

PARTICULARLY SENSITIVE SEA AREAS DESIGNATION; PURPOSES, PROTECTION, IMPLICATIONS AND APPLICATION IN THE MALACCA STRAITS*

Kartika Paramita**

Abstract

This paper basically aims to analyze the designation of Particularly Sensitive Sea Areas (PSSA) by International Maritime Organization observed from three critical aspects: its purposes, scope of protection and implications. Further, this paper also addresses the possibility of PSSA to be applied in Indonesian sea areas especially in the area of Malacca straits, one of the busiest marine trade routes in the State. As a result of normative-legal research, this paper dissects secondary data which includes conventions, resolutions, various legal documents, researches, and other references relevant to the designation of PSSA in international level. Expected from this paper, layman could get more understanding regarding the concept of PSSA and Indonesian government could consider the possibility of Indonesian sea areas can be situated as one of PSSA in the world.

Intisari

Naskah ini akan menganalisis penentuan Daerah Sensitif Khusus (PSSA) oleh Organisasi Maritim Internasional (IMO), ditinjau dari tiga aspek kritis: tujuan, perlindungan dan implikasi. Naskah ini juga akan mengangkat kemungkinan diaplikasikannya PSSA in daerah laut Indonesia, khususnya di daerah Selat Malaka, salah satu dari rute maritime sibuk dunia. Berdasarkan studi hukum normative, naskah ini akan membicarakan sumber data sekunder, yakni dokumen-dokumen hukum, penelitian dan referensi-referensi lain yang relevan dengan PSSA di tingkat internasional. Harapannya, masyarakat awam dapat lebih memahami konsep PSSA, dan naskah ini dapat mendukung pemerintah Indonesia untuk mempertimbangkan kemungkinan daerah laut Indonesia untuk mendapat status PSSA.

Keywords: Particularly Sensitive Sea Areas Designation, Malacca Strait, Maritime Protection
Kata Kunci: Peruntukan Area Laut Sensitif, Selat Malaka, Perlindungan Maritim

* Preferred Citation Format: Paramita, K. (2014). Particularly Sensitive Sea Areas Designations; Purposes, Protection, Implications, and Application in Malacca the Straits. *J.G.L.R.*, 2(1), 51-59.

** 2010; Business Law, Faculty of Law, Universitas Gadjah Mada; Yogyakarta, Indonesia.

A. Introduction

International trade has evolved to the point that almost no nation can fulfill its own needs by its natural resources. Every country is involved in the process of buying and selling in order to fulfill demand from the market. Shipping industry comes as a cost-effective method of bulk transport over great distance and supports import/export activities between states. In the course of routine operation nowadays, roughly 90% of international trade is carried by international shipping industry (Berstein, 2008). This industry has become the linchpin of the global economy; without shipping, intercontinental trade would simply not be possible (International Maritime Organization, 2012). As the most international industry of the world and one of the most dangerous, shipping is vital to the functioning of the global economy of countries in this world (International Chamber of Shipping, 2013).

Conversely, adverse effects and damage may occur to the marine environment and the living resources of the sea as a result of such shipping activities. Risk of accidents and even normal operations could constitute negative impacts on marine environment, ecologically sensitive areas, wildlife and habitats as well as the coral reefs.

In response, many international and regional instruments arose to protect biological diversity, the protection of which was also expected to cover other areas which have high ecological, cultural, historical/archaeological, socio-economic or scientific significance (Revised Guidelines, 2005). These instruments further call upon their Parties to protect such vulnerable areas from damage or degradation, including from shipping activities. It culminates with an international instrument concept called Particularly Sensitive Areas (PSSA) in order to reach such purposes.

The International Maritime Organization (IMO) Assembly in November-December 2005 at its 24th session adopted the Revised Guidelines for the Identification and Designation of Particularly Sensitive Sea Areas (PSSAs) in Resolution A.982(24). According to this guideline, Particularly Sensitive Sea Areas can be defined as areas which need special protection through action by IMO because of their significance for recognised ecological, socio-economic or scientific reasons and which may be vulnerable to damage by maritime activities (Revised Guidelines, 2005).

Currently, there are at least 14 areas that have been designated by IMO as PSSA. In 2012, The Saba Bank, located in the North-eastern Caribbean area of the Kingdom of the Netherlands was designated by IMO as the latest PSSA. Included into such guidelines, there are several criterias to allow areas to be designated a PSSA, such as: ecological criteria, such as unique or rare ecosystem, diversity of the ecosystem or vulnerability to degradation by natural events or human activities; social, cultural and economic criteria, such as significance of the area for recreation or tourism; and scientific and educational criteria, such as biological research or historical value.

Through PSSA, IMO developed rules which authorize coastal states to impose protective measures that restrict the freedom of navigation provided by UNCLOS in ecologically sensitive marine areas within its areas in order to protect their environment. In order to impose such measures however, the coastal state shall apply to the IMO whenever it believes that international standards are insufficient to protect a clearly defined area of particular ecological sensitivity within its EEZ (Van Dyke & Broeder, 2011). If the application is approved by IMO, thus, the requirements under UNCLOS can be excluded.

The Straits of Malacca is one of the most important shipping lanes that facilitate international trade in the world (George, 2008). As a golden heritage of the littoral states such as Malaysia, Indonesia and Singapore, it is not only rich in marine resources but serves as a primary conduit for the movement of cargo and human traffics between Indo-European region and the rest of Asia and Australia (Suppiah, 2009). In 2007, these waterways were traversed by more than 70.000 vessels (Mandryk, 2008) which is predicted to increase to approximately 150,000 vessels by 2020, a double of what they are burdened with now (Beckman, 2009).

East Asian Region economic development brings various environmental damages as a real threat to the area. Due to heavy shipping activities, it was recorded that coral reef development in the Strait of Malacca is amongst the lowest in this region (Emran, 2007). The Mangrove ecosystem along the Strait of Malacca, especially in the south-western corner of the Malaysian State of Johor is also being threatened by constant soil erosion as a result of high navigational density plying the waterway (Basiron, 2008). This condition is also compounded by the the possibility of oil spills due to shipping.

PSSA status in the Straits Malacca can be a useful management mechanism for protection. The designation of PSSA in Malacca Strait would enable Indonesia to protect valuable ecosystems in its marine area. With such a possibility, this paper seeks to analyze the designation of PSSA within a state's sea areas by IMO, examined by three aspects: purposes, scope of protection and implications. This paper would like also to analyze the likelihood of PSSA status to be applied in Indonesian sea areas especially in the area of Malacca Straits.

B. Particularly Sensitive Sea Areas Designation; Its Purposes, Scope of Protection and Implications

1. Historical Background of PSSA

The study towards the question of Particularly Sensitive Sea Areas (PSSAs) began in 1978 in response to a resolution of the International Conference on Tanker Safety and Pollution Prevention conducted by The Marine Environment Protection Committee (MEPC) of the International Maritime Organization (IMO). PSSA status began to be regulated by Assembly Resolution A.720(17) in 1992, followed by A.885(21) in 1999 and finally by Resolution A.927(22). Both the Special Areas and the PSSAs are regulated in the same guidelines. In 2002, this resolution was superseded by the resolution A.927 (22) to update and simplify the guidelines.

2. Purposes of PSSA

PSSA seeks to encourage the protection of areas important for the conservation of biological diversity as well as other areas with high ecological, cultural, historical/archaeological, socio-economic or scientific significance.

IMO also provides Revised Guidelines to provide guidance to IMO Member Governments in the formulation and submission of applications for designation of PSSAs. Second, the Guidelines also ensure that in that process all interests are thoroughly considered on the basis of relevant scientific, technical, economic, and environmental information regarding the area at risk of damage from international shipping activities and the Associated Protective Ceasures to prevent, reduce, or eliminate that risk. Finally, this Guideline is needed to provide for the assessment of PSSA applications by the IMO.

3. PSSA Scope of Protection

A PSSA is an area that needs special protection through action by the IMO (Revised Guidelines, 2005). IMO can design a PSSA in specific areas of the territorial sea or the EEZ which are vulnerable to damage from international shipping activities, to adopt protective measures (Beckman, 2007). However, a PSSA does not include any explicit prescribed protective mechanisms, but an application to the IMO for PSSA designation needs to be accompanied by specific proposed APM (Revised Guidelines, 2005).

APM can include a wide range of actions, but they are limited to actions within the purview of IMO, and must relate to international shipping activities. Specific APM can be used to control the maritime activities in that area, such as compulsory pilotage programs, separated shipping, traffic lanes, areas to be avoided, reporting requirements, no anchor zones, strict application of discharge and equipment requirements for ships, and installation of vessel traffic services (VTS) (Van Dyke, 2011).

The PSSA Guidelines explicitly states that APM may include any measure that is already available under an existing IMO instrument; or is to be adopted by the IMO; and measures beyond those already identified or approved (Revised Guidelines, 2005).

Basically, the effect of a PSSA is to impose measures to reduce ship-source pollution in the EEZ which a coastal State has no authority to impose unilaterally (Gerard, 1994).

In brief, such PSSA designation can bring three principal benefits to a coastal state; first, it provides global recognition of the special significance; second, coastal states have extra opportunities to adopt additional protective measures (Berstein, 2002).

4. Procedure of PSSA Designation

PSSA designation and the adoption of APM requires consideration of three integral components. First is the particular attributes of the proposed area, second is the vulnerability of such an area to damage by international shipping activities, and third is the availability of APM within the competence of IMO.

The designation of PSSA must be proposed by an IMO member. The proposal itself must meet three requirements. First, the proposal must include information and supporting documentation to show that the proposed area has recognized ecological, socio-economic, or scientific attributes. Second, the proposal must include information and supporting documentation to show that the area is vulnerable from shipping activities. Third, the proposal must state that “APM” within the competence of the IMO are available to prevent, reduce or eliminate the risk of pollution from shipping activities (Beckman, 2011).

If, two or more Governments have a common interest in a particular area, they can formulate a co-ordinated proposal (Revised Guidelines, 2005). Such a proposal however, should contain integrated measures and procedures for co-operation between the proposing Member Governments.

The application for a PSSA should clearly specify the category or categories of ships to which the proposed APM would apply, consistent with the provisions of UNCLOS, including provisions relating to vessels entitled to sovereign immunity in paragraph 7.5.2(5) (Revised Guidelines, 2005). The proposing state is also required to include details of actions to be taken pursuant to domestic law for the failure of a ship to comply with the requirements of the APM and to ensure that any action taken should be consistent with international law

as reflected in UNCLOS, as required in paragraph 7.9 (Revised Guidelines, 2005).

5. Features of PSSA

The Revised Guidelines (2005) issued by IMO addresses two different concepts for the protection of marine areas; one is called Special Areas which are regulated by MARPOL Convention, the other one is PSSA which is not regulated in any of the IMO Conventions. The PSSA provides a clearer framework, which explains why States push for PSSA status in spite of other measures.

The Revised Guidelines (2005) allow PSSAs to be designated anywhere in the sea area. It seems that any part of the sea area such as territorial waters, exclusive economic zones (EEZ) or even straits used for international navigation could be included in the PSSA.

In order to be identified as a PSSA, a sea area only requires one of the criteria established in the Revised Guidelines (2005). The criteria are defined as ecological; social, cultural and economic; or scientific and educational. In addition to meeting at least one of these criteria, the area should also be at risk from international shipping activities. As such, PSSAs provide a less stringent framework than other mechanisms, which usually require cumulative criteria.

Under Special Areas, States only can take protective measures to prevent sea pollution under MARPOL 73/78. MARPOL Annex I (oil), II (Noxious Liquid substances), IV (sewage) and V (garbage) which set forth special discharge standards applicable. Under the PSSA, a state can propose APM which may include wide discretionary measures (Ünlü, n.d.).

6. PSSA and UNCLOS

UNCLOS limits coastal state environmental efforts to protect the freedom

of navigation by providing coastal states with few options for imposing protective measures even in navigationally challenging or ecologically sensitive areas (Van Dyke, 2011). Article 211(6)(a) of UNCLOS provides that where an area in an EEZ is particularly navigationally challenging or ecologically sensitive, a coastal state may "direct a communication" to "a competent international organization" (which has been generally interpreted to refer to the IMO) to permit the adoption of coastal state regulations in that area that are more stringent than international ones. Thus, PSSA policy may still be in line with the values contained in UNCLOS.

C. The Application of PSSA in Indonesian Seas

1. PSSA Categories and Criteria

To be designed as a PSSA, the area must meet at least one of the criteria established in the Revised Guidelines (2005). The criteria are as follows (WWF & The Wildlife Trusts, 2003):

Ecological Criteria include 1) *Uniqueness*, an ecosystem can be unique or rare. An area is unique if it is "the only one of its kind". Habitats of endangered species that occur in one area are an example. 2) *Dependency*, ecological processes of such areas are highly dependent on biologically structured systems. Dependency also embraces areas representing the migratory routes of marine fish, reptiles, birds and mammals. 3) *Representativeness*, these areas have highly representative ecological processes, or community or habitat types or other natural characteristics. 4) *Diversity*, these areas have a high variety of species or include highly varied ecosystems, habitats, communities, and species. 5) *Productivity*, the area has high natural productivity. 6) *Naturalness*, the area has high naturalness, as a result of the lack of human-induced

disturbance or degradation. 7) Integrity, the area is a biologically functional unit, an effective, self-sustaining ecological entity. The more ecologically self-contained the area is, the more likely it is that its values can be more effectively protected. 8) Vulnerability, the area is susceptible to degradation by natural events or the activities of people. Communities associated with the coast may have a low tolerance to changes in environmental conditions, or they may exist close to the limits of their tolerance.

Social, cultural and economic criteria include: 1) Economic Benefit, the area is of particular importance to utilisation of living marine resources. 2) Recreation, the area has special significance for recreation and tourism. 3) Human Dependency, the area is of particular importance for the support of traditional subsistence and/or cultural needs of the local human population.

Scientific and education criteria include: 1) Research, the area has high scientific interest. 2) Baseline and Monitoring Studies, the area provides suitable baseline conditions with regard to biota or environmental characteristics. 3) Education, the area offers opportunity to demonstrate particular phenomena. 4) Historical Value, the area has historical and/or archaeological significance.

2. Application of Categories in the Malacca Strait

The application for PSSA designation and the adoption of APMs to IMO by members should be submitted based on certain criteria as laid down in the *Revised Guidelines* (2005). In designing a PSSA, consideration would also be given by IMO on vessel traffic characteristics which include vessel operational factors, vessel types, traffic characteristics and the harmful substances that the vessels are transporting; as well as natural factors which consist of

hydrographical, meteorological and oceanographic factors.

In order for the proposal to be seriously considered, the proposing State(s) should provide evidence to show the vulnerability of the area to international shipping and to propose effective APMs to protect the area.

The Malacca Straits has long been known as route which is not entirely safe for navigation. Its waters are rather shallow and changes with the tide (Ibrahim, Husain & Sivaguru, 2008); and the seabed also shifts (Van Dyke, 2009). The probability of groundings will always exist.

Accidents and maritime collisions in the Straits of Malacca are exacerbated by heavy traffic, poor visibility during squalls, numerous shoals and banks that often change in location along the waterways, confusing crossing patterns by small domestic craft and several wrecks in certain localities along the Straits (Rusli, 2011).

Based PSSA criteria above, it would not be impossible for Malacca Straits to be qualified as a PSSA as they have significant ecological or socio-economic or scientific value which may be vulnerable to damage by international maritime activities such as shipping movements and discharges of harmful substances.

For example, from the point of social, cultural and economic criteria, these straits have fulfilled all requirements. They have economic benefits; as the Malacca Straits are included into one of the busiest trading routes in this world. They have special significance for recreation and tourism since they are located between three countries known as tourist destinations: Indonesia, Malaysia and Singapore. These straits are also of particular importance for the support of traditional subsistence and/or cultural needs of the local human population as the straits serve as the trading center in the area.

Several scholars however have expressed that the Strait of Malacca as a whole would not qualify for designation as a PSSA, but only a specifically defined areas within it (Beckman, 2004). However, Van Dyke (2009) stated that “the Malacca Strait might be a logical candidate to be designated by the IMO as a particularly sensitive sea area because of the human and economic dependency on this Strait. Its economic importance as a transport channel is unquestioned and the closure of the Strait because of an accident...would be disastrous to the region and the world, and would cause severe harm to other economic activities in the region including offshore fishing, tourism and mangrove harvesting”.

3. Implication of PSSA Application in Indonesian Sea Areas

If PSSA status were to be requested, Indonesia together with Malaysia and Singapore as the coastal states can ask the IMO for permission to issue requirements for vessels and these requirements can and do impose restrictions on the freedom of the seas and passage in the PSSA. Indonesia will have authority to reduce ship-source pollution in its EEZ which it cannot freely do according to UNCLOS. Positive and negative impacts will certainly follow the designation. The environment of the area of course will be better protected with the existence PSSA status.

However, since the Malacca Straits are trading routes heavily laden with traffic, the restrictions towards shipping will

significantly influence the trading activities in the area which later may lead to the decreasing of revenue suffered by the surrounding States; not to mention the possible disruption to global trade routes passing through the strait.

D. Conclusion and Recommendation

As stated in the Revised Guidelines (2005), the purpose of PSSA is to encourage the protection of areas important for the conservation of biological diversity as well as other areas with high ecological, cultural, historical/archaeological, socio-economic or scientific significance. PSSA is thus an instrument which calls upon Parties to protect such vulnerable areas from damage or degradation, including from shipping activities.

The scope of protection of PSSA covers areas that need special protection through action by the IMO due to their significance for recognized ecological, socio-economic, or scientific attributes where such attributes may be vulnerable to damage by international shipping activities. Once an area is designated as PSSA, the states protecting it may formulate its own restrictions to be approved by the IMO.

The author recommends the Government of Indonesia to consider the possibility of applying for the Malacca Strait to be designated as a PSSA. However, the negative impacts arising from the designation which particularly will affect trading activities on In the Malacca strait should be considered.

BIBLIOGRAPHY**A. Books**

- Amiruddin & Asikin, Z. (2004). *Pengantar Metode Penelitian Hukum*. Jakarta: Raja Grafindo Persada.
- Beckman, R. (2009). The Establishment of Cooperative Mechanism for the Straits of Malacca and Singapore under Article 43 of the United Nations Convention on the Law of the Sea. In A. Chircop, T. L. McDorman & S. J. Rolston (Eds.), *The Future of Ocean Regime-Building-Essays in Tribute to Douglas M. Johnston*. Leiden: Martinus Nijhoff Publisher.
- Basiron, M. N. (2008). Sea-Based Sources of Marine Pollution. In H. M. Ibrahim & H. A. Husin (Eds.), *Profile of the Straits of Malacca: Malaysia's Perspective*. Kuala Lumpur: Maritime Institute of Malaysia.
- Dyke, J. M. V. (2009). Transit Passage Through International Straits. In A. Chircop, T. L. McDorman & S. J. Rolston (Eds.), *The Future of Ocean Regime-Building: Essays in Tribute to Douglas M. Johnston*. Leiden: Martinus Nijhoff Publishers.
- Emran, A. (2007). *The Regulation of Vessel-Source Pollution in the Straits of Malacca and Singapore*. Wollongong: University of Wollongong
- George, M. (2008). *Legal Regime of the Straits of Malacca and Singapore*. LexisNexis: Malaysia Sdn Bhd.
- Ibrahim, H. M., Husin, H. A., & Sivaguru, D. (2008). Physical, Ecological and Demographic Characteristics. In H. M. Ibrahim & H. A. Husin (Eds.), *Profile of the Straits of Malacca: Malaysia's Perspective*. Kuala Lumpur: Maritime Institute of Malaysia

Marzuki, P.M. (2005). *Penelitian Hukum*. Jakarta: Kencana

B. Journals and Articles

- Beckman, R. C. (2007). PSSAs and Transit Passage-Australia's Pilotage System in the Torres Strait Challenges the IMO and UNCLOS. *38 Ocean Devel & Int'l L* 325, 327.
- Berstein, B. (2002). Particularly Sensitive Sea Areas": Using a Comprehensive Planning Tool to Protect Habitats from Shipping. *International News and Analysis on Marine Protected Areas*, Vol. 3, No. 8, 1-6
- Rusli, M. H. B. M. (2011). The Legal Feasibility of the Imposition of a Traffic Limitation Scheme in Straits Used for International Navigation: A Study of the Straits of Malacca and Singapore. *International Journal of Humanities and Social Science*, Vol. 1 No. 6, 122-130
- Gerard, P. (1994). Particularly Sensitive Sea Areas-A Documentary History, *9 International Journal of Marine and Coastal Law*, 9(4); 469-482
- Van Dyke, J. M. & Broeder, S. P. (2011). Particularly Sensitive Sea Areas; Protecting the Marine Environment in the Territorial Seas and Exclusive Economic Zones. *Denver Journal of International Law and Policy* 2011-2012, Vol. 40, Issue 1-3, 472.
- C. Conventions and Legal Documents**
Revised Guidelines for The Identification and Designation of Particularly Sensitive Sea Area. *International Maritime Organization Assembly Resolution A.982(24)* (2005).

D. Others

- Beckman, R., Bernard, L. (2011). The Use of PSSAs in the South China Sea. Cooperation for the Safety of Navigation in East Asia: "Legal Arrangements and Political Implications, Panel IV: Navigation in the South China Sea November 17-18, 2011, Haikou, China.
- Beckman, R. (2004). Transit Passage Regime in the Straits of Malacca : Issues for Consideration. Paper presented at the Building A Comprehensive Security Environment in the Straits of Malacca, Kuala Lumpur.
- International Chamber of Shipping. (2013) Shipping, World Trade and the Reduction of CO2 Emissions, United Nations Framework Convention on Climate Change, International Maritime Organization World Maritime Day. Retrieved from <http://www.ics-shipping.org/docs/default-source/resources/environmental-protection/shipping-world-trade-and-the-reduction-of-co2-emissions.pdf?sfvrsn=10>
- International Maritime Organization. (2012). International Shipping Facts and Figures – Information Resources on Trade, Safety, Security, Environment, 6 March 2012. Retrieved from <http://www.imo.org/KnowledgeCentre/ShipsAndShippingFactsAndFigures/TheRoleandImportanceofInternationalShipping/Documents/International%20Shipping%20-%20Facts%20and%20Figures.pdf>
- Mandryk, W. (2008). Lloyd's Marine Intelligence Unit : Strategic Importance of Trade & Shipping in the Straits of Malacca and Singapore. Paper presented at the Symposium on Safety and Protection of the Marine Environment in the Straits of Malacca and Singapore, Kuala Lumpur, Malaysia.
- Nihan Ünlü. (n.d.). Particularly Sensitive Sea Areas: Past, Present and Future. International Maritime Organization. Retrieved from http://www.imo.org/blast/blastDataHelper.asp?data_id=17988&filename=Particularly.pdf
- Suppiah, C. P. (2009). Designating the Straits of Malacca as a PSSA, EAS Congress 2009, 23-27 November, Manila, Phillipines.
- WWF & The Wildlife Trusts. (2003). Joint Marine Programme, Particularly Sensitive Sea Areas (PSSAs) and Marine Environmentally High Risk Areas (MEHRAs), Annex 1, September 2003.