

# IPAAAL

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## **Maritime Good Governance towards Sustainable Development Echoed at BIMRAD International Seminar**



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**Bangladesh Institute of Maritime Research and Development**



## Editorial

### Maritime Good Governance Can Ensure Sustainable Development

Bangladesh is positioned in a strategically important location in the Bay of Bengal and should leverage that position by governing the maritime sector with proper human resource, research and development. Therefore, to create awareness among the general people about the demand, requirements and challenges of Maritime Good Governance and to recommend policies for sustainable development of the country, Bangladesh Institute of Maritime Research and Development (BIMRAD) organised its maiden international seminar on the theme 'Maritime Good Governance towards Sustainable Development' on 19 November 2018. Major General Tarique Ahmed Siddique, rcds, psc (retd), Adviser to the Hon'ble Prime Minister, Security Affairs was present as the chief guest in the seminar. Five keynote speakers from Bangladesh, India, Malaysia, Sri Lanka and the USA had presented their respective papers on that important topic. Our lead story takes a closer look into the splendid event and narrates the outcome of international networking, expert opinions and exchange of views on sustainable maritime development of Bangladesh.

Building an institute has always been a challenging task. BIMRAD as a new maritime institute has challenges to overcome. It has become evident in the article of Dr Imtiaz that partnering with other institutions and carrying out research will be the key to flourish BIMRAD as a strong international maritime think tank.

The Bay of Bengal and its coastal states are among one of the most vulnerable regions in the world affected by Climate Change as identified by Intergovernmental Panel on Climate Change (IPCC) of United Nations (UN). Hence, we have presented an article on Climate Change and its effects in the Bay of Bengal region.

As a littoral State, Maritime and Coastal Tourism can be a part of the economic boom of the country since it has strong growth potential, generates substantial employment and is a clean alternative to other economic sectors. We have also covered an article on Maritime Tourism and the Blue Economy that discussed the matter in detail.

Since the Blue Economy is one of the fastest growing international concepts which gives importance to human well-being and social equity while significantly reducing environmental risks and ecological scarcities, an article has been included on that specific topic.

Apart from that, Maritime Security, Maritime Governance, Blue Economy and SDG 14, Global Warming, Climate Change issues are discussed widely in interviews with two keynote speakers of the seminar.

We have also accumulated all the important news and events happened over the past quarter, those are showcased in the Marine News section to keep you all informed.

We welcome you to share your thoughts and ideas with us to make this effort worthier. We always value your feedback.

Thanking you

Board of Editorial

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“There’s huge potential of the maritime sector in South Asia and utilising the potential, it’s possible to make a big lead into the socio-economic development of the people of this region.”

- Hon’ble Prime Minister Sheikh Hasina  
at 2nd South Asia Maritime and Logistics Forum 2018, Dhaka

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“The sea, the great unifier, is man's only hope. Now, as never before, the old phrase has a literal meaning: we are all in the same boat.”  
— Jacques Yves Cousteau, Oceanographer



Maj General Tarique Ahmed,  
Siddique, rcds, psc (retd)



Admiral Nizamuddin Ahmed,  
NBP, OSP, BCGM, ndc, psc



Mr Farooq Sobhan



Prof. Dr Imtiaz Ahmed



Rear Admiral A S M A Awal,  
NBP, OSP, ndc, psc, MBA (retd)

## BIMRAD International Seminar Maritime Good Governance towards Sustainable Development

### The Beginning

As a littoral country, Bangladesh is located on the northern edge of the Bay of Bengal and is the largest delta in the world. The people of this land have a very long history of maritime activities which includes maritime trade and shipping, shipbuilding, fishing and port facilities for foreign and domestic trade and commerce. History suggests that the people of this land enjoyed better living when they rely on maritime resources with necessary knowledge and understanding of oceans and its contribution to a civilisation. It is apparent that good maritime governance of the ocean is indeed a necessity for sustainable development of a country. Many littoral countries are now becoming more ocean centric since oceans have become more accessible due to the technological development and availability of technologies. As a result, competition arises among the littoral states for regional ocean governance to tap the marine resources.

Oceans don't belong to any particular state, but they need governance. And different maritime authorities have made the governance complex; therefore, there is a demand for an improved understanding of oceans and related maritime activities of exploration and exploitation. It would be wise and sustainable to govern seas through international agreements and regional approaches since parties involved in the decision-making should be aware of each other's interest, priorities and needs. With an aim to create awareness among the general people about the demand, requirements and challenges of Maritime Good Governance and recommend policies for

sustainable development of the country, Bangladesh Institute of Maritime Research and Development (BIMRAD) organised its maiden international seminar on 19 November 2018 at Hotel Radisson Blu, Dhaka Water Garden on the paramount and burning theme 'Maritime Good Governance towards Sustainable Development.' The seminar opened new avenues of opportunities for international networking, expert opinions and exchange of views on sustainable maritime development. Major General Tarique Ahmed Siddique, rcds, psc (retd), Adviser to the Hon'ble Prime Minister, Security Affairs was present as chief guest in the seminar. Five keynote speakers from Bangladesh, India, Malaysia, Sri Lanka and the USA presented their respective papers on that important topic.

### An Eventful Day

The grand BIMRAD international seminar had two sessions, the first session includes the opening ceremony, speeches of two keynote speakers, and the second session consisted of three keynote speakers, policy recommendations as well as an occasion of crests and souvenirs giveaway. In the beginning, guests arrived, completed the registration procedures and took seats in the awe-inspiring seminar hall. The chief guest arrived at the seminar and was received with a classy and congenial atmosphere. Upon the arrival of the chief guest, BIMRAD Director General Cdre Kazi Emdadul Haq, (L), BSP, ndu, psc, BN (retd), delivered the welcome address before the audience. He presented a compelling paper on BIMRAD and comprehensively highlighted on the vision of the institute. With high hopes, he

The seminar opened new avenues of opportunities  
for international networking, expert opinions and  
exchange of views on sustainable maritime development.



Admiral Jayanath Colombage,  
PhD (retd)



Rear Admiral M Khurshed Alam,  
Mphil, ndc, psc (retd)



Capt Richard Francis Sears (retd)



Cheryl Rita Kaur



Admiral RK Dhowan,  
PVSM, AVSM, YSM (retd)

stressed that BIMRAD, in collaboration with other institutes, would be the nation's leading maritime institute which would work for policy recommendations to uphold the maritime interest of the country. He also briefed the participants about the ongoing activities (publication of 'PAAL', organising a seminar on maritime issues etc), future work plan, the website and the membership policies of the institute. The Chief of Naval Staff (CNS) and the chief patron of BIMRAD Admiral Nizamuddin Ahmed, NBP, OSP, BCGM, ndc, psc, in his inspiring speech, paid the deepest tribute to the Father of the Nation, Bangabandhu Sheikh Mujibur Rahman who being a visionary leader appropriately realised the enormous importance of the sea for the development of a maritime nation like Bangladesh. The CNS also recalled that under the dynamic leadership of Hon'ble Prime Minister Sheikh Hasina, Bangladesh successfully demarcated her maritime boundaries and obtained maritime territory of 1,18,813 square kilometres which unfolded new opportunities for optimum usages. He said that in order to maintain good governance of this vast region, littoral nations needed to work together, maintaining a good relationship with a wide range of co-operation, collaboration, understanding and partnership for the utilisation of utmost potentiality of the available resources for the greater benefit of humankind. After the CNS speech, Mr Farooq Sobhan, the president and CEO of the Bangladesh Enterprise Institute (BEI), presented introductory proceedings as a moderator. Then, first keynote speaker, Admiral Jayanath Colombage, PhD (retd), Director of Indo-Lanka Initiatives, Pathfinder Foundation of Sri Lanka delivered his speech on 'Maritime Good Governance and Sustainable Development for Indian Ocean Region: The Conceptual Perspective'. Rear Admiral M Khurshed Alam, Mphil, ndc, psc (retd), Secretary (Maritime Affairs Unit), Ministry of Foreign Affairs of Bangladesh presented his speech on 'Good Governance in Exploration and Exploitation of Marine Resources' as second keynote speaker. At the end of the first keynote session, a Q&A session was conducted and it was summed up by the moderator. Organisers

handed over the crest to the guests and speakers and, later, the chief guest Major General Tarique Ahmed Siddique, rcds, psc, (retd), Security Adviser to the Hon'ble Prime Minister delivered his speech. In his address, he put emphasis on sustainable uses of marine resources which would allow Bangladesh to keep up steady development without tampering the nature in a deleterious way. He also mentioned the visionary planning and steps taken by the Hon'ble Prime Minister of Bangladesh Sheikh Hasina for promoting 'DELTA PLAN 2100' which would allow Bangladesh to introduce herself as a developed country by 2041. He contemplated that BIMRAD would be able to contribute in a large scale by generating and regulating policies for the sustainable and rational usage of marine resources between different maritime stakeholders in the local, regional and international levels. The first session was concluded with a group photography arrangement.



The chief guest Major General Tarique Ahmed Siddique, rcds, psc, (retd), Security Adviser to the Hon'ble Prime Minister is delivering speech at the BIMRAD International Seminar.

“The sea is everything. It covers seven tenths of the terrestrial globe. Its breath is pure and healthy. It is an immense desert, where man is never lonely, for he feels life stirring on all sides.”

— Jules Verne, Science Fiction Writer



The chief guest Major General Tarique Ahmed Siddique, rcds, psc, (retd), Security Adviser to the Hon'ble Prime Minister is receiving an honorary crest from the Chief of Naval Staff (CNS) Admiral Nizamuddin Ahmed, NBP, OSP, BCGM, ndc, psc at the BIMRAD International Seminar.

It was around 01.00 PM when the second session started and lasted for 3 hours. At first, Prof. Dr Imtiaz Ahmed, Professor of International Relations and Director, Centre for Genocide Studies at the University of Dhaka, presented introductory proceedings as a moderator of the second session. Capt Richard Francis Sears (retd) from Daniel K Inouye Asia-Pacific Centre for Security Studies (DKI APCSS), Hawaii presented the third keynote speech on 'Maritime Security and Good Governance in the Indian Ocean Region'. Cheryl Rita Kaur, Head of Centre for Coastal and Marine Environment, Maritime Institute of Malaysia was the fourth keynote speaker who delivered a speech on 'Marine Pollution Control: Governance Challenges'. The fifth and last keynote speaker Admiral RK Dhowan, PVSM, AVSM, YSM (retd), Chairman of National Maritime Foundation, India presented his speech on 'Role of Law Enforcing Agencies in Maintaining Good Governance at Sea' which is considered as one of the imperative topics of the maritime arena. There was another Q&A session held after the fifth keynote speech. Later, Professor Dr Imtiaz Ahmed, as the moderator, summed up the speeches and talked about two big theories, the theory of scarcity and theory of abundance. He considered that Bangladesh was literally stuck in the theory of scarcity and the reason was that the part of the planning was done by economists. Dr Imtiaz also advocated focussing on the theory of abundance. According to him, the world has been transforming from land-centric to water-centric, and Asia-Pacific strategy is land-centric whereas the Indo-Pacific strategy is water-centric. He also recommended for the re-conceptualisation of water relating to pollution, politics, power and profit. Later, episode for summarising speech on the seminar with policy recommendations and vote of thanks was held. Based on the keynote speech of the seminar, Rear Admiral A S M A Awal, NBP, OSP, ndc, psc, MBA (retd) presented the policy recommendations and vote of thanks to the profound speakers and distinguished guests for their kind presence and making the seminar eloquent. He articulated that it was necessary to develop a shared regional strategy for rule based order in IOR for

littoral and other users. He emphasised on the development of the Blue Economy with befitting infrastructure, technologies and investments involving private sectors in the context of SDGs (14 in particular). Rear Admiral Awal also recommended for effective cooperation amongst all stakeholders/ agencies for sustainable exploitation of resources under integrated resource governance framework. He proposed to take effective measures for urgent protection of marine environment and ecosystems from marine pollution under coastal and marine pollution management framework. He emphasised on adopting confidence building measures through bilateral and multi-lateral engagements for stability and good maritime governance in IOR. In his speech, Rear Admiral Awal also opined for deploying Navy, Coast Guard and other law enforcing agencies in national waters and beyond for good order and stability. According to him, maritime awareness is important to monitor good order and stability in vital maritime spaces. He also gave importance to the enhancement of capacity building through shared and balanced approach to regional security of IOR.

At the end of the seminar, crests and souvenirs were handed over to speakers and moderators. A group photography followed by light refreshment pulled the curtain of that elegant event.

### Keynotes

The first keynote speaker Admiral Jayanath Colombage, PhD (retd) delivered his speech on 'Maritime Good Governance and Sustainable Development for Indian Ocean Region: The Conceptual Perspective'. The speaker argued that geo-strategically the Indian Ocean Region (IOR) had gained so importance in the 21st century that it was no longer a benign region rather a contested one. Therefore, as said by Mr Jayanath, Maritime Good Governance was inevitable for the sustainable development of IOR. He further argued that there was a power transition taking place in IOR due to the changing balance of power scenario and fast developing economies of China and India and intentional unlawful damage to the marine environment, marine pollution, Illegal, Unreported and Unregulated (IUU) fishing were also key challenges in IOR. To combat all these, the speaker stressed upon the maritime domain awareness and confidence-building measures among the littorals. He concluded with the view that the best way to ensure peace and stability of IOR was to maintain a rule-based maritime order for which adequate regional maritime strategy and Maritime Security architectures should be devised.

Rear Admiral M Khurshed Alam, Mphil, ndc, psc (retd), presented his speech on topic 'Good Governance in Exploration and Exploitation of Marine Resources' as the second keynote speaker. He began by stressing upon the fact that the ocean was valued at more than USD 24 trillion, however, its actual value was likely to be much higher as many ecosystem services were difficult to quantify. He said that the aquaculture accounts for roughly 18 per cent of the global seafood production where Small Scale Fisheries (SSFs) enormously contributed to food security and employment for millions of coastal poor. The speaker informed that decade long study of marine biodiversity illustrated scientific efforts to know oceans better. Mr Khurshed also said that technological challenges and regulatory

uncertainty, particularly in Areas Beyond the National Jurisdictions (ABNJ), had made industrial mining not yet feasible. The speaker concluded that it was imperative to improve and strengthen the governance framework for the management of Blue Economy/fish stocks associated with deep-sea ecosystems. He emphasised that monitoring and control of fishing activities for the conservation of biodiversity and different types of habitats in IOR must be ensured for sustainable development.

Capt Richard Francis Sears (ret'd) presented the third keynote speech on 'Maritime Security and Good Governance in the Indian Ocean Region'. The speaker began by stressing upon the fact that the IOR had steadily gained importance in the post-World War II era and the region would see an acceleration of this importance going forward. Capt Richard said that economically the Indian Ocean littorals contained more than two-thirds of the world's oil reserves and 35 per cent of the gas reserves along with large deposits of uranium, gold, diamonds and other minerals and strategically the Indian Ocean possessed vital sea lines of communication and some of the most critical choke points on the globe. The speaker also explained that the Maritime Security environment of IOR where a great power competition had been spurred by its economic and strategic value. He said that China and India were both rising as military and economic maritime powers which would spur inevitable competition, particularly in the Indian Ocean. The speaker concluded by emphasising upon the need for a stronger regional architecture to improve governance in the region.

The fourth keynote speaker Cheryl Rita Kaur delivered her speech on 'Marine Pollution Control: Governance Challenges'. The speaker highlighted various governance challenges of marine pollution control. She pointed towards the concern that almost 80 per cent of pollution in the seas emanated from land

and if the current rate of pollution continued, the plastic could outweigh fish by 2050. Rita Kaur said that large coastal population, waste generation/ mismanagement and leakage from the land/ rivers were three main causes of marine pollution. She said that there were many regional declarations that emphasised the importance of the protection of the marine environment and sustainable use of marine resources; however, there was no binding regional oceans agreement for the conservation and sustainable use of maritime activities. The speaker concluded that adequate importance should be given to having a coordination mechanism at the national level and development of clear integrated ocean policy and marine ocean planning.

The fifth and last keynote speaker Admiral RK Dhowan, PVSM, AVSM, YSM (ret'd), presented his speech on 'Role of Law Enforcing Agencies in Maintaining Good Governance at Sea' which is considered as one of the imperative topics of the maritime arena. In continuation of all previous speeches, the speaker primarily highlighted three aspects related to the rule based international order which were stated by the Indian Prime Minister Narendra Modi during his key role address at the Shangri La Dialogue in June 2018. Firstly, he said that there was a need to evolve common rule-based orders for the region, that should apply equally to individual nations as well as the global commons. Such an order must believe in sovereignty, territorial integrity as well as the equality of all nations. These rules and norms should be based on the consent of all and not the power of a few. Secondly, nations should all have equal rules and rights, under international law and freedom of navigation, to the use of common spaces at sea and in the air. Thirdly, promoting a democratic rule-based international order in which all nations, big and small, thrive as equals. The speaker also informed the forum that, India intended to establish an open and inclusive

Regional Fusion Centre for the Indian Ocean. The speaker concluded that the IOR countries needed to plan strategies and develop capabilities to harness oceanic resources for the economic benefit of its people.

#### **The Bar is Raised Higher**

It was beyond doubt that the overall arrangements and conduct of the first international seminar organised by BIMRAD were of high standards. By arranging the seminar wonderfully, BIMRAD has raised the bar very high. BIMRAD also had shown excellent professionalism in coordinating and logistic arrangements where



*The Chief of Naval Staff (CNS) and the chief patron of BIMRAD Admiral Nizamuddin Ahmed, NBP, OSP, BCGM, ndc, psc, with the invited guests at the BIMRAD International Seminar.*

**“ Water and air, the two essential fluids on which all life depends, have become global garbage cans. ”**

— Jacques Yves Cousteau, Oceanographer



Bangladeshi hospitality was at its best. Bangladesh Navy's high standard of professionalism was also showcased. During the deliberation, aspiration of Bangladesh as a nation to uplift the people of Bangladesh was also evident. BIMRAD maintained a congenial atmosphere for the guests and audiences. According to many, it was a wonderfully conducted event with dedication, commitment and professionalism.

### **MoU Signing**

On this very day, three MoUs (Memorandum of Understanding) were signed between BIMRAD and three international maritime research institutes and think tanks for extending cooperation, resource sharing, training and many more.

A MoU was signed between BIMRAD and National Maritime Foundation, India. The National Maritime Foundation (NMF), New Delhi, was established in 2005 as the nation's first maritime think tank for conducting independent and policy-relevant research on 'matters maritime'.

Pathfinder Foundation of Sri Lanka signed a MoU with BIMRAD Bangladesh. The Pathfinder Foundation (PF) is a non-profit, non-partisan research & advocacy think tank which has played a direct and catalytic role in promoting economic policy reforms in Sri Lanka.

Daniel K. Inouye Asia-Pacific Centre for Security Studies (DKI APCSS) signed the third MoU with BIMRAD. DKI APCSS is a U.S. Department of Defence Institute that officially opened September 4, 1995, in Honolulu, Hawaii. The Centre addresses regional and global security issues, inviting military and civilian representatives of the United States and Asia-Pacific nations to its comprehensive programme of executive education and workshops, both in Hawaii and throughout the Asia-Pacific region.

### **Focussing the Future**

This very first seminar of BIMRAD has opened several windows through which international research and development of Bangladesh's maritime sector can be conducted. There can be

joint research projects between BIMRAD and other international think tanks in this area of interest. Representatives/scholars representing maritime institutions could be invited for events related to the maritime domain. There could even be temporary, short-term affiliations and exchange programmes at the respective think tanks for specific periods to carry out joint research. Funding for such projects can be identified. BIMRAD can act as a catalyst for cooperation and confidence-building measures in the region. BIMRAD has already shown that it is capable of doing that during its first international seminar conducted in Dhaka. Bangladesh is positioned in a strategically important location in the Bay of Bengal and should leverage that position for the common good of the region. Apart from that, Maritime Security, Maritime Governance, Blue Economy and SDG 14, Global Warming, Climate Change, Responsible Fisheries are some areas in which national and international bodies can collaborate. As a new institute, BIMRAD should prioritise the institutional maritime research agenda and thematic areas that would bring direct short-term benefits to Bangladesh. The organisation should prepare for a strategic research plan that would address the medium to long-term needs, gaps and challenges.

### **Conclusion**

The importance of sustainable use of maritime resources for socio-economic development should not be ignored. The people must remember that 71 per cent of the planet's surface is saltwater, and oceans have become the centre of civilisation, trade, commerce and leisure. This ecosystem contributes to the planet's climate control and the world's oxygen, food, water, raw materials resources and even our entertainment services. With this continuation of maritime awareness initiative, sustainable implementation plans on maritime resource exploration, accumulation and their proper use, prevention of marine pollution, conservation of marine life and introducing laws to establish good maritime governance can be addressed, and sustainable development can be achieved, beneficially.



*Guests and audience at the BIMRAD International Seminar*

On this very day, three MoUs (Memorandum of Understanding)  
were signed between BIMRAD and three  
international maritime research institutes and think tanks.



# Wishing BIMRAD Fair Winds and Happy Sailing: Admiral Jayanath Colombage

Director, Center for Indo-Lanka Initiatives and Law of the Sea  
Pathfinder Foundation, Sri Lanka

**Q.1. BIMRAD is a very new origination in Maritime research arena. As a keynote speaker of the international seminar arranged under the umbrella of BIMRAD, would you please share your feelings including the overall arrangement of the seminar?**

As the first international conference organised by the BIMRAD, you did a splendid job and raised the bar very high. Overall arrangements and conduct of the seminar were of high standards. All coordinating and logistic arrangements were excellent and the Bangladeshi hospitality was at its best. The conference also showcased the high standard of professionalism of the Bangladesh Navy. Aspirations of Bangladesh as a nation to uplift the people of your country was also evident during the deliberations. There was also a congenial atmosphere which prevailed during the entire duration of our stay. Overall, it was a wonderfully conducted event with dedication, commitment and professionalism. Well done BIMRAD and Congratulations!

**Q.2. As a newly incorporated organisation in the maritime arena, there are lots of potential sectors where BIMRAD can conduct research work to develop the maritime sector of Bangladesh. What is your opinion/suggestions in this regard?**

Agreed. BIMRAD has filled a long felt need for an aspiring maritime nation such as Bangladesh to embark on research in the maritime domain and to formulate policy recommendations and advocacy for the government and thereafter for the entire region. BIMRAD can be a repository for maritime-related research in Bangladesh and could facilitate research by local, regional as well as international researchers in related maritime fields. Some of the areas recommended are; formulating a regional Maritime Security and governance structure; developing confidence-building measures for enhancing maritime connectivity and prosperity; Blue Economy as a regional integrator and security provider; marine environment and preventing human-induced pollution; and the impact of Climate Change and Global Warming on regional countries and mitigating measures.



“I said that the oceans were sick but they're not going to die. There is no death possible in the oceans — there will always be life — but they're getting sicker every year.”

— Jacques Yves Cousteau, Oceanographer



*BIMRAD can act as a catalyst for cooperation and confidence-building measures in the region. BIMRAD has already shown that it is capable of doing that during its first international seminar conducted in Dhaka. Bangladesh is positioned in a strategically important location in the Bay of Bengal and should leverage that position for the common good of the region.*

narratives and initiatives. We need to develop a regional identity and take ownership of our affairs and not be dominated by extra-regional powers. At present, we have peace and a rule-based maritime order and a somewhat benign maritime environment. We should try our best to maintain this. This peaceful period is the most opportune time to discuss maintaining this status quo. We should be ready for a regional maritime order that we are prepared for and not the other way around.

**Q.3. In your view, what are the potential challenges may be encountered by BIMRAD to way forward as a newly established research institute; and how BIMRAD can overcome those challenges?**

Harnessing the vast knowledge and experience of Bangladesh Navy personnel, either retired or serving, in a meaningful and productive manner would be a huge advantage and a challenge. A carefully prepared plan should be designed and implemented in this regard. Funding to sustain the future mobility of BIMRAD is also important. A seed fund may be required with financial control being exercised by a designated authority. Expenses for conducting regional and/or international conferences, workshops, seminars to be considered. How BIMRAD can relate and coordinate with other maritime and marine-based research centres and think tanks need to be carefully considered and necessary guidelines may be drawn up. Furthermore, there will be a requirement of funds to embark on research.

**Q.4. How best BIMRAD can work collaboratively with Pathfinder in order to achieve maritime vision & augment SDG 14 in this region?**

There can be joint research projects between BIMRAD and PF in this area of interest. Representatives/scholars representing both institutions could be invited for events related to the maritime domain. There could even be temporary, short-term affiliations and exchange programmes with the respective think tanks for specific periods to carry out joint research. Funding for such projects can be identified. There is a difference in PF as it is a non-profit organisation and dedicated funding is not available. Protecting the 'Life Below Water' is a regional and global necessity and we need to do whatever is possible to achieve positive results.

**Q.5. You have given a very thought-provoking concept on Maritime Good Governance in your lecture which has generated a lot of discussion amongst participants. You have courageously mentioned some important issues in IOR. Do you think these issues could become a big problem in maintaining good order in IOR, if so, why?**

I firmly believe that our region should not be a battleground for major-power rivalry and strategic competition. Our main aim is to develop infrastructures for enhancing connectivity and prosperity to uplift our people. I believe that as long as we do not have our own narrative and initiatives, we will be subjected to other's

**Q.6. In your speech, you have mentioned that both Bangladesh and Sri Lanka are now at strategic dilemma stage in IOR arena. Please explain a bit more, why? How can we overcome from strategic dilemma to strategic convergence and subsequently towards strategic competition?**

I have given some answers in above Question 5 in this regard. Yes, we are in a strategic dilemma as we cannot make decisions based on economics and what is good for our countries. First, we have to pay attention to the strategic aspiration of other countries and extra-regional powers. We need to enhance maritime connectivity and ocean trade. We were very well connected prior to the arrival of colonial powers to this region. We need to reconnect ourselves as soon as possible and become a power and an economic bloc as a region. We need to avoid being caught up in the strategic competition of major powers and be forced to choose sides or hedge one side against the other. We should always have a people-centric approach to prosperity. If we are united as a region, we can withstand pressure from external forces better.

**Q.7. According to your opinion, what are the reasons that make the Indian Ocean a contested region? Are there any probable solutions in hand that will make this region a peaceful one?**

The Indian Ocean Region (IOR) is of high economic relevance. It is the major gateway for global trade in energy and containerised cargo. It will remain so in the immediate future as Asian countries are developing fast and are becoming economic powers. There is a power transition that is taking place in the IOR. The USA's economic and military power is on a relative decline and China and India are emerging as major economic and naval powers. There are signs of multi-polarity emerging in the Indian Ocean and this could lead to contest and conflict upon its waters. We need our own narrative, maritime strategy and confidence-building measures to stay away from this competition.

**Q.8. Can you please explain what do you mean by 'multi-lateral security arrangement' in IOR?**

No single navy or coast guard can be the 'net security provider' in the IOR. We need a collaborative mechanism to face the current and possible threats in the future. We need burden

sharing and cooperation and interoperability. The best way for us is to work as a region and develop multilateral security arrangements rather than working our own way forward, individually. The best and most economical way forward would be to work as a region. We need to develop trust and overcome trust deficiency. If we believe that a multi-polar world is emerging, we need to look at the multilateral security as well.

**Q.9. You mentioned the “rule-based maritime order”, would you please explain a bit more?**

A rule-based maritime order in the IOR will especially benefit the IOR littorals to maintain freedom of navigation, overfly and maritime trade upon its waters. As a global common, it would benefit international sea-borne trade. What I meant by a rule-based maritime order is that we agree to abide by the internationally accepted rules such as UNCLOS and other conventions and regimes for the maritime domain and not be a threat to other nations by unilateral actions for individual gains. How do we achieve this is the question. That is why I emphasise on an inclusive ‘Code of Conduct’ to be abided by all littorals as well as other users of the Indian Ocean or even limited to the Bay of Bengal.

**Q.10. How BIMRAD can work in collaboration with the regional and extra-regional maritime research institutes (like NMF, Pathfinder, MIMA, APCSS etc.) to mitigate the mistrust in the IOR for maintaining Maritime Good Governance?**

The answer lies in some of the answers I provided before. We need to create and continue a free and frank discussion about the issues we are facing with regional and extra-regional entities. It could be track 2 or 1.5. We should endeavour to propel our recommendations to the policymakers in our countries. If we persist and create valuable advice, one day they will listen.

**Q.11. How BIMRAD can contribute to the confidence building between different regional maritime stakeholders in the IOR?**

BIMRAD can act as a catalyst for cooperation and confidence-building measures in the region. BIMRAD has already shown that it is capable of doing that during its first international seminar conducted in Dhaka. Bangladesh is positioned in a strategically important location in the Bay of Bengal and should leverage that position for the common good of the region.

**Q.12. BIMRAD has signed MoU with Pathfinder; what are the possible areas that both can work together?**

Maritime Security, Maritime Governance, Blue Economy and SDG 14, Global Warming, Climate Change, Responsible Fisheries are some areas the two institutions can collaborate.

**Q.13. What are the main reasons behind your proposal, “let us work through SAGAR concept”?**

The IOR has many different initiatives and dialogues. I have witnessed that these produce good outcomes during their

initiated deliberations. But the implementation of these recommendations does not follow. I feel SAGAR is a good concept for the region. We all should rise like the rising tide. If we leave one or a few countries behind, it could lead to conflict and we may not have the desired peace to focus on our economic development. SAGAR is a local concept. We could use it to collect, analyse and evaluate the outcome of all the initiatives and summarise the findings in a meaningful manner. These collective outcomes could be presented to our governments or regional bodies such as BIMSTEC or SAARC for implementation.

**Q.14. What are the important issues that have been discussed on maritime-related research during the call on with Bangladesh Navy Chief?**

I am so proud of the way Bangladesh CNS is discharging his duties. I have seen how he performed as the Chairman of Chattogram port. He is always having a vision and he is a taskmaster. He has a ‘country first’ attitude and believes in it. I congratulated him on his success and also for creating BIMRAD. We discussed the need to continue the progress we achieved during the BIMRAD dialogue. As a first step, we agreed to have a trilateral conference between BIMRAD, NMF and PF. We also discussed learning best practices in the fishing industry from each other. Even the Security Advisor to the Honourable Prime Minister was very keen on long-line fishing and possible joint ventures between Bangladesh and Sri Lanka.

**Q.15. Do you foresee any joint research that both the institutions can start immediately?**

I believe that I have given the answer earlier. We can start with enhancing Maritime Security cooperation in the BOB, Maritime Governance issues, Blue Economic prospects and best practices and joint fisheries activities.

**Q.16. Are you happy with the conduct of BIMRAD members; was your visit to Dhaka useful?**

I am indeed very happy about the conduct of BIMRAD members. I enjoyed your kind hospitality, exposure to your rich culture, scholarship, networking opportunities and delicious Bangladeshi cuisine. Thank you very much.

**Q.17. Any other suggestions/opinions from your side?**

It was a wonderfully conducted conference. Even this questionnaire itself speaks volumes of your commitment. This is the first time in my academic career, proper feedback was obtained based on a paper presented by me. This shows your interest to carry on. Well done. I wish you fair winds and happy sailing.

“Only we humans make waste that nature can’t digest.”  
— Charles Moore, Marine Researcher”



# BIMRAD Entangling with High Hope

Imtiaz Ahmed

Professor of International Relations & Director  
Centre for Genocide Studies, University of Dhaka



**B**uilding an institution has always been a challenging task. This is mainly because an institution is built not merely for serving the interests and issues of the present but rather for the sake of survivability of the future generation of beings, particularly humans. In fact, no other beings but only humans make institutions, indeed, not only for itself but for the survivability of all beings. And that is quite a tall task. But then there are institutions of all kinds: political, social, cultural, hydrological, educational, and so on. Civilisations across the world have worked diligently over centuries but have fared better only relatively from one another in building one or the other. Europeans, for instance, are good builders of museums, while the Chinese can certainly take pride in textuality. Until the advent of the Wikipedia the Chinese could boast of having the largest encyclopaedia in the world, which contained some 800 million Chinese characters and published during the Qing Dynasty (1644–1911). Earlier in the 15th century, the Yongle Emperor of the Ming Dynasty produced yet another set of encyclopaedias,

which consisted of over 370 million Chinese characters in 11,000 handwritten volumes. The University of Oxford is credited to have built the first public museum in the world in 1683. Since then the Europeans and their descendants around the world, including in the US and Australia, have built one museum after another, some are now over two hundred years old. But then when it comes to the survivability of educational institutions none could surpass the Arabs! The University of Al Qarawiynn in Fez, Morocco, established by a woman in the name of Fatima al-Fihri in 859 AD, still remains the oldest existing, continually operating and first degree-awarding educational institution in the world. Other civilisations, although had deficits in producing encyclopaedias or building museums and universities, excelled in building other kinds of institutions.

South Asians, including Bangladeshis, for instance, have not fared well in building political institutions. This is quite evident from the fact that the region has been under foreign domination for nearly nine hundred years. The Sultan Dynasty whose rulers

By fixing the maritime boundary Bangladesh has now obtained absolute maritime territory of 1,18,813 square kilometres, 200 nautical mile Exclusive Economic Zone (EEZ) and an additional area of Continental Shelf.

were basically nomadic Turks ruled a greater part of South Asia for nearly 320 years, from 1206 to 1526. Then came the Mughals, who were Chagatai Turks (a combination of Mongols and Turks), and they ruled for about 330 years, from 1526 to 1857. Finally, we had the British, whose rule in Bengal and in some adjacent areas extended for 190 years, from 1757 to 1947. Bangladesh then continued for another 25 years under the Punjabi-dominated Pakistan in a semi-colonial relationship. The protracted rule by the foreigners took a toll in building political institutions. The legacy continues even today in some form in post-colonial Bangladesh. But this has not restricted the people of Bangladesh in building institutions related to culture or gastronomy. In fact, the oldest operating institution in Bangladesh, as it would probably be the case in some other parts of South Asia, is sweet shop! But the Bangladeshis can certainly take pride when it comes to having institutions related to culture, like music, poetry, or gastronomy, which has a longer history and has survived largely because of samaj (society), which took the responsibility of reproducing institutions related to culture and gastronomy in homes, mufasil towns, and villages, indeed, in marked contrast to the policies of the state or rashtra. This provides us a clue in building institutions in Bangladesh.

In fact, the survivability of institution depends on how much the latter has succeeded in fulfilling the aspirations of the people. It is precisely for this reason that educational institutions have a longer survival rate, as it would be the case with Al Qarawiynn University or for that matter, Al-Azhar University in Cairo, which was established in 10th century AD. European universities too, some of which were established in 11 century AD like Bologna and Oxford, had a longer span of life, and still surviving. This is where the theory of abundance, as opposed to the prevailing practice of designing development on the basis of theory of scarcity, becomes critical when it comes to building institutions. The idea is to see what we have more and not what we have less!

Bangladesh has two items in abundance. One is people, which have already been put into some good use, particularly when it comes to reproducing Bangladesh's economy. This refers to the remittances from the migrant workers, numbering 10 million, settled in over 140 countries, and remitting USD 13 billion (2018), and 4.2 million workers, mostly female, working in the ready-made garment sector, which includes 4,500 factories and exporting goods worth over USD 28 billion (2017 figure). Bangladesh is now the world's second largest producer of ready-made garments, next only to China. No mean achievement, particularly in the backdrop of being called 'an international basket case'! The second one is water - rain, riverine, and oceanic. The focus on the latter, however, has been dismally low if not negligible. This is unfortunate because Bangladesh, after all, is a water-country and not a land-country. But in recent times, the second item has gained greater significance, particularly for two factors. One is the issue of Climate Change with an urgent focus on the livelihood of the deltaic people and the other one is the fixing of the maritime boundary with Myanmar in 2012 and with India in 2014.

Bangladesh's territoriality or sovereign rights in the Bay of Bengal has finally been accomplished. BIMRAD could not have been established at a more appropriate time.

The Bay of Bengal is a unique area. Not only where the waters of Ganga-Brahmaputra - the largest delta in the world - are emptied but it is also the home of numerous islands, marine biology, flora and fauna, minerals, particularly gems, and about 30 billion tons of oil deposits. The latter is as much as the current deposits of Saudi Arabia, one of the world's largest oil exporters. The richness of the Bay otherwise remains undisputed. But this is as much for consumption as it is for preservation for the future generation of beings, including humans. By fixing the maritime boundary Bangladesh has now obtained absolute maritime territory of 1,18,813 square kilometres, 200 nautical mile Exclusive Economic Zone (EEZ) and an additional area of Continental Shelf, indeed, with undisputed rights to the fish and fisheries and the natural resources beneath the seabed. Bangladesh's oceanic rights as well as responsibilities or what can be best referred to as Bangladesh's Oceanic Futures can no longer be minimised. It is here that BIMRAD is destined to play a productive role. Indeed, as an institution in the making, hardly a year old, what is required for BIMRAD now is a touch of creativity, and passion, patience, and hard work.

Four areas can easily be flagged for BIMRAD to start working, although it need not be limited to these areas alone:

### 1. Research

There is a dearth of knowledge, including institutions, when it comes to researching on the Bay of Bengal in Bangladesh. Inversely, there is actually an overwhelming intellectual dependence on the West when it comes to our understanding of the Bay, particularly in acquiring resources from it. This incidentally is not exceptional but the situation is glaringly dismal when it comes to the Bay and the oceanic world. This is surprising given the fact that Bengal had once been a great shipbuilder and the legendary Chinese mariner and explorer, Admiral Zheng He (1371-1433) and his fleet, did make a stopover at the Chittagong port in the 15th century. BIMRAD should initiate both short and long-term research focusing on the



“It is a curious situation that the sea, from which life first arose, should now be threatened by the activities of one form of that life. But the sea, though changed in a sinister way, will continue to exist: the threat is rather to life itself.”

— Rachel Carson, Marine Biologist



different areas related to the Bay, indeed, from shipbuilding to sea-pollution. Such research could be both in-house and partnered with other research centres and academic institutions, including universities. This would help not only to initiate research that requires immediate attention but also create a pool of Bangladeshi researchers for the development of home-grown knowledge and maritime activities.

## **2. Training**

Research and training must go hand in hand. In fact, both junior and senior officers require training to keep themselves informed about the rapidly changing world, particularly in areas relevant to the naval profession, so that the latter can take actions or even restrain from taking actions on the basis of well-informed, authoritative knowledge. Such training could be designed for one or two weeks, and could include not only officers from the navy or defence services but also other stakeholders, including media personnel, civil bureaucrats, academicians, parliamentarians, and members from NGOs. It is always good to have professionals from all fields, both military and civil, in such training programmes, mainly to get a sense of the diverse opinions on the subject and all the varied scenarios from different disciplinary backgrounds for resolving problems. Topics for the training course could include marine biology, marine tourism, Climate Change, plastic terrorism, or marine innovation. Of course, the selection and prioritisation of the course would depend on both short and long-term requirements of the institution, people, and the country. In the beginning some of the training courses could be partnered with other institutions, with officials at BIMRAD actively participating in the designing of the course.

## **3. Advocacy**

This is fundamental in linking BIMRAD with the people, both at home and abroad. Earlier I have indicated the lessons from history when it comes to the survivability of an institution. Indeed, only when an institution flourishes amongst the people can an institution get reproduced. Alienation from the people otherwise distorts or kills the institution. BIMRAD needs to remain attentive about this from the beginning. The advocacy can have various instruments, including e-publishing weekly updates, printing reports and research findings, making documentaries, and holding workshops, seminars and conferences at all levels - divisional, national, and international. An annual or biennial international conference under the title Oceanic or Maritime Futures, indeed, in the like of Shangri-La Dialogue would only add to its efficiency and help BIMRAD attain a global status.

Short-term fellowships could also be designed, and the outcome could be presented at both in-house and public seminars and conferences. Indeed, some of these workshops could be on the naval ships so that maritime researchers, both young and senior, can get a first-hand knowledge of marine life and living.

## **4. Security**

This is certainly an area that requires specialisation when dealing with issues related to land, air, and water. In the case of Bay of Bengal, now that the territoriality of Bangladesh is legally fixed, the urgency of water or marine security is greater than ever. Indeed, the vast oceanic area under Bangladesh needs to be protected not only from alien ships but also from the pirates and polluters. Given the current resources of Bangladesh the cheapest way it could offset the dubious forces from entering its maritime boundary and ensure security is by purchasing a few submarines. And that is precisely what Bangladesh did, the Navy added to its capacity and commissioned two submarines in 2017. Not sure why it alarmed the critics but I guess our Prime Minister responded rightly by saying, "Let us purchase two more!" Critics were quick to understand the merit of Bangladesh having a three-dimensional force. This is one area where BIMRAD can concentrate and support in developing Bangladesh's capacity, including in the field of naval or maritime intelligence. In the age of globalisation when roughly 80 percent of global trade by volume and 70 percent by value are transported by sea it does not require too much intelligence to know the importance of maritime intelligence. A unit could be created within BIMRAD to focus and research on Maritime Security.

The four areas are not exclusive to one another, some of the activities could overlap. BIMRAD would do well if meetings of the members are convened quarterly to prioritise the activities and see the progress. But let me conclude by saying one or two words on the subject of recruitment. It is quite natural for a new institution to lack in workforce, particularly in having qualified researchers. This problem could be tackled, as indicated earlier, by partnering with other institutions and carrying out joint research. At the same time, BIMRAD should start recruiting researchers for short and long-term, keeping the global practice in mind. Indeed, instead of providing tenure or permanent job, best would be to recruit for one or three years with a relatively high salary. Performance will ensure renewal, while BIMRAD will have the option of recruiting a fresh mind if research and activities demand so.

Let the work begin!



Indeed, only when an institution flourishes amongst the people  
can an institution get reproduced. Alienation from  
the people otherwise distorts or kills the institution.

## BIMRAD Feats

### BIMRAD and DU Seek Rapport Enhancement



On 28th November 2018, Director General BIMRAD Cdre Kazi Emdadul Haq (retd) and Research Director Capt

Shameem Khan Pathan (retd) held a meeting with the University of Dhaka vice-chancellor Dr Md. Akhtaruzzaman. The collaborative approach of conducting research works, seminar, information, resource and expertise knowledge sharing for the optimum use of sea resources under the jurisdiction of Bangladesh for her sustainable development were discussed in the meeting. In this connection, they also emphasised on the signing of a Memorandum of Understanding (MOU) between BIMRAD and the University of Dhaka for enhancing the rapport between these two institutes. To flourish the maritime sector of Bangladesh, the vice-chancellor had shown keen interest to work in collaboration with BIMRAD.

### Dr Imtiaz Pays a Visit to BIMRAD



On 20th December, Dr Imtiaz Ahmed, Professor of International Relations, University of Dhaka visited BIMRAD to discuss with Director General (DG) of BIMRAD Cdre Kazi

Emdadul Haq (retd) on the outcome of BIMRAD International Seminar 2018 which was held on 19 Nov 2019 at Hotel Radisson Blu Water Garden, Dhaka and possible area of future co-operation. Both parties sought a collaborative approach to conducting research works, seminar, information, resource and expertise knowledge sharing for the optimum use of maritime resources.

### 'Blue Economy and EU Horizon 2020' Seminar Held in Dhaka



To raise awareness among mass people about the growing prospect of the Blue Economy the Ministry of Foreign Affairs of Bangladesh and the EU Delegation in Dhaka co-organised a workshop on 25 November 2018 at Hotel Pan Pacific Sonargaon naming 'Blue Economy and EU Horizon 2020'.

The Blue Economy becomes a buzzword in Bangladesh's diplomacy. But the resources in the sea remain largely untapped. Experts said that Bangladesh needed to invest in knowledge, develop marine skills, and encourage innovation and business. EU ambassador in Dhaka Ransje Teerink said that the European Union would support Bangladesh in the fields of research to help it face challenges involving sustainable living. The head of the European Union delegation in Dhaka had invited Bangladeshi research organisations and private sector players to take benefits of its flagship 'Horizon 2020' programme for Blue Economy-related activities.

As the chief guest foreign minister, A H Mahmood Ali stressed: 'quality research' to get maximum benefits of the Blue Economy, opportunities of which arose after the peaceful settlement of maritime disputes with neighbours Myanmar and India. Director General of BIMRAD Cdre Kazi Emdadul Haque (retd) and Research Director Capt Shameem Khan Pathan (retd) attended the workshop.

“I had fought on behalf of man against the sea, but I realized that it had become more urgent to fight on behalf of the sea against men.”  
— Alain Bombard, Biologist



### NOTC & CODF Seek Collaboration with BIMRAD



Representatives of two institutes which are directly administered by the China State Ocean Administration (SOA) met with BIMRAD officials on 28th October 2018. The six members team consisted four representatives of the National Ocean Technology Center (NOTC) led by Mr Sui Jun, Deputy Director General of NOTC and two representatives of China Ocean Development Foundation (CODF) led by Mr Lyu Bin, Vice President of CODF.

During the meeting, NOTC & CODF briefed about their activities in China and showed their interest to work collaboratively for the maritime setup in Bangladesh with the modern outfit. In addition to that, both organisations discussed conducting joint research works, training, resource sharing. The meeting also highlighted a Memorandum of Understanding (MoU) signing between BIMRAD and related wing of SOA.

### Havelsan Official Assured Maritime Awareness Support



As a participant of BIMRAD international seminar, Capt Mr Tahir Conka (retd), Regional Business Development and Sales

Manager for Havelsan Group, Turkey visited Bangladesh.

During his visit, he met Director General (DG) of BIMRAD Cdre Kazi Emdadul Haq (retd) at his office. They discussed the cooperation, collaboration and support from Turkey in order to get optimal maritime setup, research and development support in the field of maritime interest. Mr Tahir assured full support from Turkey in regard to maritime awareness and development work for Bangladesh. DG BIMRAD also proposed for signing a Memorandum of Understanding (MoU) between BIMRAD and Turkish Naval Research Center Command (TNRCC) for developing a bond which will allow these two institutions to work for evolving maritime research work.

### EU Mission Stressed for Collaborative Project with BIMRAD



On 7th January 2019, the deputy chief of the EU mission & current chargé d'affaires Mr Konstantinos Vardakis along with the Trade & Economic Affairs of the

EU mission Mr Abu-Syed Belal visited BIMRAD office and had a meeting with its officials. Both teams, during the meeting, had discussed scopes of facilitating research in the field of Climate Change, water management, river erosion, deep sea fishing, SDG-14, Blue Economy, sea/ river pollution, fish farming and aquaculture etc. EU diplomats stressed for collaborative projects with BIMRAD under the EU flagship programme, the EU Horizon 2021-2027.

### MS to Hon'ble President Paid a Visit to BIMRAD



Military Secretary to the Hon'ble President of People's Republic of Bangladesh, Maj Gen Md. Sarwar Hossain, BSP, SGP, ndc, hdmc, psc, PhD paid a visit to BIMRAD on 26th December 2018.

He has appreciated the establishment of BIMRAD for conducting research on maritime issues concerned to the country. During his visit, he had shown

keen interest in the activities of BIMRAD and expressed his desire to be with BIMRAD. He presented a book that was authored by him titled '1971 Resistance, Resilience and Redemption' for BIMRAD library.





## Environmental Disaster Looming Large on the Horizon: Climate Change Inhibiting Coastal Lives of Bangladesh

Lt Cdr Kazi Shakur Mahmood, (C), BN

*'Climate displacement in Bangladesh coastal region will only deteriorate as Climate Change increases the frequency and intensity of its catastrophic effects. Despite the unpleasant prediction for the climate vulnerability of Bangladesh, it is essential that effective and durable solutions to this growing crisis are industrialised and implemented immediately.'*

**T**here is a delicate balance between mankind and the earth's environment right from the start of the human race. Like the fundamental concept in Chinese philosophy and culture, in general, these two resemble Yin and Yang to complement each other. Over time, the world's population has increased exponentially, the earth's environment has been profoundly affected. Pollution due to the industrial revolution, deforestation and adversarial changes in global climate have brought catastrophic effects on the human race as well as for the sustainability of earth's life. At present, people are encountering lethal effects of Climate Change like Global Warming, intensification of CO<sub>2</sub> and other toxic gases in the atmosphere, rise of the sea level, exacerbation of natural calamities and the deleterious changes in biodiversity. Among all, effects on the ocean, its biodiversity and its coastal area including inhabitants are considered as most substantial.

Like most of the oceans and seas of the world, the Bay of Bengal

is also facing an enormous impact of Climate Change. To be more specific, the Bay of Bengal and its coastal states are among one of the most vulnerable regions in the world affected by Climate Change as identified by Intergovernmental Panel on Climate Change (IPCC) of United Nations (UN). Bangladesh, being the northernmost littoral state of Bay of Bengal is identified to be in the red zone. The coastal people of Bangladesh are already experiencing the colossal effect of Climate Change, as predicted and observed by the scientific community of the world. This would not only increase mortality risk because of increased frequency and intensity of disasters but also alter the biophysical and hydro-meteorological characters - such as an increase in temperature, the decline of precipitation, increase in salinity intrusion and the rise in sea level leading to the poverty and dislodgment of millions of people.

The coast of the Bay of Bengal, the largest bay in the world is rich in natural resources and monsoon makes it greatly suitable for agriculture and fishing. This bay is renowned for its distinct marine

**“I hope that someday we will find evidence that there is intelligent life among humans on this planet.”**

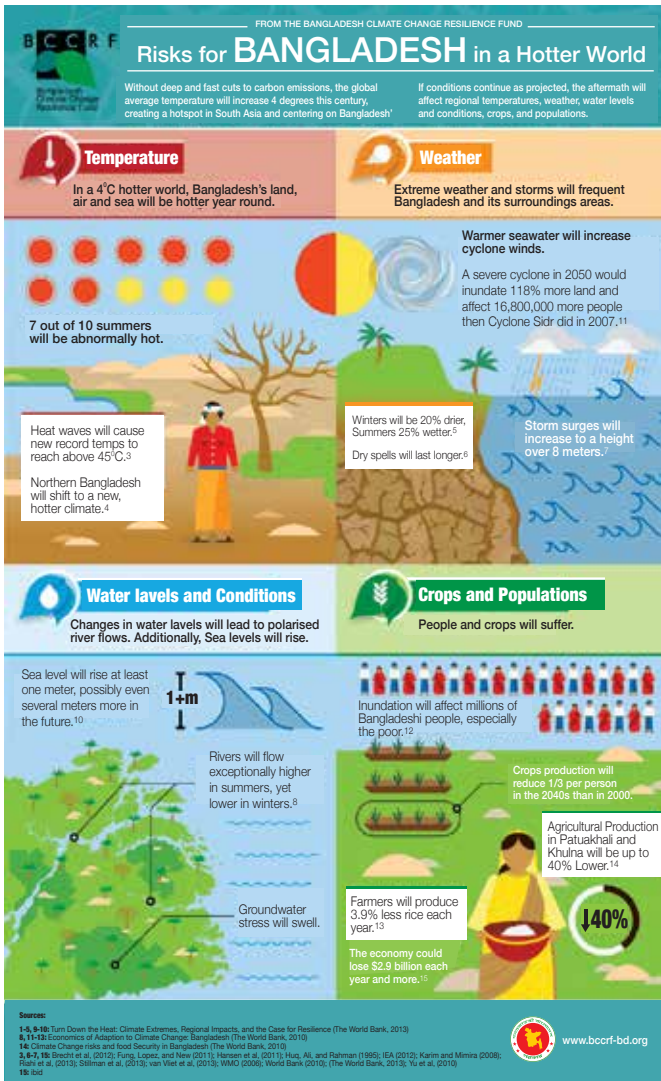
— Sylvia Earle, Oceanographer



ecosystem and biodiversity characterise by mangroves, marshes and various fish species. As a result, the 710 km coastline of Bangladesh is densely populated and 95 per cent of these people are capitalising their livelihood on irrigation and fishing. Despite the moderate growth in the livelihood of these mass population since the beginning of the 21st century, the emerging challenges of Climate Change are generating huge concern among the global communities.

Bangladesh, as one of the biggest deltaic regions, is crisscrossed by many rivers. Some of the major rivers of Bangladesh namely Padma, Meghna, Jamuna, Brahmaputra are originated from the glacier reservoir of eastern Himalayan Hindu-Kush range located north of the country. Glaciers cover about 3 million hectares of the Himalayas which is the third largest area of ice in the world after the north and south poles that feed the major river system flow into the

*Catastrophic effect of Climate Change articulated in single picture by Bangladesh Climate Change Resilience Fund (BCCRF)*



Bay of Bengal. According to the Oxford University Climatologist Professor Mark New, due to the Global Warming, glacier ice of the Himalayan range has been reduced by 30 per cent and it may disappear in coming decades if the temperature rise continues. This will severely affect the river flows of Bangladesh. The availability of fresh water for livelihood and irrigation will decline which will ultimately lead towards mass starvation. Highlighting this fact, the Copenhagen Summit (COP15) has found Bangladesh as one of the most vulnerable countries (MVCs) among the world with respect to Climate Change.

With the deadly effect of Climate Change, Bangladesh's people will encounter serious damage to their livelihood due to the rise in temperature. According to the World Bank and IPCC estimate, the Bay of Bengal region including Bangladesh will experience a rise in temperature by 1.5 degrees to 2 degrees Celsius within 2050. It is well-known fact that the temperature is closely associated with agriculture and crop production and the rise in temperature will sternly effect those. The photosynthesis rate is the key factor in growth and yield of crops such as wheat and rice at a maximum for temperature about 22-32°C. The Assessment Report of IPCC (AR4, 2007) states that even moderate increase (1-2°C) is likely to have a negative impact on crop production. The World Bank also predicts the temperature thresholds to exceed more frequently with 2°C with significant consequences on crop production. Moreover, precipitation in connection to the monsoon will also be affected due to the temperature variation. Different studies by World Bank depict that Climate Change projections show increase rainfall during summer monsoon (June-September) and declining rainfall as well as longer drought during winter. As a result, flooding occurred during summer monsoon and longer drought during dry season will adversely affect irrigation which is more severe in the coastal area of Bangladesh due to limited irrigation infrastructure.

The debate on the sea level rise in recent years has been directed mainly towards long-term impacts to 2100. IPCC and Bangladesh sponsored studies have found that the Bay of Bengal delta is highly vulnerable to the sea level rise due to ice melting in the polar region and the melting of glaciers in Greenland and the Himalayas. The SAARC Meteorological Research Centre (SMRC) has started to look into this phenomenon and determined that the variations in sea level rise between seasons appear to be higher in the Bay of Bengal coast than any other coasts of South Asia. According to the IPCC (2007), a 10 cm rise will be expected by 2030 and in Bangladesh, this would be sufficient to inundate 2500 sq. km, which is about 2 per cent of the total land of Bangladesh. This will cause dislodgement of millions of people living along the coastal areas and islands. The phenomenon can be more severe by 2100. Besides, with the rise of sea level, the intrusion of salinity in freshwater sources will also increase which will cause a multitude of impacts ranging from crop failure to shortage of drinking water along with associated health hazards and biodiversity losses.

The coast of the Bay of Bengal is the most vulnerable region to natural disaster risk of all forms like cyclones, floods, tsunamis and tidal surges. Bangladesh, being a coastal country has experienced some of the deadliest cyclonic disasters in recent past. Sidr and Aila (category 5 cyclones) hit Bangladesh coast in back to back

Climate displacement in Bangladesh coastal region  
will only deteriorate as Climate Change increases  
the frequency and intensity of its catastrophic effects.

2007 and 2009. In May 2016, medium category cyclone Roanu made landfall along the southeastern coast of Bangladesh. Millions of people, livestock, irrigation and fisheries were severely affected by those calamities. With Climate Change, the frequency of cyclones during May and November over the North Indian Ocean has increased twofold in the past 122 years. Using the Bay of Bengal in a hydrodynamic model, the World Bank estimates that cyclone exposed areas and people in Bangladesh will increase in future which is considered as a major concern. Besides cyclones, other natural phenomena like the rise in the tidal surge, tsunami and floods are also causing coastal land erosion, salinity intrusion, adverse effect on irrigation and fisheries, reduction and fatal changes in biodiversity and marine ecosystem. These colossal effects jointly will lead towards persistent poverty for the coastal habitats and at the end displacement of millions.

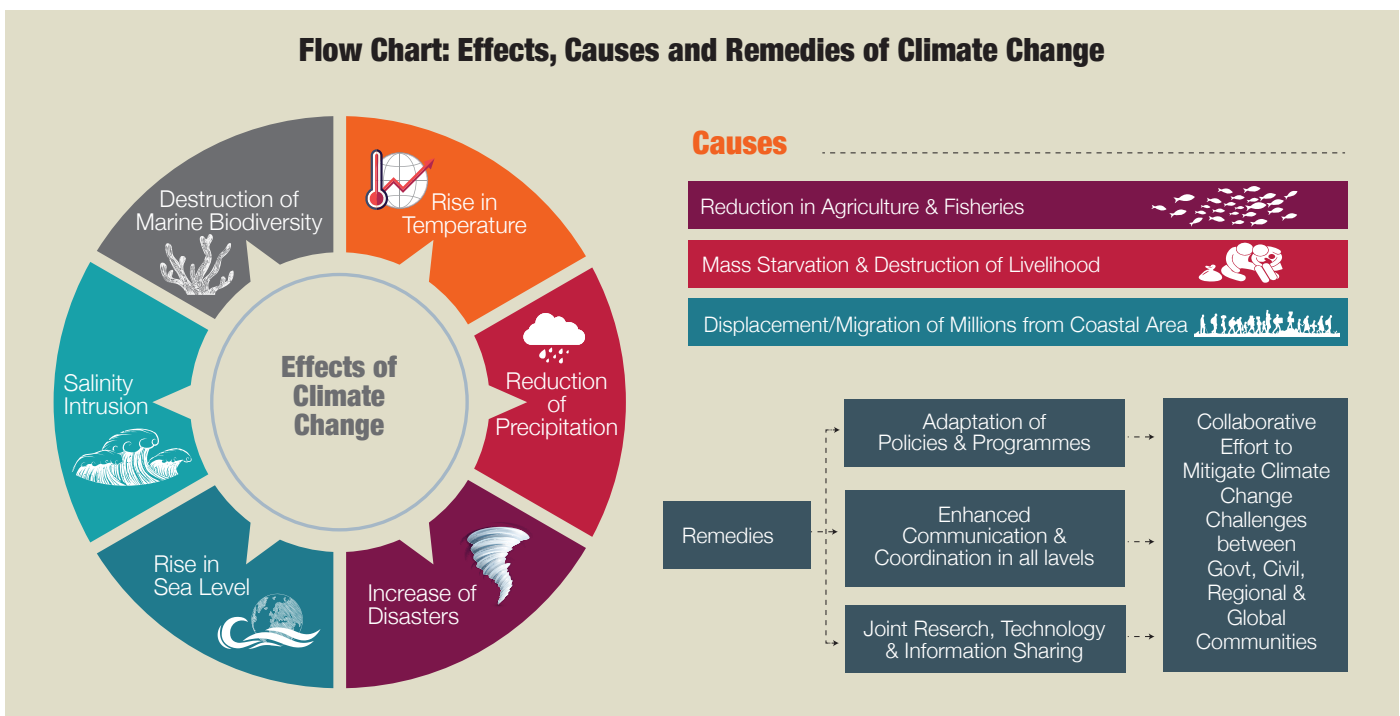
Climate displacement in Bangladesh coastal region will only deteriorate as Climate Change increases the frequency and intensity of its catastrophic effects. Despite the unpleasant prediction for the climate vulnerability of Bangladesh, it is essential that effective and durable solutions to this growing crisis are industrialised and implemented immediately. The Government of Bangladesh has both the primary responsibility and the prospect to address the immediate and future climate displacement crisis from the coastal area. The most pressing concern for the Government is to begin transforming conventional climate displacement strategies into Climate Change adaptation policies and programmes. However, it is essential that the efforts of the Bangladesh Government are also supported by the civil society, the regional and international communities and the affected

communities themselves. It is indispensable that the Government immediately begins to encourage enhanced communication and coordination between relevant Government departments, affected communities and civil society on climate displacement issues. Besides, littoral countries in the Bay of Bengal region can also ponder regional development and cooperation for joint research programme and sharing of knowledge, lessons and technologies for adaptation and mitigation of Climate Change. The United Nations has taken Climate Change affects around the globe into cognizance and included as 'Sustainable Goal No 13' (SDG 13: Climate Action) which will launch the necessary support for the affected country. Bangladesh Government can also think for collaborative efforts to mitigate this phenomenal issue in coordination with the UN.

The cataclysmic effects of Climate Change will engulf the coastal population of Bangladesh. Therefore, it has become an important duty to work our ways out collaboratively and intelligently to face this Herculean task for ensuring the safe and protected livelihood of our people as well as the nation's rise in coming days.

**References:**

1. Impacts of Climate Change on Livelihood and Food Security in the coast of the Bay of Bengal by Khurshid Alam, Shameem Siddiqi, Aniruddha Dey, Shamnaz Ahmed, Arifur Rahman, Mayeesha Azhar and Rafiqul Islam.
2. Climate Change in the Coast of Bay of Bengal: Impact, Resilience and Implications by Mr Khurshid Alam, Think Ahead Limited and Mr Saroj Dash, Concern Worldwide.
3. Climate Hazards and the Bay of Bengal Delta by Dr Moazzem Hossain, Griffith University, Australia.



“We owe it to our children to be better stewards of the environment. The alternative? - a world without whales. It's too terrible to imagine.”  
 — Pierce Brosnan, Actor



# Effective Cooperation and Partnership Needed for Sustainable Development:

## Cheryl Rita Kaur

Head, Centre for Coastal and Marine Environment  
Maritime Institute of Malaysia (MIMA)



**Q.1. BIMRAD is a very new origination in Maritime Research Arena. As a keynote speaker of the international seminar arranged under the umbrella of BIMRAD, would you please share your feelings including the overall arrangement of the seminar?**

The overall planning and execution of the first BIMRAD international seminar have indeed impressed me, especially the fact that key areas included in the presentations, deliberations and discussions were topical and relevant to the current needs, issues and challenges faced in the region. The inclusion of think tanks, as well as regional and international organisations in the maritime field, also assisted in the sharing of thoughts for not only achieving the sustainable development goals but also to synchronise the way forward through effective cooperation and partnerships with like-minded institutions.

**Q.2. As a newly incorporated organisation in the maritime arena, there are lots of potential sectors where BIMRAD can conduct research work to develop the maritime sector of Bangladesh. What is your opinion/suggestions in this regard?**

In my opinion, BIMRAD is well positioned to conduct research, formulate management and policy options, and create better awareness on related maritime issues - not just in Bangladesh but also to strive towards more coordinated efforts and action programme linked with other like-minded institutions to exchange experiences and best practices, and to embark on timely research for local, regional and international benefits and outcomes in the maritime field.

**Q.3. In your view, what are the potential challenges may be encountered by BIMRAD to way forward as a newly established research institute; and what is the way-out of those challenges?**

As a new institute, among the foreseeable challenges would include the need for BIMRAD to prioritise the institutional maritime research agenda and thematic areas that would bring

BIMRAD is well positioned to conduct research,  
formulate management and policy options, and create  
better awareness on related maritime issues.

direct short-term benefits to Bangladesh; whilst also preparing for a strategic research plan that would address the medium to long-term needs, gaps and challenges. Human resource and workforce with the right background, knowledge, and experience would also be essential. Close links and networking with related agencies in Bangladesh would also be needed in ensuring proposals and recommendations from BIMRAD so that those are well accepted and implemented.

**Q.4. Nowadays, marine pollution is one of the major concern in the IOR region. What are the devastating effects it can cause for a densely populated littoral country like Bangladesh?**

In many other parts of this region, most of the populations live within the coasts and hence it is not surprising that human activities are taking their toll in the form of pollution and other adverse environmental impacts. All marine pollution has the potential to not only damage the marine habitats, biodiversity and life in the sea, but also impose direct or indirect threats to human health and wellbeing, food security, and economic prosperity. Most of the associated issues are also, more often than not, transboundary in nature and hence the impact would be felt whether the pollution originates from Bangladesh or elsewhere, in this case. Responsibilities are owned by States to ensure that damage to the marine environment caused by such activities is prevented, reduced and controlled. For the matter of fact, the 1982 United Nations Convention on the Law of the Sea (UNCLOS) as a universally accepted global convention governing the oceans, rules on States the right to seek remedies to prevent transboundary pollution of the marine environment. Recent environmental concerns have also been focusing on the fact that marine pollution is placing extra stress on organisms and marine lives that are already threatened or endangered.

**Q.5. In your speech, you have mentioned that many regional institutes are working to control marine pollution. Yet, marine pollution is increasing at an alarming rate. Why? How BIMRAD can work in collaboration with the regional and extra-regional maritime research institutes to develop general awareness against marine pollution?**

It is important to acknowledge the fact that policy and management actions to address marine pollution involves translating the aspired goals, targets and objectives into implementable actions. In my opinion, although this is seen as an integral and logical part of a policy cycle or management plan, not much emphasis is being placed on assessing the effectiveness of existing maritime policies (given if there is such a policy in the first place), gaps and challenges, and barriers linked to implementation performance or proper execution (or in simple words i.e., on paper vs effective implementation/ enforcement). Other possible challenges include the lack of coordination, funding, commitment, capabilities among the implementers, and sometimes even weak political support. I am of the opinion that

loopholes related to the factors mentioned above need to be addressed to improve implementation and achieve the desired outcomes.

**Q.6. Can you please mention any significant improvement against marine pollution by any regional institute? If not so, then what standard model/ concept can be followed by those institutes against marine pollution?**

There are generally several examples that come to mind on this. I will, however, emphasis on the example established by the Maritime Institute of Malaysia (MIMA). Taking the issue of marine debris pollution as a major threat to the oceans, which comprise a wide range of materials such as persistent plastics, lost and abandoned fishing gear, and other pollutants. Marine debris contributes to ecological, environmental and socio-economic damage, including ingestion by and entanglement of marine life, fouling of coastlines and interference with navigation. Reducing marine pollution is also part of the United Nations Sustainable Development Goals (SDGs). This is spelt out in Goal 14, which focuses on the need to conserve and use oceans, seas and marine resources on a sustainable basis.

A national survey in Malaysia earlier revealed that we lack systematic surveys and monitoring of marine litter, data on marine litter at a source, information on ocean circulation patterns and accumulation zones along the coastlines, and the ecological and environmental impacts of marine litter. For many years, there was also no suitable quantitative means to evaluate whether a beach was clean or dirty, with the only measure being the amount of waste removed from these areas, namely the tonnage of debris cleared or the number of trash bags collected. MIMA had therefore established a Clean-Coast Index (CCI) to serve as a tool to evaluate the actual cleanliness of our coastal areas. This went on to be adopted for monitoring and management purposes by State and local governments.

**Q.7. In your speech, you have highlighted that 70-80 per cent of sea pollution has occurred from land. How best we can address this issue and what are the policies BIMRAD can adopt? Can you please cite any Malaysian model as an example to follow?**

Yes, indeed, 70-80 per cent of the pollution that reaches the sea comes from land-based sources. In general, this calls for actions directed toward minimising the flow of such pollutants into the sea and improving the quality of the materials that does reach the sea. Malaysia, for instance, has good practices and models on addressing both land- and sea-based sources of pollutants through proper monitoring, enforcement and reporting mechanisms well in line with national, regional and international environmental requirements. In a nutshell, examples include the national marine water quality monitoring efforts by the Department of Environment Malaysia, as well as enforcement of MARPOL annexes by the Marine Department of Malaysia.



The issue however largely involves addressing the non-point source of pollution more effectively. Unlike pollution from industrial and sewage treatment plants etc. which comes from diffuse sources, non-point source pollution is usually caused by rainfall and runoff carrying away natural and human-made pollutants into the rivers, wetlands and coastal waters. The effects of non-point source of pollutants on specific waters may vary and usually are not fully assessed. They, however, impose serious effects on recreation values, fisheries sustainability, and coastal communities' livelihoods.

**Q.8. BIMRAD has proposed for MoU with MIMA (Maritime Institute of Malaysia). What are the possible advantages we may derive if MoU is signed?**

In general sense, the direct benefits would include the sharing of experience and knowledge on areas of mutual interests, establishing joint collaborative research or non-research programmes for mutual benefits, creating more direct networking opportunities between the two institutions and research staffs, as well as the opportunity for producing joint publications in the maritime field.

**Q.9. According to your opinion, what are the probable fields that MIMA would be interested to work with BIMRAD?**

MIMA would be interested to explore further the opportunity to work on addressing marine environmental issues and sustainable resource management. This could include efforts on addressing marine pollution, protected areas establishment and management, food security, and Climate Change related issues with regards to the coastal and marine environment.

**Q.10. How best BIMRAD can work collaboratively with MIMA in order to achieve the maritime vision and augment SDG 14 in this region?**

In addition to the MoU, I would also suggest for a dialogue session between BIMRAD and MIMA to explore further strengths and opportunities that could be capitalised from the experiences available within MIMA, as well as to be in focus with priority areas identified by BIMRAD towards realising SDG 14 aspirations.

**Q.11. How or is there any scope that BIMRAD may derive benefit from or augment the maritime related issues with existing regional forums like PEMSEA, BOBLME, IORA, SAGAR, BIMSTEC, etc.?**

Although not directly relevant to all the regional forums mentioned above, MIMA does play an active role in not just participating but also providing inputs and recommendations on related areas in several of the above. There are hence opportunities for MIMA and BIMRAD to explore the feasibility to produce joint input documents, presentations as well as organise joint forums to address some of the priority areas that have been identified by the above forums.

**Q.12. What are the important issues that have been discussed on maritime-related research during the call on with Bangladesh Navy Chief?**

The overall discussion was very encouraging and forward-looking. One such area that I found particularly enlightening was the present maritime situation understanding, issues and needs in Bangladesh. With proper planning and execution, much can be done by BIMRAD to address concerns and achieve mutual benefits collectively through engagements at the local, national and regional levels.

**Q.13. Are you happy with the conduct of BIMRAD members; was your visit to Dhaka useful?**

Yes, of course. This was my first visit to Dhaka; much was achieved in such a short time I had in the city. The learning and sharing experience, networking, as well as the chance to plan further cooperative engagements with not only BIMRAD but also other like-minded institutions and key personnel present - are cherished.

**Q.14. Any other suggestions/ opinions from your side?**

The international seminar has been a crucial first step and seen as a remarkable effort and opportunity to further cooperation and engagement in the maritime field. We look forward to continuing communications towards achieving closer maritime cooperation!

**Marine Facts**

**Who Gives the Ocean that Blue Tint?**



*One of the most indelible features of the oceans is the deep blue waters that are continually churning, rolling, and coming in waves. The*

*colour is the result of the sun's red and orange wavelengths being absorbed by the surface and its blue wavelengths penetrating deeper, giving way to a blue tint. And because those wavelengths can travel further down, the ocean will tend to appear bluer the lower you go. Why isn't water in a glass blue when you're sitting outdoors? There aren't enough molecules to absorb the light.*

# Blue Economy for Well-grounded Bangladesh

Capt A B Chowdhury, psc, BN (retd)

*'Blue Economy is one of the fastest growing international concepts which is unequivocally entwined with the set target of sustainable Development Goal by 2030.'*



## Backdrops

As a littoral State at the Bay of Bengal, Bangladesh has a total of 1,48,460 sq km area where 18,290 sq km area is covered by water (12 per cent). The country borders with only two neighbours i.e; India & Myanmar. Her third neighbour at the southern side is the Bay of Bengal where Bangladesh has got an area of 1,18,813 sq km after two verdicts given by the ITLOS with Myanmar in 2012 and with India in 2014. The total area includes 200 nautical miles of Exclusive Economic Zones (EEZ) and over 354 nautical miles of resources on the seabed and the EEZ is about 1,64,000 sq km which is bigger than land area 1,48,460 sq km of the country.

Within these backdrops, Bangladesh has been graduated from the group of least-developed countries (LDCs) to the developing one recently because of her glaring advancement in some sectors like garments industry, agriculture and manpower (who are working as migrants in other countries) working outside the

country. But mere depending upon only these three sectors it would be next to impossible for Bangladesh to make any remarkable breakthrough to take the position to the level of a middle-income country within the stipulated time as planned. Hence, the maritime sector seemed to be very promising and prospective for the economic advancement of the country. An attempt is made to assess the probability of harnessing this sector and tapping the resources in the sea areas and achieving the Blue Economy with relevant pros and cons.

## What Actually Maritime Sector Means?

It is a fact that our life originated in the oceans and they cover more than 95 per cent of the biosphere. Oceans are continuously supporting all lives in the globe by generating oxygen, absorbing carbon dioxide, recycling nutrients and regulating global climate and temperature. A substantial portion of the global population lives with food and livelihood from the sea. Sea is the means of transportation of 80 per cent of global

**“ If man doesn't learn to treat the oceans and the rain forest with respect, man will become extinct. — Peter Benchley, Author of "Jaws" ”**



trade. About 32 per cent of the global supply of hydrocarbon is from the sea. The exploration and exploitation of various living and non-living resources from the sea is expanding exponentially. Bangladesh is no exception to this. A big group of Bangladeshi people are also living in the coastal areas, islands, estuaries etc and making their livelihood using resources from the sea.

All the activities either at sea or related to sea may be termed as maritime activities as mentioned below:

**a. Exploration of hydrocarbons:** Bangladesh discovered 26 gas fields so far in land and at sea. There may be approximate 27.12 trillion cubic feet (tcf) reserve of gas, from where 12.96 tcf gas is already expensed. Now we have only 14.16 tcf gas in our reserve. There is no real probability of finding more gas fields in the land area. Exploration of Hydrocarbons in Bangladesh's maritime border area with Myanmar and India hasn't started, though Myanmar began their exploration work at the Bangladesh border three and a half years ago.

**b. Tourism:** Bangladesh has not made any significant progress so far in the field of sea tourism like many other Asian countries. As there is a huge hope for sea tourism, therefore, adequate and planned care and measures need to be taken in developing sea tourism in Bangladesh. Sea tourism in Bangladesh has a very promising scope.

**c. Sea trade route:** Bangladesh ports play the key role of transporting major part of our foreign trade. Bangladesh desperately needs to enhance the existing handling capacities of ports and develop deep seaports with more capabilities and modern handling equipment to facilitate increased trade and commerce.

**d. Ship recycling industry:** It is a big sector of steel supply in the country's steel sector and many are working there. There is a huge scope to enhance this sector.

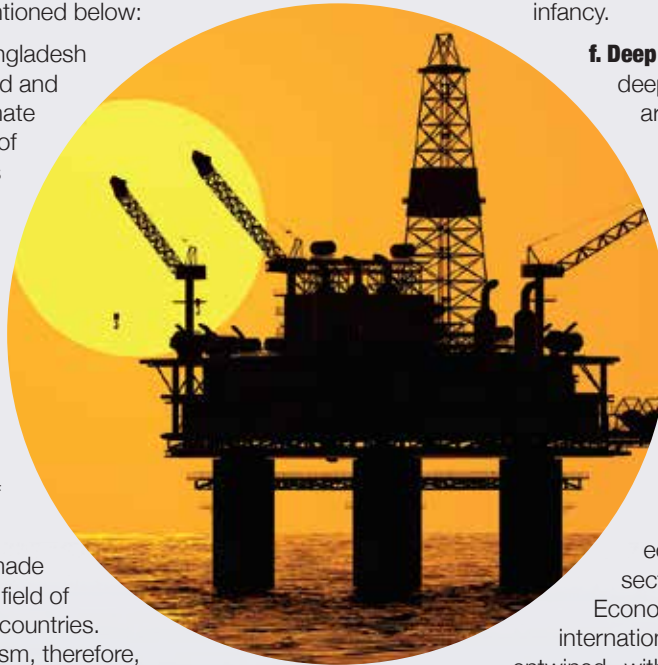
**e. Sea fishing:** A huge number of fishermen are involved with fishing trade. Sea is their life and death. Bangladesh is the world's largest flooded wetland (Bengal-Delta) & three main river system namely, Ganges, Brahmaputra & Meghna are there although deep sea fishing in Bangladesh is still in the infancy.

**f. Deep sea minerals etc.:** The probability of deep sea minerals in the Bangladesh areas not yet assessed. But it is expected that if appropriate survey and actions could be ensured a huge probability of harnessing sea minerals are there in Bangladesh claimed sea areas.

#### **What is the Blue Economy?**

The Blue Economy means the use of sea and its resources for sustainable economic development taking into special account of environmental importance. It refers to any economic activity in the maritime sector whether sustainable or not. Blue Economy is one of the fastest growing international concepts which is unequivocally entwined with the set target of Sustainable Development Goal by 2030. It is inserted in the United Nations as an outcome of 2015 Paris Agreement. It shares the same desired outcome: the importance of human well-being and social equity while significantly reducing environmental risk and ecological scarcities.

The Bangladesh government started working with diverse stakeholders at home and abroad to embark upon expansion of the Blue Economy by formulating relevant policies and places a





few years back. The objective is to sustainably exploit untapped potentials of the marine environment using helpful solutions and innovations for increasing food security, alleviating poverty and improving nutrition and health, creating jobs, lifting trade and industrial profiles while protecting the ecosystem, health and biodiversity also regional security and peace.

Some apprehensions in realising the Blue Economy in the stipulated time:

Despite vast resources and prospects, development of the Blue Economy in Bangladesh faces many challenges including lack of awareness, knowledge and information in the common people, lack of concern about pollution, overfishing, illegal fishing, uncontrolled and unplanned exploitation of resources, violation of territorial waters, piracy and robbery, use of weapon and drugs trafficking, irregular migration, manmade and natural disaster, Climate Change, inadequate governance mechanism, lack of appropriate and coordinated security arrangement etc. There is a shortage of institutions for higher and dedicate studies in the maritime field. Many seminars, symposiums and discussions so far held in Bangladesh but it is now the high time go for the action.

There is only one specialised maritime university established a few years back in Dhaka namely, Bangabandhu Sheikh Mujibur Rahman Maritime University (BSMRMU) for developing expertise in the maritime sector. Of late an institution named as Bangladesh Institute of Maritime Research and Development (BIMRAD) has been formed by Bangladesh Navy as an initiative for rendering theoretical, analytical, research and database information to enhance government initiatives for the Blue Economy. These are no doubt that initiatives have been taken at various levels by different organisations. But continuous coordination, cooperation and mutual trust and faith are indeed necessary before achieving any desired outcome in the long run.

Serious political will and commitment from all governments, realistic action plan and aggressive action are indeed necessary to achieve the anticipated outcome. Inter-ministerial cooperation, coordination is one of the single most important factors of all to ensure fruitful progress. Besides, motivation and awareness of all are also needed. A well-trained, skilled and educated human



resources are the driving force for the development of an economy, who can participate in the globalisation of business and the accompanying technological revolution. Hence, dynamic and sustainable development is not possible without a skilled workforce.

### Concluding Thoughts

Bangladesh as a nation is suffering from sea blindness. There have been a lot of discussions on how to manage the resources in the Bay of Bengal and lots of hopes have been generated. By tapping and harnessing maritime resources, Bangladesh can achieve its development goals. Scopes are enormous. To sustain and develop as a middle-income country, Bangladesh has no other suitable option except exploring and exploiting the maritime resources at her southern side. Bangladesh needs to have an ocean policy for handling resources in the Bay of Bengal. Otherwise, all will remain within the dream and imagination state and the desired result will be unattainable. Since time and tide waits for none, we should not miss the opportunity to jump into the maritime development bandwagon



“Without water, our planet would be one of the billions of lifeless rocks floating endlessly in the vastness of the inky-black void.”  
— Fabien Cousteau, Grandson of Jacques Cousteau



# Marine News

## Maersk Vows to Become Carbon Neutral by 2050



An aim is set for the world's largest shipping company Maersk to become a carbon neutral company by 2050. To achieve this goal, the company said that carbon neutral vessels must be commercially viable by 2030, and it would require an acceleration in new innovations and adaption of new technology.

"The only possible way to achieve the so-much-needed decarbonisation in our industry is by fully transforming to new carbon-neutral fuels and supply chains," says Soren Toft, Chief Operating Officer at A.P. Moller – Maersk.

According to Toft, given the 20-25-year lifetime of a vessel, it is now time to join forces and start developing the new type of vessels that will be crossing the seas in 2050. The efforts are in line with the industry's push to halve the shipping industry's carbon footprint by 2050 compared to 2008.

## Mitsubishi Corp to Acquire 25 Per cent Stake in Bangladesh LNG Terminal

Japan Mitsubishi Corporation (MC) has agreed to acquire 25 per cent of Bangladesh's Summit Liquefied Natural Gas (LNG) terminal and plans to help develop an offshore receiving site in Bangladesh. With the acquisition, 75 per cent of SLNG will be held by Summit Corporation and 25 per cent by MC.

Under the project, SLNG will install an FSRU 6km off the coast of Moheshkali Island in the Cox Bazar district of Chattogram division in Bangladesh, where it will receive and regasify LNG procured by Petrobangla.

Construction of the terminal has already begun, with commercial operation expected to start in March 2019. The planned LNG import volumes are about 3.5 million tonnes per annum, Mitsubishi said.

In addition to this project, Summit and MC have agreed to jointly pursue other projects across the LNG value chain in Bangladesh, from LNG supply to power generation.



### Marine Facts

#### How Much Do We Know About Marine Lives?

Size and water pressure conspire to limit our exploration of the oceans, so much so that it's estimated we've identified only one-third of the potential marine life lurking beneath the surface. It's possible most of those are smaller organisms, but it's likely that some whales and other mammal species have yet to be discovered. We're making progress, though: An average of 2000 new species is described each year. Some of the unique features of the ocean spaces are:



Jellyfish have been around for more than 650 million years which means that they outdate both dinosaurs and Sharks.



Dolphins sleep with only half of their brain and with one eye open so they can watch for predators and other threats.



Sea sponges have no head, mouth, eyes, feelers, bones, heart, lungs or brain yet they are alive.



An octopus has three hearts and the colour of its blood is blue.

The Hon'ble Prime Minister Sheikh Hasina said that it was possible to make a big lead into the socio-economic development of the people of South Asia through utilising huge potential of the maritime sector in the region.

## PM for Utilising Maritime Resources to Expedite Regional Development



The Hon'ble Prime Minister Sheikh Hasina said that it was possible to make a big lead into the socio-economic development of the people of South Asia through utilising huge potential of the maritime sector in the region.

"There is a huge potential in the maritime sector in South Asia and by utilising the sector, it is possible to make a big lead into the socio-economic development of the people of this region," she said while addressing the inaugural session of the Second South Asia Maritime and Logistics Forum 2018 at a hotel in Dhaka.

The Ministry of Shipping in cooperation with the Colombo International Maritime Conference Events and India's Gateway Media Pvt Ltd have jointly organised the two-day event to attract investment in the infrastructure and innovation of new technology in the shipping sector.

The Prime Minister said that Bangladesh was a country of boundless potentials. "In the water transport sector, new business opportunities exist such as the development of container transport at home and abroad, as well as the further expansion of dredging programmes, ferry services, port management and operations by the private sector," she said.

Shipping Minister Shajahan Khan, Indian Union Minister for Shipping and Road Transport Mansukh Mandaviya, Sri Lankan State Minister for National Policy and Economic Affairs Dr Harsha De Silva, Editor-in-Chief of India's Gateway Media Pvt Ltd Ram Prasad Ravi and Bangladesh's Shipping Secretary Md Abdus Samad also spoke at the function.

## 2400 Years Old Ship Discovered Underneath Black Sea



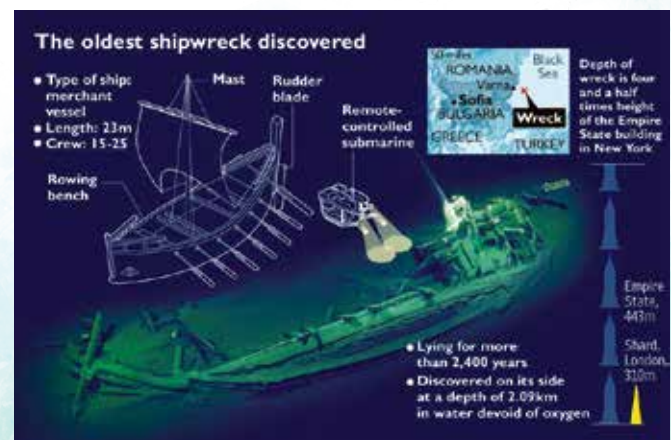
The world's oldest intact shipwreck has been discovered more than two kilometres beneath the waves of the Black Sea, archaeologists believe.

A team of researchers from Britain and Bulgaria found the skeleton of a Greek trading vessel during an exhaustive survey of 2000 square kilometres of seabed.

A small piece of the forgotten vessel was taken for tests and the carbon dated back to 400BC, making it the 'oldest intact shipwreck known to mankind', according to the group.

The Black Sea Maritime Archaeology Project (Black Sea MAP) said it spent three years combing the depths of the Black Sea using remote-controlled deep water camera systems which can provide ultra-high-definition images from more than two kilometres below the surface.

Their exploration unearthed more than 60 shipwrecks, including several Roman trading ships and a 17th century Cossack raiding fleet.



“We must plant the sea and herd its animals using the sea as farmers instead of hunters. That is what civilization is all about - farming replacing hunting.”  
— Jacques Yves Cousteau, Oceanographer



## Maritime Tourism and the Blue Economy: Bangladesh Perspective

Jan Rumi

Dean of the Consular Corps of Hawaii and Frank Haas  
Former Dean, University of Hawaii, USA

*“With a growing emphasis on Bangladesh’s ‘Blue Economy’ and a wealth of maritime attractions and resources, the time is right for the development of Maritime and Coastal Tourism as a significant contributor to Bangladesh’s economic vitality and growth.”*

**B**angladesh has been enjoying strong economic growth throughout the last decade, but the future will be even brighter with the development of a ‘Blue Economy’ built around its maritime resources. Maritime and Coastal Tourism can be a part of that bright future since tourism an industry that has strong growth potential, generates substantial employment and is a clean alternative to other economic sectors.

Tourism is the world’s leading industry and it continues to grow in size and importance and eighty per cent of tourism is coastal tourism.

Compared to some of its South Asian neighbours, Bangladesh tourism is relatively small, but favourable conditions in Bangladesh and the region provide indications that it can become a major contributor to economic growth. Neighbours like the Maldives, with a \$US2.7 billion tourism industry and Sri Lanka, with USD 3.9 billion in tourism receipts, point to the potential for Bangladesh, which currently generates only USD 227 million in tourism receipts.

The conditions for growth are in place for both the development of domestic and international tourism for Bangladesh. The economy has been growing rapidly both in Bangladesh and in the South Asian region

providing an economic foundation of progress. Within the domestic and regional economies, there is a growing middle class with the means to travel for recreation and leisure. Structurally, conditions favour the development of tourism since air routes are expanding within the region and more and more of the population lives in urban regions with access to air service. Finally, the growing availability of long-haul aircraft and low-cost air carriers can open up Bangladesh tourism to distant markets.

Proof of tourism's potential for Bangladesh is also found in the current growth rates for global tourism. The United Nations World Tourism Organisation estimates that the global tourism industry grew by 6.8 per cent in 2017 and has projected continued growth at a 3.3 per cent annual rate through 2030. The picture is even more positive for South Asia, which posted an average annual growth rate of more than 10 per cent since 2005 and now brings \$US39.5 billion annually into the region.

Bangladesh has much to offer for prospective visitors. The country has one of the world's longest sandy beaches at Cox's Bazar, the Sundarbans Mangrove Forest (a UNESCO World Heritage Site), St. Martin's Island, cultural and religious sites and the potential to create water-based recreational activities on its extensive Bay of Bengal coastline.

The government of Bangladesh has already developed policies that recognise tourism's potential to attract foreign exchange, preserve and maintain cultural and natural resources, alleviate poverty and create a favourable national image for the country. What is needed now is a plan to put these policies into action and coordinate the industry, government and non-governmental agencies that can contribute to tourism's successful development. The policies and assets are in place, ready to be developed.

With a growing emphasis on Bangladesh's 'Blue Economy' and a wealth of maritime attractions and resources, the time is right for the development of Maritime and Coastal Tourism as a significant contributor to Bangladesh's economic vitality and growth.

As a developing coastal and Maritime Tourism destination, Bangladesh would benefit by focusing on three fundamental precepts to realise its potential. First, it needs to preserve and protect its coastal and aquatic assets, primarily the Bay of Bengal, its beaches and tributaries. The Bay of Bengal has an extended coastline with a variety of beaches and aquatic resources that can be the basis for coastal tourism. The development of these assets, however, requires that the conditions in the bay remain safe and attractive for recreation. Since the bay touches several nations within the region, the critical steps to maintain its health will require the continuation of multi-national efforts.

Secondly, as a relatively underdeveloped maritime destination, Bangladesh has the opportunity to strategically develop its Maritime Tourism by tapping into best practices of other more highly developed destinations. In one sense, tourism in Bangladesh is underdeveloped; however, another way to look at this is to consider tourism to be a 'blank page' ready for a

comprehensive development plan. Master-planning will ensure that development in Bangladesh is strategic and coordinated.

Finally, to create a comprehensive development plan, Bangladesh should coordinate developments through regional and international partnerships. Other countries and regions with highly developed tourism industries can provide Bangladesh with a blueprint for development and allow the country to take advantage of learning from other successful tourism destinations.

Partnerships will be a key to the strategic development of Maritime Tourism in Bangladesh and should cover a range of potential partners including tourism-based companies both within the region and internationally. Knowledge-based partners such as universities and other training institutions along with the government to government relationships and partnerships will be key to tourism development. Bangladesh can benefit from the expertise and lessons learned in other successful Maritime Tourism destinations.

As the authors of this article are from the State of Hawaii, USA, a dream Maritime Tourism destination, it is suggested that a partnership such as establishing a Sister-State relationship with the State of Hawaii could be a game changer for the development of Maritime Tourism of Bangladesh.

For Bangladesh's sustainable Maritime Tourism development, trends are very favourable and the outlook is positive. With appropriate planning and partnerships, Bangladesh will be able to attract domestic, regional and international tourists. It is time to implement a comprehensive plan to develop our tourism industry in order to become a sustainable tourist destination by outperforming the regional competitors.

#### Marine Facts

### Most Underwater Volcanic Eruptions Go Unnoticed



*Up to 80 per cent of volcanic eruptions goes unnoticed by land-dwellers. That's because they're erupting underwater. An estimated one million volcanoes—some extinct and some very active—spew molten hot lava.*

*Despite the heat, creatures can still be found near their superheated vents. Researchers believe these areas harbour several undiscovered species that are invulnerable to the harsh conditions, including water temperatures up to 750 degrees Fahrenheit.*

“ All the king's horses and all the king's men will never gather up all the plastic and put the ocean back together again. ”  
— Charles Moore, Marine Researcher



## Call on with the Chief of Naval Staff



### Rita Kaur Meets CNS

The visiting keynote speaker of BIMRAD International Seminar Cheryl Rita Kaur, Head, Centre for Coastal and Marine Environment, Maritime Institute of Malaysia (MIMA) had called on with the Chief of Naval Staff of Bangladesh Navy and Chief Patron of BIMRAD on 18 November 2018 in latter's office. CNS, at the outset, thanked Kaur for accepting an invitation as keynote speaker on marine pollution control. Rita Kaur expressed that MIMA would be very much interested to cooperate with BIMRAD in the maritime research sector.



### Honourary Consul of Bangladesh and Morocco, Honolulu, Hawaii, USA Visit CNS Office

M. Jan Rumi, Honourary Consul of Bangladesh and Morocco Honolulu, Hawaii, USA, had called on with Chief of Naval Staff and Chief Patron of BIMRAD.



### NMF Chairman Stresses Research Cooperation with BIMRAD

The visiting keynote speaker Admiral R K Dhowan, PVSM, AVSM, YSM (retd), Chairman, National Maritime Foundation (NMF) & Former Chief of the Naval Staff, Indian Navy had called on with Chief of Naval Staff and Chief Patron of BIMRAD on 20 November 2018 in latter's office. The NMF Chairman mentioned lots of possible fields of research cooperation – like a joint study on Climate Change effects, sustainable fishing and the betterment of fishermen, eco tour, inland waterways, wind energy, the cooperation of maritime researchers of both Bangladeshi and Indian universities, etc. CNS thanked NMF Chairman for accepting his invitation and also thanked him for his excellent deliberation.



### TUN Regional Business Development and Sales Manager Visit CNS Office

Capt Dr Tahir Conka, (retd), TUN Regional Business Development and Sales Manager HAVELSAN A.S. Ankara Headquarters, Turkey had called on with Chief of Naval Staff and Chief Patron of BIMRAD.



### Professor Jayanath Colombage Meets CNS

The visiting keynote speaker Admiral Professor Jayanath Colombage, PhD (retd), Director Indo-Lanka Initiatives and Law of the Sea, Pathfinder Foundation, Sri-Lanka had called on with Chief of Naval Staff (CNS) and Chief Patron of BIMRAD on 20 November 2018 in CNS office. He proposed few areas of maritime research cooperation, such as a feasibility study on Tuna fish processing, cruise ship, lifestyle of coastal people, etc.



### Dean of DKI-APCSS Visits CNS Office

The visiting keynote speaker from DKI-APCSS Capt Richard Francis Sears, Capt (retd), Dean, Admission and Business Operations, Daniel K. Inouye Asia-Pacific Center for Security Studies (DKI-APCSS), Honolulu, USA had called on with the Chief of Naval Staff and Chief Patron of BIMRAD on 18 November 2018 in latter's office. Capt Sears appreciated CNS for establishing BIMRAD, which is a timely needed maritime research institution for the maritime awareness of Bangladeshi people. They discussed the mutual interests of both APCSS and BIMRAD concerning possible fields of cooperation.

Admiral Professor Jayanath Colombage proposed few areas of  
maritime research cooperation, such as a feasibility study on  
Tuna fish processing, cruise ship, study lifestyle of coastal people, etc.

# BIMRAD MoUs



MoU signing between BIMRAD, Bangladesh and National Maritime Foundation (NMF), India



MoU signing between BIMRAD, Bangladesh and Pathfinder Foundation (PF), Sri Lanka



MoU signing between BIMRAD, Bangladesh and Daniel K. Inouye Asia-Pacific Centre for Security Studies (DKI APCSS), USA

“ I hope for your help to explore and protect the wild ocean in ways that will restore the health and, in so doing, secure hope for humankind. Health to the ocean means health for us. ”  
 — Sylvia Earle, Oceanographer



**Web : [www.bimrad.org](http://www.bimrad.org)**

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