"Particularly Sensitive Sea Areas": Using a Comprehensive Planning Tool to Protect Habitats from Shipping

Roughly 80% of international trade is carried by ship. Such traffic carries the risk of groundings, collisions, spills, and other incidents that threaten the ecological health of marine systems. The associated hazards to habitats and wildlife pose a persistent concern for managers of marine protected areas, particularly those near major ports or shipping routes.

In several cases around the world, MPA practitioners have moved to reduce these threats by implementing focused regulatory instruments, such as shipping lanes, areas to be avoided, or discharge restrictions. But a broader, higher-profile tool remains available - the international designation of sites as Particularly Sensitive Sea Areas, or PSSAs - offering managers a comprehensive approach to seeking vigilance and awareness from the international shipping industry.

Available since 1991, the PSSA tool has so far been approved for just two sites, but more are now in the designation pipeline. This month, MPA News examines the PSSA tool and how some practitioners intend to apply it.

Benefits of PSSA designation

The International Maritime Organization (IMO) - a United Nations agency focusing on international shipping - is responsible for designating various internationally recognized protective measures, including PSSAs. Member states submit proposals for PSSA designation to the IMO; if approved, the designated PSSA appears on international nautical charts.

The IMO defines a PSSA as "an area that needs special protection through action by IMO because of its significance for recognized ecological, socio-economic or scientific reasons, and which may be vulnerable to damage by international shipping activities." In short, PSSA designation offers three principal benefits:

- Providing global recognition of the special significance of a designated area though identification of PSSA status on international charts;
- Informing mariners of the importance of taking extra care when navigating through a region; and
- Giving coastal states the opportunity to adopt additional protective measures to best address the particular risks associated with international shipping in the area.

The third benefit is a critical part of any PSSA designation because, by itself, PSSA status confers no direct regulatory benefits. Associated measures - such as areas to be avoided (ATBAs) and other regulatory actions - provide the actual legal basis for restrictions on shipping. For this reason, any application made to the IMO for PSSA designation is expected to identify at least one associated protective measure that addresses the risk posed to the area by international shipping activity.

Of course, managers need not pursue PSSA status in order to receive approval to implement the more focused measures: many more sites feature IMO-approved ATBAs, for example, than PSSAs. What's more, these measures appear on international charts just like PSSAs do, and may take only a few months to gain IMO approval, rather than the years it can take to secure PSSA designation.

So the question arises: Why should managers pursue PSSA status if the associated measures provide the real regulatory protection and take less time to achieve?

One answer may lie in the process. Kristina Gjerde, a member of the IUCN Commission on Environmental Law and an advisor to WWF International, says the procedure of preparing a PSSA proposal provides an invaluable opportunity to take a comprehensive approach to protect an area from the adverse impacts of shipping. "Consultations with local fishermen, recreational users, the environmental community, the shipping community, scientists, and other concerned citizens on the environmental conditions in the area may reveal new or different problems than those anticipated," Gjerde wrote in a briefing paper to WWF, which she made available to MPA News. "The wide range of protective measures available can be reviewed to determine which ones best meet the needs of the area at risk."

Notably, the PSSA instrument also allows for the IMO and member states to craft extraordinary measures, beyond existing IMO measures, to meet the special characteristics of a discrete area. Examples of measures not normally designated by the IMO could include speed restrictions, prohibitions on ballast water discharges near PSSAs, or air pollution emission limitations, according to Gjerde's paper.

The Great Barrier Reef Marine Park (GBRMP) in Australia, one of two existing PSSAs, features a compulsory pilotage system along the park's inner shipping route for vessels over 70 meters in length - again, nor normally an IMO-designated measure but approved in the case of this particular PSSA.

Furthermore, PSSA designation in itself may send a message to the shipping community irrespective of associated protective measures: namely, that this site on the chart has been deemed one of the most sensitive sea areas in the world. In the long run, it is possible that courts will come to expect a higher standard of conduct in such areas.

Existing and future PSSAs

The GBRMP received its PSSA designation in 1990. (Interestingly, the IMO did not formally adopt its own guidelines for the PSSA program until a year later.) The other existing PSSA is the coral-laden Sabana-Camaguey Archipelago in Cuba, approved in 1997.

Each site has incorporated protective measures to supplement its PSSA designation. The GBRMP, for example, complements its above-mentioned pilotage system with a mandatory vessel reporting scheme, in which all vessels over 50 meters in length are required to report their position at specific points along the park's inner shipping route, between the reef and the coast. The system is integrated with a radar monitoring system at key entrances to the reef. The park's management also effectively prohibits the discharge of pollutants (except sewage) from ships within the Great Barrier Reef lagoon.

Why so few PSSAs have been designated in the past decade may be due to the length of time it takes to secure the designation. "It is a slow process to get a proposal approved at the [national] government level, even before bringing it to the IMO," said Gjerde. Once a proposal reaches the IMO, several committees must approve it before final designation. Gjerde adds that the original 1991 guidelines for the instrument were overly complex, and mixed PSSAs with the concept of Special Areas, a designation under MARPOL (the international convention for the prevention of pollution from ships). The IMO updated its PSSA guidelines last year to clarify the program and the proposal submission process.

Two sites are now awaiting their PSSA designation. The Florida Keys National Marine Sanctuary (FKNMS) in the US, and the archipelago of Malpelo off the Pacific coast of Colombia have already received IMO committee approval of their associated protective measures. Formal PSSA approval could come as soon as this month for both of them.

The waters around the Florida Keys are one of the most heavily trafficked shipping areas in the world. An estimated 40% of global shipping commerce passes within a day and a half sailing time of the FKNMS. Although the sanctuary has had protective measures in place for years - including a no anchoring zone and areas to be avoided - its management sees PSSA status as bringing an added level of protection. "PSSA status is going to help us enormously in getting the word out to the international shipping community about the particularly sensitive area that we have here in the Florida Keys," said Billy Causey, FKNMS superintendent. "It's one more tool to put in front of the shipping community."

Colombia's application for PSSA status for Malpelo has featured a unique application of the tool. The group of mostly uninhabited islands, located hundreds of miles from the Colombian mainland, suffers from illegal fishing. To solve this problem, Colombia approached the IMO for approval of PSSA status and an area to be avoided - in effect, creating an area off-limits to all vessels of a certain size, including the fishing boats Colombia hopes to control. When faced with the fact that the IMO had created PSSAs as a way to improve vessel safety - not to protect against illegal fishing - Colombia argued that many of the fishing vessels were traveling with no lights on, thus creating an unsafe shipping environment, according to people involved in the international discussions. With the backing of other South American nations, the argument has been successful.

More PSSA opportunities

Interest in PSSA status has not been confined to tropical areas. The highly productive Wadden Sea ecosystem, off the coasts of Denmark, Germany, and The Netherlands, experiences significant shipping hazards to habitats and wildlife pose a persistent concern for managers of marine protected areas, particularly those near major ports or shipping routes.
traffic to several ports. It is now the focus of a three-nation effort to secure PSSA status. The Trilateral Governmental Conference, a transboundary coordinating body on Wadden Sea issues, voted last October to submit a PSSA application to the IMO, to be associated with existing protective measures. The sea is home to several marine protected areas, including the Wadden Sea Conservation Area, recommended for nomination as a World Heritage Site. (A PSSA feasibility study conducted for the Wadden Sea ministers in 2001 is available in PDF format online at http://cwss.www.de/news/documents/pssa/PSSA-report.pdf)

PSSAs could some day be designated on the high seas, say some legal experts. Although it is unclear how exactly a proposal would be submitted for a high-seas MPA, the IMO may have the power to approve one. “As many of the protective measures in use through IMO extend beyond the limits of the territorial sea, the 200-mile exclusive economic zone, and into the high seas, it would appear that IMO has the competence to designate PSSAs on the high seas,” said Gjerde. “PSSAs on the high seas could then be protected by IMO measures.”

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BOX: IMO-approved protective measures to accompany a PSSA proposal
IMO tools that could serve as associated protective measures with a PSSA include:

- Traffic separation schemes - used to separate opposing streams of traffic through the establishment of traffic lanes or separation zones.
- Areas to be avoided - closure of an area to all ships or to certain sizes or classes of vessels.
- No anchoring areas - established to protect areas with an unstable anchoring bottom or that may be damaged by anchor weight or slippage.
- Ship reporting systems - used to determine the intended movement of a ship through a given area.
- Discharge restrictions - regulating operational discharges from ships.

BOX: PSSA designation not for all MPAs
Although PSSA designation could serve as a useful tool for many MPAs, it would be inappropriate or unnecessary to apply to all. MPAs with minimal shipping pressures, for example, would have little use for it, as would MPAs committed to implementing only a single protective measure, such as a no anchoring area.

Billy Causey, superintendent of the Florida Keys National Marine Sanctuary (US), would like to see the PSSA tool remain a relatively unique designation. “I think its value would diminish if it were used everywhere,” he said.

BOX: Applying for PSSA designation
Only IMO member states can submit proposals for PSSA designation. Governments with a common interest in an area should submit a coordinated proposal. The application itself must contain:

- A summary of the objectives of the proposed PSSA identification, its location, the need for protection, and a proposal for associated protective measures.
- A detailed description of the area, together with a chart; an explanation of the significance of the area based on recognized criteria; and an explanation of the vulnerability of the area to damage from international shipping activities.
- A description of the proposed measures showing how they will provide the needed protection from threats of shipping damage.
- A review of the possible impact of any proposed measures on the safety and efficiency of navigation.

(Source: Adapted by MPA News from a paper presented at the Coastal Zone 2001 conference in Cleveland, Ohio [US], by Kristina Gjerde, a member of the IUCN International Commission on Environmental Law.)

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