RCE PENANG and USM: TRANSLATING GLOBAL AGENDA INTO LOCAL CONTEXT

Omar Osman, Zainal Abidin Sanusi
Universiti Sains Malaysia – RCE Penang

http://www.rce-penang.usm.my/
USM and Penang
WHAT ARE THE ISSUES OF SD IN PENANG

- **Environment**
  Distinctly divided island - greeneries and development
  Is this the inevitable paradox for development?

- **Socio-cultural development**
  Can the cultural diversity be maintained and celebrated?

- **Economic**
  Gaps among different ethnics

More to be done
RCE PENANG STRATEGIES

Strategy # 1 - Situational Analysis
Strategy # 2 - Engagement of Potential Stakeholders
Strategy # 3 - Multilevel and Contextual Approach
Strategy # 4 – Optimization of Collaborative Program
Strategy # 5 - Synergizing Formal and Non-formal Education
Strategy # 6 - Centre for Training and Re-training for ESD
Strategy # 7 - Content Building
EMBARKING OF RCE PENANG

INITIAL STAGE

Strategy # 1 - Situational analysis

- Base line studies for identification of:
  - issues of concern
  - main actors and their activities
  - opinion on formation of RCE

Observations from the studies

- Preservation and conservation
- Advocacy on Human rights etc
- Natural heritage
- Community development
- Individuals
Formal Education


Polytechnic Seberang Perai, Community College Kepala Batas, Community College Bayan Lepas, UiTM, Teachers Training Colleges, RECSAM Private Colleges, Other Universities

Secondary Schools

Primary Schools

Non-formal Education

USM’s Research Centres, Fisheries Research, Penang Botanical Garden, Penang National Park, Taiping Peace Initiative, Matang Mangrove Reserve

State Government of Penang and Its Agencies, Penang Municipal Council, Seberang Perai Municipal Council, Penang Development Corporation, Penang Regional Development Authority

Penang Heritage Trust, Consumer Association of Penang, Third World Networks, Malaysian Nature Society, Social Economic Research Institute, Community based NGOs. Media and Local Business Community

Red Font Denotes Active Partner
Strategy # 2 – Engagement of potential stakeholders

Putting outcomes of Strategy # 1 into action

- Regional workshop of EfSD held in 12-14th April 2005 with participation from major potential stakeholders of Penang and interested parties from outside Penang
Regional Workshop on EfSD
- 10 - 12th April 2005, Universiti Sains Malaysia
- Attended by more than 100 participants from SEA
Strategy #3 – Multilevel and Contextual Approach

Post recognition stage
- Modeling a university-led RCE
- Three-track strategy:

Track 1 - USM as an RCE within RCE University in the Garden

Track 2 - USM as conduit
“bringing – inside – out” model

Track 3 - USM and Community
Strengthening of relations and network towards creation of closer cooperation with all stakeholders employing bilateral and multilateral platform
UNIVERSITY-LED MODEL OF RCE

University & Community

University as conduit

University as RCE within RCE
TRACK 1 - USM AS AN RCE WITHIN RCE

Concept 1 - Univ In a Garden

- To sensitize the campus on the existing and available resources and assets on campus to be preserved and optimized
- Doing more with what we already have
Concept 2 - KAMPUS SEJAHTERA (HEALTHY CAMPUS)

3 FOCUS AREAS:

a) Environmental Stewardship – 15 projects

b) Healthy Lifestyle – 5 programmes

c) Social Tolerance – Differently-Able P, TPI

d) Healthy Citizens
Tree-Planting @ USM

- Annual activities of new students to plant trees marking their entrance
- Car parks dug up to plant more trees to reduce heat absorption
- Fruit trees at Student Hostels (Desasiswa)
- RM40,000 for tree planting for 2006

Car parks to be planted with more trees
INTENSIFICATION OF RECYCLING EDUCATION/ACTIVITIES WITHIN CAMPUS

Amount of Recycled Waste

1st Year (2003) - 1 ton
2nd Year (2004) - 4 tons
3rd Year (2005) - 11 tons
4th Year (2006) [Up to March – 17 tons]
Recycling Competition among Student Hostels

Recycling Explorace

Recycling Workshop among Students

Recycling Workshop Participants
Promoting the ideas of University as “civil society capacity builder”

1. Education for All
   - 50 senior citizens (above 50 years old)
   - 120 special needs students
   - 4700 off campus working adults

2. Citizenship Projects
   - to develop citizenship and community membership skills
   - to provide secondary schools students opportunities to voice their opinions and give suggestion on matters surrounding them environment
Malaysian Citizenship Initiative
EfSD in action

- Empowered to select community-based problem – mostly environmental issues
- 107 schools from 5 different states with 4344 students involved and 230 teacher trained
- Future: Nationwide
- Private and Municipal funding and support

Photos courtesy of USM International
a) Mechanism 1

Institutional USM and Community

- Creating and raising public awareness
  2005
  - National Seminar for Teachers Development “Education for Sustainable Development”
  - International Healthy University Conference
  - ASEAN-EU EfSD Workshop

2006
- Exhibition on “Understanding Sustainable Development through Arts” – 20 February – 27 March
- ASAIHL Conference on EfSD – June 19-22
- 1st RCE Penang Symposium – June 22 2006
- International Conference on Sustainable Housing, September - International Conference on Environment, November
- November……
- Capacity building - creation of core groups of trainers

Series of Training for Trainers

a) “Integrating SD into University Education and the Role of RCE” (led by Prof Charles Hopkins) – 30 faculty members from different department August 2005

b) “Intensive ESD Training and Planning Workshop” Feb 2006 - 30 faculty and 15 NGOs
b) **Mechanism 2**

**Entity of USM (unit/center) and Community**

- USM approach - promote trans-disciplinary practices through the formation of research clusters
- Strive for a balance between promoting science and technology and arts and humanities (benefiting the communities)
- Example of university and community SD projects activities – WORM FERTILIZERS PROJECTS – details on the projects
- Promotion of R&D findings in International Eco-product exhibition in Bangkok, October 2005
Helping villagers with worm – composting project
ESD Training and Planning Workshop
c) Mechanism 3  
USM’s students and Community

1. Informal education

   Living with the Communities –
   ▪ involved in appreciating the nature and helping the farmers, fishermen etc
   ▪ Students planned and organized activities with local communities
   ▪ Usually about one week during summer break
   ▪ Practical projects related to communities – free tuitions and motivation training to school children
   ▪ SD-related clubs activities with communities e.g. Community Service Club, Environmental Club, Caring Club etc.

2. Formal – Ethnic relations (60% practicum with the community)
Gotong royong – working with the communities

New Millennium Graduate Campaign – Walking the Caring Hearts
Strategy # 4 – Optimization of Collaborative Program

Pre council Meeting:
- RCE Penang Council (Penang stakeholders)
- Eminent Person Groups
- Operational Taskforce
- Specific Task Force

Post council Meeting - An addition of:
- Co-chairman - a highly respectable individual from community
- Co-secretariat - SERI - a government-supported policy research institute
1st RCE Penang Council Consultative Meeting
1st RCE PENANG SYMPOSIUM AND MOU SIGNING CEREMONY
RCE PENANG MEMBERS:

- Penang Environmental Working Group (PEWOG)
- World Wide Fund For Nature Malaysia (WWF)
- Taiping Peace Initiative (TPI)
- Association For Science And Mathematics Education Penang (ASMEP)
- Socio-Economic & Environmental Research Institute (SERI)
- Regional Centre For Education in Science And Mathematic (SEAMEO RECSAM)
- Water Watch Penang (WWP)
- Malaysian Nature Society, Penang Branch (MNS)
- Don & Mylene Theseira (Activist)
RCE PENANG and USM PARTNERS/COLLABORATORS:

- CDC
- Teacher Training Division
- International Division
- UNESCO Malaysia National Commission
- UPSI
- Penang Municipal Council
- Seberang Perai Municipal Council
- Taiping Municipal Council
- State Education Department
Strategy # 5 Synergizing the formal and non-formal education

Education system in Malaysia:
- Centralized
- Formal reorientation requires long process
- RCE members support and complement through non-formal education
a) University level
• Integrating the SD element in the newly introduced university compulsory subject - Ethnic Studies emphasizing the citizenship, cultural diversity and Islam Hadhari
• Focusing and structuring the students’ community-based projects towards SD

b) Other subjects - initiatives by individual lecturers - e.g. re-orientation of courses in Build Environment towards SD

c) Project – to have initiative for re-orienting EfSD in each level – pre-school → primary → secondary → pre-university → university
d) Secondary and Primary School
Joint project with MOE
Working with external party in reviewing environmental education system

e) Renewable Energy & Energy Efficiency Education Project by CETREE
- 5600 secondary school students educated on renewable energy and energy efficiency
- 2,300 teachers from 2,300 schools participated
- 2,200 public have participated
- Curriculum Book for Energy Efficiency across each subject in primary school
- Energy month – educational activities on RE&EE
- Workshop on RE&EE among Terengganu state elite schools (20) leading to establishment of RE-EE Clubs in the schools
USM and Teacher Training

- School of Education = Direct
- Centre of Instructional and Educational Multimedia
- School of Distance Education
- CETREE
- Other Related Schools especially School of Chemistry
School of Education USM

- Focus: Pedagogy, Psychology, sociology, educational management
- 60 academic staff – 80% PhDs holder
- Programmes
  - BSc in Education: Science, Arts in Education
  - MEd – 8 Specialisation
  - MA [Edu] – research
  - PhD – research
  - EdD - coursework
School of Education USM

- BERU – Basic Education Research Unit
- Research
  - E-learning, Digital Book, pre-school education
  - ESD and RCEs work
  - Teacher training – specific design modules
- Seminar and Conferences
  - ICMEE 2005
  - IOSTE 2006
  - EARCOME 2007
Strategy # 6 Centre for Training and re-training

Various capacity building program (training of trainer, workshops)

In-house, in-service training for academic staff (PTK)
  - lecturers
  - Mid-career academics
  - Senior academics
Merging e-learning & EfSD

ITQ6 participants at Titi Kerawang Water Catchment
April 2005

Moodle e-learning site on Water Loss
Strategy # 7 – Content Research and Development

- Sustainable Medicine
- Sustainable Engineering and Technology
- Sustainable Housing and Construction
- Sustainability Education
- Sustainable University
Figure 1: "How Much Do You Think You Know About ESD"

- Know A Lot
  - (Pre-Service)
  - (In-Service)
- Know
  - (Pre-Service)
  - (In-Service)
- Know A Little
  - (Pre-Service)
  - (In-Service)
- Don't Know
  - (Pre-Service)
  - (In-Service)

Percent of Respondents

Abdul Rashid, Sharifah, Hashimah, USM, 2006
Figure 3: I Will Try to Integrate Elements of ESD into School Subjects (N=473)

Abdul Rashid, Sharifah, Hashimah, USM, 2006
## General Coordination Plan

<table>
<thead>
<tr>
<th>Period/Institutional Structure</th>
<th>Program</th>
<th>Bilateral Stakeholder</th>
<th>USM-lead</th>
<th>Collaborating Partners Lead</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Short Term</strong></td>
<td>Water Waste Health</td>
<td>Work T’formative education</td>
<td>Bridging univ. &amp; comm. through setting up of CSDU</td>
<td>Issues identified by individual partners</td>
</tr>
<tr>
<td><strong>Medium Term</strong></td>
<td>Re-activation of SPI initiatives</td>
<td>New program &amp; measures</td>
<td>CSDU established</td>
<td>Deepening of contents</td>
</tr>
<tr>
<td><strong>Long Term</strong></td>
<td>Program on Awareness &amp; Public U’standing</td>
<td>Programmes on Transformative Education</td>
<td>Program on R&amp;D</td>
<td>Programmes on T’formative Education</td>
</tr>
</tbody>
</table>
CHALLENGES

- Institutional Challenge  
  Guiding principles of RCE and legality of institutions within the region

- Implementation Challenge  
  Sustaining RCE within and outside the Higher Education Institutions

- Contextual Challenge  
  Measurement of impacts of projects

- Synergistic Challenge  
  Research and Actions/Projects for - collaborative partners working together – shortening the process and selectivity may yield less desired results

- Leadership Challenge
Reengineering USM for an EDUCATION REVOLUTION

By: Sarben Singh

If Universiti Sains Malaysia (USM) is to remain one of the world’s top research universities, it will need to be able to bridge the gap between research and industry. USM, with its strategic vision and commitment to excellence, is well positioned to lead in this area.

It is not only through research that USM excels. It also excels in teaching and in its involvement in the community. The University offers a wide range of undergraduate and postgraduate programs, and it is committed to providing students with the skills and knowledge they need to succeed in the modern world.

Achievements in research and teaching have been recognized by awards, grants, and publications. The University has a strong track record of publishing in high-impact journals, and its researchers have made significant contributions in a wide range of fields.

In response to the challenges of the 21st century, USM has launched a new initiative called the Educational Revolution. This initiative is focused on enhancing the quality of education and ensuring that students are equipped with the skills they need to succeed in a rapidly changing world.

The initiative includes the introduction of new programs and courses, as well as the development of new teaching methods. It also aims to strengthen the University’s ties with industry and the community, and to foster collaboration between the University and other organizations.

In conclusion, USM is well positioned to continue to be a leader in education and research. With its strong commitment to excellence and its focus on developing the skills of its students, the University is well prepared to meet the challenges of the future.

Weekly Column in The National Newspaper – Effective Bridging
THE BIG PICTURE FOCUS OF USM

3 ELEMENTS

9 FOCUS

COMMERCIALISATION & BRANDING

TRANSNATIONAL AND NATIONAL LINKAGES

INTRA INSTITUTIONAL INTEGRATION

LATERALISATION OF BUREAUCRACY

STEWARDSHIP AND REWARDS ON TEAMWORK

RESOURCE DEVELOPMENT AND TRAINING

FINANCIAL SAVINGS AND ACCUMULATION

MULTI-CULTURATION IN STUDENT DEVELOPMENT

HEALTHY CAMPUS AND COMMUNITY

LEVEL OF EXCELLENCE

STAGES OF DEVELOPMENT
THE BIG PICTURE – 9 FOCUS OF USM – SUSTAINABLE RESEARCH UNIVERSITY

1. COMMERCIALISATION & BRANDING
2. TRANSNATIONAL AND NATIONAL LINKAGES
3. INTRA INSTITUTIONAL INTEGRATION
4. LATERALISATION OF BUREAUCRACY
5. STEWARDSHIP AND REWARDS ON TEAMWORK
6. RESOURCE DEVELOPMENT AND TRAINING
7. FINANCIAL SAVINGS AND ACCUMULATION
8. MULTI- CULTURATION IN STUDENT DEVELOPMENT
9. HEALTHY CAMPUS AND COMMUNITY