

What Maritime Domain Awareness structures for the Blue Pacific? 12 points to ponder.

Christian Bueger, Cardiff University¹

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In 2017 at their annual forum the Pacific island nations embraced the narrative of a blue Pacific and called for more security cooperation, in particular as it concerns maritime security.² They explicitly called for the development of a maritime domain awareness structure, or in short MDA. As the communique states “Leaders acknowledged the need to strengthen cooperation and information sharing in maritime domain awareness.”³ The objectives of this meeting is exactly to develop an outline for that structure.

This meeting will be important for the future of the region and its security. In this talk I would like to firstly show why I think that MDA is so important for the region. I will provide an outline of the fundamentals of MDA and summarise these in six activities. Secondly, I like to draw on the experience in other regions to discuss some of the opportunities and risks linked to developing MDA. I shall summarise six core lessons that can be gathered from international experience. This gives us all together 12 points to ponder in developing an MDA structure for the Blue Pacific.

What is MDA and why does the Blue Pacific need it?

MDA is often linked to the U.S. proposal of a 1,000 ship navy in which all states would work together to secure the maritime domain and MDA would provide the backbone. While the US proposal was important, the debate on MDA is de facto much older and ideas for developing it come from all different directions, in particular debates in the International Maritime Organisation.

The core idea of MDA is simple and straightforward: In order to act and protect the maritime space we need to know what is happening and what we are dealing with. In order to improve, become more efficient and save resources and money, we also need to know how well or bad we are doing. MDA is hence in the first place knowledge production about what happens at sea. The goal is to develop shared understandings what requires attention, care and stewardship.

¹ Christian Bueger is Professor of International Relations at Cardiff University. In summer 2018 he will join Copenhagen University. His core field of research is maritime security and ocean governance. Further information is available at <http://bueger.info>. He can be contacted at cbueger@gmx.de.

² Pacific Island Forum (2017): 48th Pacific Island Forum Communique, 5-8.9.2017.

³ Pacific Island Forum (2017): 48th Pacific Island Forum Communique, 5-8.9.2017, para 34

MDA relies on a number of activities.

This is **first, the collection of information and data**. Information comes from sensors and surveillance activities, but also from the public domain and human informants. While much of the discussion is often focused on the latest high tech or what you can do with satellites and drones, it is important that human informants are the most important source. Indeed some MDA centres almost exclusively rely on data from such sources, e.g. through a network of coastal watchers or coastal community engagement programmes.

The second task is the **sharing and fusion of information**. This implies firstly to make information accessible and store it at one central place, that is, a database. This is often more difficult than it sounds, since data comes in different formats and with different usage restrictions attached and trust is the precondition for sharing.

Thirdly, the **analysis of information**. This step is vital. We should not forget that information and knowledge are not the same. Information needs to be interpreted and made sense of. Several tools are used to help with interpretation, which includes visualisation, often on maps, statistics and trends analysis, and increasingly algorithm which are supposed to identify anomalies and potential threats. The most important tool, however remains the human brain and the experience of experts interpreting the data.

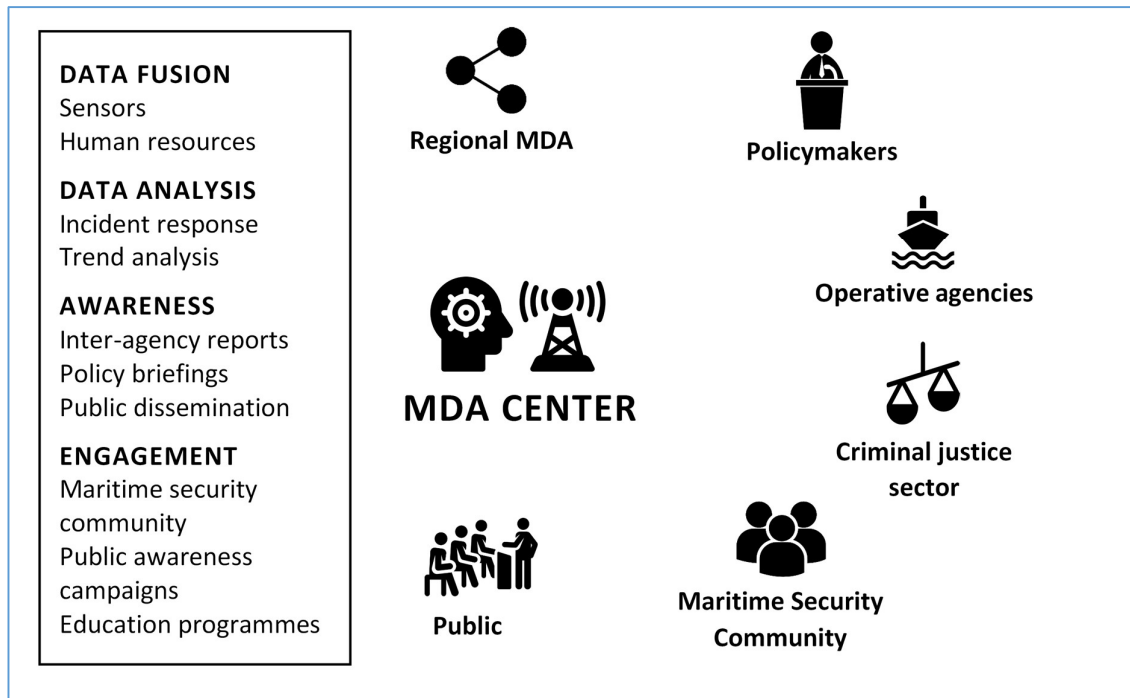
Fourth, the **dissemination and distribution of results**. In order for knowledge to lead to action, it must be brought to the attention of the decision makers as well as all users of the sea - from coast guards to the shipping and fishing industry, to environmental NGOs. Many MDA structures also include public engagement and education projects to address seablindness in this task.

Fifth, many MDA structures also **include the coordination of operations, in particular in response to incidents**. This is to reduce the time lag of responding, but also draw on the available data to optimize the efficiency of responses. The goal is to reduce response times to incidents and optimize the use of maritime assets in patrols, boarding and inspections and intelligence led

Sixth, in many cases MDA structures also **provide a capacity building framework** in that MDA centres organize exercises, training and workshops for the maritime security community. Often this is done together with universities. The goal is to develop a shared knowledge base and routines, as well as foster mutual understandings of different national and organizational cultures.

These six functions we will hence have to consider in developing an MDA structure for the Blue Pacific. As I have argued, MDA is not exclusively about technology, but primarily a human affair, it is about knowledge production, sense making and collective learning and about developing trust.

Core tasks of MDA centres



Source: Safeseas 2018. *Mastering Maritime Security. Reflexive Capacity Building and the Western Indian Ocean Experience*, Cardiff: Cardiff University, p. 14

Why is MDA important?

As I have argued to take care of the sea, we need to know what is happening there. To act as a region, there has to be a process of collective sense making and agreeing on priorities: how could you do that without appropriate knowledge and evidence? It is also a mean to grow together. Producing knowledge together implies developing stronger bonds and a shared blue identity. Finally, it is also about efficiency. Our resources in protecting the oceans are limited, and we need to ensure that they are employed as effectively as possible. This can only be done if the region works together.

How to develop MDA: what are the opportunities and risks?

It is important not to think of MDA as some magic potion or as the silver bullet that will fix all problems or lead automatically to better integration and efficiency. Developing MDA structures is hard work and there are several hurdles to overcome.

There is by now quite a number of lessons from building regional MDA. Structures have been built in various maritime regions. Important insights can be gained from the North and Baltic Seas, in the Mediterranean Sea, in South East Asia or the piracy prone waters of West Africa or the Western Indian Ocean. Allow me to sketch six lessons and guidelines which are important in developing MDA structures.

One of the most contentious issues is usually the question whether there should be one regional MDA center or several, and which country is going to host a center. This also implies to think about how to work with and integrate existing centers that are focussed on dedicated issues, such as fishery. The majority of regional MDA architectures work with a network of 2-3 centers. Too many centers or initiatives create a high risk of competition over attention and resources, which has to be avoided. Given that the Blue Pacific already has at least one fully operational MDA center – the Surveillance Center of the Forum Fishery Agency run on the basis of the Niue Treaty –, the region needs to carefully evaluate if it needs an additional center, or how a new center is related to the existing one.

Secondly, a productive and widely adopted model for how to organise MDA work is provided by the Information Fusion Center in Singapore. In this model each country sends a liaison officer to the centre. Officers have to be experts in the maritime domain and well connected to their nation's governmental structures and a mandate to share information. This model allows to share and analyses information quickly as well as to bring issues to governmental attention.

Thirdly, the willingness to share, what is sometimes summarised in the slogan "dare to share", doesn't develop overnight. It takes time to develop information sharing and to create the trust and confidence required in the work of MDA.

Barriers to information sharing

There are a number of known barriers to information sharing that need to be overcome (Bueger 2015, McGuirk, O'Neill and Mee 2015).

Unintended use. Agencies might have concerns regarding data privacy, confidentiality and institutional exposure that lead to alternative performance evaluations or public scrutiny. Data might be protected under dedicated laws.

Data is often organisation bound. Information is influenced by mandates, values and traditions. Information might hence be cast within organisation-specific categories and structures or in bespoke metrics, which creates the risk of misinterpretation or data loss. In a security context data is also often classified with high administrative burdens for declassification.

Resources. Agencies are often suspicious of initiatives that drain resources but have unproven outcomes, particularly if no additional external funding for sharing is available.

Organisational identity and autonomy. Information sharing has impacts on the availability of knowledge and hence the hierarchy between agencies. Agencies might understand information sharing as a threat to their autonomy. In an international context these challenges may be exacerbated by concerns over national sovereignty or international status.

Career incentives. Agencies might allocate personnel with insufficient skills or motivations to data sharing activities, since inter-agency collaboration is often not planned for or incentivised in organisational career paths.

Known solutions to these challenges include the joint development of standard operating procedures that explicitly address these concerns, community building exercises and shared training activities, and placing a strong emphasis on documenting and disseminating the benefits of information sharing.

Source: Safeseas 2018. Mastering Maritime Security. Reflexive Capacity Building and the Western Indian Ocean Experience, Cardiff: Cardiff University, p. 15

Fourthly, putting standard operating procedure in place as quickly as possible is crucial to develop trust and get a center going. These procedures need to outline types of information and how to deal with it. In this process it is best to avoid lengthy discussion of definitions (working definitions will often do the trick, and formal definitions can be developed over time)

Fifthly, the center and its work needs to be visible and make a difference. It should not work in secrecy, but in public, involve all users of the sea immediately. In particular in the start-up phase it needs to demonstrate that the work matters and is worth investing time and resources.

Sixth, every participant in MDA needs to have something to share. In regional MDA this implies to also develop the national capacities to provide data and information. If participants feel left behind, or as fully dependent on others, this can become a core hindrance in information sharing. This is why capacity building is vital for sustainable MDA.

Organisational Interests, Politics and Technology and the Maritime

These are some of the core lessons. There are others. What is of prime importance that comes out of my discussion is not to think of MDA and information sharing as an exclusively or primarily technical matter. How to develop the trust and confidence required for information sharing, how to make sense of information, how to translate knowledge to action these are questions that involve human resources, social relations, organisational interests and politics. While facilitating information sharing and creating efficient MDA structures are not easy tasks, the Blue Pacific has much to benefit from it. MDA will lead to better protection of ocean resources, tackling maritime insecurities and will add a new dimension to the regional cooperation experience and the development of a shared regional identity.

References and further reading.

Bueger, Christian. 2015. From Dusk to Dawn? Maritime Domain Awareness in Southeast Asia, *Contemporary Southeast Asia* 17(2): 157-182, available from <https://bookshop.iseas.edu.sg/account/downloads/get/18222>

Bueger, Christian. 2017. Effective Maritime Domain Awareness in the Western Indian Ocean. Policy Brief 104, June 2017, Institute for Security Studies: Pretoria, <https://issafrica.org/research/policy-brief/effective-maritime-domain-awareness-in-the-western-indian-ocean>

Doorey, Timothy J. 2016. "Maritime Domain Awareness." In *Global Responses to Maritime Violence*, ed. Paul Shemella. Stanford, CA: Stanford University Press, 124–41.

McGuirk, P., O'Neill, P. and Mee, K. 2015. 'Effective practices for interagency data sharing: Insights from collaborative research in a regional intervention', *Australian Journal of Public Administration* 74:2, 199–211;

SafeSeas. 2018. *Mastering Maritime Security. Reflexive Capacity Building and the Western Indian Ocean Experience*, Cardiff: Cardiff University, available at www.safeseas.net