

Walking the Talk on Climate Change

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The United Nations Framework Convention on Climate Change (UNFCCC) was adopted during the 1992 Earth Summit at Rio as a consequence of worldwide concern about global warming. The Convention aims at stabilising the concentration of greenhouse gases in the atmosphere in an effort to reduce human-induced disturbance to the global climate system. Over the last decade, the impact of climate change has affected a majority of people in the world. There is clear scientific evidence that the frequency and intensity of various extreme weather conditions such as droughts and floods, typhoons and hurricanes, and also severe fluctuations in winter and summer temperatures have increased due to climate change. These phenomena have adversely affected communities in both developed and developing countries. Many developing countries have experienced loss of lives and enormous destruction of property and infrastructure, which undermined economic growth and compromised delivery of basic amenities.

According to the Intergovernmental Panel on Climate Change (IPCC), adaptation is the adjustment of natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities. Mitigation refers to an anthropogenic intervention to reduce the anthropogenic influence to the climate system. It is envisaged that even with the most stringent mitigation measures implemented, impacts of climate change in the next few decades cannot be totally avoided. On the contrary, without mitigation, impacts of climate change are likely to be greater, making adaptation impossible for some natural systems, while for most human systems it would involve very high social and economic costs. Therefore, in addressing climate change, particularly its impacts on humans, both adaptation and mitigation are now needed to be implemented in an integrated and balanced manner.

The Meteorological Department of Malaysia has noted that for the past few decades, the country is experiencing a warming trend. Increasing temperatures would result in more extreme weather and climate variability. The Government considers this a serious matter. In 1995, the National Climate Change Committee was established at the Ministry of Natural Resources and Environment. A Cabinet Committee on Climate Change has now been instituted, chaired by the Prime Minister. The focus on adaptation has also increased significantly in recent years. National research institutions have been mobilised to project future climatic regimes and assess the impacts of climate change in selected sectors i.e. water, agriculture, public health, biodiversity, forestry, coastal and energy sectors. Preliminary findings of their research reveal major gaps in knowledge, which need to be augmented by thorough complementary research, to make the country more resilient and less vulnerable to climate change.

Universiti Kebangsaan Malaysia (UKM), which was designated as one of the four research universities in the country in October 2006 by the Government of Malaysia, is mobilising researchers to meet this need. Climate Change has been



Water, water everywhere

identified as one of the seven niche areas that will propel UKM to become a prestigious research university. Helming the climate change issue at the policy level is the Malaysian Network for Research on Climate, Environment and Development (MyCLIMATE), based at the Institute for Environment and Development (LESTARI) with support from the Ministry of Natural Resources and Environment. The Ministry has entrusted MyCLIMATE with the task of developing a national policy and strategies on climate change, which will facilitate the integration of future climate risks, adaptation and mitigation aspects into the policy and decision-making process. LESTARI through MyCLIMATE is also supporting the Ministry in the preparation of the Second National Communication (NC2), the second report from the Government of Malaysia to the UNFCCC, on the progress of the country in addressing the challenge of climate change. The preparation of NC2 is funded by UNDP/GEF and LESTARI chairs the Support Group on Socio-Economic Impacts and Responses, reporting to the Vulnerability and Adaptation Working Group, chaired by National Hydraulic

Seminar on Climate Variability, Change and Extreme Weather Events on 26-27 February 2008. In addition, a Roundtable Dialogue was held on 28 February to discuss the potential for future regional research collaborations. UKM is also in the process on operationalising the Southeast Asia Disaster Prevention Research Institute (SEADPRI), which will focus on geological, technological and hydrometeorological hazards in Malaysia and the region. Research on behavioural and public health aspects of individuals and communities are spearheaded by researchers from the Faculties of Social Sciences and Humanities, Education, Medicine and Allied Health Sciences. Research on alternative energy is another niche area of UKM. This research niche is helmed by the Solar Energy Research Institute (SERI) and Fuel-Cell Institute of UKM. SERI organised a talk entitled "Climate Change Mitigation: Solar Energy Technology in Vehicles" on 1 April 2008, in conjunction with a Solar Car Exhibition at UKM. Ultimately, climate change research at UKM aspires to support the four building blocks of the UNFCCC, comprising adaptation, mitigation, financing and technology.



A deserted town - aftermath of floods

Research Institute of Malaysia (NAHRIM). LESTARI draws on the support of Associate Fellows from the Faculty of Economics and Business and Faculty of Social Science and Humanities in this endeavour.

Applied Research on physical and biological aspects related to climate change is led by the Faculty of Science and Technology, particularly the newly established Research Centre on Tropical Climate (IKLIM). The Faculty organised an International

Professor Dato' Dr. Abdul Samad Hadi, Principal Fellow of LESTARI has recently been appointed by UKM to coordinate the climate change research niche at the university level. In 2007, Professor Dato' Samad convened a Roundtable Dialogue on Urbanisation and Climate Change to initiate research in this area. His task now will involve coordinating the mobilisation of a critical mass of UKM academics to address national, regional and international knowledge gaps in climate change through research, and complement the ongoing work of existing national research institutions and other universities. In the meantime, UKM is "walking its talk" through its Sustainable Campus Programme inspired by the UKM Vice-Chancellor, Prof. Dato' Dr. Sharifah

Hapsah Syed Hasan Shahabudin and coordinated by Datin Paduka Dr. Halimaton Saadiah Hashim, Principal Fellow of LESTARI. The aim of the Programme is to ensure that sustainability aspects are integrated into the planning and management of the UKM campus. Among the initiatives undertaken is to ensure water and energy efficiency to reduce the carbon footprint of the campus community. The potential for climate proofing the campus will also be looked into in the near future.