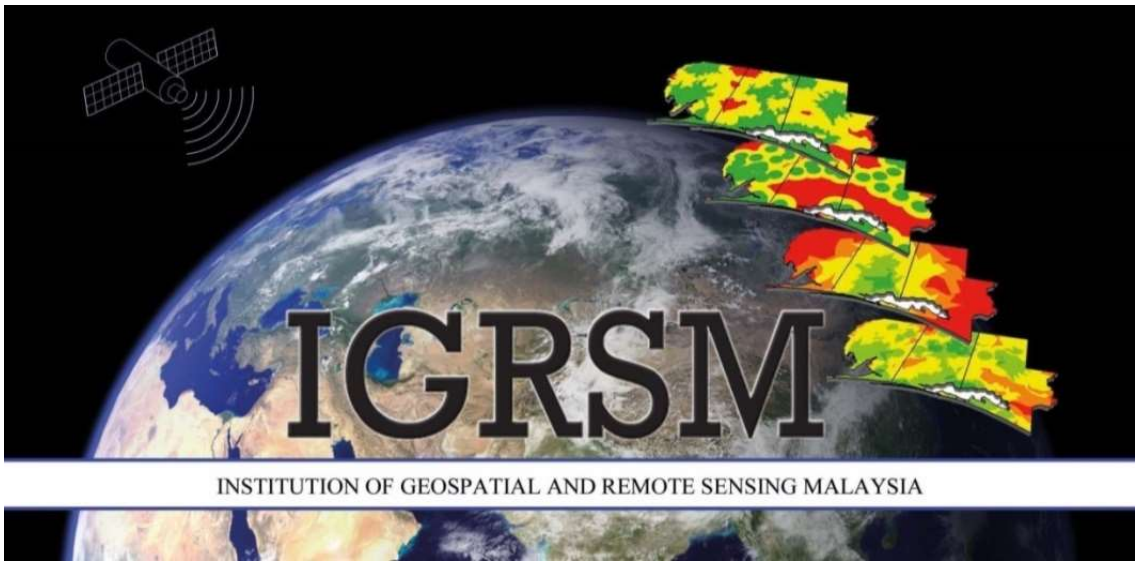

Technical Forum Series 2022 / 3 on Postmortem of Recent Flood Incidents: Focus on the Role of Geospatial & Remote Sensing in Disaster Preparedness and Prevention

19 May 2022 (Thursday), 9.00 am - 1.00 pm

Online via Zoom

Link: https://us02web.zoom.us/j/83880747982?pwd=aVFGaE9xT1AxcklVMnhyR0Jtc3JIQT09
Meeting ID: 838 8074 7982
Passcode: 782063

Organisers

IGRSM
INSTITUTION OF GEOSPATIAL AND REMOTE SENSING MALAYSIA

IEEE GRSS MALAYSIA Geoscience and Remote Sensing Society

UPM UNIVERSITI PUTRA MALAYSIA BERILMU BERBAKTI

seadpri southeast asia disaster prevention research initiative

Ministry of Defence Malaysia

SCIENCE & TECHNOLOGY RESEARCH INSTITUTE FOR DEFENCE (STRIDE)

Kerjasama Strategik Agensi Pengurusan Bencana Negara (NADMA) dan Jabatan Ukur dan Pemetaan Malaysia (JUPEM) Dalam Pengurusan Bencana Melalui Platform *Defence Geospatial Information Management* (DGIM) di JUPEM

Nazaruddin Sharaai

Pengarah, Pusat Kawalan Bencana Negara (NDCC), Agensi Pengurusan Bencana Negara (NADMA), Jabatan Perdana Menteri (JPM)

Power Supply Challenges During Disasters & Future Planning Using GIS

Gs. Sr. Nik Fadhil bin Nik Mohd Kamil

Team Leader (GIS Mapping & Analysis), GIS Distribution Network (GISDN) Project, Tenaga Nasional Berhad

Mengarus Perdana Pengurusan Risiko Bencana Dalam Penyediaan Rancangan Tempatan Ke Arah Pencapaian Bandar Berdaya Tahan

Dr. Dzul Khaimi bin Khailani

Pengarah Pejabat Projek Zon Timur, Bahagian Rancangan Pembangunan, Jabatan Perancangan Bandar dan Desa (PLANMalaysia)

Ensuring Food Security in the Face of Climate Change

Normaizah bt Hj Ismail @ Manaf

Director, Soil Resources Management Division, Department of Agriculture

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Abstrak

Kejadian banjir semasa Monsun Timur Laut (MTL) yang berlaku setiap tahun memberi impak yang besar kepada negara dari segi nilai kerugian dan kerosakan. Dalam hal ini, Agensi Pengurusan Bencana Negara (NADMA), Jabatan Perdana Menteri (JPM) selaku agensi peneraju pengurusan bencana sentiasa melaksanakan inisiatif-inisiatif penambahbaikan agar risiko kejadian bencana dapat dikurangkan dan kesiapsiagaan dalam menghadapi bencana dapat ditingkatkan. Ia dapat membantu memantapkan lagi aspek pengurusan bencana. Salah satu elemen yang turut diberi penekanan adalah dengan memanfaatkan sepenuhnya penggunaan data-data yang berkaitan dengan bencana. Sebagai langkah seterusnya, NADMA telah menjalinkan kerjasama strategik bersama Jabatan Ukur dan Pemetaan Malaysia (JUPEM) bagi menggunakan aplikasi *geospatial information system* (GIS) menerusi *Defence Geospatial Information Management* (DGIM) yang telah dibangunkan oleh pihak JUPEM. DGIM merupakan satu platform yang menggabungkan beberapa jenis format data digital menggunakan aplikasi GIS bagi membantu memberikan maklumat terkini mengenai kejadian bencana di sesuatu lokasi kepada pasukan pengurusan bencana dan juga *stakeholders*. Sehubungan dengan itu, sesi pembentangan ini akan mengupas secara ringkas mengenai kepentingan dan sumbangan aplikasi tersebut dalam mengurus bencana banjir dalam konteks perkongsian data dari pelbagai agensi.

Biografi

En. Nazaruddin Sharaai merupakan pemegang Ijazah Sarjana Muda Sains (Kepujian), Perumahan, Bangunan dan Perancangan, serta Sarjana Sains (Perancangan) dari Universiti Sains Malaysia (USM). Beliau telah menyertai Perkhidmatan Tadbir dan Diplomatik (PTD) pada tahun 2000, dan pernah berkhidmat di Jabatan Kerajaan Tempatan (JKT), Kementerian Perumahan dan Kerajaan Tempatan (KPKT), Unit Pemodenan Tadbiran dan Perancangan Pengurusan Malaysia (MAMPU), dan kini sedang berkhidmat di Pusat Kawalan Bencana Negara (NDCC), Agensi Pengurusan Bencana Negara (NADMA), Jabatan Perdana Menteri (JPM).

Power Supply Challenges During Disasters & Future Planning Using GIS

Gs. Sr. Nik Fadhil bin Nik Mohd Kamil

Team Leader (GIS Mapping & Analysis), GIS Distribution Network (GISDN) Project,
Tenaga Nasional Berhad

Abstract

Heavy rains that hit the country in mid-December 2021 resulted in floods covering the states of Selangor, Pahang, Melaka, Johor, Negeri Sembilan, Kuala Lumpur, Perak and Kelantan. On 22 December 2021, a total of 2,077 Tenaga Nasional Berhad (TNB) substations were affected by the floods and had to be shut down. The number kept on increasing day by day as the floods spread to other areas as well. TNB needed to implement a restoration plan for the substations in stages for areas where floods had receded. In addition to managing repairs and restoration, the status of the substations needed to be updated for reference by users awaiting for restoration of power supply. Through TNB's GIS platform, a flood recovery status dashboard was developed to display the distribution of substations involved along with the status. This information was obtained from the TNB Flood Operations Room and uploaded to the dashboard for display. This dashboard helped the operations room to monitor the restoration work and organise the restoration plan by area.

Biography

Gs. Sr. Nik Fadhil bin Nik Mohd Kamil is a Geospatialist (Gs.) with the Institution of Geospatial and Remote Sensing Malaysia (IGRSM) and Surveyor (Sr.) with the Royal Institution of Surveyors Malaysia (RISM). He leads the Mapping & Analysis Unit for the GIS Distribution Network (GISDN) project at Tenaga Nasional Berhad (TNB). He is also currently a Master by Philophy student at Universiti Teknologi Malaysia (UTM), specialising in disaster risk management. Prior to TNB, he worked in different industries; from GIS consultant, IT, local and international engineering firms to a multinational oil & gas company. He has more than 14 years of work experience, specialising in geospatial-based content development, geo-analytics, location-based data management and cartographic products.

Mengarus Perdana Pengurusan Risiko Bencana Dalam Penyediaan Rancangan Tempatan Ke Arah Pencapaian Bandar Berdaya Tahan

Dr. Dzul Khaimi bin Khailani

Pengarah Pejabat Projek Zon Timur, Bahagian Rancangan Pembangunan, Jabatan Perancangan Bandar dan Desa (PLANMalaysia)

Abstrak

Fenomena perubahan cuaca dunia telah memberi kesan kepada hala tuju pembangunan fizikal di negara ini terutamanya bagi kawasan-kawasan yang terdedah (*vulnerable*) kepada risiko geo-bencana. Kawasan-kawasan yang berisiko tinggi menerima impak perubahan iklim dan geo-bencana adalah seperti kawasan pesisir pantai, tanah tinggi, garis sesar gempa dan lembangan sungai. Kawasan-kawasan ini memerlukan pendekatan perancangan spatial dan guna tanah yang komprehensif dalam mengurangkan impak bencana terutamanya di kawasan petempatan dan perbandaran.

Pendekatan melalui perancangan spatial dan guna tanah merupakan tindakan mitigasi secara bukan berstruktur yang paling berkesan dan paling kos efektif bagi mengurang dan mengawal risiko geo-bencana dalam tempoh jangka masa panjang. Rancangan Tempatan merupakan salah satu dokumen perancangan yang disediakan untuk tempoh perancangan berjangka masa panjang yang bertujuan untuk merancang, mengawal dan mengurus pembangunan yang dilaksanakan di peringkat tempatan.

Pemakaian dan pelaksanaan Rancangan Tempatan yang berkaitan dengan pengurusan risiko bencana adalah pada peringkat Pencegahan, Kesediaan, Tindak Balas dan Pemulihan. Mengarus perdana pengurusan risiko bencana dalam Rancangan Tempatan diperkenalkan supaya aspek pengurusan risiko dan berdaya tahan geo-bencana dapat dijalankan secara terperinci. Ini adalah bagi memastikan supaya dokumen Rancangan Tempatan dapat dijadikan panduan oleh Pihak Berkuasa Negeri dan Pihak Berkuasa Tempatan dalam merancang dan mengawal selia pembangunan spatial dan guna tanah dengan lebih tersusun dan sistematik di kawasan masing-masing terutamanya di kawasan yang terdedah kepada risiko geo-bencana.

Biografi

Dr. Dzul Khaimi bin Khailani adalah Pengarah Pejabat Projek Zon Timur, Bahagian Rancangan Pembangunan, Jabatan Perancangan Bandar dan Desa (PLANMalaysia). Beliau telah berkhidmat selama 27 tahun di PLANMalaysia. Beliau menerima ijazah sarjana muda dari Universiti Teknologi Malaysia (UTM). Pada tahun 2002, beliau telah dianugerahkan dengan biasiswa daripada Kementerian Pendidikan, Kebudayaan, Sukan, Sains dan Teknologi Jepun untuk melanjutkan pengajian peringkat sarjana dalam bidang sains alam sekitar di Universiti Tsukuba, Jepun. Beliau seterusnya memperoleh ijazah doktor falsafah dari Asian Institute of Technology dengan di mana fokus kajian dalam aspek ketahanan bencana dan pengurusan risiko bencana. Antara kajian penyelidikan yang telah diterbitkan oleh beliau di peringkat antarabangsa termasuk dalam *Land Use Planning Journal* (2011), bab mengenai *Environment and Urbanisation* dalam *Malaysia National Report for UNHabitat (Habitat III)* (2016), serta bab dalam buku *Rethinking Resilience, Adaptation and Transformation in a Time of Change* (Springer, 2017). Beliau turut terlibat sebagai penulis kertas strategik bagi aspek pengurusan risiko bencana bagi Rancangan Malaysia Ke-11 (RMK11) dengan *Southeast Asia Disaster Prevention Research Initiative* (SEADPRI) dan Unit Perancang Ekonomi (EPU). Beliau adalah Pengurus Projek untuk Garis Panduan Perancangan Pengurusan Risiko Bencana Gempa Bumi (2017) dan Garis Panduan Perancangan Bandar Tahan Bencana di Malaysia (2018).

Ensuring Food Security in the Face of Climate Change

Normaizah bt Hj Ismail @ Manaf

Director, Soil Resource Management Division, Department of Agriculture

Abstract

In Peninsular Malaysia, the devastating effect of climate change on the agriculture sector is extensive. In this regard, within a five year period from 2017 to 2021, a total of 40,828 hectares of paddy crops were destroyed due to floods, while 9,336 hectares were damaged due to drought. Thus, Malaysia has identified five key challenges in our agro-food sector for the next 10 years, including climate change. Having recognised the impact of climate change on the nation's food security, the Ministry of Agriculture and Food Industries Malaysia is drafting initiatives for the comprehensive transformation of the paddy and rice industry through the National Food Security Policy Action Plan (DSMN) 2021-2025 to boost the production of paddy and incomes of farmers. The initiatives cover research and development efforts as well to enhance food production using climate-based technology. Malaysia recognises that in order to address climate change, a comprehensive shift towards modernisation is required, and smart farming and precision agriculture is indeed the way forward. Malaysia believes that climate-smart agriculture could contribute to the advancement of agricultural system transformation. The transformation towards adopting modern technologies in agriculture will ensure our food security in a changing climate. Apart from rice, Malaysia is also committed to addressing food security in other agro-food sectors, such as fruits and vegetables, livestock, fishery and aquaculture, through the implementation of the National Agro-Food Policy 2021-2030 (NAP 2.0). With three key characteristics of sustainability, resilience, and technological advancement, the Malaysian agro-food industry aspires to be one that is robust and agile, not only to keep pace with global economic growth and the effects of globalisation, but also to mitigate the impact of climate change.

Biography

Mdm. Normaizah bt Hj Ismail @ Manaf has some 26 years of professional experience in agriculture particularly in the field of agronomy. She has also been a floriculturist for 12 years. She began her career as an agriculture officer at the Northwest Selangor Integrated Agricultural Development Area (IADA) in 1996 for five years and was later appointed as an expert in granary area development before moving to Besut, Terengganu. There, she was made the assistant director of the Agricultural Extension and Training Centres in the Eastern Region. In 2015, she was transferred to become the Head of the Strategic Planning & International Section. After three years, she was subsequently promoted for her expertise to the Crop Industry Development Division (BPIT), which is one of the most important divisions in agriculture. While still on the same senior grade, she was posted temporarily as the Director of the Human Resource Development Division. In May 2021, she became the Director of the Soil Resources Management Division where she has been since.