

KERATAN AKHBAR

TARIKH : 21 OKTOBER 2022
AKHBAR : NEW STRAITS TIME
MUKA SURAT : 12

Economic benefits of rare earth

NATURAL RESOURCES

ECONOMIC BENEFITS OF RARE EARTH

DESPITE the scientific evidence that confirms that rare earths are safe when properly handled, opponents have appeared again as Perak and Kedah venture into capitalising on rare earth deposits.

Inaccurate pronouncements on rare earth without due recourse to experts may deny such states the opportunity to inject new vigour into their economy.

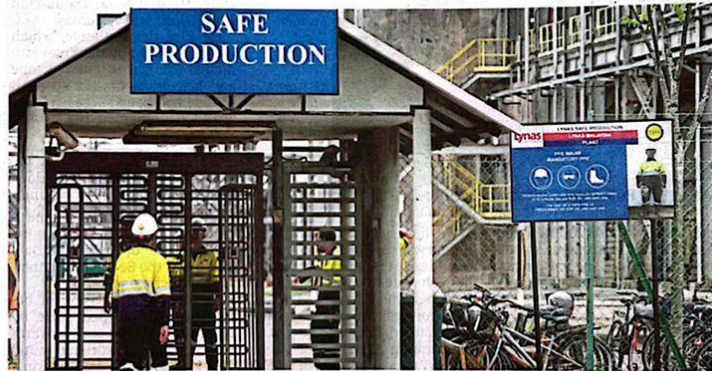
It is time for people in authority, including radiation experts from the academia and the Malaysia Nuclear Agency, to come forward to put a stop once and for all to the ridiculing.

A recent conversation with a rare earth expert provided some clear information about this unique metal. Rare earths are 17 chemical elements which tend to occur in the same ore deposits.

Their complex atomic structures provide each of them very specific optical, magnetic, electrical and chemical properties. Once separated, purified and, in some cases, combined, rare earths are essential materials for a variety of applications.

Examples include high-power energy-efficient electric motors, semiconductor manufacturing medical scanners and to support the global push for green technology.

A popular application which is fast growing is the manufacture of



Lynas is critical to Malaysia, as much as it is critical to all downstream projects worldwide. FILE PIC

permanent magnets made of rare earth elements neodymium and praseodymium, which allow electric motors to achieve 15 to 30 per cent reduced energy consumption. This allows electric cars to have smaller batteries, a major cost component.

As cars go electric, the demand for high-power electrical motors will increase. Demand for rare earth metals dysprosium and terbium that can improve magnet temperature resistance will grow.

The other fast growing segment is the use of rare earth in the new

generation semiconductors.

As evident from the trade scuffle between the United States and China, semiconductor chips will continue to be a much sought-after material. So are energy-efficient motors relying on rare earth-based permanent magnets.

The energy-efficient motors market did not go into recession during the Covid-19 period. It grew by 16 per cent in 2021 and 20 per cent in 2022.

It is expected to deliver around 10 per cent growth in the coming decade, as the world continues to seek improvement in energy effi-

ciency to reduce CO2 emissions.

Malaysia stands to gain from such business development if we play our cards right.

So far, others are benefiting from the rare earths that are available at our doorstep. Vietnam has developed the third biggest magnet manufacturing base in the world, behind China and Japan, using all the rare earths produced by Lynas.

It is estimated that the metal and magnet manufacturing sector in Vietnam generates about 5,000 jobs.

If we leverage our unique posi-

tion as a country with a local supply of rare earth, Malaysia can develop a 10,000 tonne super magnet factory that could create up to 3,000 jobs for an investment of RM1 billion. (The tonnage is 10 per cent of the growth expected from 2020 to 2030.)

In fact, Lynas is critical to Malaysia, as much as it is critical to all downstream projects worldwide. So far, we have yet to capitalise on this huge potential.

Instead of ridiculing the states that are venturing into mining their rare earth deposits, we should be guiding them on how to make the mining sustainable and responsible. With the latest technology, this is not impossible.

Many countries have embraced responsible mining techniques which do not harm the environment, including Indonesia and the Philippines.

Instead of just mining and selling the refined rare earth metals, encourage the states to attract investments, foreign and local, in the downstream products, such as permanent magnets and energy-efficient motors.

Be sensible and factual when talking about rare earth. Otherwise, we may live to regret it.

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