

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

| <b>Bil</b> | <b>Berita</b>  | <b>Media</b>    | <b>Capaian Berita Penuh</b> |
|------------|--|-----------------|-----------------------------|
| 1.         | <b><u>ASM pulang baki Projek RDC akhir Jun</u></b>                   | Berita Harian   | Rujuk lampiran 1            |
| 2.         | <b><u>72 syarat kelulusan EIA projek PSR diumumkan</u></b>           | Utusan Malaysia | Rujuk lampiran 2            |
| 3.         | <b><u>Toxins factor in deaths of Gua Musang orang asli</u></b>       | The Sun Daily   | Rujuk lampiran 3            |
| 4.         | <b><u>Did EIA report miss non-preventable natural disasters?</u></b> | The Sun Daily   | Rujuk lampiran 4            |
| 5.         | <b><u>Dalang berdepan tindakan</u></b>                               | Sinar Harian    | Rujuk lampiran 5            |
| 6.         | <b><u>Firm to obtain approval for EMP first</u></b>                  | The Star        | Rujuk lampiran 6            |
| 7.         | <b><u>Kerajaan negeri dedah 72 syarat JAS</u></b>                    | Berita Harian   | Rujuk lampiran 7            |
| 8.         | <b><u>Sewage linked to dead fish in Sungai Kayu Ara</u></b>          | The Star        | Rujuk lampiran 8            |
| 9.         | <b><u>Kos paip gas tinggi</u></b>                                    | Harian Metro    | Rujuk lampiran 9            |
| 10.        | <b><u>Curi bekalan elektrik cecah RM500,000</u></b>                  | Berita Harian   | Rujuk lampiran 10           |
| 11.        | <b><u>ST belum sedia keluar kenyataan kesalahan TNB</u></b>          | Harian Metro    | Rujuk lampiran 11           |



## TEMPATAN

| Bil | Berita  | Media             | Capaian Berita Penuh |
|-----|---|-------------------|----------------------|
| 12. | <u>Fireman rescue turtle stuck in rubbish trap</u>          | New Straits Times | Rujuk lampiran 12    |
| 13. | <u>Inisiatif PETRONAS lestari alam sekitar selari RMK12</u> | Berita Harian     | Rujuk lampiran 13    |
| 14. | <u>Lynas capai 'bebas masa kecederaan' setahun</u>          | Berita Harian     | Rujuk lampiran 14    |
| 15. | <u>Aspiring for inspirational science</u>                   | New Straits Times | Rujuk lampiran 15    |

## ANTARABANGSA

| Bil | Berita   | Media             | Capaian Berita Penuh |
|-----|--|-------------------|----------------------|
| 16. | <u>Gempa 6.1 gegar Bali</u>                    | Harian Metro      | Rujuk lampiran 16    |
| 17. | <u>'Fuel leak halted rocket launch'</u>        | New Straits Times | Rujuk lampiran 17    |
| 18. | <u>Flight of 'Apollo 11'</u>                   | New Straits Times | Rujuk lampiran 18    |
| 19. | <u>Panic as 6.1 magnitude quake jolts Bali</u> | New Straits Times | Rujuk lampiran 19    |
| 20. | <u>NASA to build Radio Telescopes on Moon</u>  | New Straits Times | Rujuk lampiran 20    |
| 21. | <u>Moon mission team reunites</u>              | The Star          | Rujuk lampiran 21    |
| 22. | <u>Kebuluran global terus meningkat</u>        | Kosmo!            | Rujuk lampiran 22    |

*Akhbar Tempatan*

|     |   |        |                   |
|-----|---|--------|-------------------|
| 23. | <b><u>Banjir di Asia Selatan kritikal</u></b>       | Kosmo! | Rujuk lampiran 23 |
| 24. | <b><u>Gempa bumi sederhana gegar Pulau Bali</u></b> | Kosmo! | Rujuk lampiran 24 |

## LAMPIRAN 1 BERITA HARIAN (NASIONAL): MUKA SURAT 9 TARIKH: 17 JULAI 2019 (RABU)

### ASM pulang baki dana Projek RDC akhir Jun

**Kuala Lumpur:** Akademi Sains Malaysia (ASM) sudah memulangkan baki peruntukan Projek Penyelidikan, Pembangunan dan Pengkomersialan (Projek RDC) berjumlah RM32,040,944.43 kepada kerajaan akhir bulan lalu.

Ketua Pegawai Eksekutifnya, Hazami Habib, berkata urusan pemulangan baki peruntukan itu dilakukan selepas pencairan sijil simpanan tetap dana terbabit dilakukan.

Beliau berkata, pihaknya sudah memaklumkan perkara itu kepada wakil Kementerian Tenaga, Sains, Teknologi, Alam Sekitar dan Perubahan Iklim (MESTECC) yang menghadiri mesyuarat ASM ke-136, pada 4 Julai lalu.

"ASM juga sudah menghantar surat kepada MESTECC pada 23 April lalu untuk menyatakan persetujuan bagi memulangkan dana berkenaan selepas proses pencairan sijil simpanan tetap dilakukan.


"ASM menghantar laporan penuh Perbelanjaan Projek RDC kepada MESTECC pada 3 Oktober 2018 untuk tindakan susulan MESTECC.

"Justeru, ada beberapa projek di bawah Rancangan Malaysia Ke-10 (RMKe-10) yang dilanjutkan tempoh projek dan tamat pada 2018," katanya dalam satu kenyataan di sini, semalam.

ASM dilantik oleh MESTECC yang sebelum ini dikenali sebagai Kementerian, Sains, Teknologi dan Inovasi (MOSTI) sebagai Agensi Pemantau Projek (PMA) bagi Projek RDC.

Berikutan itu, ASM menandatangani projek dana pra pengkomersialan di bawah RMKe-9 dan RMKe-10 yang sudah menyalurkan peruntukan berjumlah RM174,977,297.20 kepada ASM sebagai PMA bermula pada 29 Disember 2011 dan berakhir pada 28 Disember 2018.

Laporan Ketua Audit Negara (LKAN) Siri 1 2018 mendedahkan sejumlah RM31.66 juta dana Projek RDC tidak digunakan masih dalam pegangan ASM di bawah pentadbiran kerajaan terdahulu belum dikembalikan semula kepada kerajaan.

 **Urusan  
pemulangan  
baki peruntukan itu  
dilakukan selepas  
pencairan sijil  
simpanan tetap dana  
terbabit dilakukan.**

**Hazami Habib,**  
Ketua Pegawai Eksekutif ASM

## LAMPIRAN 2 UTUSAN MALAYSIA (DALAM NEGERI): MUKA SURAT 8 TARIKH: 17 JULAI 2019 (RABU)

# 72 syarat kelulusan EIA projek PSR diumumkan

**PULAU PINANG 16 Julai-** Kerajaan negeri hari ini mengumumkan 72 syarat kelulusan Laporan Penilaian Kesan Kepada Alam Sekitar (EIA) yang perlu dipatuhi untuk melaksanakan projek tambakan laut di perairan selatan (PSR).

Ketua Menteri, Chow Kon Yeow berkata, 72 syarat yang ditetapkan oleh **Jabatan Alam Sekitar (JAS)** bagi projek PSR itu juga akan dimuat naik dalam laman web rasmi Pelan Induk Pengangkutan (PIP) dan boleh diakses oleh orang ramai.

Menurutnya, antara syarat kelulusan EIA itu adalah kerajaan negeri diwajibkan untuk melaksanakan langkah-langkah mitigasi

mengikut nasihat-nasihat teknikal daripada jabatan berkaitan terutama daripada Jabatan Perikanan bagi menangani impak ke atas sumber perikanan dan kepada komuniti nelayan.

"Antara perkara penting yang dinyatakan di dalam EIA ini adalah keperluan bagi kerajaan negeri melaksanakan Offset Programme.

"Offset Programme bagi kehilangan kekal yang diakibatkan oleh projek ini akan diselaraskan sebagai sebahagian daripada Penang Offset Masterplan antaranya merangkumi tukun tiruan,



**CHOW KON YEOW**

pelepasan benih ikan, penanaman semula bakau dan menyediakan dana bagi kajian penyu dan terumbu karang," katanya dalam sidang akhbar di Kompleks Tun Abdul Razak (Komtar), di sini hari ini.

Kerajaan negeri telah menerima kelulusan laporan EIA bagi projek PSR daripada JAS pada 4 Julai lalu.

Difahamkan jangka masa projek tebus guna itu adalah selama 15 tahun dan keseluruhan projek dijangka siap antara 30 dan 50

tahun.

Menurut Kon Yeow, bagi menangani kesan ke atas komuniti nelayan, satu jawatankuasa nelayan harus dibentuk di samping penyediaan pelan keluar dan penubuhan Pusat Perkhidmatan Setempat Nelayan (PPSN).

"Kuantum serta kelayakan sa-guhati dan lain-lain faedah bagi nelayan terjejas akan dibincangkan lebih lanjut menerusi jawatankuasa ini," katanya.

Dalam pada itu, Pengarah Projek SRS Konsortium, Sze To Wai Loong berkata, Offset Programme merupakan antara syarat yang paling mencabar untuk dipatuhi dalam melaksanakan projek PSR itu.

LAMPIRAN 3  
THE SUN DAILY: MUKA SURAT 6  
TARIKH: 17 JULAI 2019 (RABU)

# Toxins factor in deaths of Gua Musang orang asli

► Study by varsity finds 'harmful substances' in river sediment samples

**KUALA LUMPUR:** Research by a local university has revealed that toxic substances could have killed several orang asli in Gua Musang recently.

Universiti Malaysia Kelantan (UMK) senior lecturer Dr Abdul Hafidz Yusoff said samples taken from rivers used by the local people indicated the possibility there were "harmful and toxic substances" in the sediment deposits.

The samples were taken from the main river, Sungai Lebir, and some of its tributaries which flowed near the settlements.

"We believe the source of the toxic substances is the nearby illegal manganese mine," Abdul Hafidz said.

The mine was sealed by the Mineral and Geoscience Department on June 11, Bernama reported.

However, he said the toxic substances could only be confirmed after several stages of verification, which could take months.

Health Minister Datuk Seri Dr Dzulkefly Ahmad said in a recent statement that the results of post-mortems conducted on the remains of 12 members of the Batek tribe from Kampung Kuala Koh - who had died "mysteriously" between May 2 and June 7 - could not confirm their cause of death.

He said the ministry was still waiting for the results of the toxicology, heavy metal and entomology tests.

On June 12, the Chemistry Department said the overall water quality in Sungai Lebir was within the national standard for raw water.

Abdul Hafidz, who specialises in mineral resource technology, mining and environment, said toxic minerals like cadmium, mercury and arsenic were usually present in low concentrations in water.

Mercury emissions from industries, for instance, might only be found in small quantities in the water but substantial amounts could be found in sediment deposits, he pointed out.

"Further studies are now being carried out on the samples of sediment and suspended particles that we've taken from the waters of several rivers in Kampung Kuala Koh to detect the presence of mercury, which is a hazardous metal," he added.

He said small quantities of mercury could cling to suspended soil particles swept down from the mine and the metal could eventually leach into the water.

"The orang asli could then be exposed to the mercury when they drank the water or ate the fish caught in the river."

He said their research also unearthed traces of toxic metals in fish, adding that a survey also found that the Batek people in Kampung Kuala Koh did not have any source of clean water and that they drank water directly from the river.

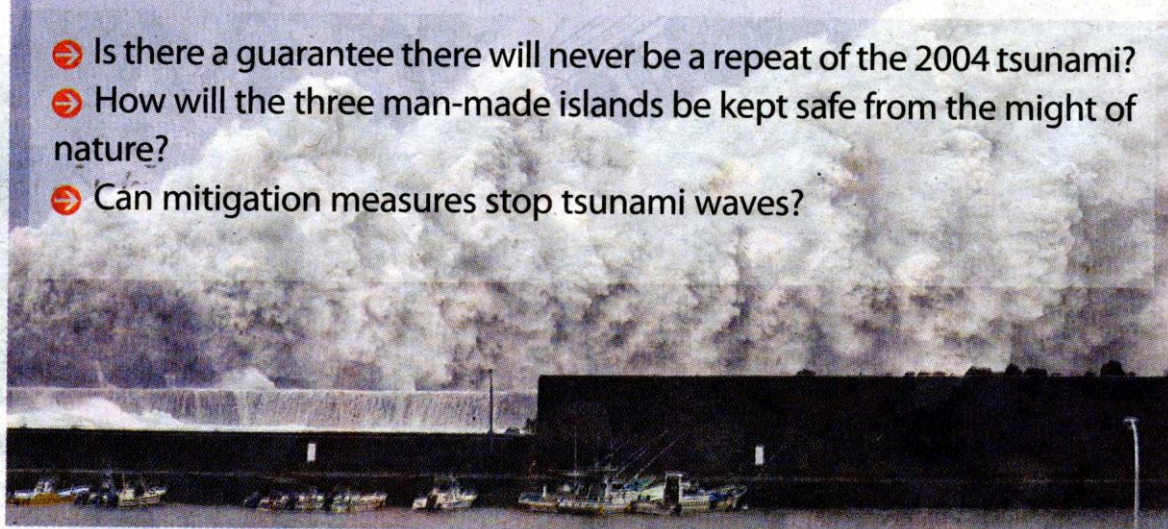
"The authorities provided them with a tank to store filtered water but, unfortunately, it has been damaged," he said.

Abdul Hafidz said it was normal for mine operators to use mercury to extract minerals. Arsenic was another hazardous metal found in mining areas.

LAMPIRAN 4  
 THE SUN DAILY: MUKA SURAT 10  
 TARIKH: 17 JULAI 2019 (RABU)

**PSR poser**

- ➔ Is there a guarantee there will never be a repeat of the 2004 tsunami?
- ➔ How will the three man-made islands be kept safe from the might of nature?
- ➔ Can mitigation measures stop tsunami waves?



**Did EIA report miss non-preventable natural disasters?**

IN preparing the EIA on Penang South Reclamation (PSR) did the possibility of the recurrence of a non-preventable natural disaster cross the minds of the consultants?

The 2004 tsunami had affected the whole southern side of the island from Batu Maung, Teluk Tempoyak, Permatang Damar Laut, Sungai Batu, Teluk Kumbar, Gertak Sanggul and right up to Pulau Betong.

A tsunami had never hit the shores of Penang before this. The earthquake that triggered it occurred in Northwest Sumatra. The powerful waves travelled in all directions, including east around the northern tip of Sumatra and on to the shores of Perlis, Kedah, Langkawi; south down the Malacca Straits hitting parts of Northern Penang; further south on the western side of the island and then diffracted east around the "left rear leg of the turtle" that Penang island resembles to hit the southern side of the island (where the developers and state government are planning to make the three 4,500-acre islands) killing and injuring dozens of people and destroying homes.

Could the project proponents, the state government, the EIA consultants and the Department of Environment answer a few questions, please:

» On a planet with an increasing number of natural disasters, is there a guarantee that there will never be a repeat of the 2004 tsunami? If there is a guarantee, who gives that guarantee?

» What "mitigation" measures have the EIA experts recommended to "tame" a similar tsunami and keep the "development" on the three man-made islands safe from the might of nature?

» Can any "mitigation" measures successfully stop tsunami waves at a given point?

The devastating tsunami was caused by an earthquake resulting from the violent movement of the Earth's tectonic plates which had been pushing against each other and building pressure for a long time. The experts tell us that they continue to do so (pushing against each other) and will likely cause underwater earthquakes and tsunamis in the future.

At best, early warning systems (if kept in good operational condition at all times – of which we don't have a good record) can allow humans to be forewarned and try to save themselves. But their homes and all else on the land will still be devastated. No insurance company would give protection against a tsunami.

There is a Malay proverb that says "malang tidak berbau" (misfortune does not stink), that is you can never tell when it will strike. You can never tell when another tsunami may happen. And if it does, the three man-made 4,500-acre islands will suffer the most damage, unless developers and their engineers can stop the waves before they reach the islands, or overrun it.

Nature should be respected. The mentality of keeping up with the Joneses (copycats of Singapore's Marina Bay and Dubai Marina Mall) should be abandoned. Grand buildings, GDP and the like are not the true measure of "development".

**Ravinder Singh  
 Penang**

LAMPIRAN 5  
SINAR HARIAN (TENGAH): MUKA SURAT 33  
TARIKH: 17 JULAI 2019 (RABU)

# Dalang berdepan tindakan

**JAS ambil tindakan undang-undang kepada pihak penyebab pencemaran**

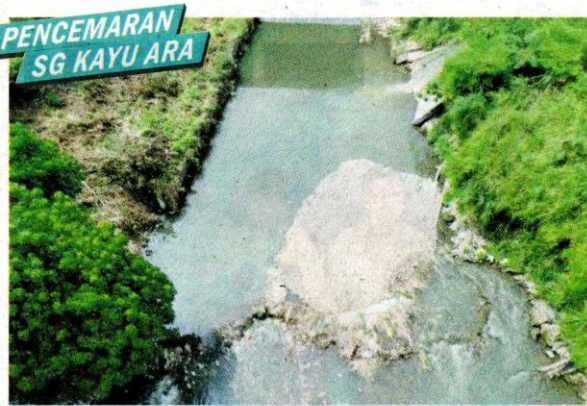
NUR FARHANA ABDUL MANAN

PETALING JAYA

Jabatan Alam Sekitar (JAS) akan mengambil tindakan undang-undang terhadap pihak yang menjadi punca kepada pencemaran di Sungai Kayu Ara berhampiran Kampung Cempaka di sini Sabtu lalu sehingga menyebabkan ikan mati.

Exco Alam Sekitar, Teknologi Hijau, Sains, Teknologi Dan Inovasi Dan Hal Ehwal Pengguna Selangor, Hee Loy Sian berkata, tindakan diambil berdasarkan kuasa penguatkuasaan undang-undang melalui Peraturan Kualiti Alam Sekeliling (Kumbahan) 2009.

Menerusi undang-undang itu katanya, pihak yang menyebabkan punca daripada *effluent* loji rawatan kumbahan atau mana-mana orang yang melakan



Pemantauan udara oleh LUAS mendapati bangkai ikan ditemui mengalir bermula dari hulu sehingga ke hilir Sungai Kayu Ara.

kukan kesalahan boleh disabitkan denda RM100,000 atau penjara tidak melebihi lima tahun atau kedua-duanya.

Menurutnya, pesalah juga boleh dikenakan denda lanjut tidak melebihi RM1,000 sehari jika tiap-tiap kesalahan diteruskan.

"Selepas menerima aduan pencemaran dan laporan ikan ditemui mati di Sungai Kayu Ara, Lembaga Urus Air Selangor (LUAS) telah diarah untuk siasat keadaan di lokasi.

"JAS maklumkan punca pencemaran berkemungkinan daripada air sisa kumbahan

berikutan bacaan Ammoniakal Nitrogen (AN) yang tinggi hasil pensampelan dilaksanakan," katanya menerusi satu kenyataan.

Loy Sian berkata, dianggarkan terdapat enam buah loji kumbahan bermula dari hulu sehingga hilir di sepanjang Sungai Kayu Ara

Katanya, LUAS telah menjalankan siasatan dan mengambil pensampelan bermula dari hulu sehingga hilir mengikut aliran air sungai mengalir.

"Hasil pemantauan udara (dron) mendapati tiada bangkai ikan ditemui di hulu sungai.

Bagaimanapun, bangkai ikan ditemui mengalir bermula dari hulu sehingga ke hilir sungai.

"Berdasarkan keputusan pensampelan LUAS, bacaan AN di hulu adalah tinggi di sekitar kawasan Taman Mayang yang berkemungkinan daripada *effluent* loji rawatan kumbahan. Bacaan di hilir sungai adalah rendah di sekitar kawasan depoh transit aliran ringan (LRT).

"Ia berkemungkinan adalah kerana faktor pencairan (*dilution factor*). Maka, kawasan berdekatan hulu sungai boleh menjadi salah satu potensi punca utama berlakunya ikan mati atau sebaliknya," katanya.

Beliau berkata, kualiti air sungai Ahad lalu berada pada keadaan normal bagi kebanyakan parameter kecuali AN yang mencatatkan bacaan yang tinggi sehingga 5.4 mg/l.

Katanya, pensampelan dihantar kepada Jabatan Kimia bagi tujuan saringan parameter logam dan logam berat.

"Kerja-kerja pembersihan bangkai ikan masih dilaksanakan kontraktor sejak Ahad lalu dan LUAS akan melakukan pemantauan berkala di lokasi tersebut bagi mengelak kejadian berulang," katanya.



LAMPIRAN 6  
 THE STAR (NATION): MUKA SURAT 17  
 TARIKH: 17 JULAI 2019 (RABU)

# Firm to obtain approval for EMP first

It's among 72 conditions imposed by DoE, says SRS Consortium director

By R. SEKARAN  
 rsekaran@thestar.com.my

**GEORGE TOWN:** SRS Consortium, the Project Delivery Partner for the Penang South Reclamation (PSR), has been told to obtain approval for a detailed Environment Management Plan (EMP) from the Department of Environment (DoE) before starting the project.

SRS Consortium project director Szeto Wai Loong said this was one of the 72 conditions imposed by the DoE on his company.

"The EMP is the most important document as it would be a guideline for the entire project, and we have to get the approval within six to nine months," he said.

Szeto said certain preliminary and mitigation works would begin but the full-fledged work would only begin after the Penang Offset Masterplan and the EMP are in place.

"The masterplan is to safeguard the marine life that could be affected by the PSR.

"It is also to look into the loss of artificial reefs, mangrove replanting, releasing of fish fry, eco-engineering structure and to carry out a



**Bird's eye view:** The PSR area as seen from Teluk Tempoyak in Penang. Szeto said the full-fledged work would only begin after the Penang Offset Masterplan and the EMP are in place to ensure the protection of marine life that may be affected by the PSR.

study and research on the turtles and coral reefs," he said.

On the issue of sand mining, Szeto said that dredging would be done 20 nautical miles off Perak shores – areas which are under Federal Government jurisdiction.

"As such, we don't need the Perak government's approval," said Szeto during a press conference called by Chief Minister Chow Kon Yeow to reveal the 72 conditions imposed by the DoE.

Chow said while other projects

have about 50 conditions, the DoE has imposed 72 conditions, and the PDP will have to comply with the requirement.

"The conditions imposed are stringent including a green river programme, maintenance of the

dredging, safeguarding of pathways used by fishermen and protection of the marine life.

"In fact, the state has been proactive and will comply with the conditions, including compensation to the fishermen and setting-up of a one-stop centre to handle all issues regarding PSR," said the Chief Minister.

Some of the other conditions include compliance on sand mining, design concept, pollution prevention, and the control of the water and air quality.

On the meeting between Datuk Seri Anwar Ibrahim and the fishermen recently, Chow said he would arrange for a detailed briefing for the Port Dickson MP and others soon.

"Anwar did not object to the project and opposition from the other parties will always be there in every stage of the project implementation," he said.

The conditional Environmental Impact Assessment Report for the PSR project near Teluk Kumbar, which involves a massive plan to reclaim three islands, measuring 1,800ha, was approved by the DoE on June 25.

LAMPIRAN 7
BERITA HARIAN (NASIONAL): MUKA SURAT 18
TARIKH: 17 JULAI 2019 (RABU)

Antara syarat ditetapkan bagi projek PSR

Syarat 5 » Kelulusan laporan EIA terhad kepada tambahan tiga pulau seluas 4,500 ekar dan kerja pengorekan bagi mendalamkan laluan akses sahaja seperti dinyatakan dalam laporan EIA.

Pulau A - 2,300 ekar
Pulau B - 1,400 ekar
Pulau C - 800 ekar

Syarat 10 » Kawalan air larian permukaan, kawalan hakisan dan sedimen hendaklah dilaksanakan dengan berkesan dan diselenggara seperti diperincikan dalam EMP dan mematuhi dokumen 'Land Disturbing Pollution Prevention And Mitigation Measures'.

Syarat 16 » BMPs untuk kawalan hakisan dan sedimen hendaklah disediakan di setiap kawasan berpotensi menyebabkan masalah hakisan dan kelodakan, termasuk di kawasan mempunyai kekangan ruang, ruang kerja dan mitigasi.

Syarat 24 » Pemasangan tirai kelodak hendaklah dipasang sepanjang kerja penubunggunaan tanah dijalankan.

Syarat 41 » Sistem pengurusan bersejuaian dan berkesan bagi sisa pepejal, termasuk sisa bahan binaan hendaklah disediakan dan diperincikan dalam EMP

Syarat 42 » Pelupusan sisa pepejal termasuk sisa biomas dan binaan ke dalam mana-mana perairan daratan tidak dibenarkan.

Syarat 52 » Sebarang aktiviti di tapak projek, termasuk pada peringkat operasi premis hendaklah dihentikan serta merta apabila berlaku sebarang kerosakan sistem kawalan pencemaran yang boleh menyebabkan pencemaran berakut dengan la perlu dilaporkan kepada JAS negeri dalam tempoh 24 jam, selain dibenarkan beroperasi selepas sistem kawalan dibaik pulih sepenuhnya.

Syarat 55 » Pembakaran terbuka sisa tumbuhan, binaan atau apa-apa bahan boleh terbakar dilarang sama sekali seperti dinyatakan di bawah Seksyen 29A Akta Kualiti Alam Sekeliling 1974.

Syarat 56 » Papan pemberitahuan status pematuhan kualiti air, udara, bunyi bising dan getaran hendaklah dipasang di pintu masuk tapak projek/premis bermula dari peringkat kerja tanah, pembinaan, operasi dan sepanjang hayat projek.

Syarat 71 » Sekiranya projek ini tidak dimulakan dalam tempoh dua tahun dari tarikh kelulusan, laporan EIA akan terbatal. Rayuan tempoh perlanjutan kelulusan EIA boleh dikemukakan untuk pertimbangan JAS.

Projek tambakan laut PSR

Kerajaan negeri dedah 72 syarat JAS

Pasukan petugas khas turut dibentuk tangani kesan ke atas nelayan

Oleh Muhammad Yusri Muzamir
yusri.muzamir@bh.com.my

Georgetown: Kerajaan negeri mendedahkan 72 syarat perlu dipatuhi bagi projek tambakan laut di perairan selatan Pulau Pinang (PSR) yang ditetapkan Jabatan Alam Sekitar (JAS).

Ketua Menteri, Chow Kon Yeow, berkata antara perkara penting dalam permohonan Kajian Impak Alam Sekitar (EIA) ialah memperkenalkan Pelan Induk Program Pengimbang bagi kehilangan kekal ekoran pelaksanaan PSR.

Beliau berkata, ia membabitkan tukun tiruan; unjam; penanaman semula pokok bakau dengan kerjasama Jabatan Perhutanan dan agensi berkaitan; pelepasan benih ikan; struktur ekokejuruteraan pada lapis lindung pantai; menyediakan dana bagi kajian dan penyelidikan untuk penyusutan dan terumbu karang serta cadangan lain.

"Pelaksanaan Program Pengimbang dinyatakan perlu dilaksanakan Kajian Teknikal terperinci dan ulasan Jabatan Teknikal perlu diperolehi sebelum dilakukan.

"Jawatankuasa Pelaksana Program Pengimbang (JPPP) perlu ditubuhkan dengan membabitkan agensi teknikal berke-



Kon Yeow menunjukkan syarat dikeluarkan JAS berhubung projek tambakan laut PSR di Georgetown, semalam. (Foto Danial Saad/BH)

lanjut oleh pasukan petugas berkenaan yang dijadual berlangsung September depan.

"Selain itu, melaksanakan 'green river programme' dan penyelenggaraan pengorekan; menjalankan pemantauan hidraulik secara terperinci; memastikan laluan navigasi nelayan diselenggara; membina jeti nelayan dan lapis lindung pantai serta menjalankan pemuliharaan pantai.

"Kajian lanjut ke atas kawasan perlindungan perikanan dan laluan migrasi udang bersama Jabatan Perikanan; insurans nyawa, harta dan alam sekitar bagi perlindungan jika berlaku kemalangan ketika pelaksanaan projek.

"Mengikut amalan pengurusan terbaik (BMPs) serta langkah kawalan berkesan sebelum aktiviti kerja tanah dan pembinaan bermula; mengambil kira pelan tindakan disediakan pemaju untuk mengurangkan risiko pencemaran dan aduan di kawasan terbabit," katanya.

Mengenai 72 syarat dinyatakan JAS, Kon Yeow berkata, terdapat langkah mitigasi dicadangkan penggerak projek dalam laporan EIA yang juga sudah diguna pakai JAS sebagai sebahagian syarat ditetapkan.

"56 daripada 72 syarat ini adalah syarat umum berkaitan PSR merangkumi beberapa aspek antaranya pematuhan dan penerangan bagi aktiviti ditetapkan, selain syarat 57 hingga 62 khusus berkenaan Pelan Pengurusan Alam Sekitar (EMP).

"Syarat berkaitan EMP perlu disediakan mengikut format ditetapkan JAS, selain ia perlu dikemukakan kepada JAS negeri untuk pertimbangan sebelum projek dimulakan.

"Syarat ini sangat rumit dan tiada alternatif lain selain perlu memenuhi semua tuntutan. Semua syarat ini juga akan dimuat naik dalam laman web rasmi Pelan Induk Pengangkutan (PIP) untuk tatapan awam," katanya.

Sementara itu, Wai Loong berkata, dua lokasi masing-masing di Perak dan Pelabuhan Klang, Selangor dipertimbangkan sebagai antara lokasi pengambilan pasir untuk kerja tambakan.

"Kerja pengorekan pasir di Perak akan dibuat pada jarak melebihi 20 batu nautika dari pesisir pantai. Kerja pengorekan tertakluk kepada kelulusan laporan EIA daripada agensi Persekutuan.

"Lokasi pengambilan pasir mungkin berubah jika memberi kesan kepada nelayan di kawasan berkenaan," katanya.

Sementara itu, Kon Yeow berkata, kerajaan negeri akan mengatur taklimat khas mengenai projek itu secepat mungkin kepada Ahli Parlimen Port Dickson, Datuk Seri Anwar Ibrahim.

LAMPIRAN 8
THE STAR (NEWS): MUKA SURAT 4
TARIKH: 17 JULAI 2019 (RABU)

By SHEILA SRI PRIYA
sheilasripriya@thestar.com.my

WASTEWATER discharged from sewage treatment plants is believed to be the reason thousands of fish have died in Sungai Kayu Ara, Petaling Jaya.

On Friday evening, residents from Kampung Chempaka noticed a school of fish jumping out of the river and knew something was amiss.

By Saturday morning, they saw thousands of dead fish swept downstream and the situation worsened on Sunday.

In a statement, state environment, green technology, science and consumer affairs committee chairman Hee Loy Sian said the pollution could be due to sewage from Indah Water Konsortium Sdn Bhd (IWK).

"There was a high reading of ammoniacal nitrogen (AN) after the incident first came to light," he said, adding there are six IWK treatment plants along Sungai Kayu Ara.

AN is a component of nitrogen, which is an indicator of pollution by sewage.

"Drone technology utilised by Selangor Water Management Authority showed the dead fish floating in the river upstream to downstream," said Hee.

Based on water sampling, the AN was higher upstream near Taman Mayang while the reading downstream near the LRT depot area at Lembah Subang was lower.

Sampling done on July 14, showed the water quality was normal on most parts of the river but the AN content was high at 5.4 mg/l.

The authorities have also sent water samples to the Chemistry Department for more tests.

Hee said work to remove the dead fish started on July 14.

Kampung Chempaka Village Community Management Council chairman Theresa Lim said fish like tilapia and haruan are among the species found in the river.

She thanked area councillor John Leong and Bandar Utama assemblyman Jamaliah Jamaluddin for taking prompt action by informing the relevant authorities when they were alerted on the matter by residents.

When contacted, Jamaliah said a police report has been lodged over the matter and various authorities had been informed including the

Sewage linked to dead fish in Sungai Kayu Ara

National sewerage company denies its plants contaminated river



Riverbank of waste

Residents in Ara Damansara want permanent solution to long-standing illegal dumping and open burning problems in Sungai Kayu Ara, Petaling Jaya.



Sungai Kayu Ara was full of dead fish over the weekend.

(Left) StarMetro's front-page report yesterday.

Department of Environment (DOE).

She said residents thought the fish died because of the irresponsible dumping of waste into the river.

"Some residents claim fertiliser from a farm is the cause, but we don't know," she said.

On Tuesday, StarMetro had a front-page report on waste dumping at Sungai Kayu Ara which had been going on for over a decade near the Idaman Ara Damansara neighbourhood.

They were puzzled by the lack of action by the authorities to stop the illegal activity, which has been exacerbated by open burning of rubbish in recent years.

Ara Damansara Residents

Association spokesman Albert Lau said the waste trap near his neighbourhood was filled with dead fish over the weekend.

"We saw thousands of dead fish and this is on top of the waste dumping that has been taking place close to our neighbourhood," he said.

Craig Matthew Lee from Ara Greens Condo said the incident could endanger fauna that rely on Sungai Kayu Ara.

He said the river attracts wildlife such as river otter and exotic birds. "My six-year-old son and I would spot interesting wildlife here.

"Seeing hundreds of dead fish floating downstream is a worrying sight.

"The cause of the pollution must be identified and there must be no repeat incidents," said Lee, who said there was a bad stench from the dead fish over the weekend.

Meanwhile, in a statement yesterday, IWK has denied contaminating the river.

It said all its sewage treatment plants operating near the river are in good condition and complied with DOE standards.

"There are six treatment plants near Sungai Kayu Ara, of which only one releases its final effluent to the related river, and the rest to monsoon drains.

"It is imperative to note that all final effluent released by IWK complies with DOE standards," the



There was a high reading of ammoniacal nitrogen after the incident first came to light.

Hee Loy Sian



statement read.

IWK representatives also attended a meeting with related authorities and agencies including the district officer and DOE on July 15, to address the situation.

LAMPIRAN 9  
 HARIAN METRO (SETEMPAT): MUKA SURAT 29  
 TARIKH: 17 JULAI 2019 (RABU)

# Kos paip gas tinggi

■ Hanya 427 dobi layan diri miliki lesen pengoperasian gas

Faliq Lajim  
 faliq.lajim@nstp.com.my

**Kuala Lumpur**

**K**ebanyakan pengusaha dobi layan diri yang tidak mempunyai kelulusan dan lesen pengoperasian gas daripada Suruhanjaya Tenaga (ST) adalah disebabkan kos sistem gas berpaip yang tinggi. Ahli Jawatankuasa (AJK) Dobi Layan Diri, Persatuan Pengusaha Dobi Melayu (MULA), Mohd Noor Setapa berkata, pengusaha yang sedia ada tidak mempunyai masalah dalam menyediakan sistem berkenaan demi keselamatan pengguna yang menggunakan dobi mereka.

"Kos operasi dobi layan diri bukan murah dan untuk membuka satu premis itu saja sudah menelan belanja RM300,000 hingga ke RM400,000.

"Jadi mustahil, pengusaha mahu premis mereka terbakar atau meletup. Cuma masalahnya sekarang, kos berpaip agak mahal.

"Harga untuk sediakan atau menaik taraf sistem itu membabitkan RM15,000 hingga RM20,000 mengikut saiz serta mesin yang ada di dalam premis berkenaan.

"Jumlah itu agak tinggi dan juga membebankan pengusaha kepada pengusaha dobi. Tambahan pula, dobi layan diri tumbuh seperti cendawan, jadi persaingan itu agak mencabar dan untung tidak banyak," katanya ketika dihubungi Harian Metro.

Selain kos yang agak tinggi, Mohd Noor menjelaskan perusahaan dobi layan diri di negara ini, masih terlalu baru dan tidak mempunyai satu prosedur operasi standard (SOP).

"ST perlu berbincang dengan Kementerian Perumahan dan Kerajaan Tempatan (KPKT), Jabatan Bomba dan Penyelamat Malaysia dan



“**Kos operasi dobi layan diri bukan murah dan untuk membuka satu premis itu saja sudah menelan belanja RM300,000 hingga ke RM400,000”**

Mohd Noor Setapa

termasuk wakil persatuan dobi layan diri bagi membincangkan masalah ini supaya satu garis panduan dapat dicapai.

"Sekarang ini, ada pihak berkuasa tempatan (PBT) yang mewajibkan lesen daripada ST bagi membuka dobi layan diri dan ada juga yang tiada. Jadi tiada satu kepu-

tusan yang tetap," katanya.

Dalam pada itu, pembekal mesin dobi di negeri ini yang hanya mahu dikenali sebagai Wan, 46, berkata, pengusaha dobi perlu memastikan premis mereka mempunyai kelulusan dan lesen pengoperasian selain melantik kontraktor gas yang berdaftar dengan ST.

"Memang ada yang tak pasang berikutan sistem gas berpaip yang baik dan mendapat kelulusan ST membatik kos yang tinggi se-

hingga puluhan ribu ringgit.

"Namun, perkara ini, membabitkan soal keselamatan pengguna. Pengusaha perlu mengambil pengajaran daripada kejadian letupan gas di premis dobi layan diri, sebelum ini.

"Malah, PBT juga perlu mengeluarkan lesen perniagaan yang mempunyai lesen ST serta melantik kontraktor gas yang berdaftar dengan suruhanjaya itu," katanya.

Menurutnya lagi, bagi dobi layan diri yang sedia ada, PBT perlu menyemak semula lesen mereka sekiranya gagal menunjukkan dokumen kelulusan pengoperasian gas.

Sementara itu, pengguna dobi layan diri, Syamim Adila Zaidi, 30, berkata perlu ada penguatkuasaan yang tegas bagi memastikan keselamatan mereka yang menggunakan mesin dobi ini sentiasa terjamin.

Menurutnya, sebagai pengguna tegar dia berkata, sebelum ini dia hanya tahu yang keselamatan kedai dobi ini bergantung kepada Sijil Perakuan Bomba (FC).

"Saya sebagai pengguna tidak tahu bagaimana nak pastikan kedai dobi itu benar-benar selamat untuk digunakan serta mempunyai

kelulusan dan lesen pengoperasian gas.

"Apabila kita pergi membasuh baju di premis ini, kita akan tunggu. Perkara ini sudah tentu mendedahkan kami kepada bahaya sekiranya meletup.

"Oleh itu, mungkin perlu untuk kerajaan atau PBT mewajibkan semua dobi layan diri ini menampal sijil yang membuktikan premis mereka selamat," katanya.

Timbalan Pengarah Pemasangan dan Peralatan Gas ST, Ir Shamsuddin Arshad mendedahkan kira-kira 2,000 dobi layan diri di seluruh Semenanjung dan Sabah mungkin terdedah dengan bahaya letupan ekoran tidak mempunyai kelulusan dan lesen pengoperasian gas daripada ST.

Dalam laporan itu menyebutkan, setakat ini hanya 427 dobi layan diri direkodkan mempunyai lesen berkenaan dan berdaftar di bawah ST.

Di bawah Akta Bekalan Paip 1993 dan Peraturan-peraturan Bekalan Gas 1997, mana-mana premis yang menggunakan sistem gas berpaip terutama gas petroleum cecair perlu mendapatkan kelulusan dan lesen yang sah daripada ST sebelum beroperasi.

LAMPIRAN 10  
HARIAN METRO (SETEMPAT): MUKA SURAT 29  
TARIKH: 17 JULAI 2019 (RABU)

## Curi bekalan elektrik cecah RM500,000

**Mersing:** Mampu kaut untung lumayan setiap bulan dengan mencuri bekalan elektrik. Itu tindakan sebuah kilang memproses makanan laut yang disyaki mencuri bekalan elektrik hingga mencecah RM500,000.

Tembelang premis berkenaan terbongkar apabila Suruhanjaya Tenaga (ST) menerima aduan daripada Tenaga Nasional Berhad (TNB) yang mengalami kerugian besar angkara usikan meter dilakukan premis itu sejak 2016.

Pengarah Penguatkuasaan dan Operasi Kawasan ST, Mohd Elmi Anas berkata, operasi bersepadu membatik 20 pegawai ST dan TNB itu bertujuan mengesan kes penipuan dilakukan sepanjang tempoh itu.

"Premis memproses makanan laut itu disyaki melakukan pengusikan pada pemasangan meter elektrik sehingga menyebabkan ia gagal merekodkan bacaan dengan sempurna.

"Premis berkenaan didapati melakukan kegiatan berkenaan sejak 2016 hingga mengakibatkan kerugian

kira-kira RM500,000 kepada TNB," katanya pada sidang media di premis itu di sini, semalam.

Mengulas lanjut katanya, TNB menerusi aduannya memaklumkan kilang itu disyaki menggunakan elektrik dengan mencuri dan mengusik pemasangan meter elektrik di premis itu.

"Berdasarkan aduan itu, saya dari ST, TNB dan pasukan polis keselamatan menyerbu kilang memproses ikan ini.

"Kami mengesyaki kilang ini sudah menjalankan aktiviti penggunaan elektrik secara curang ini sejak 2016 dan pemeriksaan lanjut sedang dijalankan," katanya.

Beliau yang mengetuai operasi itu berkata, sekiranya terdapat bukti, tindakan mengikut Seksyen 37 (1), Seksyen 37 (3) dan Seksyen 37 (14) Akta Bekalan Elektrik 1990 boleh dikenakan.

"Hukuman denda sehingga RM1 juta atau penjara sehingga lima tahun untuk kesalahan pertama dan denda RM5 juta atau penjara sehingga 10 tahun



MOHD Elmi (kanan) memeriksa meter di kilang memproses makanan laut yang diserbu.

atau kedua-duanya bagi kesalahan kedua boleh dikenakan," katanya.

Katanya, orang ramai diingatkan tidak melakukan sebarang kegiatan penggunaan elektrik secara curang atau membuat pengusikan kepada pemasangan meter.

"Ini kerana ia bukan saja menyalahi undang-undang, malah boleh mengundang bahaya kepada orang ramai apabila kese-

lamatan elektrik diabai-

kan," katanya.

Katanya, berdasarkan statistik sebanyak 17 serbuan dilakukan ST di seluruh negara dengan sembilan kertas siasatan sudah dibuka untuk pendakwaan.

Katanya, sejak 2015, 54 kes kertas siasatan dibuka dan di Johor saja dua kes kertas siasatan dibuka dalam tempoh ini, selain tambahan satu kes semalam.

Ditanya punca kecenderungan aktiviti pengusikan itu katanya kemungkinan besar syarikat terbabit mahu mengurangkan kos operasi.

Sehubungan itu beliau menasihatkan industri menggunakan konsep cekap tenaga menerusi penggunaan peralatan, motor dan lampu LED yang cekap tenaga dan ia lebih baik daripada mengusik meter utiliti.



**LAMPIRAN 11**  
**HARIAN METRO (SETEMPAT): MUKA SURAT 29**  
**TARIKH: 17 JULAI 2019 (RABU)**

**Kuala Lumpur**

ST belum sedia keluar kenyataan kesalahan TNB

Suruhanjaya Tenaga (ST) belum bersedia mengeluarkan sebarang kenyataan lanjut berhubung denda dan kesalahan syarikat pembekal tenaga elektrik utama negara, Tenaga Nasional Berhad (TNB).

Perkara itu dimaklumkan jurucakap ST ketika diminta mengulas mengenai perkembangan terbaru siasatan terhadap syarikat pembekal tenaga berkenaan.

“Setakat ini tiada sebarang komen dikeluarkan (untuk isu TNB),” katanya ketika dihubungi Harian Metro, semalam.

Pengerusi ST, Datuk Ir Ahmad Fauzi Hasan sebelum ini dilaporkan berkata, pihaknya masih di peringkat akhir siasatan menyenaraikan kesalahan yang dilakukan TNB.

LAMPIRAN 12  
 NEW STRAITS TIMES (NATION): MUKA SURAT 14  
 TARIKH: 17 JULAI 2019 (RABU)

150KG HAWKSBILL

Firemen rescue turtle stuck in rubbish trap

**PORT DICKSON:** Firemen had to be called in to save a turtle weighing 150kg after it had gotten stuck in a rubbish trap near the Tuanku Ja'afar power station here.

The turtle, believed to be a hawksbill (*Eretmochelys imbricata*), was found by staff at the station's drainage section.

State Fire and Rescue Department assistant director (Operations) Ahmad Mukhlis Mokhtar said seven firemen from the Port Dickson station were despatched to the scene after receiving a distress call at 11.45am.

"The team arrived a few min-



*A fireman rescuing the turtle stuck in the rubbish trap in Port Dickson yesterday.* PIC COURTESY OF FIRE AND RESCUE DEPARTMENT

utes later and began the operation to save the turtle. The turtle was unable to move as it was trapped between two of the iron bars in the rubbish trap.

"Several firemen were then

lowered by rope into the water to free the turtle," he said.

Mukhlis said the operation lasted about 30 minutes. He said the turtle was not injured. It was later released into the sea.

## LAMPIRAN 13 BERITA HARIAN (BISNES): MUKA SURAT 25 TARIKH: 17 JULAI 2019 (RABU)

### Inisiatif PETRONAS lestari alam sekitar selari RMK12

**Kuala Lumpur:** Landskap penggunaan tenaga sedunia sentiasa berada dalam peralihan, hasil daripada kemajuan dalam teknologi inovatif, perubahan corak penggunaan serta kebangkitan kesedaran untuk mencapai kelestarian alam.

Perkara ini membuka peluang kepada pemain utama dalam industri untuk mengamalkan penyelesaian dan pendekatan yang cekap sumber untuk menghasilkan nilai serta kelainan.

Peningkatan dalam permintaan tenaga menimbulkan cabaran buat pemain utama dalam industri dan pembuat dasar dalam mengimbangkan 'trilema tenaga' – kelestarian (*sustainability*), kelangsungan (*security*) dan tahap mampu milik (*affordability*).

Presiden PETRONAS dan Ketua Pegawai Eksekutif Kumpulan, Tan Sri Wan Zulkiflee Wan Ariffin, baru-baru ini, berkata walaupun minyak dan gas terus menjadi perniagaan utama syarikat selaras dengan penguasaan minyak serta gas yang berterusan dalam campuran tenaga utama, PETRONAS mengambil langkah untuk meneroka pertumbuhan baharu kawasan di luar minyak dan gas konvensional.

Katanya, berlatarbelakangkan permintaan untuk sumber tenaga lebih mampan PETRONAS sedang menimbangakan pelaburan berdaya maju dalam tenaga boleh diperbaharui, iaitu solar, angin dan

biojisim secara komersial.

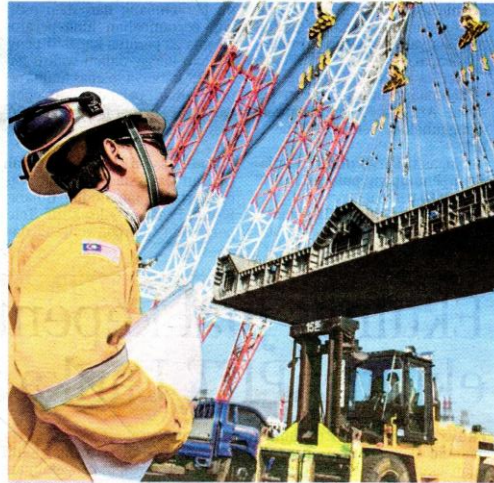
"Usaha baharu ini akan menyokong inisiatif Kerajaan mengurangkan intensiti pelepasan karbon sebanyak 45 peratus per Keluaran Dalam Negeri Kasar (KDNK) per kapita menjelang 2030 dan mencapai status ekonomi karbon rendah.

"Justeru, beberapa langkah strategik diambil oleh PETRONAS bagi mencerminkan komitmen dan membuktikan syarikat minyak serta gas ini terus kekal serta relevan dalam industri tenaga secara global," katanya.

Menerusi usaha itu, PETRONAS memulakan langkah dengan membeli Amplus Energy Solutions, iaitu syarikat dengan portfolio aset tenaga boleh diperbaharui di seluruh Asia yang berpangkalan di Singapura.

Malah, syarikat minyak negara turut bekerjasama dengan UiTM Holdings Sdn Bhd untuk membangunkan projek loji kuasa photovoltaic solar dan solar bumbung berskala besar, selain mencari peluang melabur dalam tenaga angin untuk jangka masa panjang.

Selain itu, perubahan ini perlu supaya lebih mesra persekitaran selaras dengan matlamat Rancangan Malaysia ke-12 (RMK12) untuk menumpukan kepada pemerolehan ekonomi, kemampuhan persekitaran serta penyusunan semula sosial selain mencapai Matlamat Pembangunan Mapan



**PETRONAS mengambil langkah** untuk meneroka kawasan baharu bagi terus relevan dalam industri tenaga global.

Pertubuhan Bangsa-bangsa Bersatu (SDG) 2030.

Menyedari keadaan yang tidak menentu itu akan berlaku, PETRONAS memberikan komitmen yang tinggi dan meletakkan kemampuhan sebagai teras operasi selaras dengan rancangan kerajaan untuk membangunkan industri tenaga boleh diperba-

harui negara.

Bahkan, syarikat minyak negara turut berusaha menjalankan kerjasama dalam industri tenaga boleh diperbaharui dengan syarikat pemula teknologi yang sudah mula berkecimpung menguasai sektor ini.

Sementara itu, dalam ucapan Perdana Menteri, Tun Dr Maha-

thir Mohamad ketika pembukaan di Persidangan Minyak dan Gas Asia (AOGC) 2019, baru-baru ini, menekankan kepentingan inovasi dalam tenaga bersih dan mengalu-alukan usaha PETRONAS menjadi peneraju dalam industri ini selaras dengan pengalaman yang luas dalam sektor tenaga.

Dalam persidangan itu, ramai pakar turut bersetuju bahawa jumlah pelaburan dalam sumber tenaga boleh diperbaharui mungkin mencecah 2.5 kali melebihi paras semasa.

Ini disebabkan oleh pulangan daripada tenaga boleh diperbaharui yang boleh menyamai malah melebihi perbelanjaan cari gali, projek hiliran dan pelaburan pembelian serta perolehan huluan.

Untuk memupuk tenaga yang berkesan peralihan sambil mengimbangkan keutamaan keselamatan tenaga, pertumbuhan ekonomi dan alam sekitar kelestarian, Petronas.

Dalam mengiktiraf keperluan mendesak untuk mengurangkan jejak karbonnya, PETRONAS memberikan sokongan terhadap komitmen Malaysia terhadap Perjanjian Paris dan mempelopori pembangunan kajian kertas putih mengenai "Landskap Tenaga Masa Depan Malaysia 2050" dengan matlamat utama untuk mencapai kemajuan dan sektor tenaga lestari yang menyokong ekonomi serta masyarakat neutral karbon.



## LAMPIRAN 14 BERITA HARIAN (BISNES): MUKA SURAT 26 TARIKH: 17 JULAI 2019 (RABU)

### Lynas capai 'bebas masa kecederaan' setahun

Lynas Malaysia Sdn Bhd semalam mencapai 'bebas masa kecederaan' setahun, hasil daripada komitmen syarikat untuk mencapai standard keselamatan dan kesihatan pekerjaan terbaik, serta kece-merlangan operasi.

Kehilangan masa akibat kece-dera-an adalah kecederaan yang dialami pekerja, sehingga tidak dapat bekerja untuk satu hari, satu shif atau lebih.

Dalam kenyataannya semalam, syarikat perlombongan nadir bumi itu berkata, ia melaksanakan piawaian keselamatan dan kesihatan bertaraf dunia di loji pemprosesan nadir bumi di Gebeng, Kuantan.

Pengarah Urusan dan Naib Presidennya, Datuk Mashal Ahmad, berkata semua kakitangan dan kontraktor syarikat mementingkan aspek keselamatan, mematuhi dasar serta prosedur keselamatan dan kesihatan Lynas.

"Setahun tanpa kehilangan masa kecederaan, bermakna kakitangan kami selamat, pulang ke rumah dan keluarga dalam suasana gembira," katanya.

Lynas Malaysia baru-baru ini dianugerahi pingat emas dalam penilaian terbaru bagi tanggungjawab sosial korporat (CSR) EcoVadis, berdasarkan pencapaiannya dalam penjagaan alam sekitar, pekerja dan hak asasi manusia, etika serta pemerolehan yang lestari.

Ia juga menandatangani Inisiatif Global United Compact, inisiatif kelestarian korporat terbesar di dunia pada awal tahun ini.

Pada September 2018, Lynas Malaysia menerima pengiktirafan Organisasi Antarabangsa bagi Penyelarasan Standard (ISO) daripada Institut Keselamatan dan Kesihatan Pekerjaan Negara (NIOSH), badan pensijilan yang diiktiraf Malaysia untuk OHSAS 1800: 2007 Pengurusan Kesihatan dan Keselamatan Pekerjaan, ISO 9001: 2015 Pengurusan Kualiti dan Sistem Pengurusan Alam Sekitar ISO 14001: 2015.

BERNAMA



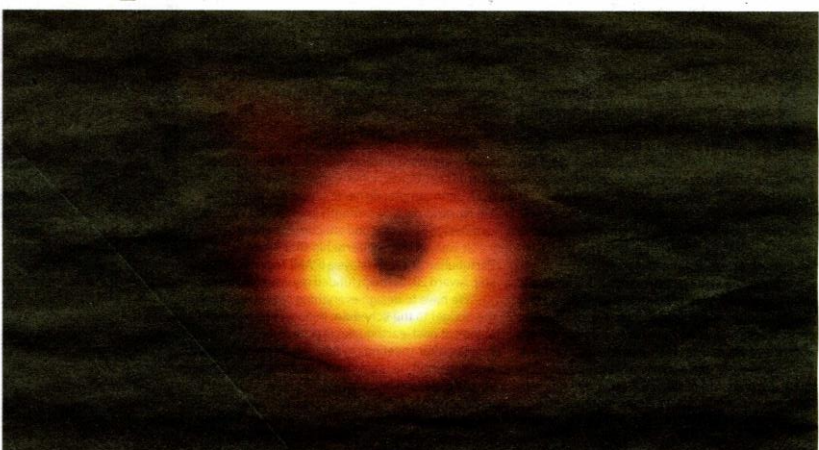
Mashal Ahmad

LAMPIRAN 15  
NEW STRAITS TIMES (HIGHER ED): MUKA SURAT 52  
TARIKH: 17 JULAI 2019 (RABU)



MOHD FIRDAUS RAIH

# Aspiring for inspirational science



A handout photo provided by the European Southern Observatory on April 10, 2019 shows the first photograph of a black hole and its fiery halo, released by Event Horizon Telescope astronomers (EHT). PIC BY EUROPEAN SOUTHERN OBSERVATORY/ AFP

**I**N the world of science and technology, the first half of 2019 has marked a number of milestones and triumphs. In biomedical research, progress being made in gene editing and immuno-therapeutics has not shown any signs of slowing down despite the controversy associated with gene editing. Years of research are now bearing fruit as these technologies begin to find practical applications in treating human diseases, or are being used to further the research capability.

In April, just days apart from each other, we were presented with the first photographic image of a black hole and the first commercial mission for the aerospace company SpaceX using its Falcon Heavy launch vehicles.

Unsurprisingly, the image of the black hole was just that, a black focal point, surrounded by an orange glow - and it was a fuzzy out of focus image at that. So what's the big deal?

In order to better appreciate that achievement, we need to imagine being able to discern a black spot in a black background; add to that the fact that the spot is millions of light years away — a distance that the majority of us, including me, will have difficulty coming to grips with.

The existence of black holes have long been theorised by many famous physicists including Albert Einstein and Stephen Hawking.

The first photographic evidence of a black hole was provided by a team that had been working on the problem for well over a decade. Snapping a picture of a black hole in deep space needs a very large telescope named the Event Horizon telescope (EHT). What the team had done was to use the Earth itself as a giant telescope by placing eight receivers across the world to collect data.

The signals received by the EHT were then computationally processed to render the image presented to the public — quite an ingenious solution to the problem.

The success of SpaceX's first commercial mission using its Falcon Heavy launch vehicle is clearly paving the way for more routine, safer and cheaper space flights.

For those who have never heard of SpaceX, it is a company with the distinction of being the first private enterprise to launch a liquid fuelled rocket into orbit, a capability that used to be only the domain of government space agencies.

Not many may know it, or may have perhaps forgotten that Malaysia and SpaceX has a historical connection.

SpaceX's first ever commercial mission was none other than the Malaysian Earth observation satellite RazakSAT. Although that particular mission did not quite go as planned, the SpaceX rocket's launch went about as well as could be expected when one is launching tonnes of explosive flammable materials off into space.

We can all probably agree that although the black hole photograph was quite a feat, we might be left wondering as to what the point of it all was.

Being able to capture a fuzzy picture of glowing gas being trapped by the intense gravity of a black hole at such an unimaginable distance away does not seem to make our lives any better.

This is where we need to understand that much of the knowledge and technology that we have today were serendipitous outcomes of research.

However, that does not mean that scientists are just aimlessly exploring without direction. It simply means that research directed at understanding something else, may have applications in other areas or that was not its originally intended use.

For example, the microwave ovens found in millions of kitchens was an unintended application that came out of research into radar.

So what about the black hole research? Well, the wireless connectivity that we refer to as WiFi actually came out of research in the field of radio astronomy, the same research area that provided evidence of the black hole's existence.

A few years down the road, that same technology used to image a black hole may find utility in other areas that seems to be totally disconnected such as imaging of diseased cells for cancer diagnosis.

Progress and leadership in science and technology require a pioneering spirit and the courage to venture into the unknown. I am sure there are some, perhaps even many, who may disagree when I say that Malaysia has not had much success in science and technology.

After all, it is an acknowledged fact that Malaysian scientists and academics are among the most prolific at publishing academic papers in the region. But if Malaysian academics are publishing so many scientific research papers, why are we not seeing much success being reported in the world's news headlines?

Let me first clarify that what I term as success are not achievements such as the number of papers being published, the number of patents being filed, awards or medals being won in expos, or even seemingly triumphant news of cures for a particular disease that are reported in our local media. In some cases, there are also claims of innovation that are unrecognised by many others, or even a success that involves a Malaysian expert but working in a foreign institution.

The success that I am referring to will only come about by focusing on high quality research. To focus on research quality, we have to dig deep and be willing to venture into research that will end up in textbooks, or even rewrite the textbooks. This in turn requires commitment not only from the scientists, but also from the funding agencies.

Developing short-term solutions to solve problems is acceptable and necessary. But we must also consider long-term goals and have the courage to explore the unknown that lie beyond the frontiers of existing knowledge.

This is where the funding agencies need to also play an important role in funding research that answer fundamental questions, but may not necessarily have obvious or any foreseeable applications other than to enrich our understanding of the universe around us.

The scientific output must therefore also be valued under such light — such as the impact it has made in the field and the depth it has achieved. The powers that be must also allow for revolutionary means of assessing research impact that is not dictated by currently used indicators only. We should not target numbers that gives us an illusion of progress but in actuality has stalled us as the rest of the world leaps forward.

We should aspire to celebrate science and technology that sparks excitement and that can inspire the next generation of scientists and engineers to continue the progress made by standing on the shoulders of giants.

It is high time that we start the process to nurture these giants in order to ensure our future relevance and survival in a global economy driven by knowledge and constant revolution.

The writer is a bioinformatician and molecular biologist at the Faculty of Science and Technology and a Senior Research Fellow at the Institute of Systems Biology, Universiti Kebangsaan Malaysia. Email him at education@nst.com.my

**Progress and leadership in science and technology requires a pioneering spirit and the courage to venture into the unknown.**

LAMPIRAN 16  
 HARIAN METRO (GLOBAL): MUKA SURAT 34  
 TARIKH: 17 JULAI 2019 (RABU)

## Gempa 6.1 gegar Bali

**Denpasar:** Gempa bumi bawah laut berukuran 6.1 magnitud yang melanda selatan Bali hari ini, dilaporkan menyebabkan kerosakan kecil pada bangunan termasuk hotel dan rumah ibadat.

Gegaran pada jam 7.18 pagi waktu tempatan itu menyebabkan penduduk dan pelancong berlari keluar dari bangunan ke kawasan selamat.

Namun, tiada amaran tsunami dikeluarkan Pusat Amaran Tsunami Pacific mahupun agensi pengawasan gempa bumi Indonesia, EMSC.

Penduduk, Komang Sudiani berkata, dia membawa bayinya keluar dari rumah sebaik merasakan gegaran kuat.

"Jalan penuh dengan orang ramai dan gegaran itu memang kuat," katanya kepada AFP.

Gegaran itu turut dirasakan di kawasan bandar

di pulau Lombok dan Jawa, kata agensi meteorologi dan geofizik Indonesia dalam satu kenyataan.

Gambar diedarkan agensi bencana Indonesia menunjukkan kedai dan rumah ibadat mengalami kerosakan kecil.

Satu lagi gambar memaparkan sebahagian bumbung masjid di Banyuwangi, Jawa Timur runtuh.

Di Bandung, lebih 20 rumah, sekolah, kuil dan pejabat dilaporkan rosak, kata pihak berkuasa Bali.

Sementara itu, Kementerian Pengangkutan dalam satu kenyataan berkata, gempa bumi tidak menjejaskan penerbangan di lapangan terbang Bali.

Pusat gempa terletak 102 kilometer barat daya Denpasar dan pada kedalaman 100 kilometer, kata agensi pengawasan gempa bumi, EMSC.

- Agensi

### FAKTA

Lebih 20 rumah, sekolah, kuil dan pejabat dilaporkan rosak



LAMPIRAN 17  
NEW STRAITS TIMES (WORLD): MUKA SURAT 69  
TARIKH: 17 JULAI 2019 (RABU)

CHANDRAYAAN-2

## 'Fuel leak halted rocket launch'

**SRIHARIKOTA:** A fuel leak in the rocket engine forced India to abort the launch of its moon mission less than one hour before lift-off, news reports said yesterday.

Experts were looking into the causes of the problem that put back the bid to become the fourth nation — after Russia, the United States and China — to land a spacecraft on the moon.

Having halted the countdown 56 minutes and 24 seconds before the launch of *Chandrayaan-2*, or Moon Chariot 2, the Indian Space Research Organisation (Isro) gave no explanation for what it called a "technical snag" in the rocket nor a date for a new attempt.

However, the *Times of India* quoted a senior scientist as saying there was a leak in the GSLV-MkIII rocket's helium fuel component.

"After filling helium, we found the pressure was dropping, indicating there was a leak," the scientist said, adding that it was possible there were "multiple leaks".

"We were lucky that the mission did not enter the automatic launch sequence, or else all would have been lost," the *Hindustan Times* quoted a senior Isro official as saying.

The report said scientists were "racing to plug the leak" in time for a new launch window at the end of this month. **AFP**

LAMPIRAN 18  
NEW STRAITS TIMES (LETTERS): MUKA SURAT 66  
TARIKH: 17 JULAI 2019 (RABU)



The 'Apollo 11' Saturn V rocket lifting off from Kennedy's Launch Complex in Cape Canaveral, Florida, on July 16, 1969. REUTERS PIC

ODE TO SPACE

## Flight of 'Apollo 11'

*1969, twoscore and 10 years since my birth  
A nine-month wait to a family's relieved mirth*

*As Apollo 11 fired to escape Earth's bound  
I wriggled free from my mother's womb round*

*On TV, Saturn V rocket's roaring thrust  
Silenced by the new baby's cry bellowed full blast*

*As I claimed my first breath from this Earthly Realm  
Apollo's trio soared arrow-bright into Heavenly Realm*

*The world watched in awe at this audacious feat  
Bundled unaware, I cradled within my mother's bosom*

*The moon's full glare spellbinds me 50 years now  
Holds me raptured from the moment of my being birthed*

*(I was born on the night Apollo 11 was launched 50 years ago  
in Sibü, a Rejang riverside town in Sarawak. A year before, my  
29-year-old mother had a foetal demise.)*

**JOSEPH TING**

Adjunct professor, School of Public Health and Social Work,  
Queensland University of Technology, Brisbane, Australia

LAMPIRAN 19  
NEW STRAITS TIMES (WORLD): MUKA SURAT 69  
TARIKH: 17 JULAI 2019 (RABU)

People gathering outside a building after an undersea quake struck in Nusa Dua, Bali, yesterday.

REUTERS PIC



## NO CASUALTIES

# Panic as 6.1 magnitude quake jolts Bali

**JAKARTA:** An undersea earthquake with a magnitude of 6.1 struck south Bali yesterday, the European earthquake monitoring agency EMSC said, causing some residents and visitors on the tourist island to briefly rush out of buildings.

There were no reports of damage or casualties from the earthquake, and there was no tsunami warning issued by the Hawaii-based Pacific Tsunami Warning Centre.

The epicentre was 102km southwest of the island's capital,

Denpasar, and was 100km deep, the EMSC said.

The United States Geological Survey recorded the quake with a preliminary magnitude of 5.7.

One resident said people in Denpasar ran out of their boarding house in pyjamas after feeling the quake.

A Twitter user with the handle Indounik in the town of Ubud said the quake was "strong enough to make me adopt the drop, cover & hold approach recommended to survive a quake".

Another Twitter user, Marc van

Voorst, described the quake as feeling like "a heavy truck or train passing by at close range".

He said there was no panic, even though his hotel in the Uluwatu area shook quite a bit.

The quake could also be felt in other cities on the neighbouring islands of Lombok and Java, Indonesia's meteorology and geophysics agency said.

On Sunday, the Maluku islands were hit by a powerful 7.2 quake that killed at least two people and prompted hundreds to flee their homes. **Reuters**

LAMPIRAN 20  
NEW STRAITS TIMES (WORLD): MUKA SURAT 69  
TARIKH: 17 JULAI 2019 (RABU)

50 YEARS AFTER MAN'S LANDING

# NASA TO BUILD RADIO TELESCOPES ON MOON

Programme involves robots and humans working together

**BOULDER (Colorado)**

**A**s the United States races to put humans back on the moon for the first time in nearly 50 years, a National Aeronautics and Space Administration (Nasa)-funded lab here aims to send robots there to deploy telescopes that will look far into our galaxy, remotely operated by orbiting astronauts.

The radio telescopes, to be planted on the far side of the

moon, are among a plethora of projects underway by the US space agency, private companies and other nations that will transform the moonscape in the coming decade.

"This is not your grandfather's Apollo programme that we're looking at," said Jack Burns, director of the Network for Exploration and Space Science at the University of Colorado, which is working on the telescope project.

"This is really a very different kind of programme and, very importantly, it's going to involve machines and humans working together," Burns said in his lab on the campus here.

Some time in the coming decade, Burns' team will send a

rover aboard a lunar lander spacecraft to the far side of the moon. The rover will rumble across the craggy and rough surface — featuring a mountain taller than any on earth — to set up a network of radio telescopes with little help from humans.

Astronauts will be able to control the rover's single robotic arm from an orbital lunar outpost called Gateway, which an international consortium of space agencies is building.

The platform will provide access to and from the moon's surface and serve as a refuelling station for deep space missions.

The goal is to give astronauts control of the rover "in a quicker fashion and more like doing



University of Colorado Boulder Network for Exploration and Space Science director Jack Burns pointing to locations on a lunar globe to fellow researchers at the Fiske Planetarium in Boulder, Colorado, recently. REUTERS PIC

some sort of video game", said Ben Mellinkoff, a graduate student at the university.

The rover, being built at Nasa's Jet Propulsion Laboratory in Pasadena, California, will plant the shoebox-sized telescopes on the moon's regolith — the dust, soil and broken rocks that cover its surface.

Working out of a small lab here, Mellinkoff and two fellow graduate students have built a prototype of the robot named Armstrong (named for the first man on the moon, Neil Armstrong).

It is made from computer parts and powered by two portable cell-phone chargers.

The work here and elsewhere underscores Nasa's plan to build a lasting presence on the moon, unlike the fleeting Apollo missions in the 1960s and 1970s.

Vice-President Mike Pence in March announced an accelerated timeline to put humans on the moon in 2024 "by any means necessary", cutting the agency's previous 2028 goal in half and putting researchers into overdrive in the new space race. **Reuters**

LAMPIRAN 21  
THE STAR (WORLD): MUKA SURAT 29  
TARIKH: 17 JULAI 2019 (RABU)

# Moon mission team reunites

## Apollo astronauts meet at historic launchpad on 50th anniversary

**CAPE CANAVERAL:** Fifty years ago today, three American astronauts set off from Florida for the Moon on a mission that would change the way we see humanity's place in the universe.

The crew's surviving members, Buzz Aldrin and Michael Collins, are set to reunite at the same launchpad today, the start of a week-long series of events commemorating Apollo 11.

Their commander and the first man on the Moon, Neil Armstrong, passed away in 2012.

But Aldrin and Collins, 89 and 88 respectively, will meet at precisely 9.32am US time today (3.42am Malaysian time today) at the Kennedy Space Centre's pad 39A to kick off the festivities.

Their spacecraft took four days to reach the Moon, before its lunar module, known as "Eagle," touched the lunar surface on July 20, 1969. Armstrong emerged a few hours later.

Collins remained in lunar orbit in the command module Columbia, their only means of returning back to Earth.

"They knew, I knew, if they couldn't get off for some reason there was nothing I could do about it," he told reporters in New York in May as part of a series of events. "I had no landing gear on Columbia, I could not go down and rescue them."

Aldrin has remained relatively more elusive but has also taken part in a few events, including a gala dinner last Saturday where the cheapest ticket cost US\$1,000 (RM4,100).

Ageing but active on Twitter, and always seen in stars-and-stripes socks, Aldrin has faced health



**Out of this world:**

Armstrong waving to well wishers on July 16, 1969, from the hallway as he heads out to the transfer van at Cape Canaveral, Florida. He is followed by Collins, Aldrin and Deke Slayton (dark shirt behind Aldrin to the left). — Reuters

scars and family feuds, culminating in a court case over finances, which was settled in March.

Today, he will be the undeniable star of the show, as the second man to have stepped foot on the Moon. Only four of the 12 men who have done so remain alive.

Despite the festivities, neither the US nor any other country has managed to return a human to the Moon since 1972, the year of the final Apollo mission.

President George Bush promised to do so in 1989, as did his son pres-

ident George W. Bush in 2004, while pledging to also march forward to Mars.

But they both ran up against a Congress that wasn't inclined to fund the adventures, with public opinion markedly changed since the height of the Cold War.

For his part, President Donald Trump relaunched the race to re-conquer the Moon and Mars after taking office in 2017. But the immediate effect has been to create turbulence within the space agency.

Last week, Nasa administrator

Jim Bridenstine fired the head of the human space exploration directorate Bill Gerstenmaier, likely over disagreements over the 2024 ultimatum set by Trump to return an American to the Moon.

Five years appears unlikely given that neither the rocket, capsule or lander are yet ready or even finalised.

"We don't have a lot of time to waste, if we're going to have new leadership, it needs to happen now," Bridenstine told CSPAN last week. — AFP



LAMPIRAN 22  
KOSMO! (DUNIA!): MUKA SURAT 43  
TARIKH: 17 JULAI 2019 (RABU)

Lebih 820 juta penduduk dunia terjejas akibat perang, perubahan iklim

# Kebuluran global terus meningkat

## PERTUBUHAN BANGSA-BANGSA BERSATU (PBB), NEW YORK

Lebih 821 juta penduduk dunia menderita akibat kebuluran pada tahun lalu, menurut laporan PBB kelmarin.

Selepas berpuluh-puluh tahun menunjukkan trend penurunan, masalah nutrisi global kembali meningkat pada tahun 2015 akibat perubahan iklim dan peperangan.

Usaha menurunkan kembali perangkaan itu adalah sebahagian daripada Sasaran Pembangunan Mapan PBB menjelang tahun 2030 yang bertujuan menambah baik keadaan Bumi dan kehidupan manusia.

Bagaimanapun, usaha ke arah sifar kebuluran menjelang 2030 masih kekal sebagai 'cabaran besar', menurut laporan sama yang mendedahkan, jumlah pen-



GAMBAR fail bertarikh 21 Oktober 2017 menunjukkan seorang bayi yang menderita akibat kekurangan nutrisi dirawat di sebuah klinik di bandar Hamouria, wilayah Ghouta Timur di luar kota Damasyk, Syria.

duduk kekurangan makanan meningkat daripada 811 juta orang pada tahun 2017.

Laporan berjudul, *Status Keselamatan Makanan dan Nutrisi*

*Dunia* itu dikeluarkan Pertubuhan Pertanian dan Makanan (FAO) dan beberapa agensi PBB lain.

"Kami tidak akan mencapai

sifar kebuluran menjelang 2030. Ini satu *trend* buruk. Tanpa jaminan makanan, kita tidak akan mencapai keamanan dan kestabilan," kata Ketua Program Makanan Sedunia, David Beasley iaitu antara agensi PBB yang menyumbang kepada laporan berkenaan.

Beliau memberi amaran bahawa kumpulan pelampau menggunakan kebuluran dan kawalan ke atas sumber makanan sebagai satu senjata untuk memecah belah komuniti atau merekrut anggota baharu.

"Untuk menjamin keselamatan makanan dan nutrisi, adalah penting untuk mula menyediakan polisi ekonomi dan sosial bagi mengekang kesan buruk kitaran ekonomi jika ia berlaku.

"Pada masa sama, mengelakkan pengurangan perkhidmatan seperti penjagaan kesihatan dan

pendidikan, atas apa jua alasan-nya," jelas laporan itu.

Satu 'transformasi struktur' diperlukan untuk melibatkan golongan paling miskin di seluruh dunia, tambah penyumbang laporan berkenaan.

Masalah nutrisi masih meluas di benua Afrika dengan kira-kira 20 peratus penduduknya terjejas manakala lebih 12 peratus penduduk di Asia berdepan isu sama.

Masalah kebuluran tidak begitu signifikan di Amerika Latin dan Kepulauan Caribbean dengan cuma tujuh peratus penduduknya terjejas.

Lebih dua bilion penduduk dunia berdepan kesukaran mendapatkan jumlah nutrisi yang mencukupi dan makanan selamat, termasuk lapan peratus di Amerika Utara dan Eropah, jelas laporan sama. - AFP

LAMPIRAN 23  
KOSMO! (DUNIA): MUKA SURAT 42  
TARIKH: 17 JULAI 2019 (RABU)

Angka korban meningkat 180, berjuta-juta penduduk rantau itu terjejas

## Banjir di Asia Selatan kritikal

**NEW DELHI** - Hujan monsun menghanyutkan kediaman dan mencecutkan tanah runtuh di seluruh rantau Asia Selatan, mengakibatkan berjuta-juta penduduk terjejas dan 180 orang terkorban setakat ini, kata pihak berkuasa semalam.

Musim hujan monsun sangat penting untuk pengairan dan bekalan air bawah tanah di rantau miskin tersebut yang didiami kira-kira 20 peratus penduduk dunia. Hujan membawa kelegaan selepas musim panas dengan suhu tinggi di rantau itu.

Bagaimanapun, hujan lebat antara bulan Jun dan September itu juga boleh membawa kematian dan sekali lagi mengakibatkan bencana di India, Nepal, Bangladesh dan wilayah Kashmir dikuasai Pakistan.

Sekurang-kurangnya lima kanak-kanak lemas di **Bangladesh** kelmarin, menjadikan angka korban di negara itu meningkat kepada 34 orang termasuk 18 mangsa maut dipanah petir dan tujuh yang lain lemas selepas bot mereka karam di Teluk Benggala.

Beratus-ratus ribu penduduk lagi terputus hubungan akibat banjir di utara Bangladesh dengan paras air sungai utama di Banjaran Himalaya, Sungai Brahmaputra naik melebihi 1 meter sekali gus melepasi paras bahaya, kata pihak berkuasa.

Sementara itu, di **Nepal**, sekurang-kurangnya 67 orang menemui ajal walaupun selepas air banjir mula surut. Ang-



SEKUMPULAN penduduk di India berpindah menggunakan bot selepas kampung mereka ditenggelami air di Jhargaon, daerah Morigaon di Assam, India kelmarin.

gota penyelamat menggunakan bot getah untuk memindahkan penduduk yang terperangkap selepas rumah mereka ditenggelami air.

Di **India** pula, hampir 50 orang dilaporkan terbunuh, manakala dua negeri di sebelah timur, Assam dan Bihar adalah yang paling teruk terjejas.

Pihak berkuasa di negeri Assam, me-

ngumumkan amaran kecemasan kelmarin ketika situasi banjir semakin kritikal dengan sebilangan penduduk kampung terputus hubungan disebabkan arus deras dan sebuah lebuh raya utama tenggelam.

Setakat ini, 11 orang disahkan terbunuh di negeri tersebut dengan kira-kira 83,000 penduduk terpaksa berpindah disebabkan banjir.



PENGGUNA jalan raya dan orang awam di Bangladesh terperangkap dalam kejadian banjir di Dhaka pada Jumaat lalu.

Pihak berkuasa turut bergegas untuk menyelamatkan haiwan terperangkap di Taman Negara Kaziranga yang menjadi habitat dua pertiga daripada keseluruhan spesies badak satu sumbu dunia.

Di negeri **Bihar**, seramai 24 orang dilaporkan terbunuh dengan 2.5 juta penduduk terjejas. Antara yang terkorban termasuk tiga kanak-kanak yang lemas ketika cuba memeriksa paras air banjir di dalam sebuah parit.

Dua lagi kanak-kanak terbunuh ketika sedang bermain berdekatan parit dipenuhi air, lapor agensi berita *Press Trust of India*. - AFP

LAMPIRAN 24  
KOSMO! (DUNIA): MUKA SURAT 42  
TARIKH: 17 JULAI 2019 (RABU)

## Gempa bumi sederhana gegar Pulau Bali



DUA guru berjalan berdekatan sisa runtuh bumbung di sebuah sekolah selepas kejadian gempa bumi di Jimbaran, Pulau Bali di Indonesia semalam. AFP

**DENPASAR, Indonesia** - Gempa bumi bermagnitud 5.7 pada skala Richter melanda pulau percutian Bali di Indonesia semalam, mengakibatkan sejumlah bangunan rosak selain penduduk setempat menjadi panik, menurut Pusat Kajian Geologi Amerika Syarikat (USGS).

Agensi itu melaporkan gegaran pada kedalaman 91 kilometer (km) berlaku pada pukul 7.18 pagi (waktu tempatan). Pusat gempunya terletak kira-kira 82 kilometer barat daya kota Denpasar.

Kesan gempa boleh dirasai penduduk di Banyuwangi, Pulau Jawa dan tiada amaran tsunami dikeluarkan.

"Kami menerima laporan ke-

rosakan seperti bumbung runtuh dan cermin tingkap pecah di beberapa rumah serta pejabat," kata Ketua Agensi Bahagian Gempa Bumi dan Tsunami, Rahmat Triyono dalam satu kenyataan.

Lebih 20 kediaman, sekolah, kuil dan pejabat dilaporkan mengalami kerosakan sederhana disebabkan gegaran, sebahagian besarnya di daerah Badung, dekat hab pelancongan Kuta, menurut pihak berkuasa Bali.

Tiada kematian dilaporkan setakat ini.

Kelmarin, satu gempa sekuat 7.3 pada skala Richter melanda gugusan Kepulauan Maluku di timur Indonesia, mengorbankan tiga nyawa dan merosakkan hampir 1,000 kediaman. - AFP