

# **PSSAs in Southeast Asia: Trends and Prospects**

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Singapore

Workshop Report

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Organised by

**CIL**  
CENTRE FOR INTERNATIONAL LAW  
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The Centre for International Law (CIL) at the National University of Singapore hosted a two-day regional workshop on PSSAs in Southeast Asia: Trends and Prospects on 11-12 October 2017. The objective of the workshop was to bring together experts and representatives from governments in Southeast Asia to discuss and learn from the recent Southeast Asian proposals for particularly sensitive sea areas (PSSAs). The workshop also aimed to explore the potential for regional cooperation for environmental protection through the designation of PSSAs and also in the broader context of marine protected areas (MPAs). Speakers were invited from the Philippines, Malaysia, Indonesia and Vietnam to speak on their government's PSSA proposal. Academic speakers were also invited, as well as speakers formerly with the International Maritime Organization (IMO), and from the Singapore Maritime and Port Authority.

### **Workshop opening**

The workshop opened with an address by Professor Tommy Koh, the Chair of the CIL Governing Board. Professor Koh analysed the relationship between the United Nations Convention on the Law of the Sea (UNCLOS) and the concept of PSSAs. He discussed how the negotiators of UNCLOS achieved a comprehensive approach to balancing the protection of the environment and preservation of international navigational rights. Professor Koh also highlighted the richness of the marine biodiversity in Southeast Asia and the need to protect the environment without compromising international shipping and trade.

Ms Youna Lyons, CIL Senior Research Fellow, then presented a map of current MPAs, areas of sensitive marine habitats and/or ecologically and biologically significant areas, PSSAs and ship traffic density in Southeast Asia. Ms Lyons had acquired shipping data which when presented on a map could be overlaid with sensitive marine areas. The map illustrated the extent to which major shipping routes frequently coincide with sensitive marine areas, some of which may be considered for future protection from shipping.

The keynote address was delivered by Ambassador Arif Havas Oegroseno, Deputy Coordinating Minister, Coordinating Ministry for Maritime Affairs of the Republic of Indonesia. Ambassador Havas addressed the workshop on the 'Perspective of a Major Archipelagic State: PSSAs in the Context of National Ocean Policy'. He discussed the significance of the marine environment of the Indonesian archipelago and its location within the coral triangle. He also highlighted the geographical context, with Indonesia at the centre of some of the most important routes for global navigation in the world, namely the Straits of Malacca and Singapore, Sunda Strait, Lombok Strait, Ombai Strait, Macassar Strait and the South China Sea. Ambassador Havas introduced the workshop to Indonesia's work towards a PSSA in the Lombok Strait and its plans for future protection of sensitive marine areas, especially those that lie in close proximity to international shipping routes and choke points. The prospects of using the cooperative mechanisms for the Straits of Malacca and Singapore and expanding the scope of work of the Tripartite Technical Expert Group for this purpose were also discussed.

## Panel 1 – Legal background

The first panel covered the legal background to PSSAs. Captain J. Ashley Roach of CIL first introduced the regulation of shipping under UNCLOS. Captain Roach discussed the relationship between UNCLOS and the IMO, to which UNCLOS ascribed responsibility for the regulation of shipping as the ‘competent international organization’. The drafters of UNCLOS deliberately ensured that its provisions would remain up-to-date by referring to ‘generally accepted international rules and standards’. Through this system of rules of reference, many of the new rules that are frequently developed under the main IMO Conventions such as SOLAS<sup>1</sup> and MARPOL<sup>2</sup> are incorporated into the UNCLOS framework.

Captain Roach then outlined the zone-based jurisdictional framework under UNCLOS, which provides for the receding jurisdiction of the coastal State with distance from the coast. Beyond the territorial sea the coastal State has very limited jurisdiction to regulate foreign ships for any purpose including for environmental protection. Enforcement jurisdiction is even more restricted. Captain Roach also explained the regimes of transit passage through straits used for international navigation and archipelagic sea lanes passage through archipelagic waters, where the passage rights of foreign ships are especially protected and coastal State prescriptive jurisdiction is very limited. As highlighted during Ms Lyons’ map presentation, there are many areas in Southeast Asia where major shipping routes coincide with areas of heightened environmental sensitivity. The limitation on coastal State jurisdiction to regulate ships exercising transit or archipelagic sea lanes passage means that recourse to the IMO for the adoption of measures for environmental protection or maritime safety is essential. PSSAs are one of these measures.

Dr Julian Roberts gave the second presentation on panel 1, on the topic of ‘Measures to protect the marine environment from shipping with or without PSSA designation’. He outlined the different sources of hazards from shipping, which he placed into three categories: operational discharges, accidental discharges and physical damage. He then discussed the various measures available to coastal States to respond to these hazards, such as routeing measures, discharge restrictions and construction, design, equipment and manning standards. Dr Roberts highlighted the nexus between navigational safety and the protection of the marine environment, with many measures having a dual purpose. Dr Roberts introduced a question that would re-emerge throughout the course of the workshop, namely the distinction between mandatory or recommendatory routeing measures. He stated that the presumption is that routeing measures are to be recommendatory, with mandatory measures only to be adopted in exceptional

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<sup>1</sup> *International Convention for the Safety of Life at Sea*, opened for signature 1 November 1974, 1184 UNTS 1 (entered into force 25 May 1980).

<sup>2</sup> *International Convention for the Prevention of Pollution from Ships* (as Modified by the Protocol of 1978 Relating Thereto), opened for signature 2 November 1973, 1340 UNTS 184 (entered into force 2 October 1983).

circumstances. Dr Roberts also provided an overview of the process for the approval of routing measures through the IMO committees and sub-committees.

Having outlined the measures available to the coastal State under the IMO mechanisms,<sup>3</sup> Dr Roberts discussed the benefits of PSSA designation over and above stand-alone measures. Many of the measures he discussed are available to the coastal State without applying for PSSA designation. Considering the lengthy and difficult assessment process for a PSSA application, it is worthwhile considering what its added benefits are. He summarised the main benefits as:

1. Global recognition of the special significance of an area – informing mariners of the importance of taking extra care;
2. Comprehensive management tool to examine vulnerability from shipping and identify measures to address vulnerability; and
3. Adoption of additional protective measures to address risks associated with international shipping.

Global recognition comes through the 'intrinsic status' of a PSSA, and it alerts mariners to the environmental importance of an area. Dr Roberts stated that in a way, the PSSA designation procedures serve as a risk assessment, with the vulnerability of the area examined and then appropriate protective measures identified. He also made the point that designation of an area as a PSSA itself does not change the legal status of an area, and that its benefits legally and in practice come through the associated protective measures (APMs) adopted within it. Dr Roberts presented the example of the Jomard Entrance PSSA in Papua New Guinea, which did not involve any new APMs but rather relied on previously adopted routing measures for the PSSA application. He raised the question of whether PSSA designation had brought benefits in that case. Dr Roberts also introduced the issue of implementation, compliance and monitoring, which would be picked up throughout the workshop and particularly during the second day.

During the discussion session many important points were raised. Options for compliance were discussed, such as through port state control memoranda of understanding where non-compliant ships can be inspected or sanctioned in a future port. The private law dimension was also raised, in terms of the role of insurance companies through the warranty of legality, which could be breached by a pattern of non-compliance. The speakers and participants also discussed the role of PSSAs in the context of the broader range of threats faced by a particular area, not just threats from shipping. The relationship with other instruments and mechanisms was raised. It was pointed out that assessment of the sensitivity of an area under another instrument or mechanism can help inform the decision-making process with regard to the appropriate protective measures to be adopted. The development of the PSSA concept over time was also discussed. In the period around 2005 controversial proposals were presented to the IMO, such as the Western European PSSA,

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<sup>3</sup> Such as routing and reporting measures under SOLAS and discharge restrictions under MARPOL.

and some pushback was felt. Since then, it was agreed by the speakers that the quality and rigour of PSSA proposals has improved significantly.

## **Panel 2 – Nature of PSSAs and Protection of the Marine Environment**

The first speaker Associate Professor Robert Beckman from CIL presented the PSSA concept and designation procedures. This was the logical next step from the earlier presentation on the UNCLOS regime for shipping, and then on the IMO measures for environmental protection with or without PSSA designation. Professor Beckman examined the concept of PSSAs, which is defined by the IMO as ‘an area that needs special protection through action by the International Maritime Organization (IMO) because of its significance for recognized (a) ecological, (b) socio-economic or (c) scientific attributes, where such attributes may be vulnerable to damage by international shipping activities.’ He presented an overview of the development of the PSSA guidelines and the 15 PSSAs designated to date. The only PSSAs in Asia-Pacific from 1990 to 2015 were the Great Barrier Reef (adopted in 1990) and its Torres Strait (2005) and Coral Sea extensions (2015). In 2016 the Jomard Entrance PSSA was adopted in Papua New Guinea, and in 2017 the Tubbataha Reefs Natural Park PSSA in the Philippines. Professor Beckman introduced the types of APMs available to be adopted and presented a survey of those adopted to date, with areas to be avoided (ATBA) the most common, followed by mandatory ship reporting systems.

The extensive application process for a PSSA was explained, including the scientific criteria to be met for a marine area to qualify as ‘sensitive’, the characterisation of the risk resulting from shipping traffic, how the legal basis for an APM must be identified, and how the APM will respond to the identified risks from shipping traffic, and any potential impact of the APM on the safety and efficiency of navigation assessed. The application process through the relevant IMO committees, sub-committees and technical groups was also outlined. While the Marine Environment Protection Committee (MEPC) has the primary responsibility for considering PSSA applications, many APMs also need approval from the Navigation, Communications, Search and Rescue Subcommittee (NCSR) and the Maritime Safety Committee (MSC) if they include routeing or reporting measures. Professor Beckman discussed the relationship between UNCLOS and PSSAs and the jurisdiction to adopt a PSSA and its APMs in the different maritime zones. The implementation and enforcement of PSSAs were also discussed, with the essential point that outside of the territorial sea, the coastal State has limited powers of enforcement and must instead rely on the flag State to exercise jurisdiction and control.

The second presentation was given by Edward Kleverlaan, who was formerly with the Marine Environment Division of the IMO. The four Southeast Asian PSSA proposals that were the subject of the workshop were all the result of a project run by the IMO and financed by the Norwegian Agency for Development Cooperation (Norad). Mr Kleverlaan was responsible for the management of that project. Mr Kleverlaan introduced the IMO/Norad PSSA project, which was commenced in 2010. States who participated in the project were Indonesia, Malaysia, the Philippines and Vietnam. The short-term goal of the

project was to assist the four States to prepare and submit proposals to the IMO for PSSAs in the Southeast Asian region including the adoption and enforcement of APMs. The long-term goal was the protection of the marine environment from the effects of international shipping. In selecting areas for PSSA proposals, the objective of the project was to choose areas that were high priority, limited in number and less controversial. The first stage of the project was to conduct a study of maritime traffic in Southeast Asia. Some of the major difficulties encountered during the project were the challenges of internal government coordination, as PSSAs normally involve the competence of several different agencies or departments. This problem was also raised by the representatives from the governments in the region.

Mr Kleverlaan also highlighted some practical considerations relating to the IMO application process, such as the deadlines for submitting documents in order to allow for translation, and the importance of gaining support from other interested States prior to the meeting itself in light of the tight meeting agendas and to avoid deferral application to the following meeting. Mr Kleverlaan discussed the expectations that the IMO has regarding coastal and flag State implementation after PSSA designation. These include the adoption of national legislation, modification to nautical charts as soon as possible, issuance of notices to mariners, and compliance and monitoring through inspections or surveys. The IMO also expects that detection and policing patrols will be carried out, a system of adequate sanctions for violations put in place, as well as a plan for review and reporting of the effectiveness of the PSSA at regular intervals.

During the discussions, the question of PSSA adoption in areas without an agreed maritime boundary was raised. The Baltic Sea PSSA was offered as an example of a PSSA where the boundaries had not been finalised. The importance of markings on the nautical charts was emphasised as being one of the major advantages of adopting routeing measures through the IMO rather than unilaterally in the territorial sea. The discussion also turned to new and emerging issues to be addressed by the IMO, such as underwater noise, the harm caused by anti-fouling substances, greenhouse gas emissions from ships, and the processing and loading of vessels on the high seas or EEZ in connection with deep seabed mining. The possibility of regional cooperation in Southeast Asia in the form of a network of MPAs was discussed, including the role that PSSAs might play in such a network. Despite the potential advantages of a regional approach, there were considered to be difficulties such as which body or State would take charge of a regional approach.

### **Panel 3(1) – PSSA Applications in Southeast Asia (1)**

In the third panel, spread over days one and two, a representative each from Malaysia, Indonesia, Vietnam and the Philippines presented on their PSSA proposal. Ms Cheryl Rita Kaur from the Maritime Institute of Malaysia introduced the participants to the environmental need in the Tanjung Piai/Pulau Kukup area. The proposed PSSA includes a coastal mangrove located at the southernmost tip of peninsular Malaysia. The area is included in a Ramsar Wetland of International Importance and is also protected under

national legislation. It faces a variety of threats including coastal erosion and pollution, which appear to be linked to shipping. Malaysia's finalised application was not considered by the technical group on PSSAs at the MEPC meeting in July this year, as it is in an area that may be affected by ongoing maritime boundary negotiations with Indonesia. Concerns were also raised about potential effects on ships navigating through the TSS, as the proposed PSSA is just outside the TSS boundary. An intersessional meeting with the littoral States, Indonesia and Singapore, has been organised to discuss Malaysia's application.

The Vietnamese PSSA proposal, the next to be presented, is the least advanced of the four discussed during the workshop. Vietnam submitted an information document to the 69<sup>th</sup> session of the MEPC in 2016, however, it has not yet finalised the application. The representative from Vietnam placed the Vietnamese PSSA application in the context of the national network of MPAs being developed in Vietnam. The area chosen for PSSA designation, Ha Long Bay – Cat Ba Island, was selected primarily for its recognised international importance, as it is a World Heritage Site, part of UNESCO's Man and the Biosphere network and a popular tourism destination, while also being an area of dense commercial shipping traffic. There are already many protective measures in place in the area, such as compulsory pilotage, navigational aids, ship reporting, and vessel traffic services. Vietnam is currently considering the most appropriate APMs to accompany the eventual PSSA submission.

In the discussion session, the APMs proposed for the Malaysian PSSA were discussed, in particular a possible speed-limit that was not proposed in the original PSSA application. Studies of the impact of the speed of vessels on coastal erosion would suggest that greater speed of coastal vessels results in a greater impact. Concerns were raised generally about potential impacts of a speed reduction measure on ships transiting the Malacca Strait in the traffic separation scheme. The option of a joint proposal for the Tanjung Piai/Pulau Kukup area by the three littoral States was also discussed. One participant stated that because the proposed PSSA might impact vessels exercising transit passage through the strait, the proposal should first be endorsed by the three littoral States that jointly manage international shipping in the Straits of Malacca and Singapore.

### **Panel 3(2) – PSSA Applications in Southeast Asia (2)**

The second session of Panel 3 opened with a presentation by Professor Jay Batongbacal on the Philippines' PSSA in the Sulu Sea, the only one of the four in the Norad project that has been formally designated by the IMO. After designating the PSSA in principle at MEPC 69, the 71<sup>st</sup> session of the MEPC designated the Tubbataha Reefs Natural Park PSSA in July 2017. The PSSA is located within the Philippines' archipelagic waters. Despite domestic measures that were in place to protect the Tubbataha Reefs Natural Park, there were recurring issues of foreign vessels ignoring them even though they were marked on navigational charts. Therefore, PSSA designation was considered to be an attractive tool to improve compliance. The lead up to the PSSA proposal at the IMO was marked by a series of high profile and damaging groundings on the reef. The PSSA included as its APM an ATBA,

coinciding with a 10 M buffer zone defined under national law around the reefs. There is heavy shipping traffic near the reefs, and therefore the ATBA involved a slight deviation from the main shipping route. However, the deviation is very slight, and therefore a minimal impact on international navigation is expected. After the PSSA was designated in July 2017, a notice to mariners was issued, with the PSSA coming into force on 1 January 2018. Professor Batongbacal noted that even though the PSSA has not yet come into force, ships are already complying with the ATBA.

Mr Raymond Ivan Sianturi from Indonesia presented the proposed PSSA for Lombok Strait, which similarly to the Tubbataha Reefs Natural Park is located within Indonesian archipelagic waters. Having already submitted an information document at MEPC 71, Indonesia plans to submit the PSSA application to MEPC 72 in 2018. The Lombok Strait, including Nusapenida and Gili Islands, contains many important species of coral reef, seagrasses, turtles and fish. The Lombok Strait is the narrowest part of Indonesian Archipelagic Sea Lane II, an IMO-adopted archipelagic sea lane, and experiences heavy shipping traffic. In addition to the large number of very large crude carriers, many non-SOLAS vessels navigate in the strait, and Indonesia is concerned about the risk of collisions between domestic passenger ships and vessels travelling through the strait. In response to these risks, Indonesia is considering proposing APMs including two ATBAs, traffic separation schemes, four precautionary areas, vessel traffic services, ship reporting systems as well as aids to navigation. Mr Sianturi stated that these APMs would not result in any longer navigation distance, voyage time, or any additional cost. They would however reduce the risk of serious harm from shipping to the sensitive marine environment in the Lombok Strait.

In the discussions, a question was raised regarding the legal status of the waters where the Philippines' PSSA has been designated. It was confirmed that the route that passes by the Tubbataha Reefs Natural Park is likely to be a 'normal passage route used as [a] route for international navigation' through archipelagic waters. This means that the ships navigating on that route are ships in archipelagic sea lanes passage. The Philippines is still in the process of preparing legislation to adopt archipelagic sea lanes through the IMO. Any future archipelagic sea lane will have to avoid the ATBA. The practical implementation of the Philippines' PSSA was discussed, being the only one of the four discussed at the workshop to have been designated by the IMO. Mariners are required to plot the ATBA on paper charts until the electronic charts are updated. Sailing directions were considered to not be as useful in the short term as notices to mariners as they are not updated as frequently. The problem of accuracy of electronic charts was highlighted, which had led to groundings at Tubbataha Reef in the past.

#### **Panel 4 – Lessons Learnt and Review Mechanism**

Having discussed the four Southeast Asian PSSA proposals, the workshop turned to consider what happens after a PSSA is designated. Panel 4 focused on lessons learnt from a long-standing PSSA, and the need to review the effectiveness of PSSAs following designation. Professor Richard Kenchington gave a presentation on 'Implementation, Monitoring and



Review: Experience of the Great Barrier Reef PSSA'. The Great Barrier Reef was the first PSSA to be adopted, and Professor Kenchington was involved with the application to the IMO, which was approved in 1990. Professor Kenchington explained the history of the Great Barrier Reef, its sensitive marine environment, the many hazards it poses to navigation, and the impacts that have resulted from physical damage caused by shipping. He outlined the successive adoption of protective measures and designations for the Great Barrier Reef over the past several decades. Enforcement action taken against ships in violation of the PSSA's APMs was discussed, as well as the review and reporting system in place under domestic law. Professor Kenchington emphasised the importance of holistic management to protect the marine environment from the effects of shipping, and urged the governments in the Southeast Asian region and particularly in the coral triangle to work together on marine environmental protection.

Professor Aldo Chircop explored an approach to review the effectiveness of PSSAs. The PSSA guidelines urge flag and coastal States to approach the IMO with any concerns or proposals for modifications to APMs or PSSAs, with the IMO to provide 'a forum for the review and re-evaluation' of APMs. However this system is yet to be used. Professor Chircop outlined the two high-profile proposals made to the IMO for action to be taken on the review of PSSAs, one made by the World Wildlife Fund and the International Union for the Conservation of Nature in 2013, and the other by the Russian Federation in 2016. The Baltic Sea PSSA was used as an example to help answer the question, 'how do we know the PSSA is making a difference?'. The review conducted by the Swedish Maritime Safety Inspectorate six months after the Baltic Sea PSSA entered into force was identified as an example of what a PSSA review could look like. That review found that the majority of ships had complied with the APMs, and that there were no accidents in the APM areas. However, there was a lack of baseline data and there was no clear way to determine whether accidents would have occurred without the APMs. Professor Chircop discussed the pros and cons for a 'review standard', asking whether it is necessarily desirable to have a system for reviewing PSSAs. A review standard for PSSAs would be beneficial in terms of maintaining the international status of PSSAs, ascertaining that they are functioning as intended, and allowing adjustments to be made as needed. However, it would be difficult to filter out the beneficial effects of other designations, and difficult to draft a common standard for all PSSAs. Professor Chircop raised key questions for the framing of a review across six categories: scope and focus, process, criteria/metrics, structure, periodicity and authoritativeness. He concluded that IMO member States have a legitimate expectation to receive reports from PSSA States and flag States. Reviews of PSSAs must not only consider the impact on the marine environment, but also the efficiency of the PSSA, as APMs often involve some impact on international navigation. A reasonable balance between navigation rights and protective measures should be maintained.

During the discussions, the role of flag States in ensuring the effectiveness of PSSAs was considered. As flag States are able to raise concerns to the IMO about APMs in PSSAs, it was asked why flag States shouldn't be held accountable for compliance with APMs. Due to the

UNCLOS jurisdictional framework, there are often few options available to the coastal State for non-compliance with an APM in a PSSA beyond informing the flag State about a non-compliant vessel. It was pointed out that if a coastal State advises a flag State that a vessel flying its flag has failed to comply, the flag State should investigate and advise the coastal State of the actions it has taken. It was also opined that publication or 'naming and shaming' of the violation or of flag State failures to enforce the PSSA's APMs against its vessels could be effective, but there is no evidence that coastal States have taken such measures. The possible role of the IMO in receiving complaints against flag States was discussed, including whether the IMO could be a clearing-house for complaints. However, it was generally agreed that the IMO merely plays a facilitative role for its member States and that it operates in a non-confrontational manner. Regarding the coastal State's role in reviewing the effectiveness of PSSAs, it was stated that most coastal States do actively manage and monitor their PSSAs. A concern was raised about reviewing PSSAs, in case that led to the removal of protections under the PSSA which would re-expose the marine environment to the risk of adverse impacts from shipping. Currently the review requirements in the PSSA guidelines are voluntary, with no specific management requirements. It was discussed whether a mandatory review system would require a specific legal basis.

#### **Panel 5 – Implementation, Compliance and Enforcement**

Panel 5 continued with the topic of what happens after PSSA designation, with a panel discussion on 'Implementation, compliance and enforcement'. The panellists were Edward Kleverlaan, Professor Aldo Chircop, and Martin Marini and Aidan Ho from the Singapore Maritime and Port Authority. Each of the speakers brought expertise on the topic from a different perspective, namely the IMO, international law of the sea and maritime law, and flag and port/coastal State administration. The IMO's expectations regarding the role of port, flag and coastal States in implementing PSSAs were outlined. The role of the IMO itself was described as one of developing, reviewing and maintaining global regulations, including relating to compliance, rather than any involvement in enforcement. From the perspective of international law, the expectation is that all States will legislate for the APMs under their domestic processes. Flag States have the duty to exercise jurisdiction and control over their vessels; however, they require both a regulatory basis and the evidence to take action against a non-compliant vessel. Port States have the option to take enforcement action against vessels voluntarily in port; however, they cannot detain ships for an excessively long period of time. It was suggested that maritime academies could place greater emphasis on PSSAs to train future officers appropriately.

An important point from the perspective of the flag and port/coastal State representatives on the panel was whether the APMs were mandatory or recommendatory. A distinction was made between those regulations that become amendments to international treaties, violations of which the national authorities will prosecute, and those that are recommendatory. It was considered to be the general practice of flag States not to make mandatory through domestic legislation what the IMO has only adopted as

recommendatory. The practical processes within the domestic administration were also discussed. Once the MEPC adopts a resolution for a PSSA, the flag State administration issues a shipping circular to inform ship owners to prepare for the future PSSA. Another shipping circular is issued when the PSSA comes into force. If a violation is reported to the flag State, it will investigate and prosecute. Singapore also has a record of assisting other flag State administrations to investigate instances of non-compliance even where the violation did not occur within Singapore waters. Singapore takes a proactive role in informing the shipping industry of developments at the IMO and discusses upcoming issues to obtain input from the ship owners. Discussions regarding enforcement of APMs against Singapore-flagged ships were hypothetical, as no report of non-compliance with an APM had been received by the Maritime and Port Authority of Singapore to date. If a ship were found to be in violation of a recommendatory measure, although Singapore would not prosecute, the authorities would work with the ship owner to improve compliance in future. Singapore promotes early compliance by its vessels with new international rules before they enter into force by providing fee concessions. Regarding the role of port States in general, it was emphasised that port state control must be exercised reasonably, as the power can be very far-reaching. However, if an egregious violation has been reported, the Singapore port authorities may not allow the ship into port as it would present too great a danger to port waters. The Singapore authorities would not arrest a ship in transit passage through the Straits of Malacca and Singapore for a violation of IMO regulations as it does not have the authority to do so under UNCLOS, except for very limited circumstances.

Following the panel discussion, Ms Youna Lyons gave a presentation on 'PSSAs in the wider context of marine protected areas (MPAs) in ocean law and policy'. Ms Lyons discussed how PSSAs developed at the IMO in parallel with developments under other instruments and bodies. She compared the selection criteria for PSSAs developed by the IMO with the selection criteria under other instruments and bodies such as the conference of the parties (COP) to the Ramsar Convention, the UNESCO World Heritage Convention, the Convention on the Conservation of Migratory Species, the Convention on Biological Diversity, the UN Food and Agriculture Organisation and the COP to the London Convention and Protocol. Ms Lyons addressed the question of whether PSSAs are a type of MPA, and concluded that MPAs must have the objective of long-term conservation. Therefore, a PSSA could in theory be an MPA if it met the conservation requirements, though Ms Lyons stated that it is more likely that PSSAs would be viewed as a management tool or a mechanism within an MPA. She also reflected back on the map of sensitive marine environments and ship traffic density presented at the start of the first day of the workshop, highlighting areas where shipping hotspots occur in sensitive marine areas. The question was raised whether these points would be good candidates for future PSSAs, which could potentially contribute to the global target of protecting 10% of coastal and marine areas by 2020 as called for in the UN General Assembly 2016 Resolution on Oceans and the Law of the Sea.

## **Panel 6 – Future of PSSAs in Southeast Asia and Prospects for Regional Cooperation**

The final panel of the workshop was a discussion on the topic of the future of PSSAs in Southeast Asia and prospects for regional cooperation. The panel was comprised of Cheryl Rita Kaur, Jay Batongbacal, Edward Kleverlaan, Youna Lyons and Julian Roberts. The panellists gave their opinion on the prospect of regional cooperation on PSSAs and MPAs more broadly, with all panellists agreeing that regional cooperation would be beneficial. The approach of the four Southeast Asian States seems to be to learn from their first PSSA proposal before considering proposing further PSSAs. Professor Batongbacal stated that his country would apply for further PSSAs in the future. A regional approach would allow a network of PSSAs and MPAs that could reflect the ecological linkages between different areas. The coral triangle was particularly cited as an area that would benefit from increased regional cooperation to protect the marine environment from shipping. The Coral Triangle Initiative is a large multilateral governmental and non-governmental partnership that focusses primarily on coral reefs, fisheries and food security. It does not include measures in place to protect the marine environment from the effects of shipping. However there are many hurdles, such as the extensive inter- and intra-governmental consultation required, and practical matters such as funding and coordination. On PSSAs more broadly, the point was raised that whether they are mandatory or recommendatory, APMs adopted by the IMO are generally complied with and there is little distinction in practice. The potential to develop and adopt other measures beyond those already available under the IMO instruments as APMs was also highlighted as a rarely-utilised benefit of PSSAs.