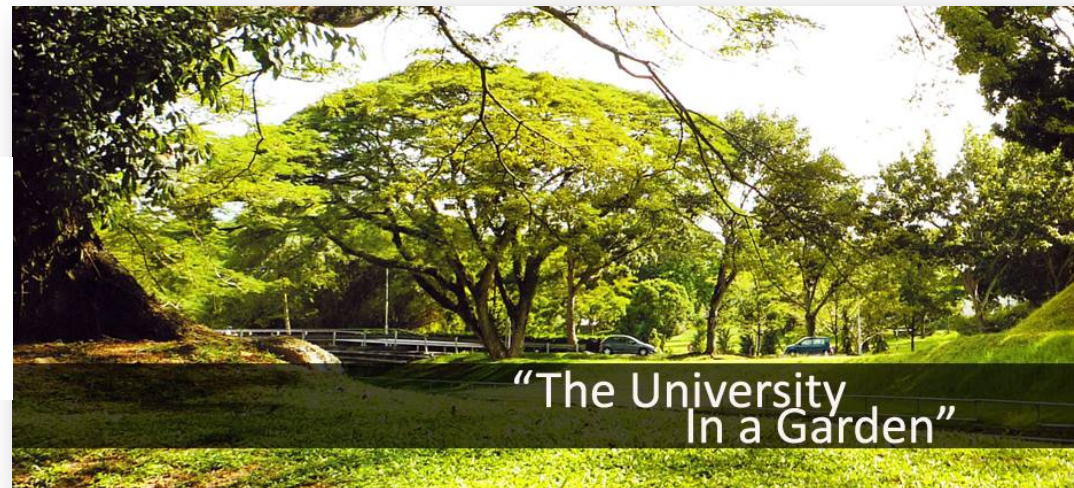


# Advancing Responsible Consumption and Production in Higher Education: Inaugural Conference for the IAU Cluster on SDG #12

Sharing SDG Successes : Universiti Sains Malaysia

Munirah Ghazali , Zinaida Fadeeva, Suzyrman Sibly & Normaliza Abdul Manaf





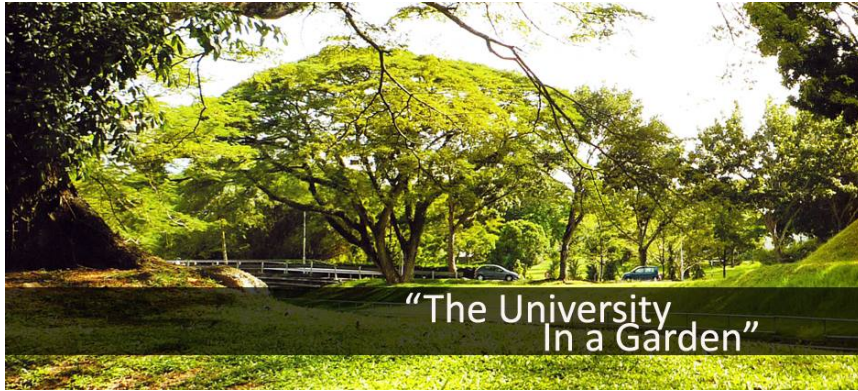
# PRESENTATION OUTLINE

## USM'S JOURNEY INTO SUSTAINABILITY

### CASE STUDY 1: USM Sustainability Report

### CASE STUDY 2: SCP Initiatives by RCE Penang

### CASE STUDY 3: Production of Roselle tea: a community engagement project



# USM'S JOURNEY INTO SUSTAINABILITY



# USM EDUCATIONAL LANDSCAPE



## Vision

**Transforming Higher Education for a Sustainable Tomorrow**

## Mission

USM is a pioneering, transdisciplinary research intensive university that empowers future talents and enables the bottom billions to transform their socio-economic well-being

## Value

Quality, Equality, Availability, Accessibility, Affordability, Appropriateness

## Thrust

Knowledge, The Future, Uniqueness, Sustainability, Humanity, Universality, Change, Sacrifice, Wellness



# USM approaches the area of SCP from multiple perspectives:

- Research that leads to innovations in the multiple areas of resource use and waste minimization (reflected in the USM Sustainability report – Case 1).
- Education towards SCP practices - dual foci on teacher education and community engagement (Case 2)
- Bringing innovation/research to the public: Universities to connect the dot. An example from a University Community Engagement Project (Case 3)



The cover of the USM Sustainability Report 2017 features a collage of four diamond-shaped images: a modern building with a glass facade, a city skyline with greenery, a large tree in front of a building, and a view of a building through trees. The text 'SUSTAINABILITY REPORT' is in green, '[In Numbers]' is in green, and '2017' is in red.

# SUSTAINABILITY REPORT

[In Numbers]

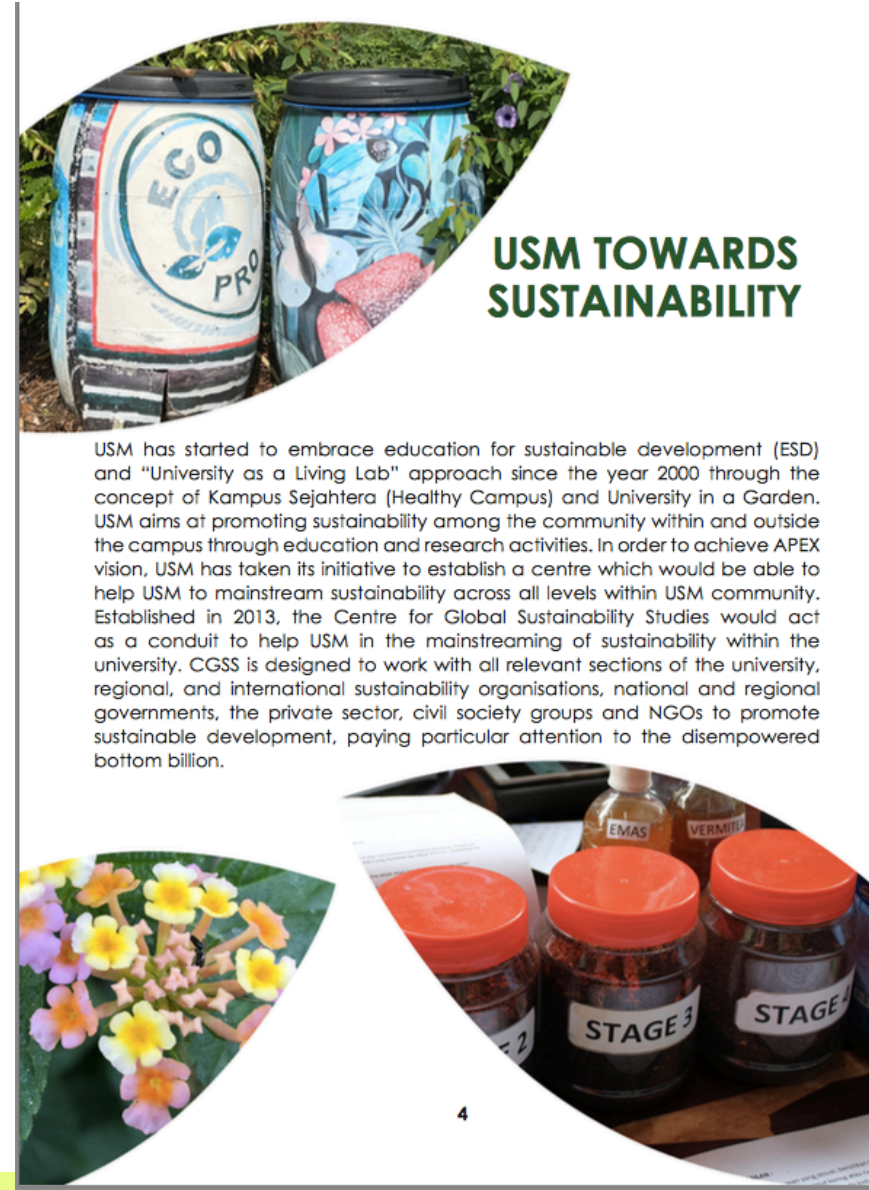
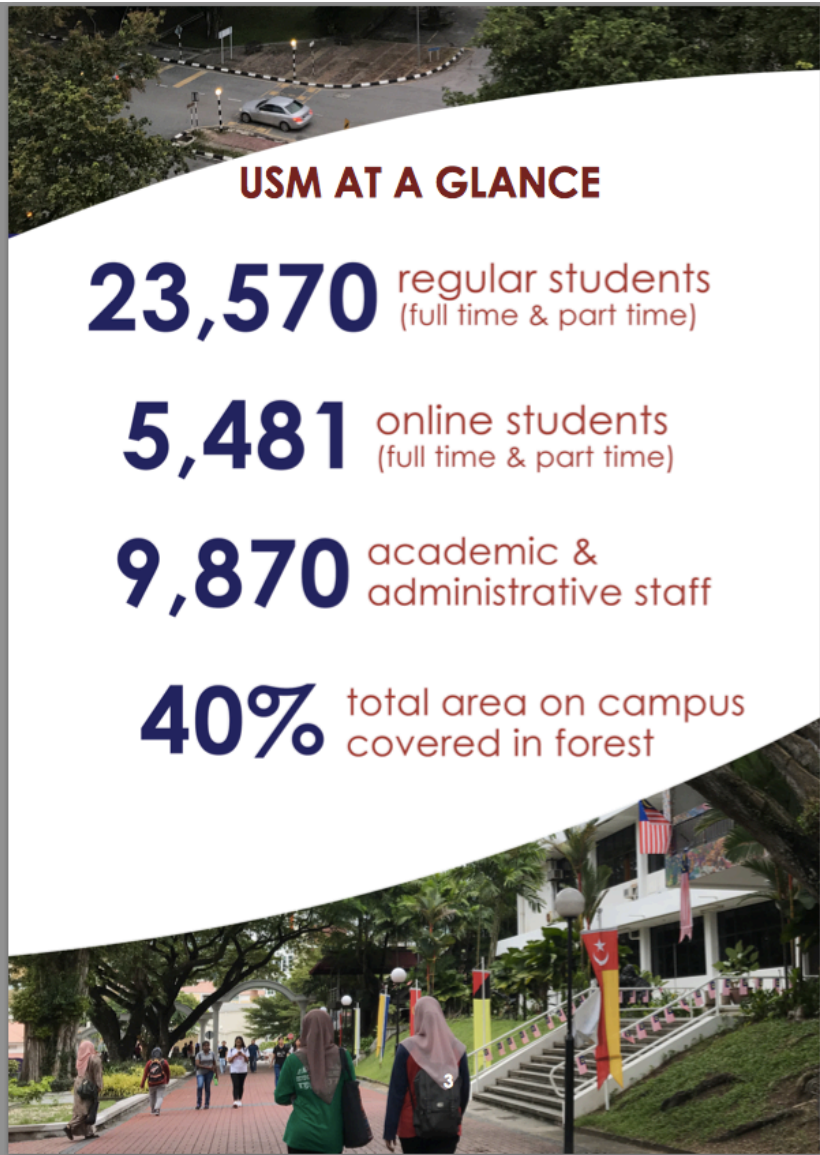
**2017**

*"Transforming Higher Education for a Sustainable Tomorrow"*

## CASE STUDY 1: USM Sustainability Report

Published by  
Centre for Global Sustainability Studies (CGSS)  
Level 5, Hamzah Sendut Library  
Universiti Sains Malaysia  
11800 Universiti Sains Malaysia  
Penang  
Website: <http://cgss.usm.my>  
Email: [cgss@usm.my](mailto:cgss@usm.my)

# CASE STUDY 1: USM Sustainability Report



**USM TOWARDS SUSTAINABILITY**

USM has started to embrace education for sustainable development (ESD) and "University as a Living Lab" approach since the year 2000 through the concept of Kampus Sejahtera (Healthy Campus) and University in a Garden. USM aims at promoting sustainability among the community within and outside the campus through education and research activities. In order to achieve APEX vision, USM has taken its initiative to establish a centre which would be able to help USM to mainstream sustainability across all levels within USM community. Established in 2013, the Centre for Global Sustainability Studies would act as a conduit to help USM in the mainstreaming of sustainability within the university. CGSS is designed to work with all relevant sections of the university, regional, and international sustainability organisations, national and regional governments, the private sector, civil society groups and NGOs to promote sustainable development, paying particular attention to the disempowered bottom billion.

4

The infographic includes two circular images: one showing two painted metal drums with 'ECO PRO' and floral designs, and another showing several glass jars with orange lids labeled 'STAGE 3' and 'STAGE 4'. The text is in a green, sans-serif font.

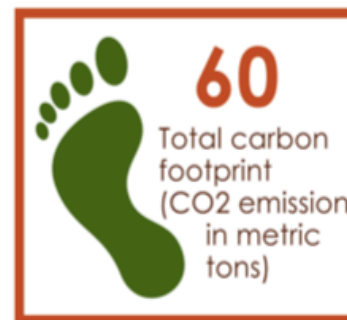
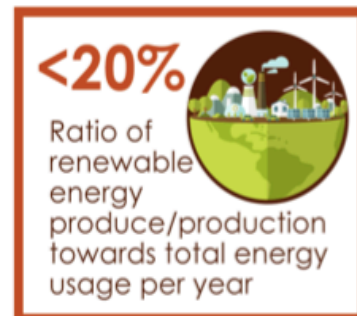
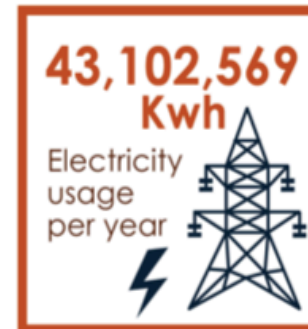
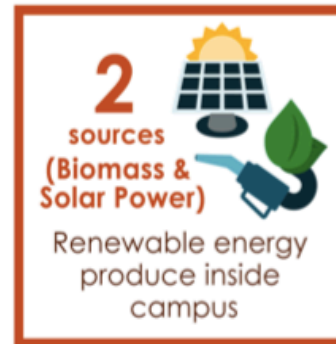


# CASE STUDY 1:

Research that leads to innovations in the multiple areas of resource use and waste minimization

## USM SUSTAINABILITY ACHIEVEMENTS

### ENERGY



5



## USM SUSTAINABILITY ACHIEVEMENTS

### WASTE



7



# CASE STUDY 1: Research that leads to innovations in the multiple areas of resource use and waste minimization

## USM SUSTAINABILITY ACHIEVEMENTS WATER

**25 to  
50%**

Water  
efficient  
appliances  
installed



**Recycled  
water**



is used  
for garden  
sprinkler system

**Rain  
Harvesting  
System**



is implemented  
for water conservation

**Lake &  
Pond System**



is implemented  
for water conservation



## CASE STUDY 2: SCP Initiatives by RCE Penang Education towards SCP practices - dual foci on teacher education and community engagement

### 1. Integrated Green Garden

### 2. Mangrove Reforestation Educational program



# Integrated Green Garden

**CASE STUDY 2:**  
**SCP Initiatives by RCE Penang**  
Education towards SCP practices - dual foci on  
teacher education and community engagement



## Output

- Teachers and student learn to setup integrated green garden by using recycling water from rain water, air conditioner water and etc.
- The level awareness of teachers and students on water are increased

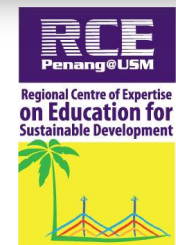


## Programs

- Organize workshop on Integrated Green Garden to pre school and primary school teachers
- Provide expertise to school on how to setup integrated green garden

## Objectives

- To provide awareness to teachers about the lack of clean water
- To expose and educate teachers about water care
- To provide skills to teachers to create Integrated Green Garden at kindergarten and school
- To encourage teachers to practice Integrated Green Garden





# Integrated Green Garden





# Integrated Green Garden



**CASE STUDY 2:**  
**SCP Initiatives by RCE Penang**  
**Education towards SCP practices - dual foci on teacher education and community engagement**



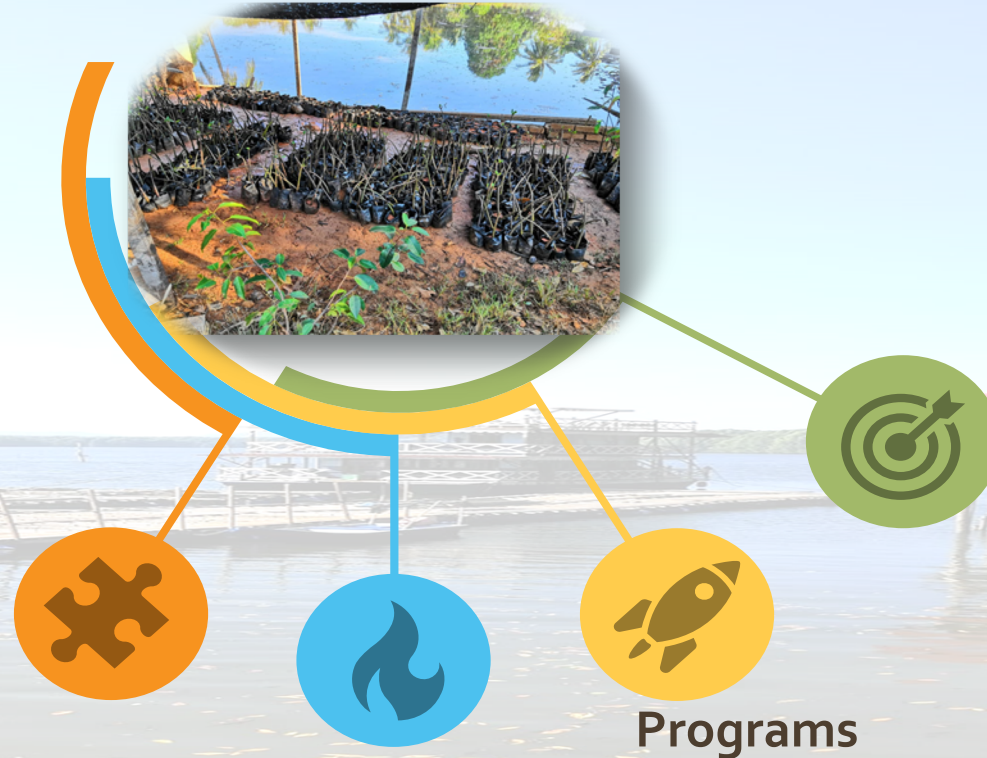
By: Prof Dr Munirah Ghazali



# Mangrove Camp: TRANSLATING SDG THROUGH YOUTH & COMMUNITY CONSERVATION ACTIVITIES

## Output

- There are evidence of developmental learning among the respondents. The respondents could identify the physical features and functions of the mangrove tree, and the threats faced by them and their prior knowledge on mangrove trees are quite diverse.
- the data collected and analyzed indicated that the respondents have improved not only their general knowledge about the mangrove trees but the activities conducted throughout the camp have succeeded in inculcating the values of caring and protecting mangrove trees and ecosystems.
- this program received positive feedback from the children and their parents. Post-camp, parents reported that the children showed encouraging change in behavior with more interest in learning and attending classes. The children are also excited and looking forward for the next program, Camp Bakau 2.0



## Programs

- The program was held to promote ESD via mangrove ecosystem education to the children and how protection of the mangrove ecosystem is important to conserve fisheries resources and community well-being.
- At the same time the importance of education was, and knowledge was stressed to the children. This knowledge is crucial as they will be more aware and act to protect their own environment.

## Objectives

- Introducing the concept of ESD (Education for Sustainable Development) through learning mangrove ecosystem.
- Introducing environmental elements and features in the context of STREAM through learning mangrove ecosystem.
- Linking the relationship of various elements of the environment and its relationship with humans.



## Mangrove Camp: KG.SUNGAI BATU BESI MERBOK, KEDAH





# CASE STUDY 3:

## Production of Roselle tea: a community engagement project

### PROSES PENGHASILAN PRODUK TEH ROSELLE



## Production of Roselle tea: a community engagement project near USM

### Roselle tea



Centre of Expertise  
for  
Development  
> BY



# CASE STUDY 3: Universities to connect the dot

Design for packaging: in collaboration with  
researchers from school of Industrial  
technology USM



Roselle products for sale during one of USM's  
events



With teaching, research and community engagement being closely linked in the area of SCP, there are a few areas that are interesting to explore within the consortium, e.g.

- - 'Ecosystems', i.e. partnerships, type of relations, resources, policies, that allow broader uptake of research relevant for better SCP practices
- - Critical examination of research methodologies applied to transdisciplinary SCP projects
- - engagement of the university departments that have potential for the SCP research and education but not necessary closely engaged



THANK YOU

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