







ISTITUTIONAL INKS

The Future Cities Initiative of ANCST – advancing climate science to action

The long standing linkage of the Malaysian Commonwealth Studies Centre (MCSC), Cambridge to the region has expedited the establishment of the Asian Network on Climate Science and Technology (ANCST) coordinated by Universiti Kebangsaan Malaysia's Southeast Asia Disaster Prevention Research Initiative (SEADPRI-UKM). The Network serves as a conduit to facilitate exchange knowledge and expertise. Directors of ANCST, Professor Lord Julian Hunt of MCSC and Professor Joy Jacqueline Pereira of SEADPRI-UKM, are jointly leading the initiative on "Future Cities: Science to Action for Building Resilience of Urban Communities to Climate Induced Physical Hazards". The Future Cities Initiative is supported by the Institutional Links Programme of the Newton-Ungku Omar Fund, administered by the British Council and the Malaysian Industry-Government Group for High Technology (MIGHT). Partner institutions of the initiative comprise University of Malaya's Geology Department, University College London, IUGS Commission on Geoscience for Environmental Management (IUGS-GEM) and the Geological Society of Malaysia (GSM).

The Newton-Ungku Omar Fund facilitates the aspirations of the Science to Action (S2A) initiative inspired by the Prime Minister of Malaysia in November 2013 to ensure a wider reception of Science, Technology and Innovation (STI) by its key stakeholders in the nation - the industry, the people and the policymakers. The Honourable Prime Minister of Malaysia has stressed that "the S2A initiative is a means to ensure the nation maximizes its development potential through the use of science and technology". At the 2014 Asia Pacific Climate Change Adaptation Forum, the largest gathering of adaptation practitioners in the region where ANCST was a national partner institution, Professor Tan Sri Zakri Abdul Hamid, Science Advisor to the Prime Minister of Malaysia and Founding Chair of the Intergovernmental Panel on Biodiversity and Ecosystem Services declared that "S2A is an excellent vehicle to foster partnerships to address the challenges posed by climate change". The Newton-Ungku Omar Fund is making this a reality through strategic partnerships, technology acquisition and nurturing, capacity building as well as strengthening of growth with particular focus on climate change and urbanization.



Professor Tan Sri Zakri Abdul Hamid, Science Advisor to the Prime Minister of Malaysia (middle) and Professor Ian Boyd, Chief Scientist, Department for Environment, Food and Rural Affairs (Defra) (left) delivered scenesetting keynotes at the Workshop on New Science and Business Developments for Managing Climate Risks in the Royal Society, London on 5 November 2015. The Workshop was officiated by the Dr. Daniel Korbel (right) of the British Council.



Professor Tan Sri Zakri Abdul Hamid, Science Advisor to the Prime Minister of Malaysia (left) in discussion with Sir Brian Heap of MCSC, Cambridge after he was presented with the book on "Smart Villages - New Thinking for Off-Grid Communities Worldwide", an initiative of the Cambridge Malaysia Education and Development Trust (CMEDT) founded by the Honourable Dato' Sri Mohd Najib bin Tun Abdul Razak, Prime Minister of Malaysia.





IUGS-GEM

International Union of Geological Science







The Future Cities Initiative brings together scientists working on various aspects of physical hazards and risks in a changing climate with a particular emphasis on large urban areas to build capacity to innovate and advance practices, scientific tools and techniques relevant to Malaysia and the tropics. This was the context for the Workshop on New Science and Business Developments for Managing Climate Risks held on 5 November 2015 at the Royal Society, London, which involved 40 targeted scientists and financial sector representatives from Malaysia and the UK. The meeting emphasised that there are distinctive aspects of extreme natural hazards in the tropics that are not included in most hazard and climate models. Examples include extended periods of calm weather with elevated winds aloft that affects the buildup of air pollution and periods of very intense rainfall leading to extreme localised urban flooding as happens in the Klang Valley. New approaches and technology are being developed in Malaysia and the region that could lead to new businesses and exports to other countries faced with similar challenges.

Future work is being designed to enhance capacity to conduct multi-hazard assessments and identify areas susceptible to floods, landslides and subsidence within cities; advance modelling of climate extremes and hazards; atmospheric promote professional development. The emphasis will be to develop effective products and services for reducing risks at the neighbourhood level, focusing on the bottom 40% income group of Malaysians. The ultimate goal is to deliver new innovative business models for disaster risk reduction, driven by consortiums with multidisciplinary and multi-sector representation. This will directly support the Science to Action initiative in promoting societal well-being and climate resilient de-velopment. The Future Cities Initiative has flourished linkages between UK and Malaysia



Rowan Douglas, Managing Director of Willis (right), Professor Lord Julian Hunt of University of Cambridge, Dr. Richard Miller of Innovate UK and Professor Joy Jacqueline Pereira of SEADPRI-UKM led the discussion on Science, Business and Policy on 5 November 2015.

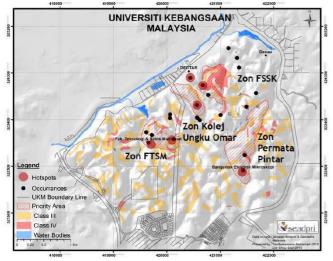
UK-MALAYSIA PROPOSAL: DISASTER RESILIENT CITIES

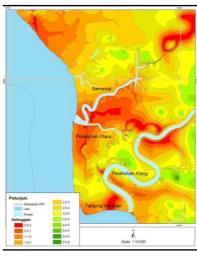
Adapting local level temperate models for tropical conditions

AREA BASED, CONTEXT SPECIFIC, ACTION ORIENTED, COLLABORATIVE APPROACH **GEOPHYSICAL HAZARDS MULTI HAZARD** · Flash floods & floods **METEOROLOGICAL FORECASTS** Landslides **FORECASTING** Integrated Sink-holes · Precipitation models for Temperature managing and Humidity ATMOSPHERIC HAZARDS communicating • Wind Speed · Strong winds risks in a changing climate • Urban heat Air pollution

The Workshop provided the foundation for developing a UK-Malaysia proposal that will result in a variety of products and services to benefit decision-makers in local government and the insurance sector, with wide application in ASEAN cities.

by involving additional partners. More importantly project partners in Malaysia and the UK are able to make use of the regional linkages that have already been established through ANCST, to engage with the wider research and innovation community in Asia.





Local level research findings of SEADPRI-UKM – priority zones have been identified for (i) landslide hazards at UKM (left) and (ii) impacts of sea-level rise in Port Klang (right). The basic information is from terrain maps prepared by the Minerals and Geoscience Department of Malaysia. The GSM-IGM Flagship on Geoscience to Action for Disaster Risk Reduction is providing the platform for further collaborative work to develop new approaches for assessing flood and sinkhole susceptibility in a changing climate.