

Workshop on Natural Disasters and Climate Change 5-7 November 2012, Hotel Equatorial, Bangi, Malaysia

Introduction

The Workshop on Natural Disasters and Climate Change in Asia was successfully held from 5-7 November 2012 at Hotel Equatorial, Bangi. The Workshop was jointly organized by Southeast Asia Disaster Prevention Research Institute (SEADPRI-UKM), the Cambridge Malaysian Education and Development Trust (CMEDT) in Association with the Malaysian Commonwealth Studies Centre (MCSC) at University of Cambridge, National Security Council of the Prime Minister's Department and the Ministry of Natural Resources and Environment. The collaborating institutions were the Advisory Committee on Protection of the Sea (ACOPS), City University of Hong Kong, Divecha Centre for Climate Change, Indian Institute of Science, Institute of Climate Change, UKM, Research Centre for Tropical Climate Change System (IKLIM), Faculty of Science and Technology, UKM, Asian University Network for Environment and Disaster Management (AUEDM), Asia Pacific Adaptation Network (APAN) and Asia Pacific Network for Global Change Research (APN).

The objectives of the Workshop were to bring together researchers, practitioners and policy makers from natural disasters and climate change communities, to review the role of science and technology for managing the risk of natural disasters and climate change especially for vulnerable communities. The ultimate objective was to explore the establishment of an affiliation of networks and institutions working on issues related to natural disasters and climate change in Asia.

Highlights

Participation: About a hundred participants attended the 3-day Workshop, including scientists and practitioners from **31 institutions in 17 countries**. A total of 30 technical papers were presented; three from UKM and others from institutions such as the University of Cambridge, Kings College London, Arizona State University, Nanyang Technological University, City University of Hong Kong, Chulalongkorn University, Meteorological Office of UK, JAMSTEC-Japan, Chinese Academy of Sciences, Korea Meteorological Administration, Indian Institute of Science and the ASEAN Secretariat, among others.

Thematic Programmes: The Workshop comprised an IPCC Keynote Address as well as technical presentations, panel discussions and poster displays centred around two distinct themes i.e. (i) Science, Prediction and Risk Reduction and (ii) Policy and Practice of Disaster Preparedness. The abstract of papers was printed and distributed to all participants. Many contemporary issues related to disasters and climate change were discussed covering hazards such as typhoons, floods, earthquakes, draught, tsunami and landslides. Aspects covered include multi-scale simulations for natural disasters; data bank for atmospheric data; forecasting of severe weather events; glacial movement; weather extremes; aerosol-cloud links to extremes; geohazards;

megapolitan expansion; use of satellite and digital elevation model data; early warning system and awareness programmes and the potential of carbon sequestration. Key points highlighted include the following:-

- Absence of regional data sets on natural disasters and climate change, to connect weather related data with its geo-spatial consequences, particularly in Southeast Asia;
- Alarming lack of understanding and knowledge gaps in various disciplines related to disaster and climate change research, particularly in Southeast Asia;
- Lack of collaborative projects among ASEAN countries on climate change adaptation for disaster management.
- Limited access to scientific data, particularly at the national levels;
- Weak institutional planning for development of multi-disciplinary research programmes, particularly at the national levels;
- Poor networking among researchers and academics to build capacity in multidisciplinary and integrated approaches that address natural disasters and climate change.

Network Establishment: The discussion on establishment of the Asian Climate Change Research Network was co-chaired by Emeritus Professor Lord Julian Hunt and Prof. Joy Jacqueline Pereira, representing the Deputy Vice-Chancellor of UKM, Professor Dato” Rahmah Mohamed. Panelist included the key representative from East Asia (Prof. Johnny Chan, City University of Hong Kong) and South Asia (Prof. Anil Kulkarni, representing Prof. J. Srinivasan of the Indian Institute of Science, Bangalore). The Workshop participants were informed that UKM supports in principle, the establishment of the Asian Climate Change Research Network, which would be coordinated by SEADPRI; and any funds received for the Network from the Cambridge side via MCSC/CDET would be matched by UKM subject to approval of the proposed plan by UKM. The key points from the discussion are as follows:-

- A virtual network will operate from UKM in SEADPRI under the administrative leadership of Prof. Joy Pereira to provide information and develop research coordination projects led by Asian researchers, especially focussing on particular aspects of climate change specific to Asian conditions and phenomena , e.g. climatic and cascading disasters, low latitude, tropical rain forests, deserts , typhoons, etc.
- The scope of the network covers climate projection and disaster resilience including social capacity, which is all very distinct in Asia.
- There would be strong coordination with existing and planned networks involved in other areas of science (e.g. atmospheric chemistry) applications and policies.
- The pro-tem Steering Committee includes Prof Joy Pereira (UKM, Malaysia), Johnny Chan (City University Hong Kong), Prof J. Srinivasan (Divech Centre , Bangalore), Julian Hunt (HK University, Cambridge University Malaysian Commonwealth Studies Centre; Advisory Committee Singapore Climate Centre). Others who have expressed interest –Prof Keiko Takahashi (Jamstec Japan) , Director of Beijing Climate Centre (CMA)
- Proposed activities include the following:-
 - (i) Establish lists of researchers , their institutions, programmes , and publications (cross referenced according to subject; area in Asia)
 - (ii) Establish web site (with links to other relevant groups and news of activities, research etc.)
 - (iii) Identify convenors of special topic groups (some have already emerged), where possible these groups should make use of international and regional funding for meetings etc, or have side

meetings of international events. Eg downscaling (a project is already proposed at IKLIM-UKM, to be led by Prof. Fredolin from IKLIM, FST, UKM), regional based parameterisations (some work already at HKCity University and China Climate Centre, helmed by Prof. Johnny Chan), urban climate change (many special features in Asia-several possible)

- (iv) Climate mitigation and carbon sequestration is also important, which could be further developed by Cambridge University (Prof. Herbert Huppert) with the Institute of Climate Change, UKM (Prof. Sharifah Mastura).
- (v) If the network grows, it will be advisable to have national coordinators (as was found in the European network ERCOFTAC) – who can be funded in their own countries.

Next Steps

- Preparation of (i) joint press articles and (ii) manuscript for an indexed journal by Emeritus Professor Lord Julian Hunt and Prof. Joy Jacqueline Pereira based on highlights from the Workshop on Natural Disasters and Climate Change. [*Articles for Reuters and the South China Morning Post already published; manuscript for Scopus indexed ASM Journal under preparation*]
- Development of proposal for the Asian Climate Change Research Network. [*Emeritus Professor Lord Julian Hunt has had a discussion with Dr. Anil Seal to obtain funding for the Network; estimated budget under preparation*]
- Submission of proposal to the Cambridge Malaysian Education and Development Trust (CMEDT) in Association with the Malaysian Commonwealth Studies Centre (MCSC) at University of Cambridge, and upon its approval submission to UKM.
- Upon approval of the proposal by UKM, launch of the Asian Climate Change Research Network under the patronage of YABhg. Tun Ahmad Sarji Abdul Hamid, Pro Chancellor of UKM, and commencement of activities by SEADPRI-UKM.