

UMS Sustainability Report 2020: Overcoming Adversities Together



UMS
UNIVERSITI MALAYSIA SABAH



Transformasi Ke Arah
**UNIVERSITI
INDUSTRI 4.0**

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ABBREVIATIONS

BMRI	Borneo Marine Research Institute
EMC	EcoCampus Management Centre
FPEP	Fakulti Perniagaan, Ekonomi dan Perakaunan
FPP	Fakulti Psikologi dan Pendidikan
FPSK	Fakulti Perubatan dan Sains Kesihatan
FSSK	Fakulti Sains Sosial dan Kemanusiaan
ITBC	Institute for Tropical Biology and Conservation
KESUMBA	UMS Housewives and Female Staff Club
SDG	Sustainable Development Goal
UMS	Universiti Malaysia Sabah

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PREFACE



Sustainability reporting is the practice of measuring, disclosing, and being accountable to internal and external stakeholder for organizational performance towards the goal of sustainable development. Of course, the purpose of sustainability reporting could not be simpler to define. While it answers the question whether present practice can persist – that is, continue to build more value than before and that some practices cannot continue, sustainability reporting is not asking itself this fundamental question. Instead, sustainability reporting asks how we can be less unsustainable, and it does this by measuring progress towards achieving sustainability.

The goal of a sustainability report is to identify organizational priorities on matters of importance to both itself and its stakeholders, to report the work that the organization carried out in the light of outlined priorities and to make such reporting available for readers in a way to allow comparison with previous reports. This report for year 2020 is UMS' second sustainability report; the first report was published in 2019. While UMS' Sustainability Report 2019 focused largely only activities based on UN's SDGs that had made headlines in Malaysia's mass media, the UMS' Sustainability Report 2020 focused on activities based on UMS' EcoCampus thematic clustering of UN's SDGs.

The UMS' Sustainability Report 2020 was produced by UMS' EcoCampus Management Center. Established in 2013, the EcoCampus Management Centre is relatively a new multi-disciplined office centered on the efficient and sustainable management of facilities and resources, to bring about the development of a community that appreciates the concept of sustainability. Hence, the report reflects UMS' progress drawing from multiple disciplines.

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INTRODUCTION

The Universiti Malaysia Sabah (UMS) is the ninth state university in Malaysia. It was established in 1994 amidst calls for the creation of a world-class university in Sabah to cater for the needs of the specifically Sabah people and generally the nation. UMS' primary objective is to train highly skilled human capital for Malaysia in all academic disciplines. As a public institution of higher learning, it envisioned a niche where it can effectively contribute to both the State of Sabah and the Federation of Malaysia, and this niche is in the context of an EcoCampus.

Definition of EcoCampus

EcoCampus is a reference center that acts as an environmental guardian, contributing to global efforts towards sustainability by introducing environmental excellence in teaching and learning, research, infrastructure development, management and operational practices, as well as all matters involving the campus.

Ecocampus enables institutions to systematically identify, evaluate, manage and improve environmental performance and practices. The main purpose is to promote environmental care education and awareness, and move towards environmental conservation through good planning, and operations as well as management practices. EcoCampus will be incorporated into the teaching and research curriculum and be the core and guide of the campus community through university leadership.

UMS latest plan in context of EcoCampus was realized through the **UMS EcoCampus Plan 2015 - 2020**.

Of course, with the announcement of SDGs but the United Nations through the **Agenda 2030**, UMS realigned its current strategies for better accountability through the SDGs. The realignment brought about specialized themes geared towards the assessment of an organization's contribution, and it defers the **National SDG Governance** that is geared towards the formation of a resilient society. The themes are listed in the following table.

Table 1: UMS EcoCampus’ themes in association to UN’s SDGs

Buildings, infrastructure, and landscape	Theme 1: Social Safety, Security and Mobility Theme 2: Quality Life Sustainability
Energy	Theme 3: Concerted Efforts
Environmental Management System	Theme 4: Opportunities for All Theme 5: Partnerships
Water	Theme 6: Wildlife Support
Carbon Footprint	Theme 7: Sustainable Community Theme 8: Quality Life Sustainability
Green community	Theme 9: Gender Equality Theme 10: Enhancing Institutional Strength for Peace and Justice

The themes in **Table 1** highlight three (3) main function of UMS namely a) the creation of a quality living environment, b) the enhancement of social safety, security and mobility, and c) the implementation of quality life sustainability. The themes support **SDG Research@Borneo** (refer to **Appendix 1: SDG Research@Borneo**) that is in lined with the aspirations of the Malaysia’s Ministry of Higher Learning for the creation of an environment where universities are able to produce impactful researches. UMS was one step closer in realizing its vision, and this is UMS’ second sustainability report produced by the EcoCampus Management Centre (EMC) to outline UMS’ progress.

1. UMS EcoCampus Plan 2015 - 2020

The Universiti Malaysia Sabah is visioned to become a leading model of a new flagship EcoCampus of the 21st century. By redefining and ‘greening’ the university’s policies and practices in an ecologically-friendly context, UMS is setting new standards in campus management and core activities of education, scholarships, research and innovations. The new standards are expected to be established by focusing on six (6) green categoric initiatives namely:

a) the energy related initiative,

- b) the water related initiative,
- c) the buildings, infrastructure and landscape related initiative,
- d) the green community related initiative,
- e) the carbon footprint related initiative, and
- f) the environmental management system related initiative.

2. SDG Research@Borneo

UMS appreciates SDG in 2020 through the Sustainable Development Goals Research@Borneo Guidelines (SDG Research@Borneo), which was established by certain members of Malaysia Comprehensive University Network (MCUN) namely UiTM, UNIMAS and UMS. SDG Research@Borneo is in line with the appreciation of the Ministry of Higher Learning, and it aims at increasing the output impact of SDG related studies among MCUN members on the island of Borneo. This shall be achieved through a mapping of 10 research cluster themes against the 17 SDGs (refer to **Appendix 1: SDG Research@Borneo**).

3. Agenda 2030

The Sustainable Development Goals (SDGs) or Global Goals are a collection of 17 interlinked global goals designed to be a blueprint to achieve a better and more sustainable future for everyone. The 17 SDGs are:

- 1) No Poverty,
- 2) Zero Hunger,
- 3) Good Health and Well-being,
- 4) Quality Education,
- 5) Gender Equality,
- 6) Clean Water and Sanitation,
- 7) Affordable and Clean Energy,

- 8) Decent Work and Economic Growth,
- 9) Industry, Innovation and Infrastructure,
- 10) Reducing Inequality,
- 11) Sustainable Cities and Communities,
- 12) Responsible Consumption and Production,
- 13) Climate Action,
- 14) Life Below Water,
- 15) Life On Land,
- 16) Peace, Justice, and Strong Institutions,
- 17) Partnerships for the Goals.

The SDGs were set in 2015 by the United Nations General Assembly and are intended to be achieved by the year 2030. They are included in a UN Resolution called the 2030 Agenda or what is colloquially known as Agenda 2030.

4. National SDG Governance

In 2016, Malaysia's Cabinet agreed to incorporate the SDGs into the national planning framework and implement the SDGs in three phases between 2016 and 2030. The incorporation is a step to recognize the need for improved data gathering and reporting framework, which would facilitate the assessment of SDGs' progress. At the same time, a governance structure for monitoring, evaluation and reporting was established to ensure effective implementation of the SDGs; which is described as Malaysia's National SDG Governance. The governance outlined Malaysia commitment through seven (7) strategic thrusts about inclusiveness, well-being, human capital development, green growth, infrastructure, economic expansion and growth, and the transforming public services for productivity. These thrusts in summary are directed towards the formation of a resilient society.

UMS' PROGRESS IN 2020

The year 2020 witness the start of the COVID-19 Pandemic and the grinding halt of many socio-economic activities. The pandemic has a significantly constrained everyone; UMS not excluded. Notwithstanding the constrained, UMS strived ahead.

Being a public institution of higher learning actively engaged in research and development, UMS allocated RM21 million for research under various SDGs in 2020.

Table 2: Allocation of research grants in 2020 based on UN's SDGs

SDG	No	Quantum		Average	
SDG01	3	RM	69,740.00	RM	23,246.67
SDG02	28	RM	1,337,282.00	RM	47,760.07
SDG03	68	RM	2,645,319.00	RM	38,901.75
SDG04	40	RM	1,251,090.00	RM	31,277.25
SDG05	4	RM	103,110.00	RM	25,777.50
SDG06	6	RM	271,800.00	RM	45,300.00
SDG07	3	RM	90,000.00	RM	30,000.00
SDG08	42	RM	3,535,028.00	RM	84,167.33
SDG09	102	RM	4,178,813.04	RM	40,968.76
SDG10	7	RM	189,700.00	RM	27,100.00
SDG11	47	RM	1,314,299.00	RM	27,963.81
SDG12	24	RM	764,970.00	RM	31,873.75
SDG13	10	RM	1,816,450.00	RM	181,645.00
SDG14	6	RM	682,000.00	RM	113,666.67
SDG15	45	RM	1,935,619.67	RM	43,013.77
SDG16	16	RM	532,585.40	RM	33,286.59
SDG17	4	RM	396,251.35	RM	99,062.84
	455	RM	21,114,057.46	RM	46,404.52

As noted in **Table 2**, the three (3) largest allocations went to *SDG09 Industry, Innovation and Infrastructure*, *SDG08 Decent Work and Economic Growth* and *SDG03 Good Health and Well-being*. Efforts to improve the delivery of environmental management system was continued in 2020 when UMS allocated close to RM200,000 alone for research and development on matters such as food production and supply innovation as well as household spending. UMS hold fast to the understanding that capacity building by increasing social safety and life quality is crucial to upholding the concept of sustainability. This is supported further by large allocation per project under *SDG13 Climate Action* and *SDG14 Life Below*

Water. Other areas of development had already been dealt in the early years of UMS. Of course, management system improvement needs to be carried out jointly with all stakeholders and UMS enhance this aspect by enhancing its network to Sime Darby Plantations and Azman Hashim Foundation apart from other local and foreign universities through a program known as MYSUN.

Closer to the ground and in context of EcoCampus, UMS' sustainability agenda was reconstituted and placed under six (6) broad categories in accordance to the UI GreenMetric World University Ranking initiative. The rest of this chapter explores UMS' 2020 effort through those broad categories.

1. Building, Infrastructure, and Landscape

UMS EcoCampus' first category is the Building, Infrastructure and Landscape category. This category associated the university's consideration towards a green environment otherwise known and Green Campus. This category aim at UMS' exploration into the provision of spaces for greenery and to safeguard the environment, as well as the development of sustainable energy. This exploration is carried out through initiatives under two (2) themes namely *Theme One: Social Safety, Security and Mobility* dan *Theme Two: Quality Life Sustainability*.

Theme One: Social Safety, Security and Mobility



The theme one on, Social Safety, Security and Mobility combines four (4) different SDGs namely a) no poverty, b) zero hunger, c) good health and well-being, and d) quality education. The summarized targets of these SDGs include the eradication of extreme poverty by 2030 through the establishment of appropriate protection systems and policy framework that would allow among many the movement of resources. In addition, the summarized targets of these SDGs also include the eradication of malnutrition and the increment of life span by 2030 through efforts such as research. These support the basic rights of every human namely the rights to education, health as well as to food.

In context of the Malaysian initiatives, during the crisis of Covid-19 hit Malaysia in 2020, the government has gone to great lengths to fight against the infection and loss of life, provide aid to vulnerable households, and boosting the economy and social well-being. The following are just some of the government's efforts;

- Youngster and single mothers in B40 were nurtured into entrepreneurship¹ by the Suruhanjaya Syarikat Malaysia (SSM),
- The Minister of community development and people's welfare with assistance of NADMA (National Disaster Management Agency) and the Welfare Department

¹ Refer <https://www.bharian.com.my/berita/nasional/2020/12/765144/ssm-perluas-inisiatif-daftar-perniagaan-percuma-kepada-belia-ibu>

of Sabah had distributed 12,313 food packages to targeted families within district under RMCO². Plus, the Ministry of women, family and community development (KPWKM) had also given out 6,300 food aid baskets to 7 areas in Semporna and Kunak³,

- The government had allocated RM250 million for RMT program (*Bantuan Rancangan Makanan Tambahan*) which benefitted to 487,446 hardcore poor primary students in National schools and Government aid schools⁴,
- During the initial lockdown, indigenous people were badly affected as the access to towns and other areas were cut off, as well as inability to generate substantial income due to the idleness of tourism activities. Jabatan Hal Ehwal Orang Asli (JAKOA) had distributed aids to 49,670 indigenous household throughout the country in the first phase and another 55,000 household in the second phase⁵,
- The Ministry of Health added the COVID19 vaccine onto the National Immunization program for children comprises vaccination for Tetanus, Polio, measles, Rubella, Diphtheria and HPV (Human Papillomavirus), and students were able to take these vaccinations for free at nearby public health facilities clinics, or at the district health department⁶,
- The Ministry of Health Malaysia had come out several initiatives to offer support and medical services for people with mental issues. These initiatives, under the Mental health services and Psychosocial support (MPHSS), had offer counselling and psychosocial support to the community and even to the frontliners who are involved with treating COVID-19 patients⁷,
- Very Small Aperture Terminal satellite, or VSAT in short, is currently utilized by Department of Communication and Media Malaysia to allow internet connection is available in interior districts and communication blind spot areas in the Peninsular, Sabah and Sarawak⁸,
- The Ministry of Education enhanced the content's quality and extended the broadcasting time of *TV Pendidikan* (Education TV), which allows students and those who are inaccessible to the internet, to keep up with their studies easily⁹,

² Refer <https://www.utusanborneo.com.my/2020/10/14/kerajaan-negeri-telah-salurkan-12313-bakul-makanan-kepada-kumpulan-sasar>

³ Refer <https://www.astroawani.com/berita-malaysia/kpwkm-salur-6300-bantuan-bakul-makanan-ke-semporna-dan-kunak-264044>

⁴ Refer <https://www.penerangan.gov.my/japenv2/index.php/2020/01/01/bantuan-makanan-tambahan/>

⁵ Refer <https://www.themalaysianinsight.com/bahasa/s/236221>

⁶ Refer <https://kpkesihatan.com/2020/05/15/kenyataan-akhbar-kpk-15-mei-2020-pemberian-perkhidmatan-imunisasi-kepada-murid-sekolah-di-klinik-kesihatan/>

⁷ Refer <https://berita.rtm.gov.my/index.php/nasional/22502-inisiatif-perkhidmatan-kesihatan-mental-kkm-beri-sokongan-psikososial-dan-kaunseling-kepada-komuniti>

⁸ Refer <https://www.hmetro.com.my/itmetro/2020/12/654195/guna-vsata-sedia-internet-di-kawasan-pedalaman>

⁹ Refer <https://www.bharian.com.my/berita/nasional/2020/11/757671/parlimen-tv-pendidikan-tingkat-akses-sumber-pembelajaran>

Hence, despite of the challenges posed by the pandemic in 2020; Malaysia has successfully delivered several programs under this theme to its people.

UMS has always been aware of the needs of its students and the community. UMS has provided several aids and programs to accomplish the goals of theme 1 for 2020. Under this theme, UMS has established its special food assistance program¹⁰. A total of RM200,000.00 has been spent on the university's food bank, provision of daily allowance of RM15.00 to students and food supplies distribution to students who live outside of campus grounds¹¹. The reassurance of access to food is also includes tertiary students.

Other than food aids, UMS took another step further by ensure no one gets left behind in terms of education. This was achieved by ensuring online education is made available for all students. During the pandemic, all teaching and learning activities are required to proceed through online. However, it is undeniable that this will incur a lot of investment especially on smart, or electronic devices and internet fees.



Figure 1: Electronic devices such as laptops to underprivileged students. Source: (UMS, 2020)

¹⁰ Refer <https://www.bharian.com.my/berita/pendidikan/2020/12/770542/ums-bantu-kawal-covid-19-tun-juhar>

¹¹ Refer <https://www.borneotoday.net/sukarelawan-ums-tetap-bantu-agih-bekalan-makanan-sedar-risiko-jangkitan/>

In the effort to make sure 714 students who are underprivileged not to be left behind, UMS has allocated RM 1.25 million for data plans and devices, such as laptops, to facilitate online learning¹².

Knowledge sharing is a common way to allow others to access information on specific topics directly from the experts. Evidently, it can be helpful in providing valuable insights and create awareness to serious matters, especially on personal and mental health. Under the initiative by Faculty of Humanities, Arts and Heritage and the Department of Medical Education (FMHS), “Bersama Pakar Perubatan” radio air slot on Kampus Kita 91.1 FM is introduced as to showcase the university’s medical students and to help to boost their confidence by becoming peer health coaches¹³ (see **Figure 2**).



Figure 2: Shivendra A/L Ravi, a medical student, shared his perspective on stress management on air. Source: (UMS, 2020)

Amid of the crisis, there were shortages on medical protective gear and sanitizing supplies globally due to the high demand and production problems (lack of manpower, insufficient raw materials, obstruction in logistics and closure of operation due to infection). Additionally, UMS had contributed to the effort to help Sabah’s frontliners in fighting COVID-19. The university had produced protective equipment such as face shield and hand

¹² Refer to <https://www.thestar.com.my/news/nation/2020/12/11/ums-allocates-over-rm1mil-for-data-plans-devices-for-b40-undergrads>

¹³ Refer <https://www.ums.edu.my/v5/en/banner-link/9534-ums-medical-student-share-medical-information-on-radio>

sanitizer for medical staffs at Likas Hospital ^{14 15}. Additionally, in solidarity to help the state against COVID-19, Institut Penyelidikan Bioteknologi (IPB) UMS becomes a center to help in detecting and screening for COVID-19 ¹⁶. This is made possible with the available equipment, facilities, and expertise in IPB. UMS also provides drive-thru COVID-19 screening test to the public at the university's Pusat Rawatan Warga (PRW)¹⁷. Another effort was the university's collaboration with Sabah-China Commercial Chamber (SCCC) to conduct a study on the accuracy of China's COVID-19 test kit¹⁸.

Theme Two: Quality Life Sustainability



The theme on Quality Life Sustainability combines four (4) different SDGs namely a) clean water and sanitation, b) affordable and clean energy, c) decent work and economic growth, and d) industry, innovation and infrastructure. The summarized targets of these SDGs focused on the establishment of an environment that would increase the quality of life.

¹⁴ Refer <https://www.ums.edu.my/v5/ms/covid19/101-covid-19-keratanakhbar/10075-ums-hasilkan-pelindung-muka-ums-covi-pro>

¹⁵ Refer <https://www.ums.edu.my/v5/ms/covid19/101-covid-19-keratanakhbar/10080-ums-hasilkan-produk-peralatan-pelindung>

¹⁶ Refer <https://www.utusanborneo.com.my/2020/03/31/ipb-ums-bersiap-sedia-bantu-ujian-pengesanan-covid-19-di-sabah>

¹⁷ Refer <https://www.borneotoday.net/ums-lancar-saringan-covid-19-pandu-lalu-kepada-orang-ramai/>

¹⁸ Refer <https://www.ums.edu.my/v5/en/banner-link/10152-ums-to-study-effectiveness-of-wuhan-s-covid-19-test-kit>



An approach that UMS has taken to achieve the targets under the third theme was to form a partnership with other organization and realize its achievements on the ground. An example is the development of a mini water treatment plant at Kampung Mengkapon of Pitas. In

this project, UMS partnered with Perbadanan Baitulmal Negeri Sabah and the project started in February 2020. To ensure sustainability, UMS further partnered with Neurogine through one of its agency i.e. UMSKAL to groom financial services talent.

2. Sustainable Management of Energy

Theme Three: Concerted Efforts



In any sustainability/green building indices, energy usage and management are one of the key components and carries the most weight in compliance. Even more so in the tropics where a major proportion of energy is used for cooling of habitable spaces. Being such a critical component, and because every person is a user of energy, concerted efforts from every department, building, and levels of workforce is required to achieve sustainable energy management. As an institution of higher learning, UMS was able to channel efforts of sustainable management of energy in two main directions namely “practice” and “research”.

Practice – To kickstart an energy-efficient culture and to offer practical means to energy efficient living, every building, faculty, and department have been encouraged to commit to adhering to the efficient energy-use policy (concerted efforts). This policy was communicated to staffs, occupants, building users and managers. In addition, small labels with short best-management-practice (BMP) notes were made available at every point of utility usage. Some examples are “Please keep the thermostat at a minimum temperature setting of 26 °C” (office room), “Please close the door” (air-conditioned spaces), “Please turn off after use” (light switches and water taps), and “Full/partial flush options” (water closets). Old fixtures that are no longer efficient were replaced, thereby reducing wastage (energy usage and water leaks) while BMP notes serve to inculcate an energy-efficient culture.

Figure 3: Example of short BMP notes at the point of utility usage

Research - Sustainable management of energy cannot deviate too far from the management of natural resources especially in the State of Sabah. In pre-development times, natural forests have provided the optimum conditions required for terrestrial life (including humans) to thrive. Population growth and development resulted in forest

clearing on a global scale. This resulted in the removal of an optimum habitable environment (spatially and temporally immediate) and modifies climate (spatially and temporally extensive). As of 2018, forests make up 55.3% of land (18.273 million ha) and Sabah is the state with the highest proportion (64.5%) of forested area. As a forest-rich state that houses several protected forest reserves including the Danum Valley Conservation Area (UNESCO world heritage site), the focus has been in protecting forests and their associated natural resources, and in combating climate change. An important move by UMS is in the enhancement of the forestry field. One of the key initiatives this year is the establishment of the Faculty of Tropical Forestry that offers five programmes namely International Tropical Forestry, Nature Park and Recreation, Forestry Plantation and Agro-forestry, Wood Fibre Industry and Technology, and Conservation Biology. In the area of research, the following research projects have been initiated:

Table 3: Examples of some research under SDG13 in the field of environmental conservation that were initiated in 2020

Project Title	Manager	Code
Post-Earthquake Environmental Changes and Impacts on Community Livelihood Sustainability	FSSA	DN20080
Characterization and Performance of Agro-waste Dual Filtration Media for Treating Stormwater Runoff	FKJ	GUG0441-1/2020
Landslide Hazard & Risk Assessment for Power Utilities at Bukit Gentisan, Kota Kinabalu, Sabah.	FSSA	GUG0461-1/2020
KAJIAN HIDROGEOKIMIA AIR PERMUKAAN DI KAWASAN HUTAN SIMPAN SEGALIUD LOKAN, SANDAKAN SABAH	FSSA	GUG0469-1/2020
Landslide Risk Assessment and Mitigation (LRAM) in SMK Kundasang Area, Sabah	FSSA	SDK0130-2020
Sumbangan pelaksanaan dasar Pengurusan Hutan Mapan (SFM) (Post COVID-19) : Menangani isu keselamatan pemakanan, nutrisi dan peningkatan sosio-ekonomi penduduk setempat di peringkat Unit Pengurusan Hutan (FMU) di Sabah.	FSSA	SDK0166-2020
Kajian Hidrogeokimia dan Status Kualiti Air Sungai Kesan Pandemik Covid-19 di Sekitar Zon Merah Kota Kinabalu, Sabah	FSSA	SDK0268-2020
Aplikasi survei keberintangan geo-elektrik dan penyiasatan geoteknik dalam penentuan lapisan dan pencirian tanah gambut di kawasan pantai barat Sabah.	FSSA	SGA0053-2019
Characterization and Detailed Engineering Geological Mapping of the Suspected Large-Scale Old-Dormant Landslide in Kundasang Lama Area, Sabah, Malaysia	FSSA	SGA0076-2019
Effects of Silicomanganese slags on oil palms and vegetables	FPL	TLS2016

Besides being a forest-rich state, Sabah has the second largest oil palm planted area (after neighboring Sarawak). Being one of the world's largest palm oil producer while housing extensive High Conservation Value (HCV) forests, Malaysia (and Sabah) has been a popular

target for media coverage and had been under relentless scrutiny over the years. Due to economic incentives afforded by the oil palm crop that may induce land-use conversion, Malaysia has been inaccurately portrayed as an irresponsible oil palm producer by the uninformed. At the country scale, Malaysia has committed to a cap of 6.5 million ha of oil palm areas by 2050 – an unprecedented voluntary initiative for conservation. At the state level, Sabah is committed to conserve 30% of forests under Totally Protected Areas. As an institution of higher learning and research, UMS has intensified research that are geared towards conserving environmental quality. These research projects can be broadly classified into the following directions

- (i) Protecting forests and forest functions
- (ii) Determining impacts from oil palm cultivation
- (iii) Reducing impacts from oil palm cultivation
- (iv) Synergistic value from oil palm and forest coexistence
- (v) Intensifying yields from oil palm
- (vi) Capitalising on oil palm by-product
- (vii) Improving management practices of oil palm cultivation

Table 4: Examples of research related to sustainability in oil palm industries

Project Title	Manager	Code
Public Awareness of the Green Space: A Study in Kota Kinabalu, Sabah.	FSSA	GUG0436-1/2020
Analysis of Impacts of Climate Change and Environmental Degradation on Children and Identification and Identification of Child-Centered Climate Action Priorities in Malaysia : A Case Study for The Undocumented Children in Sabah	FSSK	LPK2004
An assessment of the level of knowledge and practices of independent oil palm smallholders towards MSPO Certification in ten districts, Sabah	FPL	SGA0088-2019
Rainfall Partitioning In Oil Palm Plantation	FSSA	SDG08-2020
Effects of Silicomanganese slags on oil palms and vegetables	FPL	TLS2016
Characterization and Modelling of Soil Microbial Diversity, Soil Nutrient and Agronomic Practices in Managing Basal Stem Rot Disease of Oil Palm	FSSA	DN20085
Nutritive composition and metabolite profiling of mushrooms grown using oil-palm-waste based substrate	FPL	GUG0452-1/2020
Improvement of the nutritive value of oil palm fronds with white rot fungi for better utilization as ruminant feed	FPL	SGA0121-2019
IMPROVING TROPICAL PEAT SOIL AND OIL PALM PRODUCTIVITY USING HIGH QUALITY LIME (CALCIPRILL AND MAGPRILL) - FIELD RESEARCH	FPL	TLS2001
An assessment of the level of knowledge and practices of independent oil palm smallholders towards MSPO Certification in ten districts, Sabah	FPL	SGA0088-2019

Considering that palm oil and oil palm wastes have been used as an alternative source of energy, concerted efforts in sustainable management and in the optimisation of the industry contributes to the fulfilment of SDG-13 (Climate Action). An example case of cultivating a coexistence between oil palm and forests is when UMS and Sime Darby Plantation Berhad signed a memorandum of agreement to transfer locally-bred knowledge into real-world applicable policies and action plans – starting with a forest restoration initiative in Sapong Estate, Tenom.



Figure 4: UMS – Sime Darby Plantation Berhad on 3rd September 2020

Conserving forests directly addresses the underlying cause of climate change and inefficient energy use, which is a long-term preventive and corrective measure. However, methods that provide an immediate relief is equally important for the wellbeing of humans. The aim – in the context of making habitable spaces energy efficient in the tropics – is to engineer the environment (inside buildings and its surrounding) so that it offers comfortable and healthy living spaces while consuming minimal energy. As Malaysia is one of the emerging players of green building in the region, future plans may include re-engineering existing buildings to meet targets of thermal comfort, occupant health, resource efficiency, and low operational carbon.

3. Environmental Management System

The innovation of environmental management system is synonymous to a university's contribution to society. In 2019, the Ministry of Higher Education established Guidelines to Implement OKU Inclusion Policy in Institution of Higher Learning. The document is a milestone to Malaysian higher institutions in addressing the strength of institutions to reduce inequalities of opportunities. To further strengthen the university, UMS established the Disability and Autism Management Centre. Besides this, UMS' eLearning Center is in active collaboration with UNESCO to develop open educational resources for people with disability. In a nutshell, UMS' approach to environmental management system is strategized through two (2) themes namely the provision of opportunities to all and the creation of a sustainable partnership. These contributions provided opportunity to all, which might include the development of partnership to support that purpose.

Theme Four: Opportunities for All



Theme Seven takes SGD 10 Wholly. This theme (as with SDG 10) focuses on the reduction of inequality. The official wording of SDG 10 is 'Reduce inequality within and among countries,' and it has seven (7) targets. Among the targets are the empowerment and promotion of social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status. Besides this, another target of SDG10 is the adoption of policies, especially fiscal, wage and social protection policies, and progressively achievement of greater equality. An indicator to the achievement of SDG 10 is the an encouraging official development assistance and financial flows in accordance with approved plans and programs.

Malaysia's progress in relation to SDG 10 became more prominent in the 2010s. The Government spent an estimated RM91.1 billion between 2016 to 2020 in income improvement and assistance to close the income gap (see Table 4.2 below). It included cash assistance between RM400 to RM1,050 for B40 households under the BR1M and BSH

programmes, scholarship allocations, and educational assistances of up to RM450 for the period between 2016 to 2020. In addition to the BSH and BRIM, the M40 households are also covered in the economic stimulus packages given by Government namely, PRIHATIN, PENJANA, PERMAI, PEMERKASA, PEMERKASA+ and PEMULIH to counter the economic impact from the COVID-19 pandemic. They received cash transfer, as well as benefited from the Wage Subsidy Programme that was introduced to prevent large-scale retrenchment. As a result, in the Eleventh Malaysia Plan (2016-2020), policies were set to increase the median income of the B40 households. By 2019, median households' income grew 3.9 per cent to RM5,873, while mean households income increased 4.2 per cent to RM7,901 from 2016.

Under this theme, UMS allocated close to RM200,000 alone in 2020 for research and development. Among the research projects include research into are food production and supply innovation to supplement economy of B40 group in Kanaluan. Apart from this, UMS also looked at household spending of families with autistic members in the W.F. Labuan.

Theme Five: Partnerships



Theme Ten takes SGD 17 Wholly. This theme (as with SDG 17) focuses on the establishment and maintenance of partnerships. The official wording of SDG 17 is 'Strengthen the means of implementation and revitalize the global partnership for sustainable development', which can be viewed from five (5) different categories, namely finance, technology, capacity building, trade and systemic issues.

As a trading nation, Malaysia's economic growth is highly dependent on global market trends. Being a small developing and open economy, the concept of shared prosperity and prosper-thy-neighbor have been embedded in Malaysia's development policies. With many challenges requiring global solutions, Malaysia is fully committed to play its role as partners in development towards the 2030 Agenda on sustainable development. Equally, Malaysia is establishing partnerships at the domestic level to catalyze SDGs implementation.

Malaysia's approach to development is shifting to a whole-of-nation approach where partnerships are established across Government, CSOs, private sector, academia, and local communities. A whole-of-nation approach was institutionalized through a multi-stakeholder engagement process, involving civil society organizations, the national human rights institution, the academia, and the UN to make progress on actions taken on the recommendations received during the latest UPR process.

Under this theme, UMS has established two (2) prominent partnerships at national level and international level. The Azman Hashim Gallery is a partnership between the Azman Hashim Foundation and UMS at a national level, and it is a gallery aimed at artistic work of prominent leaders that might spur a sense of pride to strive for the best in all aspect including best and fair practices. The concept of this gallery started in 2015; and in 2020 the final preparation was made to the gallery before opening it to the public.



Figure 5: The somewhat finished Azman Hashim Gallery

With regards to the international partnership, the MYSUN program is proof of UMS endeavor in SDG 17.

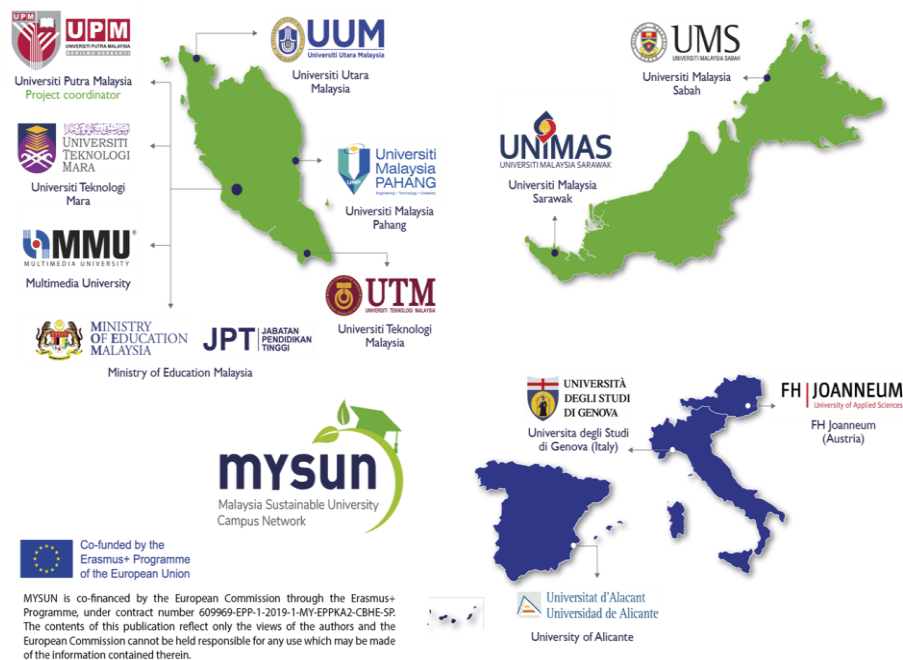


Figure 6: Illustration of MYSUN

In a nutshell, MYSUN is an Erasmus+ Capacity Building in Higher Education project that aims to promote Malaysian university campuses as “living laboratories” for sustainability and energy efficiency. Partners to this network include UPM, UTM, UMS, UUM, UNIMAS, UiTM, UMP, MMU, Universitat d’Alacant, FH Joanneum, and Università Degli Studi.

Although UMS has its network, it will still contribute to the greater good by allocating some of its resources into the study of post-pandemic conditions.

4. Sustainable Use of Water Resources



Sustainable use of water resources refers to reduction the water usage and recycling of wastewater for different purposes in such a way that future water demands are not hampered. UMS always stay committed in augmenting the water related programs as a strategy to manage its water usage sustainably. Various departments and faculties have implemented and conducting programs/events to encourage UMS community towards better water usage. This is achieved through the implementation of rain harvesting for landscape management, and one such example is found at the ITBC. At the institute, the rainwater

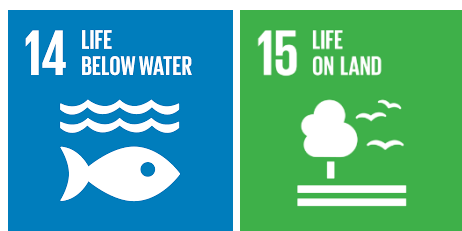
harvested is channeled through ITBC's inhouse wild ginger plot. This creates an ambiance for researcher to study wild ginger in a safe setting. Over the years, this small plot has flourished to support a bit of wildlife. While the implementation is mundane in nature, it serves as a routine to inculcate a deeper meaning to the maintenance of life.

The conservation of natural bodies of water implemented by UMS includes the adaptation of indigenous conservation practices such as the *Tagal*. Introduced by the Dusun people of Sabah through the Sabah Fisheries Department, the *tagal* system is an indigenous conservation practice to increase the quantity and quality of a particular resource before harvesting. Picture on the right shows a small pond earmarked for localized conservation.



As a result, the sustainable use of water resources is associated with the SDG14: Life Below Water and the SDG15: Life on Land that is grouped under Theme Six: Wildlife Support.

Theme Six: Wildlife Support



The theme about supporting wildlife combines two (2) different SDGs namely a) life below water and b) life on land. The summarized targets of these SDGs include the prevention, the management i.e. restoration and conservation, and the significant reduction of all kinds of pollution into the terrestrial and marine environment by 2025. In addition, it is targeted that by 2030, there might be an increase in the economic benefits to developing regions and communities through approaches such as the promotion appropriate access to resources and fair and equitable sharing of the benefits arising from the utilization of resources. This calls for integration of ecosystem and biodiversity values into national and local planning, development processes, and strategies and the urgent action to end poaching and trafficking of protected species.

Being situated in a region colloquially known as a biodiversity hotspot, Malaysia has a huge conservation responsibility. Malaysia collectively maintained 55.2% forest cover. 12.1% of its lands are designated as terrestrial protected areas, while 3.36% of its water bodies are designated as marine protected areas. In addition, Malaysia participates in international trans-boundary conservation efforts, namely, Heart of Borneo initiatives for forest and Coral Triangle Initiatives for marine area. These initiatives allowed Malaysia to work together with neighboring countries like Brunei, Indonesia and Philippines. UMS' approach towards SDG14 and SDG15 is three (3) fold; it looks as the physical aspect, the social aspect and the education aspect.

Located in a biodiversity hotspot, UMS position itself as an institution of higher learning leader in conservation and execute extensive conservation related programs through dedicated research institute such as the Institute for Tropical Biology and Conservation (ITBC) and the Borneo Marine Research Institute (BMRI). This is UMS' social aspect on conservation. Both ITBC and BMRI were established in 1996 and 2000.



Figure 7: Youths from a conservation program inspecting UMS' BORNEENSIS collection

Among the facilities of these institutions include specimen collection centers as noted in the Figure 7, which is purposed for research and education. Through these institutions along with other agencies, UMS has been jointly carrying conservation related research and development both the public and private sectors from in and out of the country by providing facility access to the public. This is recognized by state agencies like the Sabah Biodiversity Centre, and the Sabah State Forestry Department. As a result, UMS is a recognized conservation stakeholder at both state and national level.

5. Carbon Footprint Management

A carbon footprint is the total amount of greenhouse gases (including carbon dioxide and methane) that are generated by our actions. Carbon footprint of UMS relates to the sum of its academicians, administrators and students, and their actions; this footprint is generated through the act of teaching and learning on-campus and research and development off-campus. While numerous ways of managing UMS' carbon footprint are available, this is generally achieved sustainably by firstly uplifting the quality of life of UMS' community and its stakeholders and later by enhancing UMS' community towards the appreciation of the concept of a sustainable community, without wasting unnecessary resources. This in turn outline two themes namely Theme Five Sustainable Community and Theme Six: Quality Life Sustainability.

Theme Seven: Sustainable Community



Theme Seven is the development of a sustainable community and it is a combination five (5) different SDGs namely a) no poverty, b) good health and well-being, c) clean water and sanitation, reduced inequalities, and sustainable cities and communities. The summarized targets of these SDGs include the achievement of universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all. In addition, these SDGs also target the provision of access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons by 2030. These SDGs call for effort to share resources relevant for a community to remain strong and vibrant.

Malaysia has a few indicators directed towards the development of a sustainable community. Among those indicators include the household expenditure on health of 25%, and the capacity and health emergency preparedness of its people. Currently, more than 70%

of the population access and depend on the public healthcare system which provides universal healthcare coverage and subsidizes up to 98% of healthcare costs. Health occupied at least 10 per cent of the federal budget.

The year 2020 was a challenging year mainly because of the COVID-19 Pandemic. Because of that, UMS' sustainability community services were needed not just to support in uplifting the quality of life of UMS' community but also to support the fight against the pandemic. This is evident when focusing on healthcare (SDG3). Major services of UMS were directed towards relieving communal challenges. Fortunately, UMS is supported of organizations such as the UMS Four Wheel Drive Volunteer Club and the UMS-Medical Specialist Community Outreach. This support has allowed UMS to carryout the many projects to service its stakeholder e.g. the local communities. One such project is the Food Ration Support among rural communities by UMS 4WDVC (refer to Figure 8).



Figure 8: UMS 4WDVC's representative handing over rations to remote villages that wer affected by Malaysia's Movement Control Order (MCO) on 17 Dec 2020.

In the above projects UMS' students particularly those from the Faculty of Medicine Health Sciences (FPSK) are present as observers and additional volunteers so that they may gain first-hand experiences. Apart from the above mentioned, UMS also provided Mobile Health Services through UMS-MedSCOT, and Telemedicine Services by Hospital Universiti Malaysia Sabah.

Theme Eight: Quality Life Sustainability



The theme on Social Safety, Security and Mobility combines three (3) different SDGs namely a) zero hunger, b) affordable and clean energy and c) responsible consumption and production. The summarized targets of these SDGs focused substantially reducing the generation of waste through the concept of prevention, reduction, recycling and reuse by 2030. Under this theme, there ought to be an assurance of universal access to affordable, reliable and modern energy services by that year. With these, it would then be possible to support the eradication of malnutrition by 2030.

In January 2020, UMS signed a memorandum of agreement (MoA) with JAPFA Comfeed Indonesia, one of Asia's largest agri-food producer¹⁹. This MoA focused on the transfer of knowledge from UMS to JAPFA' personals so that it may establish an aquaculture institution in Indonesia. This MoA came after numerous aquaculture-based research joint-ventures.



Figure 9: MoA ceremony between UMS and JAPFA (source: UMS' Facebook)

¹⁹ Refer <https://malaysiagazette.com/tag/japfa/>

6. Green Community

In general, under the theme *Green Community*, UMS started taking serious steps into issues revolving gender equality. Among the steps focused on women empowerment by enhancing their understanding on self-defense and woman mindfulness. This was further supported by UMS' research explorations into flexible working arrangements.

To realize the university's ethos, the year 2020 has seen UMS establishing its Sustainable Waste Management Policy, which among many aimed at managing its students and personals carbon footprint. A green community on campus is defined as a campus neighborhood in which environmentally friendly tactics are used in every way feasible. The building of this green community in UMS can be worked in partnership with broader sectors not only within the campus community but also other government agencies and the industry. Together they can plan activities that are compatible with goals set by UMS, which have been identified under two (2) themes, namely Theme Nine: Gender Equality and Theme Ten: Enhancing Institutional Strength for Peace and Justice.

Theme Nine: Gender Equality

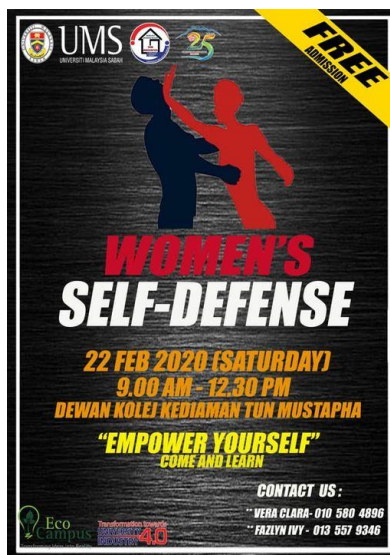


The theme on Gender Equality combines three (3) different SDGs namely a) good health and well-being, b) gender equality and c) reduced inequalities. The summarized targets of these SDGs relate to the establishment of an environment that promotes equality.

Malaysia is a multiracial and multicultural society, and an important pre-requisite towards ensuring the national unity, the concept of inclusiveness is recognized and appreciated. At the national level, an approach towards inclusiveness is the launching of an instrument to reduce racial disparity. Malaysia's instrument is called the New Economic Policy (NEP) 1971-1990, and it was launched in 1971. The NEP aimed at attaining national unity by implementing two strategies: to eradicate poverty regardless of ethnicity, and restructure society to eliminate the identification of race with economic function. By the end of the NEP period, Malaysia succeeded in reducing poverty from around half of the total

households in 1971 to 16.5% in 1989. Poverty rates for all ethnic groups were also reduced during the period, with the poverty rate among Bumiputera decreased from 64.8% to 23.0%, the Chinese from 26.0% to 5.4%, Indians from 39.2% to 7.6%. The gap between households from different income classes were also narrowed through NEP, as income share of households categorized as B40 increased from 11.5% in 1970 to 13.9% by 1992 and the income share of top 20% households categorized as T20 decreased from 55.7% to 50.6% in the same period. The Malaysia Gender Gap Index had yet to be announced but it was anticipated to show a slight increase from 2019 that showed a 70.9% equality. Hence, from the Second Malaysia Plan (RMK2) between 1971 and 1976 to the SPV 2030, sustainable development and inclusivity have been the underlying themes in Malaysia's socio-economic development policies to ensure no one is left behind.

At a higher institution level, UMS too had established its instruments to ensure equality. One indispensable instrument of a higher institution is its research programs. In 2020, four faculties i.e. FPEP, FPSK, FPP and FSSK were allocated a sum of RM 103,110 to conduct studies that is expected to address the issue of gender equality. Among many, these studies focused on workplace gender discrimination and harassment, social emotional skills, and the appreciation of technological tools among women and children. Part from research programs, UMS has also carried out a few activities to empower women. One such activity is UMS' Women's Self Defense program²⁰.



²⁰ Refer <https://www.pressreader.com/malaysia/utusan-borneo-sabah/20200305/282102048721889>

The program was carried out February 2020 at the *Dewan Kolej Kediaman Tun Mustapha* by the *Kolej Kediaman Tun Mustapha's* Student Welfare Committee. 120 women participated in this program. These were carried out February 2020 at the *Dewan Kolej Kediaman Tun Mustapha* by the *Kolej Kediaman Tun Mustapha's* Student Welfare Committee. Apart from this, there was also wellbeing related activities being carried out.



The activities were in line to UMS' celebration of Women's Day 2020²¹, which fell on 8th March 2020. On that day, KESUMBA organized a ceremony to acknowledge the role of women.

Theme Ten: Enhancing Institutional Strength for Peace and Justice



Conflict, insecurity, weak institutions, and limited access to justice remain a great threat to sustainable development. Under the tenth theme is an SDG that revolves on the enhancement of institutional strength for peace and justice. Among the targets under this theme include the promotion of the rule of law at the national and international levels and to ensure equal access to justice for all. In addition, another target under this theme is the development of effective, accountable, and transparent institutions at all levels while

²¹ Refer <http://eprints.ums.edu.my/25255/>

ensuring responsive, inclusive, participatory and representative decision-making at all levels. It is hoped that by 2030, assurance to public access to information and the protection of fundamental freedoms, in accordance with national legislation and international agreements is made.

Malaysia has a total estimated population of 32.7 million in 2020, where 69.6% are Bumiputra (Malays and native groups of Sabah & Sarawak), 22.6% Chinese, 6.8% Indian and another 1% other ethnicities. It is a constitutional monarchy country based on the Westminster system with three tiers of government – Federal, State and Local. Policy development, and implementation requires coordination across the different levels of government as well as the various ministries and agencies. The Government has adopted the whole-of-government and a whole-of-nation approach based on a shared responsibility model to ensure improved service delivery. As a multicultural nation, one of the key functions of institutions in Malaysia is to ensure social cohesion and unity. Article 5 (3) of the Malaysian constitution guarantees the right to justice and legal aid for every person in Malaysia. Malaysia is committed to build strong institutions towards ensuring good governance. An approach of Malaysia was the establishment of the Ministry of National Unity in 2020 to further enhance Malaysia's national unity and social cohesion. As a result of many programmes, in the Global Peace Index (GPI) 2020, Malaysia was ranked as the 20th most peaceful country in the world. Malaysia will continue to adopt a holistic approach by incorporating principles such as transparency, accountability, efficiency, and effectiveness in the policy, planning and delivery processes towards attaining the SDGs. While challenges remain in accessing justice due to financial or physical constraints, reforms are currently being undertaken to ensure people's access to justice is improved.

Being an agency of Malaysia, UMS strive to enhance institutional strength through its research and development activities. In 2020, about RM532,000 was allocated for 16 different research to be carried out at various faculties and centers such as FPEP, FSSK, FKL, FKI, FKSW, PPIB, and BORIIS. Among the research projects include the research about migration and violent extremism in Sabah and the research about Paradiplomacy between Malaysia and Australia. Apart from this is the research about the reshaping of government entrepreneurial support programs for micro businesses and small businesses and research into flexible working arrangements. No less important is the student about the

impact of mass media exposure and social media involvement on risk perception and precautionary behavior towards the containment of a pandemic in Malaysia and research on the diffusion and sharing of misinformation on social media in a crisis.

CONCLUDING REMARKS

Sustainable Development Goals (SDG) is the 2030 core agenda in sustainable development which was agreed by world leaders September 2015 at the United Nations Conference. Malaysia's initial effort started with data collection and analysis, and by 2018 the results of those analysis began to be appreciated. UMS started appreciating SDG in 2020 through the Sustainable Development Goals Research@Borneo Guidelines (SDG Research@Borneo), which was established by certain members of Malaysia Comprehensive University Network (MCUN) namely UiTM, UNIMAS and UMS.

The year 2020 is filled with many trials and tribulations particularly as everyone battled the COVID19 Pandemic. In view of Malaysia's fight with the COVID19 pandemic, UMS strategize SDGs into a few key thrusts where the university's mission and vision is able to directly play a part. In line with EcoCampus Management Centre's focus on six (6) categories, 10 themes were established.

BIBLIOGRAPHY

- Department of Statistics. (2020, December 1). *Statistics on Women Empowerment in Selected Domains, Malaysia. 2020.* Putrajaya.
https://www.dosm.gov.my/v1/index.php?r=column/cthemByCat&cat=444&bul_id=QlliTUXPQnhrR2tVa2kyOFpkWmhaZz09&menu_id=L0pheU43NWJwRWVSZklWdzQ4TlhUUT09
- EcoCampus Management Centre, Corporate Relations Division and Universiti Malaysia Sabah Press. (2016). *UMS ECOCAMPUS PLAN 2015 - 2020.* Universiti Malaysia Sabah. Kota Kinabalu.
- Economic Planning Unit, Prime Minister's Department. (2017). *MALAYSIA, Sustainable Development Goals Voluntary National Review 2017, High-level Political Forum.* Putrajaya.
- Economic Planning Unit, Prime Minister's Department. (2021). *MALAYSIA VOLUNTARY NATIONAL REVIEW (VNR) 2021.* Putrajaya.
- Taufiq-Yap, Y.H. (2020). *Amanat Naib Canselor Universiti Malaysia Sabah 2020.* Penerbitan UMS. Kota Kinabalu.
- United Nations (2017) Resolution adopted by the General Assembly on 6 July 2017, Work of the Statistical Commission pertaining to the 2030 Agenda for Sustainable Development([A/RES/71/313 Archived](#) 28 November 2020 at the [Wayback Machine](#))
- United Nations (2015) Resolution adopted by the General Assembly on 25 September 2015, Transforming our world: the 2030 Agenda for Sustainable Development([A/RES/70/1 Archived](#) 28 November 2020 at the [Wayback Machine](#))
- Univesiti Malaysia Sabah. (2013). *Pelan Tindakan EcoCampus; Mengubah Idea Menjadi Realiti.* Universiti Malaysia Sabah. Kota Kinabalu.

APPENDIX

Appendix 1: SDG Research@Borneo

Bil.	Matlamat (SDGs)	Penerangan	Tema Penyelidikan
1.	Tiada kemiskinan (No poverty)	Mengakhiri semua bentuk kemiskinan di mana sahaja	• Meningkatkan mobiliti sosial (<i>Uplifting social mobility</i>) (SDG 1) • Taman penyelidikan dalam komuniti (<i>Research garden in the community</i>) (SDG3 &11) • Pendidikan dan kesedaran (<i>Education and awareness</i>) (SDG4) • Keselamatan makanan (<i>Food security</i>) (SDG2)
2.	Kelaparan sifar (<i>Zero hunger</i>)	Mengakhiri kelaparan, mencapai keselamatan makanan dan meningkatkan nutrisi	
3.	Kesihatan dan kesejahteraan yang baik (<i>Good health and wellbeing</i>)	Memastikan kehidupan yang sihat dan meningkatkan kesejahteraan di setiap peringkat umur	
4.	Pendidikan berkualiti (<i>Quality education</i>)	Memastikan kualiti pendidikan yang terangkum dan sama rata, serta meningkatkan peluang pendidikan sepanjang hayat kepada semua	
5.	Kesaksamaan jantina (<i>Gender equality</i>)	Mencapai kesaksamaan jantina dan memperkasakan semua wanita dan kanak-kanak perempuan	• Pemerkasaan wanita dan masyarakat (<i>Community and women empowerment</i>) (SDG3, 5 & 10)
6.	Kebersihan air dan sanitasi (<i>Clean water and sanitation</i>)	Memastikan ketersediaan dan pengurusan air dan sanitasi yang Lestari untuk semua	• Kehidupan lestari (<i>Sustainable living</i>) • Kualiti hidup (<i>Quality of life</i>) • Tenaga kerja yang sihat (<i>Healthy workforce</i>) • Ekonomi Lestari (<i>Sustainable economy</i>)
7.	Tenaga yang berpatutan dan bersih (<i>Affordable and clean energy</i>)	Meningkatkan akses terhadap tenaga yang berpatutan, Lestari dan moden untuk semua	
8.	Pertumbuhan pekerjaan dan pembangunan ekonomi (<i>Decent work and economic growth</i>)	Menggalakkan pertumbuhan ekonomi yang Lestari dan meningkatkan peluang pekerjaan dan produktiviti	
9.	Industri, inovasi dan infrastruktur (<i>Industry, innovation and infrastructure</i>)	Membangunkan infrastruktur yang berdaya tahan, menggalakkan perindustrian yang terangkum dan Lestari serta memupuk inovasi	• Kebahagiaan dan kesejahteraan (<i>Happiness and wellbeing</i>) • Teknologi hijau (<i>Green technology</i>) • Teknologi bersih (<i>Clean technology</i>) • Kitar semula (<i>Recycling</i>) • <i>Cradle to grave</i> • Sisa kepada kekayaan (<i>Waste to wealth</i>)
10.	Mengurangkan ketidaksamaan (<i>Reduced inequality</i>)	Mengurangkan ketidaksamaan di dalam dan di antara negara	• Kelestarian dan komuniti antarabangsa (<i>International sustainability and community</i>) • Politik antarabangsa (<i>International politics</i>) • Mengurangkan jurang antara luar bandar dan bandar (<i>Narrowing gaps between rural and urban</i>)
11.	Komuniti dan bandar yang Lestari (<i>Sustainable cities and communities</i>)	Mewujudkan bandar dan penempatan yang terangkum, selamat, berdaya tahan dan Lestari	• Penuaan penduduk (<i>Ageing population</i>) • Penangkutan hijau (<i>Green transport</i>) • Mengurangkan kesan karbon (<i>Reducing carbon footprint</i>) • Pembangunan luar bandar (<i>Rural development</i>) (SDG6, 1, 3, 10)
12.	Penggunaan dan pengeluaran yang bertanggungjawab (<i>Responsible consumption and production</i>)	Memastikan penggunaan dan paten pengeluaran yang Lestari	• Keselamatan makanan, sisa makanan (<i>Food security, waste of food</i>) (SDG2, 7) • Obesiti (<i>Obesity</i>)
13.	Tindakan iklim (<i>Action climate</i>)	Mengambil tindakan segera dalam menangani kesan perubahan iklim	• Pengurangan karbon (<i>Carbon reduction</i>) (SDG10)
14.	Kehidupan di dalam air (<i>Life below water</i>)	Memulihara dan menggunakan laut, pantai dan sumber marin secara Lestari	• Ekosistem marin dan akuatik (<i>Marine and aquatic ecosystem</i>) • Keselamatan makanan (<i>Food security</i>) • Air bersih (<i>Clean water</i>) • Biodiversiti (<i>Biodiversity</i>) • Produk semulajadi (<i>Natural products</i>) • Pembangunan sosio ekonomi (<i>Socio economic development</i>) • Penglibatan masyarakat dalam pemuliharaan tanah dan air (<i>Community participation in conservation of land and water</i>) • Pendidikan perlancongan (<i>Edu-tourism</i>)
15.	Kehidupan di atas darat (<i>Life on land</i>)	Melindungi, memulihara dan menggalakkan penggunaan kosistem daratan yang Lestari, menguruskan perhutanan secara Lestari dan menangani penghakisan tanah	
16.	Kesejahteraan, keadilan dan institusi yang kukuh (<i>Peace, justice and strong institution</i>)	Menggalakkan kesejahteraan masyarakat yang terangkum, menyediakan akses kepada keadilan dan membangunkan institusi yang efektif, bertanggungjawab dan terangkum di semua peringkat	• Undang-undang, akta, dasar dalam menangani pertindihan antara institusi (<i>Law, legal, acts, policies addressing redundancy between institutions</i>)
17.	Perkongsian dalam mencapai matlamat (<i>Partnership to achieve the goals</i>)	Mengukuhkan kaedah pelaksanaan dan mewujudkan perkongsian global untuk pembangunan yang Lestari	• Berkaitan dengan semua SDGs

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