

Evers, Hans-Dieter; Gerke, Solvay

Working Paper

The strategic importance of the Straits of Malacca for world trade and regional development

ZEF Working Paper Series, No. 17

Provided in Cooperation with:

Zentrum für Entwicklungsforschung / Center for Development Research (ZEF), University of Bonn

Suggested Citation: Evers, Hans-Dieter; Gerke, Solvay (2006) : The strategic importance of the Straits of Malacca for world trade and regional development, ZEF Working Paper Series, No. 17, University of Bonn, Center for Development Research (ZEF), Bonn, <https://nbn-resolving.de/urn:nbn:de:0202-20080911173>

This Version is available at:

<https://hdl.handle.net/10419/88407>

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ZEF

Bonn 2006

Working
Paper
Series

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Center for Development
Research

Department of
Political and
Cultural Change

Research Group
Culture, Knowledge and Development


universität**bonn**



Zentrum für Entwicklungsforschung
Center for Development Research

ISSN 1864-6638

ZEF Working Paper Series, ISSN 1864-6638
Department of Political and Cultural Change
Center for Development Research, University of Bonn
Editors: H.-D. Evers, Solvay Gerke, Peter Mollinga, Conrad Schetter

Authors' address

Prof. Dr. Hans-Dieter Evers, Senior Fellow
Center for Development Research (ZEF), University of Bonn
Walter-Flex-Str. 3, 53113 Bonn, Germany
Tel. 0228-734909; Fax 0228-731972
e-mail: hdevers@uni-bonn.de, internet: www.uni-bonn.de/~hevers/

Prof. Dr. Solvay Gerke, Director
Center for Development Research (ZEF), University of Bonn
Walter-Flex-Str. 3, 53113 Bonn, Germany
Tel. 0228-731970; Fax 0228-731972
e-mail: solvay.gerke@uni-bonn.de

The Strategic Importance of the Straits of Malacca for World Trade and Regional Development

Hans-Dieter Evers and Solvay Gerke¹
Center for Development Research (ZEF) University of Bonn

1. Introduction: Choke Point of World Trade

World trade, including especially a big part of the world's energy resources, has to pass certain "choke points" between areas of production and their final destination. One of these "choke points" is the Straits of Malacca, the sea passage connecting the China Sea with the Indian Ocean. As the Strait is only 1.5 nautical miles (2.8 km) wide at its narrowest point, the Phillips Channel in the Singapore Strait, it forms some of the world's significant traffic bottlenecks. The way through the Straits is the shortest sea rout from the Horn of Africa and the Persian Gulf to East Asia and the Pacific Ocean. But the Malacca Straits are not just a conduit for sea traffic from East to West or West to East. Cross-Straits communication is increasing, integrating the provinces and countries on either side of the Straits. Cross-boundary social networks are ethnically diverse but closely integrated. Thus the Straits' cultural and bio-diversity bear great opportunities for the economic and social development of the littoral states of Indonesia, Singapore, Malaysia and Thailand. Peace and stability in the region are a precondition for regional development, uninterrupted energy supplies and international trade between the European Union and East Asia.

The Malacca Straits historically played a major role in the formation of the littoral states such as Srivijaya, Aceh, Melaka, Johore, the Straits Settlements and more recently Malaysia, Indonesia and Singapore. The Straits are not only rich in marine resources but are one of the oldest and busiest shipping lanes in the world. They serve as a primary conduit for the movement of cargo and human traffics between the Indo-European region and the rest of Asia and Australia. They are the shortest East-West sea route compared to the Indonesia's Macassar and Lombok Straits. Every year billions of Euro worth of goods and services pass through the region formed by the Straits of Malacca and other associated shipping routes. By using the Malacca Straits, the Japanese petroleum Industry saves millions of Euro annually².

The Malacca Straits are one of the world's most vulnerable areas because of their high potential for political conflict and ecological disaster. The areas bordering the Straits are of high bio-diversity and ecologically fragile. They belong to one of the world's hotspots of bio-diversity, the so called "Sunda hotspot". Its Bio-diversity is threatened by logging in the remaining rain forests of Sumatra and Peninsular Malaysia and ecological vulnerability is being increased for example by the reduction of coastal mangrove forests and the danger of oil pollution. Ecological, social, political and economic processes in the Straits are intimately interwoven and cannot be separated.

¹ The contributions by Sarah Meinert, Tessa Vorbohle, Oliver Pye, Franz Gatzweiler, Verena Christmann, Anna-K. Hornidge and other members of the ZEF Project Group "Governance of Diversity" are gratefully acknowledged.

² See <http://www.fsas.upm.edu.my/~masdec/web/straits.html> for updated information.

2. Historical Legacy

The Straits of Malacca have been the main connecting link between Europe, the Middle East and South Asia on one side and Southeast and East Asia on the other. A constant stream of merchandise and knowledge has flown through the passage from East to West and West to East. Before the islands and peninsulas bordering the Straits were carved up by colonial powers from the 16th century onwards, the Straits linked Sumatra, the Riau Islands and the Thai-Malay Peninsula into one cultural area with many cross-cutting ethnic ties, trans-straits kingdoms, networks of trade and religion. These links were somewhat reduced but by no means cut by colonial and post-colonial governance, rivalries and systems of domination.

In the early phases of the newly independent littoral states of Indonesia, Singapore and Malaysia cross Straits connections declined but started to develop more forcefully with economic growth and development in the 1980s. At the same time the Straits of Malacca maintained and increased its position as the world's most important shipping lane – more important than the Panama Canal or the Straits of Gibraltar. Estimates differ, but as of now more than 50,000 vessels per year and more than one third of the tonnage of world shipping passes through the roughly 1000 km of the Straits of Malacca each year. Sea traffic is regulated but sovereignty is strictly guarded by the littoral states and contested by hegemonic powers like the United States and increasingly also China and India.

Map 1
The Straits of Malacca, 17th century



The two most important early empires were the realm of Srivijaya and the Sultanates of Aceh and of Malacca, but there were other states throughout history that gained power through trade flowing through the Straits in one way or another. Pasai and later Aceh, Indragiri and Singapora, Johore and Kedah are examples of state formation using the Straits as their lifeline and passage to prosperity. The Southern parts of Burma and Thailand were also at times connected to the Straits.

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3. World Trade through the Straits of Malacca

3.1. Port Cities at the Straits

There are five major international ports, namely Singapore, Port Klang (Kuala Lumpur), Johore, Penang and Belawan (Medan). In addition there are many smaller ports and ferry terminals of local significance. While Singapore and to a lesser extent the other major ports are important hubs of world shipping, the minor ports support local trade and labour migration.

*Table 1
Tonnage going through major ports in the Straits of Malacca*

	Port of Singapore		Port Klang		Johore Port		Penang Port		Port of Belawan	
	Cargo in '000 Tonnes	Container (in TEU*)	Tonnage ('000 FWT**)	Container (in TEU*)	Tonnage ('000 FWT**)	Container (in TEU*)	Tonnage ('000 FWT**)	Container (in TEU*)	Tonnage in '000 Tonnes	Container (in TEU*)
1999	325,902.2	15944800					18760	566409		
2000	324,591.1	17086900	65277	3206753		659181	20470	63578	10529	
2001	313,487.0	15571100	70149	3759512	25718	638718	20450	604294	11406	
2002	335,155.9	16940900	82271	4533212	25925	683816	21800	634042	12408	
2003	393,267.6	18410500	88888	4841235	26764	750466			12744	
2004	393,267.6	21329100	99911	5243593	28280	805689			13818	
2005	423,267.6	23192200			28092	836754			14494	
2006 (Jan. - Aug.)	295,259.0	15201000							9397	168474 (Jan.- July)

*TEU = Twenty Foot-Equivalent Units

**FWT = Freight Weight Tonnes, 1 FWT = 1.13267386368 m³ (40 cubic feet)

(<http://en.wikipedia.org/wiki/Ton> , 03.10.2006)

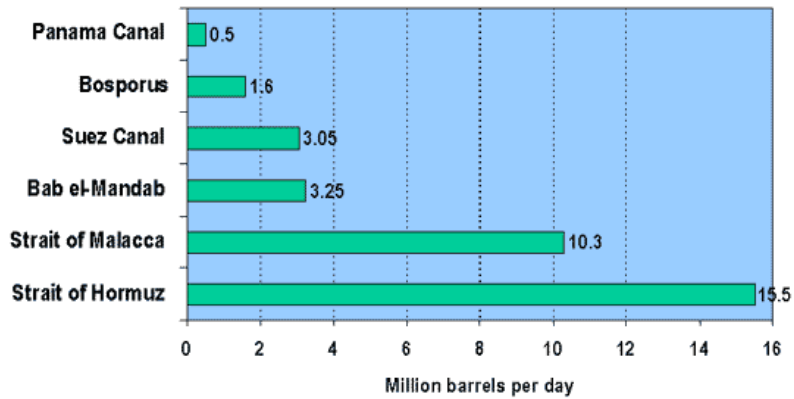
www.pka.gov.my/Intro.htm, <http://www.mpa.gov.sg/infocentre/portstatistics/portstats.htm>, , <http://seri.com.my/oldsite/penangstatistics/july-2002.pdf> , http://www.penangport.com.my/english/publications/annual_report.htm (see: annual reports - statistics) (4.10.2006), <http://www.johorport.com.my/>, <http://belawan.inaport1.co.id/>

3.2. Shipping along and across the Straits of Malacca

The approximately 50,000 vessels passing annually carry between one-fifth and one-quarter of the world's sea trade through the Straits. Next to general cargo oil is the most important transported commodity. As the straits are only about 1.5 nautical miles (2.8 km) wide at their narrowest point, the Phillips Channel in the Singapore Strait, they represent one of the world's most significant traffic bottleneck.

Half of all oil shipments carried by sea come through the Straits. In 2003 a total of 19,154 tankers passed the Straits eastbound (Persian Gulf Countries – East Asia) (Zubir 2006:6), carrying more than 10 million barrels per day. A trade that is expected to expand as oil consumption rises especially in China. At present, oil-flows through the Straits are three times greater than through the Suez Canal and fifteen times greater than oil-flows through the Panama Canal.

Graph 1
Oil Transited at Major Strategic Locations, 2001



Source: Energy Information Administration, World Oil Transit Chokepoints.
<http://www.eia.doe.gov/emeu/cabs/choke.html>

The Straits therefore are of supreme importance both to the energy needs of East Asia and to European-Asian trade. It is estimated that more than one third of world trade passes through the Straits of Malacca in both directions. In addition, regional cross-straits traffic is increasing. New passenger ferries ply between Malaysia and Indonesia, carrying local merchandise, and the density of local shipping as well as air traffic has gone up. A tightly knit network of trade relations, both formal and informal, spans the waterway. Its directions and density are not exactly known, but needs to be researched further. The Straits are thus a major conduit as well as a chokepoint for world trade. Still the number of ships and the tonnage of goods passing through the Straits are bound to increase further. The rapid economic development of China and India is likely to enhance the importance of the Straits of Malacca.

3.3. Cross Straits Trading Patterns

Local trade has been carried on through the centuries, but has increased considerably since the end of the economic crisis of the 1990s and the end of armed conflict in Aceh. Chinese, mainly Hokkien traders connect all port towns along the Straits (Menkhoff/Gerke 2002), but Acehnese, Batak, Minangkabau and Malay traders have also developed networks about which less is known so far. Improved traffic conditions (ferries and air lines) and the fast extensions of plantations, mainly oil palms, have also stimulated local trade.

Map 2
Major Ferry Sailings across the Straits of Malacca, 2006



4. Threats and Vulnerabilities

The Straits bear opportunities but also great risks for regional and world trade. Pollution, piracy and international conflicts are probably the main risks that could disrupt world trade and create unforeseeable losses for the world economy. Should an oil tanker be attacked by pirates, run aground, create an oil spill and block other vessels from passing through the narrow waters, the economic and ecological losses would rapidly create enormous costs and unforeseeable downstream effects, such as substantial losses to local fisheries, border conflicts and terrorist attacks. Economic losses would probably run into billions of Euro within a short period of time. This stresses the generally accepted critical role of the Straits of Malacca for stability in the entire region and beyond.

4.1. Piracy

Piracy³ has been a considerable problem in the Straits in recent years, rising from around 25 attacks in 1994 to a record 112 in 2000. Apart from the South China Sea, where unresolved territorial claims remain a source of potential instability to the area (www.middlebury.edu/SouthChinaSea/), and the Indian Ocean, the Straits of Malacca are the third most affected piracy hotspot in the world.

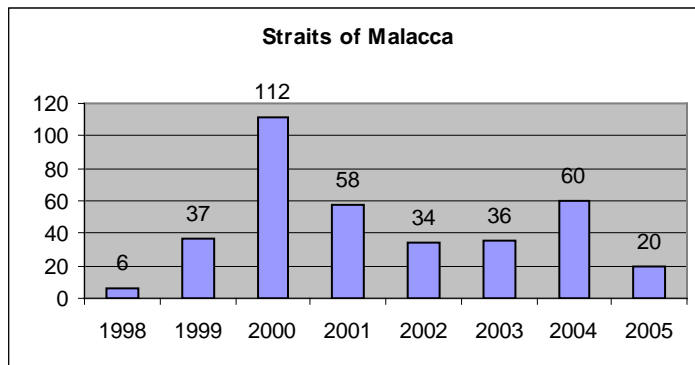
³ The issue of piracy is covered by publications and the website of the International Maritime Bureau and an increasing number of articles, like Richardson and Mukundan 2004, Warren 2004, Ho and Raymond 2005, Johnson and Valencia 2005, to name but a few of the recent output.

Table 2
Piracy Attacks Worldwide

	Straits of Malacca	South China Sea	Indian Ocean	East Africa	West Africa	South America	Mediterranean	Other Regions	Total
1998	6	94	25	19	22	38	2	4	210
1999	37	136	51	16	36	29	4	0	309
2000	112	140	109	29	33	41	2	5	471
2001	58	120	86	22	58	23	2	1	370
2002	34	140	66	23	47	67	3	3	383
2003	36	154	96	22	67	72	1	4	452
2004	60	113	41	13	57	46	0	0	330
2005	20	97	51	49	23	26	0	0	266

Source: Annual Reports of the IMO (1998 - 2005)

Graph 3
Piracy in the Straits of Malacca



Source: Annual Reports of the IMO (1998 - 2005)

In response to the rising number of attacks, the Malaysian, Indonesian and Singaporean navies stepped up their patrols of the area since mid 2004.⁴ Several indicators, like the low number of really hijacked or missing ships, the parts of the ships mostly raided by the attackers (master and crew accommodation, cargo rooms, store areas) and the small number of persons usually involved in the attacks (IMO Annual Reports 1998-2005) indicate, that piracy today is mainly carried out as a private commercial enterprise enhanced by poverty in the littoral states. However fears of terrorism rest on the possibility that a large ship could be pirated sink at a shallow point in the Straits (they are just 25m deep at their shallowest part where?), and so effectively block the Straits. If successfully achieved, such an attack would have a devastating effect on world trade. Opinions amongst security specialists differ about the feasibility and likelihood of such an attack.

Until August this year, 15 attacks in the Straits of Malacca had been reported to the International Maritime Organization. Most of them targeted big vessels (Tsunami Relief Cargo Vessels, Chemical Tankers and Bulk Carriers) along the Sumatra coast and in the Singapore Straits. The others charged especially fishing vessels along the Malaysian coast. (IMO monthly Circulars on Piracy)

Map 3
Piracy Attacks in Asia



4.2. Ecological Disasters

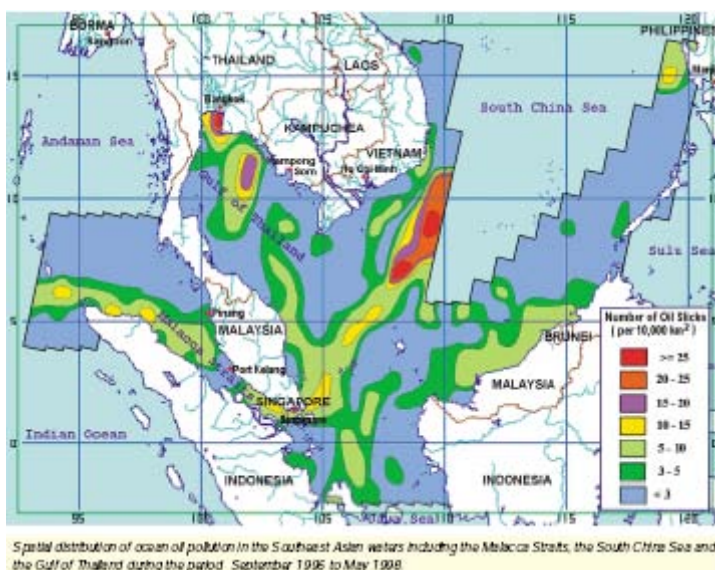
Another shipping risk in the Straits is the yearly haze that persists due to raging bush fires in Sumatra. The haze can literally choke shipping by reducing visibility to as low as 200m making navigation in such a narrow and busy trade route hazardous.

Ecological risks posed by dense shipping and industrial development are discussed among others by Cleary and Goh (2000). Today, the increase of shipping activities along the shipping lane and the rapid development in the coastal areas threaten the ecologically fragile environment of high bio-diversity bordering the Straits. To ensure navigational safety in the narrow and shallow Straits, the Malaysian Government invested EUR 11 million to install 256 navigational aids in addition to EUR 22 million for putting up a vessel traffic management system. From 1978 until 1994, a total of 476 accidents, including oil spills occurred in the Straits (www.american.edu/TED/malacca.htm) with an average of 30 accidents per year. About 36% of the vessels passing the Straits are oil tankers. They increase the discharges in the sea including oil, ballast water, sewage and other solid wastes. By the year 2000, it is estimated that 888,000 tonnes of waste were generated by the vessels plying the Straits comprising of 150,000 tonnes of oily bilge water, 18 tonnes of solid wastes and 720,000 tonnes of sewage (<http://www.american.edu/TED/malacca.htm>). While the international community enjoys the benefits of the waterway, the littoral states are left with the burden of financing navigational safety measures and bear the consequences of oil spills and other shipping based pollution (<http://www.fsas.upm.edu.my/~masdec/web/straits.html>).

From the shore, different types of pollutants from industries, agriculture, land-use activities and domestic wastes are discharged into the Straits. Along the coast, sand mining, development in mangrove swamps and land reclamation have degraded the habitat for marine life (<http://www.fsas.upm.edu.my/~masdec/web/straits.html>).

Map 4

Oil Slicks in the Straits of Malacca and the South China Sea.



As a recent remote sensing study shows, oil slicks already pose a threat to the ecology of the Straits and surrounding areas (Lu et al n.y.).

5. Developing the Straits of Malacca Region

Southeast Asia is still beset by problems of poverty, rapid urbanization, inequity, cross-country illegal migration and depletion of its natural resources. The very political stability of the Straits region is at stake through the fragile peace in Northern Sumatra (Aceh), unrest in Riau and Southern Thailand and widespread piracy in the Straits of Malacca. Migration across the Straits of Malacca promotes conflicts and inter-ethnic tensions.

The region is rich in natural resources from fisheries, to mangrove swamps and rain forests, from tin to gas and oil fields, but also beset by problems of pollution through shipping and industries, deforestation by extensive logging and severe air pollution (haze) from slash and burn in plantation agriculture.

On the other hand the Straits bear great opportunities for the economic and social development of the littoral states. Several "Growth Triangles" have been constructed to create integrated special economic zones, like the SIJORI triangle, linking, Singapore with the Malaysian state of Johore and the Indonesian province of Riau.

The Straits of Malacca are not just a sea lane but also a "Mediterranean sea" in the sense of Braudel (1966). The ethnic as well as the ecological composition is similar on both sides of the Straits. It should be recognized that the Straits and the adjoining islands and peninsulas form an integrated area, cut into national territories by boundaries drawn during colonial times, disregarding natural and cultural similarities.

5.1. Political Scenarios: ASEAN and the world powers

The states bordering the Straits of Malacca, namely Indonesia, Thailand, Malaysia and Singapore form the core of the ASEAN region, one of the growth poles of the developing world. Diplomatic efforts to control the increasingly important passage between the Indian Ocean and the Pacific and the threat of piracy started after the independence of the bordering states. The governments of Indonesia and Malaysia maintained throughout the position "that the Straits of Malacca (and Singapore) were not an international waterway, although they fully recognised their use for international shipping" (Leifer and Nelson 1973:190, also Vetzberger 1982:610). Attempts by the United States to assert military control over the Straits were met by stiff resistance from Indonesia and Malaysia. Singapore took a more ambivalent role, offering naval facilities to the US fleet and leaning increasingly on American military support.

Since the 1980s industrialisation, trade and shipping have stimulated rapid urbanization in a region with a formerly predominantly rural population. The growth potential of the region is enormous and is partly realized in the SIJORI growth triangle of Singapore, Johore (Malaysia) and Riau (Indonesia); the industrial export-oriented growth area of Penang (West Malaysia); the growth triangle Sumatra, West Malaysia and Southern Thailand.

The high bio-diversity of the area provides development opportunities for bio-prospecting, bio-tech research as well as tourism. Especially eco-tourism seems to be a growth industry. The high cultural diversity of the region should also be seen as an asset opening development opportunities not only in trade and commerce to the neighbouring countries, but also in building knowledge societies based on different intellectual traditions and experience. Singapore has taken the lead in building a knowledge based economy, creating a knowledge hub of both local as well as global significance (Hornidge 2006, Menkhoff/Evers/Chay 2005, chapter

10). Malaysia has followed by creating a “Multimedia Super Corridor” of High-tec industries and research (Evers 2003).

5.2. Economic Scenarios: Maritime Products and Growth Triangles

This Straits supplies myriads of marine resources and supports the economy of the littoral states. More than 380,000 tonnes of fish (more than 60% of the total fish caught per year) costing RM1.2 billion per year is landed in Malaysia from the Straits of Malacca. In Indonesia, the Straits of Malacca contributes the second highest fish production after the Java Sea. High quality and safe fish harvest is extremely important to ensure sustainable socio-economic development and health of the people. Other economic activities such as mariculture, tourism, recreation and maritime industry are dependent on the viability and pristine conditions of the Straits sea water and littoral. The Straits are also an important site for archaeological resources⁵. Archaeological exploration has yielded artefacts and treasures from sunken ships going back for centuries.

The most spectacular development has taken place at the eastern end of the Straits. Here an economic zone with special rights was created on the Riau islands of Batam and Bintang, embedded in the economic growth triangle of SIJORI. A similar concept, though less successful was applied to the north-western part of the Straits. A growth triangle was planned to integrate the economies of Southern Thailand, North Sumatra, Kedah and Perlis in Malaysia.

It can be expected that the Straits of Malacca region will develop further from a mere thoroughfare of world shipping to an integrated “Mediterranean” area of great economic potential.

6. Summary

To sum up the argument:

The Straits of Malacca are of strategic importance for world trade and regional development. They are vulnerable to social, political and natural disasters, but also bear great opportunities for economic and social development.

- Most of European trade with China and Japan is shipped through the Straits of Malacca
- Most of the energy requirements of Japan depend on oil shipments from the Gulf states through the Straits of Malacca
- The Straits have for centuries connected the Indian subcontinent with East and Southeast Asia as well as Europe with China as an alternative to the Northern ‘Silk Road’
- The states bordering the Straits, Indonesia, Thailand, Malaysia and Singapore form the core of the ASEAN region, one of the growth poles of the developing world

⁵ See <http://www.fsas.upm.edu.my/~masdec/web/straits.html>

- The areas bordering the Straits are themselves rich in natural resources from fisheries, to mangrove swamps and rain forests, from tin mining to gas and oil fields, but also beset by problems of tidal destruction (Tsunami), pollution through shipping and industries.
- The Straits are beset by problems of poverty, cross straits illegal migration and depletion of its natural resources. The very political stability of the Straits region is at stake through the civil war in Northern Sumatra (Aceh), unrest in Riau and South Thailand as well as widespread piracy.
- The growth potential is enormous and is partly realized in the SIJORI growth triangle of Singapore, Johore (Malaysia) and Riau (Indonesia); in the industrial growth of the Western part of Malaysia bordering the Straits; the industrial area around Penang (Malaysia) and the international tourism development on the islands of Langkawi (Malaysia) and Phuket (Thailand)

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