



**S. RAJARATNAM SCHOOL  
OF INTERNATIONAL STUDIES**  
A Graduate School of Nanyang Technological University

# RSIS COMMENTARIES

RSIS Commentaries are intended to provide timely and, where appropriate, policy relevant background and analysis of contemporary developments. The views of the authors are their own and do not represent the official position of the S.Rajaratnam School of International Studies, NTU. These commentaries may be reproduced electronically or in print with prior permission from RSIS. Due recognition must be given to the author or authors and RSIS. Please email: [RSISPublication@ntu.edu.sg](mailto:RSISPublication@ntu.edu.sg) or call (+65) 6790 6982 to speak to the Editor RSIS Commentaries, Yang Razali Kassim.

No. 010/2014 dated 16 January 2014

## Malaysia's Trans Peninsular Pipeline Project: Will it Take Off?

By Mohd Hazmi Mohd Rusli and Rahmat Mohamad

### Synopsis

*While Thailand's Isthmus of Kra Canal project has been long planned but not taking off, Malaysia has been quietly thinking of its own trans peninsular pipeline that will cut across Kedah and Kelantan. Will this project succeed, or face the same fate as the Kra Canal?*

### Commentary

MALAYSIA'S TRANS Peninsular Pipeline Project (TPP) between Kedah on the west coast and Kelantan on the east seems to have been revived. First proposed in 1994, the project had experienced some difficulties in the initial years and came to a halt in 2010. If realised, the 310-km pipeline will move oil from the coastal city of Yan in Kedah to Bachok in Kelantan and out to the South China Sea.

The New Straits Times reported that during the Fifth World Chinese Economic Forum held in Kuala Lumpur in October 2013, China had shown interest to revive the privately-funded TPP, estimated to cost more than US\$7 billion. Chinese President Xi Jinping has yet to confirm how this is to be carried out.

### How the pipeline will work

To revive the TPP, the Kedah state government planned to restart the Sungai Limau Hydrocarbon Hub Project in Yan that was suspended in 2010. Estimated to cost US\$15.6 billion, this project is still at the planning stage. Will this new interest from China succeed in turning the pipeline into reality?

The main driving force of this project is the rapid growth in demand for crude oil in East Asia, which is expected to double from its current level by the year 2020. The Malaysian federal government has planned to tap into this growing demand by building pipelines across the peninsula, cutting through the Titiwangsa Range.

Vessels from the Middle East will be able to unload their oil cargoes at Yan where they will be refined and subsequently transported through the Malaysian hinterland to the other side of the peninsular. At the Bachok station in Kelantan, the refined oil will be loaded onto another vessel waiting for shipment to buyers in East Asia.

This pipeline would eventually ease the congestion in the Straits of Malacca and Singapore and the burden of accommodating increasing shipping traffic. Annually, oil tankers and very large crude carriers (VLCC) comprise

26% of the total shipping transits in the Straits of Malacca and Singapore. Commodities like crude oil that could pose a threat to the sensitive marine environment of the waterways will also no longer be ferried in a large amount via the Straits. Further, shipments via TPP will reduce the time to transport oil compared to the normal voyage of a vessel through the Strait of Malacca.

Once fully operational, this project is expected to save up to three days of transit time and is anticipated to reduce the cost of shipments of crude oil by US\$1.50 per barrel. Ships may also be less exposed to the risk of piracy in the waterway, while shipping traffic in the Straits of Malacca and Singapore will be reduced by 25%.

Transportation of oil via pipelines is not unusual in the petroleum industry. The concept of the TPP is similar to the SUMED Pipeline in Egypt that transports oil from the Gulf of Suez to the Mediterranean Sea. The SUMED pipeline allows shipping companies to save time and costs. To reduce dependence on the Hormuz Strait, oil pipelines have also been built to transport oil in the Persian Gulf.

### **Challenges facing TPP**

Although the TPP is generally viewed as a viable option, analysts point out that coastal waters are generally shallow near Peninsula Malaysia, making it difficult for large tankers to dock. Even worse, monsoon rains degrade the sea conditions along the Kelantan coast where Bachok is located.

Secondly, unlike the terrain in the Middle East which mostly consists of desert low lands, the northern parts of Peninsular Malaysia where the pipelines would cross are covered with thick jungles in the midst of highlands. Therefore, the construction of the pipeline would be more complicated. Oil would have to be pumped up the 2,000 m-high Titiwangsa Mountains, using a part of the transported oil to supply the necessary power for pumping.

Thirdly, the TPP project could result in adverse environmental impacts should there be a leakage of oil in any parts of the line. This would then affect Malaysian groundwater and worse still, a fire could take place along the length of the pipe, should such leakages occur. Fourthly, the TPP could also directly and indirectly pose a threat to the security of the country should there be a sabotage or terrorist attacks on any part of the pipelines.

The TPP project may face a number of challenges. With the ongoing fluctuations in global oil prices, it would possibly be difficult to attract investors, namely promoters of the project, the shippers and oil companies to make investments on the project.

While the TPP could reduce the volume of shipping traffic in the Straits of Malacca and Singapore, there are still a number of reasons to show that there is actually no need to bypass the Straits. Firstly, in the event of a blockade of the Straits of Malacca and Singapore due to accidents involving tankers or any other reasons, the Sunda and Lombok-Makassar Straits routes would be available as alternative, albeit more expensive routes.

Secondly, although traffic congestion in the Straits of Malacca and Singapore is building up, the existence of state-of-the-art navigational safety facilities along the Straits would ensure the safe passage of vessels plying the waterways. Thirdly, recent records have shown that piracy activities have dropped significantly in the Straits of Malacca and Singapore. Therefore, there is no need to transport oil via the pipeline to avoid pirate attacks in the first place.

### **Pros and cons needed to be weighed**

It is not entirely clear whether or not oil shipment using the TPP would be cheaper than going through the Straits of Malacca and Singapore. Some commentators argue that voyage time and shipping costs could be shaved if oil companies opt to use the TPP once it is ready. Nevertheless, it should be borne in mind that plying through the Straits of Malacca and Singapore would not incur any transit fee upon mariners while shipment fees will be imposed should they choose to use the TPP.

Until the cost-benefit of using the TPP is thoroughly evaluated, the economic justification to bypass the Straits of Malacca and Singapore to ship oil via the TPP would always be in question. The TPP project has experienced many challenges and difficulties owing to the recent global economic downturn and the instability of global oil price.

Although China has recently shown interest to invest in such a project, this mega undertaking has its pros and cons that should be considered carefully by the Malaysian government and the shipping industry.

*Mohd Hazmi Mohd Rusli is a senior lecturer at Universiti Sains Islam Malaysia and an associate fellow at the*

*Institute of Oceanography and Environment, University Malaysia Terengganu. Rahmat Mohamad is a Professor of international law at the Faculty of Law, Universiti Teknologi Mara and secretary-general of the New Delhi-based Asian African Legal Consultative Organisation. They contributed this article specially to RSIS Commentaries.*