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# An Introduction to the CenPRIS Ocean Research Cluster - ORES<sup>1</sup>

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## **Abstract**

*The initial main theme of CenPRIS's ocean research cluster is "connecting oceans" - an allusion to CenPRIS's eventual focus on the Straits of Malacca as a body of water or maritime space that connects its littoral states - Thailand, Indonesia, Malaysia, Singapore - with the larger ocean space, the Indian Ocean. Focusing on the maritime potential of nations represents the other principal component of CenPRIS's ocean research cluster. The development of the "CenPRIS Ocean Index" will measure the level of utilisation of a nation's maritime resources and act as a policy planning instrument within Malaysia's new Ocean Policy. Another research project under the cluster will examine the development of Penang as a knowledge hub in the Straits of Malacca region. A third project that will build upon the two research frameworks is on the governance of ethnic and bio-diversity along the Straits of Malacca, examining in greater detail the importance of sea passageways. For the governance of diversity, the participation of the natural sciences - marine biologists, oceanographers and other scientists - will bring more depth to a complex field that demands an interdisciplinary approach.*

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## **Maritime Studies and Ocean Policy**

Social science research into maritime-related subjects can be seen as one of the key areas of academic research that is often overlooked in a relatively broad discipline that is dominated almost entirely by scholars of the life sciences. The near monopoly of the natural sciences on ocean and maritime research comes at the expense of developing a social science paradigm in approaching the vast field of maritime and ocean studies.

Ocean and maritime research has come into its own in the competitive and increasingly overcrowded field of academic research. Previously considered as peripheral areas and confined to the fringes of academia, these areas now mark the new borders that are steadily expanding and studied in their own right to the extent that it has become necessary to even adopt a distinctly maritime perspective in examining the vast watery spaces. Research into these new frontier regions have all but acquired a new and glamorous sheen in the academic world, attracting a broad range of scholars both from the areas of

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natural and social sciences. An emerging but unmistakable trend in this line of scholarly research has seen the emergence - in the past ten years or so in many parts of the globe but interestingly in the developing world - of research institutes devoted solely to maritime-related disciplines.

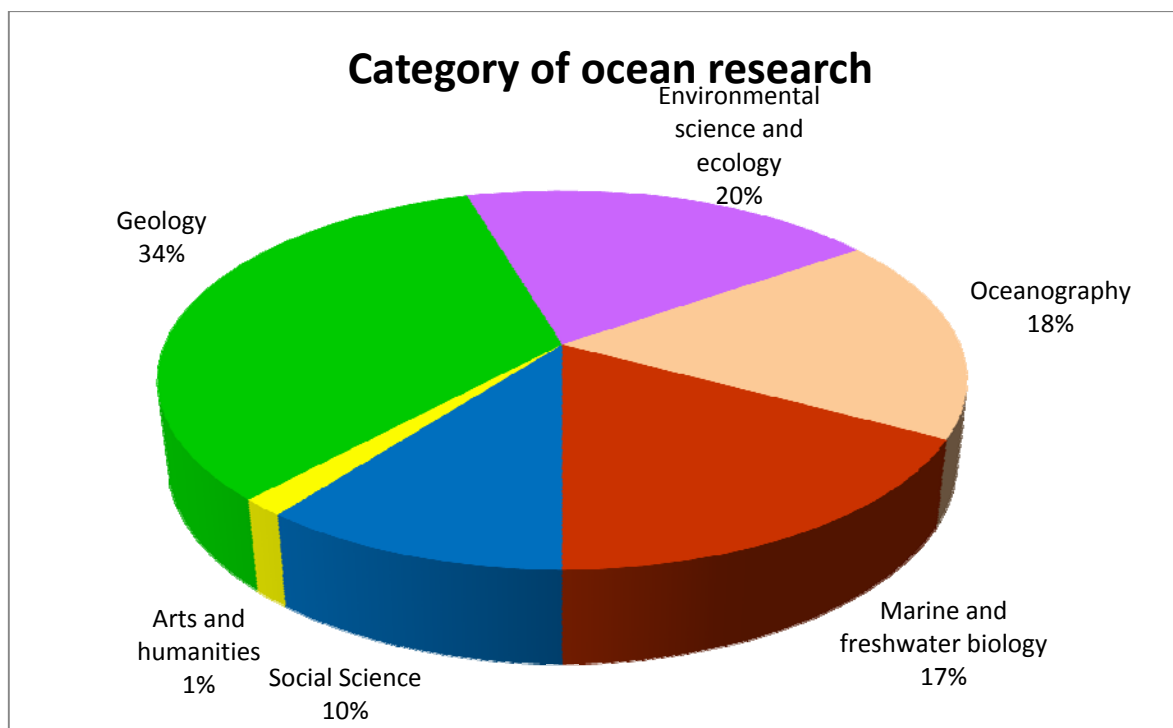
### **Maritime Spaces Do Matter**

The prevalence of territorial disputes revolving around contested maritime space is also a key feature in a number of bilateral and multilateral conflicts. Furthermore, the demand by emerging economic powerhouses such as China, Vietnam or India of raw material and strategic minerals to boost production capacity has also alerted nations with vast ocean and maritime spaces to the possibility of territorial expansion. Various means are increasingly resorted to such as land reclamation, joint development of disputed border territories and a range of other actions to advertise and promote their purported ownership of disputed areas, a number of which are unmistakably aggressive. Such trends do seem to suggest that governments are taking the administration of their maritime spaces more seriously than ever before.

Some three quarters of the Earth's surface is covered in water, and yet the oceans as a whole is still under researched, in spite of the obvious signs of scholarly interest. On the whole, academic research on oceans still favours a predominantly land-based perspective. Not only does most research work undertaken revolve around land-based subjects, this inordinate bias towards the land mass has resulted in the ocean and maritime spaces being largely neglected until recently. The consequence is that the importance of maritime space seems to resonate less with policymakers and governments than their terrestrial possessions. However, the resurgent interest in research on maritime-related subjects suggests that this pattern is exhibiting significant symptoms of change that will probably lead to broadening the frontiers of the discipline.

The raised awareness that bodies of water such as the seas, oceans, and waterways constitute an invaluable asset have also accompanied increasing scholarship on various aspects of maritime studies, such as maritime security and strategic issues, international relations, sociology, anthropology, geology and oceanography. An itemised survey of the Institute for Science Information (ISI) Web of Science database for journal entries in the last five years or so, using the terms "ocean OR maritime" yields 48,727 results, of which material categorised under social science numbered only 6,184 while those on arts and humanities 882. The rest of the material on ocean or maritime studies were taken up by geology with 19,887 items, environmental science and ecology with 11,781 items, oceanography with 10,405 items, and marine and freshwater biology with 10,171 items. In the social science category, only about 4,098 items were listed on geography, business and economics 513 items, international relations 317 items, sociology 138 items and anthropology 84 items. Though these figures insinuate that a considerable number of publications have resulted from maritime social science research, a closer look reveals that in many of these research papers the topic of ocean or maritime subjects are only touched upon, being a sideline rather than a focus of research.

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**Diagram 1** Distribution of Ocean Research between Life and Social Sciences 2010 (Web Science)

A quick glance at the existing scholarship within the field of ocean sciences and maritime studies reveals a startling discovery - that much of the scholarship and research in this area is contributed by the natural sciences, with a disproportionately low contribution from the field of social sciences or humanities. The woeful state of social science scholarship on the ocean and maritime spaces highlights the need for a more comprehensive and serious attempt at addressing this imbalance through a more intensive study of the earth's maritime regions from a social science vantage point.

This disparity in between the life and social sciences in maritime research would lead to a pertinent question in the next paragraph - why does the ocean matter so much from the social science viewpoint?

#### **Maritime Spaces as Resource: the Social Science Perspective**

All nations, no matter how impoverished or wealthy, are usually endowed with a range of resources such as strategic minerals, arable land, to even ethnic diversity and knowledge assets. Often overlooked and under-rated as a resource are the geophysical features of a nation - in this case, the length of coastline a nation possesses and its proximity or access to oceans. Viewed as a natural resource in its own right, a nation's coastlines will prove to be extremely useful in terms of physical territorial expansion and as a source of valuable commodities such as oil and gas.

Looking at the vast expanse of the oceans and maritime space as a nation's tangible resource represents one of the core thrusts in the Centre for Policy Research and International Studies's (CenPRIS) ocean and maritime research programme. Scholars from the Centre for Development Studies (ZEF), Bonn University, working with CenPRIS at Universiti Sains Malaysia, have discovered that among a nation's natural endowments that are less frequently studied are its coastal areas and its access to the world's

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oceans. Such a perspective will necessitate research methodologies and frameworks that are principally grounded in the social sciences.

From this angle, one observes that a nation with a long coastline will naturally have an advantage over those with shorter ones or even landlocked nations, for that matter, whereby the ones with long coastlines are in a better position to make use of these maritime assets in a variety of ways. A long coastline makes it possible for nations to engage in maritime industries such as ship building, fisheries, maritime logistics, and offshore exploration for oil and gas. These nations' harbours will facilitate international shipping, labour migration, and the transfer of goods and knowledge. These assets have enabled the United Kingdom - an island nation with access to the Atlantic and the North Sea, among others - to emerge as a maritime nation with a global presence at the height of its colonial glory. Its ports such as Cardiff, Southampton, Glasgow and Liverpool were shipping hubs that were multicultural and cosmopolitan in character, acting as catalysts for a variety of industries that saw the expansion of these former harbour towns into principal urban centres, attracting migrant populations from all over the globe.

Location along the world's oceans and access to blue water frequently leads to a higher level of maritime ecology and biodiversity. These are increasingly viewed as natural resources that are naturally sustainable and not easily depleted, as opposed to minerals like oil, zinc, coal or gold.

These maritime spaces that double up as a country's natural resources naturally require a system of governance with which to administer it, as much as a system is needed to govern the landed territories of nations. A study of governance of diversity in these areas is therefore imperative and will yield a potential harvest of findings that could lead to a formulation and evolution of a more effective management regime to govern these resources. Maritime passageways that connect or give access to the principal oceans, such as the Straits of Hormuz and Malacca - both of which provide access to the Indian Ocean - become important units of study in the governance aspect of maritime and ocean spaces.

### **A Policy-Oriented Perspective of Oceans**

Using maritime space as a conceptual framework with which to engage in issues of governance, a slightly different perspective emerges. Without setting aside the importance of the contribution of the ocean and marine sciences towards a more encompassing scholastic view of the ocean, the social science perspective aims only to enhance and broaden the field of ocean and maritime studies. There is a discernible trend for many of these newly-found institutes to adopt an inter-disciplinary discursive framework that integrates both the social and natural sciences perspective into studies related to the maritime space.

The deficiency of a research programme that is coloured by a land-based and natural science perspective has been highlighted earlier, along with an unbalanced scholarship that favours the latter. This deficiency is being addressed, slowly but steadily, through the establishment of a number of private and public research institutes on ocean and maritime studies employing a social science paradigm.

Adopting a social science and policy-oriented research agenda as the thrust is not something entirely new. In fact, the utility of social science policy-oriented ocean research has been explicitly acknowledged by academicians and policy practitioners. However, the level of awareness among strategic groups that the maritime space constitutes a valuable resource is not as great as it ought to be. Most nations still view issues of territorial expansion, jurisdiction and governance through a land-based paradigm, which although firmly established, is inadequate to address increasingly complex bilateral and multilateral concerns in the context of a contested maritime space.

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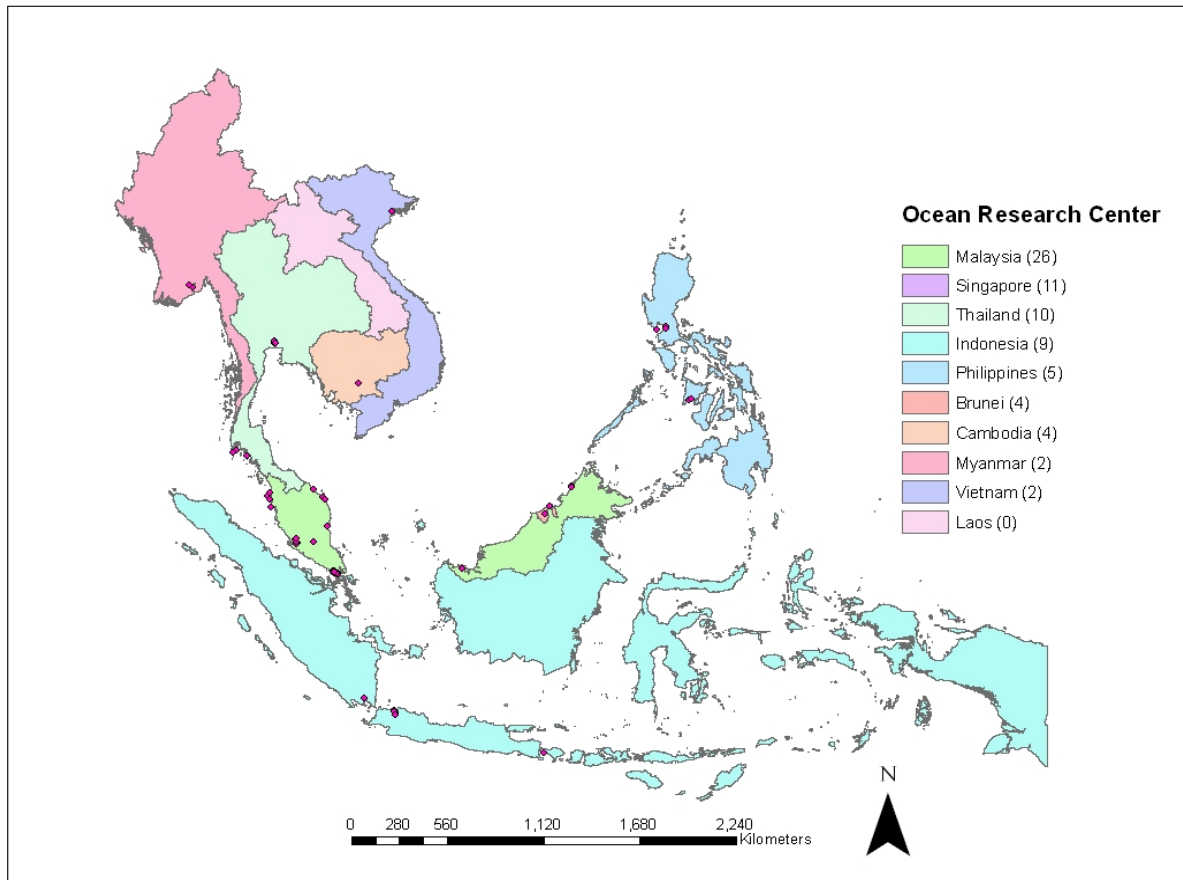
That a social science perspective acquires a greater degree of salience as a means of conceptualising problems and offering policy options to decision makers is also recognised. This is because maritime spaces, such as oceans and sea passages, are increasingly seen as a principal resource for economic development and a main factor in economic and geopolitical competition, where previously it was only a means for transportation.

The reliance of nations on offshore economic activities such as oil drilling, deep sea mining and fisheries has also placed renewed importance on undertaking social science-based research on the ocean and maritime space. Increasingly resonant is the issue of governance of maritime territory beyond the limits of national jurisdiction as territorial and border disputes are occurring with alarming regularity. The overlapping and unresolved maritime claims in the South China Sea represent one example where geopolitical competition over a limited space may heighten tension in a region. Non-conventional threats such as piracy, militancy, terrorism, environmental degradation, coastline change and mass population movement across borders, are only some of the concerns which continue to plague decision makers on both sides of the Straits of Malacca for a long time, leading to the occasional tense moment in bilateral relations between Malaysia and Indonesia, for example.

Being a policy-oriented research centre, the ocean research cluster at CenPRIS seeks to extend its current trajectory into policy research that is solution-oriented and offers immediate impact. The ocean research cluster at CenPRIS attempts to break away from the predominance of a land-based perspective in favour of embracing a broader outlook in which the oceans and the seas should be studied in their own right.

From the brief survey of the research typology of ocean and maritime studies, it would appear that adopting a social science perspective to maritime research is not an entirely novel approach. Some work has actually been carried out whose thrust was primarily based on maritime anthropology, sociology, international relations and strategic studies. For example, extensive research on ethnic groups inhabiting the region's ocean spaces such as the Orang Laut or the Sea Gypsies of Malaysia and Indonesia, which had been carried out under the umbrella of maritime anthropology. Maritime sociology has also gained some traction as a sub-genre of maritime research, with research carried out on socio-economic conditions of principal ports particularly in Europe and around the Indian Ocean. Last not least maritime history has a long list of distinguished publications, partly based on Braudel's seminal study of the Mediterranean Sea.

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**Diagram 2** Ocean Research Centres in the ASEAN Region

### The CenPRIS Ocean Research Cluster

CenPRIS's ocean research cluster is but a small step compared the highly specialised maritime research institutes throughout the world. For CenPRIS, there is room to develop a more policy-oriented research that attempts to integrate the natural and social sciences for a more informed analyses of development issues relating to the use of ocean resources that would provide building blocks or policy inputs for the government to craft a more integrated and balanced maritime policy.

The initial main theme of CenPRIS's ocean research cluster is "connecting oceans" - an allusion to CenPRIS's eventual focus on the Straits of Malacca as a body of water or maritime space that connects its littoral states - Thailand, Indonesia, Malaysia, Singapore - with the larger ocean space, the Indian Ocean. Maritime passageways such as the Straits of Malacca have assumed a pivotal role as a conduit through which the movement and transaction of people, ideas, culture, goods and services has transformed strategic points along the straits into hubs for knowledge production, innovation and commercially driven activities. As the Straits of Malacca shares overlapping territorial boundaries, the governance aspect assumes an overarching significance in its study. As one of the world's vital sea lanes of communication, the Straits of Malacca itself is a resource whose governance becomes the responsibility of not only the littoral states but also the international community.

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Developing the maritime potential of states represents the other principal component of CenPRIS's ocean research cluster, represented by two research projects that will form the core of CenPRIS's maritime research cluster. The development of the Ocean Index to act as a policy planning instrument to show the level of utilisation of a nation's maritime resources is but a small step in highlighting the economic potential of having a culturally and biologically diverse coastline. Another research project under the cluster will examine the potential development of Penang and the north-western states of Peninsular Malaysia as a knowledge hub.

A third project that will build upon the two research frameworks and integrate their findings is on the governance of diversity along the Straits of Malacca, in trying to examine in greater detail the importance of sea passageways such as the straits in linking economic and knowledge hubs with the world's oceans. For the governance of diversity, the participation of the natural sciences - marine biologists, zoologists and scientists - will bring more depth to a study that will otherwise only represent a limited perspective from the social science point of view.



**Diagram 3** CenPRIS Research Programme

A maritime area like the Straits of Malacca, the Sulu Sea or the South China Sea might qualify to be categorised as large marine ecosystems (LMEs). LMEs are distinct ecological regions that extend from the coast to the edge of the continental shelf. LMEs are economically important, producing goods and services—including 95 percent of the world's fish yields—worth billions of dollars a year. Because LME coastlines are heavily populated, these ecosystems are often among the most polluted and degraded on Earth. The economic value of LMEs demands that their resources and habitats are protected and managed sustainably for both present and future generations. Often this requires international cooperation, since most LMEs span the maritime jurisdictions of more than one country.

The proposed research programme on the governance of cultural and biological diversity in the Straits of Malacca is actually an extension of an existing collaborative project between ZEF and CenPRIS on the

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economic and strategic significance of Penang and the Straits of Malacca. It is but one dimension of the working partnership that came about from the signing of a memorandum of understanding (MoU) between USM and Bonn University in April 2010. The initial result of this collaborative study by Professors Solvay Gerke and Hans-Dieter Evers has been published in the CenPRIS Working Paper Series (Gerke and Evers 2009), in a volume entitled "The Straits of Malacca: Knowledge and Diversity" (Gerke, Evers, Hornidge 2008) and in academic journals (Evers and Hornidge 2007; Gerke and Evers 2011).

### **The CenPRIS Ocean Index**

One significant first result of ocean research at CenPRIS has been the "Ocean Index". This index measures the geographical maritime potential of states and nations and shows how far this potential has been used in developing a maritime economy. Technical details of the first phase of this index are available in a handbook and in a CenPRIS Working Paper (Evers 2010). The index has been applied in showing differences of ASEAN states Index (Evers 2010; Evers and Azhari 2011a,b) and between the states of Malaysia (Evers and Zesali 2011). The index will be continuously updated and improved. A new version is currently under construction.

### **Conclusion**

The CenPRIS ocean research cluster seeks to complement the valuable research work done by similar institutes worldwide by initiating an inter-disciplinary research agenda that will hopefully lead to a positive collaboration between natural and social scientists. Natural science represents an integral part of the cluster without which it would be difficult to examine the policy dimension of the development of maritime resources and potential of a nation like Malaysia, whose states are all endowed with a coastline. A more wide-ranging study on the implications of nation's maritime and ocean policy will naturally lead to value-added and credible policy options. It is only through sound feedback and scholarship based on an inter-disciplinary research framework that the full extent of Malaysia's maritime potential could be harnessed in preparation for Malaysia's eventual emergence as a formidable maritime nation. It is too early to reap the harvest but the establishment and development of the CenPRIS ocean research cluster will hopefully prove to be useful in promoting the study of the oceans from a social science, or more specifically development policy, perspective.

### **References (Books and Papers originating from ORES)**

- Evers, Hans-Dieter, and Anna-Katharina Hornidge. 2007. "Knowledge Hubs in the Straits of Malacca." *Asia Europe Journal* 5(2):417-33.
- Evers, Hans-Dieter. 2010. "Measuring the Maritime Potential of Nations. The CenPRIS Ocean Index." *CenPRIS Working Paper Series* (137/10).
- Evers, Hans-Dieter, and Azhari Karim. 2011a. "The Maritime Potential of ASEAN. The CenPRIS Ocean Index." *MIMA Bulletin* 18(2):17-20.
- Evers, Hans-Dieter, and Azhari Karim. 2011b. "The Maritime Potential of ASEAN Economies." *Journal of Current Southeast Asian Affairs* 30(1):117-24.

[Type text]

Evers, Hans-Dieter. 2011. "Penang as a Knowledge Hub." *Penang Economic Monthly* 6(11):36-38.

Evers, Hans-Dieter, Pamela Nienkemper, and Benjamin Schraven. 2011. "Measuring Spatial Density: Knowledge Clusters in Malaysia." Pp. 129-54 in *Beyond the Knowledge Trap: Developing Asia's Knowledge-Based Economies*, edited by Thomas Menkhoff, Hans-Dieter Evers, Yue Wah Chay, and Eng Fong Pang. New Jersey, London, Singapore, Beijing: World Scientific.

Evers, Hans-Dieter, and Sezali Mhd Darit. 2011. "The Maritime Potential of Penang." *Paper prepared for the conference 'Penang and the Indian Ocean'*. Penang, Sept. 2011

Evers, Hans-Dieter and Solvay Gerke. 2011. " Looking East, looking West: Penang as a Knowledge Hub." *Paper prepared for the conference 'Penang and the Indian Ocean'*. Penang, Sept. 2011

Evers, Hans-Dieter, and Solvay Gerke. 2008. "The Strategic Importance of the Straits of Malacca for World Trade and Development." Pp. 7-22 in *The Straits of Malacca: Knowledge and Diversity. ZEF Development Studies Vol. 8*, edited by Solvay Gerke, Hans-Dieter Evers, and Anna-Katharina Hornidge. Berlin, London, Penang: LIT Verlag/Straits G.T.

Gerke, Solvay, and Hans-Dieter Evers. 2011. "Selat Melaka: Jalur Sempit Perdagangan Dunia." *Akademika, Journal of Southeast Asia Social Science and Humanities* 81(1):5-14.

Gerke, Solvay, and Hans-Dieter Evers. 2009. "Perkembangan Wilayah Selat Melaka." *CenPRIS Working Paper Series* 112/09:1-19. Revised version published in 2011.

Gerke, Solvay, and Hans-Dieter Evers. 2011. "Selat Melaka: Jalur Sempit Perdagangan Dunia." *Akademika, Journal of Southeast Asia Social Science and Humanities* 81(1):5-14.

Gerke, Solvay, Hans-Dieter Evers, and Anna-Katharina Hornidge (Eds.). 2008. *The Straits of Malacca: Knowledge and Diversity*. Berlin, London, Penang: LIT Verlag/Straits G.T.

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