

buletin **seadpri**

southeast asia disaster prevention research institute

NEWSLETTER

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Tsunami Langkawi, 26.12.04 : Ibrahim Komoo

SEADPRI jawapan UKM kepada cabaran global

• Ibrahim Komoo

Institut Bencana Alam Asia Tenggara (SEADPRI) diwujudkan di Universiti Kebangsaan Malaysia pada Jun 2008 menyahut cabaran global penting kepada isu pengurangan risiko bencana alam di rantau Asia Tenggara. Kepentingan mempunyai sebuah pusat rujukan penyelidikan di rantau ini mula dirasai ketika Malaysia dan negara rakan di rantau ini terperangkap dengan pelbagai isu sains dan governans ketika berhadapan dengan bencana tsunami 26.12.04.

SEADPRI dilahirkan untuk menangani beberapa isu asas mengenai bencana alam, khususnya dalam konteks menjalankan penyelidikan bersifat multi- dan inter-disiplin mengenai pengurusan risiko dan hubungkait sains-governans bencana. Tumpuan juga ada diberikan kepada pembangunan keupayaan, khususnya melalui program pascasiswazah dan latihan ikhtisas. Fokus penyelidikan akan diberikan kepada Bencana Iklim, Bencana Geologi dan Bencana Teknologi.

Research Programme

Climate Hazards Programme



Bukit Antarabangsa Landslide after raining : Lim CS

Extreme weather and climate change directly and indirectly affect humans and their activities as well as natural systems and processes. It is anticipated that the coming decades will see an increase in extreme weather events and a projected increase of hydro-meteorological hazards. Such events may also have consequences on some geological and environmental hazards, giving rise to serious socio-political and economic consequences. For example, higher and extreme run-offs may result

in increased risk of flooding and consequently cause increased risk of disasters such as landslides and mudslides, ensuing in loss of human life, property and critical infrastructure. If wastewater treatment plants are overwhelmed or should industrial sites and landfills be affected, the possibility that there may be dispersal of contaminants and toxins into rivers, which serve as the main source for drinking water in the country, cannot be ignored.

The Climatic Hazards Programme of SEADPRI-UKM conducts research and strengthens capacity to support the national agenda on adaptation to extreme weather and climate change. The focus of research includes disaster prevention, risk reduction and management, to post disaster recovery and reconstruction. Aspects taken into account are science and technology for disaster risk reduction, socio-economic impacts and vulnerability assessments, education and awareness as well as governance for human security and sustainability, among others. Postgraduate training for the masters and doctoral levels is conducted through research. The Programme implements its outreach activities in conjunction various stakeholders at national and international levels, including governments, non-governmental organisations, community based organizations, scientific and academic institutions and the private sector.

Geological Hazards

Geological Hazards (Geohazards) include all geological or hydrological processes that pose a threat to people or their property. Examples of geological hazards include earthquakes, tsunamis, landslides, slope failures, debris flows, subsidence and sinkholes. Understanding our environment is a prerequisite for reducing the vulnerability of our societies and the risk of natural disasters. Understanding the Earth, its contents and processes are crucial for improved knowledge of geohazards, risks and potential disasters as a basis for efficient decision making, better mitigation, and preparedness for disasters.

The Geological Hazards Programme of SEADPRI-UKM was established to change the focus of current practices in disaster management, from a responsive approach to a more preventive one, in order to prevent or reduce the impact of disasters. The Programme also aims to strengthen the emerging international strategy for disaster mitigation and prevention for the benefit of those exposed to geohazards. Emphasis will be on the

crosscutting area of disaster risk management, which includes hazards identification, risk assessment, disaster preparedness and mitigation. In addition, the Programme promotes research and training, data sharing, building of public awareness and provision of technical services to stakeholders and local communities in Malaysia and the region.

Landslide Bukit Lanjan : Mohd Asbi & Associate



Technological Hazards

We live in a world of modern technologies that provide us with electricity, food, entertainments, etc that give us comfort of life. Despite that, modern technologies are becoming sources of hazard or risk because of the hazardous nature of materials or technologies involved, some examples are toxic and radioactive substances, high voltage and pressure. Hazardous materials are chemical substances, which if released or misused can pose a threat to the environment or health. They are present every where we live, especially in industrial facilities and during its transportation via highways, rail and waterways. Accidental release of these substances from, fires, explosions, leakages and natural disasters can have adverse effects on human health, property and the environment. As a result, human exposure to hazardous substances causes injury or even death to a large number of people.

The Technological Programme of SEADPRI-UKM currently focuses on hazardous materials. Research and education into the hazards and risk that brought about by these materials are important because of the increasing use of chemical substances for the improvement of the quality of our lives. The research and education will be mainly on the reduction of disaster risk of these hazards to environment and humans, and they are in line with the current efforts of the Malaysian government on establishing an efficient national system on chemical management. Chemical hazard disaster risk reduction is also a relatively unexplored field in the Asian region, especially among the countries of Southeast Asia, and the Programme aims to bridge this gap.

SEADPRI is a UKM answer to global challenge



Highland Tower Landslide : MPAJ

Southeast Asia Disaster Prevention Research Institute (SEADPRI) was established in June 2008 as a new research institute in Universiti Kebangsaan Malaysia. It was aimed at answering the crucial global challenge on natural disaster risk reduction in the Southeast Asian region. The important to have a research focal point in this region was felt when Malaysia and the neighborhood countries are grappling with various issues related to science and governance when we are facing with the 26.12.04 tsunami disaster.

SEADPRI was created to provide some basic solution for natural disaster, particularly in the context of multi- and inter-disciplinary research need on risk management and science-governance symbiosis. Emphasis will also be given to the capacity building, mainly on post-graduate programme and specialize training. Research focus will be given to the climate hazards, geological hazards and technological hazards.

Activities

• Research Projects

The research project on “Policy and Planning Responses for Earthquake and Tsunami Hazards in Malaysia” aims to promote the incorporation of risks associated with seismic-induced geohazards into planning of development activities, in conjunction with stakeholders and vulnerable groups. Funded by the Academy of Sciences of Malaysia, the project was implemented over 3 years, from 2006 to 2008. The project took a participatory research approach, involving a wide range of national and international players from universities, research institutions and implementing agencies, with inputs from community based and non-governmental organizations. A website based information portal has also been developed to raise awareness on earthquake and tsunami hazards in the country.

The research project on “Environmental Hazard and Human Security: Natural and Geoenvironmental Disaster Prevention and Management” commenced in 2008 under the auspices of the Climate Change Niche of Universiti Kebangsaan Malaysia and the Malaysian Network for Research on Climate, Environment and Development (MyCLIMATE), hosted by the LESTARI-UKM with support from the Ministry of Natural Resources and Environment Malaysia. Funded by the Ministry of Higher Education, the project aims to build capacity on holistic and integrated risk reduction, taking into account social, cultural, ethical, political and legislative factors. Several capacity building workshops and consultative meetings have been organized to gather inputs and facilitate transfer of technology. More information can be obtained from: <http://www.lestari.ukm.my/myclimate>

• Publications

SEADPRI-UKM is in the process of publishing a book on the findings of the project on “Kundasang Landslide Complex: Hazard Assessment and Control”, conducted under the auspices of LESTARI-UKM and funded by the Ministry of Science, Technology and Innovation. In conjunction with the National Security Council, Prime Minister’s Department of Malaysia, SEADPRI-UKM, will also publish the Conference Report of the 3rd Asian Ministerial Conference on Disaster Risk Reduction, held on 2-4 December 2008 in Kuala Lumpur, Malaysia.

• Postgraduate Programmes

SEADPRI-UKM offers postgraduate training through research in the areas of science, technology and governance for disaster prevention, specifically for climatic hazards, geological hazards and technological hazards. In 2008, a training course and a capacity building workshop were organized in Bangi, Malaysia, in conjunction with selected institutions. These are the Training Course on “Vulnerability Assessment for Climate Change Adaptation: The Spatial Planning Perspective”, held on 17 October 2008 and the Workshop on “Integration of Environmental Risk into China’s Risk Management Discourse”, 21 November 2008.

Current Events

	Programme	Date	Venue
1	SEADPRI-UKM promotes “Innovative Partnerships for Transmitting Knowledge to National and Local Levels Side Event at the 3rd Asian Ministerial Conference on Disaster Risk Reduction	3 Nov 2008	PWTC Malaysia
2	Asian Conference on Disaster Reduction	12-14 Nov 2008	Bali, Indonesia
3	Third Asian Ministerial Conference on Disaster Risk Reduction	2 - 4 Dec 2008	PWTC Malaysia
4	Retreat SEADRPI-UKM	4-5 Aprl 2009	Avilion Hotel, Port Dickson, Malaysia
5	FORUM SEADPRI 1/2009: Hospitals Save from Disasters	6 Apr 2009	Joint Meeting Room, Level 2 LESTARI UKM Building, Malaysia

SEADPRI-UKM Promotes “Innovative Partnerships For Transmitting Knowledge To National And Local Levels At The 3rd Asian Ministerial Conference On Disaster Risk Reduction

• Joy Jacqueline Pereira



Schezun Earthquake : Red Cross Society of China

SEADPRI-UKM and several session partners hosted a Side Event entitled “Innovative Partnerships for Transmitting Knowledge to National and Local Levels” at the 3rd Asian Ministerial Conference on Disaster Risk Reduction, held in Kuala Lumpur on 3 November 2008. The Side Event was held in conjunction with the Technical Session and High-Level Round Table on High Technology and Scientific Applications to Disaster Risk Reduction, including Climate Change Adaptation. The session partners were the International Telecommunication Unit (ITU), the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), International Federation of Red Cross and Red Crescent Societies (IFRC), Asian Disaster Reduction Center (ADRC), Telekom Malaysia (TM), and Malaysian Amateur Radio Emergency Services (MARES).

World-wide disasters are anticipated to increase with the advent of climate change and all stakeholders need to be mobilized to address this issue, particularly at the local level. The high level of scientific uncertainty associated with climate change and its relationship to Disaster Risk Reduction (DRR) requires the involvement of researchers from scientific and academic institutions to translate state-of art knowledge and integrate them into national and local policies. Various types of partnerships need to be forged to enhance the use of scientific and technological knowledge to facilitate informed policy and decision-making for DRR and climate change adaptation at national and local levels. The inherent elements that bring about successful partnerships need

to be understood, documented and disseminated so that such partnerships can be replicated world-wide to transmit knowledge to national and local levels. The objective of the Side Event was to share and exchange experiences and lessons learnt on integration of DRR into development planning; and highlight various types of partnerships, which have significantly enhanced the use of scientific and technological knowledge to facilitate informed policy and decision-making for DRR and climate change adaptation.

The Side Event was attended by about 40 participants. It was chaired by Raja Datuk Zaharaton Raja Zainal Abidin, Visiting Scholar of the Institute for Environment and Development (LESTARI), Universiti Kebangsaan Malaysia. The presentations are as follows:-

- Policy Research on Integrating Earthquake and Tsunami DRR into Development Planning by Prof. Dato’ Dr. Ibrahim Komoo, Director, SEADPRI-UKM;
- Bridging Public and Agencies for Disaster & Emergency Situations by Ms. Rozinah Anas, Director of MERS 999, Telekom Malaysia Berhad;
- Reliable Emergency Communications during Disasters – The Role of Amateur Radio by Mr. Azizul Ghazali, MARES;
- Earthquake Disaster Reduction in China by Scientific Technology by Mr. Ruizhi Wen, Institute of Engineering Mechanics, China Earthquake Administration; and
- A400M: The Versatile Airlifter for Humanitarian Relief by Mr. Kevin Dell, Vice President Sales Operations and Contracts, Airbus Military SL.

The presentations highlighted case studies on integrating disaster risk reduction into development planning as well as several weaknesses in current humanitarian efforts. Examples on how private and public partnerships (PPP) can mobilize resources for R&D on DRR and Climate Change Adaptation were also presented. During the discussion, the need to promote innovative partnerships between scientific communities, academic institutions, NGOs and the private sector to enhance scientifically informed national policies for disaster risk reduction and climate change adaptation was also emphasized.

JUNE
2009

Third Asian Ministerial Conference on Disaster Risk Reduction Kuala Lumpur, Malaysia 2 - 4 December 2008

• Joy Jacqueline Pereira

The Third Asian Ministerial Conference on Disaster Risk Reduction with the overarching theme of “Multi-stakeholder Partnership for Disaster Risk Reduction from National to Local” was organised by the National Security Council, Prime Minister’s Department, Government of Malaysia, United Nations International Strategy for Disaster Reduction (ISDR) and other Conference Partners including SEADPRI-UKM. The focus was on public-private-partnership for disaster risk reduction and community based disaster risk reduction activities. The Conference was officiated by the Deputy Prime Minister of Malaysia, Datuk Seri Najib Razak on 2 December 2008 at the Putra World Trade Centre, Kuala Lumpur. Mr. Salvano Briceno, Director of the ISDR was also in attendance and he later launched the document on Good Practices on Public Private Practices for Disaster Risk Reduction.

The Third Asian Ministerial Conference aimed to review actions taken by countries in conjunction with stakeholders for the implementation of the Hyogo Framework for Action as a follow-up to the Beijing Action Plan for Disaster Risk Reduction in Asia and the Delhi Declaration on Disaster Risk Reduction in Asia in 2007. It also served as a platform to share and exchange good practices and lessons learned on disaster risk reduction as well as prepare for key global processes such as the Global Platform for Disaster Risk Reduction, particularly to develop a vision and roadmap to strengthen and expand partnerships, facilitate better recognition of community-based activities and promote the mobilisation of adequate policy and financial support. The Conference revolved around the following six themes:-

- Public-Private Partnership in Disaster Risk Financing;
- High Technology and Scientific Applications to Disaster Risk Reduction including Climate Change Adaptation;
- Community Based Disaster Risk Reduction;
- Mobilizing Resources for Disaster Risk Reduction;
- Media Involvement in Disaster Risk Reduction; and
- Public Awareness and Education for Disaster Risk Reduction.



Tsunami Kuala Muda, 26.12.04 : Tajul Anuar

For each of the six themes, there was a Technical Session followed by a High Level Roundtable Dialogue. Each Technical Session comprised disaster risk reduction experts and practitioners, who articulated the technical challenges and made key recommendations for actions to be considered by Ministers. SEADPRI-UKM led the theme on High Technology and Scientific Applications to Disaster Risk Reduction including Climate Change Adaptation, in conjunction with the International Telecommunication Unit (ITU) and several key partners.

There was also a Ministerial Segment involving 43 Ministers and Senior Officials and 6 representatives of international organizations, who deliver statements on their progress in disaster risk reduction. In addition, there were two Special Sessions, ten Side Events and eight Pre-Conference events. All the events served as platforms for taking stock of initiatives taken in various sub-regions of Asia for promoting cooperation and building partnerships for disaster risk reduction among nations, both within and outside the governments; and sharing of good practices and lessons learned on disaster risk reduction in various fields.

The Third Asian Ministerial Conference culminated with the adoption of the “Kuala Lumpur Declaration on Disaster Risk Reduction in Asia, 2008” by the Ministers and Heads of Delegations involved. The Declaration lays testimony to public-private-partnership and community-based disaster participation in disaster risk reduction and charts the way forward for Asia. SEADPRI-UKM is proud to have served the Government of Malaysia, in particular the National Security Council of the Prime Minister’s Department, in drafting the Kuala Lumpur Declaration.

Asian Conference on Disaster Reduction Bali, Indonesia 12-14 November 2008

• Lee Yook Heng

Malaysia is not considered as a country that prone to disaster occurrence. We therefore do not normally aware about disaster be it natural or man-made. The most disastrous events in our minds are probably flood or haze or may be the 2004 tsunami. Because we do not encounter severe disaster, does it mean that we should not care more? There is a lot Malaysian can learn from our Asian neighbors, who unfortunately constantly facing all kinds of disasters. Realizing the importance of a proper management system during disaster events, many Asian countries have now joined effort to deal with major disaster occurrences and hence the Asian Disaster Reduction Centre was formed.

The Asian Disaster Reduction Center (ADRC), United Nations Secretariat of the International Strategy for Disaster Reduction (UN/ISDR) and the governments of Indonesia and Japan organized the Asian Conference on Disaster Reduction (ACDR2008), which was held on 12-14 November 2008 at Bali, Indonesia to mark the 10th anniversary establishment of the ADRC. The main objectives of the ACDR2008 were to follow up on the progress made towards the implementation of the Hyogo Framework for Action (HFA) on disaster reduction management and to identify the gaps and challenges in disaster reduction in the Asian Region apart from providing opportunity for members to discuss future activities of the ADRC.

The ACDR 2008 conference delegates have presented four major challenges that need to be addressed in disaster risk reduction activities. These are as follows:-

- A need for integrating disaster risk reduction into sustainable development agenda and strategies.
- The importance of translating political commitment into action for effective mainstreaming disaster risk reduction
- Public-private partnership as an essential element of disaster risk reduction
- The role and accessibility of advanced science and technology and knowledge management resources as effective tools for disaster risk reduction

These challenges are certainly relevant to Malaysia taking into consideration that we have yet to develop a comprehensive management system for disaster risk reduction in this country. The Southeast Asia Disaster Prevention Research Institute of UKM (SEADPRI) and the National Security Council of Malaysia, together with several other government departments are now working together to create a more efficient system for the management of disaster event and towards disaster risk reduction. When a disaster does strike, it is better to be ready than to have regrets later.

Tsunami Pangandaran, Indonesia : Ibrahim Komoo



International Landslides Event

Tanah Runtuh di Bukit Antarabangsa Selangor *Landslide at Bukit Antarabangsa Selangor*

• Ibrahim Komoo

Tragedi Tanah Runtuh di Bukit Antarabangsa pada Desember 2008 yang telah mengorbankan 5 nyawa dan meranapkan 14 banglo mewah merupakan rantaian suatu siri puluhan tanah runtuh yang telah berlaku di kawasan yang sama sejak 20 tahun lalu. Tragedi yang lebih menyayat hati berlaku pada Desember 1993 apabila sebuah bangunan 12 tingkat roboh disebabkan tanah runtuh sehingga mengakibatkan 48 penghuninya terbunuh. Apakah sebenarnya yang berlaku? Apakah tragedi yang hampir sama masih tidak dapat dielakkan?

Pengetahuan sains dan teknologi mengenai kejadian tanah runtuh, faktor yang menyebabkan kawasan ini mudah berlaku tanah runtuh, dan faktor yang mencetus kejadian telah cukup difahami dan dihayati. Bagaimanapun, cara tindakan yang terintegrasi dan holistik untuk menghindari atau sekurang-kurangnya meminimumkan impak kepada harta dan nyawa – masih belum dijumpai. Mengapa?

Tiga perkara pokok perlu difahami mengapa isu tanah runtuh di Bukit Antarabangsa masih belum dapat diselesaikan. Pertama, sejarah pembangunan – kawasan telah dibangunkan sebelum pengetahuan dan kesedaran mengenai risiko tanah runtuh difahami oleh pihak berkuasa, para pemaju dan komuniti terbabit. Pada masa ini, sejumlah cerun buatan di kawasan berkaitan telah dikenalpasti mempunyai risiko tanah runtuh yang tinggi. Di atas, pada dan di bahagian bawah kawasan cerun ini telah terdapat bangunan dan perumahan yang dimiliki secara persendirian dan sentiasa berhadapan dengan risiko tanah runtuh. Siapa yang boleh mengambil tindakan dalam keadaan begini?

Kedua, keupayaan dan kekuatan politik pihak berkuasa negeri dan tempatan. Setiap tragedi tanah runtuh di

kawasan ini lazimnya diikuti oleh laporan pakar dan pandangan awam mengenai apa yang boleh dan perlu dilakukan. Banyak manakah saranan-saranan ini telah di ambil tindakan? Apakah limitasi untuk tindakan susulan telah diperhalusi dan cabaran dihindarkan? Semua ini memerlukan kepimpinan yang berwawasan, sokongan sistem governans yang baik, dan kerjasama pelbagai pihak berkepentingan secara gigih dan berpadu. Jelasnya, masih belum nampak lagi perubahan positif yang ketara ke arah memperkemas pengurusan bencana tanah runtuh di peringkat kerajaan tempatan.

Ketiga, dan yang lebih penting ialah perubahan di peringkat komuniti yang berhadapan dengan risiko tanah runtuh. Dalam kebanyakan hal, melalui kesedaran dan pendidikan awam, komuniti terlibat boleh menjadi agen perubahan – sebahagian besar daripada tindakan mengurung atau menghindari risiko bencana terletak pada komuniti tersebut. Secara individu atau berkumpul – komuniti sebetulnya mempunyai pilihan untuk terus berhadapan dengan risiko tanah runtuh atau mahu menghindarkannya. Masyarakat Malaysia pada umumnya, masih meletak risiko nyawa atau harta mereka di tangan kerajaan, dan belum berani memikulnya sendiri.

Tragedi tanah runtuh di Bukit Antarabangsa merupakan bencana buatan manusia yang boleh dielakkan. Pelbagai tindakan jangka pendek, sederhana dan panjang boleh diambil oleh semua pihak – komuniti, para pemaju dan pihak berkuasa tempatan. Malaysia masih menunggu 'pahlawan' yang berani melihat isu tanah runtuh di Malaysia secara terintegrasi dan bersedia mengorak langkah untuk menghindarkan risiko terhadap warga dengan sepenuhnya.



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