

Vision

An Advanced Studies Centre to propel Universiti Sains Malaysia as a renowned sustainability-led university based on the fusion of the sciences and humanities in our strive for global sustainability and poverty alleviation of the bottom billions.

Mission

Contribute through education for sustainable development (ESD), scientific assessment, policy research and capacity-building, to resolve pressing problems confronting Malaysian society and the global community today and the future.

Scope

- Conduct inter-disciplinary research addressing SD/ESD issues and policy matters
- Build sustainability capacity through specialised teaching and training
- Promote networks and partnerships to advance sustainability
- Operate in the nexus between natural sciences and social sciences enhancing synergy
- Help transform higher education for a sustainable future.

Recent Publications

Books

- Disaster Risk Management for Sustainable Development (DRM-SD)
- Post Rio+20 on WEHAB+3: A South East Asian Perspective
- A Selected Literature Review of USM Research Publications on Wehab+3
- A Selected Compendium of USM Research Publications on WEHAB+3
- A Selected Compendium of SEASN member's Research Publications on WEHAB+3 (e-book)
- Implementation ideas: What can USM do to Fast-track Sustainability
- SAM: Sustainability Assessment Methodology
- USM Policy on Sustainability 2014

Articles

Omar Osman, Kamarulazizi Ibrahim, Kanayathu C. Koshy, Ismail Abustan, (2013) **'A use-inspired approach to sustainable water management'**, a paper by invitation in the UNESCO-Tudor Rose (U.K) book on 'Water Cooperation', Free Flow, 2013, ISBN 978-92-3-104256-0.

Kamarulazizi Ibrahim, Kanayathu C. Koshy, and Asrar. G., **'Development with a Difference: Neo-Disaster Risk Management for Sustainable Development'**, An 'Opinion' paper by invitation on an innovative idea, Journal of Geomatics, Natural Hazards and Risk, link - <http://dx.doi.org/10.1080/18475705.2013.82429>, Pub: Taylor & Francis, England (2013).

Kanayathu C. Koshy, Norizan Md Nor, Suzyrman Sibly, Asyirah Abdul Rahim, Govindran Jegatesen, Malik Muhamad **'An Indicator-Based Approach to Sustainability Monitoring and Mainstreaming at Universiti Sains Malaysia'**, "Sustainability Assessment Tools in Higher Education - Mapping Trends and Good Practices at Universities round the World", Book Chapter 7, P237-258, Pub. Springer, ISBN: 978-3-319-02374-8 (print), <http://linkspringer.com/book/10.1007/978-3-319-02375>.

Suzyrman Sibly, Kamarulazizi Ibrahim, Kanayathu C. Koshy, Marlinah Muslim **'Environmental Education and Curriculum Development: Towards a Sustainability-led University'** 1st Regional Conference on Campus Sustainability 2014 (1RCCS), Universiti Malaysia Sabah, Kota Kinabalu, Sabah, Malaysia. 7th -9th April., 2014.

Fera Fizani Ahmad Fizri, Asyirah Abdul Rahim, Suzyrman Sibly, Kanayathu C. Koshy, Norizan Md Nor **'Strengthening the Capacity of Flood-Affected Rural Communities in Padang Terap, State of Kedah, Malaysia'** Sustainable Living with Environmental Risks (2014), pp 137-145, Springer Japan, ISBN 978-4-431-54803-4.

T.F. Ng, D. Jiang, X. Jia, D. Paull, and H. Wang, **'Change Detection for Sustainability Monitoring Using Satellite Remote Sensing Data'**, Third International Conference on Digital Information Processing and Communications (ICDIPC2013), Islamic Azad University, Dubai, UAE, 30th Jan to 1st Feb., 2013.

For further information, please contact:

Centre for Global Sustainability Studies (CGSS@USM)
Level 5, Hamzah Sendut Library,
Universiti Sains Malaysia,
11800 Minden, Penang, MALAYSIA
Tel: +604 6532461 / 5426 Fax: +604 653 5273
Email: cgss@usm.my Website: <http://cgss.usm.my>



CGSS is a research centre designed to work with all other relevant sections of the University, regional and international sustainability organisations, national and regional government, private sector, civil society groups and NGOs to promote sustainable development (SD). It will bring together international as well as Malaysian knowledge and expertise.



Working in partnership to make tomorrow better than today

Sustainable Development Solutions - CGSS submission to United Nations Open Working Group on SDGs



CGSS - A Centre of Excellence

Research Areas

The main focus is on 'WEHAB+3' - Water, Energy, Health, Agriculture and Biodiversity as the sectoral priorities + climate change/disaster risk management; production/consumption; population/poverty as cross-sectoral fields. These are areas where concrete results can and must be obtained.

CGSS Initiatives

Sustainability Assessment Methodology (SAM)

CGSS has developed an innovative tool based on 24 criteria to monitor and mainstream sustainability in universities. This computerised methodology provides quick and reliable results useful for a host of educators at different levels. The SAM results may be used either for rating or ranking sustainability performance.

Disaster Risk Management for Sustainable Development (DRM-SD)

This is a new way of building resilience to avoid undesired outcomes of disasters by reducing current risks through adaptive and mitigatory measures. Risk associated with both 'rapid onset-high impact' events such as floods & tsunamis, and 'slow onset-high impact' events, such as climate change & poverty could be reduced leading to sustainable development.

South East Asia Sustainability Network (SEASN)

Launched on 28 October 2013, SEASN is an alliance of higher education institutions and other related sustainability organisations designed to provide a platform for the exchange of ideas, research findings, information, and good practices. CGSS serves as the Secretariat for SEASN.



Goals and Programmes

Academic

Promote sustainability education which will produce graduates who can think and act with a holistic understanding of the inter-linkages of healthy economy, environment and society. CGSS provides:

- Master of Science (Sustainability) (Research Mode)
- Master of Art (Sustainability) (Research Mode)
- Doctor of Philosophy (Sustainability) (Research Mode)
- Master's in Sustainable Development Practice (MSDP) (Coursework Mode)
- Co-Curricular course on Sustainability (WSU 101)
- Minor Programme in Sustainability

Training

Enhance awareness and capacity of a range of stakeholders to catalyze sustainability implementation in their workplace and daily life. Training programs involve:

- Sustainable Development (SD)
- Logical Framework Analysis (LFA)
- Disaster Risk Management for Sustainable Development (DRM-SD)
- Sustainability Assessment Methodology (SAM)
- Sustainability and Industry
- Solar Cells
- Eco-Tourism



Research

Promote solution-oriented research to improve human welfare.

Focus Area	Research Interest
Water	<ul style="list-style-type: none"> ■ Integrated River Basin Management ■ Sustainable Water management
Energy	<ul style="list-style-type: none"> ■ Energy Efficiency ■ Sustainable Energy Solutions (Renewable Energy)
Health	<ul style="list-style-type: none"> ■ Primary Health Care Quality ■ Alternative Medicine for Sustainable Health ■ Health Management and Policy
Agriculture	<ul style="list-style-type: none"> ■ Food Security ■ Sustainable Agriculture
Biodiversity	<ul style="list-style-type: none"> ■ Economics of Biodiversity ■ Ecosystem Services ■ Sustainable Management of Natural Resources
Climate Change and Disaster Risk Management	<ul style="list-style-type: none"> ■ Disaster Risk Management for Sustainable Development (DRM-SD) ■ Disaster Resilience and Climate Change ■ Capacity Building for Disaster Risk Reduction
Production and Consumption	<ul style="list-style-type: none"> ■ Islamic Financial System ■ Green Procurement ■ Consumer Behaviour
Poverty and Population	<ul style="list-style-type: none"> ■ Rural and Urban Studies ■ Poverty Reduction/Alleviation ■ Eco-Tourism

Networking and Partnership

- UN Open Working Group (OWG)
- Sustainable Development Solutions Network (SDSN)
- MDP Global Network
- Asia Pacific Network for Global Change Research (APN)
- International Sustainability Conference (ISCO)
- Regional Centre of Expertise, United Nations University (RCE-Penang)
- UNESCO, UNDESA, UNDESU consultation, publications
- Ministry of Education and the Economic Planning Unit of Malaysia (ESD & SD themes)
- Future Earth Programme
- NGOs, Industry and Community (Applied research, awareness and capacity building)
- Universities and researchers – national, regional and international

Achievements

Invention & Innovation Awards 2014

SAM receives the Malaysian Associated Research Scientist (MARS) Technology Expo (MTE 2014) award.

SDG for the Promotion of Sustainable Development

The CGSS submission of SDGs to the UN OWG at the UN headquarters, New York was very well received.

University Sustainability Council

All sustainability initiatives will be under the purview of this newly established governance body. The council will oversee effective implementation of sustainability across the university to ensure that USM emerges as a sustainability-led university of world-class standing. CGSS serves as the Secretariat for USC.

USM Policy on Sustainability 2014

USM endorsed a policy to mainstream sustainable development principle in the core areas of university to secure the future we want for all.

Master's in Sustainable Development Practice (MSDP)

CGSS, in conjunction with Earth Institute, Columbia University, USM Graduate School of Business (GSB) and the Institute of Postgraduate Studies (IPS), has coordinated the introduction of MSDP as an innovative and interdisciplinary Postgraduate (graduate) degree programme.