to minimize damage and restore coral health after disturbances. By providing actionable know-how, this work helps safeguard reef ecosystems from long-term degradation, ensuring they continue to provide critical ecological and livelihood functions.

Reference: Kok Lynn Chew, Choon Weng Lee, Yang Amri Affendi, *In situ lesion recovery of Scleractinian branching coral wild colonies from asexual coral propagation*, *Regional Studies in Marine Science*, Volume 77, 2024, 103615, ISSN 2352-4855, <https://doi.org/10.1016/j.rsma.2024.103615>

Disease Management in Freshwater Aquaculture

Dr. Tang Swee Seong, Senior Lecturer at the Institute of Biological Sciences and Associate Member of the Centre for Research in Biotechnology for Agriculture (CEBAR), Universiti Malaya, addresses the pressing challenges confronting the freshwater fish farming community, particularly in Temerloh, Pahang. His research focuses on understanding and mitigating the devastating impacts of disease outbreaks that have increasingly threatened the viability of aquaculture farms. Recent investigations have taken Dr. Tang and his team to the epicentre of these crises, where they have conducted site visits and engaged directly with local farmers to identify the root causes of recurring fish mortality events. These incidents, particularly those affecting key aquaculture species such as Patin (*Pangasius* spp.) and Tilapia (*Oreochromis* spp.), have resulted in significant economic losses and exposed the vulnerabilities within this vital sector.

One of the most promising avenues currently under exploration is the application of bacteriophage therapy as a treatment for bacterial infections in freshwater fish. Bacteriophages—viruses that specifically target and eliminate bacteria—represent a novel and sustainable approach to disease management in aquaculture. This method, commonly referred to as phage therapy, offers a targeted alternative to conventional antibiotic treatments, thereby reducing the environmental and ecological risks associated with antibiotic overuse. Dr. Tang’s work contributes meaningfully to the development of innovative, science-based solutions that aim to strengthen the resilience and sustainability of Malaysia’s aquaculture industry.

Below: Photos from Dr. Tang Swee Seong’s site visit to several aquaculture farms



Monitoring the Health of Aquatic Ecosystems

Universiti Malaya (UM) conducts regular monitoring to track the ecological condition of its freshwater ecosystems, ensuring alignment with national standards and supporting conservation planning. Parameters such as dissolved oxygen, nutrient levels, suspended solids, and *E. coli* were measured against the Department of Environment's Water Quality Index Classification.

Beyond water chemistry, UM also carries out fish population surveys (see SDG 14 report, page 258), which provide biological indicators of ecosystem health. Together, these efforts provide essential data for identifying pollution risks and maintaining the health of campus lakes and rivers.

Freshwater Ecosystem Monitoring at Universiti Malaya: Tasik Varsiti, Sungai Anak Air Batu, and Sungai Mustafa

In 2024, the UM Estates Department (JHB) engaged Eurofins NM Laboratory Sdn Bhd to carry out water quality analysis from July to December. The purpose was to assess and monitor the health of selected water bodies within the campus, ensuring that they meet environmental and safety standards. Three locations were identified for sampling — Tasik Varsiti, Sungai Anak Air Batu, and Sungai Mustafa — representing key freshwater ecosystems in Universiti Malaya.

The analysis covered a comprehensive range of parameters, including ammoniacal nitrogen, biochemical oxygen demand, chemical oxygen demand, dissolved oxygen, pH (power of hydrogen), total suspended solids and the presence of *Escherichia coli* (*E. coli*). These indicators provide vital insights into the ecological condition of the water bodies, highlighting potential sources of pollution and informing targeted conservation measures. The Department of Environment (DOE) Water Quality Index Classification was used as the benchmark to determine the overall water quality class, ensuring alignment with national environmental assessment standards.



Right: The three site locations for water quality monitoring in Universiti Malaya (top) and water samples collected from Tasik Varsiti for further analysis (bottom)





Life on Land

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss.



Bergantung Pada Akar Yang Kuat

SDG 15, which focuses on the protection, restoration, and sustainable use of terrestrial ecosystems, is reflected in the classical Malay peribahasa “*Bergantung pada akar yang kuat*” (dependent on strong roots). This saying reminds us that strength, stability, and growth depend on healthy foundations—just as sustainable development relies on the vitality of forests, soils, and biodiversity. At UM, this wisdom is translated into practice through educational programmes that highlight sustainable land use, community outreach on agriculture and tourism, and biodiversity-focused learning opportunities for wider society.

Efforts also extend to conserving existing ecosystems, supporting threatened species, and fostering awareness through campus and community events. By working with local partners to care for shared land ecosystems, while also strengthening ecological education beyond its own grounds, UM contributes to nurturing the deep “roots” that sustain life on land for generations to come.

Events Promoting Sustainable Use of Land

In 2024, Universiti Malaya (UM) supported and organised a range of events promoting conservation and the sustainable use of land. These included volunteer support for native tree planting with the Free Tree Society, the UM–Fulbright Specialist Programme on banana conservation, and the Bestari Young Adventure (BEYAD) ‘pliking’ initiative at forest trails.

UM academics also contributed to World Soil Day with a public talk on soil health, while students engaged in biodiversity monitoring at Kinta Nature Park and educational outreach with refugee children at Taman Tugu. Together, these events combined research, community action, and environmental education to encourage sustainable land stewardship across forests, post-mining areas, and urban green spaces.

UM Volunteers Support Native Tree Planting

On 6 May 2024, UM students joined as volunteers in the Free Tree Society Kuala Lumpur’s Nature Education Programme, which was conducted at Taman Tugu and sponsored by CIMB Islamic Bank. The programme emphasised the sustainable use of land by encouraging tree planting as a method to restore forest ecosystems and promote biodiversity. During the session, participants planted Jering (*Archidendron jiringa*), a native forest tree species that can grow up to 25 meters tall. Known for its unique fruit pods and ecological significance, the Jering tree plays an important role in maintaining Malaysia’s forest biodiversity.

From UM’s perspective, supporting this initiative reflects the university’s commitment to community engagement and environmental stewardship. By encouraging its students to participate, UM contributes to knowledge-sharing and hands-on learning experiences that build awareness of Malaysia’s native species and the importance of sustainable land management.

Below: UM students and other volunteers planting Jering, a native forest tree, in polybags. Photo credit: Free Tree Society



Conservation of Banana Species in Peninsular Malaysia

From 10–24 August 2024, Universiti Malaysia hosted the UM–Fulbright Specialist Programme with US Fulbright Specialist Mr Gabriel Lewis Sachter-Smith, focusing on the conservation of wild and cultivated banana species in Peninsular Malaysia. The programme comprised the Musa Mini Symposium—featuring international and national experts from Malaysian Agricultural Research and Development Institute (MARDI), National Research and Innovation Agency Indonesia (BRIN-Indonesia), Universiti Putra Malaysia, Brawijaya University and Universiti Malaysia—alongside targeted workshops on learning-module development, the pilot launch of the MusaHunter citizen-science mobile app, and hands-on training in herbarium preparation and molecular identification techniques.

These events provided a platform for knowledge exchange on wild banana diversity, cultivation challenges and breeding strategies, and promoted practical conservation skills among academic staff, students and community participants. Beyond raising awareness, the programme delivered concrete capacity-building outcomes that support sustainable land stewardship and long-term biodiversity monitoring. Field visits to MARDI Jelebu and MARDI Cameron Highlands gave participants direct exposure to germplasm conservation practices and field collection protocols, while the citizen-science tools and draft learning modules create sustainable outreach pathways for schools, community groups and volunteers to contribute observations and specimen data.



Above: Mr. Gabriel Lewis Sachter-Smith and others in front of a wild banana plant (left), and a scene from the Musa Mini Symposium (right)

Below: Group photo during the Musa Mini Symposium on August, 2024



Pliking With Bestari Young Adventure (BEYAD) Programme

On 10 March 2024, Universiti Malaya (UM), through its Fourth Residential College or known as Kolej Kediaman Keempat, organised the Bestari Young Adventure (BEYAD) programme — a student-led initiative combining outdoor exploration with environmental stewardship. The event, themed “Pliking Their Way to Sustainability”, engaged 104 participants including UM students and volunteers from YouthCare Malaysia. Activities were carried out at Bukit Broga, Bukit Batu Putih, and Sungai Lepoh, three ecologically rich wildland and forest areas in Malaysia.

The programme introduced “pliking” — a creative blend of picking up litter while hiking — as a practical effort to protect forests and wild landscapes from pollution. This activity directly promoted the conservation and sustainable utilisation of the land by removing nearly 100 kilograms of waste such as plastic packaging, cigarette butts, and containers that could otherwise harm ecosystems or contribute to disease spread (e.g., mosquito breeding). Beyond clean-up efforts, students specialising in ecology and biodiversity shared knowledge of plant and insect life encountered along the trails, turning the event into an educational experience about forests and wild ecosystems.

By transforming recreational hikes into impactful conservation action, BEYAD 2024 raised awareness about the importance of maintaining clean, healthy natural environments. The success of this programme illustrates how events can engage communities to conserve and sustainably use land, while cultivating long-term environmental responsibility among youth.

Left and below: UM students from the Fourth Residential College hiking and picking up litter



World Soil Day Celebration

As part of its commitment to sustainability and environmental stewardship, Universiti Malaya contributed to the 'Soil & Sensibility' Public Talk held on 30 November 2024 at the FRIM Research Gallery, organised by the Forest Research Institute Malaysia (FRIM) in collaboration with the Malaysian Society of Soil Science (MSSS). Representing UM, Assoc. Prof. Dr. Rosazlin Abdullah, President of MSSS and a senior lecturer at the Institute of Biological Science, delivered an impactful session on sustainable soil management and soil health, alongside FRIM soil scientist Dr. Jeyanny Vijayanathan.

This educational event, held in conjunction with the FAO World Soil Day celebration, highlighted the importance of soil as a critical natural resource for ecosystem balance, food production, and biodiversity conservation. Participants not only gained theoretical insights but also took part in hands-on interactive sessions, such as testing soil pH and texture, which fostered greater understanding of soil conservation practices.

Right: Event poster for Soil and Sensibility, organised by FRIM

Below: Assoc. Prof. Dr. Rosazlin Abdullah from UM sharing insights on sustainable soil management and soil health. Photos credit: Forest Research Institute Malaysia (FRIM)

UM's involvement in this programme reflects its strong role in promoting the sustainable use of land through education, outreach, and partnerships. By working alongside FRIM and MSSS, UM actively supports community engagement in conserving vital ecosystems, reinforcing its position as a leader in advancing the United Nations Sustainable Development Goals at the local and national level.



Geography Students Explore Post-Mining Ecosystems

On 19 October 2024, students from the Department of Geography, Universiti Malaya carried out an Environmental and Biodiversity Monitoring programme at Kinta Nature Park, Batu Gajah, Perak. This initiative was organised in collaboration with SEAD Industries and guided by Dr. Nik Noor Athirah, with participation from nine undergraduate geography students. The programme served as an educational and research-based event focused on the conservation and sustainable utilisation of land, specifically targeting the unique ecosystem of a former mining site.

The activity involved monitoring and collecting data on the environmental conditions and biodiversity of the park, which is home to rich wetland habitats and diverse flora and fauna. Through field-based learning, students gained valuable skills in ecological monitoring, data collection, and analysis, while also contributing to the broader understanding of how post-mining landscapes can be rehabilitated and conserved for long-term sustainability. Such hands-on involvement highlights the role of universities in supporting ecosystems beyond their direct control, by engaging in research and community-linked projects in external ecological sites.

By focusing on a post-mining landscape, this programme raised awareness on the challenges and opportunities of restoring degraded land, aligning with the sustainable use of wild land and wetland ecosystems. It also encouraged students to recognise the importance of protecting biodiversity and maintaining ecological balance in non-forested, human-impacted environments.



Right: UM students from the Department of Geography conducting environmental and biodiversity monitoring at Kinta Nature Park

Taman Tugu Nursery Education Programme

On 15 May 2024, the Department of Geography, Universiti Malaya, organised the programme “Green Warriors with Rays of Hope” at the Taman Tugu Nursery Trail, Kuala Lumpur, in collaboration with Free Tree Society (FTS), Taman Tugu, and the Alliance of Chin Refugees (ACR) Learning Centre. The event engaged 25 Myanmar refugee children in outdoor environmental education activities designed to build awareness of the importance of conserving and sustainably utilising land ecosystems, particularly in forested and green areas like Taman Tugu.

The programme emphasised supporting ecosystems beyond the university’s direct control by focusing on the ecological and community value of urban forest reserves. Through hands-on learning and guided activities, participants developed a stronger understanding of the need to protect forests, biodiversity, and natural resources. This approach not only promoted environmental consciousness among refugee children but also highlighted the role of community collaboration with local NGOs and key stakeholders in ensuring the sustainable use of shared land ecosystems.

The initiative also aimed to develop students’ sensitivity to environmental issues and foster creative, student-led conservation programmes that connect diverse groups in society. By cultivating meaningful relationships between university students, refugee children, and local communities, the programme contributed to building a more inclusive and sustainable future, while serving as a strong example of an event promoting conservation and sustainable utilisation of land ecosystems.

Right: UM students and children from the Alliance of Chin Refugees (ACR) Learning Centre participating in hands-on learning and guided activities at the Taman Tugu Nursery Trail



Maintaining and Extending Biodiversity in Ecosystems under Threat

In 2024, Universiti Malaya (UM) contributed to maintaining and extending biodiversity through research, fieldwork, student initiatives, and community collaborations. These efforts included ecological connectivity projects such as the Rantaian Urban Green Spaces (RUGS) initiative, student-led clean-up and awareness programmes, and biodiversity-focused exhibitions.

UM researchers also documented new species, studied fragile ecosystems like limestone hills and mangroves, and collaborated with indigenous communities to preserve traditional ecological knowledge. By combining scientific research, conservation practice, and public engagement, UM played an active role in protecting ecosystems under threat and supporting long-term biodiversity resilience.

Support for Rantaian Urban Green Spaces (RUGS) Project

In 2024, the Rantaian Urban Green Spaces (RUGS) project, launched by the Malaysian Nature Society (MNS) with funding from the Global Environment Facility (GEF) Small Grants Programme (SGP) and implemented in partnership with the United Nations Development Programme (UNDP), set out to rehabilitate and safeguard fragmented urban green spaces in the Klang Valley. The initiative focuses on maintaining and extending ecosystem biodiversity by connecting community forests, riparian zones, and parks through community-driven conservation. One of its key sites is the Pulai Trail Community Forest, strategically located at Bukit Persekutuan and directly bordering Rimba Ilmu, UM.

UM plays a vital role in this initiative by anchoring ecological connectivity through its living laboratory of biodiversity at Rimba Ilmu, which is home to numerous species of plants, fungi, and wildlife. The Pulai Trail serves as a gateway for connectivity between Bukit Persekutuan and UM's green spaces, with the potential to link to wider open areas in Bangsar. This ecological corridor strengthens urban biodiversity by allowing wildlife safe passage, reducing fragmentation, and enhancing genetic diversity for long-term species conservation. In the same year, UM also participated in the RUGS Multi-stakeholder Landscape Stewardship Platform (RUGS-MLSP), contributing to collaborative strategies that integrate research, education, and community action for urban ecological resilience. With the Pulai Trail Bangsar Connector, led by Free Tree Society under RUGS, UM's green campus spaces become integral to restoring and extending biodiversity within a highly urbanised landscape.



Left: The map of the Rantaian Urban Green Spaces (RUGS) project, which includes Rimba Ilmu in UM.
Photo credit: Free Tree Society Kuala Lumpur

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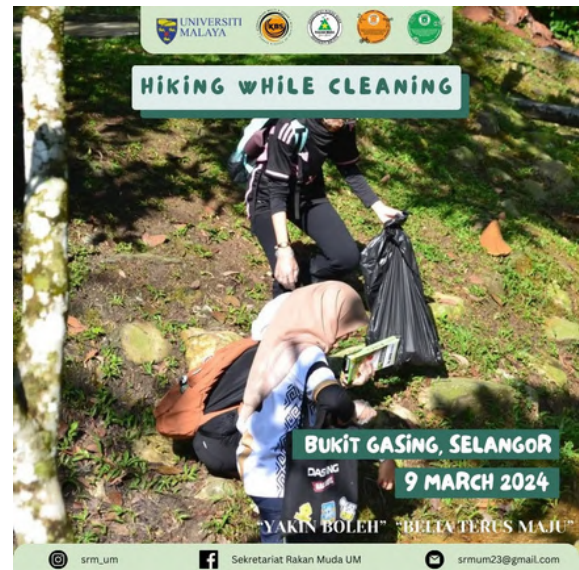
Pulai Trail - RUGS

A collaboration prioritizing ecological support by

Rakan Muda Universiti Malaya 2024

On 9 March 2024, the Sports Exco and Environment Exco of the Universiti Malaya Rakan Muda Secretariat (SRMUM) jointly organised the “Hiking While Cleaning” programme. The initiative was designed to enhance environmental sustainability awareness among students while simultaneously promoting personal health and physical endurance. The programme took place at Bukit Gasing, Selangor, where participants actively engaged in hiking activities while contributing to environmental preservation by collecting litter along the trail. The effort not only fostered appreciation for natural surroundings but also encouraged responsible behaviour towards maintaining clean and sustainable green spaces.

Additionally, the Program Karnival Rakan Muda (KARMUDA) Universiti Malaya 2024 was held on 19 and 20 December 2024 at the Kompleks Perdanasiswa car park, Universiti Malaya. Organised by the Sekretariat Rakan Muda Universiti Malaya (session 2024/2025), the carnival showcased exhibitions related to the ten Rakan Muda lifestyles and student-led sales booths. Among these, the Rakan Bumi exhibition highlighted the importance of biodiversity and conservation through engaging displays and activities. The Rakan Bumi exhibition featured collaborations with the Department of Wildlife and National Parks (PERHILITAN) Malaysia, emphasising ecosystem biodiversity and the enforcement of wildlife protection. Educational displays included preserved animals and items such as python leather shoes, which served as impactful reminders of the threats posed by illegal wildlife trade. Interactive activities such as remote-controlled excavator challenges attracted students and participants, creating greater awareness of the role of conservation in maintaining ecosystems. By showcasing how wildlife protection is directly linked to sustaining ecosystems under threat, the exhibition aligned with the objective to maintain and extend existing ecosystems and their biodiversity of both plants and animals.



Above: Activities conducted by Rakan Muda Universiti Malaya in 2024, including hiking while cleaning and exhibitions in collaboration with PERHILITAN Malaysia

Ecosystem-Based Management Fieldwork at Perak

On 22nd to 23rd November 2024, students from Environmental Management, Environmental Studies, Geography, and Ecology & Biodiversity backgrounds carried out a field visit to Perak as part of the subject SIH2022 Ecosystem-Based Management, taught by Associate Prof. Dr. Rozainah binti Mohamad Zakaria from the Institute of Biological Sciences, Universiti Malaya (UM). The visit focused on applying the Coastal Integrity Vulnerability Assessment Tool (CIVAT) and the Integrated Shoreline Management Plan (ISMP) to assess the condition of the coastline.

Through this activity, students conducted practical coastline assessments, biodiversity observations, and presented their findings, strengthening their understanding of ecosystem-based management. The fieldwork emphasised the importance of working directly to maintain and extend existing ecosystems and their biodiversity, particularly coastal ecosystems under threat, while highlighting the interdependence of plants, animals, and their habitats. This initiative equipped future environmental managers with the knowledge and tools to protect and conserve fragile ecosystems through practical, science-based approaches.



Above: UM students from various programmes in the Faculty of Science participating in activities to assess the coastline condition at Tanjung Piandang, Perak

Below: Group photo of the students with Associate Prof. Dr. Rozainah binti Mohamad Zakaria (seated in the second row, fourth from the left)



Indigenous Practices for Cultivation of Fruit Plants in Kampung Dukuh, West Java, Indonesia

In May 2024, a research collaboration between the Ethnobiological Society of Indonesia, Universitas Indonesia, Universiti Malaya, and Research Center for Ecology and Ethnobiology, National Research and Innovation Agency (BRIN) documented the indigenous practices of fruit plant cultivation in Kampung Dukuh, West Java. Dr. Yong Kien-Thai from the Faculty of Science, Institute of Biological Sciences, Universiti Malaya, served as co-researcher, contributing to field observations and analysis of local ecological knowledge.



The study found that indigenous communities in Kampung Dukuh maintain high fruit plant diversity, with 587 individual plants belonging to 90 species and 38 families, particularly dominated by Moraceae, Anacardiaceae, and Rutaceae. Their cultivation practices—covering land classification, site preparation, tree care, and harvesting—demonstrate sustainable methods that help to maintain and extend ecosystems' biodiversity, ensuring both ecological services and food security. By working directly with indigenous communities, this project highlights the role of traditional ecological knowledge in sustaining biodiversity and protecting ecosystems under threat.

Left: Documentation of indigenous practices in cultivating pomelo fruits (Photo credit: Authors of 'Indigenous Practices for Cultivation of Fruit Plants in Kampung Dukuh, West Java, Indonesia')

Below: Researchers conducting a bryophyte diversity study at Bukit Anak Takun and Bukit Takun

A Mossy Tale of Two Hills: Bryophyte Diversity

From October 2023 to January 2025, the study "A Mossy Tale of Two Hills: Bryophyte Diversity of Bukit Anak Takun and Bukit Takun, Selangor, Malaysia", conducted by Dr Yong Kien Thai (Universiti Malaya), Cheah Yih Horng, Shyam Venkatachalam, and Leong Qi Jia, focused on the collection and identification of bryophytes in two limestone hill ecosystems. Limestone hills are recognised as fragile ecosystems under threat from quarrying and land-use change, making biodiversity assessments in these habitats both timely and necessary.

The findings documented a rich diversity of bryophytes, showcasing their vital role in maintaining ecosystem functions, including water regulation, soil formation, and providing microhabitats for other species. By systematically recording moss and liverwort diversity at Bukit Anak Takun and Bukit Takun, the research provides essential scientific evidence to maintain and extend existing ecosystems' biodiversity, particularly within threatened limestone environments.



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New Insights into Tropical Moss Diversity: Conservation Efforts at Gunung Arong and Sekayu

In September and October 2024, a research team led by Dr. Yong Kien Thai from the Institute of Biological Sciences, Faculty of Science, Universiti Malaya, in collaboration with the Rimba Ilmu Botanic Garden and Universiti Kebangsaan Malaysia, conducted bryophyte surveys during the Forestry Department's Scientific Expedition to Gunung Arong and Sekayu Forest Eco Park. These expeditions were dedicated to documenting moss diversity as a key step to maintain and extend current ecosystems' biodiversity, focusing on tropical ecosystems under increasing environmental stress.

The surveys revealed remarkable findings. At Sekayu Forest Eco Park, the team recorded 62 species, 1 subspecies, and 1 variety, belonging to 32 genera and 14 families, including 2 new species records for Terengganu. At Gunung Arong, 64 species and 2 varieties were documented, representing 29 genera and 12 families, with several rare and ecologically valuable records. Particularly notable was the presence of certain highland species thriving in lowland areas, which provides critical insights into ecosystem resilience and adaptation. Such discoveries highlight the importance of safeguarding both rare and common mosses as they contribute significantly to ecological stability.

These expeditions, under the leadership of Dr. Yong embodies the mission of maintaining and extending current ecosystems' biodiversity by working directly to conserve and extend the biodiversity of existing ecosystems, especially those under threat. By expanding scientific knowledge and recording new species occurrences, the study strengthens biodiversity databases and informs conservation strategies. The work ensures that forest ecosystems such as Gunung Arong and Sekayu are not only appreciated for their richness but also actively protected through data-driven biodiversity management and conservation policies.



Above: Bryophyte diversity surveys conducted at Gunung Arong and Sekayu Forest Eco Park

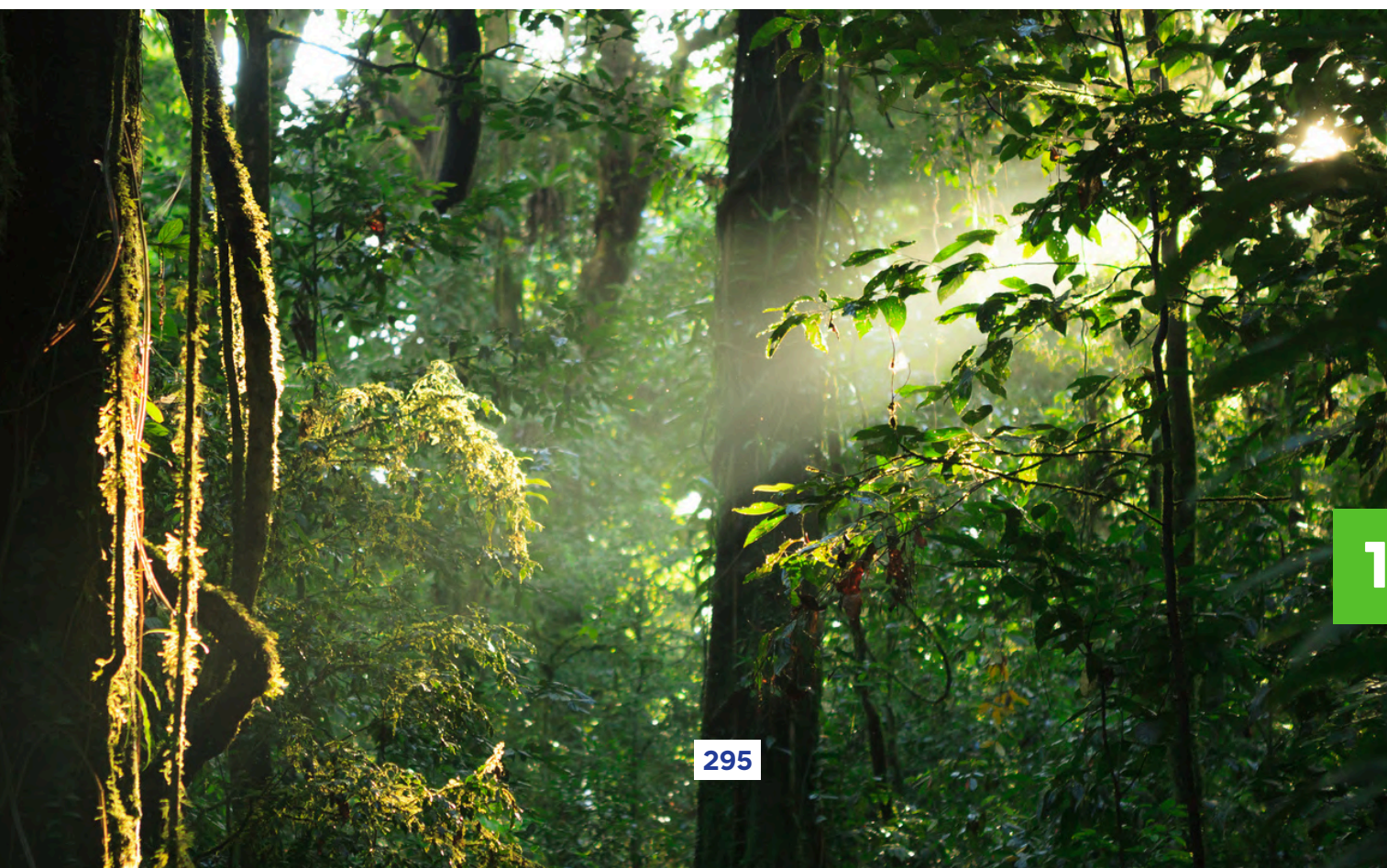
Discovery of a New Grasshopper Species in Terengganu Rainforest

On 9 October 2024, researchers from Universiti Malaya (UM), led by Dr. Nurul Ashikin Abdullah (UM), together with the Department of Forestry Peninsular Malaysia (Jabatan Perhutanan Semenanjung Malaysia, JPSM), successfully documented a new insect species, the Belalang Sekayu (*Eufalconius sekayu*), during the Scientific Expedition on Forest Biological Diversity at Hutan Simpan Hulu Terengganu Tambahan. This newly identified grasshopper species belongs to the genus *Eufalconius*, which is unique to Peninsular Malaysia.

This discovery represents a direct contribution to the maintenance and extension of biodiversity by expanding scientific knowledge of Malaysia's unique rainforest ecosystems. Recording new species not only strengthens the biodiversity baseline for future conservation planning but also highlights the critical ecological value of fragile forest reserves. The research underlines the importance of protecting tropical rainforests as threatened ecosystems, which serve as habitats for rare and endemic species increasingly vulnerable to deforestation and climate change.



Above: A newly recorded species of Belalang Sekayu. Poster credit: JPSM



Field Visit to MARDI Cameron Highlands

The field visit organised under the UM–Fulbright Specialist Programme at MARDI Cameron Highlands offered participants a hands-on exploration of the unique highland ecosystems and their ecological and agricultural significance. Guided by experts from MARDI and Mr. Gabriel Lewis Sachter-Smith, a Fulbright Specialist in banana biodiversity, participants visited selected montane sites to learn about native and cultivated plant diversity, habitat characteristics, and the conservation value of wild bananas in highland environments.

Educational discussions highlighted the importance of maintaining biodiversity, the impacts of land-use change and climate pressures, and approaches to sustainable land management in fragile montane ecosystems. The use of the MusaHunter mobile app—originally developed under the wild banana project—further enriched the learning experience by allowing participants to collect geotagged data and images, integrating traditional field observation with digital citizen science.

By combining expert-led fieldwork, species identification, and technology-based documentation, the programme strengthened participants' understanding of biodiversity conservation and encouraged active involvement in safeguarding highland ecosystems.

Right: UM researchers with experts from MARDI and Mr. Gabriel Lewis Sachter-Smith documenting wild banana species in Cameron Highlands using the MusaHunter mobile app



Scientific and Mangrove Conservation Expedition at Lamnga Village, Aceh Besar, Indonesia

On 9 August 2024, the Department of Geography, Universiti Malaya, led by Prof. Gs. Dr. Rosmadi Fauzi, alongside Dr. Tengku Adeline Adura Tengku Hamzah and Dr. Aimee Halim, participated in an International Research Collaboration “*Ekspedisi Ilmiah & Konservasi Mangrove*” at Desa Lamnga, Aceh Besar, Indonesia, hosted by Universitas Syiah Kuala (USK). This initiative directly supported the efforts to maintain and extend existing ecosystems and their biodiversity, with a focus on mangrove conservation, an ecosystem under severe threat from coastal erosion, land-use change, and climate impacts.

The programme brought together UM academics, USK faculty members, undergraduate students, and the local Lamnga community, engaging in hands-on conservation activities such as mangrove planting, while also exchanging knowledge on post-disaster rehabilitation and community-based ecosystem management. By working directly on the ground to restore coastal habitats, this collaboration enhanced the biodiversity of mangrove ecosystems, supporting both plant and animal species that depend on these critical coastal forests for survival.

Beyond field activities, the collaboration produced important agreements on joint academic supervision, student exchange, and shared research in spatial analysis and environmental management, demonstrating a commitment to long-term biodiversity protection. The initiative highlighted how universities can extend their impact internationally by working with local communities and regional partners to safeguard fragile ecosystems. This integration of academic research, conservation practice, and community involvement showcases how higher education institutions can take an active role in preserving threatened ecosystems while advancing scientific and regional cooperation.



Right and below: Representatives from UM and USK with members of the Lamnga community during the mangrove conservation planting and exchange activity



Educational Programmes on Ecosystems

UM delivers diverse educational programmes on ecosystems that engage local and national communities in conserving wild flora and fauna. Initiatives such as the City Nature Challenge: Klang Valley and the IOI Properties Group City Nature Challenge foster citizen science and urban biodiversity appreciation, while student-led projects like Fungi Guardians highlight lesser-known ecosystem drivers.

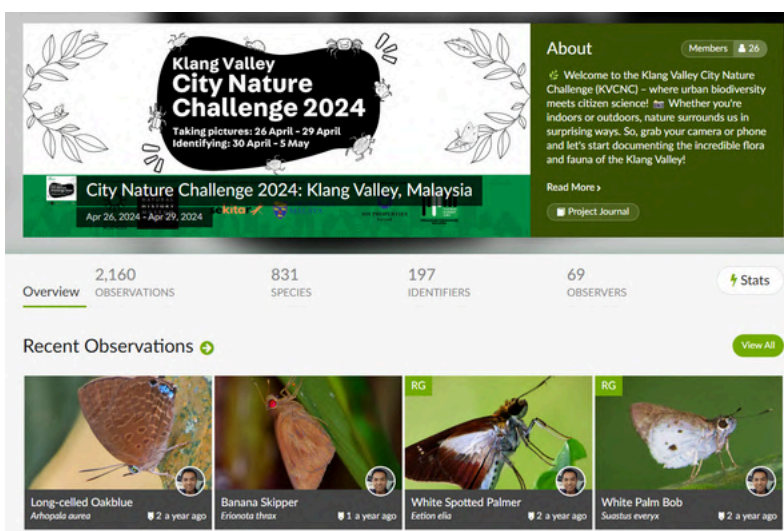
Complementing these are expert-driven events such as Biodiversity Day 2024 and the Citizen Science Banana Hunter Project Workshop in collaboration with MARDI, which build ecological knowledge and conservation skills. Together, these programmes raise public awareness, promote ecosystem stewardship, and equip communities to contribute actively to biodiversity protection and sustainability.

City Nature Challenge: Klang Valley 2024

From 26 April to 5 May 2024, the City Nature Challenge 2024: Klang Valley (KVCNC) was organised by Sekitar Kita and the Universiti Malaya Sustainable Development Centre (UMSDC), with support from the Librarian's Association of Malaysia. This global citizen science initiative encouraged the local community to engage with urban biodiversity, offering them a chance to observe and document wild flora and fauna directly within their surroundings. By using the iNaturalist platform, participants not only learned to identify species but also contributed to scientific datasets that support conservation research.

The programme successfully involved 69 observers, who collectively recorded 2,160 observations and identified 831 species across the Klang Valley. Such initiatives embody educational programmes on ecosystems, as they create opportunities for local communities to understand ecological diversity and the importance of protecting natural habitats, even in urban environments. The hands-on experience of documenting plants, animals, and ecosystems heightened awareness of Malaysia's rich biodiversity and the threats posed by rapid urbanisation and habitat loss.

Beyond raising awareness, the challenge also strengthened community-science linkages, empowering individuals to become active contributors to ecological knowledge. The challenge emphasises the need for universities and partners to offer educational programmes on ecosystems for national and local communities. Through this collaborative effort, the Klang Valley community not only celebrated its biodiversity but also advanced global conservation efforts by sharing valuable ecological data with the world.



Above: The City Nature Challenge 2024: Klang Valley project page on the iNaturalist platform



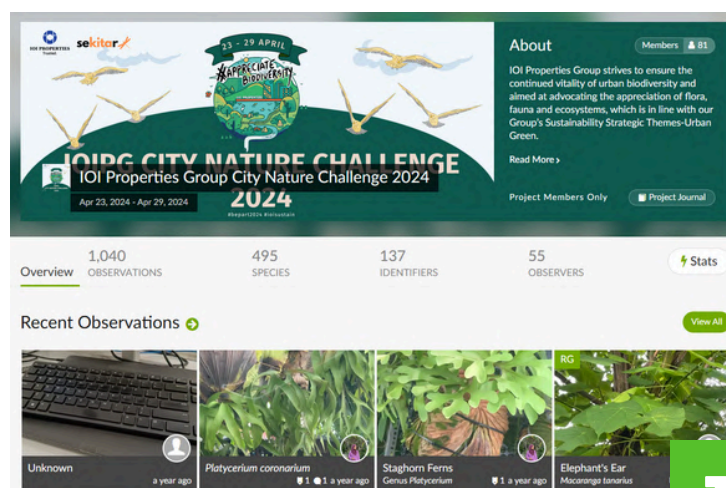
Above: Participants observing wild plants during the City Nature Challenge 2024: Klang Valley using the iNaturalist app

IOI Properties Group City Nature Challenge 2024

The IOI Properties Group City Nature Challenge 2024 (project created 2 April 2024; observation week 23–29 April 2024) promoted urban biodiversity appreciation across Malaysia and nearby locations by encouraging public participation in documenting wild flora and fauna using the iNaturalist platform. As a community-driven citizen-science event, the challenge provided an accessible way for residents to learn about local ecosystems, contribute biodiversity observations (Research Grade / Needs ID / Casual), and understand the value of urban green spaces for conservation and ecosystem services.

In support of the challenge, Universiti Malaya delivered online training for IOI staff and registered participants on the City Nature Challenge methodology and how to use iNaturalist effectively, and also led a practical nature walk for participants to practice species observation and data recording. These training and field components functioned as educational programmes on ecosystems, building capacity in biodiversity monitoring, species identification and community engagement—key elements of effective ecosystem education for local and national communities.

By combining digital citizen science with hands-on field learning, the IOI City Nature Challenge offered structured educational outreach about ecosystems and gave citizens concrete skills to observe and care for urban biodiversity. The initiative strengthened public awareness of wild flora and fauna, expanded local biodiversity datasets, and fostered ongoing stewardship of urban green spaces through science-based community participation.

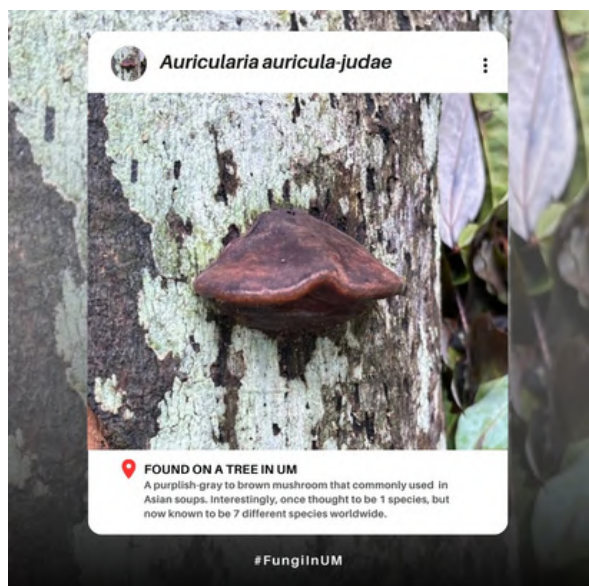


Above: The IOI Properties Group City Nature Challenge 2024 project page on the iNaturalist platform

Fungi Guardians

In 2024, Fungi Guardians, a student-led initiative under The Planet Prodigy Universiti Malaya, was launched with the aim of documenting fungal diversity within the UM campus. The project utilizes platforms such as Instagram and iNaturalist to share findings and engage with the university community as well as the wider public. By highlighting the often-overlooked role of fungi, the initiative offers educational programmes on ecosystems that focus on wild flora and fauna in UM's green spaces, with a particular emphasis on fungi.

Fungi play a critical role as ecosystem drivers, contributing to nutrient cycling, soil health, and biodiversity conservation. However, they are frequently given less attention compared to plants and animals. Through its documentation efforts and awareness campaigns, Fungi Guardians serves as a platform to educate communities about the significance of fungi in maintaining balanced ecosystems. This promotes learning and awareness on the importance of conserving wild flora and fauna within a university context. This initiative also reflects Universiti Malaya's commitment to advancing sustainability and biodiversity protection by encouraging student-led, research-based conservation efforts. By empowering students to share ecological knowledge with local and national communities, UM reinforces its role as a hub for environmental stewardship and contributes meaningfully to global sustainability goals.



Above: Fungi Guardian volunteers observing wild fungi on the Universiti Malaya campus

Left: Photos of fungi shared on their Instagram page

Citizen Science Banana Hunter Project Workshop

The Citizen Science Banana Hunter Project Workshop was a full-day programme held on 20 August 2024 at Rimba Ilmu Botanic Garden, Universiti Malaya, under the theme “Preserving the Future: Wild Banana Conservation through Citizen Science.” The workshop aimed to engage participants from diverse backgrounds in the identification, documentation, and conservation of wild bananas through a citizen science approach.

The event featured expert talks covering topics such as Global Banana Diversity—its history, significance, and the role of wild bananas in crop improvement—by Gabriel Lewis Sachter-Smith, Fulbright Specialist; Banana Diversity in Malaysia, highlighting germplasm collection and conservation efforts, by Ms. Maimun Tahir from MARDI; and Field Exploration Challenges, offering practical insights on collecting and identifying banana samples, presented by Ts. Muhammad Shafie Md Sah from MARDI.

Hands-on sessions followed, including Herbarium Work, focusing on specimen preparation, research applications, and its importance in banana studies, led by Dr. Mohd Norfaizal Ghazali (MARDI); a Banana Exploration Tour in Rimba Ilmu guided by Dr. Sarah Abdul Razak and Gabriel Lewis Sachter-Smith; and Molecular Identification Techniques as an alternative to traditional morphological methods, conducted by Dr. Teo Chee How and Dr. Nur Ardiyana Rejab.

The workshop also introduced and piloted the MusaHunter mobile app, a tool designed for participants to collect geotagged images and data on wild bananas across Malaysia. Ultimately, the programme sought to empower citizen scientists—including secondary school students, university students, adults, and seniors—to actively contribute to biodiversity conservation through technology-enabled fieldwork.

Right: Group photo of the Citizen Science Banana Hunter Project Workshop, followed by an expert talk and a hands-on herbarium specimen preparation session



Biodiversity Day 2024: Educational Talk

On 6 March 2024, the Malaysian Palm Oil Green Conservation Foundation (MPOGCF) and Universiti Malaya organised Biodiversity Day 2024 at the Faculty of Science, UM. The event strengthened understanding of ecosystem conservation, highlighting the importance of protecting Malaysia's wild flora and fauna. Bringing together experts, students, and the community, it addressed issues of biodiversity, sustainable land management, and global conservation efforts.

The programme featured a keynote by Prof. Dr. Zulqarnain Mohamed, Dean of the Faculty of Science, alongside sessions on national conservation initiatives, palm oil sustainability, and plantation-level practices. A townhall and career talk fostered dialogue on the skills, challenges, and opportunities in advancing environmental sustainability.



Above: Poster for Biodiversity Day 2024, co-organised by UM and MPOGCF

Below: Sharing on topics such as conservation initiatives in Malaysia and sustainable palm oil



Educational Outreach on Sustainable Land Management for Agriculture

Universiti Malaya (UM) actively advances the sustainable management of land for agriculture through a diverse range of educational outreach and community engagement programmes that connect research, teaching, and societal needs. Initiatives such as the CEBAR Expert Seminar Series 2024, the Smart Engineering and Sustainable Urban Farm, and the Komuniti@UniMADANI aquaponics education programme in religious schools showcase how scientific expertise and innovation are translated into accessible learning for students, educators, and communities.

Beyond campus, UM strengthens regional and global impact through programmes like the Biochar Between Two Nations project with Universitas Airlangga, Indonesia, and the Youth Soil Sustainability Intervarsity Forum, which engages ASEAN youth in soil stewardship. Locally, hands-on activities such as the D.I.Y. Urban Garden at SM Teknik Kuala Lumpur and the SULAM-UM Soil Doctor Programme in Kampung Seri Bunian demonstrate how experiential learning empowers communities to adopt context-specific, climate-smart agricultural practices. Together, these initiatives integrate education, capacity building, and stakeholder collaboration to promote sustainable land use, biodiversity conservation, and food security across multiple scales.

CEBAR Expert Seminar Series 2024

The Centre for Research in Biotechnology for Agriculture (CEBAR), Universiti Malaya, organised a series of expert seminars throughout 2024, inviting distinguished local and international researchers to share their expertise in areas directly linked to sustainable land management and biodiversity conservation. Among the highlights, on 15 August 2024, Professor Dr. Kim Pil Joo from Gyeongsang National University, South Korea, delivered a seminar on Organic Matter Management in Rice Paddy: Grand Challenges and Golden Opportunities under Global Warming. The talk emphasised how soil carbon sequestration and improved agricultural practices could mitigate climate change while enhancing soil health, thereby ensuring the sustainable utilisation of land for agriculture.

Similarly, other CEBAR Expert Seminars in 2024 showcased cutting-edge biotechnology solutions presented by distinguished researchers from Universiti Malaya and international institutions. For example, Dr. Audrey Yi-Hui Teh (St. George's University of London) delivered a seminar on Plant Molecular Farming (PMF), a revolutionary approach that uses plants as biofactories to produce recombinant proteins and high-value metabolites. Her session emphasised how PMF can transform the manufacturing of biologics, such as plant-made cancer immunotherapeutics, offering a cost-effective, scalable, and sustainable alternative to conventional systems.



In another seminar, Dr. Hazwani Mat Saad (Universiti Malaya) explored the cosmeceutical potential of *Artocarpus heterophyllus* (jackfruit). Her research highlighted how bioactive compounds from jackfruit, particularly the stem bark, exhibit anti-cancer, anti-inflammatory, antioxidant, and anti-tyrosinase properties with promising applications in skincare. By investigating natural-origin cosmetics, her work aligns with the growing demand for sustainable, non-invasive, and eco-friendly products derived from biodiversity.

In addition to the seminars, CEBAR hosted multiple visits to its Plant Biotech Facility, welcoming UM students, students from MAZ International School, international collaborators from the University of Queensland and UM's mobility programme with Japan, as well as representatives from the Ministry of Higher Education, PT Bio Company, Universiti Malaysia Sarawak (UNIMAS), and others. These engagements further strengthened capacity-building and collaborative research efforts.

These initiatives provide platforms to support and promote conservation-oriented approaches and sustainable use of land through education, research, and stakeholder engagement. By addressing agricultural biotechnology, soil management, and ecological resilience, the Expert Seminar Series contributes to nurturing informed communities and future scientists equipped to tackle challenges in land use sustainability.



Above: Example poster from the CEBAR Expert Seminar Series

Below: Visit to CEBAR's Plant Biotech Facility



Smart Aquaponics Urban Farm as a Living Laboratory

In 2024, Universiti Malaya (UM) advanced its learning and outreach on sustainable agriculture through the Smart and Sustainable Engineering Urban Farm, led by Dr. Fathiah Mohamed Zuki from the Department of Chemical Engineering. Supported by a Universiti Malaya Living Labs (UMLL) grant under the UM Sustainability and Development Centre (UMSDC), the rooftop project repurposes unused campus space into a small aquaponic farm powered by solar energy, rainwater harvesting, and composting systems.

Throughout 2024, the farm hosted several learning visits and engagement sessions introducing participants to aquaponics—a system that integrates aquaculture (fish farming) with hydroponics (soil-less plant cultivation). These sessions provided hands-on exposure to sustainable agricultural practices, showing how compact urban areas can be managed productively while reducing resource use and waste.

By combining renewable energy use, waste reduction, and biodiversity-friendly design, the Smart and Sustainable Engineering Urban Farm demonstrates how educational programmes can promote sustainable agriculture within both learning and community settings, supporting UM's contribution to the goals of SDG 14 and SDG 15.



Right: Visitors at the Smart and Sustainable Engineering Urban Farm (top), Dr. Fathiah with the farm's produce (middle), and students relaxing at the rooftop urban farm beside the aquaculture tank (bottom)

Urban Farming Technology Transfer in Religious Schools

In 2024, an aquaponics education programme was implemented under the Komuniti@UniMADANI grant by the Ministry of Finance Malaysia, led by Dr. Abd. Aziz Rekan and Dr. Mohd Istajib Mokhtar of UM. The initiative reflects the principles of Education for Sustainable Development (ESD), integrating intellectual, physical, emotional, and spiritual growth within teaching and learning. It highlights that education for the Sustainable Development Goals (SDGs) must balance scientific knowledge with moral and spiritual values.

The aquaponics system serves as a sustainable agricultural learning tool, simulating natural ecosystems and demonstrating resource efficiency, climate action, and the interdependence of plants and animals. Through hands-on learning, students explore food security, urban farming, and circular economy practices while reducing ecological impact. Adaptable across the curriculum, it supports Elemen Merentas Kurikulum (EMK) and integrates sustainability and values into subjects such as Science, Islamic Education, and Moral Studies.

Collaborating with schools including SMAP Kajang, SAM Bestari Subang Jaya, MRSM Sg Besar, and SBPI Sabak Bernam, the programme equips students with practical and ethical foundations for sustainable farming. By linking educators, universities, communities, and industries, it cultivates future stewards of the environment—technologically competent and morally grounded as khalifah on earth.

Right: Hydroponic technology transfer session at religious schools (top), and a sharing session on the same topic with Apa Khabar Malaysia featuring Dr. Mohd Istajib Mokhtar (UM) and Mohd Yusaimi Md Yusoff (GRASS) (bottom)



UM Empowers Rural Indonesian Farmers with Biochar in Desa Ngerong

On 25 July 2024, UM through the Faculty of Science, partnered with Universitas Airlangga, Indonesia, to organise a knowledge-sharing programme titled “Biochar Between Two Nations” in Desa Ngerong, Kecamatan Gempol, Kabupaten Pasuruan, Indonesia. The initiative, led by Assoc. Prof. Dr. Rosazlin Abdullah and supported by Prof. Ling Tau Chuan, aimed to empower local hydroponic farmers with sustainable solutions for managing agricultural waste. With the world producing over 2 billion tons of waste annually, much of it from agriculture, this educational outreach demonstrated how converting organic biomass into biochar can reduce pollution, enrich soil fertility, and strengthen food security.

The programme introduced farmers to biochar production, its uses, and its benefits as a preservative, absorber, and soil enhancer. Over 30 participants learned how agricultural residues can be transformed into valuable resources to improve yields. The hands-on session underscored sustainable land management’s role in tackling climate change and boosting productivity, with participants calling biochar a “game-changer” for their community.

This cross-border initiative equipped farmers in Desa Ngerong with sustainable agricultural practices, strengthening rural capacity and fostering future collaboration between UM and Universitas Airlangga. Such partnerships demonstrate how international academic cooperation empowers communities, advances sustainable farming, and supports food security and environmental conservation.



Above: Associate Professor Dr. Rosazlin Abdullah delivering a talk on biochar for hydroponic farmers at Desa Ngerong

Below: Group photo with the farmers and researchers

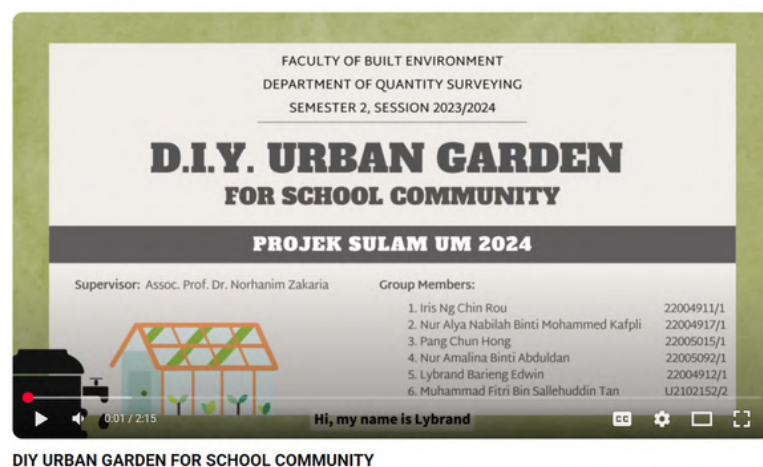


D.I.Y. Urban Garden at SM Teknik Kuala Lumpur

In July 2024, the Faculty of Built Environment, Universiti Malaya proposed the Urban Garden Project (*Projek Kebun Bandar*) at SM Teknik Kuala Lumpur as part of its educational outreach efforts to promote the sustainable management of land for agriculture. This initiative aimed to transform the school's open space into an urban garden equipped with a greenhouse and a rainwater harvesting system. Designed and built through a "DIY" approach by teachers and students with carpentry skills, the greenhouse was proposed to address the school's long-standing issue of wild monkey disturbances, while also providing a controlled environment for agricultural learning. The rainwater harvesting system was introduced to aim to reduce reliance on treated water and to ensure a sustainable supply during frequent water disruptions in Kuala Lumpur.

The greenhouse, constructed from polycarbonate and steel structures, not only aimed to enhance food production in an urban setting but also to demonstrate innovative land-use management that reduces environmental pressures. Meanwhile, the rainwater harvesting system sought to highlight the importance of conserving water resources while ensuring resilience against climate and urban infrastructure challenges. Through this proposed initiative, students were expected to gain hands-on exposure to sustainable land use management, developing practical skills while fostering environmental responsibility.

Collaboration was also a key component of the project, reflecting the spirit of community engagement in sustainable development. The Faculty of Built Environment partnered with the Free Tree Society, a non-profit organization, to provide technical support, agricultural tools, soil, and seeds. Workshops were proposed to further equip students and teachers with the knowledge needed to maintain the garden, ensuring the project's long-term sustainability. By embedding educational outreach within a real-life agricultural project, Universiti Malaya aimed to demonstrate how urban schools can serve as platforms for advancing sustainable land management, community awareness, and agricultural innovation.



Above: Video on the proposed DIY urban garden for the school community

Below: Decorative photo illustrating the urban garden concept

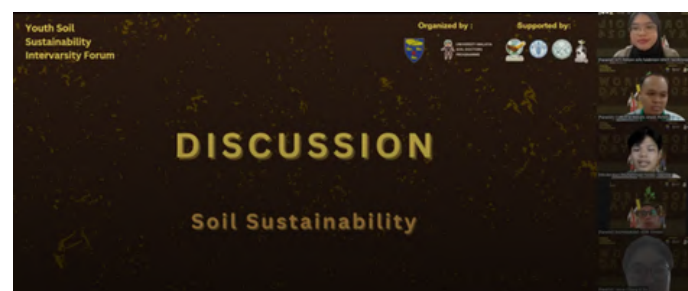


Youth Soil Sustainability Intervarsity Forum

In conjunction with World Soil Day 2024, Universiti Malaya second-year students from the Environmental Management Programme successfully organised the Youth Soil Sustainability Intervarsity Forum on 5 December 2024. Supported by the Malaysian Society of Soil Science, the Food and Agriculture Organization (FAO), and the Global Soil Partnership, the programme served as an educational outreach initiative to promote the sustainable management of land for agriculture. With the theme “Caring for Soils: Measure, Monitor, Manage”, the forum highlighted the critical importance of healthy soil in ensuring long-term food security and sustainable development. The forum featured panelists from Universiti Teknologi Mara (UiTM), Universiti Malaysia Terengganu (UMT), Universiti Malaya (UM), and Universiti Putra Malaysia (UPM), moderated by a UM student, fostering intervarsity knowledge exchange.

Discussions focused on the role of soil data in guiding sustainable agricultural practices, emphasizing how youth can contribute to responsible land use, soil health monitoring, and resilience against environmental degradation. By engaging students and academics from across Malaysia and ASEAN—including the Philippines, Indonesia, and Thailand—this initiative expanded its reach beyond national boundaries, reflecting the regional importance of soil stewardship in sustainable agriculture.

The Youth Soil Sustainability Intervarsity Forum successfully empowered young people with the knowledge and awareness to manage soils more effectively. Through knowledge-sharing, open dialogue, and regional collaboration, the event demonstrated how youth-led initiatives can bridge academia, local communities, and international networks in promoting sustainable management of land for agriculture. This not only enriches the academic experience of students but also strengthens the collective effort toward protecting soil as a vital natural resource for future generations.



Above: The event poster for the Youth Soil Sustainability Intervarsity Forum and a glimpse of the online discussion session

Sustainable Peatland Agriculture in Kampung Seri Bunian

As part of the SULAM (Service Learning Malaysia – University for Society) programme, students from the Bachelor of Science in Environmental Management, Universiti Malaya delivered an educational outreach titled “*Empowering the Use of Peatlands for Sustainable Agriculture in Facing Climate Change*” in Kampung Seri Bunian, Pontian from 27–29 December 2024. Implemented under the UM Soil Doctor Programme (UMSDP), the activity targeted a community where peatlands comprise some 75% of the landscape. The SULAM-UMSDP team — 24 UM students and 2 UM lecturers — worked directly with local farmers, Asnaf families and the JPKK Seri Bunian to promote sustainable management of land for agriculture adapted specifically to peatland conditions.

The programme combined practical UMSDP clinics, hands-on demonstrations and participatory workshops on peat-appropriate practices including water table management, use of organic amendments, erosion control techniques, alternative cropping and small-scale adaptive technologies. Field sessions and problem-solving clinics enabled capacity building for farmers, while community activities (Anak Angkat opening ceremony, Sukaneka, Cultural Night) strengthened community engagement and local ownership. Collaborators included the Department of Agriculture (Johor & Putrajaya), ensuring the technical recommendations were aligned with government extension services and follow-up support.

By delivering context-specific training and direct community support, this SULAM-UMSDP outreach directly advances sustainable management of land for agriculture through targeted educational outreach on sustainable agricultural land management.



Above: A workshop on sustainable peatland agriculture under the UM Soil Doctor Programme (UMSDP)

Educational Outreach on Sustainable Land Tourism

In 2024, Universiti Malaya (UM) supported several educational activities linking land management with responsible tourism. Its spin-off social enterprise, Inspirasi Kawa, based in Kuala Selangor, ran eco-tourism programmes involving mangrove nursery care, tree planting, and river clean-ups with local and visiting groups. UM geology students also introduced geotourism concepts at Kanching Eco Forest Park while promoting conservation and visitor safety.

Additionally, a community programme with Universitas Airlangga in Pantai Dalam explored the use of lemongrass and jujube plants for eco-friendly body scrub production as a small-scale tourism product. UM students further contributed through a SULAM project to revive the Sungai Lalang Hot Spring in Semenyih (see page 132), engaging the community through exhibitions, outreach, and a gotong-royong to improve the site as a potential geotourism destination. These efforts provided opportunities to share knowledge and encourage more responsible approaches to land-based tourism.

Promoting Sustainable River and Mangrove Tourism at Kuala Selangor

UM continues to support its spin-off social enterprise, Inspirasi Kawa, which has been actively operating from 2014 to 2025 in Kuala Selangor—an area renowned for its firefly tourism. The enterprise focuses on downstream river conservation along Sungai Selangor, integrating environmental stewardship with community-based tourism.

Through this collaboration, Inspirasi Kawa delivers educational outreach programmes that engage local, national, and international communities in sustainable land tourism. Activities include establishing and maintaining mangrove nurseries, mangrove tree planting, and river clean-up initiatives. These efforts not only enhance ecosystem health but also raise public awareness on the importance of conserving mangrove and river habitats, ensuring the long-term sustainability of eco-tourism in the region.

Below: Inspirasi Kawa conducting mangrove nursery seeding and planting activities as an eco-tourism initiative (left), and measuring the health of the planted mangrove trees (right)



Promoting Sustainable Geotourism at Kanching Waterfalls

In June 2024, a group of Universiti Malaya students from the Bachelor of Science in Applied Geology carried out a project highlighting the geotourism potential at Kanching Eco Forest Park (Taman Eko Rimba Kanching Waterfalls). The main objective was to promote the site as a sustainable geotourism destination while raising awareness among local communities, particularly the Village Development and Security Committee (JKK). The initiative emphasised the importance of geoscience education, environmental conservation, and sustainable land use for tourism by showcasing the unique geology and natural beauty of the waterfalls. As part of the outreach, the students conducted research on the background of the waterfall, the benefits of geotourism, potential hazards, available facilities, and the geological characteristics of the site. They also developed brochures distributed at Universiti Malaya to encourage greater appreciation and responsible tourism at Kanching Waterfalls.

The project also provided educational outreach to the community by sharing knowledge on geology, eco-tourism development, and conservation practices. Recommendations were made to the JKK for infrastructure upgrades such as improved walking paths, safety fences, warning signboards, and additional sanitary facilities. These enhancements would not only improve visitor safety and comfort but also support the sustainable management of land for tourism, ensuring that tourism growth benefits the local economy while safeguarding the ecosystem. Furthermore, engagement with visitors at the site offered opportunities for informal learning, where students explained the role of geology in eco-tourism and its potential to strengthen local environmental awareness.

Conservation was also a major focus of the initiative. The distributed brochures stressed the need to preserve the natural environment, as Kanching Waterfalls is home to diverse flora and fauna that contribute to clean air, fresh water, and fertile soil. By educating both the local community and tourists on the risks of pollution, biodiversity loss, and ecosystem imbalance, the project promoted a deeper understanding of why sustainable land tourism management is essential. Through educational programmes and outreach, the initiative demonstrated how geotourism can be developed in harmony with nature, ensuring long-term ecological balance while creating socio-economic opportunities for the community.



Right: UM Geology students at Kanching Eco Forest Park distributing flyers and conducting research

Eco-Friendly Body Scrub for Sustainable Tourism

The Community Development Programme: Formulation of Mixed Lemongrass (Serai) and Jujuba (Bidara) Emulsified Body Scrub supports sustainable land use for tourism by integrating biodiversity-based products into local tourism economies. Held on 17 November 2024, this hands-on educational programme was conducted with the participation of the community from PPR Seri Pantai, Pantai Dalam, through a collaboration between Universiti Malaya (under UMCares) and Universitas Airlangga, Indonesia.

The programme trained members of the local community to cultivate and process 'lemongrass' and 'jujuba' plants that can be grown sustainably without degrading the land.

Participants learned about:

- Sustainable cultivation practices to ensure long-term productivity of the land.
- Value-added product development using locally sourced ingredients.
- Eco-friendly processing methods to reduce environmental impact.

The body scrub is designed for sale to eco-tourism visitors, homestays, and local markets, providing communities with an alternative income stream that encourages the sustainable use of plant resources and supports the tourism sector. By linking agricultural biodiversity with tourism products, this programme empowers communities to become active stewards of their land while benefiting economically from sustainable tourism opportunities.



Above: UM researchers demonstrating the process of making a sustainable body scrub, followed by participants from the Pantai Dalam community trying it out themselves

Below: Group photo with members of the local community



Protecting Campus Land Ecosystems Through Meaningful Action

Throughout 2024, Universiti Malaya strengthened the care of campus land ecosystems through collaborative stewardship at Rimba Ilmu and other field sites. Students, NGOs, volunteers, and corporate partners participated in clean-ups, post-storm restoration, tree planting, and garden maintenance—ensuring that shared green spaces remain healthy, resilient, and accessible for learning and recreation.

In parallel, the university expanded ecosystem education and research through workshops, guided activities, and hands-on field training. Rimba Ilmu's 50th anniversary highlighted its role as a 60-hectare botanical garden conserving over 1,700 plant species, while initiatives such as the Chigger Workshop and student fieldwork at Glami Lemi connected conservation with scientific learning. These efforts demonstrate how collaboration and knowledge-sharing can sustain campus land ecosystems for future generations.

Rimba Ilmu Conservation and Community Engagement 2024

Throughout 2024, the Rimba Ilmu Botanic Garden at Universiti Malaya organised and hosted a series of collaborative programmes with volunteers, NGOs, students, and corporate partners to strengthen efforts in the maintenance and preservation of shared land ecosystems. These activities focused on sustainability, conservation, and ecological care, reflecting the importance of protecting campus-based ecosystems as shared community assets.

On 4 May 2024, Universiti Malaya held an environmental stewardship and community engagement programme at Rimba Ilmu with The Rimba Project 2.0, Youthcare Malaysia, SEKRUM, and UM Green Community. UM students, volunteers, and partner organisations joined a Forest Clean-Up and Photo Scavenger Hunt, combining practical conservation work with biodiversity awareness. The programme promoted sustainable forest management, encouraged community involvement, and fostered collaboration between student bodies, NGOs, and university initiatives.

On 3 September 2024, post-storm restoration efforts were carried out with Rimba Jiva and Carsome to repair affected areas of the garden.

This was followed by a Shade House gotong-royong on 28 October 2024 with Sunway Student Volunteers, who assisted in weeding and maintaining nursery trails. On 9 November 2024, KPM Beranang students joined a river cleanup and restoration programme, working to clear detritus and branches to improve river flow.

Later in the month, the Rimba Ilmu Cleanup Programme on 15 November 2024, held in collaboration with the Universiti Malaya Sustainable Development Centre (UMSDC), mobilized 20 volunteers to organise fallen logs, collect leaves, and clear roots from garden roofs—practical activities that maintained the garden's ecological health. This was followed by Carsome's CSR tree planting initiative on 25 November 2024, which restored storm-affected areas of the botanical garden through planting and fertilizing seedlings with over 40 bags of fertilizer, promoting sustainable regrowth.

These initiatives illustrate how collaboration with the local community and corporate partners plays a crucial role in safeguarding and managing shared ecosystems, ensuring Rimba Ilmu remains a thriving green lung for education, biodiversity, and urban sustainability.



Above: Rimba Ilmu volunteers trimming palms and organising fallen logs with the UM Sustainable Development Centre (left), and planting trees and fertilising seedlings around the botanical garden with Carsome (right)

Below: Stream cleanup at Rimba Ilmu with KPM Beranang (left), and a Shade House cleanup with Sunway Student Volunteers (right)



Below: Clearing and removing fallen trees at Rimba Ilmu after a storm with Rimba Jiva and Carsome (left), and a cleaning and maintenance session at Rimba Ilmu with Youthcare Malaysia, SEKRUM, and UM Green Community (right)



Rimba Ilmu 50th Anniversary Celebration: Belukar Dah Jadi Rimba

In celebrating its 50th anniversary, the Rimba Ilmu Botanic Garden, Universiti Malaya, highlighted its long-standing role as a hub for conservation, environmental awareness, and shared responsibility for land ecosystems. Once an abandoned rubber estate, Rimba Ilmu has been transformed into a thriving 60-hectare botanical garden that conserves more than 1,700 plant species, making it a key ecosystem resource in the heart of Kuala Lumpur. Its evolution reflects the university's commitment to sustaining land-based ecosystems through education, conservation, and public engagement.

The anniversary programme, held in August 2024, included Sunda Talks and Rimba Workshops, offered in collaboration with local experts, international partners such as the University of St Andrews, and organisations like the Royal Geographical Society (with IBG). These sessions engaged the local community in discussions on tiger and elephant conservation, environmental journalism, and nature-inspired art, alongside guided walks, nature play workshops, and poetry activities. Such collaborative educational initiatives illustrate how universities can partner with the public to maintain shared land ecosystems while promoting appreciation of Malaysia's unique biodiversity.

The Belukar Dah Jadi Rimba exhibition (17 August–17 September 2024) further fostered public participation by showcasing the history and conservation journey of Rimba Ilmu. By working together with alumni, researchers, artists, and the community, Universiti Malaya demonstrated a strong model of collaboration for shared land ecosystems. This milestone event reflects how universities can actively integrate research, conservation action, and community outreach to safeguard ecosystems for future generations.

Right: The event poster for the Belukar Dah Jadi

Rimba celebration (top), the team behind its planning (middle), and Dr. Yong Kien Thai showing a fruit during a guided walk in Rimba Ilmu (bottom)



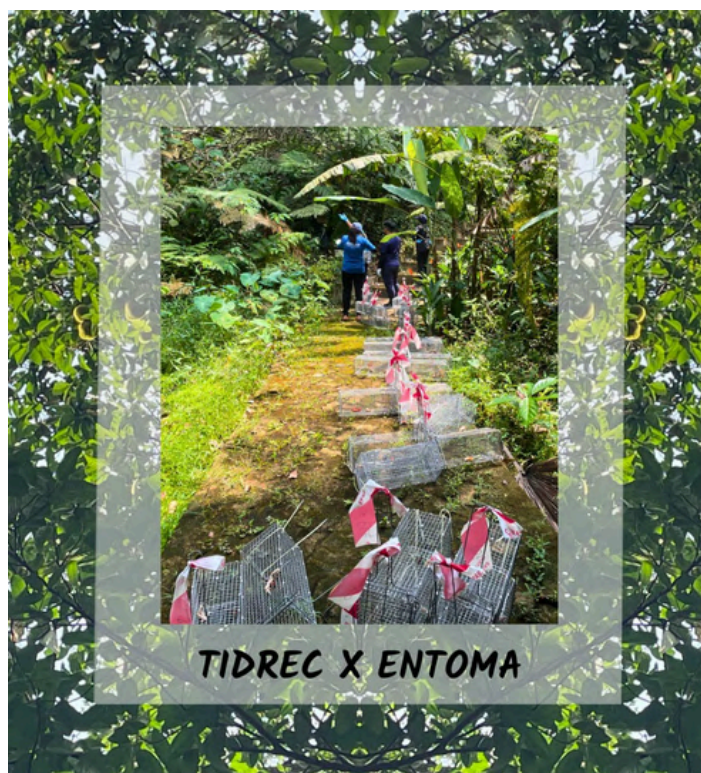
Chigger Workshop-The Neglected Vector

On 14 October 2024, the Tropical Infectious Diseases Research & Education Centre (TIDREC) in collaboration with the Entomological Society of Malaysia (ENTOMA) successfully organised Chigger Workshop 1.0 – The Neglected Vector at Rimba Ilmu, Universiti Malaya. This initiative highlights the university's commitment to supporting land ecosystems through action by providing its shared land areas for scientific research, capacity building, and community outreach.

During the workshop, participants were introduced to the ecological role of the parasitic chigger mite (Trombiculidae), commonly found in small mammals such as rats, squirrels, and shrews. With Rimba Ilmu's garden, nursery, and bambusetum areas serving as the study site, multiple cage traps were set up to facilitate field-based learning and ecosystem monitoring. The collaborative activity underscores the importance of biodiversity awareness, land-based ecosystem stewardship, and practical research engagement on shared green spaces within the campus.

The captured small mammals, some hosting chiggers in their ears, provided valuable specimens for slide preparation and species identification conducted later at TIDREC, Universiti Malaya. This collaborative programme exemplifies cross-institutional partnerships between a university research centre, a national scientific society, and a campus botanical garden to maintain and enhance shared land ecosystems. By linking research, education, and ecological management, the workshop contributes to the collaboration for shared land ecosystems, ensuring that campus green spaces are actively used for sustainable science, conservation, and public awareness.

Right: Photos during the Chigger workshop



Glami Lemi Biotechnology Research Centre Gotong Royong by UM Biotechnology Club

On 1–2 June 2024, the UM Biotechnology Club conducted a field visit and gotong-royong at the Glami Lemi Biotechnology Research Centre (PPBGL), Negeri Sembilan. This initiative reflects active collaboration with the local community in maintaining shared land ecosystems, which cover agricultural land, lakes, and equatorial forests across the 150-acre site. Through communal activities such as waste clean-up and land stewardship, the visit strengthened collective responsibility for the sustainable management of natural resources.

The PPBGL field site is uniquely positioned within the Jelebu district, surrounded by rich biodiversity and near Taman Negeri Kenaboi. By engaging students in practical exposure to agricultural biotechnology, aquaculture, and animal husbandry, the programme fostered both scientific learning and ecosystem conservation practices. Students also gained valuable insights into the Barbados Black Belly Sheep as part of livestock research in PPBGL, linking biotechnology studies with sustainable agriculture and biodiversity conservation.

Importantly, this activity promoted the integration of education, research, and community engagement. With facilities for long-term research and training, PPBGL provides a platform for stakeholder collaboration between academia, local communities, and policymakers. The initiative demonstrates how partnerships can strengthen the protection of shared land ecosystems through knowledge exchange, community participation, and sustainable land-use practices.



Above: UM students at the Glami Lemi Biotechnology Research Centre

16 PEACE, JUSTICE AND STRONG INSTITUTIONS



Peace, Justice and Strong Institutions

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.



Bulat Air Kerana Pembentung, Bulat Manusia Kerana Muafakat

SDG 16, which promotes peaceful, just, and inclusive societies, is well reflected in the classical Malay proverb “*Bulat air kerana pembetung, bulat manusia kerana muafakat.*” It means that just as water takes the shape of its container, harmony among people is achieved through consensus and mutual agreement. The proverb underscores the values of participation, unity, and shared responsibility — principles essential for creating trustworthy institutions and ensuring justice for all.

At Universiti Malaya (UM), this spirit is cultivated through transparent governance, ethical leadership, student representation, and platforms that encourage civic dialogue and responsible action by members of the campus community. By fostering a culture of honesty and accountability, UM contributes to the development of strong institutions and peaceful communities in line with the vision of SDG 16.

Evidence-Based Governance for Sustainable Development

In line with SDG 16, UM contributes its expertise to local, regional and national governance through sustained engagement with government ministries and agencies. From legislative reviews such as the Destitute Persons (Amendment) Act to policy discussions at the Malaysia SDG Summit and the launch of PADU, UM provides evidence-based advice that informs decision-making and strengthens institutional frameworks. These collaborations, which span anti-corruption governance, climate change, data management, and biodiversity conservation, underscore UM's role as a trusted knowledge partner in shaping policies that promote transparency, accountability, and sustainable development.

Peace and Data Upkeep for the SDGs

UM is well-positioned to contribute expert insights to the government's ongoing and upcoming initiatives. On 2nd January 2024, the launch of Pangkalan Data Utama (PADU) was held at the Putrajaya International Convention Centre (PICC). There, UM was represented by the director of the Social Wellbeing Research Centre (SWRC), Professor Datuk Norma Mansor who attended a forum titled "Driving Transition Through Padu". Joining her as panellists were the Deputy Director-General (ICT) at the Malaysian Administrative Modernisation and Management Planning Unit (MAMPU), Dr Fazidah Abu Bakar and CEO of CyberSecurity Malaysia (CSM), Datuk Dr Amirudin Abdul Wahab. PADU is a system which aims to improve management efficiency of the country's data including individual and household profiles of citizens and permanent residents in Malaysia. During the forum, Prof Norma said that PADU is poised to be a game changer for the country; therefore, the data within must be regularly updated to prevent it from being static.



Above: Global Intellectual Discourse 2024 officiated by the Prime Minister at UM ([Facebook](#))

She added that the effectiveness of PADU relies on proactive action taken by every participating body such as the National Registration Department, religious offices, and zakat centres to facilitate swift aid to those in need. The ceremony also featured a presentation on PADU by Chief Statistician, Datuk Seri Dr Mohd Uzir Mahidin before the forum followed by the officiation of the system by Prime Minister Datuk Seri Anwar Ibrahim.



Above: Prof Datuk Norma Mansor at the PADU forum ([Bernama](#))

Green Technology Insights for Government Initiatives

UM also shares its expertise via events co-organised with government agencies. Together with the Division of Green and Sustainable Chemistry under the Malaysian Institute of Chemistry (IKM), UM's Nanotechnology and Catalysis Research Centre (NANOCAT) organised a webinar on “Embracing Sustainable Development Goals: Leveraging Synthetic Polymers from Renewable Feedstocks for Biomedical and Pharmaceutical” which was open to all. The talk was delivered by Associate Dean (Research & Consultancy) from the School of Pharmacy International Medical University, Associate Professor ChM Dr Lee Choy Sin on 20th March 2024.

The webinar aimed to discuss opportunities presented by bio-based synthetic polymers with enhanced biodegradability and biocompatibility properties, making great prospects in biomedical and pharmaceutical applications. Crucially, the approaches support global sustainability by fostering responsible consumption and production (SDG 12) and enhancing health and well-being (SDG 3).

Below: Poster for the webinar (NANOCAT)

Embracing Sustainable Development Goals: Leveraging Synthetic Polymers from Renewable Feedstocks for Biomedical and Pharmaceutical

Webinar

Speaker:



**Associate Professor ChM
Dr Lee Choy Sin**
Associate Dean (Research & Consultancy)
School of Pharmacy
International Medical University

Date: 20 March 2024 (Wednesday)
Time: 10:30 am – 11:30 am
MS Team: <https://shorturl.at/cmsN2>

All are welcome. The webinar is free-of-charge.

Synopsis

The global polymers market is expected to reach USD 1200 billion by 2032, with the medical polymers sector exhibiting a 9.4% CAGR and valued at USD 31 billion by 2027. The renewable chemicals market, including bio-based polymers, is projected to grow significantly, reaching USD 316 billion by 2032 with an 11.2% CAGR. The intersection of these trends presents a unique opportunity for polymers in the biomedical and pharmaceutical industry. In this regard, the use of renewable resources in polymer production offers several advantages, particularly in the conservation of limited resources and the addressing of health and environmental concerns. In this talk, the emergence of synthetic polymers derived from renewable feedstocks and their functional roles in tissue engineering, biomedical coatings, and pharmaceutical excipients will be discussed. Green chemistry approaches are employed in the experimental design of the production of these polymers, and their physico-chemical, thermal, and mechanical properties are being evaluated. This talk aims to discuss the opportunities presented by bio-based synthetic polymers with enhanced biodegradability and biocompatibility properties, making them great prospects in biomedical and pharmaceutical applications. Most importantly, the approaches align with global sustainability goals, contributing to responsible consumption and production, and promoting good health and well-being.

Jointly organized by the Division of Green & Sustainable Chemistry, Malaysian Institute of Chemistry (IKM)

NANOCAT   **UNIVERSITI MALAYA**

Best wishes
Nanotechnology & Catalysis Research Centre (NANOCAT)
Level 3, Block A, Institute of Postgraduate Studies
University of Malaya, 50603 Kuala Lumpur, MALAYSIA
Tel: +603-7967 6959
Fax: +603-7967 6556

Policy Recommendations for Governments Across Asia

UM's expert advice not only extends to local governments but also international governing bodies. From 2nd to 5th May 2024, UM was represented at the 57th Asian Development Bank (ADB) Annual Meeting with the theme "Bridge to the Future". Participants consisting of finance ministers, central bank governors, senior government officials, and representatives from the private sector, academia, media, and civil society from ADB's 68 members convened in Tbilisi, Georgia. Amidst the meeting, UM sent the director of SWRC and President of Malaysia Economic Association (MEA), Professor Dr Norma Mansor as a panellist for the launch of the Asian Development Policy Report 2024: Aging Well in Asia. Joining her to present the report were lead author and Senior Economist from ADB's Economic Research and Development Impact Department, Aiko Kikkawa; Director General and Chief Economist of ADB's Economic Research and Development Impact Department, Albert Park; and Director of Ageing Asia Research Hub from Centre of Excellence in Population Ageing Research, Philip O'Keefe. Among Prof Norma's insights were that more efforts are needed to ensure women prepare to age well, and it requires systems that support their labour force participation and reward social work. The other three panellists agreed that investing in human capital for people of all ages is key to ensuring well-being in old age. With the launch of this policy report, stakeholders can explore key dimensions of wellbeing at old age, including health, employment and retirement, economic security, and social engagement.



Above: *Aging Well in Asia: Asian Development Policy Report (ADB)*

Below: *Prof Datuk Norma Mansor speaking at the launch (SWRC)*



Weathering Climate Issues with METMalaysia

UM engages with government departments through scheduled site visits and monitoring activities. On 29th May 2024, the Malaysian Meteorological Department (METMalaysia) signed an MoU with UM's Institute of Ocean and Earth Sciences (IOES) for climatology studies, air quality modelling, and atmospheric science as well as maintenance for acid disposition and reactive gas equipment. This is following a visit from a METMalaysia delegation on 22nd April 2024 to the Global Atmospheric Watch (GAW) Station at IOES' Bachok Marine Research Station in Kelantan. The MoU signing was attended by the Deputy Director General (Operations) of METMalaysia, Dr Mohd Hisham bin Mohd Anip; Chairman of Frontiers of the Natural World Cluster, Prof Dr Juan Joon Ching; Director for the Atmospheric Science and Cloud Seeding Division of METMalaysia, Dr Ahmad Fairuz bin Jamaluddin; and Executive Director of IOES, Prof Dr Lim Phaik Eem. Through this MoU, METMalaysia and IOES will collaborate to support the government's efforts in tackling climate change issues by providing data on acid disposition and reactive gases which contribute to global warming.



Above: Deputy Director General (Operations) of METMalaysia and Executive Director of IOES (METMalaysia)

Bottom: MoU signing ceremony (IOES)



Maintaining Law & Order with Act Reviews

UM contributes to keeping local laws up to date by providing expert input during government-led reviews. In a report dated 7th June 2024, *Pusat Perundangan Universiti Malaya* also known as UMConsult prepared a review of the Destitute Persons (Amendment) Act 1977 (Act 183). The review was prepared by a team of academicians from UM's Faculty of Law, Department of Social and Preventive Medicine, and the Department of Social Administration and Justice to be sent to the Ministry of Women, Family and Community Development. The full consultation and research period spanned from 19th September 2022 to 18th June 2024. The review scrutinised the act's existing approaches to enforcement that were deemed irrelevant and needed revising to be more practical. The review also highlights the role of the ministry and other relevant agencies in tackling vagrant issues such as mental health conditions, drug abuse, and illegal immigration.



Above: Cover page of review

Below: Services of *UMConsult* (UMConsult)



Guiding Policies towards Environmental Sustainability



Above: Poster for the programme

Below: Itinerary of the programme



The capacity-building programme “Bridging the Gap: From Policy to Action”, hosted at Rimba Ilmu, UM on 29th June 2024, exemplifies how academic institutions contribute to providing expert advice to government at the local, regional, and national levels. Organised in collaboration with the Ministry of Natural Resources and Environmental Sustainability (NRES), United Nations Development Programme (UNDP), and myBioD, the programme was designed to strengthen policy implementation by translating national conservation strategies into actionable steps.

Through seminars, herbarium visits, and guided fieldwork along the Rimba Ilmu trail, participants were introduced to evidence-based approaches for biodiversity conservation and the role of botanical gardens as ex-situ conservation centers. These activities directly support NRES’s mandate to maintain Malaysia’s rich biodiversity, while also equipping participants with practical knowledge to bridge science, policy, and community action.

The event demonstrates how UM, via Rimba Ilmu, provides specific expert input and evidence to government-linked programmes, reinforcing Malaysia’s broader environmental governance framework. The involvement of NRES and UNDP highlights a multi-stakeholder partnership where expertise from academia informs national-level decision-making, while also enhancing community-level awareness and engagement. By hosting and facilitating this programme, UM not only supports government policy but also plays a pivotal role in capacity-building, policy guidance, and provision of evidence—ensuring that conservation policies are grounded in science and effectively translated into local action.

Sharing the Government's Goal of Reaching the Summit of Sustainability

UM contributes to SDG 16 by engaging in collaborative initiatives with government agencies, providing research expertise, evidence-based insights, and policy recommendations. UM was represented at the Malaysia SDG Summit 2024 in both a plenary session and the SDG Summit Exhibition. The summit was organised by the Ministry of Economy and co-organised by the National SDG Centre, and held from 17 to 18 September 2024 at the Kuala Lumpur Convention Centre (KLCC). The Executive Director of UM's International Institute for Public Policy and Management (INPUMA), YBhg. Datuk Dr. Anis Yusal Yusoff, attended the conference.

UM participated in Plenary 3 (Prosperity) – Livability, focusing on “Uplifting and Addressing Socio-Economic Disparities and Livelihood of Urban Dwellers.” Representing UM in this session was Ms. Esther Ezhil Nanggai, recipient of the Women's National Prime Minister's Youth Award 2024 and a first-year student from the Department of International and Strategic Studies, Faculty of Arts and Social Sciences. Joining the plenary as panellists were the Chief Internal Auditor of FGV Holdings Berhad, Ms. Zalily Mohamed Zaman Khan, and former Rector of the International Islamic University Malaysia (IIUM) and member of the Board of Trustees of Yayasan MySDG, YBhg. Prof. Emeritus Tan Sri Dato' Dzulkifli bin Abdul Razak.

The three discussed recommendations for action, including the creation of anti-corruption governance frameworks and alignment with the National Education Philosophy to nurture well-rounded, ethical individuals. The summit was attended by government ministers, foreign ambassadors, and UN representatives who were eager to hear perspectives from academicians and industry experts.

At the SDG Summit Exhibition, UM was represented by Assoc. Prof. Dr. Rosazlin Abdullah (Institute of Biological Sciences, Faculty of Science), who served as an invited expert (exhibitor) at the All-Party Parliamentary Group Malaysia – Sustainable Development Goals (APPGM-SDG) booth, featuring her community farming project.



Above: UMSDC team with Mr. Asfaazam Kasbani (Director, National SDG Centre)

Below: Ms. Esther Ezhil Nanggai (UM) as a panellist at the Summit



Training Policy & Lawmakers Through Outreach & Education

In 2024, UM deepened its outreach to policymakers and lawmakers through a range of initiatives that bridged academia and governance. From engaging in dialogues on foreign policy and leadership development to hosting forums on religion, culture, and global conflicts, UM provided a platform for informed debate and policy exchange.

These activities not only recognised the interlinkages between peace, culture, and leadership but also underscored UM's role in shaping perspectives on pressing global and regional issues. Through such engagements, UM reaffirmed its commitment to fostering inclusive dialogue and contributing to the strengthening of policy frameworks at national and international levels.

Crafting Policies that Acknowledge Retirees and an Ageing Society

UM holds training and education programmes for government officers and policymakers. From 27th to 29th February 2024, the UM SWRC developed, organised, and executed the Pension and Retirement Professional Programme (PRPP). This included a session titled Fundamentals of Social Protection (FSP) which is designed to equip participants with knowledge of social protection, ageing and the basics of retirement planning. The course was held at Wyndham Grand Bangsar Kuala Lumpur and was attended by members of Employment Insurance System (EIS) Office, Social Security Organisation (SOCSO) Kuala Lumpur, SOCSO Putrajaya, Retirement Fund Incorporated (KWAP), Armed Forces Fund Board (LTAT) and the Inland Revenue Board (LHDN).

The modules taught during the programme were delivered by UM academicians such as SWRC visiting expert Dr Amjad Rabi, Professor Dr. Shahrul Bahyah binti Kamaruzzaman from the Faculty of Medicine, and Datin Prof. Dr. Izlin binti Ismail from the Faculty of Business and Economics. The PRPP is a yearly programme by SWRC that provides professionals in Malaysia and the ASEAN region with multi-level certification on social protection.

Below: Speakers of the PRPP (SWRC)

OUR SPEAKERS

Professor Datin Norma Mansor
Senior SWRC
She has served as an advisor and a consultant to various organisations, including the United Nations Development Programme (UNDP), the World Bank, International Labor Organization (ILO), Organisation for Economic Co-operation and Development (OECD), the European Union (EU), the Asian Development Bank (ADB) and numerous Malaysia public agencies.
As an academic, Professor Mansor has written extensively in books and scholarly journals in the areas of public and social policy, ageing and social protection.
She was awarded Emeritus Professorship by University Malaysia in October 2018. She is also a fellow of the Academy of Sciences Malaysia (ASM) and was the President of the Malaysian Economic Association (MEA). Professor Mansor was recently awarded the CUEPAC's Woman Icon of the Year 2024.

Dr Amjad Rabi
Visiting Expert (SWRC)
Amjad Rabi is a social security economist with experience across many countries at different stages of development. Currently, he is a visiting expert at Universiti Malaysia's Social Wellbeing Research Center (SWRC).
Prior to joining SWRC, Amjad was the Chief Technical Advisor (CTA) on Social Security for the ILO office in Iraq. He had earlier served as the Social Security Advisor to the Employees' Provident Funds Malaysia (EPF). As a social security economist, Amjad has held senior positions in the United Nations (UN) country offices in Malaysia, Nepal, Zimbabwe, Egypt and Argentina, and the UN headquarters in New York and Geneva.
In addition, Amjad has taught at several universities in Canada, Malaysia, the USA, and Palestine. Amjad coached senior officials on social security in many countries and he has delivered specialised training at the ITC-ILG. He holds a Doctorate in International Relations, Master's degrees in the areas of Public Policy, Actuarial Science and Economics.

Dr Halimah Awang
Principal Research Fellow, SWRC
Halimah Awang is a Principal Research Fellow at SWRC. She holds a PhD in Applied Statistics University, from Macquarie University, Australia. Her research interests include social protection, ageing, and mathematics education. She is the project leader for Malaysia Ageing and Retirement Survey (MARS), an ongoing research project jointly funded by the Employees' Provident Fund Malaysia (EPF) and the Asian Development Bank (ADB).
Her other research projects include elder abuse and neglect, savings adequacy among EPF members, social protection programmes in the ASEAN region and Return-to-Work Programme of injured workers for the Social Security Organisation Malaysia (SOCSSO). She has served as a consultant for the Ministry of Women, Family and Community Development, National Population & Family Development Board (NPPF), PLUS Expressways Berhad and the Social Institute of Malaysia.
Prior to joining SWRC, Halimah was a faculty member at the Faculty of Economics and Administration, UM for nearly 30 years. As an academician, she has published extensively in various international journals.

Mark O'Dell
CEO of Insurance Association of Malaysia (IAM)
Mark O'Dell has over 44 years of experience in the life and health insurance business, including 30 years in Asia. Mark holds several designations and distinctions, including Chartered Life Underwriter (CLU), Chartered Financial Consultant (ChFC), Certified Financial Planner (CFP) and registered Financial Planner (RFP). He was recognised by the Asian Insurance Review as the "Insurance Personality of the Year" in 2006 and received the "Outstanding Leaders in Asia" award from ACES (Asia Corporate Excellence and Sustainability) in 2008.
Before where he is now, Mark held several senior management positions with Manulife and AIA, running country life insurance operations in six countries across Asia for more than 24 years. Mark is currently SWRC's Industry Fellow.

Policy Discussions for ASEAN and Beyond

UM top management also had the honour of receiving the visit from His Excellency Andrey Rudenko, Deputy Minister of Foreign Affairs of the Russian Federation. This was in conjunction with his Special Lecture entitled “Russia’s Policy in Asia Pacific Region” on 29th March at AEI. Emphasis was made on the ASEAN-Russia strategic partnership which passed its 6th anniversary mark in 2024 in good shape, showing positive dynamics.

Additionally, a productive meeting was held between UM senate members and the delegation on future driven partnership between UM and the Russian Federation in various impactful sectors. UM’s Vice-Chancellor, Prof. Dato' Seri Ir. Dr. Noor Azuan Abu Osman expressed his gratitude in a Facebook post saying “We are looking forward to a deeper level of partnership and collaboration in a forward-looking model of ties that shape the new future of advancement and prosperity,”.



Above: UM Vice-Chancellor escorting His Excellency

Below: Special public lecture by His Excellency



Public Education on Israel-Gaza-Iran: A Call for Action to Policymakers



Above: Poster for the forum

Below: Mdm Reem al-Minawi speaking at the forum and participants of the forum (APIUM)



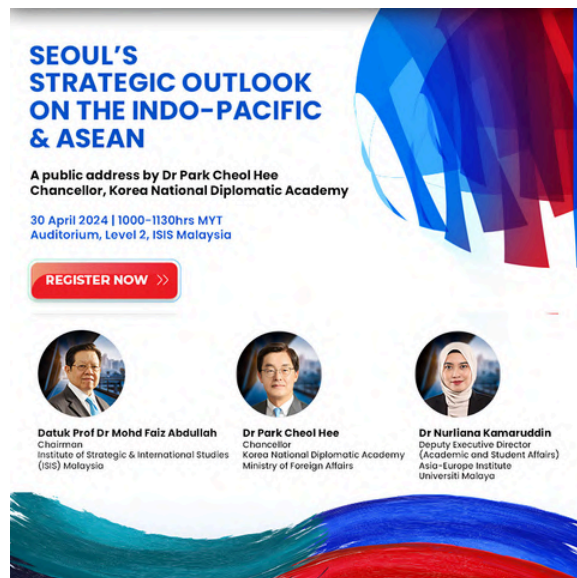
Acknowledging the need for global engagement, UM's communities continue to keep abreast of and exchange views on pressing international issues. On 22nd April 2024, UM's Academy of Islamic Studies (APIUM) hosted a forum titled "West Asian Conflict & Its Effects Towards Global Geopolitics: Israel-Gaza-Iran". The panellists featured Universiti Melaka Malaysia's Dean for their Institute of Graduate Studies and Adjunct Professor of UM, Prof. Dr. Kamaruzaman Yusoff and lecturer from UKM's Centre for International Law and Siyar (CILAS), Prof. Dr. Salawati Mat Basir.

The forum was organised as a part of the academy's Academic Open Week 2024 and received a visit from the family of the Founder and CEO of the non-governmental organisation Cinta Gaza Malaysia (CGM), Tuan Nadir Al-Nuri. The programme uncovered details of Palestine's dark history of occupation, the factors behind Iran's offensive on Gaza, and other related current issues that should be more known, especially for Muslims.

Tuan Nadir's wife, Reem al-Minawi brought their four children from Gaza to the event and shared updates on the latest situation back home, challenges they faced during the ongoing war, and stories of when they survived a collapsing building. This eye-opening session served as an awareness campaign for its attendees as well as a call for action to policymakers and advocates to continue fighting for global peace.

Sharing Perspectives with Policymakers Beyond Borders

UM actively engaged in outreach efforts targeting policy and legislative stakeholders. On 30th April 2024, the Asia-Europe Institute (AEI) attended a public address by the Korea National Diplomatic Academy. The latter's chancellor, Dr Park Cheol Hee, discusses "Seoul's Strategic Outlook on the Indo-Pacific & ASEAN" at the Institute of Strategic and International Studies (ISIS) Malaysia. Dr Nurliana Kamaruddin represented UM as the Deputy Executive Director (Academic and Student Affairs) of AEI in a session which discussed the core lines of efforts in Seoul's strategic repositioning towards the Indo-Pacific. Dr Park also addresses where ASEAN and Malaysia stand in South Korea's overall Indo-Pacific vision and shares his perspectives on Seoul's major foreign policy directions.



Above: Poster for the public address (AEI)

The Value of Leadership for Peace and Justice

The strength of institutions ultimately depends on the quality of their leadership. On 21st May 2024, UM's Centre for Leadership and Professional Development (UM LEAD) and the Russian Presidential Academy of National Economy and Public Administration (RANEPA) announced a collaboration on leadership development. RANEPA's Vice-Rector, Mr. Margolin Andrey Markovich and UM LEAD's Director, Datuk Dr Anis Yusaf Yusoff met in Moscow to announce the signing of the MoU. The gathering was also witnessed by the Malaysian Ambassador to the Russian Federation, Dato' Cheong Loon Lai where discussions were held that could impact the development of leaders of both institutions and countries.

The leaders of both UM and RANEPA believe expanding the current programme will benefit a broader community of existing and aspiring leaders in the private, public, and civil society sectors, thus setting a new standard to contribute to developing the shared potential of UM LEAD and RANEPA.

Below: Vice-Rector of RANEPA with Director of UM LEAD (UM LEAD)



The Power of Strong Institutions Collaborating to Embrace Sustainability

UM actively supports and co-organises capacity-building, education, and outreach programmes. Together with Universiti Tenaga Nasional (UNITEN), the UM Power Energy Dedicated Advanced Centre (UM PEDAC) co-organised the 2024 International Conference on Sustainable Energy, Infrastructure and Environment (ICSEIE). From 14th to 15th October, the conference was held at Le Méridien Putrajaya and was attended by industry leaders, researchers, policymakers, and experts in sustainability, energy, infrastructure, and environmental protection. With the theme of "Embracing Sustainability: Accelerating Energy Transition for a Greener Tomorrow", the conference aimed to address the challenges and opportunities in the global shift towards clean energy. This included discussions on sustainable infrastructure, renewable energy, environmental policies, and green innovations.

Through its involvement in collaborative outreach programmes such as these, UM hopes to help shape effective policies and practices in Malaysia.



Above: Poster for ICSEIE 2024 (UMPEDAC)

Outreach to Regional Institutes of Justice

UM's pursuit of peace and justice is underscored by its outreach initiatives to other strong institutions. On 1st November 2024, the chancellery welcomed a courtesy visit from the Chief of the Political Department of the Ministry of Justice, His Excellency Mr Huang Yi from the People's Republic of China. He was personally received by UM's Vice Chancellor, Prof. Dato' Seri Ir. Dr. Noor Azuan Abu Osman and other members of top management. UM took the opportunity to present its significant achievements in academic collaborations with China, namely 158 agreements and over 5,597 co-authored publications. Meanwhile, H.E. Mr. Huang Yi outlined his Ministry's vital role in legislative drafting, legal education, and fostering global legal expertise.

Discussions during the visit explored opportunities for collaboration including joint research in international law, faculty and student exchanges, and the incorporation of practical legal training within academic curricula. This engagement highlights UM's commitment to playing a pivotal role in shaping the future of collaboration and international law in the Asia-Pacific region.



Right: H.E Chief of Political Department China with UM's Vice-Chancellor (IRC)

The Role of Culture and Religion in Achieving the SDGs

Any meaningful discussion of peace must also take into account culture and religion. From 1st to 4th December 2024, UM's Faculty of Arts and Social Science hosted the 10th South and Southeast Asian Association for the Study of Culture and Religion (SSEASR) conference. This represents a regional conference of the International Association for the History of Religions (IAHR), Member of International Council for Philosophy and Humanistic Studies (CIPSH) under the auspices of UNESCO. For the 10th SSEASR, the theme was "Sustainability in Cultural and Religious Traditions in South and Southeast Asia". Scholars, research students, and other relevant social scientists were invited to present their research at the conference or to participate as panels. In addition to the two-day conference, a pre-conference and post-conference tour was held for participants to explore Malacca city and Kuala Lumpur cultural and heritage icons respectively. Throughout the four-day event, participants discussed current global methodological trends for academic study of religion to achieve the SDGs of the 21st century.


THIRD ANNOUNCEMENT
10th SSEASR Conference
Sustainability in Cultural and Religious Traditions in South and Southeast Asia
A Regional Conference of the International Association for the History of Religions (IAHR), Member of CIPSH under the auspices of UNESCO
Date : 02-04 December (Monday-Wednesday) 2024
Host : Faculty of Arts and Social Sciences, Universiti Malaysia, Kuala Lumpur, Malaysia


TOUR FEES AND ACCOMMODATION INFO

Pre-conference Tour 1 December 2024 Melaka Historical City	Post-conference Tour 4 December 2024 Kuala Lumpur Cultural & Heritage Icons
Taming Sari Tower A Famosa Fort Ruins St. Paul's Church Jonker Street Dutch Square (Red Square) Melaka River Cruise - Baba Nyonya Heritage Museum Christ Church Melaka Melaka Sultanate Palace Mini Malaysia & ASEAN Cultural Park	KLCC Batu Caves Pasar Seni Museum Dataran Merdeka Petaling Street Jamek Mosque Sultan Abdul Samad Building Thean Hou Temple Masjid Wilayah
Pre-Conference Tour fee: USD70 Post-Conference Tour fee: USD50 Combo Package (Pre and Post-Tour) fee: USD100	

Note:

1. Pre and post-conference tour fees are additional to registration fees.
2. Tour only includes transportation, tour guide and snacks. Meals and entrance fees to spots are to be borne by participants.
3. All tour starts and ends at the Faculty of Arts and Social Sciences, Universiti Malaysia.
4. Go to **e-pay UM** and search '10th SSEASR Conference 2024 Tour' to proceed for payment. Kindly state in the description your desired tour package.

ACCOMMODATION RATE

1) HOTEL ARMADA PETALING JAYA ★★★★★ Deluxe Room (Deluxe King/Deluxe Twin) • RM 200.00 nett per room / night with 1 breakfast • RM 250.00 nett per room / night with 2 breakfast	3) URBAN LIVING, MAHSA AVENUE ★★★★★ Standard Queen • Student price: RM100.00 nett per room / night (no breakfast) • Normal: RM200.00 nett per room / night (no breakfast)
2) CITITEL MID VALLEY HOTEL ★★★★★ • All rooms are available with special 10% off discount. • Corporate code is valid only from 25th November to 12th December 2024	

Note:

1. All paid registered participants will be emailed for accommodation booking code/corporate code to be eligible for shown rate.
2. All rate shown is excluding Tourism tax RM10.00/room/night.
3. Transportation to and fro Universiti Malaysia is provided only for the accommodation above.

15 October 2024 | Deadline for registration and payment
View more information here!
<https://sites.google.com/um.edu.my/10thsseasr2024>








Above: Itinerary and accommodation for SSEASR 2024

Below: Sub-themes and dates for SSEASR 2024 (HBRC)

Sub-themes

- Arts, Architecture and Archaeology
- Community based sustainable tourism
- Language and Literature
- Rethinking the Study of Religion in the Region
- Personalities and Organisations

- Malaysian Culture and Religion: Past and Present
- Issues of South and Southeast Asian Diaspora
- Pilgrims and Pilgrimage Centres
- Trade Routes: A Carrier of Culture and Religion

Scholars, early career researchers, research students and other relevant social scientists are invited to participate in the conference and present the findings of your research related to the sub-themes mentioned above. Panels are also welcome.

Submitted papers shall be in either **English language** or **Bahasa Malaysia**.

IMPORTANT DATES

DEADLINE

15 October 2024 | Deadline for panel title and abstract submission
15 October 2024 | Deadline for individual paper title and abstract submission

15 October 2024 | Deadline for registration and payment
02-04 December 2024 | Conference

UM's Contribution to Government-led Research

UM actively contributes to government-led research initiatives that advance national priorities and strengthen policy implementation. Up to 163 UM researchers are spread across various government departments backed by funders including the Ministry of Higher Education (MOHE), *Institut Penilaian Negara* (INSPEN), and the Ministry of Science, Technology, and Innovation (MOSTI).

In 2024, UM's participation ranged from anti-corruption studies with the Malaysian Anti-Corruption Commission (MACC) to biodiversity conservation with the Department of Fisheries, poverty eradication strategies with the Ministry of Economy, and clinical trials aligned with national healthcare goals.

These collaborations demonstrate UM's capacity to provide scientific expertise and practical solutions, reinforcing its role as a key research partner in shaping effective, evidence-based policies for Malaysia's sustainable development.

Joint Medical Research Aligned with National Health Policies

UM's participation in government research is also seen in their contribution to clinical trial site services for national research priorities. A team from the Clinical Investigation Centre (CIC) of UM Medical Centre (UMMC) led by Assoc. Prof. Dr. Adlinda Alip achieved remarkable clinical trial success as the top recruitment site for the ASCENT-07 trial, a series of trials investigating drugs to fight breast cancer. This study investigated the efficacy of sacituzumab govitecan, a drug-antibody conjugate compared to the treatment of physician's choice in patients with advanced breast cancer. Activated on 16th February 2024, the trial achieved impressive results with recruitment closing on 24th July 2024. Moreover, the first subject was screened within 5 days of site activation, demonstrating the team's efficiency and dedication.

UMMC successfully recruited 7 subjects in just five months, exceeding the initial target of 3 subjects. UMMC's performance not only established it as the top enroller in Malaysia but also the top enroller across Southeast Asia for ASCENT-07. This milestone demonstrates UM's alignment with national healthcare policies and commitment to improving treatment access for patients in Malaysia.



Right: The team that achieved the South East Asia Top Enroller recognition for the ASCENT-07 trials (CIC)

Something Fishy: Collaborative Research on Invasive Lake Species

UM's participation in government research covers various sectors. Following a previously signed MoU in 2022 with the Malaysian Department of Fisheries (DoF), a juvenile fish releasing event was held at Tasik Varsiti UM on 18th July 2024 in DoF's first-ever initiative on any university campus in Malaysia. This initiative was sparked by findings in Fish Inventory Research, which identified a predominance of invasive species in the lake.

To restore native biodiversity and reduce alien fish impact, up to 36,600 fish consisting of local species were released into the lake. These included 10,000 Terbul (*Osteochilus hasseltii*), 300 juvenile and 24 adult Kelah (*Tor tambroides*), 300 Baung (*Hemibagrus bleekeri*), and a significant number of Lampam Sungai (*Barbonymus schwanenfeldii*), among others. The half-day event was attended by the Deputy Director-General of Fisheries (Management) of DoF, Tuan Haji Wan Muhammad Aznan Abdullah; Deputy Vice Chancellor (Research and Innovation), Prof. Ir. Dr. Kaharudin Dimiyati; Deputy Vice Chancellor (Development), Prof. Ir. Dr. Ramesh Singh a/l Kuldip Singh; Associate Vice-Chancellor (Corporate Strategy), Prof. Dr. Yahaya Bin Ahmad; and Director of the Eco Campus, UM Sustainable Development Centre (UMSDC) Dr. Muhammad Azzam Ismail; along with staff from both UM and DoF.

Alongside the fish releasing, participants had the opportunity to engage in a brief site visit to booths showcasing year-round photographs of the lake. DoF also held an exhibit showcasing prohibited fishing methods in Malaysia, such as the use of fishing bombs and electric shocks. This partnership can be seen as a catalyst to facilitate further collaborative research activities between UM and DoF, contributing to sustainable development and environmental stewardship in Malaysia.



Above: Highlights from the event (DoF, UMSDC)

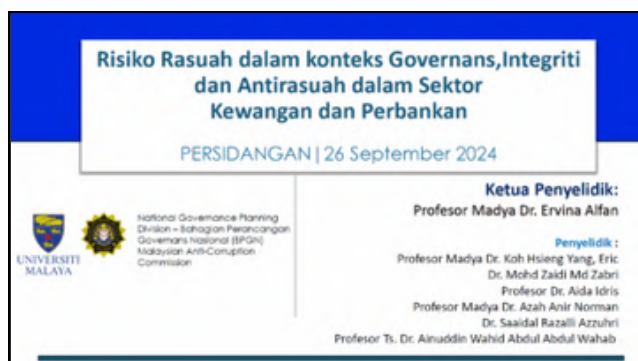
Commitment to Anti-Corruption Research with the Government

Besides providing expert advice to the government, UM also regularly participates in government-led research initiatives. UM has formed a research collaboration with the National Governance Planning Division of the MACC, where research grants were awarded by MACC to 10 research entities from 2023 to 2024. From 26th to 27th September 2024, a National Research Conference themed "Confronting the Threat of Corruption: Collective Eradication" was held to present the results of their research.

Approximately 400 participants from a variety of private and public agencies attended the conference which was officiated by YBhg. Tan Sri Dato' Sri Shamsul Azri bin Abu Bakar, the Chief Secretary to the Government (KSN). Among the researchers were two from UM namely Dr. Irene Yong Seok Ching presenting "Risiko Rasuah, Integriti dan Governans dalam Sektor Pertanian di Malaysia" and Prof. Madya Dr. Ervina Alfian presenting "Risiko Rasuah dalam konteks Governans, Integriti dan Antirasuah dalam Sektor Kewangan dan Perbankan".



Above: UM's stance on corruption (*Integrity Unit*)



Left: Presentation 1 from the conference titled 'Risiko Rasuah dalam Konteks Governans, Integriti dan Antirasuah dalam Sektor Kewangan dan Perbankan'

Below: Presentation 4 from the conference titled 'Risiko Rasuah, Integriti dan Governans dalam Sektor Pertanian di Malaysia' (*MACC*)



Researching the Role of the Government in Eradicating Poverty

UM also supports the research and development of effective policies aimed at improving the lives of Malaysians. On 30th September, the 2024 National Symposium: Eradicating Poverty was held at PICC. The symposium was held by the Ministry of Economics and assembled stakeholders and experts to discuss strategies for poverty alleviation in Malaysia. The director of UM SWRC, Professor Datuk Norma Mansor moderated a session titled "The Role and Approach of the Government in Eradicating Poverty: The Need for Restructuring?".

She was joined on stage by CEO Institute for Development Studies Sabah, Associate Professor Datuk Ts Dr Ramzah Dambul and Member of the Policy Advisory Committee to the Prime Minister, Professor Dr Yeah Kim Leng as panellists. The symposium, themed "*Bersama, Berdaya dan Mampan*" (Together, Empowered and Sustainable), outlined five initiatives: enhancing measurement, reforming poverty eradication funds, unifying data, changing attitudes and mindsets, and strengthening efforts to end poverty.



Above: Poster for the symposium (SWRC)

Below: Launching ceremony of the symposium (Ministry of Economy)





Partnerships for the Goals

Strengthen the means of implementation and revitalise global partnerships for sustainable development.



Muafakat Membawa Berkah

SDG 17, which promotes partnerships and collaboration to achieve sustainable development, is well represented by the classical Malay peribahasa "*Muafakat membawa berkat*" (consensus brings blessings). This saying highlights the importance of unity, cooperation, and shared purpose in achieving meaningful outcomes.

At UM, this value is embraced through strategic collaborations with local communities, government agencies, international institutions, and industry partners. These partnerships drive impactful research, knowledge exchange, and community development efforts that support the broader SDG agenda. By working together across disciplines and borders, UM reinforces the idea that true progress is built on collective strength and mutual respect.

Strengthening Regional and Global Partnerships

Universiti Malaya (UM) has demonstrated direct involvement with government and non-government organisations (NGOs) on the regional and national scale. Emphasis is placed on SDG policy development which includes identifying challenges, developing strategies, modelling possible futures with and without intervention, reporting on interventions, and facilitating adaptive management.

Throughout 2024, initiatives such as the Partnerships in Accelerating SDGs programme, the "Building a Cradle-to-Grave Care Economy for Malaysia" policy paper launch, and the Transformational Sustainability Leadership Model are examples of UM's relationships with government and NGOs for SDG policy. These efforts, among many others involving UM, all lead to advancing various SDGs through the power of collaboration. UM will continue to place its trust in and cooperate with government bodies and NGOs for a more sustainable future.

Partnerships to Accelerate the SDGs

UM has direct access to government organisations and regional NGOs for reviewing and developing SDG policies. UM had the privilege of joining the All-Party Parliamentary Group Malaysia for the Implementation of the Sustainable Development Goals (APPGM-SDG) in their 1st meeting of its "Partners in Accelerating SDGs" series for 2024. The meeting was held at APPGM-SDG's Secretariat office in Petaling Jaya, Selangor on 5th February. APPGM-SDG invited representatives from UM including members from UM Sustainability Development Centre (UMSDC) and UM Community Engagement Centre (UMCares) while the external organisations present included the National SDG Centre under the Ministry of Economy Malaysia, MySDG Foundation, and Yayasan Hasanah under the sovereign wealth fund of Malaysia Khazanah Nasional Berhad. The meeting acted as a platform for all stakeholders present to foster collaboration and discuss strategies to accelerate progress towards achieving the SDGs for Malaysia.

Participants also took the opportunity to highlight the critical role of Higher Education Institutions (HEIs) in driving SDGs implementation through research (SDG 9) and education (SDG 4). Collaborations such as these foreground UM's focus on sustainable development (SDG 11) and sustainability partnership (SDG 17).

Below: Highlights from the "Partners in Accelerating SDGs" Meeting (UMSDC)



Shaping Policies to Achieve the SDGs

UM's collaborative efforts also extend to NGOs that also champion SDGs. In June 2024, UM worked with the Women's Aid Organisation (WAO), a Malaysian non-profit organisation working to advance gender equality and end violence against women. Director of UM Social Wellbeing Research Centre (SWRC), Prof Datuk Dr Norma Mansor contributed to the launch of a policy paper titled "Building a Cradle-to-Grave Care Economy". The paper was a joint effort between members of SWRC, WAO, Institute of Strategic and International Studies (ISIS) Malaysia, and Universiti Utara Malaysia (UUM). The team addressed the increasing demand for care services due to Malaysia's ageing population and shrinking labour force in the policy paper. The launch of the policy paper was accompanied by a panel discussion on 21st June 2024 at ISIS Malaysia's auditorium. Research programmes and policy reviews such as these show how UM works with NGOs to drive economic growth (SDG 8), empower marginalised groups (SDG 10), and ensure equitable policies (SDG 16).



Above: Policy paper titled "Building a cradle-to-grave economy for Malaysia (ISIS Malaysia)"

Below: Members of SWRC at the policy paper launch (SWRC)



Supporting the National Planetary Health Action Plan



Above: Highlights from the workshop (UMSDC)

UM's relationship with the government and NGOs involves providing input through capacity building and awareness workshops. From 28th February to 1st March 2024, UM's Centre for Civilised Dialogue (UMCCD) organised a capacity building pilot workshop on Transformational Sustainability Leadership Module for the National Planetary Health Action Plan (TSLM -NPHAP). The programme was funded by the Academy of Sciences Malaysia (ASM) under the Ministry of Science, Technology, and Innovation (MOSTI). Several committees from UM's sustainability network came together to make this workshop a success namely UMCCD, UMSDC, UM STEM Centre, Institute of Advanced Studies (IAS), the Department of Science and Technology Studies (STS) from the Faculty of Science, Rimba Ilmu, and UM Zero Waste Campaign (ZWC).

The workshop aimed to catalyse transformational sustainability leadership, thus equipping participants with the drive to make transformative change and exchanges. Participants of this workshop were a mix of government and NGO members such as Institut Masa Depan Malaysia (MASA), GRASS Malaysia, Yayasan Sime Darby, UKM-YSD Chair for Sustainability, Angkatan Belia Islam Malaysia (ABIM), Bahá'í Centre Malaysia, Institut Kefahaman Islam Malaysia (IKIM), and Sunway University - Sunway Centre for Planetary Health. At the end of the programme, participants gained a deeper understanding of planetary health complexities (SDG 13), policy formulation for sustainable practices (SDG 11), and the importance of collaboration to achieve the SDGs (SDG 17).

ESD for the SDGs: UM as an ESD Strategic Partner

UM's efforts to achieve the SDGs also align with the Education for Sustainable Development (ESD) framework. On 3rd July 2024, the Secretary-General of the Malaysian National Commission for UNESCO (MNCU), Fadzilah Fadzil representing H.E. Fadhlina Sidek, Minister of Education (MoE) Malaysia and the President of MNCU, officiated the opening ceremony of the ESD for 2030 Asia Pacific Regional Meeting on Transforming the Futures of Education: Mainstreaming Education for Sustainable Development in Learning Systems, at Sunway University. There, she announced the formation of the National Coalition of ESD Strategic Partners that will be tasked with action planning on ESD implementation encompassing policy, learning environments, educator capacity-building, youth engagement, and local-level action. Members of the coalition include MoE, the Sustainable Development Solutions Network (SDSN), WWF Malaysia, Green Growth Asia Foundation, Amanah Lestari Alam, and experts from Sunway University, UM, and Nottingham University Malaysia. As an HEI in Malaysia, UM has a responsibility to integrate ESD principles into its educational frameworks.

This sentiment was highlighted by Madam Fadzilah during the meeting when she explained how Malaysia is paving the way for young people to relate how and what they learn to make a difference, becoming active agents of positive change, equipped with the ethical awareness and critical thinking skills to tackle complex global issues such as poverty (SDG 1), inequality (SDG 10), climate change (SDG 13), and biodiversity loss (SDG 14 & 15).



Above and below: Audience and speakers of the meeting (SDSN, UNESCO)



SDG Dialogue Across Sectors

The SDGs are a call for action that encompasses all sectors. As such, dialogue surrounding the SDGs often links various disciplines that otherwise do not interact. From areas such as circular economics, sustainability in religion, and youth leadership, cross-sectoral dialogue remains dynamic and updated. Special emphasis is placed on dialogue involving the youth as they represent the future drivers of sustainable practices. In 2024, UM had the privilege of involving their youngest undergraduate since the university's establishment in talks on sustainability.

Dialogue is often the first step in realising partnerships before execution. With a vision as comprehensive and impactful as the SDGs, UM's dedication to sustainability is underscored by the quality and quantity of cross-sectoral dialogue initiatives it participates in.

A Date with Earth: A Circular Economy Fair

UM facilitates cross sectoral dialogue about SDGs by involving the government and NGOs in activities on campus. On 18th May 2024, UMZWC under IAS organised “A Date with Earth: A Circular Economy Fair”. Visitors to the fair were met with a preloved items market, an oil recycling and buyback centre, and a circular economy talk by Malaysian Green Tech and Climate Change Corporation (MGTC) under the Ministry of Environment together with Kawan Guni, a registered social enterprise under the Ministry of Entrepreneur and Cooperatives Development. The event served as an interactive way to educate the public on sustainable resource production and consumption (SDG 12) through collaboration with relevant agencies (SDG 17).



Above: Poster for the talk (*IAS*)

Connecting Islam to Sustainability: Religious Dialogue for the SDGs

Sustainability impacts several aspects of life, and religion is one of them. On 12th August 2025, UMCCD organised and hosted a public lecture titled "Islam for Sustainability and Well-being: A Civilisational Dialogue". UM had the privilege of welcoming Sociologist Fellow and Collaborator from Hokkaido University, Professor Dr. "Sensei" Yusuf Morishita to present the lecture. His presentation showed the connection between Islam and sustainability with focus on how Islam can enhance sustainability in Japan's social environment. Islam's contribution to sustainability through sociological and cultural perspectives was observed from the POVs of SDG 3, SDG 11, and SDG 17. Sensei touched on the concept of Ummah in Islam which is a type of inclusive community that offers traits like borderlessness, inclusivity, and quality social bonds. His discussion also included how the expansion of the Islamic Ummah in Japan and the role of individual Muslims may contribute to harmonious communities. According to Sensei, by embodying Islamic principles and practicing respect and integration with Japanese standards, Muslims can contribute to a more harmonious and inclusive community which benefits both Muslims and non-Muslims. The takeaway from the lecture is that sustainability may not only refer to just maintaining well-being but also facilitating growth via shared ideals and mutual respect to ensure that communities thrive.



Above: Sensei Yusuf Morishita delivering his talk on the connection between Islam and sustainability (UMCCD)

Discussions for Youth Sustainability Leadership

One objective of cross sectoral dialogue is to prompt action to achieve the SDGs. On 27th August 2024, UMCCD with Senior Lecturer from the UM Academy of Islamic Studies (APIUM), Dr. Majed Fawzi Mohammad Abughazalah had an online collaborative discussion with an expert from the Islamic World Educational, Scientific and Cultural Organization (ICESCO) in Morocco, Dr Hani Al Balawi. The meeting aimed to reinforce collaboration through joint efforts (SDG 17) in organising conferences, seminars, and talks on cultural exchange (SDG 11) and civilisational dialogue. During the meeting, UMCCD presented a proposal on Youth Sustainability Leadership for ICESCO's consideration (SDG 16).



Above: Participants of the online discussion with ICESCO (UMCCD)

Below: UM's young genius, Izz Imil Shahrom (Corporate@UM), Izz Imil Shahrom at Festival of Ideas (Prime Minister's Office)

UM's Young Genius, Izz Imil Shahrom on the SDGs

UM amplifies the voices of the youth in dialogue surrounding the SDGs. From 27th to 29th November 2024, the first ever Putrajaya Festival of Ideas (FOI) was held at PICC with a special appearance from UM's young genius, Izz Imil Shahrom. The Putrajaya FOI is a new initiative by the Ministry of Higher Education (MOHE) Malaysia to gather thought leaders, experts, policymakers, academics, industry professionals, and the public on a prestigious platform to share innovative ideas to current national and global challenges.

On Day 2 of the event, the child prodigy spoke in a session titled "Idea Masa Depan Malaysia" with Prime Minister Dato' Seri Anwar Ibrahim. He envisions his future as a mathematics lecturer who contributes to global sustainable development initiatives by addressing issues concerning the SDGs. At 12 years old, Izz is the youngest student to enrol in UM since the university's establishment in 1962. He joined the 2024/2025 session as a Bachelor of Science in Mathematics after undergoing an interview with a special committee appointed by UM.



International Collaboration and Best Practices

As the foremost research university in the country, UM spares no expense when it comes to international collaborations for data gathering and formulating the best practices to achieve the SDGs. UM's research spans areas such as health and medicine, climate action and water security, as well as even the role of the arts and humanities sectors in their pursuit for more sustainable practices. 2024 saw UM host international research delegates, participate in symposiums, and organise conferences dedicated to sustainability research.

Through these international collaborations, UM's emphasis on partnerships for the goals is evident. By gathering data and exchanging ideas from prominent research figures in related fields, UM is dedicated to fine-tuning its practices to better contribute to achieving the SDGs.

Joint Health Research Between East and West

UM also welcomes international delegates interested in establishing collaborations for SDG data collection. On 16th April 2024, UM's Tropical Infectious Diseases Research & Education Centre (TIDREC) received a delegation from the Public Health Division, Defense Health Agency (DHA), United States Department of Defense. The US delegation consisted of nine people and was led by Director of Public Health DHA, Rear Admiral Brandon L Taylor. The delegation group also featured Commanding Officer from the US Naval Medical Research Unit Indo Pacific, CAPT Jonathan Stahl.

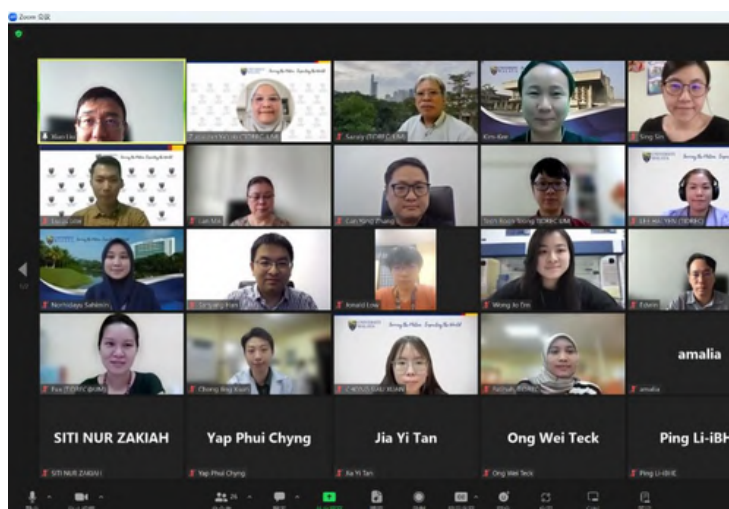
Receiving them at UM was Deputy Vice Chancellor (Research and Innovation), Professor Ir. Dr. Kaharudin Dimyati at the High Impact Research (HIR) building. The delegates were subsequently brought on a guided tour of the research facilities and labs available at TIDREC. The purpose of the trip was to strengthen existing research and data collection collaborations (SDG 17) and discuss further collaborations of a higher level in health and disease research (SDG 3).

Below: Delegates from the US Department of Defense (TIDREC)



International Data Gathering for Health and Immunity

UM's efforts towards collaboration extend to online platforms in addition to physical platforms. On 10th May 2024, an online symposium was held between TIDREC and the Institute of Biomedical and Health Engineering (iBHE) at the Tsinghua University Shenzhen International Graduate School (SIGS), China. The symposium was jointly organised by UM and iBHE's Liuxiao Immunomics Lab. This meeting represented a follow-up to SIGS' visit to UM on 11th January 2024. The aim of the meeting was to advance understanding and collaboration (SDG 17) between researchers of TIDREC and iBHE while enhancing scientific research and technology development for human health (SDG 3). Officiating the symposium were director of TIDREC, Professor Dr. Sazaly Abu Bakar and associate dean of iBHE, Professor Dr. Xing Xinhui. Up to 30 researchers, teachers, and students attended the symposium featuring presentations on vaccines, infections, and immunity research.



Above: Participants of TIDREC-iBHE online symposium (Liuxiao Lab)

Best Practices for Our Water



Above: Poster for the public forum (UMSDC)

As part of World Environment Day 2024, UM prepared platforms for developing SDG best practices through collaboration. On 8th June 2024, a panel discussion titled “Guarding Our Water Together” was jointly organised by UMSDC, Monash University Malaysia, and PJ SEED 5.0 Sustainable Community Project. The public forum addressed critical environmental issues and explored innovative solutions, with special highlights on water conservation and plastic pollution. Panel members include Dr. Faddrine Jang from Monash, Assoc. Prof. Dr. Nurhidayatullaili Muhd Julkapli from NANOCAT, and Mr. Affan Nasaruddin from UMSDC and Water Warriors. Topics shared that day include "Trash Talk: The Underwater Drama of Plastic Pollution" (SDG 13), “Advancements in Water Security: Harnessing Advanced Materials for Purification and Protection” (SDG 6), and “Water Warriors Living Lab: Restoration of Tasik Varsiti, Universiti Malaya Through ‘Heartware - Hardware - Software’ Approach” (SDG 14).

Utilising Art and Science for the SDGs

In the pursuit for sustainability, UM takes inspiration from both the sciences and humanities. On 12th and 13th June 2024, UM held the International Conference on Enhancing ArtScience in the Age of Sustainability (ICASAS'24). The combined efforts of UMCCD, IAS, Azman Hashim Chair of Music Universiti Malaya, and Universiti Malaya UNESCO Club (UMUC) made the conference a success. As teased in the official poster for the event, sub-themes of the conference include ArtScience for Achieving a More Complete and Universal Understanding of the Sustainability Imperative; ArtScience for Understanding Human Experience of Nature through the Synthesis of Scientific Exploration and Artistic Expressions; Teaching Art, Science, Technology, Engineering and Mathematics in an Integrated Manner; and ArtScience for the Rehumanisation of all Knowledge.

ICASAS'24 brought together a diverse range of professionals from their respective specialties where a total of 16 presentations were given over two days. Alongside presenters from UM were external research organisations and universities such as the International Institute of Islamic Thought and Civilisation (ISTAC), IIUM; University of Cairo, Egypt; Institute for Oriental Philosophy (IOP), Japan; Universiti Utara Malaysia; and the Malaysian Agricultural Research and Development Institute (MARDI). This conference aims to continue to become an opportunity for researchers to collaboratively exchange data on their research (SDG 17), highlight the vital roles of stakeholders and policymakers for sustainability (SDG 16) and realise the importance of ArtScience for planetary health and wellbeing (SDG 3, SDG 13).

Below: Poster for the conference (UMCCD) (left) and scenes during the International Conference on Enhancing ArtScience in the Age of Sustainability (ICASAS'24) (right)



UNIVERSITI MALAYA

INTERNATIONAL CONFERENCE

Enhancing Art Science in the Age of Sustainability

In the current era of great concern for planetary health, the sustainability approach in every field of human endeavour, be it theoretical or practical is no longer a choice but is an inevitable imperative. More than sufficient scientific evidence is now available to substantiate the move towards a mode of living (better described through 'art') that is more reverential and more suited to the actual carrying capacity of the planet. In fact, scientists are today calling for the humanities and the arts to help change human perception and behavior towards this end.

The Ecoteracy Centre in California for example has identified 15 core competencies that we need to develop for living in sustainable communities. These competencies include the harmonised functioning of the head (cognitive), heart (emotional), hand (action), and spirit (connectivity) which in reality encompasses the ArtScience elements of life and/or of the human being.

Future solutions towards sustainability also rest in STEM (science, technology, engineering, and mathematics) that is enriched/enhanced by art and values (referring to the move from STEM to STEAM/STREAM) among the scientific community. Unfortunately, however, this fact is still not much understood today. The ArtScience element/factor is also critical in the implementation of the MADANI spirit which aims to elevate the nation to a better civilisational and peaceful condition.

Sub-themes:

- 1) Art Science for Achieving a More Complete and Universal Understanding of the Sustainability Imperative.
- 2) Art Science for Understanding Human Experience of Nature through the Synthesis of Scientific Exploration and Artistic Expressions.
- 3) Teaching Art, Science, Technology, Engineering and Mathematics in an Integrated Manner.
- 4) Art Science for the Rehumanisation of all Knowledge.

Call for Abstracts:

- Deadline: **15 May 2024**
- Selected papers will be published in the KATHA Journal/monograph

The conference features the following:

- Keynote presentations
- Forum

**SEATS ARE LIMITED
CERTIFICATES ARE PROVIDED**

12 - 13 JUNE 2024 | WEDNESDAY - THURSDAY
9.00 AM - 4.00 PM
Auditorium, Ground Floor, Block B,
Institute for Advanced Studies (IAS), Universiti Malaya

FREE!!

ORGANIZERS

- Universiti Malaya Centre for Civilisational Dialog (UMCCD)
- Institute for Advanced Studies (IAS)
- Universiti Malaya
- Azman Hashim Chair of Music

CONTACT INFORMATION: Tel. 05-79677292
Email: dialog@um.edu.my

REGISTRATION



Partnerships for Ethical Health Practices

UM understands the value of partnerships when developing the best international practices to tackle the SDGs. A forum titled “Ethics in global health interventions” was held at the Auditorium of Mercu Alam Bina, UM on 24th July 2024. The forum was held under the APRU SDG Education for Global Citizenship (APRU SDG4GC), a collaboration programme by the UN together with UM and five other partner universities. APRU SDG4GC represents an intercultural, transdisciplinary, and interactive programme that fosters global citizenship (SDG 17) among students from 61 universities in 18 economies across the Pacific Rim. The objective of this forum was to explore the nuanced ethical considerations vital to the implementation and design of health initiatives across diverse cultural landscapes.

Panellists of the forum include Former Director for the Institute for Clinical Research at National Institutes for Health (NIH), Datuk Dr Kalaiarasu M. Peariasamy; Associate Public Health Officer from the United Nations High Commissioner for Refugees (UNHCR), Dr Susheela Balasundram; and Associate Professor at UM’s Faculty of Medicine, A/P Dr Tharani Loganathan. The forum acknowledges the complex ethical challenges in global health interventions (SDG 3) and subsequently attempts to foster a comprehensive understanding among those facing ethical dilemmas in the field.



Above: Participants and speakers of the forum (Faculty of Medicine)

Global Collaborations for Climate Action

UM makes sure to allocate resources to enable opportunities for international data gathering collaborations. From 11th to 22nd November 2024, the UN Intergovernmental Panel on Climate Change (IPCC) held its 29th Conference of the Parties (COP29) in Baku, Azerbaijan. UM's Climate Change Advisory Committee sent two of its members to attend the COP29 Malaysia Pavillion: Opening Plenary Session on 11th November. They were the Director of UMSDC, Associate Professor Dr Zeeda Fatimah Mohamad and Dean of the Faculty of Languages and Linguistics, Professor Dr Surinderpal Kaur.

The session, co-organised by MGTC, the Ministry of Natural Resources and Environmental Sustainability (NRES), and PEMANDU Associates, was held to set the stage for the coordination of Malaysia's participation at COP29 with all attending parties. There, an opening keynote was given by the Secretary General of the NRES, YBhg. Datuk Dr. Ching Thoo A/L Kim in the morning and a presentation titled "Attracting Green Investments into the Nation" was delivered by Group CEO of MGTC, Ir. Ts. Shamsul Bahar Mohd Nor. The theme for COP29 was "In Solidarity for a Green World" with the aim of gathering world leaders and stakeholders to exchange data (SDG 16) and discuss strategies to address climate change (SDG 13).



Above: Associate Prof Dr. Zeeda and Prof Dr. Surinderpal at COP29

Below: Members of the UM Climate Change Advisory Committee (UMSDC)

Meet Our Team

UM Top Management

Professor Dato' Seri Ir. Dr. Noor Azuan Abu Osman
Vice-Chancellor
Universiti Malaysia
vc@um.edu.my

Professor Ir. Dr. Kaharudin Omyati
Deputy Vice-Chancellor (Research & Innovation)
kaharudin@um.edu.my

UM Climate Change Advisory Committee Co-Chairs

Associate Professor Dr. Helena Muhamad Varkkey
Department of International and Strategic Studies
Faculty of Arts and Social Sciences
helena@um.edu.my

Dr. Sheeba Nettukandy Chenoll
Department of Geography
Faculty of Arts and Social Sciences
sheeba@um.edu.my

Members

Professor Ts. Dr. Jeyraj Selvaraj
Universiti Malaysia Power Energy Dedicated Advanced Centre (UMPEDAC)
jeyraj@um.edu.my

Professor Ir. Dr. Shaliza Ibrahim
Institute of Ocean and Earth Sciences (IOES)
shaliza@um.edu.my

Associate Professor Dr. Amy Then Yee Hui
Institute of Biological Sciences
Faculty of Science
amy_then@um.edu.my

Associate Professor TPr. Dr. Goh Hong Ching
Department of Urban and Regional Planning
Faculty of Built Environment
gohh@um.edu.my

Associate Professor Dr. Surlinderpal Kaur Chanan Singh
Department of English Language
Faculty of Languages and Linguistics
surlinder@um.edu.my

Associate Professor Dr. Zeeda Fatimah Mohamad
Director
Universiti Malaysia Sustainability and Development Centre (UMSDC)
zeeda@um.edu.my

Dr. Fong Chng Saun
Institute for Advanced Studies (IAS)
fongcs2@um.edu.my

Dr. Jillian Ooi Lean Sim
Department of Geography
Faculty of Arts and Social Sciences
jillian_ooi@um.edu.my

Dr. Muhammad Shazril Idris Ibrahim
Department of Civil Engineering
Faculty of Engineering
shazrilidris@um.edu.my

05

NGO Collaborations: Volunteering, Research, & Education

The United Nations defines non-governmental organisations (NGOs) as a non-profit organization, group or institution that operates independently from a Government and has humanitarian or development objectives. UM acknowledges the valuable contributions of NGOs and actively collaborates with them for sustainability projects.

In 2024, NGOs such as APPGM-SDG, EcoKnights, and Hara Makers worked together with UM through volunteering activities, research, and education outreach. The road to the SDGs is a long one and collaboration goes a long way. With the help of NGOs providing their time, energy, and hands-on experience, UM's goal of being a leading sustainable university may come to fruition.

Amplifying Voices of the Youth for the SDGs

UM makes sure to include NGOs in their journey to tackle the SDGs. On 9th June 2024, UM collaborated with APPGM-SDG to hold a "Empowering Student Leaders for SDG Action" programme. The programme was organised and led by APPGM-SDG with support from Ungku Aziz Centre for Developmental Studies (UAC), UMSDC, and UMCares. The programme brought together students from various universities to exchange best practices and strategies for campus and community sustainability.

Key activities during the programme include Developing Your SDG Leadership Toolkit, a panel session on Youth Leadership for the SDGs, and Developing Action Plan & Moving Forward. Through this programme, students gained access to valuable learning experiences (SDG 4), insights to tackle net zero challenges in the urban context (SDG 11), and a network for collaboration to contribute to the SDGs (SDG 17).



Above: Posters presented at the programme

Below: Participants of the programme (UMSDC)



Hands-on Sustainability Education with NGOs

UM acknowledges the valuable insights and contributions NGOs provide for the SDGs. On 18th June 2024, participants of the ESD Mobility Program 2024 from Coventry University facilitated by UMSDC joined a session with EcoKnights and Hara Makers for interactive sessions on sustainability and conservation. EcoKnights is an NGO that works with key stakeholders to empower sustainable actions such as policy advocacy, hands-on community efforts, and youth volunteerism.

On the other hand, Hara Makers is an NGO dedicated to the art of upcycling and responsible waste management. The sessions were conducted at UM's Research Management & Innovation Complex (KPPI) by EcoKnights Acting President, Mr Amlir Ayat and Hara Makers Co-founder and COO, Mrs. Chee Lee Yoon. Participants joined activities such as a talk titled "Is Sustainable Development Realistic?", introductions to EcoKnights' and Hara Makers conservation efforts that reduce carbon footprint (SDG 13), and a hands-on session on innovative waste management solutions (SDG 12).



Above: "Is Sustainable Development Realistic?" talk with EcoKnights and action planning activities

Below: Participants of the ESD Mobility Program 2024



SDG Education for All: No Community Left Behind

The SDGs involve and affect everybody. As such, SDG education across both the inner and outer layers of the community will equip people with the knowledge to live more sustainably. More specifically, UM's SDG education aims to improve university alumni, local community, and refugees or displaced people.

UM aims to bring awareness to these communities about sustainable living and hopes that they will join the university in our joint journey to achieve the SDGs.

Worldwide Outreach for the Goals

From 7th to 14th July 2024, the UM Volunteers Secretariat (SEKURUM) embarked on a humanitarian mission called Misi kemanusiaan Antarabangsa Indonesia (MKAI) 1.0 to Lhoknga, Aceh. The main goal of the mission was to carry out community empowerment and environmental awareness sessions with underprivileged children. These include simple educational activities (SDG 4) and exposure to the effects and solutions of global warming (SDG 13).

Additionally, the volunteers took the initiative to restore and upgrade the Pendidikan Anak Usia Dini (PAUD) building and hold Quran reading classes at Gampong Lamkruet. The weeklong journey ended with a Cultural Night full of performances (SDG 11) and a session dedicated to distributing food donations to 100 families across several villages (SDG 2).

Below: Activities with underprivileged children (left) and food distribution to families in the village (right)



Acknowledgement

ADVISORY TEAM

Professor Dr. Yahaya Ahmad - Associate Vice-Chancellor (Corporate Strategy)
Associate Prof. Dr. Zeeda Fatimah Mohamad - Director, UM Sustainable Development Centre
Professor Ir. Dr. Hazlee Azil Illias - Director, Corporate Ranking Centre
Dr. Tan Chia Kwang - Head, Eco Campus, UMSDC
Associate Prof. Ir. Dr. Khairunnisa Hasikin - Coordinator, Enculturation Section, UMSDC
Dr. Fong Chng Saun - Coordinator, UM Living Labs, UMSDC

EDITORIAL TEAM

Siti Norasiah Abd. Kadir
Azhar Arif Azmi
Tan Siu Ching
Mohd Fadhli Rahmat Fakri
Mohamad Firdaus Ramli
Nuratikah Mohd Zainodin
Dr. Azizi Abu Bakar
Affan Nasaruddin
Amirul Hakim Abdul Halim
Shaheerol Izuan Nor Mazlan
Tew Jia Yu
Neesha Ng Sundram

UNIVERSITI MALAYA SUSTAINABLE DEVELOPMENT GOALS (SDG) CHAMPIONS

SDG 1: Dr. Maria Mohd Ismail & Dr. Siti Nur Edlyn Nadia Zuraiju
SDG 2: Associate Prof. Dr. Muhamad Shakirin Mispan & Dr. Fathiah Mohamed Zuki
SDG 3: Dr. Zuraidah Mohamed & Dr. Nimala Baskaran
SDG 4: Dr. Janice Lo Yueh Yea & Dr. Akmarina Mohd Said
SDG 5: Dr. Lai Suat Yan & Dr. Vilashini Somiah
SDG 6: Mohd Ramzi Mohd Ruslan & Mohd Husni On
SDG 7: Dr. Tan Chia Kwang & Professor Ir. Dr. Hazlee Azil Illias
SDG 8: Kamarul Fairuz Hassim & Shahzatul Ermiza Johol
SDG 9: Dr. Lee Ching Shya
SDG 10: Associate Prof. Dr. Amira Sariyati Firdaus & Aida Nurul Ain Abd Rahman
SDG 11: Associate Prof. Sr. Dr. Noor Suzaini Mohamed Zaid, Raja Sothi A/P Raja Sapai & Ts. Dr. Nordiana Mohd Isa
SDG 12: ChM. Dr. Archina A/P Buthiyappan
SDG 13: Associate Prof. Dr. Sheeba Nettukandy Chenoli & Professor Dr. Surinderpaul Kaur
SDG 14: Associate Prof. Dr. Jillian Ooi Lean Sim & Associate Prof. Dr. Amy Then Yee Hui
SDG 15: Dr. Sarah Abdul Razak & Dr. Yong Kien Thai
SDG 16: Dr. Mohd Istajib Mokhtar & Associate Prof. Dr. Khoo Ying Hooi
SDG 17: Vigneshree A/P King & Mohd Khairul Anuar Senin

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CONTACT INFORMATION

Universiti Malaya Sustainable Development Centre (UMSDC)
Office of the Associate Vice-Chancellor (Corporate Strategy)



umsdc@um.edu.my



sustainability.um.edu.my

