



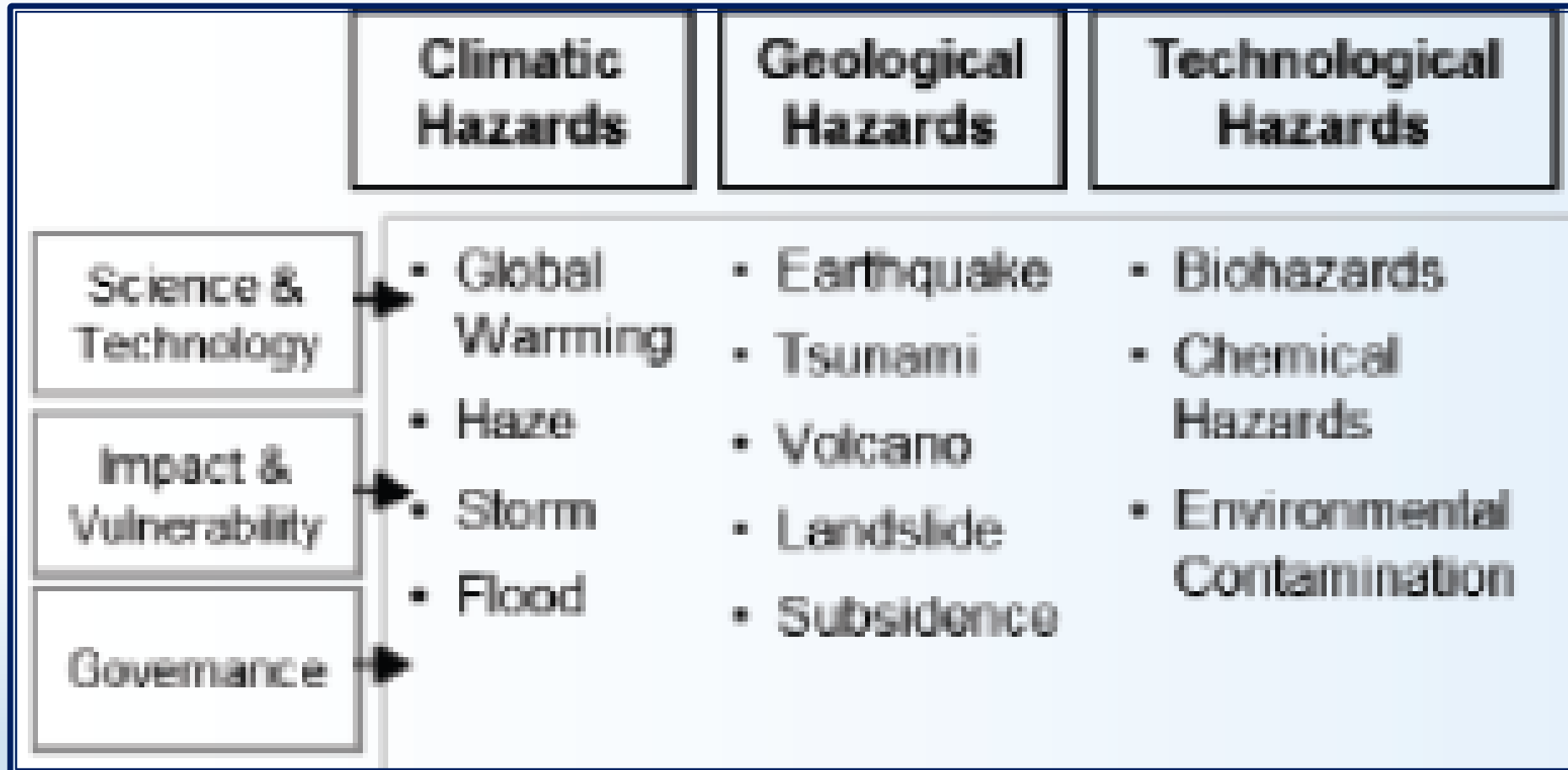
IRDR ICoE on Disaster Risk and Climate Extremes Expression of Interest (EOI)

**Southeast Asia Disaster Prevention Research Initiative
Universiti Kebangsaan Malaysia (SEADPRI-UKM)**

SEADPRI-UKM – Background

- ❑ Operating since 1 June 2008;
- ❑ A research centre under the administrative structure of the Institute for Environment and Development within Universiti Kebangsaan Malaysia;
- ❑ Mission:-
 - Conduct multi-disciplinary research on hazards and disasters at national and regional levels;
 - Enhance human capital and capacity at national and regional levels, particularly in Southeast Asia;
 - Support knowledge-based decision making on climatic, geological and technological hazards.
- ❑ Core business:- (i) Research; (ii) Postgraduate Education; (iii) Specialised Workshops & Training; & (iv) Outreach & Networking.

SEADPRI-UKM – Research Programmes



SEADPRI-UKM – Completed Research Projects

- ❑ Policy and Planning Responses for **Earthquake and Tsunami** Hazards in Malaysia, a policy guidance report to the Government of Malaysia funded by the Academy of Sciences Malaysia (2009);
- ❑ Development of **Adaptation Roadmap for Malaysia**, 2020 & Beyond, funded by the Ministry of Natural Resources and Environment Malaysia (2013);
- ❑ 2014 Big **Flood Forensic Study** for East Coast of Peninsular Malaysia, funded by the Ministry of Higher Education Malaysia/UTM/UMT (2015);
- ❑ Strengthening Capacity for Policy Research on **Mainstreaming Adaptation**, involved 4 ASEAN Member States funded by APN (2010);
- ❑ Assessment of Climatic Hazards for **Adaptation Response** at the Local Level in Peninsular Malaysia, funded by the Ministry of Higher Education Malaysia (2014);
- ❑ Enhancing **Local Level Climate Change Adaptation** for Disaster Prevention in South East Asia, involved 10 ASEAN Member States, funded by ASEAN-India Green Fund (2016).

SEADPRI-UKM – Ongoing Research Projects

- ❑ Building Resilience of Urban Communities to Climate Induced Hazards, funded by Newton Ungku Omar Fund, British Council Linkages Programme (2015-2016);
- ❑ Assessing Community Risk Insurance Initiatives for Disaster Risk Reduction, Case-study of Malaysia, funded by IGES, Japan (2014-2017);
- ❑ Integrating CCA, DRR and L+D to Address Emerging Challenges due to Slow Onset Processes, involves 5 ASEAN Member States funded by APN (2014-2017);
- ❑ Development of Optical Micro-sensors for Chemical Hazards, funded by Ministry of Higher Education Malaysia (2015-2017);
- ❑ Development of Multi-criteria Decision Support System for Urban Disaster Management (2015-2017);
- ❑ Disaster Resilient Cities - Forecasting Local Level Climate Extremes and Physical Hazards for Kuala Lumpur (2017-2019).



SEADPRI-UKM – Postgraduate Education

- ❑ The aim is to develop trained human capital in addressing disaster issues for knowledge-based decision making.
- ❑ Graduate programmes are offered at the masters and doctoral levels through research in the areas of
 - ✓ Policy and Disaster Management;
 - ✓ Climatic Hazards;
 - ✓ Geological Hazards;
 - ✓ Technological Hazards.

SEADPRI-UKM – Outreach

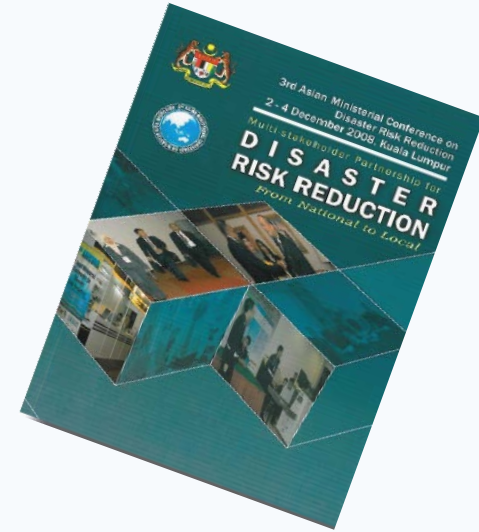
- ❑ Workshop on **Science and Technology for Disaster Risk Reduction**, 24 May 2016, Putrajaya. Organised with ANCST, ASTAAG, NADMA, MIGHT etc.;
- ❑ Workshop on **Monsoons and Climate Extremes**, 9 March 2016, Petaling Jaya. Organised with ANCST, MetMsia, City University of Hong Kong, etc.;
- ❑ Forum on **Post COP 21 & Paris Agreement** – S&T Requirements, 8 March 2016, Kuala Lumpur. Organised with MSA, Academy of Sciences Malaysia, ANCST, etc.;
- ❑ Workshop on **Enhancing Climate Change Adaptation**, Bangi, 5-6 February 2015. Organised with ASEAN, ANSCT & APN;
- ❑ Workshop **on Climate Science and Adaptation**, 15 April 2015, Hong Kong. Organised by ANCST, City University of Hong Kong, etc.;
- ❑ Workshop on Asian **Urban Environmental and Climatic Processes**, Beijing, China, 16-17 July 2015. Organised by ANCST, Beijing Normal University, etc.;
- ❑ Workshop on Climate Science for **Loss and Damage Projection**, Port Dickson, 11-13 June 2015. Organised with ANCST, IGES, etc.;
- ❑ Workshop on **New Science and Business Development for Managing Climate Risks**, Royal Society, London, 5 November 2015. Organised with University of Cambridge, UCL, University of Malaya, ANCST, etc.;

SEADPRI Forums – 2009-2016

- ❑ SEADPRI Forum 2016 – Insurance for Disaster Risk Reduction and Climate Adaptation, 6 October 2016, led by Dr. SVRK Prabhakar, IGES-Japan.
- ❑ SEADPRI Forum 2015 – Sendai Framework for Disaster Risk Reduction: Implications to Urban Resilience, Private Sector and Science & Technology, 21 August 2015, led by Prof. Rajib Shaw, Kyoto University.
- ❑ SEADPRI Forum 2014 – Reflections and Lessons Learnt from the Kelantan Floods, led by Datuk Che Moin Umar, Former Deputy Director, National Security Council.
- ❑ SEADPRI Forum 2013 – Disaster Prevention and ISO 31000:2009 Risk Management, held on 15 March 2013, led by Prof. Dr. Hj. Mohd Rasid Hussin, Universiti Utara Malaysia.
- ❑ SEADPRI Forum 2012 – Advancing Disaster Prevention: Climate Change, Science and Policies, held on 14 May 2012 and led by Prof. Lord Julian Hunt, University of Cambridge.
- ❑ SEADPRI Forum 2011 - : Priorities and Challenges, held on Climate, Environment and Development in Southeast Asia, 29 September 2011 conducted by Dr. Raman Letchumanan, Head of the Environment Division at the ASEAN Secretariat.
- ❑ SEADPRI Forum 2010 - Climate Change Adaptation and Spatial Planning, held on 5 Jan 2010 and led by Dr. Philipp Schmidt-Thomé of the Geological Survey of Finland.
- ❑ SEADPRI Forum 2009 - Hospitals Save from Disasters, held on 6 April 2009 and led by Prof. Ted Herbosa of the Philippines.

SEADPRI-UKM – Strategic Networking

- ❑ National Disaster Management Agency Malaysia (formerly National Security Council);
- ❑ Asian Network on Climate Science and Technology (ANCST);
- ❑ ASEANadapt Network, ASEAN Secretariat / AWGCC;
- ❑ MERCY Malaysia, which has a formal agreement with UKM;
- ❑ Member of Cooperating Organization and MoU with Intergovernmental Agency for Geoscience Programmes in East and Southeast Asia (CCOP);
- ❑ Member of Global Alliance of Disaster Research Institutes (GADRI);
- ❑ Member of Asian University Network on Environment and Disaster Management (AUEDM);
- ❑ Project implementer for Asia-Pacific Network for Global Change Research (APN) and the Rockefeller Foundation;
- ❑ Intergovernmental Panel on Climate Change (IPCC); Open-ended Intergovernmental Expert Working Group (OIEWG) on Terminology and Indicators Relating to DRR, UN-ISDR Asia Science, Technology and Academic Group (ASTAAG), UNEP Asia Pacific Adaptation Network (APAN); etc.



SEADPRI-UKM – Core Research Fellows

Core Research Fellows comprising academics of Universiti Kebangsaan Malaysia	
Emeritus Professor Dato' Ibrahim Komoo	Geohazards & Sustainability Science
Professor Mohd Raihan Taha	Environmental & Civil Engineering
Professor Joy Jacqueline Pereira	Geoscience & Climate Change Adaptation
Professor Lee Yook Heng	Analytical & Bioanalytical Chemistry
Professor Mohd Shafeea Leman	Stratigraphy & Palaeontology
Assoc. Prof. Dr. Tajul Anuar Jamaluddin	Engineering Geology & Slope Stability
Assoc. Prof. Dr. Sarah Aziz Abdul Ghani Aziz	Environmental Law and Governance
Assoc. Prof. Dr. Rawshan Ara Begum	Environmental Economics
Dr. Mohammad Imam Hasan Reza	Env. Management & Decision Science
Dr. Tan Ling Ling	Environmental Chemistry
Mr Lim Choun Sian	Engineering Geology & Geohazards
Ms Siti Khadijah Satari	Environmental Economics
Mr Mohd Khairul Zain Ismail	Environmental Management
Mr Mohd Faizol Markom	Environmental Science

SEADPRI-UKM – National Fellows

National Fellows comprising representatives of local universities and government agencies	
Professor Zainab Mohamed (Universiti Teknologi Mara)	Civil Engineering
Professor Felix Tongkul (Universiti Malaysia Sabah)	Structural Geology & Regional Tectonic
Professor Marcos Jopony (Universiti Malaysia Sabah)	Environmental Science
Assoc. Prof. Dr. Edy Tonnizam Mohamad (Universiti Teknologi Malaysia)	Civil Engineering
YM Raja Datuk Zaharatun Raja Zainal Abidin (Former Director General, Economic Planning Unit Dept. Malaysia)	Macroeconomics
Dato' Yunus Abdul Razak (Former Director General, Minerals & Geoscience Dept.)	Geoscience Policy
Dato' Zakaria Mohamad (Former Director, Minerals & Geoscience Dept.)	Engineering Geology
Datuk Che Moin Umar (Former Secretary, National Security Council)	Disaster Management

SEADPRI-UKM – International Fellows

Dato' Dr. Yap Kok Seng (Former Director, Dept. of Meteorology Malaysia)	Meteorology
Ir. Hj. Ahmad Jamalluddin Shaaban (Director General, National Hydraulic Research Institute)	Hydrology
Mr. Chen Shick Pei (Former Director, Minerals & Geoscience Dept.)	Mining Geology
International Fellows that constitute the International Advisory Panel	
Prof. Emeritus Lord Julian Hunt (Cambridge University)	Climate Science and Technology
Prof. Dr. Mashahiro Chigira (DPRI Japan)	Mountain Geohazards
Prof. Dr. Yonglong Lu (Chinese Academy of Sciences)	Environmental Ecology
Dr. Philipp Schmidt-Thomè (Geological Survey of Finland)	Geology & Climate Change
Prof. Ir. Dwikorita Karnawati (Universitas Gadjah Mada)	Environmental Geology

SEADPRI-UKM Plan (2016-2020)

- ❑ Thematic focus:- “Climate-driven Hazards – Policy Intervention and Adaptation”, where “Building Disaster Resilience in ASEAN” is a flagship.
- ❑ In view of the high level of uncertainty associated with climate projections in Southeast Asia (IPCC-5th Assessment Report 2014) SEADPRI-UKM is advocating disaster risk reduction as the first step to climate change adaptation for the region.
- ❑ This requires common guidance for identification of susceptible areas, exposed assets and vulnerable communities; area and context specific recognition of cascading and slow onset hazards; matching of scale of science information to scale of decision-making; synchronisation of scientific inputs to local administrative processes; and need for new models of risk sharing and social protection, among others.
- ❑ This is well in line with the goals of IRDR, which has many lessons and wisdom that can be used for the region.

SEADPRI-UKM/ANCST in support of SFDRR

Priority 1 - Understanding Disaster Risk

Action 1: Conduct capacity building workshops on methods of risk assessment and loss and damage assessments for climate induced hazards targeting researchers (Short-term);

Priority 2 - Disaster Risk Governance

Action 4: Highlight good practices on informed decision-making and science-based solutions for climate induced hazards in the ANCST website (Medium-term);

Priority 3 - Invest in DRR for Resilience

Action 9: Conduct training for projection of selected climate induced hazards targeting young researchers (Short-term);

Priority 4 - Enhance disaster preparedness for effective response and to Build Back Better

Action 10: Highlight multi-disciplinary practices that enhance disaster preparedness on the ANCST website (Medium-term).

SEADPRI-UKM as IRDR ICoE on Disaster Risk and Climate Extremes

- ❑ The ASEANadapt Network that has been formally recognised by ASEAN (via the AWGCC) will serve as the pathway to access local level stakeholders;
- ❑ The Asian Network on Climate Science and Technology (ANCST) is already linked to this pathway;
- ❑ The proposed IRDR ICoE can:-
 - Avail itself to this pathway for promoting and exchanging scientific findings to enhance awareness, advance risk informed decision-making and strengthen adaptive management to build disaster resilience in the changing climate
 - Facilitate to advance disaster risk reduction as a first step to climate change adaptation at the local level by engaging national and sub-national governments via ASEAN.
 - Expand to the private sector in ASEAN, to promote transformation in corporate decision-making and introduce measures that facilitate disaster resilience.
 - Draw on the collective knowledge and experience of the greater IRDR community, to be adapted based by relevant stakeholders in the ASEAN Member States based on their priorities and national circumstances.

TERIMA KASIH!

<http://www.ancst.org/>

