

KEMENTERIAN TENAGA, SAINS, TEKNOLOGI, ALAM SEKITAR DAN PERUBAHAN IKLIM

| Bil | Berita | Media | Capaian Berita Penuh |
|---------------------------------|--|---------------|--|
| 1 OKTOBER 2018 (ISNIN) | | | |
| 1. | <u>Agenda sains negara terus dipacu</u> Selesai pilihan raya umum, antara tumpuan komuniti saintifik ialah penstrukturan semula pentadbiran dengan penubuhan Kementerian Tenaga, Sains, Teknologi, Alam Sekitar dan Perubahan Iklim (MESTECC). | Berita Harian | Rujuk lampiran 1 |
| 2. | <u>Digital way to check radiation</u> State Communications, Multi-media, Youth and Sports Development Committee chairman Kerk Chee Yee said state-owned telecommunications company Melaka ICT Holding Sdn Bhd (MITCH), through cooperation with the National Nuclear Agency, has developed a website for people to evaluate the emission level at each tower by scanning QR codes. | The Star | Rujuk lampiran 2 atau klik pada tajuk berita |
| 30 SEPTEMBER 2018 (AHAD) | | | |
| 3. | <u>Nobel treat for science champs</u> A sufficient pool of talent in STEM education is necessary in order for the country to thrive and play an important role in the fourth industrial revolution, said Deputy Energy, Technology, Science, Climate Change and Environment Minister Isnaraissah Munirah Majilis. | The Star | Rujuk lampiran 3 atau klik pada tajuk berita |
| 4. | <u>Penang starts dredging rivers and clearing drains</u> The Malaysian Meteorological Department announced that the south-west monsoon ended on Thursday and the erratic wind directions of the inter-monsoon period had begun. | The Star | Rujuk lampiran 4 atau klik pada tajuk berita |

| 29 SEPTEMBER 2018 (SABTU) | | | |
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| 5. | <u>439 villagers suffer brunt of inter-monsoon floods</u> According to the Malaysian Meteorological Department (MetMalaysia), the south-east monsoon ended on Thursday and the stormy inter-monsoon period has kicked in. | The Star | Rujuk lampiran 5 atau klik pada tajuk berita |
| 6. | <u>DOE should improve</u> Open burning happens every night near my residential area. We could smell toxic materials being burnt. | The Star | Rujuk lampiran 6 |
| 7. | <u>Temperature rises at town hall session on controversial Penang highway</u> The meeting, which filled the Spice Convention Centre hall to the brim, was attended by Energy, Technology, Science, Climate Change and Environment Minister Yeo Bee Yin, state executive council members and state assembly members. | Aliran | Klik pada tajuk berita |

TEMPATAN

| Bil | Berita | Media | Capaian Berita Penuh |
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| 1 OKTOBER 2018 (ISNIN) | | | |
| 8. | <u>Malaysia: No to nuclear</u> Those are all indeed powerful arguments in favour of nuclear energy. Tipping the scale against its use is radioactive nuclear waste. | New Straits Times | Rujuk lampiran 7 |
| 9. | <u>The need to self-regulate blockchain</u> Instead of waiting for the -government to impose -regulations on blockchain usage, players in the industry should start a -conversation on self-regulation, said the Australian Digital Commerce Association (ADCA). | The Star | Rujuk lampiran 8 atau klik pada tajuk berita |

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| 10. | <p><u>Ride upside of technology</u></p> <p>The current wave of Industry Revolution 4.0 will eventually give way to 5.0 and so on. Management will be forced to incorporate new data-driven business models to future-proof their business.</p> | The Star | Rujuk lampiran 9 |
| 11. | <p><u>Take action now to save our Earth</u></p> <p>THE road to achieving harmony with nature sounds like a long one but it must be travelled. That's because we need to achieve a balance between nature, economics, social environment and the needs of the present and future generations.</p> | The Star | Rujuk lampiran 10 atau klik pada tajuk berita |
| 12. | <p><u>Solar Power</u></p> <p>Recently I read that some companies are experimenting with installing solar panels on roads. Other innovations are the production of roof and wall tiles to harness electricity.</p> | The Star | Rujuk lampiran 11 |
| 13. | <p><u>Out to make robotics a school subject</u></p> <p>Home-grown robotics education company CR8 Creative Robotics Education Sdn Bhd is planning to take robotics and programming education into public schools in the future.</p> | The Star | Rujuk lampiran 12 |
| <p align="center">30 SEPTEMBER 2018 (AHAD)</p> | | | |
| 14. | <p><u>Power windows will soon do much more than let in the light</u></p> <p>"Initially researchers extracted chlorophyll to study the process of photosynthesis in plants," she explains, adding that eventually this led to the use of a dye sensitiser together with the metal oxides to generate electricity.</p> | Star2.com | Klik pada tajuk berita |
| 15. | <p><u>4IR — a continuum of events</u></p> <p>THAT the world is enthralled by what is in store for the future with the rise of the Fourth Industrial Revolution (4IR) is an understatement.</p> | New Straits Times | Klik pada tajuk berita |

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| 16. | <p><u>UMT, UEA perkasa bidang penyelidikan</u></p> <p>“Selain sains kimia, alam sekitar dan oseanografi, kita juga akan memberi perhatian kepada kursus-kursus atas talian seperti latihan-latihan yang mampu memberi ruang perkongsian ilmu tanpa memerlukan belanja besar.</p> | Utusan Malaysia | Klik pada tajuk berita |
| 17. | <p><u>The end of plastic becomes catwalk reality</u></p> <p>Everyone from young avant garde designers to the big-name brands are racing to hop on the bandwagon to become greener and cut out hugely polluting chemicals from their designs.</p> | The Star | Rujuk lampiran 13 atau klik pada tajuk berita |
| 18. | <p><u>Phase out use of coal power</u></p> <p>This is unsurprising, given the number of climate change-related natural disasters that have affected Malaysia in the last few years.</p> | New Straits Times | Rujuk lampiran 14 |
| 29 SEPTEMBER 2018 (SABTU) | | | |
| 19. | <p><u>UTAR's FEGT researchers win coveted award</u> <u>The Best Paper accolade studies how music affects human emotions</u></p> <p>The conference aimed to provide a platform for researchers and industrial practitioners to discuss and share their knowledge in various sub-topics of bio-signal processing, analysis and systems.</p> | The Star | Klik pada tajuk berita |
| 20. | <p><u>'Stop plastic waste processing at illegal factories'</u></p> <p>“Our observation shows that there are still illegal factories processing plastic waste and containers being sent to the premises.</p> | New Straits Times | Rujuk lampiran 15 |
| 21. | <p><u>Lynas CEO hopes for fair review of plant</u></p> <p>Australia's Lynas Corporation, which operates a rare earth processing plant in Gebeng, Kuantan, is committed to Malaysia and hopes for a fair review of its operations, says Chief Executive Officer Amanda Lacaze.</p> | New Straits Times | Rujuk lampiran 16 |

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| 22. | <u>Lynas kesal terus jadi mangsa kritikan</u> “Kita sudah melakukan pelbagai penambahbaikan daripada aspek operasi dan mematuhi setiap peraturan ditetapkan kerajaan. | Utusan Malaysia | Rujuk lampiran 17 atau klik pada tajuk berita |
| 23. | <u>Melaka a model green city</u> By 2020, the government-run 7248ha Melaka World Solar Valley aims to power most of the daily activities of manufacturers, housing developers, farmers and other stakeholders. | The Star | Rujuk lampiran 18 atau klik pada tajuk berita |
| 24. | <u>Coal not the answer for energy</u> This is because burning coal is not environmentally-friendly. This is very obvious from the grey-ish thick smog that arises from chimneys of coal-fired power plants. | The Star | Rujuk lampiran 19 |

ANTARABANGSA

| Bil | Berita | Media | Capaian Berita Penuh |
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| 1 OKTOBER 2018 (ISNIN) | | | |
| 25. | <u>Desperate victims turn to looting</u> “There has been no aid, we need to eat. We don’t have any other choice, we must get food”, shouted one man. | New Straits Times | Rujuk lampiran 20 |
| 26. | <u>Komet seakan-akan tengkorak manusia hampiri Bumi</u> Sebuah komet yang mempunyai bentuk seakan-akan tengkorak manusia dijangka menghampiri Bumi menjelang malam Halloween bulan depan. | Utusan Malaysia | Rujuk lampiran 21 |
| 27. | <u>Typhoon Trami leaves 56 injured</u> A powerful typhoon hurtled toward Japan’s mainland after injuring dozens on southern islands, as weather officials warned that fierce winds and torrential rain could trigger landslides and floods. | The Star | Rujuk lampiran 22 atau klik pada tajuk berita |

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| 28. | <p><u>Innovation agency plans major push for startups</u></p> <p>To encourage innovation, the agency will promote and support startups to develop disruptive innovation and technology in terms of deep technology such as artificial intelligence, healthcare and green technology so that it could solve the needs of the market.</p> | The Nation | Klik pada tajuk berita |
| 30 SEPTEMBER 2018 (AHAD) | | | |
| 29. | <p><u>Tech Investments Are Powering Up Clean Energy</u></p> <p>Given that long-term power buyers are price-sensitive, it's worth looking at what tech companies have been seeking for their power. Since 2010, it's been mostly wind power, but we can see the approach to parity (or better) for solar in the past year.</p> | Bloomberg | Klik pada tajuk berita |
| 30. | <p><u>Dasara to be powered by green energy sources</u></p> <p>This year, Dasara illumination is going green, and will be a great power-saver. It will be powered largely by renewable energy sources.</p> | Indian Express | Klik pada tajuk berita |
| 31. | <p><u>Climate change and the true cost of economic growth</u></p> <p>But a resource that would have supplied an Enlightenment-sized population for 500 years would last today's just 35 years.</p> | The Guardian | Klik pada tajuk berita |
| 32. | <p><u>Energy firms demand billions from UK taxpayer for mini reactors</u></p> <p>Advocates for small modular reactors (SMRs) argue they are more affordable and less risky than conventional large-scale nuclear plants, and therefore able to compete with the falling costs of windfarms and solar power.</p> | The Guardian | Klik pada tajuk berita |

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| 33. | <u>Treated water at Fukushima plant still radioactive</u> The operator of Japan's wrecked Fukushima nuclear plant said that much of the radioactive water stored at the plant isn't clean enough and needs further treatment if it is to be released into the ocean. | The Star | Rujuk lampiran 23 atau klik pada tajuk berita |
| 29 SEPTEMBER 2018 (SABTU) | | | |
| 34. | <u>About 40% of seabirds ingest toxic substances from plastic waste</u> "The (maritime plastic) pollution has spread even to polar regions," Hideshige Takada, a professor at Tokyo University of Agriculture and Technology told Kyodo News in a recent interview. | The Mainichi | Klik pada tajuk berita |
| 35. | <u>2M tsunami hits Sulawesi</u> A tsunami of up to 2m hit a small city on the Indonesian island of Sulawesi after a major 7.5 quake struck offshore, collapsing buildings and washing a vessel ashore, but there was no word on casualties, officials said. | The Star | Rujuk lampiran 24 atau klik pada tajuk berita |
| 36. | <u>Gempa bumi kuat gegar Pulau Sulawesi</u> Kata Sutopo, kerja-kerja pemindahan mangsa masih dijalankan. "Gempa bumi susulan terus berlaku, banyak rumah runtuh",katanya menerusi mesej. | Utusan Malaysia | Rujuk lampiran 25 |
| 37. | <u>Turning to renewable energy</u> Set atop a mosque in the south of Jordan's capital, dozens of shimmering solar panels reflect a growing trend in the resource-poor desert kingdom as it tries combat its heavy reliance on imported energy. | The Star | Rujuk lampiran 26 |

LAMPIRAN 1
BERITA HARIAN (ISU): MUKA SURAT 11
TARIKH: 1 OKTOBER 2018 (ISNIN)

Agenda sains negara terus dipacu

Sains bersifat universal dan berpotensi menjadi medium diplomasi untuk mengukuhkan hubungan pelbagai pihak. Manfaat sains pula untuk kebaikan yang merentas segala sempadan.

Setidak-tidaknya itulah kepercayaan komuniti saintifik yang harus dikongsi bersama. Dalam hal ini, peralihan kerajaan seperti yang berlaku seharusnya tidak menyekat usaha yang berterusan dalam memajukan bidang sains untuk semua.

Selesai pilihan raya umum, antara tumpuan komuniti saintifik ialah penstrukturan semula penadbiran dengan penubuhan Kementerian Tenaga, Sains, Teknologi, Alam Sekitar dan Perubahan Iklim (MESTECC).

Sebagai permulaan, Menteri-nya, Yeo Bee Yin dalam ucapan amanat telah menggariskan harapan beliau yang membabitkan tiga bidang keutamaan iaitu tenaga, sains dan teknologi serta alam sekitar.

Dalam hal tenaga, dinyatakan inisiatif bersama perlu digerakkan dalam menghasilkan bekalan tenaga yang mampu milik, boleh percaya dan lestari untuk kegunaan negara.

Komentari



Dr Mohd Bakri Bakar

Pensyarah kanan Fakulti Sains
Universiti Teknologi Malaysia
dan ahli Bersekutu Young Scientist
Network, Akademi Sains Malaysia

Rangsang ekonomi

Keutamaan dalam memajukan bidang sains dan teknologi akan merangsang nilai ekonomi dan dapat memberikan pelbagai manfaat kepada masyarakat. Tentunya, kemajuan ekonomi yang dicapai turut menyediakan peluang pekerjaan yang baharu.

Kita juga diingatkan berkenaan tanggungjawab menjaga alam sekitar supaya terus lestari untuk diwariskan kepada generasi akan datang. Harapannya, sinergi di antara ketiga-tiga portfolio kementerian dapat dilaksanakan dengan berkesan melalui asas kefahaman, kesedaran dan kepercayaan terhadap sumbangan dan kepentingan sains.

Harus diingat bahawa keutamaan terhadap sains bukan saja terhad dalam lingkungan MESTECC, tetapi turut merentasi kementerian lain. Hal ini dibuktikan melalui laporan *Science Outlook* 2017 yang merekodkan sebanyak 45 dasar negara berkaitan bidang sains, teknologi dan inovasi (STI) telah dibangunkan oleh 14 kementerian yang berbeza.

Dengan itu, harapan seterusnya supaya berlakunya keselarasan kepemimpinan utama kerajaan bagi menjamin koordinasi inisiatif membabitkan pelbagai bidang berkaitan sains.

Pacu agenda

Dalam konteks ini, ramai yang bersetuju bahawa negara masih kekurangan kapasiti dalam inisiatif pelaksanaan, berbanding kapasiti penasihat yang diterima daripada komuniti saintifik.

Sebagai rekod, Akademi Sains Malaysia telah mengeluarkan pelbagai laporan penasihat berkenaan keutamaan dan perancangan agenda sains, teknologi dan inovasi STI negara seperti *Science Outlook*, *Gambaran Malaysia 2050*, *Emerging Science, Engineering dan Technology (ESET) 2050*, *New Economic Opportunity (NEO)* da-

lam *Industri STI* dan laporan *Sains Mega*.

Harapan sekarang ialah wujudnya kesedaran, kemahuan dan tindakan berstrategik secara bersama, terutama oleh pembuat dasar untuk terus memacu agenda sains negara.

Selari dengan itu juga, kekurangan peruntukan belanjawan dalam bidang penyelidikan dan pembangunan (R&D) sering kali dibangkitkan. Data *Science Outlook* semasa menunjukkan nisbah peratus Perbelanjaan Kasar R&D Negara berbanding Keluaran Dalam Negara Kasar (KDNK) pada 2015 hanya berada pada tahap 1.3 peratus.

Sebagai perbandingan, nisbah peratus tertinggi sedunia telah dicatatkan oleh negara seperti Korea Selatan dengan 4.2 peratus, Jepun (3.5 peratus), Sweden (3.3 peratus), Jerman (2.9 peratus) dan Amerika Syarikat (2.8 peratus).

Bagi mencapai sasaran 2.0 peratus pada 2020, harapannya lonjakan pelaburan perlu dilaksanakan secara berterusan sama ada daripada pihak kerajaan mahupun industri swasta.

Seterusnya, struktur belanjawan untuk R&D juga perlu disemak semula. Secara umumnya,

geran penyelidikan diberikan untuk mengukuhkan kajian berben-tuk asas dan memperkembang kajian berbentuk aplikasi.

Geran pembangunan eksperimental pula disediakan untuk tujuan prakomersialisasi, iaitu kelangsungan daripada kajian asas dan aplikasi. Dengan harapan berlakunya penambahan kewangan untuk R&D, lebih banyak fokus dapat diberikan kepada fasa pembangunan eksperimental bagi menterjemahkan dapatan kajian kepada tahap persediaan untuk komersialisasi.

Kita tidak kekurangan kajian yang bertaraf dunia. Apa yang diperlukan ialah pengukuhan fasa prakomersialisasi dan penyediaan ekosistem yang dapat merangsang lebih banyak pembabitin industri dalam R&D. Selain itu, galakan kerjasama industri bersama-sama universiti perlu diperkasakan.

Dengan kehadiran Revolusi Perindustrian 4.0 (IR 4.0), sampai masanya juga hala tuju industri dan bidang keutamaan negara disemak semula. Tentunya keberang-tungan negara kepada industri komoditi getah dan kelapa sawit serta industri minyak dan gas tidak akan lestari.

LAMPIRAN 2
THE STAR (NATION): MUKA SURAT 12
TARIKH: 1 OKTOBER 2018 (ISNIN)

Digital way to check radiation

MELAKA: Melaka has debuted a digital platform which allows the public to gauge radiation levels from cell towers with their smartphones.

State Communications, Multimedia, Youth and Sports Development Committee chairman Kerk Chee Yee said state-owned telecommunications company Melaka ICT Holding Sdn Bhd (MITCH), through coopera-

tion with the National Nuclear Agency, has developed a website for people to evaluate the emission level at each tower by scanning QR codes.

"The barcodes will be pasted on the poles of the cell towers and can also be obtained online through a dedicated website.

"The state government is committed to ensuring the towers are extremely safe," he said.

LAMPIRAN 3 THE STAR (NEWS): MUKA SURAT 3 TARIKH: 30 SEPTEMBER 2018 (AHAD)

Nobel treat for science champs

By SANDHYA MENON
educate@thestar.com.my

SCIENCE is more than calculations and scientific knowledge as the human element is just as vital.

This was Ong Kang Howe's sentiments after clinching the National Science Challenge (NSC) 2018 title.

Under the tutelage of his teacher Mohd Azlie Abdul Aziz, the Form Four student from SMK King George V, Seremban and his teammates Krishnan Selvarajah and Yalini Arunasalam, beat three other schools in the finals held at Universiti Malaya.

The annual National Science Challenge is organised by the Academy of Sciences Malaysia (ASM) with the support of the ExxonMobil Subsidiaries in Malaysia, to increase interest in Science, Technology, Engineering and Maths (STEM) among secondary school students.

ASM president Prof Datuk Dr Asma Ismail said 2,442 teams from across the country participated in the preliminary level of the competition.

A deep understanding of mathematics, physics, chemistry and biology subjects and the winning school's team spirit was displayed throughout the finals.

"The competition was tough, so I was happy when we were announced as the winners! When great minds work together, great things will happen," said Kang Howe who is an aspiring rocket scientist.

His passion for science made him leap at the opportunity to participate in the competition when his teacher brought it to his attention.

Krishnan was overwhelmed with the judges decision.

"I couldn't believe it at first. Having hands-on modules during a science camp we attended for the competition was very helpful - we learned to apply science in our daily life," he added.

Quivering from the excitement of it all, Yalini too, found the science camp the best part of her NSC experience due to its hands-on modules.

A once in a lifetime opportunity awaits the teenagers - as champions, they will be flying to Stockholm, Sweden to attend the Nobel Prize giving ceremony.

"I am excited with this opportunity," Kang Howe shared.

Chief judge of the NSC 2018 Helen Nair commended the quality of student participants and the standard of questions asked.

The judging process, she said, was rigorous and well-managed.

Stressing that more schools and teachers should encourage their students to attend and/or participate in competitions like the NSC, the ASM fellow said: "Students will get the feeling that science is exciting and they can benefit from it, and see the wider world rather than just (learn from) their books."

Echoing the students' sentiments on the level of difficulty of the questions was US Ambassador to Malaysia Kamala Shirin Lakhdir.

"I was able to answer just one question!"

Proud of the four teams' performance, Lakhdir said their presentation touched on the element of humanity "that science needs to bring and the benefits we need, to have a better world".

"I hope you will come home and take the experiences you had, not just in science and technology, but also in culture and seeing a different world, and bring it back to the benefit of Malaysia and to yourself."

"I also support STEAM which adds in the arts, as scientists need creativity, inspiration and to think in very different ways."

"They need to think about what they create and how it contributes to a better world; there are ethics and morality in science," she added.

Second place winners MRS Tun Abdul Razak, Pahang, were awarded with a cultural exchange programme on STEM to the Silicon Valley in San Francisco, sponsored by the US Embassy in Kuala Lumpur.

The third and fourth place winners, Kolej Yayasan Saad, Melaka and a wild card team from Kedah respectively, will get the opportunity to travel to Japan next year for a week-long study visit under the Sakura Exchange Programme, fully funded by the Japan Science and Technology Agency (JST).

First, second, third and fourth place winners won certificates of recognition each and cash prizes of RM1,500, 1,200, RM900 and RM600 respectively.

A new concept introduced in the NSC 2018, the fourth place winners were a combination of three best students.

Congratulating the winners, Prof Asma who is also Universiti Sains Malaysia vice-chancellor, said it is vital to start nurturing talents by cultivating the younger generation's interest in STEM.

"ASM has organised the NSC since 1999 to serve as a platform to nurture scientific minds and interest in STEM among the younger generation."

"It is hoped that the study visits will provide valuable experiences to the winners and also broaden their horizon on the current science and technology development," she said.

A sufficient pool of talent in STEM education is necessary in order for the country to thrive and play an important role in the fourth industrial revolution, said Deputy Energy, Technology, Science, Climate Change and Environment Minister Isnaraissah Munirah Majilis.

Also present at the event were JST Singapore office director Masaki Sato and ExxonMobil Subsidiaries in Malaysia president and chairman Edward E. Graham.



(From left) Prof Asma, Munirah and Graham with the champs Yalini, Krishnan and Kang Howe who are holding the trophy.

LAMPIRAN 4
THE STAR (NATION): MUKA SURAT 6
TARIKH: 30 SEPTEMBER 2018 (AHAD)

Penang starts dredging rivers and clearing drains

GEORGE TOWN: With thunderclouds looming over Penang almost every night, the state is not taking any chances and has begun to dredge rivers and clear drains here.

State Works and Flood Mitigation Committee chairman Zairil Khir Johari said he approved RM1.6mil to carry out "instant emergency dredging" of several drains and rivers in the state.

The inter-monsoon period began on Friday, heralded by thick clouds in the evenings, though the expected storms have not begun in Penang.

"I asked every district engineer to identify waterways that need quick desiltation work and we approved them right away," he said after launching the MATTA Fair Penang in SPICE Arena yesterday.

Zairil said the state had started RM200mil flood mitigation projects this year but they would take 24 to 36 months to complete.

"This includes eight high-impact projects worth RM150mil," he said, adding that numerous smaller flood mitigation projects were finished in time for the inter-monsoon period.

He advised the public to pay attention to weather reports and be prepared for bad weather.

The Malaysian Meteorological Department announced that the south-west monsoon ended on Thursday and the erratic wind directions of the inter-monsoon period had begun.

It is expected to last until early November, after which the north-east monsoon will start, bringing dry days for states in the peninsula's west coast.

Penang, Kedah and Perlis were hit by one of the worst floodings in history after a massive storm at the end of the inter-monsoon period on Nov 4 and 5 last year.

Penang's Sungai Pinang flood mitigation project, which is critical to preventing flood in much of George Town, has been on hold since 1999 without funds from the federal government.

LAMPIRAN 5
THE STAR (NATION): MUKA SURAT 8
TARIKH: 29 SEPTEMBER 2018 (SABTU)

439 villagers suffer brunt of inter-monsoon floods

By G.C. TAN
newsdesk@thestar.com.my

BALING: Some 439 villagers in 94 homes suffered the brunt of floods due to heavy rains which started in the early hours of the inter-monsoon season.

According to the Malaysian Meteorological Department (MetMalaysia), the south-east monsoon ended on Thursday and the stormy inter-monsoon period has kicked in.

Almost like clockwork, a heavy downpour pounded Baling at midnight, flooding eight villages, submerging the affected homes in up to 60cm of water.

Baling District Disaster Management secretariat was on high alert and when rains kept lashing at 6.30am, two Civil Defence officers and 17 personnel were deployed to the villages.

Baling Civil Defence Force officer Lt Mohd Faizol Ab Aziz, however, said the storm eased up and stopped



Inundated: A flooded road at one of the villages in Baling, Kedah.

by 9.30am, and no flood relief centres were opened.

MetMalaysia warned on Thursday that the inter-monsoon

period would last till early November, bringing short but violent storms in the evenings and nights to all states in the west coast

states in the peninsular, western Sabah and western and central Sarawak.

Come early November, the inter-monsoon period will end and the north-west monsoon will start, ending the storm risk in these parts but bringing the annual floods to east coast states.

"We advise the public to be careful this season and keep updated on the weather situation," the department added.

Last year, the end of the inter-monsoon period brought one of the worst flooding in living memory to Penang, Kedah and Perlis.

A storm that raged on from Nov 4 to 5 last year brought so much rain that some homes in Seberang Prai were submerged in 3m of water.

Penang's Ayer Itam dam's rain gauge recorded 315mm of rainfall, the highest in its history.

After the rain stopped, the flood did not subside for three days because water from the mountains kept rivers full.

LAMPIRAN 6
THE STAR (VIEWS): MUKA SURAT 29
TARIKH: 29 SEPTEMBER 2018 (SABTU)

> DOE should improve

Open burning happens every night near my residential area. We could smell toxic materials being burnt. It was reported to DOE but they couldn't find the culprit and the source of burning. It still happens every night. DOE needs to improve its investigation skills and surveillance equipment to nab the culprits. Night time burning is harder to detect. After all, there is no smoke without fire. – Disappointed

LAMPIRAN 7
NEW STRAITS TIMES (OPINION): MUKA SURAT 15
TARIKH: 1 OKTOBER 2018 (ISNIN)



ZAKRI ABDUL
HAMID

ALTERNATIVE ENERGY

MALAYSIA: NO TO NUCLEAR

Despite cost advantages and scientific advancements, a solution to nuclear power's drawbacks has yet to be discovered

In trademark straight-talking style, Prime Minister Tun Dr Mahathir Mohamad declared on Sept 18 that "Malaysia will not use nuclear power plants to generate energy, as science has yet to find ways to manage nuclear waste and the effects of radiation".

In a keynote address to the Electric Power Supply Industry Conference in Kuala Lumpur, the prime minister cited numerous nuclear incidents worldwide that had led to people suffering from the effects of radiation.

Malaysia, he said, will continue to rely on existing fuels to generate electricity, including stable, environmentally-friendly hydroelectric dams and wind power.

Despite cost advantages and scientific advancements, a solution to nuclear power's drawbacks has yet to be discovered. And it is on that basis that Malaysia is rejecting its use.

Malaysia, he noted, had a "bad experience" with amang, a type of irradiated ore once used to make colour televisions.

Its activation led to radioactive residue problems and widespread community fears.

The eventual resolution was to bury the substance under thick cement in an area one square kilometre large. The prime minister said the area is still unsafe, and lost to development.

The nuclear power debate has been going on for a long time.

Among several arguments in nuclear power's favour is production cost. Light water reactors (which generate the majority of nuclear electricity worldwide) produce power at RM1.00 to RM2.80 per kilowatt-hour, a large range reflecting the design and other requirements of each re-



In the past four decades, the world had witnessed major accidents, including in Fukushima, Japan, in 2011. FILE PIC

actor, as well as government subsidies and other variables.

Another big advantage of nuclear energy: it produces no air pollution such as nitrogen oxide and sulphur dioxide, both of which contribute to acid rain, and no greenhouse gases such as carbon dioxide and methane that contribute to global warming. Nuclear power also produces no ozone and no particulate matter in the air as air pollutants.

The reactors' fuel source — primarily uranium — is relatively abundant in earth's crust and not expected to run out anytime soon. There are known reserves of roughly 5.5 million tonnes of uranium that could be mined at RM520 per kilogramme.

Given the current annual rate of world consumption — about 66,500 tonnes — known reserves constitute about 80 years' worth of fuel.

Another advantage of nuclear energy is that it can reliably run to its full potential, ideal for national power grids.

Those are all indeed powerful arguments in favour of nuclear energy. Tipping the scale against its use is radioactive nuclear waste.

This waste, which consists primarily of the fission fragments and their radioactive-decay products, must be stored for many years before radioactivity decays to a reasonable level, and the safe long-term storage of this

waste is a matter of great concern and debate. A typical reactor creates about 20 cubic metres of waste annually, compared with 200,000 cubic metres of waste ash from a coal-fired plant.

Spending 10 seconds within three metres of a tonne of fresh fuel rod waste from a reactor would result in a fatal dose of radiation. Nuclear processes also produce plutonium, exposure to which can increase the risk of cancer in the liver, bone, or lungs.

These are elements associated also with weapons, and nuclear power plants are deemed ideal targets for terrorists looking to fuel catastrophic weapons or to cause a widespread radiation disaster.

One other disadvantage: the extreme capital and operating costs of plants, including the requirement for highly skilled workers to build, maintain and monitor the operations to ensure the safety and process of the plant.

This last point — our ability to ensure the safety of a nuclear plant — is very pertinent. In the past four decades, the world had witnessed major accidents at Three Mile Island (USA, 1979), Chernobyl (Soviet-Ukraine, 1986), and Fukushima (Japan, 2011).

If such catastrophes could occur in these advanced, industrialised countries, what assurance could we give ordinary Malaysians that nuclear power is

a safe option to generate electricity for our country?

The good doctor is absolutely right when he implies that science still has no answer to safely manage nuclear technology. Hopefully, that day will arrive but in the meantime, as the cliché goes, it is better to be safe than sorry.

And it's possible that a new, safer, lower-carbon way to power our rising energy needs and development will present itself. Underway today in southern France, for example, is a multinational research and engineering nuclear fusion megaproject known as the International Thermonuclear Experimental Reactor. Fusion, the nuclear reaction that powers the Sun and the stars, is a potential source of safe, non-carbon emitting and virtually limitless energy. The plant's designers hope to produce the equivalent of 500 megawatts of thermal output power over 20 minutes using 50 megawatts of input power — a ten-fold gain.

That reactor is now more than half built, and the world follows its progress with interest.

The writer is the outgoing joint-chairman of the Malaysian Industry — Government Group on High Technology (MIGHT) and former board member of UNESCO's Mahatma Gandhi Institute of Education for Peace and Sustainable Development in New Delhi

6 The good doctor is absolutely right when he implies that science still has no answer to safely manage nuclear technology.

LAMPIRAN 8

THE STAR (TECHNOLOGY): MUKA SURAT 8

TARIKH: 1 OKTOBER 2018 (ISNIN)

The need to self-regulate blockchain



Hway said lots of investors keen on blockchain technology are focusing their attention on South-East Asia.

By QISHIN TARIQ
bytz@thestar.com.my

INSTEAD of waiting for the government to impose regulations on blockchain usage, players in the industry should start a conversation on self-regulation, said the Australian Digital Commerce Association (ADCA).

ADCA CEO Nicholas Giurietto said when blockchain technology started becoming prominent in 2016, the Australian government was concerned it could be used for money laundering or financing terrorism.

So several Australian companies working on blockchain formed the ADCA in a bid to self-regulate. The objective was to maintain an even playing field and preserve their autonomy so the government doesn't have to step in to regulate.

ADCA is a non-profit company represented by a board of up to 12 members appointed for a two-year term, and has an Industry Advisory Council in charge of drafting policies for blockchain.

In his talk Seeing Eye to Eye: How Can We Work Better with Governments and Regulators at Blocfest 2018 on Sept 26, Giurietto explained that the association didn't just come up with the code of conduct on its own, but drafted it based on dialogues with various regulators such as securities, banking and taxation.

"I had many, many meetings, with various regulators. Very much boring but essential," he said. He adds that the meetings were also an opportunity to educate the regulators and change their perceptions.

The code of conduct for ADCA requires its members to set up trust accounts to avoid trading with customers' funds, pass solvency tests, have adequate data protection, and transparent pricing and proper channels for dispute resolution in the event customers face issues.

"If you are following all the rules of our code, we believe it can be used as a defence – so even when a company is unsure of the law, it can prove that best efforts were made," he said.

Another benefit of discussing regulation with the authorities is getting the chance to push for fairer terms.

"The regulators are friends not



Giurietto says it's import to educate regulators and change their perspective on blockchain.

enemies, their policy plans are usually sound, even if the execution is sometimes questionable," summed up Giurietto.

With blockchain technology rapidly gaining popularity in South-East Asia, companies will likely have to adopt self-regulation too.

Blockchain Asia Sdn Bhd CEO Gwei Hway said lots of investors keen on blockchain technology are focusing their attention on South-East Asia.

"Ask any investor in this space and they will tell you that South-East Asia truly excites them. What we wanted to get to the bottom of at Blocfest is what that opportunity is, why it matters to businesses and individuals alike, and just how to capitalise on it," he adds.

"We are all optimistic about the technology, and we all have ideas to make it a reality. But we still need to know how to get there. We need a clear path forward, and to do that we need a consensus on what works and what doesn't," said Hway in his opening remark on the first day of Blocfest.

Blocfest featured more than 30 international speakers, including blockchain entrepreneurs, developers, global investors, academics and enthusiasts.

LAMPIRAN 9
THE STAR (SMEBIZ): MUKA SURAT 9
TARIKH: 1 OKTOBER 2018 (ISNIN)

Ride upside of technology

An opportunity for SMEs to learn what is needed to get the best value from digital

APPS, smart systems, automation – these are only the beginning of what industry captains say may be an eventful journey towards having a business that is digitally supported and enabled.

With rapid technology development, companies, both large and small, will inevitably be changed. Decades-old business conventions and operating models will be rendered irrelevant as robots, Artificial Intelligence, Internet of Things and the likes become more common applications.

The current wave of Industry Revolution 4.0 will eventually give way to 5.0 and so on.

Management will be forced to incorporate new data-driven business models to future-proof their business.

However, most SMEs have yet to look into any strategy that will help them tap onto these developments.

As technology increasingly levels the playing field across the business landscape, there is an opportunity for SMEs to ride on the upside of the current technology wave.



To participate visit soba.com.my

or call: **03-7967 1388**

Ext: **1432 / 1857**

The Star Outstanding Business Awards



SMEs can make the most of the digital transformation at the upcoming SMEBiz Think Tank as industry experts and companies that have successfully made the transition share their insights, experiences and expertise on the topic.

SMEBiz Think Tank is organised by Star Media Group in support of SME development under The Star Outstanding Business Awards (SOBA).

The event is aimed at helping SMEs thrive in the era of change and hopes to provide small businesses with a platform to learn from and engage with industry experts.

Among the topics that will be covered at the event include "Disruption in the SME market", "SME's readiness towards e-payments" and "The power of data – monetising data".

Some of the speakers who will be featured include Golden Screen Cinemas chief executive officer Koh Mei Lee, Photobook Worldwide chief executive officer Leow Wee Joon, Aemulus Holdings Bhd chief executive officer Ng Sang Beng, TheLorry.com co-founder and executive director Nadhir Ashafig and Easy Parcel chief executive officer Clarence Leong.

Azwan Baharuddin, Accenture country managing director, will be delivering the

keynote address on the opportunities available to SMEs in the digital age.

Additionally, Matrade deputy chief executive officer Sharimahton Mat Saleh and Credit Guarantee Corporation Malaysia Bhd vice president of SME advisory and marketing Jenny Hoh will talk about the support available to SMEs for export and financing respectively.

SMEBiz Think Tank will be held on October 2 at New World Petaling Jaya Hotel.

The fee for the full-day event is RM300 per person and is HRDF claimable.

SMEBiz Think Tank is organised by Star Media Group with Digi, PKT Logistics Group Sdn Bhd and RHB Bank Bhd as main sponsors, Credit Guarantee Corporation as co-sponsor, Matrade as official trade promotion partner and New World Petaling Jaya Hotel as official venue.

For more information, call Star Media Group Events Business Unit at 03-7967 1388 ext 1233/1857 or email events@thestar.com.my.

LAMPIRAN 10
THE STAR (VIEWS): MUKA SURAT 25
TARIKH: 1 OKTOBER 2018 (ISNIN)

Take action now to save our Earth

THE road to achieving harmony with nature sounds like a long one but it must be travelled. That's because we need to achieve a balance between nature, economics, social environment and the needs of the present and future generations.

Earth Day, celebrated by 193 countries annually, is dedicated to providing information and inspiration needed to end plastic pollution. Any form of pollution and harm to the planet must be checked and curtailed.

Environmental education among

the young in schools is very important to raise awareness among our young warriors about protecting planet Earth. We need to teach them to do more things for the environment like Reduce, Reuse and Recycle (3Rs), taking public transport, turning off lights and appliances when not in use, turning up air conditioner temperatures, using less water and eating less meat.

Today we face problems of climate change and global warming, issues which we cannot deny having contributed to in many ways.

Increasing deforestation with fewer tree-planting activities and aggressive development with little care for landslides have all contributed to the situation. We continue to exploit the environment with hardly a thought for the wellbeing of future generations.

We need to double our efforts to keep drains and other waterways clean. We should encourage activities like reducing the use of plastic bags, having rooftop gardens, growing herbs and vegetables, and rainwater harvesting.

The Cabinet has approved the

setting up of "green neighbourhoods" and "low-carbon cities", which are commendable measures and demonstrate our commitment to reduce the national carbon footprint by 40% by 2020.

Let us all walk the talk here. Promote the practice of the 3Rs as well as provide cycling and walking paths, which are basic steps to achieving these targets. Please save the environment and not destroy it.

BALJIT SINGH
Kuala Lumpur

LAMPIRAN 11
THE STAR (VIEWS): MUKA SURAT 25
TARIKH: 1 OKTOBER 2018 (ISNIN)

>Solar power

Recently I read that some companies are experimenting with installing solar panels on roads. Other innovations are the production of roof and wall tiles to harness electricity. It pleases me to know that these innovations will light our way to a brighter future. – Marde K

LAMPIRAN 12

THE STAR (EVENTS): MUKA SURAT 13

TARIKH: 1 OKTOBER 2018 (ISNIN)



Rozainum (right) examining the cooking robot created by students of CR8 Sungai Petani as Khong (third from left) looks on.



Rozainum (centre) watching a demonstration of a tugboat docking robot by students of CR8 Sungai Petani. Also in the picture is Khong (second from left).

Out to make robotics a school subject

M'sian company plans to replicate its success overseas through tie-up with Education Ministry

By NOEL FOO
noelfoo@thestar.com.my

HOME-GROWN robotics education company CR8 Creative Robotics Education Sdn Bhd is planning to take robotics and programming education into public schools in the future.

The Education Ministry recently presented certificates to each of the company's branch representatives at Summit USJ shopping mall to acknowledge the future collaboration between the company and the ministry.

CR8 director Khong Yee Jian said the company has pledged its commitment to carry out a three-month pilot project in 10 public schools, where they will teach robotics and coding to teachers and students.

"Over the years, we focused on the private sector until we managed to get endorsed and recognised by the Education Ministry of the United Arab Emirates," said Khong.

"The explosive growth in the Emirates has led us to rethink our strategy back home," he said, adding that they had gained over 50,000 new students there in the span of a year.

"We hope through this effort, we will be able to revolutionise our education industry and replicate our success overseas here in Malaysia."

Khong added that they wanted to bring robotics and coding education into public schools because they felt that such knowledge and skill should not be reserved for the privileged, but should be made available to students of all backgrounds.

According to Khong, CR8 was also planning to explore the possi-



The explosive growth in the Emirates has led us to rethink our strategy back home.

Khong Yee Jian

hility of collaborating with the National Autism Society of Malaysia (Nasom) to develop a robotics therapy programme where children with autism could develop skills for employment opportunities in the future.

Education Ministry Co-curriculum and Arts Department director Rozainum Ahmad represented Deputy Education Minister Teo Nie Ching as guest of honour at the event.

Students from various CR8 branches demonstrated some of their innovative robotic creations, including water irrigation system robots, a tugboat docking robot, humanoid and animal robots that responded to motion, as well as a robot that cooked simple dishes.

Khong and his older brother,



Rozainum (middle, wearing headscarf) with the Khong family and all CR8 branch representatives that received certificates from the Education Ministry to acknowledge their future collaboration with CR8 Creative Robotics Education Sdn Bhd at Summit USJ shopping centre.



(Left) Students of CR8 Setia Alam preparing their water irrigation system robots for the demonstration.

(Below) Various motion-sensitive humanoid and animal robots created by CR8 students were also on display at the event.

Khong Yee Jun began their venture into robotics in 2003 at the age of 11 and 14 respectively, conducting robotics demonstrations and workshops.

Their company was founded with the support of their parents and younger brother in 2007 using their own developed syllabus to teach robotics to children aged five and above.

CR8 began expanding in 2011 and has grown its franchise to more than 35 branches across Malaysia with five branches in the United Arab Emirates.

CR8 has won many local and international robotics competitions over the years and has been hosting its own biannual competitions for the past six years.



LAMPIRAN 13
THE STAR (FOCUS): MUKA SURAT 25
TARIKH: 30 SEPTEMBER 2018 (AHAD)

FROM biker jackets made of pineapple leaves to leather tanned with olive extract – “Green is the new black,” say fashion experts.

Everyone from young avant garde designers to the big-name brands are racing to hop on the bandwagon to become greener and cut out hugely polluting chemicals from their designs.

Last year alone Adidas sold one million of its Parley trainers – made from plastic fished from the ocean – and the German sports-wear giant is ramping up production of a range of similarly recycled styles. And on Wednesday Yolanda Zobel, the new designer at the futuristic French brand Courreges, did the “unthinkable” and declared that she was doing away with the space-age vinyl that has been the label’s stock and trade since the 1960s.

After a final numbered capsule collection called *Fin de Plastique* (The End of Plastic) that will count down its stocks of vinyl, the German will try to source sustainable or recycled versions of the shiny fabric.

“There’s no better world coming if we don’t take actions today,” Zobel said.

Attitudes to eco-fashion have “totally changed in the last few years”, said Marina Coutelan, who helps run *Premiere Vision*, a hugely influential twice-yearly trade fair in Paris where the movers and shakers of the fashion industry flock in search of new materials and ideas.

With the millennials now beginning to call the shots in the fashion industry, “we are seeing lots of trendy products from sustainable materials because they have grown up with the idea that we need to be eco-responsible”, Coutelan said. A case in point are rising stars Rushemy Botter and Lisi Herrebrugh, the Dutch pair who have just been headhunted to take over the Nina Ricci Paris fashion house.

“Sustainable fashion was always

The end of plastic becomes catwalk reality

It may have been a long time coming, but eco-fashion is no longer a hippie pipe dream.



Fashion forward:

There are now more trendy products from sustainable materials at this year’s Paris Fashion Week and *Premiere Vision* Paris, a hugely influential twice-yearly trade fair where the movers and shakers of the fashion industry flock in search of new materials and ideas. — AFP

multiple ways to make sustainable clothes. The highly-rated young French designer Marine Serre is an often brilliant upcycler – turning old bed covers into evening gowns in her latest Paris fashion week show.

Meanwhile, the Canadian Marie-Eve Lecavalier has made a name for herself with leather knitwear made from leftover ends rejected by luxury brands.

“It takes a lot of work but the result is great. In North America people waste so much. We have to find another way,” she said.

With tanning one of the world’s dirtiest trades, leather alternatives like Pinatex, which is made from the fibres of pineapple leaves but is equally supple and strong, are gaining ground.

Hugo Boss has already made trainers and Lancel bags from the material, which is being marketed by the British firm Ananas Anam that works with farmers’ cooperatives in the Philippines.

The German group Wet Green has developed a potentially revolutionary line called *Olivenleder*, biodegradable leathers tanned with an agent made from olive fibres. It is so safe “you can even eat it”, joked spokesman Thomas Lamparter.

For Chantal Malingrey, of *Premiere Vision*, wholly sustainable fashion “is not yet the norm”. But such is the pace of innovation, she insisted, that the trend is “irreversible”. — AFP

talked about,” said 28-year-old Herrebrugh.

“Now it is something we can see.”

Their own Botter brand makes hats, scarves and jackets from recycled plastic bags and bottles often found in the sea – a cause dear to Botter, who was born on the Caribbean island of Curacao.

High street chains may still be obsessed with fast, throwaway fashion, but luxury brands are leading the way in trying to rethink the business, said Coutelan.

She points to the French giant Kering, which owns Gucci, Saint

Laurent, Balenciaga and Alexander McQueen among others, as one of the pioneers of sustainability.

“It has reduced its environmental impact by a quarter and hopes to cut it by 40% by 2025,” she said.

Even so, fashion is still by some measures the second most polluting industry the world.

Kering until recently owned a 50% stake in Stella McCartney, the label that has pushed the ethical and environmental envelope the furthest, refusing to use fur, leather or feathers.

The British designer uses recycled wool and polyester made

from plastic water bottles, and intends to stop using “virgin” nylon entirely within two years and new polyester by 2025.

Invitations for her Paris fashion week show on Monday proclaim that “Green is the new black” and feature a new cartoon where she stars with Minnie The Minx in a story extolling the virtues of regenerated cashmere.

McCartney said that she would like to go faster but “the technology we need to reach this point is not yet available in a sustainable and circular way.”

Campaigners say there are

LAMPIRAN 14
NEW STRAITS TIMES (LETTERS): MUKA SURAT 22
TARIKH: 30 SEPTEMBER 2018 (AHAD)

CLIMATE CHANGE

PHASE OUT USE OF COAL POWER

IN his opening address at the Conference of the Electric Power Supply Industry conference last week, Prime Minister Tun Dr Mahathir Mohamad, while reiterating the government stance on halting the building of nuclear power stations, also stated that the government will be looking at using coal from East Malaysia to generate electricity.

While using our local sources of coal may seem attractive as a low-cost form of energy, the long-term costs are high, taking into account health and clean-up implications from air and water pollution from both coal mining and power generation, and climate-related disasters from the amount of greenhouse gases released from power generation.

A 2014 Federal Report from Australia, where Malaysia imports 19 per cent of coal from, found that coal mining contributes more than 30 times the amount of PM10 to Australian air than vehicle emissions do.

Particulate matter such as PM10 (inhalable particulate matter less than 10 micrometres in diameter) is classed as a carcinogen by the World Health Organisation and is linked to a wide variety of diseases and conditions, including premature delivery, birth defects, lung cancer and cardiovascular diseases.

While the prime minister is rightly concerned about radioactivity from nuclear waste, studies have shown that fly ash and bottom ash from coal power generation also have considerable amounts of radioactivity.

With these health and environmental impacts, it is no wonder that Sabahans rejected the building of coal power plants in previous years.

On the same day the address was given, researchers at the International Institute for Applied Systems Analysis published a paper warning that the world is dangerously close to a climate change tipping point — which means that once we reach this point, the world will change and it would be impossible to revert to our current state.

In an interview with *The Independent*, the authors backed the view that governments need to significantly increase efforts to



Mining and burning coal has large long-term costs and implications to the health and environment. FILE PIC

reduce greenhouse gas emissions to limit global warming to no more than 2°C above pre-industrial temperatures, the limit agreed for the Paris Agreement.

This view also reflects analysis from the United Nations that the commitments made by governments to reduce greenhouse gases are thus far only one-third of what is needed to stay below a 2°C warming.

Recently, the world saw "Super typhoon" Manghut and Hurricane Florence wreak death and destruction on opposite sides of the world, and a changing climate only promises more of this extreme weather.

It is therefore understandable that the people have expressed concern — a survey conducted by a group of Civil Society Organisations before the 14th General Election found that over 80 per cent of the 1,603 respondents were concerned about climate change.

This is unsurprising, given the number of climate change-related natural disasters that have af-

fected Malaysia in the last few years.

These include severe dry periods that exacerbated the haze and resulted in water rationing, major floods in northern states as well as Sabah and Sarawak, regular flash floods in the Klang Valley, and landslides in Penang and Cameron Highlands, to name just a few.

The new government's commitment to address climate change was affirmed through the formation of the Ministry of Energy, Technology, Science, Climate Change and Environment, the first ministry for climate change in our nation's history.

Since taking office, as well as reiterating that the new government will not continue with nuclear power, the minister has made various announcements in line with our commitment to the Paris Agreement to scale down our greenhouse gas emissions, including focusing on renewable energy over coal and introducing an energy efficiency bill.

The stated government ambi-

tion is to raise renewable energy capacity to 20 per cent of our energy mix by 2025, without the use of large-scale hydropower.

Replacing retiring energy capacity and generating new capacity with renewable energy will go a long way towards addressing our greenhouse gas emissions — the lifecycle emissions of renewable energy are between 0.01 per cent and five per cent of those of coal energy per kWh.

Renewable energy also has the added benefit of flexibility in terms of placement of energy generation — unconnected rural areas would benefit from on-site renewable energy solutions without the expense of setting up connections to a main grid, which is what would be needed to connect to a conventional station.

Equally important to expanding renewable energy contribution to our energy mix is the introduction of the Energy Efficiency Conservation Bill.

Through effective policies, an Energy Efficiency Bill would address energy wastage, reducing

the expected increase in future energy demand for a developing nation and limiting the need to build extra energy capacity in the future.

We urge the government to follow through with these reaffirmations, setting a strong foundation for the new government's legacy on this critical issue of climate change, where the results from actions taken now will span generations.

Mining and burning coal has large long-term costs and implications to the health and environment.

To keep our commitment to the Paris Agreement, but more importantly to protect the safety and wellbeing of our people, Malaysia needs to phase out the use of coal power and focus instead on developing renewable energy capacity and energy demand management to address our national energy needs.

DR HENRY CHAN
 Conservation Director, WWF-Malaysia

LAMPIRAN 15
NEW STRAITS TIMES (NEWS): MUKA SURAT 66
TARIKH: 29 SEPTEMBER 2018 (SABTU)

KUALA LANGAT ACTION GROUP

'Stop plastic waste processing at illegal factories'

SHAH ALAM: An environmental group has called for a concerted effort by the authorities to halt plastic waste processing in the district, which is causing air pollution and endangering the lives of the local community.

A Kuala Langat Action Group spokesman said not much had changed since the visit by Housing and Local Government Minister Zuraida Kamaruddin, who addressed the issue and ordered a meeting to be held in a week.

The spokesman, who declined

to be named, said Zuraida's visit on Tuesday to illegal factories, which processed plastic waste sourced from overseas, and unauthorised sites where the materials were dumped did nothing to instil fear in the operators.

"Our observation shows that there are still illegal factories processing plastic waste and containers being sent to the premises. The factory operators know we are watching them and have changed their operating hours.

"It is high time that the author-

ities, such as the Kuala Langat Municipal Council, Department of Environment and district and land offices take stern action against the operators.

"There is a lack of supervision here, and the culprits should not be given just a slap on the wrist.

"The district office should seal these illegal premises and penalise the land owners for allowing such activities to take place on the property."

He said members of the group were monitoring activities taking

place at the factories to build a strong case, with hopes that the authorities would put a stop to it.

He said proof, such as photographic and video evidence, were being collected.

On Tuesday, Zuraida called for a ministerial-level meeting to be held with 54 factories processing plastic waste operating in the municipal council's jurisdiction, of which 13 were licensed after they were legalised by the state government, while 17 were ordered to shut.

Following a coordination meeting at the municipal council, Zuraida ordered a meeting to be held with all parties on Oct 2. It will be chaired by National Solid Waste Management Department director-general Ismail Mokhtar.

In the Oct 2 meeting, Zuraida said discussions would revolve around finding ways to dispose the existing plastic waste at the illegal factories, taking over of the materials from unlicensed parties by licensed factories and the time frame of the actions.

LAMPIRAN 16
NEW STRAITS TIMES (NEWS): MUKA SURAT 65
TARIKH: 29 SEPTEMBER 2018 (SABTU)

PROPOSED EVALUATION

Lynas CEO hopes for fair review of plant

KUALA LUMPUR: Australia's Lynas Corp, which operates a rare earth processing plant in Gebeng, Kuantan, is committed to Malaysia and hopes for a fair review of its operation, says chief executive officer Amanda Lacaze.

"Lynas acknowledges the absolute right of the government to conduct a review. However, our expectation is that any review of our operations should be fair, scientific and adheres to proper process, in keeping with other recent initiatives of the government.

"We would be very disappointed if this is not the case," she said in a statement to address the comments in the media on the proposed evaluation team.

It was reported that a Lynas evaluation committee has been set up and Kuantan member of parliament Fuziah Salleh, who is also the deputy minister in the Prime Minister's Department, was appointed as its chairman under a three-month tenure effective Sept 24.

According to Lacaze, Lynas was committed to continue operating a world-class materials plant in Gebeng that was safe for the local community.

In fact, independent monitoring and reporting had proven that Lynas was safe for local residents, employees and the environment, she said.

"Lynas has complied with all the regulatory requirements under the Malaysian law in investing in the construction and operations of the Lynas Advanced Ma-



Lynas Corp chief executive officer Amanda Lacaze

terials Plant.

"Through Lynas, Malaysia has become the major centre of excellence in rare earths outside of China, supplying critical materials to automotive and high-tech manufacturers around the world.

"We look forward to receiving a formal notification on the proposed review and to engage with the government in an impartial and transparent manner," said Lacaze.

In addressing the assertions made about the company in recent media reports, she stressed that the safety of local communities, employees and the environment was its first priority and this had been demonstrated by ensuring compliance with licence conditions and international standards. **Bernama**

LAMPIRAN 17
UTUSAN MALAYSIA (BISNES): MUKA SURAT 45
TARIKH: 29 SEPTEMBER 2018 (SABTU)

Lynas kesal terus jadi mangsa kritikan

Oleh ZAMZURINA AHMAD
ekonomi@utusan.com.my

■ KUANTAN 28 SEPT.

LYNAS Corporation Ltd. (Lynas) kesal apabila kilang berkenaan yang terletak di kawasan perindustrian Gebeng di sini terus menjadi sasaran kritikan pelbagai pihak selepas beroperasi sejak tujuh tahun lalu.

Ketua Pegawai Eksekutif Lynas, Amanda Lacaze berkata, kebanyakan kritikan dilemparkan adalah tidak tepat dan lebih bersifat mahu mencetuskan persepsi negatif dalam kalangan masyarakat.



"Kita sudah melakukan pelbagai bagi penambahbaikan daripada aspek operasi dan mematuhi setiap peraturan ditetapkan kerajaan."

"Kita sudah melakukan pelbagai penambahbaikan daripada aspek operasi dan mematuhi setiap peraturan ditetapkan kerajaan."

AMANDA LACAZE

"Komitmen Lynas sejak mulakan operasi di sini adalah jelas dan kami ingin menjadi loji memproses nadi bumi bertaraf dunia dengan menekankan aspek pengurusan sisa secara lestari," katanya dalam satu kenyataan di sini hari ini.

Menurut Lacaze, pelbagai usaha dilakukan termasuk mendapatkan pengiktirafan Agensi Tenaga Atom Antarabangsa (IAEA) sebagai bukti operasi kilang berkenaan memenuhi kriteria ditetapkan dan selamat.

"Pihak pengurusan Lynas juga sentiasa memantau kadar pelepasan radiasi yang didakwa boleh mendatangkan kesan negatif terhadap penduduk sekitar kawasan perindustrian itu."

"Keselamatan komuniti setempat sentiasa menjadi keutamaan. Kami sentiasa me-

mantau dan merekodkan kadar bacaan radiasi di kawasan antara satu kilometer (km) hingga 20 km dari kilang bagi memastikan radiasi dihasilkan tidak menjejaskan kesihatan dan keselamatan penduduk," jelasnya.

Tambahnya, semua komitmen itu sebagai bukti kesungguhan Lynas dalam menjaga kepentingan semua pihak di samping memastikan operasi kilang memberi manfaat kepada semua terutama penduduk sekitar.

"Sejak beroperasi pada 2011, Lynas membuka peluang pekerjaan kepada kira-kira 700 penduduk tempatan dalam pelbagai bidang kemahiran sekaligus membantu merancakkan ekonomi di negeri ini," katanya.

LOJI Lynas di Gebeng, Kuantan.



LAMPIRAN 18
THE STAR (VIEWS): MUKA SURAT 29
TARIKH: 29 SEPTEMBER 2018 (SABTU)

Melaka a model green city

IN the last five years, Melaka has made great strides toward building a sustainable, green city.

By 2020, the government-run 7248ha Melaka World Solar Valley aims to power most of the daily activities of manufacturers, housing developers, farmers and other stakeholders.

Recently, a public-private partnership installed 100,000 LED street lamps along the Alor-Gajah-Melaka Tengah-Jasin Highway, which will improve road safety and reduce carbon dioxide emissions.

The urban landscape has also changed. Walkable neighbourhoods with mixed-use development have increased foot traffic and reduced car use.

The Melaka River, long a polluted backyard drainage canal, is now a popular gathering place and tourist attraction.

Melaka's transformation is the result of meticulous planning, a comprehensive approach supported by government policies and projects, private sector engagement and citizen initiatives.

The Asian Development Bank (ADB) is proud to have worked with Melaka to develop its roadmap, the Green City Action Plan.

In addition to a technical assistance grant to underwrite the plan, which was completed in 2014, ADB

also helped Melaka implement it, including by structuring bankable projects for solar energy and street lighting, setting up a database to track indicators in environment and economic growth, and conducting training in urban development, environment planning and knowledge sharing.

The Melaka projects are the first to be implemented under the Green Cities Initiative of the Indonesia-Malaysia-Thailand Growth Triangle (IMT-GT), an ADB-supported sub-regional cooperation programme focused on the development of 32 provinces in these three countries.

It aims to help states and provinces discover and use their relative comparative advantages to work together in the sub-region.

So far, four other cities – Songkhla and Hat Yai in Thailand; Medan and Batam in Indonesia – have developed similar plans.

A "green" city means an area that is resilient and inclusive, manages its natural resources well, promotes low carbon growth to remain competitive and improves the livelihoods of all citizens.

With each green city plan, countries are moving away from business-as-usual economic growth models to forge a clear, concise vision for a city's future based on factors such as comprehensive

analysis and consensus among key stakeholders.

These plans present a paradigm shift, where cities pursue integrated urban development and environmental planning as they make a transition to a cleaner, greener and more prosperous future.

The initiative is very relevant, because cities are the primary drivers of economic growth across countries in the Association of Southeast Asian Nations (Asean), producing about 70% of the region's gross domestic product.

Almost 300 million people in Asean already live in cities, and another 90 million people are expected to move in by 2030, pushing up the urban share of the population to nearly 45%.

Urbanisation is placing a growing environmental strain on cities, such as air, water and noise pollution, traffic congestion and inadequate solid waste management.

Tackling these challenges will require city governments to integrate social and environmental considerations into locally customised economic development plans.

It will require innovation, testing and application of new ideas, learning and sharing of lessons, and development of new approaches to emerging challenges.

The Green Cities Conference, to be held on Oct 1 in Melaka, will

bring city leaders together to collaborate on green growth strategies.

It also seeks to continue to support the Green Cities Network established under the IMT-GT and the Brunei Darussalam-Indonesia-Malaysia-Philippines East Asean Growth Area.

ADB strongly supports the network of Asean green cities, which serves as a platform for knowledge sharing.

Coinciding with the 25th anniversary of IMT-GT, the conference also provides a window for action following Melaka's success in transforming into a green city.

It's time now for policy makers to make their own Green City Action plans a reality. The implementation process requires strong coordination between multiple government agencies, the private sector and communities.

It will also require a management approach easily adaptable to project monitoring, data analysis and citizen feedback.

ADB stands ready to provide knowledge and financial support to further develop competitive, inclusive and green cities across Asean.

RAMESH SUBRAMANIAM
Director-general, Southeast Asia
Department,
Asian Development Bank

LAMPIRAN 19
THE STAR (VIEWS): MUKA SURAT 29
TARIKH: 29 SEPTEMBER 2018 (SABTU)

Coal not the answer for energy

PRIME Minister Tun Dr Mahathir Mohamad recently declared during his special address at the Conference of the Electric Power Supply Industry (CEPSI 2018) that Malaysia would explore full utilisation of domestic coal reserves for baseload power generation.

While this seems fairly reasonable given our heavy dependence on imported coal, the suggestion actually contradicts our commitment to mitigating the climate change trend.

This is because burning coal is not environmentally-friendly. This is very obvious from the greyish thick smog that arises from chimneys of coal-fired power plants.

The smog pollutes surrounding air and water, adversely affecting the health of the neighbouring communities.

In addition, ash from coal burning is also dumped into ponds. These ash-ponds are somewhat radioactive, surprisingly of higher dosages than that of nuclear power plants.

Furthermore, open exposure to coal at storage yards and in-plant silos also contaminates the food chain.

What is more worrying though is that the burning of coal emits enormous amounts of greenhouse gas to the atmosphere.

Even the "clean coal" technology, per guidelines of International Finance Corporation and the World Bank as subscribed by Tenaga Nasional Bhd, is not really clean as it still emits carbon, albeit at a reduced amount.

In response, the industry proposes the carbon sequestering and storage (CSS) method to thoroughly

capture and contain poisonous particulates and chemical compounds from coal burning.

While CSS is technically viable on paper, it is still at a demonstration stage.

However, the coal CSS flagship project in Kemper County, Missouri, United States, recently proved to be impractical as its carbon capture technique has been declared too costly and problematic.

Therefore, despite our substantial domestic reserves, coal is not the answer to our cleaner energy needs.

We have only one earth. It is thus wiser to strategically reduce our dependence on coal so as to assure a greener future for Malaysia.

DR MOHD SYUKRI YAHYA
Universiti Tenaga Nasional

LAMPIRAN 20
NEW STRAITS TIMES (WORLD): MUKA SURAT 69
TARIKH: 1 OKTOBER 2018 (ISNIN)

A looter riding off with a big screen TV from a tsunami-devastated shopping mall in Palu yesterday. AGENCY PIX



BREAKDOWN OF LAW AND ORDER

DESPERATE VICTIMS TURN TO LOOTING

Hordes of men, women scramble for food, fuel in grim scenario

PALU

HUNDREDS of desperate people in the tsunami-struck city here looted supermarkets and petrol stations yesterday, as an initial trickle of aid failed to relieve a shortage of water, food and fuel.

Hordes of residents on Sulawesi island were seen scrambling over broken glass and through broken-down barricades at a supermarket here, which was ravaged by a powerful 7.5-magnitude quake and a tsunami on Friday.

Men and women made off with plastic bin bags and baskets full of biscuits, crisps, nappies, gas canisters, tissue paper and more. "There has been no aid, we need to eat. We don't have any other choice, we must get food," shouted one man.

"We are in crisis," cried another. Two small aftershocks hit while looters marauded through the building, prompting screams of "Earthquake, earthquake!"

But undeterred, more and more mopeds arrived, depositing people in front of the store.

"This situation forced us to do this. We need everything, food, water," said a group of teenagers.

"We took anything we could take. We can't even cook. So that's why we looted."

A handful of vastly outnumbered police officers stood by or looked on from the police station across the road — unable or un-

willing to uphold law and order that has quickly melted away.

There was a similar scene at a local petrol station where crowds tried to tap underground storage wells for fuel.

"There is only one petrol station that is operational," said Ray Pratama, a photographer who was not involved in the looting.

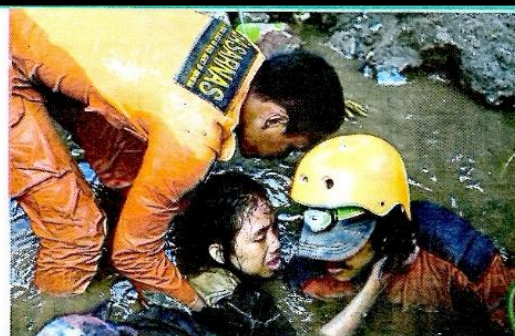
"People are desperate."

"If you sell with reasonable price, that's okay, but they increase the prices sharply, for basic goods," said a female looter.

Many residents are still sleeping outside for fear of more aftershocks. Even if they had access to plug sockets, there would be no electricity.

"The shops aren't open and the markets are empty," said one looter, who only identified himself as Eddy.

"We have to break into all of them one by one." **AFP**



Search-and-rescue personnel freeing a victim trapped in rubble in Palu, Central Sulawesi, yesterday.



Indonesian President Joko Widodo surveying the damage at a site in Palu, central Sulawesi, yesterday.



This ruins of a 10-storey hotel in Palu yesterday after it collapsed following a strong earthquake in the area.

Air controller gave his life to help plane take off

JAKARTA: An air traffic controller is being posthumously hailed as a hero for refusing to leave his post despite devastating earthquakes so that he could guide a passenger jet safely off the ground.

Anthony Gunawan Agung, 21, was on duty in the air traffic control tower at Palu's Mutiara SIS Al-Jufrie airport when the earthquakes struck the city in Sulawesi island on Friday.

Officials said he refused to leave his post until he got a

Batik Air plane off the ground, while his colleagues, who were not handling aircraft, departed.

"When the quake happened, he was giving clearance to Batik Air to take off and waited for the plane to be airborne before leaving the cabin tower," said AirNav Indonesia spokesman Yohanes Harry Sirait.

After Flight 6231 was safely in the air, the quakes became stronger, culminating in a 7.5 magnitude jolt and tsunami. At least 832 people were killed

Eventually, Agung jumped from the top of the crumbling four-storey tower in a desperate bid to escape, breaking his leg and suffering internal injuries.

He was taken to a hospital, but died before he could be transported to a better facility.

The company will raise Agung's rank by two levels as a sign of appreciation for his extraordinary dedication, AirNav said. Local station Metro TV was among those who hailed Agung's "heroic act". **AFP**



People attempting to identify the bodies of their relatives in the compound of a police hospital.

LAMPIRAN 21
KOSMO (DUNIA): MUKA SURAT 46
TARIKH: 1 OKTOBER 2018 (ISNIN)

Komet seakan-akan tengkorak manusia hampiri Bumi

LONDON – Sebuah komet yang mempunyai bentuk seakan-akan tengkorak manusia dijangka menghampiri Bumi menjelang malam Halloween bulan depan.

Komet Halloween Death itu dikenali sebagai 2015 TB145 dan kali terakhir dirakam pada 31 Oktober 2015 datang pada jarak 486,021 kilometer dari Bumi iaitu kira-kira 1.3 kali ganda jarak Bumi ke bulan.

Objek bersaiz antara 625 hingga 700 meter itu digelar komet hantu kerana terhasil akibat 'dibunuh' oleh matahari.

Ia juga dianggap sebagai 'komet mati' yang telah diubah secara radikal dengan mengorbit bintang kita selama berjuta-juta tahun.

Berbanding dengan asteroid yang diperbuat daripada batu atau besi, komet pula mengandungi ais dan batu.

Pada awal tahun ini, Pablo Santos-Sanz dari Institut Astrofizik Andalusia telah menyiarkan kertas akademik yang menjelaskan pemantauannya secara terperinci terhadap komet tersebut.



ILUSTRASI artis mengenai bentuk komet ini yang menyerupai tengkorak manusia.



KOMET ini dipercayai telah mengelilingi sistem bintang sejak jutaan tahun dahulu.

"Komet ini tidak akan melintasi Bumi dengan lebih dekat berbanding 2017. Tetapi, kita masih mampu mendapatkan data baru yang akan membantu meningkatkan pengetahuan mengenainya," kata ahli astronomi itu.

– Agensi

LAMPIRAN 22
THE STAR (WORLD): MUKA SURAT 19
TARIKH: 1 OKTOBER 2018 (ISNIN)

Typhoon Trami leaves 56 injured

Train services and over 1,000 flights cancelled as storm nears Japan mainland

KAGOSHIMA: A powerful typhoon hurtled toward Japan's mainland after injuring dozens on southern islands, as weather officials warned that fierce winds and torrential rain could trigger landslides and floods.

Typhoon Trami has already disrupted travel in the world's third-biggest economy, with bullet train services in the west of Japan suspended, more than 1,000 flights cancelled due to the closure of a key airport and Tokyo's evening train services scrapped.

The storm was forecast to smash into the mainland near the city of Osaka yesterday evening and churn across the Japanese archipelago, likely hitting areas still recovering from extreme weather that has battered Japan in recent months.

Trami tore through the southern island of Okinawa on Saturday, bringing winds strong enough to flip over cars. Several houses were flooded or damaged and 46 people on the island sustained minor injuries but no one was feared dead, local officials said.

Authorities had issued non-compulsory evacuation advisories to 1.5 million residents nationwide, public broadcaster NHK reported.

Nearly 500,000 households in Kyushu and Okinawa had lost power, according to local utilities.

As the typhoon barreled east, rail authorities took the highly unusual step of cancelling evening train services in Tokyo, one of the world's busiest networks, urging passen-



Dangerous weather: A man braving strong winds near a ship washed ashore by Typhoon Trami at a port in Yonabaru, Okinawa. — Reuters

gers to shelter indoors when the storm hit.

The typhoon was not expected to hit the capital head-on, but strong winds and heavy rain were still feared yesterday. Some businesses were already putting up shutters and hunkering down.

Trami is the latest in a string of extreme natural events in Japan,

which has suffered typhoons, flooding, earthquakes and heatwaves in recent months, claiming scores of lives and causing extensive damage.

Packing maximum gusts of 216 kph, Trami was expected to travel over most of the archipelago, weakening slightly but causing extreme weather today, forecasters said.

Still classed as a "very strong" typhoon, Trami pounded Kagoshima on the western tip of Japan early yesterday, causing 10 minor injuries such as cuts from broken windows and people knocked over by gusts.

"We are strongly urging our residents to stay indoors because it is extremely dangerous to be outside

now," Masaaki Tamaki, an official of Kagoshima's disaster management section, said.

The Japanese meteorological agency warned that the typhoon would bring strong winds and downpours, which could trigger landslides and floods, as well as lightning strikes and tornados across the nation.

Violent gusts swept away roof tiles on some houses in the western city of Kochi.

"There was a big 'bang, bang'. That woke me up," an elderly man in Kochi told NHK.

East Japan Railway announced that it would gradually suspend train services in and around Tokyo and end all trains at around 8pm, shortly before the typhoon was to draw near the Japanese capital.

Shinkansen bullet train services, particularly those in western areas, also reduced or cancelled their services.

Osaka's Kansai Airport, which is situated on reclaimed land offshore and suffered extensive damage in a storm earlier in September, closed two runways.

Officials piled up sandbags to avoid a repeat of flooding seen during the previous storm.

Some western regions are still recovering from the most powerful typhoon to strike the country in a quarter of a century in early September.

Typhoon Jebi claimed 11 lives and shut down Kansai, the main regional airport. — AFP

LAMPIRAN 23
THE STAR (WORLD): MUKA SURAT 33
TARIKH: 30 SEPTEMBER 2018 (AHAD)

Treated water at Fukushima plant still radioactive

TOKYO: The operator of Japan's wrecked Fukushima nuclear plant said that much of the radioactive water stored at the plant isn't clean enough and needs further treatment if it is to be released into the ocean.

Tokyo Electric Power Co (Tepco) and the government had said that treatment of the water had removed all radioactive elements except tritium, which experts say is safe in small amounts. They called it "tritium water", but it actually wasn't.

Tepco said on Friday that studies found the water still contains other elements, including radioactive iodine, cesium and strontium.

It said more than 80% of the 900,000 tonnes of water stored in large, densely packed tanks contains radioactivity exceeding limits for release into the environment.

Tepco general manager Junichi Matsumoto said radioactive ele-

ments remained, especially earlier in the crisis when plant workers had to deal with large amounts of contaminated water leaking from the wrecked reactors and could not afford time to stop the treatment machines to change filters frequently.

"We had to prioritise processing large amounts of water as quickly as possible to reduce the overall risk," Matsumoto said.

About 161,000 tonnes of the treated water has 10 to 100 times the limit for release into the environment, and another 65,200 tonnes has up to nearly 20,000 times the limit, Tepco said.

Matsumoto said the plant will treat the water further to ensure contamination levels are reduced to allowable limits.

He was responding to growing public criticism and distrust about the status of the water. — AP



Still unsafe: An employee walking past storage tanks for contaminated water at the nuclear plant in Okuma town, Fukushima prefecture. — AP

LAMPIRAN 24
NEW STRAITS TIMES (WORLD): MUKA SURAT 67
TARIKH: 29 SEPTEMBER 2018 (SABTU)

7.5M EARTHQUAKE

2M TSUNAMI HITS SULAWESI

Amateur video shows wave striking structures, washing ship ashore

JAKARTA

A TSUNAMI of up to 2m hit a small city on the island of Sulawesi after a major 7.5 quake struck offshore yesterday, collapsing buildings and washing a vessel ashore, but there was no word on casualties.

Authorities received information that Palu had been hit, said Dwikorita Karnawati, who heads Indonesia's meteorology and geophysics agency, BMKG, amid a rapid series of aftershocks.

"The 1.5- to 2-metre tsunami has receded," Dwikorita said.

"It ended. The situation is chaotic, people are running on the streets and buildings collapsed. There is a ship washed ashore," she added.

BMKG had earlier issued a

tsunami warning, but lifted it within the hour.

Amateur footage shown by local TV stations showed waters crashing into houses along Palu's shoreline.

The national search-and-rescue agency will deploy a large ship and helicopters to aid with the operation, said agency chief Muhammad Syaugi, adding that he had not been able to contact his team in Palu.

Palu, hit by a 6.2-magnitude quake in 2005 that killed one person, is a tourist resort at the end of a narrow bay famous for its beaches and water sports.

In 2004, an earthquake off the northern island of Sumatra triggered a tsunami across the Indian Ocean, killing 226,000 people in 13 countries, including more than 120,000 in Indonesia.

Earlier yesterday, the National Disaster Mitigation Agency said it was having difficulty reaching some authorities in Palu and the fishing town of Donggala, closest to the epicentre of the quake 80km away at a shallow 10km underground.

Palu airport was closed.



A woman receiving treatment after the earthquake in Donggala, central Sulawesi, yesterday. (Inset) A collapsed shopping mall in Palu, central Sulawesi. AGENCY PIX



The area was hit by a lighter quake earlier in the day, which destroyed some houses, killing one person and injuring at least 10 in Donggala, authorities said.

Some people took to Twitter saying they could not contact loved ones. "My family in Palu is unreachable," Twitter user @noyvionella said. **Reuters**

LAMPIRAN 25
UTUSAN MALAYSIA (LUAR NEGARA): MUKA SURAT 50
TARIKH: 29 SEPTEMBER 2018 (SABTU)

Gempa bumi kuat gegar Pulau Sulawesi

JAKARTA 28 Sept. - Sekurang-kurangnya seorang terbunuh dan 10 lagi cedera dalam kejadian gempa bumi berukuran 6.1 Richter di Pulau Sulawesi yang turut memusnahkan banyak rumah, hari ini.

Beberapa jam kemudian gempa bumi kedua berukuran 7.7 Richter dikesan di wilayah itu yang mencetuskan amaran tsunami namun sejam kemudian amaran itu ditarik balik.

Walau bagaimanapun pegawai Agensi Mitigasi Bencana Alam Negara meminta orang ramai untuk sentiasa berjaga-

jaga ekoran masih berlaku gempa bumi susulan.

Jurucakap Agensi Mitigasi Bencana Alam Negara, Sutopo Purwo Nugroho berkata, pihaknya menasihatkan orang ramai untuk berada di kawasan selamat dan tidak mendekati bangunan yang rosak.

Beliau berkata, agensi tersebut di Jakarta menghadapi kesukaran untuk menghubungi pihak berkuasa di beberapa kawasan terbabit.

Terdahulu agensi itu mengeluarkan amaran awal tsunami kepada orang ramai di

wilayah Sulawesi Tengah dan Sulawesi Barat selain meminta orang ramai untuk berpindah ke kawasan tinggi.

Pusat Kajian Geologi Amerika Syarikat (AS) memaklumkan gempa bumi kedua berukuran 7.5 Richter yang pada awalnya diumumkan berukuran 7.7 Richter.

Kata Sutopo, kerja-kerja pemindahan mangsa masih dijalankan.

"Gempa bumi susulan terus berlaku, banyak rumah runtuh," katanya menerusi mesej.

- REUTERS

LAMPIRAN 26
THE STAR (WORLD): MUKA SURAT 28
TARIKH: 29 SEPTEMBER 2018 (SABTU)

Turning to renewable energy

Jordan uses solar power to combat heavy reliance on imported energy

AMMAN: Set atop a mosque in the south of Jordan's capital, dozens of shimmering solar panels reflect a growing trend in the resource-poor desert kingdom as it tries combat its heavy reliance on imported energy.

Standing in front of the Hamdan al-Qara mosque, Sheikh Adnan Yahya says that before installing the panels he used to pay up to 13,000 dinars (RM75,900) a year for electricity.

"The bill has now dropped to almost zero," says the imam.

With panels popping up on the rooftops of homes, schools, hotels and factories across Jordan, the growing popularity of solar power is easy to spot.

The dishes and other desert-based solar fields are part of the kingdom's drive to steer the country away from foreign energy and towards renewable options available domestically.

Jordan imports nearly 98% of its energy needs, and has long relied on gas, heavy fuel oil and diesel to run its power plants.

Each year, it pays more than US\$4.5bil (RM18.6bil) on oil imports alone, according to official data.

Public debt exceeds more than US\$40bil (RM165bil) in Jordan, rocked this summer by rare anti-austerity protests.

But a government plan to make clean energy 20% of the country's overall power consumption by 2020 has seen alternative energy projects skyrocket in recent years.

At the beginning of this year, a set

of 140 panels were affixed to the top of Sheikh Yahya's mosque at a cost of US\$45,000 (RM186,131) – generating nearly 44 kilowatts of energy.

The installation powers the 1,500-person capacity place of prayer, its 50 air conditioners, 35 fans, 120 lamps, 32 cameras and sound system.

The Hamdan al-Qara is one of 380 mosques and churches across Jordan that have been supplied with solar-power systems in the past five years, according to the energy ministry.

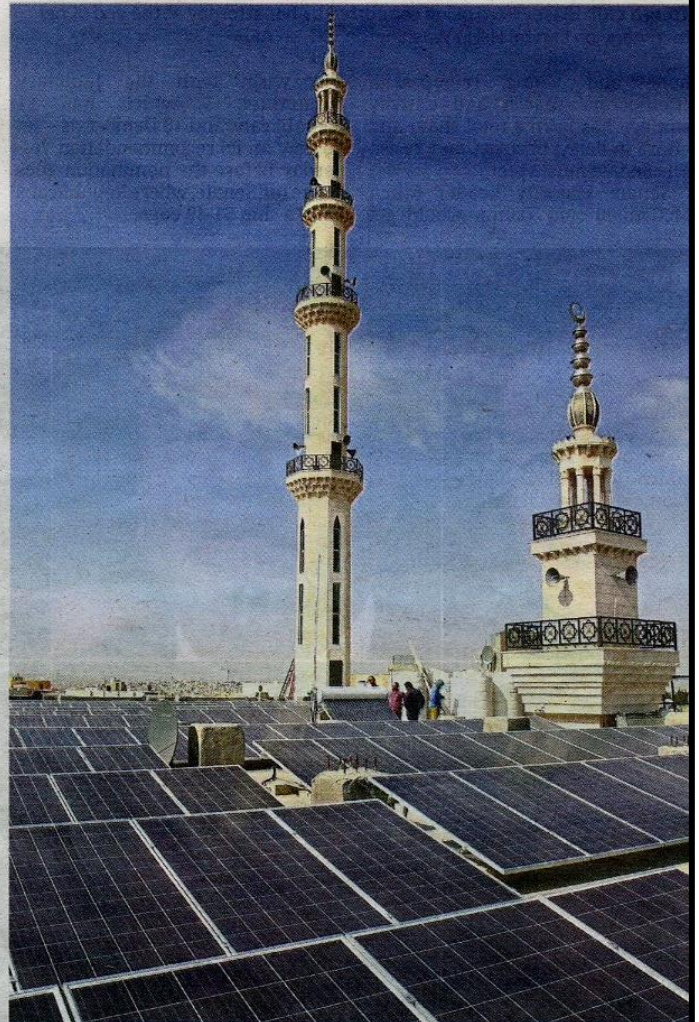
Last year, solar plants were opened at the Syrian refugee camps of Zaatari and Azraq, providing tens of thousands of people with free and clean electricity.

In Maan province, the kingdom's largest which stretches from the south of the capital west to the border with Saudi Arabia, 11 renewable energy projects have been launched since 2012.

They include the Shams Maan solar plant.

Managed by a consortium of companies including Jordan's Kawar investment group, Qatar's Nebras Power and Japan's Mitsubishi, the US\$170mil (RM703mil) project generates 52.5 megawatts of electricity – one percent of the country's electricity production.

"Solar energy will help Jordan save on the price of fuel purchased from abroad in hard currency and help it to be self-reliant in power generation," says Hanna Zaghloul, Kawar's chief executive. — AFP



Divine light: The Hamdan al-Qara mosque in southern Amman, equipped with 140 solar panels on its roof. — AFP