

KERATAN AKHBAR-AKHBAR TEMPATAN
TARIKH: 9 FEBRUARI 2015 (ISNIN)

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Kerangka Sains Mega 3.0 meliputi aspek kehidupan masyarakat

ASM serah kajian minggu depan

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■ MELAKA 8 FEB.

KAJIAN Kerangka Sains Mega 3.0 oleh Akademi Sains Malaysia (ASM) akan diserahkan kepada Kabinet selewat-lewatnya minggu depan.

Timbalan Menteri Sains, Teknologi dan Inovasi, Datuk Dr. Abu Bakar Mohamad Diah berkata, kajian jangka panjang antara tahun 2015 hingga 2050 itu meliputi infrastruktur, perhubungan, teknologi maklumat dan komunikasi (ICT), elektronik dan automobil.

"Kajian yang dijalankan sejak lima tahun lalu itu akan dibentang-

kan dalam masa terdekat sama ada minggu ini atau minggu depan dan apabila sudah diterima, boleh dijadikan perancangan oleh beberapa kementerian lain termasuk Kementerian Pendidikan dan Kementerian Kesejahteraan Bandar, Perumahan dan Kerajaan Tempatan.

"Kajian ini akan membolehkan rakyat hidup dalam keadaan lebih selesa pada abad akan datang yang mementingkan kemudahan kehidupan serta kesihatan.

"Pada tahun 2050, pemikiran generasi Y sudah tentu hebat dan sains juga seharusnya hebat, sebab

itu kementerian perlu menerajui teknologi untuk pastikan kita tidak ketinggalan," katanya.

Beliau berkata demikian kepada pemberita selepas merasmikan Pesta Ponggal 2015 anjuran MIC Bahagian Tangga Batu di Taman Paya Emas, Cheng di sini hari ini.

Kata Abu Bakar, kesemua perancangan tersebut akan dilaksanakan serta-merta selepas dipersetujui bermula tahun ini.

Katanya, kementerian perlu menyediakan sejumlah dana yang besar bagi membolehkan segala perancangan yang dibuat dapat direalisasikan.



ABU BAKAR
MOHAMAD DIAH

Megascience study to improve lives

READY SOON:

Academy of Sciences report will boost efficiency in several sectors

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A MEGASCIENCE report by the Academy of Sciences Malaysia would be submitted to the cabinet and its findings are expected to be utilised by ministries in their respective projects for the next 35 years.

Deputy Science, Technology and Innovation Minister Datuk Dr Abu

Bakar Mohamad Diah said the research was initiated five years ago and it covered areas of infrastructure, housing, transport, electronics, Information and Communications Technology (ICT), and automobile.

"The megascience report has yielded many interesting findings and I believe the efficiencies of several sectors can be improved through the use of better technology," he said at the launch of a Ponggal celebration in the Malacca Historical City Council (MBMB) community hall in Taman Paya Emas here yesterday.

Present was Paya Rumpit assemblyman Sazali Md Din.

Abu Bakar said the megascience report would be submitted to the cabinet within this week or the following, and once it was accepted, the ministries could refer to it to sustain their respective sectors.



Deputy Science, Technology and Innovation Minister **Datuk Dr Abu Bakar Mohamad Diah** says the megascience report has interesting findings

"One of the research subjects was for the Urban Wellbeing, Housing and Local Government Ministry, which studied the concept of 'Smart Home' using the IBS (Intelligent Building Solutions) technology."

He also said the megascience project was part of the ministry's long-term plan until 2050 to encourage the application of modern technologies to elevate the status of the country into a developed nation.

"Science is advancing every day and application of these technologies is vital to constantly improve existing systems and to resolve daily problems for the convenience of the people," he said.

KERATAN AKHBAR
BERITA HARIAN (NASIONAL) : MUKA SURAT 14
TARIKH: 9 FEBRUARI 2015 (ISNIN)



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Bangi

Kenaikan suhu purata dunia sebanyak 0.87 darjah Celsius pada masa ini berbanding 100 tahun lalu menyebabkan fenomena seperti El Nino, La Nina dan Ayunan Madden-Julian (MJO) akan meningkat kekuatan dan keragamannya.

"Berikutan itu, banjir terburuk yang berlaku pada Disember lalu dijangka berlaku dengan lebih kerap," kata Koordinator Kajian Pengencilan Iklim Serantau Terselaras (CORDEX) Asia Tenggara, Prof Dr Fredolin Tangang (gambar).

Beliau berkata, laporan Sintesis ke-5 Panel Antara Kerajaan mengenai Perubahan Iklim (IPCC) pada November 2014, mengesahkan kebarangkalian fenomena ekstrem dan kejadian iklim telah dikaitkan dengan perubahan iklim.

"Setiap satu darjah (Celsius) peningkatan suhu dunia akan meningkatkan tujuh peratus kelembapan di atmosfera dan ini akan meningkatkan kekerapan episod ekstrem cuaca

dan berkemungkinan lebih buruk daripada yang pernah kita alami tahun lalu," katanya.

MJO penyebab utama

Beliau berkata jika dilihat data cerapan taburan hujan yang berlaku di Johor hanya 29 milimeter (mm) setiap sejam, namun apa yang berlaku di Kelantan pada 21 sehingga 24 Disember lalu menunjukkan peningkatan taburan hujan kepada 35mm sejam disebabkan fenomena yang sama.

Sebelum ini, Fredolin pernah menjalankan kajian mengenai banjir pada tahun 2006/2007 dan turut mengaitkan fenomena MJO sebagai penyebab utama kepada hujan ekstrem ketika itu, sebelum dihantar ke Kementerian Sains, Teknologi dan Inovasi bagi tujuan rujukan umum. Keragaman iklim semula jadi MJO menyebabkan taburan hujan yang luar biasa iaitu melebihi 1,000 milimeter antara 21 hingga 24 Disember tahun lalu, menyamai purata jumlah hujan bagi sepanjang musim tengkujuh yang biasa.

"Pada 21 hingga 24 Disember lalu, pusat perolakan MJO dicatatkan berada di bahagian timur Lautan Hindi berhampiran Sumatera.

Setiap satu darjah (Celsius) peningkatan suhu dunia akan meningkatkan tujuh peratus kelembapan di atmosfera dan ini akan meningkatkan kekerapan episod ekstrem cuaca dan berkemungkinan lebih buruk daripada yang pernah kita alami tahun lalu"

Fredolin Tangang,
 Koordinator Kajian Pengencilan Iklim Serantau Terselaras (CORDEX) Asia Tenggara

"Keadaan ini menyebabkan tiupan angin timuran kuat dari Lautan Pasifik ke Laut China Selatan yang membawa lembapan dan seterusnya tertumpu di Pantai Timur, mengakibatkan hujan lebat dalam tempoh berkenaan," katanya.

Baru-baru ini, media melaporkan mengenai fenomena MJO yang men-

jadi antara faktor hujan lebat luar biasa di Malaysia.

MJO ialah elemen dalam keragaman iklim tropika yang berlaku sekali antara 20 hingga 60 hari, berbanding fenomena El Nino antara tiga hingga tujuh tahun sekali.

Ini adalah fenomena keragaman iklim berskala besar yang berlaku akibat perubahan suhu di Lautan Hindi yang boleh mempengaruhi kelembapan atmosfera.

"Ini bermakna pada masa akan datang kekerapan hujan ekstrem dan kemarau akibat fenomena ini di Malaysia akan meningkat," katanya.

Banjir besar yang melanda Semenanjung baru-baru ini terutama di Kelantan, Pahang dan Terengganu menyaksikan jumlah mangsa terbit 536,673 orang daripada 135,175 keluarga di seluruh negara.

Fredolin yang juga pakar Klimatologi dan Oseanografi berkata, fenomena MJO boleh dilihat menerusi sistem perolakan berskala besar yang terbentuk akibat interaksi lautan dan atmosfera di Lautan Hindi.

Katanya, fenomena itu bergerak dari Lautan Hindi merentasi Lautan Pasifik seterusnya mempengaruhi corak taburan hujan di Malaysia dan Indonesia.



INFO

Perambatan gelombang MJO



SAMBUNGAN... BERITA HARIAN (NASIONAL) : MUKA SURAT 15 TARIKH: 9 FEBRUARI 2015 (ISNIN)



Building wealth for the future

LONG TERM: Invest in R&D as the instrument to power new economic growth areas for the nation



DR AHMAD
IBRAHIM

WE now live in challenging times. As a nation, we are slowly recovering from a natural disaster which has been classified as among, if not, the worst in recorded history.

Kelantan was the worst affected by the massive floods. Many literally lost everything they had built up all these years. Some have lost their entire homes, swept away by the raging floodwaters which many have described as no different from the tsunamis which terrorised Aceh and Fukushima a few years ago. The government has pledged money to help. No doubt a big dent on the country's coffers.

As if that is not enough, the big drop in global oil prices has rubbed more salt into the wound. It upsets the 2015 Budget's earlier equation. Since income from petroleum is among the nation's major sources of revenue, the government has done the right thing by revising the budget to reflect current realities. Add to those, the weakening of the ringgit, 2015 will no doubt prove to be another trying year for the country.

We should take comfort in the fact that the nation's fundamentals are still strong enough to effectively counter the challenges coming from external forces. They are not of our own doing. The nation is, however, fortunate that our leaders are proactively taking the right steps to cushion the potential damage that such disturbances could inflict on the country's economy.

One encouraging step taken in the revised budget is not to touch development spending. This is wise. Allocation for research and development (R&D) spending for example should not be sacrificed.



Scientists are excited about the positive prospects of NSTIP3. Many agree if implemented well, it has all the right ingredients to power the next phase of the country's research and development commercialisation.
Reuters pic

This is because the investment in R&D is about building wealth for the future.

The fact that we are beginning to realise more and more the need to diversify our revenue portfolio makes it even more relevant to keep investing in R&D as the instrument to power new economic growth areas for the nation. The country's scientists appreciate the move to retain the earlier budgeted amount for R&D this year. Hopefully, the average oil price for the year will not go below US\$50 (RM177) per barrel.

That decision augurs well for science and innovation in the country considering the fact that the National Science, Technology and Innovation Policy 3 (NSTIP3) has just been endorsed by the government.

Scientists are excited about the positive prospects of NSTIP3. Many agree if implemented well, it has all the right ingredients to power the next phase of the country's R&D commercialisation.

Undoubtedly, creating wealth from R&D investment is the main thrust of the policy. NSTIP3 was formulated guided by the country's New Economic Model of high income with inclusiveness and sustainability. The other five supporting pillars of governance, talent, industry, enculturation and international linkages provide the right ecosystem for R&D commercialisation to flourish and prosper.

Admittedly, the policy requires close monitoring to take into account changing circumstances as we approach the end game. The end game is when a high percentage of our R&D investments are

translated into commercial wealth creating businesses. And this can only be sustained if we have enough talents, industry is suitably energised to also invest in R&D, society is richly encultured with innovation, international partnership is strong and of course, the prevalence of good governance.

The Academy of Sciences Malaysia recently took the initiative to design a monitoring mechanism for the new science policy. The academy's soon-to-be-released Science Outlook Report will document the key findings of the monitoring exercise, highlighting the gaps and recommending the necessary remedial measures to improve the outlook for science.

There is no doubt that NSTIP3 should prove to be a powerful instrument to demonstrate that indeed investment in R&D is very worthwhile for the country. With the increased commercialisation of the nation's applied R&D projects, the agenda of expanding the country's economic portfolio would be realised.

And with diversified income sources, the country would easily weather any future global challenges which may threaten to disrupt the nation's economic well-being. But as articulated in NSTIP3, success in R&D commercialisation can only come from a strong supporting ecosystem of talent, industry, culture, international linkage and most important of all, governance. What remains now is to effectively implement the desires of NSTIP3.

Dr Ahmad Ibrahim is a fellow of the Academy of Sciences Malaysia