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Maritime Highways of Southeast Asia: Alternative Straits?

By Mohd Hazmi bin Mohd Rusli

Synopsis

Growing shipping traffic congestion in the Straits of Malacca and Singapore has led to a search for alternative shipping routes. While the Indonesian archipelagic waters have been identified, how viable are these alternative waterways?

Commentary

A PROJECTED increase of shipping traffic in the next decade has sparked concerns about traffic congestion in the Straits of Malacca and Singapore. Alternative shipping routes through the Indonesian archipelagic waters have been identified, three in particular being the Sunda Strait, the Lombok and Makassar Straits and the Ombai-Weitar Straits near the island of Timor. While these routes have their advantages, their viability remains moot.

As the largest archipelagic state in the world, Indonesia has many islands separated by interconnecting waterways. These straits are part of Indonesia's archipelagic waters and have been designated by Indonesia as archipelagic sea lanes. Vessels may sail through these interconnecting waters under the international regime of Archipelagic Sea Lanes Passage.

Sunda Strait

Currently, the Sunda Strait remains an important waterway for ships travelling by the Cape route to East Asia, as well as for vessels sailing from Australian ports to Southeast or East Asian destinations. The Sunda Strait is quite deep at its western entrance but the depth decreases towards its eastern exit with irregular bottom topography. Unlike the Straits of Malacca and Singapore which is about 1.3 nautical miles at its narrowest point at the Philips Channel, the Sunda Strait is much broader; about 13 nautical miles wide at its narrowest.

However the Sunda Strait is less convenient than the Straits of Malacca and Singapore as it contains many navigational hazards including strong tidal flows; sandbank formations along the waterway; a live volcano; poor visibility during squalls; and the existence of numerous oil drilling platforms and small islands and reefs which may disrupt safe navigation.

Yearly, about 2, 280 ships transit the Sunda Strait carrying in total some 100 million tonnes of cargo valued at US\$5 billion. The ships have to travel from the Indian Ocean through the Java Sea which is linked to the South China Sea. A plan to build a bridge across the Sunda Strait to connect Java and Sumatra is under study.

A pre-feasibility study conducted by a construction firm found that the 29-kilometre bridge would cost up to Rp 100 trillion which translates to US\$10.8 billion. If this project does take place, it will, directly or indirectly, affect the passage of maritime traffic in the already navigationally difficult Sunda Strait.

Lombok and Makassar Straits

The other alternatives to the Straits of Malacca and Singapore are the Lombok and Makassar Straits. The Lombok Strait is wider and deeper than the Straits of Malacca and Singapore. As its depths are greater than 150 metres, it is not draught-limited, and its minimum width is 11.5 miles. It is therefore used by the largest ships of over 100,000 deadweight tonnage (DWT). Tankers of over 230,000 DWT have to use the deeper Lombok-Makassar route because of the under keel clearance limitation of 3.5 metres and the 23-metre depth of the Straits of Malacca and Singapore.

The Lombok Strait provides a shipping route connecting the Indian Ocean to the Makassar Strait and East Asia via the Sulawesi Sea. The Makassar Strait stretches about 400 nautical miles from its northern gateway to its southern access. While little east-west traffic transits Lombok-Makassar, it is still an important route for Australian north-south shipping. Yearly, 420 ships ply the Lombok and Makassar passageway carrying a total of 36 million tonnes of cargo worth US\$40 billion.

Even though the Lombok-Makassar route is much safer as it is relatively wide and deep and does not pose significant navigational hazards, it is not as navigationally convenient as the Straits of Malacca and Singapore. This is because passage along this route consumes more time: a typical voyage from an Arabian Gulf port, Rastanurah, to Yokohama, Japan is about 6,600 nautical miles via the Malacca-Singapore route. However the journey by the Lombok-Makassar route would add another 7,500 nautical miles. The route through the Lombok-Makassar Straits would incur an additional shipping cost of between US\$84 billion and US\$250 billion per year. As a result, compared to the Straits of Malacca and Singapore route, both the Sunda and Lombok-Makassar passageways are little used by international traffic.

Ombai-Weitar Straits

The Ombai-Wetar Straits route near Timor is another alternative shipping route situated within Indonesian archipelagic waters. The route is used generally by local shipping including vessels proceeding between Australia and the Java Sea. The Ombai Strait is located between the islands of Alor and Timor, and its counterpart, the Wetar Strait, is located between the northern coast of Timor and the southern coast of Wetar. Ombai-Wetar is not really a preferred alternative to the Straits of Malacca and Singapore as this route is longer in distance for West to East traffic.

Nevertheless the extremely deep channels of the Ombai-Wetar Straits provide an undetected access route for submarines between the Pacific Ocean and the Indian Ocean, making them collectively, an important waterway for American defence interests.

More complementary than alternative?

Given the geographical inconvenience of the passageways through the Indonesian archipelagic waters, it is reasonable to conclude that these routes through the Indonesian archipelago, though vital for international shipping, are more complementary than alternative routes to the primary maritime highway of the Straits of Malacca and Singapore.

Still, these archipelagic straits play a critical role in the flow of the world's shipping. Any disruption of shipping traffic through these straits in the Indonesian archipelagic waters would compromise the well-being of seaborne global trade and the world economy, particularly the Asia-Pacific region.

Mohd Hazmi bin Mohd Rusli, who completed his PhD at the Australian National Centre for Ocean Resources and Security (ANCORS), University of Wollongong, is a lecturer at Universiti Sains Islam Malaysia. He contributed this article especially to RSIS Commentaries.