UMS EcoCampus: Transforming Ideas Into Reality

UI Green metric Workshop 2017, Istanbul University
10 April 2017

1 Vice-Chancellor, Universiti Malaysia Sabah
2 Director, EcoCampus Management Centre
Universiti Malaysia Sabah
Facts & Figures

GENERAL INFO

Established: 1994
Type: Comprehensive University
Number of Campuses: Three (3):
- Kota Kinabalu Main Campus
- International Campus, Labuan
- Faculty of Sustainable Agriculture (Sandakan Campus)

18,045
577
126
275

UNDERGRADUATES

64 Number of Undergraduate Programmes
Undergraduate Students Enrollment (Full time):
- 15,342 Local
- 475 International

Exchange Undergraduate Students:
- 106 Inbound
- 236 Outbound

POSTGRADUATES

1,460 Full time
1,243 Part time
102 International (Full time)

Student Enrollment:
- 2,703 Total
- 51,418 PhD (Research)
- 52,120 Masters (Research)
- 702 Course Work

Exchange Postgraduate Students:
- 620 Inbound
- 39 Outbound

ACADEMIC STAFF

Total: 1,056
- Full time & Part time: 878
- Study Leave: 178
- International (Full time): 132
- with PhD or equivalent: 482
- Local (Full time): 826

Alumni

Total: 2,703
- PhD: 51,418
- Masters: 52,120
- Exchange: 702
Our believe and commitment

• Recognize that our decisions and actions can have a significant impact on the environmental, economic and social dimensions of the region, at present and in future.

• recognize that fundamental changes need to be made in the way society thinks and acts towards sustainable development

• believe that this can only be achieved through the education and transformation of our values and lifestyles.

• incorporates environmental considerations in our planning and activities by being innovative, relevant and sustainable.
UMS Strategic Plan and EcoCampus Blueprint

Strategic Objective

• To rebrand UMS as an eco-campus
• To reduce UMS carbon footprint
• To increase environmental awareness among UMS student and staff, as well as the local community

Key Performance Indicators

• UMS EcoCampus Policy and Blueprint
• UMS EcoCampus Secretariat, Unit or Centre
• ISO14001:2004 certification
• International recognition in the environmental and green agenda
• Reduction in annual total amount (kWh) of electrical energy used
• Reduction in annual total amount (m³) of water used
• Reduction in annual total amount (ream) of A4 paper used
• Environmental awareness score of UMS students
• Environmental awareness score of UMS staff
• Number of environment related activities organized involving local communities
Vision
“The Universiti Malaysia Sabah will become a leading model of the “new flagship EcoCampus” of the 21st century. By redefining and “greening” our policies and practices in an ecologically-friendly context, we are setting new standards in campus management and our core activities of education, scholarship, research and innovations.”

Policy Statement
UMS is committed to be a university of excellence in teaching and research, and an EcoCampus that incorporates due environmental considerations in its planning and activities by being innovative, relevant and sustainable. The environmental stewardship towards sustainable development will address local, national and global environmental challenges in collaboration with stakeholders.
UMS EcoCampus: Definition & Aims

- A point of reference to act as a steward of the environment, contributing to global efforts towards sustainability by introducing environmental excellence in teaching and learning, research, infrastructure development, management and operational practices, and campus experience.

- Allows the institution to systematically identify, evaluate, manage and improve its environmental performance and practices through the EcoCampus Transformation Plan.

- The main aims are to promote environmental education and care, and moving towards environmental sustainability through good planning, and operational and management practices that will influence curriculum, teaching and research, and campus experience through leadership of the university.
EcoCampus Core Values & Key Elements

EcoCampus Core Values:
- Sustainable Development
- Ecological Protection
- Resource Conservation
- Environmental Stewardship

EcoCampus Key Elements:
- Mindset Change
- Operational Practices
- EcoCampus Key Elements
- Management
- Research Themes

Themes:
- Infrastructure Development
- Teaching and Learning
Engagement of the whole campus community

- **Senior Management**: Decision making shall include consideration of environmental impacts alongside social and economic imperatives.
- **Campus Buildings & Infrastructure**: Minimize environmental impacts through initiatives than reduce carbon footprints.
- **Student Experience**: Inculcate green consciousness in staff and students through their engagement in green initiatives on campus and the wider community.
- **Research**: Multi-disciplinary approaches that address the challenges pertaining to the environment and sustainability.
- **Education**: Offer courses in ecology and environment to all students equipping for sustainable lifestyle and the global green economy.
The crisis we face is first and foremost one of the mind, perception and values; hence it is a challenge to those institutions presuming to shape the minds, perceptions and values.

Step 1: Establish an EcoCampus Management Centre supported by various Green Committees
Planning, organizing, directing, coordinating, monitoring initiatives and activities.

Step 2: Adopt an Environmental Vision Statement
Adoption at faculty, institute, department level based on the University vision and policy to enhance ownership and engagement.

Step 3: Conduct an Environmental Audit
To identify priorities for action.

Step 4: Create and review the EcoCampus Action Plan
Committed to make changes by creating a realistic and achievable action plan and reviewing it from time to time.

Step 5: Monitor and Evaluate Progress
The EMC and green committees assist in monitoring and evaluating progress on the priorities in the action plan.

Step 6: Integrate Greening Principles into the Curriculum and Co-curriculum
Integrated into existing curricula in science, art, humanities, math, language arts, or other disciplines and co-curriculum.

Step 7: Inform, Involve, and Celebrate Greening Achievements
Practice green activities but celebrate their success. Greening programs often help to unify the whole campus community and strengthen inter-departmental relations.
Our initiatives: Mindset change through engagement in education and awareness programmes
The EcoCampus Management Centre

**Director**
AP Dr. How Siew Eng

**Assistant Registrar**
Mr. Alvin Azril Mahat @ Mehab

**Assistant Administrative Officer**
Madam. Junaidah Lamjan

**Administrative Clerk**
Mr. Zulkefli Muhammad

---

**Former Directors**

Dr Awangku Hassanal Pengiran Bagu

AP Dr Justin Sentian
Ownership & Engagement: Establishment of Working Committees

1. EcoCampus Main Committee
2. Setting & infrastructure & Landscape Committee
3. Waste Management Committee)
4. Energy and Climate change Management Committee
5. Water Management Committee
6. Transportation and Carbon Reduction Management Committee
7. Education and Awareness Committee
8. FEE Ecocampus Program Committee
9. EcoCampus Tourism Committee
## Courses, Research, Publication and Conference Related to EcoCampus Agenda and Environmental Sustainability

<table>
<thead>
<tr>
<th>Education (ED)</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of courses related to environment and sustainability offered</td>
<td>890</td>
</tr>
<tr>
<td>Total number of courses offered</td>
<td>2665</td>
</tr>
<tr>
<td>Total research funds dedicated to environmental and sustainability research (in US Dollars)</td>
<td>1063555</td>
</tr>
<tr>
<td>Total research funds (in US Dollars)</td>
<td>5356894</td>
</tr>
<tr>
<td>Number of scholarly publications on environment and sustainability published</td>
<td>248</td>
</tr>
<tr>
<td>Number of scholarly events related to environment and sustainability</td>
<td>86</td>
</tr>
<tr>
<td>Number of student organizations related to environment and sustainability</td>
<td>10</td>
</tr>
<tr>
<td>Existence of a university-run sustainability website</td>
<td>Available</td>
</tr>
</tbody>
</table>

### Undergraduates Program Offered:

#### Faculty of Science & Natural Resources
1. Environmental Science
2. Conservation Biology
3. Marine Science
4. Nature Parks & Recreation
5. Forest Plantation & Agroforestry
6. International Tropical Forestry

#### Faculty of Sustainable Agriculture
1. Horticulture & Landscaping
2. Crop Production
3. Livestock Production

Sustainability website address if available: [http://www.ums.edu.my/ecocampusv2/](http://www.ums.edu.my/ecocampusv2/)
Staff & Post graduate students engagement: Conferences
Staff & Student Engagement: Integrating into course: student survey project on ecocampus sustainability

Establishing Link Between UMS Eco Campus Department and Minor Environmental Clubs in UMS.

Lenny Elyrichah Judoming, Al Norairi M Al-Jardasi, Cherif Claudao, Aida Sofian, Jesca A. R. Jangun, Naurzy S. Hamood, Nurbelie Ibrahim, Shahnaz Jellal, Suaini Aidid

Introducing

This research aims to establish links between the environmental bodies in UMS that is Eco Campus Department and other minor environmental clubs. We believe that cooperation between the environmental bodies increases the impact of the activities being held towards the UMS community. A better communication through the established links will encourage the cooperation among the environmental bodies.

Findings

• 90% respondents agreed the idea of their club operate under Eco Campus Department.
• 87.50% respondent agreed to create a link. They believe it improves the communication and information sharing.
• 65.30% respondents believe it increases the number of participants in environmental activity.
• 47.65% agreed it will bring more awareness towards UMS community.

Significant of Study

• Improve the effectiveness and success in any environmental activities being held by the minor environmental clubs.
• Make a milestone for the minor clubs in UMS.
• Information are shared and can be necessary.

Acknowledgement

We would like to acknowledge the cooperation of Green Team Club and Kelab Alam Sekitar members who generously spent their time answering the questionnaires. We also grateful to the guidance given by Dr. Dato Rosali Dato Hassan.

Methodology

• Online questionnaires:
  - Green Team Club
  - Kelab Alam Sekitar
• Interview Sessions
  - Vice President of Green Team Club
  - President of Kelab Alam Sekitar
Staff & Student Engagement: Integrating into course: undergraduate student art work project using recycled materials
Campus Engagement: Ecocampus awareness week

EcoCampus Awareness Week 2013

Tentatives
6 May (Monday): What EcoCampus Meant To You?
7 May (Tuesday): "Support GREEN Campaign"
8 May (Wednesday): Exhibition on EcoCampus
9 May (Thursday): Closing Ceremony

Date: 6-9 May 2013 (Monday - Thursday)
Time: 8:00 am - 2:00 pm
Venue: School of Business & Economic
Organized by: BE 31703 Special Event Operation
Campus Engagement

Some best practices:

- Use refillable water bottles instead of plastic bottles.
- Make your own bins (DIY).
- Signage on polystyrene & plastic free and saving utility.
- Vegetable plot in campus.
<table>
<thead>
<tr>
<th>No.</th>
<th>PI</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Prof Datin Seri Panglima Dr. Ann Anton</td>
<td>Best Practices In The Ranching Of The Giant River Prawn Macbrochium Rosembergii (Udang Galah) In Sg Petagas, Sabah - A Community-Based Stock Enhancement Programme</td>
</tr>
<tr>
<td>2.</td>
<td>Dr. Bonaventure Boniface</td>
<td>On-Site Production of Rubber Clones By The Kimaragang Community In Kota Marudu, Sabah-Transferring Technical Knowledge on Patch Budding For Rubber Smallholders Who Are Not A Part Of The Rubber Planting Scheme</td>
</tr>
<tr>
<td>3.</td>
<td>Dr. Suzan Benedick</td>
<td>Optimisation of the economic potential of sustainable agriculture Dan Agro-tourism at Puteh (KOPEL)</td>
</tr>
<tr>
<td>4.</td>
<td>Ir. Pungut Ibrahim</td>
<td>Imparting optimized pico hydro energy system program to the villagers of Kg. Long Pasia Asal, Sabah</td>
</tr>
<tr>
<td>5.</td>
<td>En. Robert Francis Peters</td>
<td>Mediation of Rafflesia for Tourism; The Tourism Benefits Increment among Dusun Communities involved in the Rafflesia Conservation Initiative Scheme (RCIS)</td>
</tr>
<tr>
<td>6.</td>
<td>Dr. Fiffy Hasnidah Binti Saikim</td>
<td>Environmental conservation and community capacity building at Kg. Tudan, Tuaran Sabah: Best ecotourism practice by utilizing the local natural resources</td>
</tr>
<tr>
<td>7.</td>
<td>Dr Jidon Adrian Janaun</td>
<td>Development of a Solar Dryer Prototype and a Hybrid Dryer Prototype for drying of paddy and oil palm fruit for rural area farmers and planters</td>
</tr>
<tr>
<td>8.</td>
<td>Prof. Madya Dr. Jualang Azlan Gansau</td>
<td>Tantadan (Trigonal sp) Rearing Project at Kiulu, Sabah</td>
</tr>
<tr>
<td>10.</td>
<td>PM Dr. Rossita Shapawi</td>
<td>Aquaculture Farm Management: Optimizing Technology Maximizing Profit</td>
</tr>
<tr>
<td>11.</td>
<td>Dr. Md. Shafiquzzaman Siddiquee</td>
<td>Oil Palm Wastes Based Trichobiocompost: Green Technology Transfer To Local Industry As A Platform Of New Core Business</td>
</tr>
<tr>
<td>12.</td>
<td>Dr. Faihanna Ching</td>
<td>A Good Practice For Sustainable Sea Cage Farming FoR Coastal Aquaculture Industry</td>
</tr>
<tr>
<td>13.</td>
<td>Dr. Jidon Adrian Janaun</td>
<td>Using Laterally Aerated Moving Bed Technology For Drying Of Agricultural Biomass</td>
</tr>
</tbody>
</table>
School students and kids engagement

Friend of Bornensis Program

Korean students visit

AWARENESS PROGRAM
GLOBAL WARMING AND CLIMATE CHANGE
25 MARCH 2017
(8.00AM - 5.00PM)

Game

Tree planting

Girl guide beach cleaning

Ecocampus kids

Story telling
Others Engagement

Various Ministries and national and state levels

LOI signing with Sustainability Energy Development Authority under Ministry of Energy, Green Technology & Water

Sabah state

Kota Kinabalu City Hall Initiative-LiFE

International Sustainable Campus Network

Litter free event

LiFE Practices Concept

Little free everywhere

Little free everyday

Little free everyone
Our commitment and participation
Optimising Resources: EcoCampus Tourism
UMS achievement: Appreciation to all

CONGRATULATIONS Universiti Malaysia Sabah for the excellent achievements at the UI-GreenMetric World University Ranking.
Summary

- Being an institution of higher education in Sabah, UMS takes the lead to inspire present and future generations to think and act towards sustainable development.

- The university community plays a meaningful role in improving the acceptance of sustainable solutions. The transition towards EcoCampus has enable UMS to instill environmental excellence in decision-making and activities of the University.

- Together, UMS and its stakeholders have committed and implemented many initiatives which are innovative, relevant and sustainable to transform ideas into reality.

- Mindset change through various engagement and initiatives allows the UMS community as a whole to become the agent for change towards a sustainable future.

- It is our wish that the UMS staff and students could be proud ambassadors of “the practice of what we preach” on campus.
Thank You

Acknowledgement

THE IWGM 2017 organising committee
UMS Staff & students
UMS Photographers