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To cite this article: Samsul Mannan , Henrik Nilsson , Tafsir Johansson & Clive Schofield (2020): Enabling stakeholder participation in marine spatial planning: the Bangladesh experience, Journal of the Indian Ocean Region, DOI: [10.1080/19480881.2020.1825200](https://doi.org/10.1080/19480881.2020.1825200)

To link to this article: <https://doi.org/10.1080/19480881.2020.1825200>



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Published online: 13 Oct 2020.



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Enabling stakeholder participation in marine spatial planning: the Bangladesh experience

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ABSTRACT

The article explores stakeholder participation in marine spatial planning with particular reference to Bangladesh, a country which has committed to developing such an ocean management approach but remains at an early stage in the process. A contextual overview of the marine environment, resources and economic activities within the maritime areas of Bangladesh is provided. Definitions and concepts of marine spatial planning are critically discussed and the need to identify and understand the roles, expectations and interests of diverse stakeholders to deliver successful implementation emphasised. An overview and synthesis of a survey of maritime stakeholders in Bangladesh is provided with a view to enhancing understanding of their engagement processes, relationships and conflicts. Recommendations to reconcile conflicting uses and help facilitate the development of marine spatial planning in Bangladesh and potentially the Bay of Bengal more widely.

ARTICLE HISTORY

Received 30 June 2020
Accepted 13 September 2020

KEYWORDS

Bangladesh MSP; stakeholder engagement; stakeholder survey; public process

Introduction

There is increasing realization globally concerning both the value of marine spaces and growing threats to the global ocean. Consequently, ocean spaces are subject to a growing diversity and intensity of activities and pressures including the significant and accelerating impacts of climate change on the oceans, notably ocean warming, acidification, deoxygenation and sea level rise (IPCC, 2019). Against this backdrop, in recent years, marine spatial planning (MSP) has emerged as an ever more popular tool for managing ocean uses and resolving conflicts among marine users (Douve, 2008).

This article addresses a key challenge for the effective implementation of MSP, that of enabling stakeholder participation, otherwise known as public participation, which is recognized as an indispensable factor for the successful implementation of ecosystem-based management (Pomeroy & Douve, 2008). The objective of the article is to draw lessons from the experience of a country positioned at the early stages of the application of the MSP process, Bangladesh, with a view informing progress in MSP in the Bay of Bengal and beyond.

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While Bangladesh has committed to developing MSP for its maritime jurisdiction, it is still at the primary stages of establishing a blueprint for the planning and management of maritime activities and sustainable use of natural marine resources (Hussain et al., 2018). Among the plethora of challenges that have arisen in the formulation of MSP in Bangladesh, stakeholder participation has emerged as a crucial obstacle to progress.

The article proceeds by providing a contextual overview of the environment, marine resources and activities occurring in the Bay of Bengal as well as associated threats coupled with an examination of maritime jurisdictional issues that determine the extent of Bangladesh's maritime entitlements and thus the spatial scope for MSP. Definitions and conceptions of MSP are explored prior to consideration of international dimensions and drivers for MSP globally together with consideration of the role of stakeholder participation in MSP. Discussion then turns to the application of MSP in Bangladesh and stakeholder engagement in that process. A synthesis of research findings drawn from a survey of key potential stakeholders in MSP in Bangladesh is then provided with a view to delivering enhanced understanding of the nature of their engagement with MSP, relationships between them, views on the competent authority for coordinating them and existing conflicts as well as options for their resolution. The article concludes with an assessment of main findings and recommendations for the development of MSP in Bangladesh and more widely for the Bay of Bengal.

Background

Marine ecosystem of Bay of Bengal

Bangladesh's coastline and marine spaces form a constituent part of the substantially broader Bay of Bengal Large Marine Ecosystem (BOBLME, 2011). Coastal areas in Bangladesh and northeastern India are characterized by the large inflow of freshwater from adjacent rivers including the Ganges and Brahmaputra (BOBLME, 2011; Islam, 2003). Nutrient input from the rivers tends to increase the primary production of species in coastal areas making them into critical habitats for the entire ecosystem of the Bay of Bengal.

The coastal areas of Bangladesh are host to complex ecosystems such as mangroves which provide important habitats and vital nursery grounds for many fish species (BOBLME, 2015). These include a variety of commercially valuable species such as small pelagics, demersal fish species, shrimp fisheries and offshore tuna, Indian mackerel (*Rastrelliger kanagurta*), hilsa (*Tenualosa ilisha*) and various shark species (Sampath, 2003). Although the fisheries sector contribution to GDP is relatively small in the countries surrounding the Bay of Bengal, the socio-economic importance of this sector is significant to coastal communities in terms of both livelihoods and food security. Significant impacts on coastal ecosystems such as corals have, however, been detected stemming from over use coupled with increasing threats from ocean acidification, pollution and simply from being taken out of the sea in order to be sold (Hossain et al., 2015).

Importance of ocean activity for Bangladesh's economy

The management aspects of Bangladesh's marine resources are strongly tied to Bangladesh's ocean activity which are considered to be a strong pillar of the economic

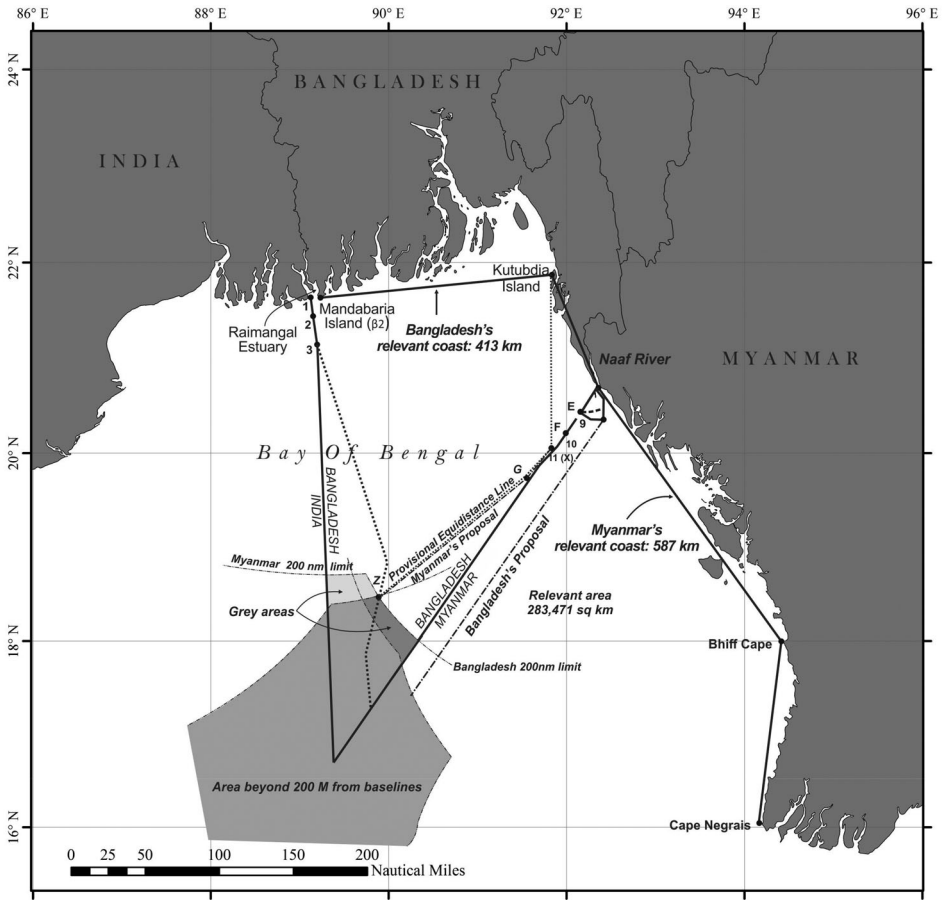
infrastructure (Hossain et al., 2014). Traditional maritime activities such as fishing and shipping remain vitally important to Bangladesh's ocean economy. Of these two sectors, the fishing sector contributes to 60% of the national demand and contributes over 500 million USD per annum to the country's economy (Mannan, 2019). As for the economic value of the shipping sector, shipping remains of fundamental importance in terms of connecting Bangladesh to the global economy with import/export trade via shipping estimated at 80 billion USD with annual growth put at 10-15% per year (Uddin et al., 2017). Further well-established coastal activities include ship recycling, salt production and coastal tourism.

Other sectors that are in the process of development include oil and gas and renewable energy. Despite Bangladesh issuing 26 blocks for oil and gas exploration, to date no offshore commercial discoveries have been made (Bari, 2017; Khan, 2020). Nonetheless, the Bay of Bengal represents one of the least explored offshore areas in terms of seabed hydrocarbons potential and therefore of interest for future development. Moreover, 22 sites have been identified for onshore coastal wind power generation (Uddin et al., 2019). Competing uses and developmental pressures in coastal and offshore areas have led to conflicts, however, leading to calls for enhanced planning and governance (Shamsuzzaman & Islam, 2018).

Maritime jurisdiction and ocean governance in Bangladesh

All of the Bay of Bengal littoral states are parties to the United Nations Convention on the Law of the Sea (UNCLOS) which provides the overarching international legal framework for rights and obligations within zones of maritime jurisdiction (United Nations, 1982). These maritime zones include the territorial sea, contiguous zone and exclusive economic zone (EEZ) whose limits are respectively 12, 24 and 200 nautical miles (M) measured from baselines along the coast.

The Bay of Bengal coastal states have all claimed the full suite of maritime zones though it can be noted that Bangladesh claims a contiguous zone to 18 rather than 24 M. Due to the proximity of coastal states to one another overlapping maritime claims and disputes arose in the Bay of Bengal. This situation can be considered to be highly problematic from an MSP perspective as such initiatives tend to occur within the maritime jurisdiction of coastal states. The realization of MSP is therefore severely complicated, and potentially compromised, in areas where two or more states assert claims to the same maritime space. Fortunately, in the Bay of Bengal the maritime jurisdictional picture has been clarified considerably in recent years. In particular, this has resulted from two international judicial decisions which have served to delimit Bangladesh's maritime boundaries with its immediate neighbors on the Bay of Bengal, Myanmar and India (Bangladesh-India Arbitration, 2014; ITLOS, 2012). Both of these tribunals took into account the concave character of the Bay of Bengal, adjusting provisional equidistance-based delimitation lines away from equidistance to relieve this inequitable cut off effect, resulting in an elongated 'V' shaped maritime jurisdiction for Bangladesh. This also served to create two partially overlapping 'grey areas' of Bangladeshi extended continental shelf areas, overlain by yet to be delimited water column within 200 nautical miles of India and Myanmar (Schofield, 2019) (see Figure 1). These developments are important because they have delivered international



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Figure 1. Bangladesh's Maritime Entitlements. © Clive Schofield.

legal clarity concerning the spatial extent of Bangladesh's national maritime jurisdiction within which MSP can occur.

Subsequently, Bangladesh introduced its 7th five-year plan (FYP-2016) covering the years 2016–2020 (Rahman, 2017). The five-year plan was informed by developments at the international level, including the adoption of Agenda 2030 and the United Nations Sustainable Development Goals (SDGs), notably SDG14 (Life Below Water) which is concerned with the conservation and sustainable use of oceans, seas and marine resources (United Nations, 2020). Bangladesh's five-year plan therefore includes a sustainable development strategy as one of its three central themes, resulting in a higher profile and priority for ocean governance issues. This led, in January 2017, to the creation of Bangladesh's Blue Economy Cell (BEC) under the Energy and Mineral Resources Division of the Ministry of Power, Energy, and Mineral Resources (MOPEMR). The BEC is intended to assist in the governance of Bangladesh's now clearly defined maritime area (Islam & Shamsuddoha, 2018). The need for such a coordinating body is underscored by the fact that at least 20 Bangladeshi government

ministries are currently involved in performing sectoral management of marine living and non-living resources (Hossain et al., 2014).

Exploring MSP concepts and stakeholder participation

This section provides a discussion of MSP concepts and stakeholder participation in MSP with a view to supporting the analysis of the empirical findings of the study as well as the development of future recommendations.

Definitions and conceptions of MSP

One of the most commonly referred to definitions of MSP, or rather the MSP process, is the one established by IOC-UNESCO which states that:

Marine spatial planning is a public process of analyzing and allocating the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic, and social objectives that usually have been specified through a political process (Ehler & Douvère, 2009)

Alternatively, authors, such as Pomeroy and Douvère have considered this public process as 'a way of improving decision making and delivering an ecosystem-based approach to managing human activities in the marine environment' (Pomeroy & Douvère, 2008). In short, the overarching concept of MSP entails a planning process to govern, control and manage human activities in maritime space to achieve social, economic and environmental objectives. These broad definitions leave room for different interpretations as to how MSP should be developed in practice.

An important first observation is that these definitions of MSP both emphasize that it is a *public process* and this necessitates that stakeholders should be involved. However, who, how and when stakeholders should be involved represents a major challenge for each government starting to develop an MSP process. Here it can be noted that there is substantial support in the burgeoning literature on MSP for stakeholders engagement as early as possible in the process (Gopnik et al., 2012; Pentz, 2012; Pomeroy & Douvère, 2008; Schultz-Zehden & Gee, 2015). A key driver for this is that it is understood that this will tend to increase a sense of ownership over the plan on the part of participants, thereby leading to enhanced compliance with its terms (Flannery et al., 2016).

Secondly the MSP definition above refers to *spatial and temporal* distribution of human activities. Here it is recognized that the spatial management of maritime activities tends to occur in accordance with administrative borders, be they national limits and boundaries or subnational divisions. However, it is often argued that the intent of MSP is to deliver more sustainable management of activities and use of ocean resources, thus minimizing or preventing harm to the marine environment. This conception, often referred to as the ecosystem approach, sees ecosystem rather than artificial administrative or political boundaries as the fundamental framework and basis for the planning of human activities offshore. In other words it is the ecosystem that sets the limits for where and to what extent the ocean can be exploited.

Regarding the inclusion of a temporal dimension in MSP, this recognizes the fact that some maritime activities have seasonal variations and can thus open up for several types of uses in the same area at different times. One such example of compatible uses can be

tourism and nature conservation where certain coastal areas may be closed for visitors during breeding seasons but open the rest of the year.

Thirdly, the initial definition above makes reference to MSP being achieved through a *political process* (Ehler & Douvère, 2009). This acknowledges that the process leading to the establishment of MSP is inherently political since the authority to set up the process, define management boundaries and enforce management or planning measures is derived from national or subnational government. In this context it may well be that politically-inspired goals are set for the MSP process.

A prerequisite for the achievement of such goals is that they actually have been clearly defined and agreed on, which is not necessarily the case in all countries. The absence of such goals, for instance regarding environmental or societal considerations, may result in a risk that the traditionally dominant or strongest sectors or actors, such as shipping or defence, will continue to be given priority over smaller or emerging sectors, for instance offshore renewable energy or aquaculture. The concern under such circumstances is that the central idea of holistic multi-sector planning through MSP may be compromised or lost. Similarly, poorly described or the absence of political goals tends to prevent the MSP process from being forward looking and capable of evolving over time, thus running the risk of simply mapping the present situation and serving to lock it in place.

International dimensions and drivers of MSP

As noted above, the international legal basis for the sustainable development of marine and coastal environment and its resources is provided in UNCLOS. In particular, the LOSC includes a substantial section, Part XII devoted to the protection and preservation of the marine environment and, at Article 192, includes a general obligation on its parties to 'protect and preserve the marine environment.' The meaning of this obligation has been further elaborated in international environmental law and other international instruments such as Chapter 17 of what is commonly termed the 1992 Rio Declaration, Agenda 21. The Rio Declaration placed emphasis on 'integrated management and sustainable development of coastal areas, including exclusive economic zones' (United Nations, 1992, para. 17.1(a)), thereby underpinning the development of MSP on the part of coastal states.

Consequently, there has been a notable increase in efforts to conserve and protect marine spaces, environments and biodiversity across the global ocean. This trend is illustrated by the establishment of international spatial targets for marine conservation. For example, parties to the Convention on Biological Diversity (CBD) agreed on a target of 'at least 10% of the world's ecological regions to be effectively conserved' by 2012 (CBD, 2004). Subsequently, the Aichi Biodiversity Targets included the objective of '10 percent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services' to be conserved by 2020 through 'effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures' (CBD, 2010). Similarly, Target 14.5 of United Nations Sustainable Development Goal 14 (SDG 14: *Life Below Water*), calls for States to 'conserve at least 10 percent of coastal and marine areas, consistent with national and international law and based on the best available scientific information' by 2020 (UN SDG [Sustainable Development Goal] 14, 2019).

At the European Union (EU) regional level, the European Union (EU) Directive 2014/89/EU of the European Parliament and of the Council of 23 July 2014 (Directive, 2014/89/EU) titled 'establishing a framework for marine spatial planning' surfaces as a result of assiduous strategic actions undertaken since 2006 (Maritime Policy Green Paper, 2006). Directive 2014/89/EU recalls the public consultation process as found in Directive 2003/35/EC of the European Parliament and of the Council (Directive, 2003/35/EC, Article 2). When observing the texts of Article 2, it is clear that there is striking resemblance to the international Conventions, both Aarhus and Espoo Conventions, with regards to the 'timely notification' and 'review and feedback' elements that are crucial to the public participation process (Directive, 2003/35/EC, Article 2).

These developments at the international and regional levels have helped to promote the uptake of MSP, including for the purpose of coastal and marine conservation. To date, at least 20 countries have implemented MSP and it has been suggested that by 2030 at least one-third of the surface area of the world's EEZ will be subject to MSP (Hassan & Alam, 2019). In particular, numerous examples of MSP implementation can be found in the European Union where countries that are endeavoring to synchronize the work of marine stakeholders into an overarching action framework for achieving long-term economic benefits (Terry et al., 2016). Moreover, adequate and effective participation in environment and decision-making processes is enshrined in instruments such as the *Aarhus Convention* and the *Espoo Convention* (Espoo Convention, 1991).

This growing practice in MSP, which tends to emphasize public participation, helps to underpin and inform the progression of the MSP process among the Bay of Bengal countries and Bangladesh in particular. Additionally, MSP-related capacity building programs are being driven by the Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO). To date, 36 events related to integrated coastal area management, marine spatial planning, large marine ecosystems and sustainable blue economy organized by the Marine Policy and Regional Coordination Section of IOC-UNESCO (IOC/INF-1379, 2019). Unfortunately, Bangladesh is currently not in the list of target countries for the capacity-building programs.

Stakeholder engagement in public processes

Prior to addressing the central topic of stakeholder engagement in MSP, it is worthwhile considering the role of the public in influencing policy and decision making more generally. There are two models of public participation that are of particular interest for the purpose of this article that includes *level* of participation and *nature* of participation.

A key reference in the discussion about public participation is Arnstein's (1969) so-called 'ladder of participation' which structures the level of participation into three main categories; Non-participation, Tokenism and Citizen Power. Morf et al. (2019, cited in Zaucha & Gee, 2019) points out that the ladder gives a one-dimensional idea about participation, focusing on the power aspect of participation only, and where more participation equals more power. However public participation may also be looked at from a functional or value based point of view and a lower step on the ladder may not necessarily mean less power. In fact, information and consultation may be a more neutral way of interaction between authorities and citizens rather than necessarily tokenistic (Morf et al., 2019, cited in Zaucha & Gee, 2019). Building on that model, Davidson (1998) developed a similar

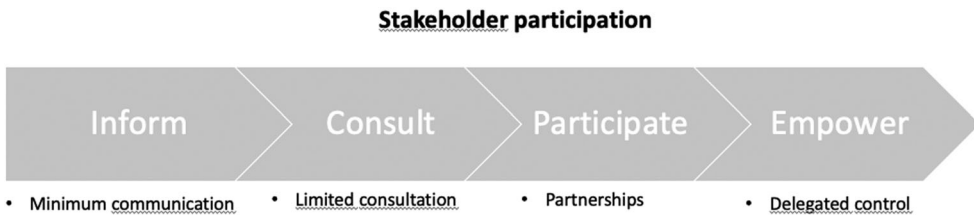


Figure 2. Different Levels of Stakeholder Participation.

model called 'the wheel of participation' which categorizes levels of participation in four main categories; Inform, Consult, Participate and Empower.

Inform refers to stakeholder involvement through communication where stakeholders simply are informed about the planning process and decisions made without being able to provide input themselves;

Consult takes the level of participation one step further and can refer to for example to governmental agencies directly discussing issues with the public or a certain community, for instance through the use of focus groups or citizens panels, before taking any decisions;

Participation is the second most participatory level for stakeholder engagement and includes activities such as inviting communities to draw up proposals for public agencies consideration or even allowing communities to make their own decisions on certain issues; and

Empowerment represents the final level of stakeholder participation. In this level substantial control is given to communities who, on behalf of, for example, a council, can be delegated the authority to provide a certain service on their behalf (Figure 2).

Adapted from wheel of participation (after Davidson, 1998) in Schroeder, 2013.

Rowe and Frewer (2000), on the other hand, argue that the level of engagement is not necessarily the most important thing when it comes to stakeholder participation but rather the nature of involvement. The essence of the nature of involvement lies in the flow of communication between participants and sponsors. According to this view, information dissemination to passive recipients constitutes 'communication', gathering information from participants is 'consultation' and 'participation' is conceptualized as two-way communication between participants and exercise organizers where information is exchanged in some sort of dialogue or negotiation.

In this context it is important to remember that stakeholder participation to a large extent is driven by the motivation behind it and how it is understood by public authorities. Pentz (2012) outlines three ways in which stakeholder participation can be understood. As a *compulsory* task aiming to not constrain the public process or take up time and human resources, as an *instrumental* task used to overcome adoption of new technologies by certain user groups or as a *normative* task ensuring the right to participation in environmental decision making as a democratic right.

Stakeholder participation in MSP

Regarding the specific field of stakeholder participation in management and planning of marine areas, both opportunities and challenges are presented in the literature. A

common understanding is that given the diversity of actors, political and economic interests as well as planning cultures involved in this field, there is no such thing as a 'one size fits' all approach to stakeholder management in MSP (Kessler, 2004; Pentz, 2012). Instead stakeholder participation needs to be flexible and adapted to the context in which it is taking place. Common voices often raised in favor of stakeholder participation in environmental management in general, and in management of marine areas specifically, are that (1) it ensures a broad ownership of the plan, (2) it increases the amount of information upon which future decisions will be taken, (3) enhances compliance of provisions within a plan (Kessler, 2004; Zaucha, 2014). However, such assertions concerning the merits of stakeholder participation have rarely been tested, and there is growing disillusionment among environmental managers and conservationists who have failed to see these claims realized (Reed, 2008).

Douvere (2008) also point out that stakeholders should be involved in different phases of the MSP process and not just allowed to react on a finalized plan. This would allow for more possibilities of interaction with stakeholders as, as pointed out above by Pentz (2012) there is not just one model of stakeholder involvement that is suitable for all stakeholders. Key stages during which stakeholders may be involved include the planning phase (setting the priorities for the MSP plan), the implementation phase (community based implementation can improve enforcement of the plan), the evaluation phase (in order to see the consequences of commonly set goals, stakeholders should participate in the evaluation of the plan) and the post-implementation phase (allows for a deeper analysis of the achievements of the plan).

More recently, Quesada-Silva, Iglesias-Campos, Turra, and Suárez-de Vivero (2019) pointed out that there is currently no robust and comprehensive assessment framework in place for stakeholder participation in MSP. To this end, the authors have developed a model that in advance defines objective criteria for analyzing the consequences of an adopted participatory process based on some key theoretical aspects of participation i.e why, who, when and how to engage stakeholders. It is argued that such an approach will help to strengthen the MSP process and promote more horizontal and integrated ocean governance approaches.

As mentioned previously in this article, development of MSP in Bangladesh is still in a very early stage. Consequently policies and guidelines on how to involve stakeholders in this process is very limited. However, looking at current and historical governance structures as well as possibilities and limitations for stakeholders to influence public processes in Bangladesh, could provide useful information on future possibilities for stakeholders to engage in the MSP process.

Blair (1985) investigated initiatives launched by four successive regimes (1958-1985) in Bangladesh on local public participation. He argues that the first priority of all regimes during this period was to ensure their own stability and continuity. To this end, all four regimes had a strong desire to plan and manage development of the country at the level of central administration and was reluctant to delegate any power to lower local or regional governments. Similarly Panday (2019), finds in his investigation about public participation of local governments that despite the fact that the 2016 constitution specifies a clear separation of power between the central and local governments, central-level politicians do not uphold the spirit of the decentralization of power and local institutions are still considered weak and ineffective. Moreover, Lewis (2011)

describes the dominant form of political practise in Bangladesh as a patron-client relationship which hinders development of independent professional bureaucracy with the capacity to devise and implement policy. Such statement is also confirmed by Mutahara, Warner, and Khan (2020) in his research about multi stakeholder participation for sustainable delta management. The author argues that although political parties are not explicitly involved in water management, invisible politics are everywhere and determines to a large degree who gets what.

As a response to the weak performance of public institutions, NGO's have become a very popular concept in Bangladesh and has become a key partner of development during the last two decades (Asaduzzaman & Jinia, 2015), Grameen bank being perhaps the most internationally known. Historically NGO's have exercised influence in Bangladesh to larger and smaller extents depending on the ruling regime. They are still considered a key actor in development issues that neither the government nor the political parties can ignore (Asaduzzaman & Jinia, 2015). However elected members of local governments and society leaders tend to belong to political parties (Mutahara et. al., 2020) which cannot be ignored when analyzing possibilities for NGOs to influence development issues.

MSP stakeholder survey

Being a coastal developing country, the maritime area of Bangladesh is occupied by various ocean uses . Thus, to manage these ocean uses, it is necessary to adopt some management tools in the maritime area of Bangladesh. As all the previous efforts, including ICZM and ICOM have become dormant, Bangladesh is trying to adopt MSP in its maritime area (Hossain et al., 2014)

Turning to the application of MSP in the context of Bangladesh and stakeholder engagement in that process, it is, in the first instance, observed that there are currently no national policies or guidelines that could serve as a point of reference. In this given scenario, a pathway to comprehend the types of stakeholders, the nature of their involvement and conflicts stemming from unclear roles and responsibilities; it is, in the first instance, important to capture views and opinions of government entities and organizations that are cognizant of the MSP process. In order to ascertain the views of key stakeholders in Bangladesh's MSP process a series of interviews were conducted in 2019 with the following fourfold objectives:

1. Exploring opinions on potential stakeholders;
2. Gathering views on the competent authorities for coordinating stakeholders in the MSP process;
3. Exploring ways through which stakeholders could be engaged early in the MSP process; and
4. Identifying potential conflicts and ways forward.

In total 16 interviews were conducted (see [Annex I](#)) with the raw data being subsequently transcribed utilizing the coding system and discussed in light of the aforementioned four themes.

Identifying potential stakeholders

It is fair to observe that the implementation of MSP is largely dependent on the successful identification and involvement of potential stakeholders. According to Pomeroy and Douvère, stakeholders are ‘individuals, groups or organizations who are, in one way or another, interested, involved or affected (positively or negatively) by a particular project or action towards resource use’ (Pomeroy & Douvère, 2008). Today, a number of factors contribute to the importance of identifying stakeholders. These include understanding the complexity of the ecosystem and human uses, examining the compatibility and conflicts among users, discovering the existing pattern of interactions and identifying and resolving the conflicts among stakeholders (Ehler & Douvère, 2009). To this end, the results from the interviews helped identify all potential stakeholders from each relevant sector, which has been further divided into the following three distinct groups:

Primary stakeholders: Primary stakeholders in any sector are those who are directly related or whose livelihood largely depends on this sector;

Secondary stakeholders: Secondary stakeholders in any sector are the authorities and institutes who govern and train the people of that sector; and

Tertiary stakeholders: Tertiary stakeholders are those peoples who are indirectly related with that specific sector or whose livelihood does not depend on that sector only.

Table 1 reveals that some stakeholders belong to two or three sectors and there are some stakeholders that are primary stakeholders in one sector and secondary or tertiary stakeholders in another sector. Nevertheless, all of these stakeholders are equally important in MSP decision and policy-making matters.

Based on the information gathered from Table 1, the stakeholders were further divided into seven principal categories: ministries, authorities, departments, corporations, industries, institutes and communities. This stakeholder analysis provides a comprehensive list of all potential stakeholders that, according to Pomeroy and Douvère, are in one way or another interested, involved or affected in the MSP effort (see Table 2).

From the tabular overview, it is observed that there are a number of stakeholders that ideally require coordination by a competent body for commencing the MSP process. Unfortunately, according to the Ministry of Foreign Affairs (MOFA), no such competent coordinating body currently exists (MOFA, 2018). Taking this vacuum into consideration, the following section endeavors to point towards options to address this situation.

Competent authority for coordinating the stakeholders

Bangladesh is still in the early stages of the MSP process. Respondents noted that Bangladesh suffers not only from lack of capacity or manpower for commencing the MSP process, but also from the absence of a predetermined single body with a mandate to coordinate and oversee the work of stakeholders and MSP Process. Blue Economy Cell (BEC) officials were of the opinion that the development of the single body to coordinate that work requires qualified people with appropriate and adequate knowledge in ocean governance, and the lack of qualified people is currently the biggest challenge.

Considering the status quo mandate of governmental departments and agencies, 10 respondents supported that BEC could potentially act as the key organization to

Table 1. Potential stakeholders from Different Sectors.

Sectors	Primary	Secondary	Tertiary
Fishing	Artisanal fisherman, industrial fisherman, recreational fisherman, fishing vessel owner, fishing gear suppliers, fish processing factories, fish traders, cold storage owners.	MOF, DOF, Marine fisheries academy, IMSF, BORI.	Fish consumers, superstore owners, C & F agents, port authorities, shipbuilders.
Merchant Shipping	Ship-owner, Seafarer, ship manning agents, Shipbuilders, Port authorities, Dry dock, Ship Supplier, Ship managers, Ship Breakers, Stevedores, Ship agents	MOS, DOS, BOMMA, BMA, BSMMRU, private marine academy, NMA,	BGMEA, Exporters, and Importers,
Seaports	Ship Agents, Stevedores, watchman's, C & F agents, ship repairer, Dry Dock, Ship-owners. Exporters and Importers,	MOS, Port authority, DOS, BGMEA	Seafarer
Shipbuilding	Shipyards Owner, Worker, Ship recycling industries,	MOI, MOS, DOS	Plumbers, Electricians
Ship recycling industries	Shipyards Owners, Worker, Ship Building Industries.	MOI, MOS, MOE, DOE, DOS	Shipbuilding Industries. NGOs
Coastal aquaculture and marine culture.	Fisherman, Fish farmers, Fish Feed supplier, Fish processing industries.	MOF, DOF, IMSF, BORI	Fish consumers, superstore owners, C & F agents, port authorities, shipbuilders.
Oil and gas	Consumers, Industries, Gas exploration industries. Gas exploration workers, engineers.	Petro Bangla, MOI, MOE	Ports, shipbuilders, LNG sellers.
Sea salt production	Sea salt producers, Salt traders	MOA, BARI, BADC	Salt consumers, Superstore Owners
Coastal tourism	Owner of Hotels, Motels, Travel agents, Tour guides, Passenger ferries.	MOT, DOT	MOE, DOE
Marine surveillance	Coast guard, Port Authorities.	MOS, DOS	Shipbuilders, Seafarer.
Human Resource Development	BMA, NMI, BEPTC, BSMMRU, BORI, IMSF	MOS, DOS	Seafarer, Maritime professionals

coordinate the work of all stakeholders connected to the MSP process. According to Chittagong Port officials, the word 'cell' (as found in the title of BEC) is a temporary body/department designated by the government of Bangladesh that takes the form of a governmental department over time. The concept and design of a 'cell,' according to Chittagong Port officials, could be used in the MSP context and one that could be instilled with skilled manpower to coordinate the work of all these stakeholders. If and when successful, the cell could easily convert into a self-sufficient department with an MSP-coordination mandate.

One of the respondents tabled the suggestion that transforming the existing BEC into a department might be the best way forward to coordinate the work of stakeholders. In addition, the same respondent proposed that creating a new Ministry of Blue Economy may be a feasible option at this point in time. However, this statement contradicts with other responses where it was implied that stakeholder coordination could be done by the Department of Shipping (DOS).

When forwarding the same question to the officials of BEC as to whether they are equipped with the capacity and capability to do so, it garnered lukewarm acceptance. According to BEC officials, a contribution was made by BEC in a specific part related to MSP in the country's 7th five-year plan, but the reality of it all is far away from what is expected. The absence of skilled manpower or qualified personnel has created a drawback in the organizational structure of the BEC without which the work of stakeholders involved in the MSP process cannot be coordinated.

Table 2: Stakeholder Analysis Based on Interview Data.

Stakeholders						
Ministries	Authorities	Department	Corporations & Cells	Industries	Institutes	Communities
Ministry of fisheries & Livestock	-	Dept. of Fisheries	Bangladesh Fisheries Development Corporation	Fish Party, Fish processing Industries, Aquaculture Industry	Bangladesh Fisheries Research Institute, Bangladesh Marine Fisheries Academy	Artisanal Fisherman, Industrial fisherman, Fishing vessel owner, Fishing gear suppliers, Cold Storage owner Fish exporter & Importer
Ministry Of shipping	Chittagong port authority, Payra Pot authority, Mongla Port authority,	Dept. of shipping,	Bangladesh Shipping corporation	Ship Builders, Chittagong dry dock	Bangladesh marine academy, national maritime training Institute, Deck and engine personnel training center.	Seafarer, Shipowners, Ship agents, Stevedores, Ship repairer
Ministry of Industry	-	-	-	Ship Recycling Industry	-	Shipyards owner.
Ministry of power, energy and mineral resources.	Sustainable and renewable energy development authority	Bureau of mineral development	Bangladesh petroleum corporation, Petro Bangla, Blue economy cell	Oil & gas exploration companies. Sand extraction companies	-	Oil & Gas exploration Engineers, Sand extractor
Ministry of civil aviation and tourism	-	Bangladesh Tourism Board.	Bangladesh Tourism Corporation.	-	National hotel & tourism training institute.	Hotel & Motel owners, Travel agencies, Tour guides, Owner of Passenger ferries.
Ministry of Environment & forest.	-	Bangladesh Climate Change trust, Department of environment, department of forest.	-	-	Bangladesh forest research Institute	Environmental NGOs
Ministry of planning	Implementation, monitoring & evaluation division	Bangladesh Planning commission	-	-	-	Ocean Planners
Ministry of education	-	Department of secondary and higher education	-	-	Bangabandhu Sheikh Mujibur Rahman Maritime University	Researchers, University Professors
Ministry of Agriculture	-	-	Bangladesh agricultural development corporations	Sea Salt producing industry	Bangladesh agricultural research institute	Sea salt producer

(Continued)

Table 2: Continued.

Ministries	Authorities	Stakeholders				
		Department	Corporations & Cells	Industries	Institutes	Communities
Ministry of local government and rural development and co-operative	Bangladesh Rural development board					
Ministry of foreign affairs	Maritime affairs unit,	-	-	-	-	-
Ministry of home affairs	Bangladesh coast guard	-	Chittagong city corporation, Khulna city corporation	-	-	-
Ministry of water resource	Bangladesh water development board	-	-	-	Bangladesh river research institute	-
Ministry of science & technology	-	-	-	-	Bangladesh institute of biotechnology, Bangladesh oceanographic research institute	-
Ministry of disaster management	-	Department of disaster management	-	-	-	-
Ministry of land	Land reformation board	-	-	-	-	-
PM Office	Bangladesh economic zones Authority	-	Sustainable development goal cell	-	-	-
17 Ministries	12 Authorities	11 Departments	8 corporation & 2 cells	9 industries	12 institutes	22 communities

An alternative approach, suggested by the Department of Shipping officials is tasking a separate ministry to look after the Blue Economy activities of Bangladesh that could also help coordinate the work of the stakeholders. Other respondents held different viewpoints. For example, the Department of Shipping (DOS) noted their potential role to act as the coordinator because the department has, in fact, the sufficient manpower to coordinate all the stakeholders. This response is in sharp contrast with the opinion held by other respondents.

After gathering relevant information from respondents, it is abundantly clear that the majority consented that BEC is the main body that is best positioned to coordinate all the stakeholders to engage them early in the MSP process. Considering the potential for BEC to act as the principal coordinator, the theme that requires subsequent consideration is the ways through which the coordination action could be realized.

Engaging stakeholders early in the MSP process

After coding all responses, four primary tools were identified that could be used to engage stakeholders early in the MSP process. The first tool aptly known as ‘education’ was supported by the majority of the respondents. The BEC officials noted that education is an indispensable tool that could bring people together. The syllabus and the content of the curriculum needs to be amended to reflect the aims and objectives of the education. Put another way, the school syllabus requires a form of ocean orientation. The officials further noted that the mindset needs to change broadly owing to the fact that Bangladesh is as much if not more a riverine country as an oceanic one, and, thus there is a need for a change of mindset.

With regards to education, respondents from the BEC, Chittagong Port, Bangladesh Marine Academy and Western Marine Shipyard forwarded a suggestion that entails introducing ocean-related content into mainstream education. A handful of schools in Bangladesh have introduced informal ocean education as a part of extra-curricular activity. For example, pre-schools and primary schools for children run by the Bangladesh Marine Academy are educating children about ocean pollution using a number of teaching methods, especially story-telling that helps convert information into a relatable story with a lesson attached. The respondent from the Bangladesh Marine Academy further suggested that citizen’s understanding on the value of oceans could also be communicated through stage performances – a traditional folk entertainment that is appealing to the general public of Bangladesh.

Ocean literacy is often traced back to the initiative taken by a group of ocean scientists and educational professionals in the US in 2002 who saw the need for inclusion of ocean science and teaching about the ocean in primary and secondary education (Mannan, 2019). Despite the fact that scholarly literature often promotes different tools and ways of engaging different stakeholders (Douve, 2008, Morf et al., 2019, cited in Zaucha & Gee, 2019), primary and secondary schools are usually not part of the targeted stakeholder groups. In a long term perspective these are however important to think about in order to increase awareness about the function and importance of the ocean and to educate potential future ocean leaders.

An effective tool for cognitive and affective learning was suggested by respondents from the Fisheries Academy. Media including radio, television, and social media, such as

YouTube videos could help increase ocean awareness and literacy among the people of Bangladesh. In short, the respondents mirrored digital determinism.

The second tool that garnered support from is 'meetings and dialogue' that are deemed as regular practices that could help keep stakeholders committed from an early stage and in a consistent manner. Respondents from the Chittagong Port, and Bangladesh Marine Academy anticipated that exchanging views and ideas through meetings was an important mechanism; one that would tie stakeholders together from the initial stages of the process and help create a platform for healthy and constructive dialogue and discussion among the concerned.

Closely associated with the second tool is organizing workshops, seminars and symposiums identified by respondents from the fisheries sector as a relevant yet formal tool. With support from a few respondents; 'workshop, seminar and symposium' is considered to serve as the third tool in this process.

Finally, 'commercial interest' is found to be the fourth tool that, similar to the third tool, received lukewarm acceptance. DOS officials were the only respondent that found the notion of stakeholder engagement intrinsically connected to 'business-interest.' If stakeholders are assured that the proposed MSP will prove to be advantageous to their business; only then will they be spontaneously engaged in the MSP process. In this scenario, the Fisheries sector considered the implications of 'trust' and how this is currently absent among stakeholders, and between stakeholders and government entities.

Conflicts & resolutions

The maritime area of Bangladesh is currently being used by numerous sectors including fisheries, ship recycling, shipbuilding, shipping, oil and gas exploration, tourism, wind energy and the military. According to respondents, six major sectors are in the priority list of the government of Bangladesh. These are, in order of priority, the fisheries sector; the port and shipping sector; the nature and conservation sector; the oil and gas extraction sector; coastal Industries including ship building, ship recycling and salt production; and, the tourism and recreation sector. In these sectors, two types of conflicts are observed. The former is a conflict in the maritime area including user-user conflict, and the latter is user-environment conflict (Hossain et al., 2014).

In light of the United Nations Education, Scientific and Cultural Organisation (UNESCO) step-by-step approach, before resolving the existing conflicts, it is a prerequisite for the government to identify the nature and type of existing conflicts among the users. In response to the question on this subject matter, officials from BEC distinguished between conflicts among stakeholders within one particular sector and then the conflict among stakeholders in other different sectors. The BEC respondents cited an example from the fisheries sector, case in point being the 'internal conflict' within the Fisheries Sector, i.e. conflict between shrimp and Hilsa Fisheries, before turning to 'external conflict,' such as conflicts between Fisheries Sector and the tourism sector.

When the focus is on internal conflict, it is observed that there are no up-to-date assessments in relation to types of fishing or types of fish stocks beyond 50 km from the Bangladeshi shoreline. Quite often, industrial fishing boats end up fishing in the fishing zone that belongs to artisanal fisheries groups. Incidents have been reported where industrial trawlers have been condemned for cutting the fishing nets of artisanal boats. In this context,

the Fisheries Academy noted that fishermen and the artisanal fisheries group have always had tension amongst themselves. However, the nature of this tension has shifted its focus and is now fixated against fishing trawlers because they are destroying and damaging their nets and sometimes the nets go missing. A fishing net could cost around 12,000 USD. Losing one or two of these nets every year means more expenditures for the artisanal fisheries group. In situations like these, it is worth to recall one of the main stipulated benefits of MSP which argues that the absence of a framework that can facilitate integrated strategic planning in relation to all activities taking place in a particular marine area, often translates into spatial overlaps causing conflicts (Douve, 2008).

With regards to the theme of external conflicts, overlapping responsibility was the sole factor reflected in the explanations provided by DOS officials. Conflict, according to DOS, starts when there are overlapping roles and responsibilities among stakeholders. For example, in the context of Search and Rescue (SAR) operations, DOS is the national coordinator of SAR whereby Bangladesh Navy provides the maritime SAR center. This often results in overlapping responsibilities and hence, conflicts are observed between the stakeholders in question. Conflicts start to develop broadly owing to the fact that stakeholders are unable to point to a specific authority that should ideally deal with the implementation aspect of a sector-specific matter. This creates the potential for confusion and without being able to rely on authority-in-control, the sectors begin to suffer resulting in further conflicts among stakeholders. This begs the question as to when does the work of DOS end and when does the work of Bangladesh Navy begin? This question, according to DOS, remains unanswered.

Other than internal and external conflicts, a major drawback of the current system was discussed at length by the respondents. According to respondents, there are no designated shipping routes or lanes that could be used when heading towards Chittagong Port of Bangladesh. Quite often merchant ships approaching Chittagong Port are required to pass through the fishing grounds, which creates another form of conflict between shipping and fisheries. Unsurprisingly, the requirement to pass through fishing grounds means shipping damages fishing nets or, even more worryingly, leads to collisions between commercial vessels and fishing boats. A pertinent example is when ships approaching Chittagong port near Saint Martin Island have problems and misunderstanding with Bangladeshi registered fishing boats that are fishing near the so-called 'Elephant point,' a famous navigational point in the Cox's Bazar area. The Fisheries Academy further noted that four years ago a fishing trawler collided with a ship and the trawler sank, resulting in a major casualty. If lighting or buoys existed in this area designed to indicate that this area is for merchant ships, then fishing vessels would have avoided those areas and it would have minimized these risks.

After shedding light on nature and types of conflicts, respondents were asked about potential mechanisms for conflict resolution. Respondents differed in their responses. While the Ship Recycling Yards emphasised 'one-stop services' to resolve the conflicts; respondents from the Maritime University and Chittagong Port mentioned operational and knowledge gaps among stakeholders had the likelihood of creating conflicts where 'negotiation' could play a part in resolving those conflicts.

In the context of conflict resolution, BEC respondents hinted at the need for stakeholders to look into ways to 'change their mindset' to reduce conflicts among themselves. Stakeholders, according to BEC, have taken the ocean for granted and this attitude needs

to change. For there to be such a change, there needs to be awareness and only then conflicts will come to a halt.

As for respondents from the Bangladesh Marine Academy, the Fisheries Academy and the Fisheries Sector, the lack of integration on the functions and responsibilities of stakeholders is a thorny issue that also needs to be resolved as a part of conflict management. As such, both respondents were of the opinion that if the government could look into better 'integration' schemes with regards to the work of all the stakeholders, only then conflicts could reduce. Respondents agreed that regular meetings among stakeholders could facilitate better integration and help reduce knowledge. This will enable the stakeholders to express their views, aims and objectives with regards to ocean uses. Only then they may be able to reach agreements and resolve conflicts in a pragmatic manner.

Conclusions

The empirical findings in this article have shown that there are a multitude of stakeholders in Bangladesh that directly depend on the ocean for their livelihood and that have a direct or indirect role to play in an MSP process. However, as shown in the literature review, stakeholders, local governments and the civil society have today, as well as historically, had only limited opportunities to influence marine planning and development issues in Bangladesh. While traditionally dominant ocean activities, shipping and fisheries, remain salient, several other sectors, emerging or established, are competing for space within the national maritime jurisdiction. Some stakeholder conflicts are well known, such as those between shipping and artisanal fisheries and are aggravated by the fact that ocean management in Bangladesh is a shared responsibility between as many as 20 different ministries. Other conflicts include those between human activities and the marine environment such as overfishing and habitat destruction. A more recently observed conflict in marine management issues is that between communities and management authorities (Mutahara et al., 2020).

Although a separate division for ocean management, the Blue Economy Cell, has been established and given the mandate to coordinate the MSP process within the Ministry of Power, Energy, and Mineral Resources, the stakeholder survey undertaken indicates that it still lacks the human and financial resources needed to properly carry out its mission. A fully empowered and mandated MSP authority could, in theory, have the capacity to carry out an interactive stakeholder participation process, which could help to minimize conflicts between stakeholders and also give voice and space for emerging sectors. However, drawing from lessons of the past, the reluctance of the government to delegate power to lower levels, or entities outside of governmental institutions for that matter, there seem to be a large risk that the outcomes of such a stakeholder process, that is, the actual views of the actors affected by will not properly be taken into account in the development of the MSP plan. A similar conclusion is highlighted by Mutahara et al. (2020) who points out that although government authorities are stressing the need for multiple stakeholder participation in tidal river management, this is basically only on paper and in practice such participation is not being realised.

With the Bangladesh National Water Policy (1999) highlighting the importance of stakeholder participation in water management, and the 2016 Constitution specifying a clear separation of power between the central and local governments, two important

policies are in place that can form part of a legal base to start building a genuine MSP stakeholder participation process. The level of success will, however, depend on to what extent these regulations are observed and enforced in a neutral, non-political way, by government authorities across scales.

Drawing on the early literature relating to stakeholder participation in MSP it can be observed that stakeholders can be involved at different stages of the MSP process and to different extents. For this to happen in Bangladesh a very first rudimentary step is that appropriate ways for non-governmental actors to express their views need to be made available. Secondly, for the stakeholder consultation process not to be just a symbolic act, full transparency needs to be given as to how stakeholder inputs are integrated and taken into account in the development of the MSP plan. Consequently stakeholder consultations need to be undertaken at a very early stage of the MSP development as well as continuously throughout the process. Questions will nevertheless remain as to whether stakeholders – be they NGOs, industry groups, local communities or sectoral representatives – act on behalf of their organizations and constituencies, or, alternatively, on behalf of political interests, but that in itself requires a separate analysis.

All of the above findings lead to the explicit recommendation that, Bangladesh requires a national guidance tool on MSP with the potential to align and tie together the different legal and institutional threads currently found in a state of some fragmentation. The absence of an MSP national guidance tool is observed as the primary shortcoming in Bangladesh's approach. The development of a distinct overarching MSP policy or a guideline fleshing out the public process could therefore serve as a pathway forward. Such an overarching national policy approach on MSP could serve as a blueprint for institutional integration and legal streamlining as well as harmonization of national MSP plans with reference to the Bay of Bengal Program Inter-Governmental Organization Agreement and other existing regional and necessarily trans-boundary action plans. With this as a foundation block for an effective management system, it will be easier to defer to the institutions with an MSP mandate to bind existing fragmented plans together, all of which will lead towards the ideal of a seamless institutional integration.

A plethora of South Asian regional agreements and plans, e.g. South Asian Association for Regional Cooperation, Action Plan for the Protection and Management of the Marine and Coastal Environment of the South Asian Region, 1995, stress the need for coastal state-specific strategies followed by an alignment of those strategies into the fabric of regional efforts. Addressing the 'institutional integration' challenge is the main challenge for implementing MSP process Bangladesh. If this challenge is not addressed through a holistic framework in a befitting manner, it could distort the foundation for aligning respective national strategies with regional efforts.

Balancing economic activities while sustaining the capacity of ocean ecosystems should remain the core vision of all national strategies – the development of which needs strong political determination by coastal states of the Bay of Bengal. A better economic future for the region entails that national strategies are fully enforced and followed up on a regular basis with stakeholders through public processes. To this end, an established MSP process through institutionally integrated stakeholder participation will form an important part of Bangladesh's national strategy that will not only depict the willingness and capability of the country to strike a balance between economic gain and sustainable use, but also

strengthen trust and cooperation with other countries in the South Asian regional forum moving forward.

Acknowledgements

The work was undertaken at the World Maritime University-Sasakawa Global Institute in Sweden and the authors wish to acknowledge the generous financial support provided by The Nippon Foundation of Japan. The authors would also like to express their sincere gratitude to the Bangladeshi stakeholders who took the time to provide their invaluable insights which were crucial to the development of this study.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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Annex I

- Respondent 1:** The Blue Economy Sector represented by the Blue Economy Cell (in the capacity of Policy Maker);
- Respondent 2:** The Shipping & Fisheries Sector represented by the Department of Shipping (in the capacity of Administrator);
- Respondent 3:** The Shipping & Fisheries Sector represented by the Department of Shipping (in the capacity of Policy Maker);
- Respondent 4:** The Oceanography sector represented by the Maritime University (in the capacity of Researcher);
- Respondent 5:** The Port sector represented by the Chittagong Port (in the capacity of Ocean Planner);
- Respondent 6:** The Port sector represented by the Chittagong Port (in the capacity of Policy Maker);
- Respondent 7:** The Port sector represented by the Chittagong Port (in the capacity of Environmental Assessor);
- Respondent 8:** The Education sector represented by the Bangladesh Marine Academy (in the capacity of Researcher);
- Respondent 9:** The Education sector represented by the Bangladesh Marine Academy (in the capacity of Researcher);
- Respondent 10:** The Ship Building sector represented by the Western Marine Shipyard (in the capacity of Policy Maker);
- Respondent 11:** The Ship Recycling sector represented by the Ship Recycling Yards Assessment (in the capacity of Policy Maker);
- Respondent 12:** The Shipping sector represented by the Bangladesh Shipping Corporation (in the capacity of Policy Maker);
- Respondent 13:** The Fisheries sector represented by the Fisheries Academy (in the capacity of Researcher);
- Respondent 14:** The Fisheries sector represented by the Fishermen (in the capacity of Stakeholder);
- Respondent 15:** The Tourism sector represented by the Department of Tourism (in the capacity of Policy Maker); and
- Respondent 16:** The Oil & Gas sector represented by Petro Bangla (in the capacity of Engineer).