



Nouporikroma

INAUGURAL ISSUE
ENGLISH EDITION

www.navy.mil.bd

Volume 01, Issue 01, January 2020

Bangladesh
riding the waves

The odyssey of a valiant Navy



Bangladesh shipbuilding industry
in the global and local context

Sustainable ocean
management benefits the
Blue Economy

Climate change conflicts:
Implication for Armed Forces

Our homage to the Father of the Nation Bangabandhu Sheikh Mujibur Rahman on a yearlong celebration of the 'Mujib Year' marking his grand birth centenary on 17 March 2020, whose countdown began on 10 January 2020 through a gala opening ceremony and will culminate on 17 March 2021.



Praise to Bangabandhu Sole architect of Bangladesh



7 March 1971. The Ramna Race Course ground in Dhaka is brimming with a crowd of a million Bengalees waiting for their leader's command. Soon, Father of the Nation Bangabandhu Sheikh Mujibur Rahman appeared, stood before the historic gathering and in his thunderous voice, called upon the nation to rise up, fight back, shatter the chains of slavery, and win the long cherished independence.

The Liberation War took off immediately and Bangladesh clinched the radiant sun of freedom on 16 December 1971, soaking in the bloodbath of three million lives. In a few weeks on 10 January, 1972 Bangabandhu returned home from the Pakistani jail only to find before him the daunting task of rebuilding a war-ravaged country.

Instantly, Bangabandhu committed himself to the new mission of building a 'Sonar Bangla' for the war-torn nation. In line, to defend the rights over our maritime zone, he took to the restructuring of the state for the maintenance of our sea resources and ensure economic emancipation. Bangabandhu, in fact, felt the need of a strong naval force much earlier to the independence and demanded the establishing of a naval headquarters in the then East Pakistan in his 'Six Point Charter,' a manifestation of his far-sighted vision.

During the Liberation War, our valiant naval commandos ignited the legendary 'Operation Jackpot' and played a decisive role in accelerating our final victory. With Bangabandhu's sincere efforts, the Bangladesh Navy set off its journey in 1971 with just two patrol crafts 'Padma' and 'Palash' procured from our friendly neighbour India. Consequently on 10 December 1974, Bangabandhu conferred National Standard to Bangladesh Navy and commissioned the largest naval base BNS ISSA KHAN. To further capacitate the navy, he also procured 5 modern warships from Yugoslavia and India. He then commenced the building of five more patrol craft at Narayanganj and thus, laid down the foundation for the local shipbuilding industry for construction of warships. Following this legacy, the shipbuilding in Bangladesh today has risen up as one of the leading industry in the country.

With his sheer wisdom and unparalleled foresight, Bangabandhu promulgated the Territorial Waters and Maritime Zones Act-1974, the law that in later years qualified us to determine our maritime border with neighbouring countries in a peaceful manner, through the verdict of the International Court. Today, we can boast our sovereignty over an area of 118,813 sq km which is roughly equal to the size of our country.

Right after the Independence, Bangabandhu, by dint of his diplomatic prudence, persuaded the Soviet Government to help us retrieve the navigability of the Karnaphuli Channel by getting rid of the lethal mines that were set by the enemy forces during the Liberation War. Members of the Pacific Fleet of the Soviet Navy began the rescue operation and they partially cleared the Chattogram Port by July, 1972. The port eventually turned fully operational by June 1974.

Bangabandhu, the greatest Bangalee ever in a thousand years, was born at Tungipara in Gopalganj on 17 March 1920. From an early age, he got immersed into different political movements for the emancipation of the nation. He played an active role in the Language Movement of 1952, won the election in 1954 on a United Front ticket and served as a Minister in a short-lived cabinet. In 1966, he declared his 6-point demand termed as 'Charter of Survival' and led the Awami League to a landslide victory in the 1970 national election. Nevertheless, the audacity of the then junta authority led to ensuing events culminating in the ultimate independence of Bangladesh. However, his tenure lasted short as it came to an abrupt end during the early hours of 15 August 1975 when some derailed army members stormed his residence and assassinated Bangabandhu as part of a nefarious coup.

Bangabandhu may have died but the legacy of his never-give-up motto has extended even to this day. As the supreme leader, Bangabandhu has handed over to us the victory torch and now it is our sole commitment to move ahead with it.



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Perspective



Climate change conflicts: Implications for armed forces

Implications of climate change are being assessed now in the various walks of life. Being an all-pervasive issue, climate change is a much discussed matter and raises concerns about the civilisation's sustenance, and now we analyse its implications on the future of the armed forces.

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Vista



Female officers play a big role for Bangladesh Navy

Role of the female gender in the military services is more seriously considered in the contemporary days. Our government is also emphasising on the women empowerment. We take this opportunity to narrate the glorious history of Bangladeshi females serving in armed forces of Bangladesh and vis-a-vis their important role in Bangladesh Navy.

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Training



BN prioritises quality training

Proper training is imminent to build an able and complete force. Bangladesh Navy always kept its prime focus on the superior quality of training facilities and its implementation. The overall training policy to the training priorities are set by the Naval Headquarters. The entire scenario of the training facilities of Bangladesh Navy is vividly described in this article.

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Exclusive Interview



“Bangladesh Navy is ever ready to protect national sovereignty, preserve maritime interest and to promote peace.”

– The Chief of Naval Staff

CNS shared his candid thoughts on a wide range of contemporary naval, maritime and security issues.

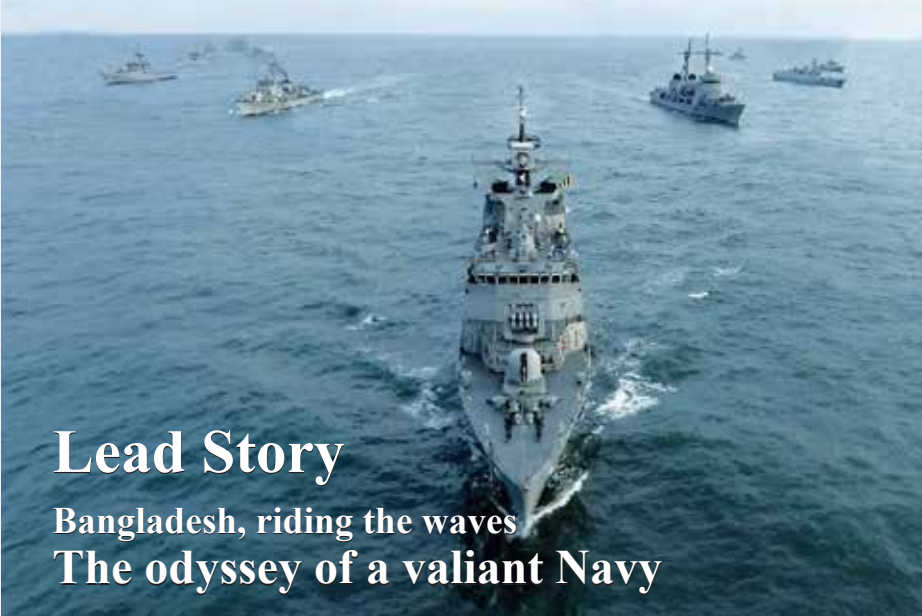
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Bulwark



Sustainable ocean management benefits the Blue Economy

Bangladesh government has prioritised their agenda on Blue Economy nowadays. Oceans are the world's largest ecosystem and essentially important for the survival of humanity. A wide array of benefits can be achieved by enriching our perception of Blue Economy and learning how to use the ocean for ensuring a sustainable future.



Lead Story

Bangladesh, riding the waves The odyssey of a valiant Navy

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With a vision to reach beyond, Honourable Prime Minister Sheikh Hasina has set a matchless instance in building a state-of-the-art and three-dimensional naval forces for comprehensive growth and economic development of this nation. It is now the responsibility of the Bangladesh Navy to safeguard this maritime resource and keep the economic wheel rolling forward. In this regard, our lead article describes how Bangladesh Navy is preparing itself to become a valiant naval force in the regional realm and beyond.

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A call for humanity: Bhasan Char rehabilitation project

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Endeavour



Bangladesh shipbuilding industry in the global and local context

Bangladesh has a long history of being a glorious country in the art of shipbuilding. This is the story of the endeavour of Bangladesh Navy to revive an old glory as a shipbuilding nation. The shipbuilding industry has become more global than local due to increasing global demand for new ships and let us look into our placement in the global context.

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Peacemaker



Contributions and sacrifices of BN in UN peacekeeping missions

Bangladesh is one of the largest troops contributing countries to the United Nations peacekeeping missions. Not only that, Bangladesh is the much praised nation for its quality of contributions as well. Since 1993, Bangladesh Navy personnel have been participating in UN peacekeeping mission on a regular basis. These are the tales to tell about their utmost sincerity and devotion to ensure world peace.

INAUGURAL ISSUE

January 2020, Volume 01, Issue 01

Nouporikroma English Edition

An annual publication of Bangladesh Navy



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The determined Bangladesh Navy is preparing to face the 21st century challenges

Dear readers, we are delighted to inform you that in the successful continuation of Quarterly Bangla Magazine *Nouporikroma*, the annual English edition has started its journey in a new format from this inaugural issue. From the maritime security and defence perspective, we believe this magazine will play a pivotal role in the field of knowledge sharing as well as in expressing our thoughts, views and development information to the world's defence community. At the same time, this magazine also aims to make our potential youth force aware of maritime and naval defence issues of the Bay of Bengal and beyond.

Under the prudent leadership of Hon'ble Prime Minister Sheikh Hasina, Bangladesh has emerged as one of the largest South Asian economies and the country is now striving hard to explore sea resources in her maritime economic zone under the concept of Blue Economy. The economic growth of Bangladesh and its sustainability have been heavily dependent on her South front, the Bay of Bengal and it will remain so in future. Therefore, its water, subsurface areas and the sky above the sea areas need to be secured and kept free from all kinds of threats ranging from fighting armed aggression down to humanitarian assistance and disaster relief. Keeping that in mind, Bangladesh Navy plays a key role in providing security and protection of economic interests in the maritime arena. Our lead article sheds light upon the glorious past, vibrant present and the shining future of Bangladesh Navy. We believe that the readers will get a lucid picture of our Navy that is taking preparation to face the 21st century maritime security challenges.

With the cordiality and guidance of Hon'ble Prime Minister Sheikh Hasina, today, Bangladesh Navy (BN) has emerged as a three-dimensional navy on the world stage materialising the dream of the Father of the Nation Bangabandhu Sheikh Mujibur Rahman who envisioned to build a modern navy. To carry out the task, Admiral Aurangzeb Chowdhury, NBP, OSP, BCGM, PCGM, BCGMS, ndc, psc assumed the command of Bangladesh Navy as the 15th Chief of Naval Staff. For this magazine, he has given an exclusive interview where he discussed the vision and many important issues related to the maritime security of Bangladesh.

The shipbuilding industry constructs and modifies ships for security and commercial purposes. Strong support from the government and political stability are required since it is a highly capital-intensive industry. In our 'Endeavour' section, we have included an article on the shipbuilding industry of Bangladesh. We hope this article will open several new windows to look at the prospective shipbuilding industry of Bangladesh.

Besides, we have incorporated articles on 'Blue Economy' and 'Climate Change' in 'Bulwark' and 'Perspective' section respectively. Additionally, the 'Training' and 'Peacemaker' sections discuss the training of BN and her role in the UN peacekeeping missions.

This magazine has six news sections which will inform readers about all important BN events and developments that happened throughout last year.

I would like to thank all the writers and contributors for their remarkable contributions for this magazine. Finally, I appreciate the members of the Editorial Board for the wholehearted support they have rendered and sincere efforts made by them.

It will be highly appreciated and we would be truly obliged if you leave your invaluable feedback and suggest new ideas for further improvement of this magazine. Thank you for being with us all the while, and keep staying with us.

Thank you
Editor



The Hon'ble Prime Minister handed over the 'National Fisheries Award 2019' to the Chief of Naval Staff Admiral Aurangzeb Chowdhury in recognition to Navy's unique contribution to the country's fisheries development and maritime fisheries management

National Fisheries Award 2019 New feather in the crown of Bangladesh Navy

The fisheries is one of the major sectors that plays an important role in the socio-economic development of Bangladesh. About 3.57% of the national GDP and 25.3% of the agricultural contribution to GDP come from the fisheries sector. Bangladesh Navy (BN) has been working relentlessly to improve the domestic and marine fisheries resources of the country. Bangladesh is now self-sufficient in fish production. According to a recent FAO (Food and Agriculture Organisation) report, Bangladesh ranks 3rd in fish production from the domestic natural sources, 25th in marine fisheries and 5th in overall fisheries.

If Bangladesh can maintain the current growth, by 2022 the country will be able to rank first in fish production. An important contribution to this achievement is the effort of Bangladesh Navy. The country is reaping the benefits of patriotic efforts of the Navy in conserving the country's fish resources. BN helps to increase Hilsa fish production by preventing piracy and conducting 'Operation Jatka' and 'Ma Ilish Conservation Campaign' so that illegal and unregulated fishing can be curbed down in order to increase Hilsa production in deep seas and coastal areas. The Navy, therefore, received recognition for its unique contribution to the country's fisheries resource development and marine fisheries management. Bangladesh Navy received the gold medal at the National Fisheries Award 2019 ceremony. On 18 July 2019, Hon'ble Prime Minister of the Government of the People's Republic of Bangladesh Sheikh Hasina handed over the award to the Chief of Naval Staff Admiral Aurangzeb Chowdhury, NBP, OSP, BCGM, PCGM, BCGMS, ndc, psc at Krishibid Institution Bangladesh.

BN in protecting Hilsa fish

The Navy has already taken multi-pronged steps to improve the Hilsa production. These activities include:

- Raising awareness among the people of all walks of life to protect Jatka and mother hilsa.

- Under the Fisheries Conservation Act, BN facilitates mobile court operations held in the rivers and fish markets from November to June every year.
- Providing adequate Vulnerable Group Feeding (VGA) food assistance to the fishermen at the time of Jatka fishing prohibition.
- Distribution of various materials to create alternative employment for the very poor fishermen who are barred from fishing Jatka.
- Establishment of Hilsa sanctuaries for Jatka on the riverside of Padma, Meghna, Andharmanik and other coastal rivers including Tetulia.
- In order to protect the mother Hilsa, BN conducts public awareness programmes and bans fishing for 22 days in the main breeding season. Besides, the Navy provides support for mobile courts.
- The Navy also conducts special operations to eliminate illegal nets that destroy Jatka and other fisheries in the coastal areas.

BN in preventing Jatka fishing

Bangladesh Navy carried out the following activities to prevent Jatka fishing:

- Constant patrols are provided by the Maritime Patrol Aircraft (MPA) as well as by naval vessels in Barguna, Barishal, Patuakhali and adjoining areas in order to carry out the Jatka operations.
- Bangladesh Navy operates their own boats in various canals and rivers to stop illegal and unregulated fishing.
- Bangladesh Navy conducts regular awareness and motivation programmes to eradicate inadequate knowledge of fishermen, poverty and greed for higher profits.
- Bangladesh Navy directs the fisheries officers to take necessary actions to prohibit the sale of current nets in the local markets.
- Celebrating Jatka Conservation Week every year.



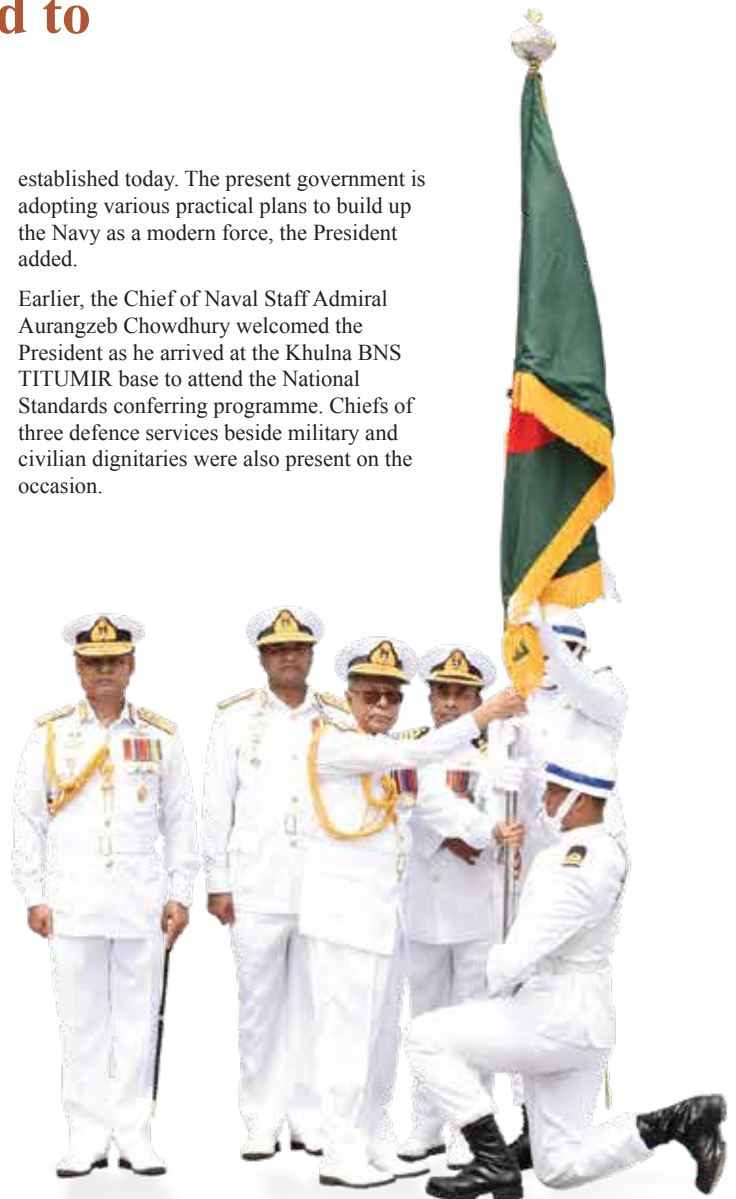
National Standard Conferred to BNS TITUMIR

Khulna city, in the southwest end of the country, long before independence, had been reputed as an industrial area due to the abundance of rivers and canals. Communication between Khulna and Mongla, the second largest sea port of the country is quite easy and affordable for its network of waterways beside the roadways. These features here, then again has facilitated the establishment of the largest shipbuilding industry. BNS TITUMIR, one of the important naval bases of Bangladesh Navy, is located here in Khalishpur, only three kilometres far from the downtown. On 10 December 1974 the Father of the Nation Bangabandhu Sheikh Mujibur Rahman simultaneously commissioned all the naval bases of the country of which BNS TITUMIR was one. Since inception, the base has been providing relentless support to Bangladesh Navy in its training, operational and logistics activities. The base is a training yard for young sailors. From here, sailors are assigned to different bases or ships for professional exercise. Besides, officers and sailors of the BN Supply Branch are also trained in BNS TITUMIR at various stages of their professional career. In the recent past, one more feather has been added to its crown of success which is conferment of the National Standard. On 2 October 2019, Hon'ble President Mohammad Abdul Hamid conferred National Standard (National Flag) to BNS TITUMIR in recognition of its unique support in training, operational and logistics activities of Bangladesh Navy.

This was also reflected in the President's speech delivered during the National Standard conferring ceremony. He fondly reminisced the outstanding contribution of the Father of the Nation Bangabandhu Sheikh Mujibur Rahman during the glorious Liberation War and mentioned his dream of building a modern Navy considering the geo-political reality. The President said, soon after independence, Bangabandhu collected a number of warships from India and Yugoslavia and in 1974, enacted the 'Territorial Waters and Maritime Zones Act 1974'. Following the legacy, hon'ble Prime Minister Sheikh Hasina, the worthy successor of Bangabandhu, took multi-pronged steps for the modernisation of Bangladesh Navy after taking over the responsibility of running the government in 1996. Under the current tenure of her government, the Navy has become a three-dimensional force through the addition of submarines. The status of Bangladesh Navy is globally

established today. The present government is adopting various practical plans to build up the Navy as a modern force, the President added.

Earlier, the Chief of Naval Staff Admiral Aurangzeb Chowdhury welcomed the President as he arrived at the Khulna BNS TITUMIR base to attend the National Standards conferring programme. Chiefs of three defence services beside military and civilian dignitaries were also present on the occasion.





Hon'ble Prime Minister is awarding the 'Sword of Honour' to the best Midshipman in the President's March-past (winter) at the Bangladesh Naval Academy

Prime Minister at President's March-past at BNA

On 22 December 2019, the President's March-past (Winter) of the Midshipman 2017/A batch and Direct Entry Officer (DEO) batch of 2019/B was held at the Bangladesh Naval Academy. Hon'ble Prime Minister Sheikh Hasina attended the occasion as the Chief Guest, inspected the March-past and took the salute. In that March-past a total of 72 new officers, including 61 Midshipmen of 2017/A batch and 11 Direct Entry Officers of 2019/B batch were commissioned. Of them, 7 are females and 2 are officers from the Maldives. After the March-past, the Hon'ble Prime Minister, in her address, paid deep respect to the contribution of Bangabandhu Sheikh Mujibur Rahman, the Father of the Nation, the architect of the independent Bangladesh. She also spoke about the supreme sacrifices of all the heroes and freedom fighters who participated in the Liberation War.

"You will be the future leaders of this Navy to safeguard our motherland. May I remind you that the end of this rigorous training is not the end of attaining excellence rather it is just the beginning," she said in her speech at the March-past.

Two new corvettes arrived in Bangladesh for Navy

Two new corvettes, 'BNS SANGRAM' and 'BNS PROTASHA', each 90 metres long and 11 metres wide, made by China reached Chattogram Naval Jetty on 27 April 2019. Commander of Chattogram Naval Area attended the reception ceremony as the Chief Guest. Both ships can transit oceans at a speed of 25 knots per hour and are mounted with the state-of-the-art cannons capable of launching surface-to-surface and surface-to-air missile targeting enemy aircraft, ships and other installations. The ships also feature deck landing facilities for the take-off and landing of helicopters. Having the capability of remaining

at sea for a long time, these corvettes can act against illegal infiltration, resist piracy and conduct rescue operation at sea beside providing advance security to the ongoing Blue Economy initiatives as well as safeguarding fisheries, marine resources, gas and oil blocks.

National Mourning Day observed

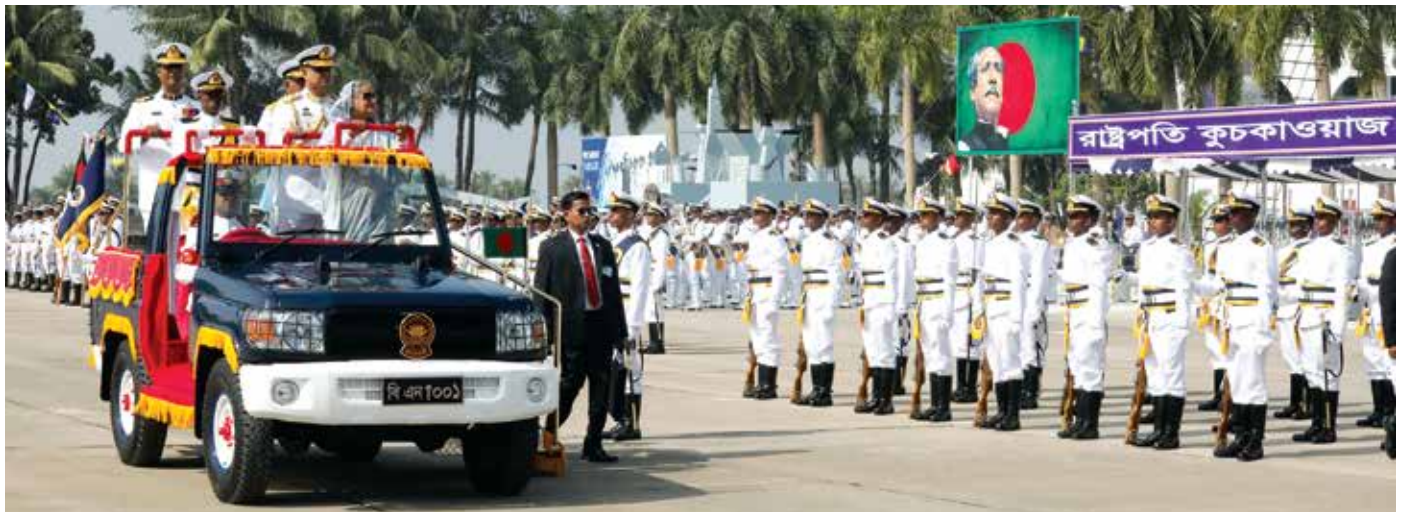
On 15 August 2019, the National Mourning Day was observed with proper dignity in all Naval Areas of Bangladesh Navy. All the members of the Navy wore black badges and a documentary film on the life of Bangabandhu was shown on the day. Remembering this National Mourning Day, the national flag was kept at half-mast.

BN also celebrated the 99th birthday of the Father of the Nation Bangabandhu Sheikh Mujibur Rahman and the National Children's Day-2019. It was celebrated onboard all ships and bases of Bangladesh Navy. Earlier in the morning, Hon'ble President and Hon'ble Prime Minister paid tribute to the Father of the Nation by placing wreaths at the grave of Bangabandhu at Tungipara in Gopalganj. The Chief of Army Staff General Aziz Ahmed, the Chief of Naval Staff Admiral Aurangzeb Chowdhury, NBP, OSP, BCGM, PCGM, BCGMS, ndc, psc and the Chief of Air Staff Marshal Masihuzzaman Serniabat were also present at the event.

Bangladesh Navy gets two new frigates

Two Chinese refurbished frigates 'UMAR FAROOQ' and 'ABU UBAIDAH' have been officially handed over to Bangladesh Navy. On 18 December 2019, the ships were handed over to Bangladesh Navy over a traditional ceremony at the Shenjia Shipyard in Shanghai. Chief of Naval Staff Admiral Aurangzeb Chowdhury was the Chief Guest on the occasion while Deputy Chief of Naval Staff

Hon'ble Prime Minister Sheikh Hasina inspected President's March-past at Bangladesh Naval Academy





Hon'ble President Abdul Hamid and Hon'ble Prime Minister Sheikh Hasina paid tributes to the martyrs of the Liberation War by placing wreaths at the National Mausoleum in Savar

(Personnel) Rear Admiral M Shaheen Iqbal and Deputy Commandant of Eastern Fleet of PLA Navy Rear Admiral Bai Yaoping including naval and civil high officials of both navies were present on the occasion. The operational capabilities of BN are expected to be greatly enhanced by the addition of these two new warships.

Each of these modern warships has a length of 112 metres and a width of 12.4 metres, capable of running at a maximum speed of 25 nautical miles per hour. Both ships are equipped with modern warfare equipment. Besides, both ships have the capability to conduct rescue operations at sea, deal with counter terrorism and piracy as well as conduct various anti-smuggling operations. Besides protecting the sovereignty of the territorial water, the ships will play significant roles in emergency rescue and relief activities, illegal fishing, prevention of human trafficking as well as smuggling in the sea and coastal areas. Also, they will conduct operations to suppress piracy,

to ensure security of fishermen and other important activities pertinent to the Blue Economy of the country.

Celebration of Independence Day and Victory Day

Bangladesh Navy observed the 48th Independence Day and the National Day on 26 March 2019. In the early hours of the day, Hon'ble President Abdul Hamid and Hon'ble Prime Minister Sheikh Hasina paid tributes to the martyrs of the Liberation War by placing wreaths at the National Monument in Savar. The Chief of Naval Staff Admiral Aurangzeb Chowdhury along with the Chief of Army Staff and Chief of Air Staff were present on the occasion.

On 16 December 2019, the entire nation celebrated the 48th Victory Day with the promise of further strengthening the sovereignty and building a non-communal

Bangladesh in the spirit of the Liberation War. The daylong programme started with artillery fires at the old airport in Dhaka in the morning.

The Hon'ble President and Chief of the Armed Forces, Abdul Hamid and Hon'ble Prime Minister and Defence Minister Sheikh Hasina paid tributes at the National Martyrs' Memorial in the honour of the memory of Liberation War martyrs.

Besides, Chief of Army Staff, Chief of Naval Staff and Chief of Air Staff laid wreaths on behalf of the Armed Forces. On that occasion, the Chief of Naval Staff made a statement to the naval personnel of all levels. To celebrate the day, various activities were conducted in coordination with national programmes in all ships and bases of Bangladesh Navy.

Bangladesh Navy observes World Hydrography Day

The World Hydrography Day is being observed on 21 June every year since 2006. Bangladesh Navy also observed the World Hydrography Day like other countries in the world. This initiative, commenced by the International Hydrographic Organisation (IHO), was intended to increase awareness among stakeholders about safe navigation, development of Blue Economy, technical standards and protection of the marine environment.

The theme for the Day is 'Hydrographic Information Driving Marine Knowledge.' Hydrographic services provide essential information for safe navigation through developing nautical chart and other publications. It also helps in research and other maritime activities including exploring oil and gas, dredging, offshore construction, installation of cables and pipelines, telecommunications, weather monitoring of maritime environment, aquaculture, fishing,

Two frigates, UMAR FAROOQ and ABU UBAlDAH, were transferred to Bangladesh Navy in a ceremony held on 18 December 2019 at the Shenjia Shipyard in Shanghai, China



biomedicine and related issues. Bangladesh is one of the active members of IHO and Navy, with international recognition, acts as the focal point of all hydrographic matters that ensure safe navigation of commercial vessels in the sea area of Bangladesh.

Observing of International Mother Language Day

With due reverence, 21st February 'Shaheed Dibosh' and International Mother Language Day was observed. Hon'ble President and Hon'ble Prime Minister paid tributes to the language martyrs by placing wreaths at the National Shaheed Minar. The Chief of Naval Staff Admiral Aurangzeb Chowdhury, NBP, OSP, BCGM, PCGM, BCGMS, ndc, psc along with the Chief of Army Staff and the Chief of Air Staff were present on the occasion. Bangladesh Navy also observed the day with due veneration. The National Flag was kept at half-mast and all officers and sailors wore black badges. Earlier after the Fazr prayer, special milad and munazat were offered at every mosque of all naval bases in remembrance of the language martyrs.

Prime Minister awards certificates at Graduation Ceremony of Command and Staff College

The Certificate Award Ceremony to the graduate officers of 2018-2019 session of the Defence Services Command and Staff Course (DSCSC) was held at the 'Sheikh Hasina Complex' in Mirpur Cantonment on 7 February 2019. Hon'ble Prime Minister Sheikh Hasina awarded the certificates as the Chief Guest in presence of the members of the cabinet, advisers to the Prime Minister, Members of the Parliament, Chiefs of three defence services, Vice-Chancellors of the different universities, diplomats as well as senior military and civil officers. In 2018-2019 session, the course was attended by a total of 215 officers with 118 officers from Bangladesh Army, 29 officers from Bangladesh Navy and 23 officers from Bangladesh Air Force beside 45 officers from 19 different countries including China, India, Indonesia, Lebanon, Malaysia, Nepal, Nigeria, Pakistan, Palestine, Philippines, Saudi Arabia, Sierra Lion and Sri Lanka. Since its founding



The Chief of Naval Staff is awarding the trophy to the best sailors of 2019/A batch after the March-past of new sailors of Bangladesh Navy

in 1977, a number of 3,902 officers from Bangladesh Armed Forces, 5 officers from the Police as well as 1,111 officers from a range of friendly countries have completed the course.

Observing of UN Peacekeepers Day

Like all countries in the world, Bangladesh also observed the UN Peacekeepers Day on 29 May 2019. The day was also the 31st anniversary of Bangladesh's joining the UN peacekeeping mission. Hon'ble President Md Abdul Hamid and Hon'ble Prime Minister Sheikh Hasina beside the foreign minister, Chiefs of three Armed Forces, Principal Staff Officer of the Armed Forces, Inspector General of Police, Secretary General and Residential Coordinator of the UN gave separate special messages on the occasion. A reception was given at the Bangabandhu International Conference Centre to the relatives of the demised and wounded peacekeepers. Hon'ble President Md Abdul Hamid graced the reception as the Chief Guest while Foreign Secretary of Bangladesh M Shahidul Haque, UN Resident Coordinator Mia Seppo and the Chief of Army Staff General Aziz Ahmed delivered speeches on the occasion.

It might be noted that Bangladesh, beginning the journey in 1988, is one of the largest troops contributing nations and sends peacekeepers to

the UN peacekeeping missions on a regular basis.

Passing out parade held in Khulna

Passing out parade of 773 sailors of the 2019/A-Batch was held at BNS TITUMIR parade ground in Khulna on 23 June 2019. The Chief of Naval Staff Admiral Aurangzeb Chowdhury graced the occasion as the Chief Guest. He inspected the parade and took salute at the March-past. He then awarded 'NOU PRADHAN Padak', 'COMKHUL Padak' and 'TITUMIR Padak' to the three new entry sailors who secured the first, second and third position respectively for their outstanding performances.

Addressing the occasion, the Chief Guest said that short and mid-term plans have been undertaken to turn Bangladesh Navy into a 3D force by 2030. He also called upon all to build up themselves as worthy sailors implementing the education that they acquired from the New Entry school in their future professional life. Terming Bangladesh as a role model of development, he said that capability of the Navy has been enhanced manifold to make the force time-befitting. Construction of new naval bases, modern establishments, Bangabandhu Complex and training centres have been completed during the present government tenure, he mentioned.

Passing out parade of the 2019/A-Batch sailors at BNS TITUMIR Parade Ground in Khulna



“Bangladesh Navy is ever ready to protect national sovereignty, preserve maritime interest and to promote peace.”

Admiral Aurangzeb Chowdhury, NBP, OSP, BCGM, PCGM, BCGMS, ndc, psc
The Chief of Naval Staff

Admiral Aurangzeb Chowdhury took over the helm of Bangladesh Navy as the Chief of Naval Staff (CNS) on 26 January 2019 at momentous times when Bangladesh emerges as a fast growing middle-income country with huge Blue Economy potentials and security interests in the Bay of Bengal and beyond. As a visionary and multi-talented naval commander, he has been leaving marks of excellence all through his career. On behalf of Nou-porikroma, we met with him for an exclusive interview. CNS shared his candid thoughts on a wide range of contemporary naval, maritime and security issues.

We hope, reading his thought-provoking interview, our readers will be able to quench their thirst to know more about the growing complexities of maritime domain and intricacies of running and preparing a future ready navy to meet the challenges of the 21st century.



You have taken over the coveted duties of the Chief of Naval Staff, when Bangladesh is moving forward with unprecedented pace of development and correspondingly the importance of sea has re-emerged. In this juncture, how would you like to delineate the pertinent role of BN?

Responding to the charismatic call of the Father of the Nation “Bangabandhu Sheikh Mujibur Rahman”, the nation through strenuous struggle and ultimate sacrifice of three million valiant souls in our glorious Liberation War of 1971, gained its long-awaited freedom. Bangabandhu’s dream of ‘Sonar Bangla’ is resurrected by his able daughter Sheikh Hasina as Hon’ble Prime Minister of the country. The nation now is witnessing an economic growth in a pace neither seen nor conceived before. But, the development process of a country needs to be aptly supported by the relevant national elements and stakeholders. Thereby, Bangladesh Navy should also be in full throttle along the country’s development endeavours.

In historical parlance, evidenced by a glorious maritime heritage, Bangladesh remains a maritime nation on all counts. More than 90% of the country’s total export and import travel through the sea; the uninterrupted flow of which is crucial for our existence. Following the landmark verdicts over maritime disputes, Bangladesh now has jurisdiction over a huge sea area in the Bay of Bengal. The untapped and unexplored potential of the Bay of Bengal promises to boost the national development through numerous maritime prospects; Blue Economy initiative and Delta Plan 2100 are the mentionable ones.

Furthermore, the evolving geopolitical seascape of the Indian Ocean and the Bay of Bengal and multi-polar power play therein are changing regional and global security dynamics. Side by side, the non-traditional security challenges in maritime domain are also in rise.

Amidst this backdrop, the ‘**protection of national sovereignty**’ remains as the traditional mainstay of BN’s role as the vanguard force today and the days to come. The evolving activities at sea naturally call for ‘**preservation of maritime interest**’ of Bangladesh. Furthermore, as BN shares notable responsibilities at regional and global forums, the varied engagement in ‘**promoting peace**’ activities through UN deployments and in regional forums or to remain ready to support humanitarian activities would be the call of the day. As such, I envision that Bangladesh Navy must be ever ready to perform three broad roles - protection of sovereignty, preservation of maritime interest and promotion of peace. Under these delineated roles, the theme for BN would be – **Protect, Preserve and Promote (3 Ps)**.

These roles of navy will evidently contribute correspondingly to three core national objectives i.e. in achieving national security, prosperity and peace.

As the Chief of Naval Staff, how do you evaluate the present capability and readiness of Bangladesh Navy?

In recent years, BN has made substantial progress in keeping pace with the objectives of Forces Goal 2030 and Vision 2041. At present, our navy is capable of exerting its influence in all the three dimensions, that is, in the sea, below the surface and over the horizon. Presently, BN has several types of capable ships that include Guided Missile Frigates, Corvettes, Large Patrol Craft, Offshore Patrol Vessels, Fast Attack Craft, Mine Sweepers, Landing Craft and so on. Two submarines, BNS JOYJATRA and BNS NOBOJATRA have joined our Fleet in the recent past. Hydrographic Survey Vessels have been included for conducting survey and research activities in our resourceful sea area. To extend our eyes beyond the horizon, Maritime Patrol Aircraft and BN Helicopters are engaged in surveillance of our EEZ under Naval Aviation. In addition, a well capable and highly equipped maritime special warfare force 'SWADS' has been raised to respond against terrorism and to conduct special operations including diving and salvage. To support the fleet, over the decades, BN has also considerably improved its base facilities, maintenance services and logistics chain. A greater emphasis has been given on human resource development and welfare activities too.

These net capabilities are providing BN the necessary edge to perform 24/7 to maintain the territorial integrity of the vast sea area of the Bay of Bengal enriched with fish, minerals and other natural resources. Besides, it also guards against human trafficking, smuggling and piracy including ensuring fishery protection, security of maritime ports and safety of Sea Lines of Communication (SLOC). BN is contributing profoundly in national economy through management of Blue Economy activities. BN also continues its efforts to support in national maritime affairs and engagement in international peace support and in naval diplomacy activities.

Considering the geo-strategic and geo-economic perspective, the Bay of Bengal entails huge strategic significance to Bangladesh. How do you perceive this adage?

The strategic significance of the Bay of Bengal is stemmed from several factors. Firstly, around 37% of Asia's total population and several Asian emerging states lie on the bank of the Bay of Bengal. Secondly, from the very unique strategic position of the Bay that connects two large water bodies of the world - Indian Ocean

and the Western Pacific Ocean via Malacca Strait. Furthermore, the Bay of Bengal and its littorals are plagued with numerous security issues including grey areas along the maritime boundary; terrorism; piracy, smuggling, human trafficking; and several environmental issues including natural disasters, such as tsunami, cyclone and a possible sea-level rise.

Bangladesh is heavily dependent on sea for trade, fishing and other maritime activities. Over 90% of export and import trade of the country travels through the sea. The country has shown a sharp growth in international trade that includes import of raw materials, machinery, intermediate goods, food grains, fertiliser and POL, and export centred around key sectors, such as textiles, fish and seafood, jute and leather goods, shipbuilding etc. The import and export trade has increased over about 25% in last five years, where over 90% of the cargoes are transported through sea ports. It clearly indicates that the SLOC is the life line of our country. Security of the maritime domain, hence, is fundamental to Bangladesh's economic prosperity and sustainable growth. It is likely to be more pronounced in the coming days. The government's relentless thrust on the maritime (blue) economy in the form of building new ports and harbours, revamping shipping and fishing industries, coastal energy initiative, booming shipbuilding industries – all bear testimony to that.

In recent years, 'Blue Economy' portrays enormous potentials for Bangladesh. How do you evaluate, the Blue Economy prospects and consequent engagements of Bangladesh Navy in this milieu?

Blue economy is one of the fastest growing global concepts, which centres all oceanic resources and services to enhance their value, secure productive marine economy and healthy marine eco-systems along with employment generation. It is a balanced approach between conservation, development and effective utilisation of marine and coastal eco-systems. Hon'ble Prime Minister Sheikh Hasina has underscored the importance of ocean-based economy and asserted that the proper management of marine resources and protection of marine environment and bio-diversity would determine Bangladesh's future development and economic growth. Shipping, sea ports, shipbuilding and recycling, marine fisheries, sea salt, coastal tourism, ocean energy, land reclamation, maritime surveillance, human resources development and governance have been particularly identified as the key priority issues for the development of Blue Economy of Bangladesh.

BN has been primarily assigned as the lead agency related to security issues of Blue Economy. BN needs to ensure a peaceful and secure environment to the ships, organisations

and seafarers that are engaged in the Blue Economy activities. BN ships, high-speed boats and contingents are deployed round the clock to perform these tasks. Bangladesh Navy carries out continuous surveillance in the entire Exclusive Economic Zone (EEZ) to prevent illegal fishing. BN survey ships prepare and update nautical charts of our sea area by conducting regular hydrographical surveys. BN personnel are directly contributing in various maritime organisations of the country. BN has established Bangladesh Institute of Maritime Research and Development (BIMRAD) to conduct research work on our maritime sector. We are running country's first specialised maritime university Bangabandhu Sheikh Mujibur Rahman Maritime University (BSMRMU) to produce educated and skilled manpower to pursue our Blue Economy initiatives. A dedicated entity as 'Blue Economy Cell' is now operating at Naval Headquarters and also at area levels for smooth conduct and coordination of relevant activities. BN officers are regularly participating in different seminars, meetings and workshops related to the Blue Economy arranged at home and abroad. In fact, BN is fully committed and rendering all out support to public and private initiatives to flourish Blue Economy in Bangladesh.

Bangladesh has already acquired indigenous warship building capability. How do you like to exemplify the contributions of Bangladesh Navy towards achieving further self-reliance?

The deep rooted maritime tradition and heritage of Bangladesh can be traced back to the ancient times. Chattogram had the major shipbuilding industries along the Bay of Bengal. The British Navy known to have used warships built in Chattogram in the famous 'Battle of Trafalgar' in 1805. The Frigate Deutschland built in Chattogram in 1818 is still preserved in the Bremerhaven Ship Building Museum of Germany. Sandweep and Dhaka were equally famous for ship and small boat construction.

Off late, under the efficient and well-organised management of Bangladesh Navy, three of the country's weak industrial concerns, that is, Khulna Shipyard, Chittagong Dry Dock Limited (CDDL) and Dockyard and Engineering Works, Narayanganj have now become profitable organisations and are contributing in national economy through saving foreign currencies by avoiding purchase and/or repair costs of ships from abroad. These organisations are presently well capable of building medium size warships and repair/maintenance of all kinds of vessels. Gaining experience from these ventures, it is now being contemplated to build high-tech major warships at CDDL. The dock has also



been mulled to be transformed into a modern shipyard capable of undertaking state of the art construction and repair/ maintenance activities as per international standards. BN's innovation efforts and R&D shall continue to work harder aiming at achieving self-reliance with an aim to gradually transforming it to a 'Builder Navy' from a 'Buyer Navy'.

Bangladesh Navy is actively participating in support of world peace in UN missions with dedicated ships, crafts and personnel. Would you please enumerate the contributions and connotations of such deployment for BN?

Today, Bangladesh Navy is a proud contributor in world peace efforts. Besides securing the nation's own sea area, BN has been sending personnel, warships and naval contingents to different countries and beleaguered areas around the world for peacekeeping missions regularly. So far, a total of 5,757 officers and sailors of Bangladesh Navy have accomplished successful UN deployment. Bangladesh Navy ships have received particular international acclamation for deploying capital assets in the Mediterranean Sea in Lebanese water under the only UN maritime task force -CTF 448 in UNIFIL. Besides, Bangladesh Navy's 'Force Marine Unit' is engaged in 'Operation Lifeline' on the Nile River in South Sudan. As part of this operation, BN has been working relentlessly to ensure safety of the critical cargo transportation of food, medicines and humanitarian aid of UN. As a whole, BN personnel are persistently upholding country's name and fame through their positive contributions under UN emblem. Side by side, I reckon that they are also gaining tremendous professional exposure through multi-national

interactions and varied operational experiences to hone and augment their professional acumen and capability.

How do you think, Bangladesh Navy is contributing in enhancing mutual understanding, inter-operability and in developing regional maritime cooperation in the Bay of Bengal?

Indian Ocean Naval Symposium (IONS) has evolved as a significant construct to promote maritime cooperation among littoral navies. Activities, such as cooperation in the field of HADR, anti-piracy and information sharing are the major focus areas of cooperation under the ambit of IONS. From 2016 to 2018, Bangladesh Navy occupied Chairmanship of IONS. BN organised biennial assembly of IONS in early 2016 and IONS Multilateral Maritime Search and Rescue Exercise (IMMSAREX) in 2017. The successful accomplishments of these central events have portrayed an impressive professional image of Bangladesh Navy. BN is also an active participant in other regional cooperation initiatives such as Western Pacific Naval Symposium (WPNS) and so on. BN regularly participates in MILAN and other bi-lateral and multi-national exercises conducted in the region. Besides, Bangladesh Navy and Indian Navy conduct Coordinated Patrol (CORPAT) in the Bay of Bengal. It is worth mentioning that, BN is planning to arrange an International Fleet Review (IFR) in 2021. The mega event, first of its kind in the Bay of Bengal will be arranged to commemorate the 100th birth anniversary of Father of the Nation and also to celebrate the golden jubilee (50th anniversary) of the independence of the country. A good number of friendly navies around the world are expected to participate in this mega event. This

will surely be a landmark meet in developing regional maritime cooperation in the Bay of Bengal and beyond.

How do you envisage the corresponding responsibilities of Bangladesh Navy to mitigate climate change effects and to promote green-friendly culture?

The Bay of Bengal and consequently Bangladesh is one of the most vulnerable countries in the world to be affected by climate change phenomenon. The coastal populations of Bangladesh are already experiencing myriad effects of climate change in such increased frequency and intensity of natural disasters such as cyclone, increase in environmental temperature and salinity, the decline of precipitation, river erosion and so on. Adequate resources of Bangladesh Navy are kept reserved to deal with the natural and manmade disasters. Periodical training programmes are conducted to create awareness and to prepare the force to encounter such scenarios.

Besides, I personally feel that BN should adapt itself to green-friendly culture too. All newly-built ships of BN should have garbage disposal and waste water management systems. The level of noise produced by ships should be kept low by design. Effective measures should be taken to minimise fuel consumption and to reduce emissions of Green House Gases (GHG) in naval ships.

Environment-friendliness should be a major design-factor of the new generation ships. The concept of a 'Green Navy' should be reflected in every plan, which should take into account the Environmental Impact Assessment (EIA) and mitigation measures like, tree plantation, avoid/ reduce use of non-biodegradable material, blue lake in naval areas, use of solar power, recycling etc. Preferences are to be given to the items which can be reused, recycled or redesigned so as to ensure least adverse effect on the nature.

A pragmatic and dynamic training system is known to be the backbone of any professional entity. In this milieu, what are your focuses in developing training system of Bangladesh Navy to meet the future day challenges?

To achieve enhanced aptitude and proficiency to meet the tech-savvy future challenges, a pragmatic and effective training system along with a knowledge based society has become essential for all professional organisations. BN attaches the highest importance in developing skilled and motivated manpower with due professional competence. In the modern world of information and technology, the training facilities are also needed to be restructured for the BN personnel to be at par with other modern navies of the world. Updated training

curricula are being introduced incorporating contemporary technologies in all levels. Training activities have been designed to develop professional skill through introducing application and purpose oriented programmes. To facilitate this, modern training facilities and edifices housed with state of the art training aids, digitised facilities and simulators are being raised in all the naval areas. To oversee the progression of overall training activities of BN and to evaluate its effectiveness, a dedicated supervisory command - Naval Training and Doctrine Command (NATDOC) has been established. NATDOC remains also responsible for proposing, developing, testing, implementing and updating the doctrinal publications like Vision Document; Training Policy; Forces Goal; White Papers; Strategic, Operational and Tactical Publications, etc. These endeavours are expected to create necessary stimuli in present training systems of BN to cope with the challenges of the days ahead.

In all walks of our society, women are equally contributing side by side to their male counterpart against prejudices and all odds. How do you foresee such progression of women in BN?

Bangladesh is already in world's focus for its outstanding effort in achieving gender equity and women empowerment. Bangladesh Navy is not an exception. BN took the maiden step to induct female officers in the year 2000. Today, Female officers in BN has been successfully participating along with their male counterparts in professional arena and working onboard BN ships and bases quite proficiently. Beside their remarkable service in BN, they are also working in the UN missions shoulder to shoulder along with the peacekeepers from various countries of the world. This is certainly a matter of great pride for us. In addition, female sailors are also serving in the navy making significant contribution in specialised sectors like health, secretarial duties and as musicians. In the near future, I wish that we will be able to see females in more challenging positions such as the captain of the ship, as aviators, submariners and as a member of Special Forces too.

As an epitome of visionary and multi-talented thoroughbred professional naval commander, how do you perceive the appropriate leadership approaches in BN?

Leadership is effective when information can travel from bottom-up to leader objectively through seamless communication from all levels. This condition is in effect only when a leader is easily accessible to his subordinates. If the followers are scared of the leader, it will be reflected in their behaviour and day to day work. The old stereo type military leadership

that often aimed to get the job done by intimidation or coercion has lost its ground today. Furthermore, the continual thirst for precision, which is popularly known as 'Zero Error Syndrome', often creates distance between the leader and followers. There is a proverb in Germany, 'Those who work more are likely to make more mistakes. Those who work less will make less mistakes. And if somebody does not make any mistake, means that he/she is least interested in doing a job'. Naval personnel are likely to make mistakes if they work, but we should be committed in learning from mistakes and vow to correct ourselves aided by training in pursuit of excellence. Naturally, the leaders will get due respect as he/she deserves in our navy, but the respect should be achieved through professional competence and not only by his position or rank. Therefore, leadership should be apt to acquire the ability to make brave decisions beyond self-interest and personal gains. Through mitigating the challenge of putting the right person at the right place, I perceived Bangladesh Navy will progress further if it keeps on striving to make timely, judicious and quality decisions in complex situations through effective leadership.

Honesty, righteousness, responsibility and integrity make a person's life sound and meaningful one. In BN, we give special importance to the development of character traits and moral values among each naval personnel. Above all, as the Navy was born during our glorious War of Liberation in 1971, all officers and men of BN should be enlightened and carry the spirit of the Liberation War by heart and soul to serve the nation with true devotion, commitments and patriotism.

The present Government is emphasising on anti-corruption drive through zero-tolerance policy and national integrity strategy. What is the position of BN in this context?

Bangladesh Navy is in absolute congruence with the adopted anti-corruption drive and National Integrity Strategy of the government. Bangladesh Armed Forces as well as Bangladesh Navy is well reputed for its corruption free culture and fair practices. Zero tolerance is strictly observed against such mal-practices. Integrity is a must criterion to be adhered by every officer and sailors in navy. We nurture and instil the moral and ethical values and ethos among our officers and sailors from the very beginning of their career in Navy. This is done particularly for the pride and existence of our service and also for the greater interest of the country. Other irregular social practices and behaviours such as drug abuse, illegal gratifications, etc are also dealt with very harshly. In addition, BN takes appropriate measures to prevent the spread of

the menace of terrorism and extremism among all its members.

Prior taking over as the Chief of Naval Staff, you served as the Director General of Bangladesh Coast Guard (BCG). Under your resolute leadership, both in capacity and capability wise BCG reached to a new height. In your opinion, what should be the development roadmap for BCG towards future?

Bangladesh Navy has pioneered the establishment of Bangladesh Coast Guard (BCG). BCG is supposed to take over the less military and their constabulary duties from BN in due course. Furthermore, as per Bangladesh Coast Guard Act 2016, BCG is mandated to assist Bangladesh Navy during war. In order to ensure that BN gets the right kind of assistance from BCG during war, BN needs to see that BCG develops itself in a way which is harmonious to BN. BCG should be readily capable to support BN's war efforts whenever needed. BCG, while developing its capabilities in its specialised fields such as pollution response, Search and Rescue, salvage, protection of bio-diversity and endangered species, should also develop its war-fighting capability in a manner, so that in case of hostility, its support can become mostly effective to BN. In performing the specialized tasks, Coast Guard may have to recruit personnel as permanent crew besides getting necessary manpower from BN to run the platforms and other homogenous organisations. BN, as the principal maritime organisation of the country, shall formulate the nation's maritime strategy; while doing so, it needs to take BCG and other maritime stake holders onboard.

BCG should be persuaded to grow its capability to carry out patrol in the whole EEZ, continental shelf and if required, beyond. Consequently, BCG should relieve BN from these routine duties in due course and allow it to concentrate on its original task of war fighting. BN wishes to see that BCG is empowered like the Coast Guards in other countries. BN needs to help BCG to attain the capabilities to perform the assigned task meeting the expectations of the Government and the people. BCG may be persuaded to procure/induct the same or similar hardware and software like BN, so that both the forces can share the burden of repair and maintenance and save government's money. In situations where BN, due to its inherent boundaries as a military force, is not allowed to act but BCG, as a benign force is permitted to intervene in the inland operations and handling judiciary matters. As such, necessary assistance should be provided to BCG in such a way so as to perform required task at sea, areas of coastal and inland waterways.

Bangladesh is playing a commendable role in providing shelters, food and other associated support to the forcibly displaced Rohingyas. What role BN is playing in this aspect?

Hon'ble Prime Minister Sheikh Hasina, who is conferred as 'Mother of Humanity', directed to establish temporary shelter at Bhasan Char in Hatia Upazila of Noakhali as the habitation for the Rohingyas who were forcefully expelled from Myanmar. Upon her thoughtful direction, Bangladesh Navy started the mammoth infrastructural development to transform the barren Bhasan Char Island into a habitable one. Bangladesh Navy, with the invaluable cooperation and assistance from various concerned ministries and organisations, could accomplish the project within a very short span of time. Today, all the required facilities of a standard living are available in the island. To

mention a few, there are fertile lands for farming, pasture lands for animal rearing and ponds for fish cultivation; all of which are artificially developed. With these available facilities, we can provide temporary shelters to nearly about one hundred thousand Rohingyas. The establishment as necessary may also be used for other associated purposes too.

Would you please highlight the contributions of Bangladesh Navy for the coastal inhabitants of the country along with other socio-economic activities across the country?

In order to protect fish resources, especially for the protection of the hilsa, Bangladesh Navy conducts 'Operation Jatka' in the rivers of different districts. Off late, 'Mother Hilsa Conservation' campaign spearheaded by Bangladesh Navy has been playing an effective role in escalating breeding and wide spreading of hilsa fish in the country.

Besides, Bangladesh Navy carryout awareness campaigns among fishermen on varied issues such as on conservation of fishery resources, the use of life saving equipment and other safety measures to be taken at sea. In

addition to the housing project for Rohingyas, BN is also implementing 'Ashrayan' project at the behest of the government, to develop low cost shelters for landless people particularly of the coastal areas of the country.

Besides the renowned schools and colleges of naval premises, Bangladesh Navy has been providing special assistance for establishing and running schools in remote coastal areas to facilitate education to the mass people. Coastal tree plantation, coastal dam protection, maritime education and employment to improve the quality of life of the people, shelter in the coastal areas and 'Ashar Alo' schools for children with special needs in Chattogram and Khulna are reflections of our social responsibilities. Likewise, to assist in earning livelihood training on sewing and computer including technical education are provided to the families of naval personnel under the supervision of Bangladesh Navy Family Welfare Association (BNFWA). In order to develop humane and social qualities, BNFWA regularly conducts various cultural, social and educational programs for the BN personnel and for their children. I presume that Bangladesh Navy has set a unique example with respect to carrying out social responsibility by creating a conducive environment for exploring the hidden talents. In this regards, our contributions in sponsoring and nurturing young talents of national sports arena are of worth mentioning. BN sportsmen are actively participating in all kind of sports including athletics, swimming, football, hockey, basketball, volleyball, kabadi, chess and so on in national and international levels. The BN team is regularly becoming the national champion in many of the sports event.

You often underscored the importance on 'standardisation' of items, equipment and hardware in BN. Why do you think that 'standardisation' is cardinal for naval development?

'Standardisation' is in fact the first step towards indigenisation. We have taken considerable endeavours very recently to standardise varied items, equipment and machineries used in BN, such as marine engines, generators, radar, sonar, weaponry and communication equipment, etc. Such standardisation is expected to warrant greater safety and reliability. Documentation, maintenance and training are the three areas where workload will be significantly reduced through standardisation. In a standardised fleet, naval personnel will find most equipment familiar even when they change billets. Through this they can utilise their knowledge and accumulated experience better; sourcing of spares becomes easier and the operational availability of platforms increases considerably. While determining what type of



ships, weapons or equipment to be standardised, considerations will be given on technological prowess; reputation of OEM and classification society; longevity; life cycle cost; ease of maintenance and availability of spares, etc.

Maintain the appropriate synergy and cooperation among all the maritime stakeholders and sister services are essential to accomplish the desired national objective. How do you emphasise the cooperation among varied maritime stakeholders and jointness among services?

BN is the leading organisation in the maritime domain of Bangladesh. We strive to maintain the synergy with all the maritime stakeholders, which is not only essential for peacetime economic progression, but also to function effectively during crisis. The invaluable interactions and exchanges with different ministries, organisations and maritime agencies like Ministry of Shipping, Ministry of Fisheries and Livestock, Bangladesh Coast Guard (BCG), Port Authorities, DG Shipping, Bangladesh Shipping Corporation (BSC), Bangladesh Inland Water Transport Authority (BIWTA), Marine Academy, Marine Fisheries Academy, inland and ocean going ship owners associations etc are regularly arranged by BN. In this connection, various workshops, seminars, symposiums and exercises with maritime stakeholders are regularly being conducted by BN to foster cooperation and mutual understandings. The annual sea exercise conducted by BN is a true epitome of such synergy and cooperation among the maritime stakeholders of the country.

It is known that the future operational environments are likely to be more joint in nature. The jointness will be the key to success in any operational endeavours. The sister services need to enhance mutual support and cooperation to maintain much required synergy and operational tempo. BN attaches tremendous emphasis on developing jointness and joint warfare capabilities. Navy has taken particular initiative in the development of interoperable joint communication, IFF and logistic systems. Bangladesh Army and Bangladesh Air Force units are regularly participating in joint exercises conducted in BN and vice-versa. The recently conducted multi-dimensional joint field training exercise 'Ex BOJRO AGHAT' organised by Armed Forces Division was a huge triumph and was in fact a great leap forward. Such kind of field training exercises should be conducted regularly to enhance further jointness, mutual cooperation and inter operability among services.

Bangladesh Navy is progressing in accordance to Forces Goal 2030 and Vision 2041. To mitigate the future challenges and to perform the assigned roles and tasks effectively, what are the core capabilities BN must maintain and pursue?

Father of the Nation Bangabandhu Sheikh Mujibur Rahman had a strategic vision to raise a capable/ modern navy for safeguarding the maritime interests of the country even well before the independence of Bangladesh. Off late, by the unparalleled prudence, initiative and directives of the Hon'ble Prime Minister Sheikh Hasina, Bangladesh Navy has emerged as a credible three dimensional navy. The future size and shape of BN has been progressing in accordance to Forces Goal 2030 and Vision 2041. Bangladesh Navy's recent endeavour to formulate its Vision 2041 Document in resonance with the country's development vision is premised on such reasoning.

In this connotation, I envisage that to perform the assigned roles and tasks effectively, BN must maintain and pursue three major core capabilities. The first core capability that BN needs to maintain is a **'Credible and Deterrent Fleet'**. The fleet, as the prime element of BN, it should be credible enough to deal with perceived threats evolve from the sea. Furthermore, it should deter adversary, which in turn would prevent probable escalation and would ensure peace. The second core capability that needs to be preserved is the **'Robust and Dynamic Support Structure'**. To keep the fleet effective, the support infrastructures of BN need to be robust and dynamic. It ensures that the support systems such as training, maintenance and logistics chains are functioning seamlessly and has the ability to adapt to changing situations. Finally, the most important capability should be pursued is the development of **'Skilled and Motivated Workforce'**. In order to perform the assigned roles and tasks, naval personnel should be well-equipped with required skills, professional excellence and leadership ability. Furthermore, the human resource of the navy should be morally developed and motivated in a manner that they will always uphold patriotism, the spirit of the liberation and affection for the people of this soil. As such **BN should prevail as a committed maritime force with 'credible and deterrent fleet', 'robust and dynamic support structure', and 'skilled and motivated workforce' to protect national sovereignty, preserve maritime interest and to promote peace'**. Once these capabilities are accomplished, Bangladesh Navy will be truly a future-ready navy to uphold its spirited motto **'In War and Peace, Invincible at Sea'**.

Biodata

On 26th January 2019, Admiral Aurangzeb Chowdhury, NBP, OSP, BCGM, PCGM, BCGMS, ndc, psc assumed the command of Bangladesh Navy as the 15th Chief of Naval Staff. He joined Bangladesh Navy in 1978. In due course, he attended officers' naval training in German Naval Academy, Federal Republic of Germany, where he secured the top position according to merit.

The long and versatile career of the Admiral spans across national and international assignments. Throughout his career, he has been going through various educational and professional training courses both at home and abroad. Namely, he has done the Gunnery Specialisation Course in India and achieved first position. He also attended Surface Warfare Course in Naval Amphibious School in Coronado, the USA in 1984 and became an Honours graduate. Besides, he completed his Naval Staff Course from Germany and Shipbuilding Technology Course from South Korea. He also attended National Defence Course and Capstone Course in National Defence College in Bangladesh. Moreover, he participated in the Flag Officers Component Commander Course in Hawaii under the Pacific Command.

As a knowledge seeker, he successfully completed BA and MDS (Master in Defence Studies) from National University, MBA from Bangladesh Open University and MPhil from Bangladesh University of Professionals (BUP). Admiral Aurangzeb is presently pursuing the PhD programme under BUP.

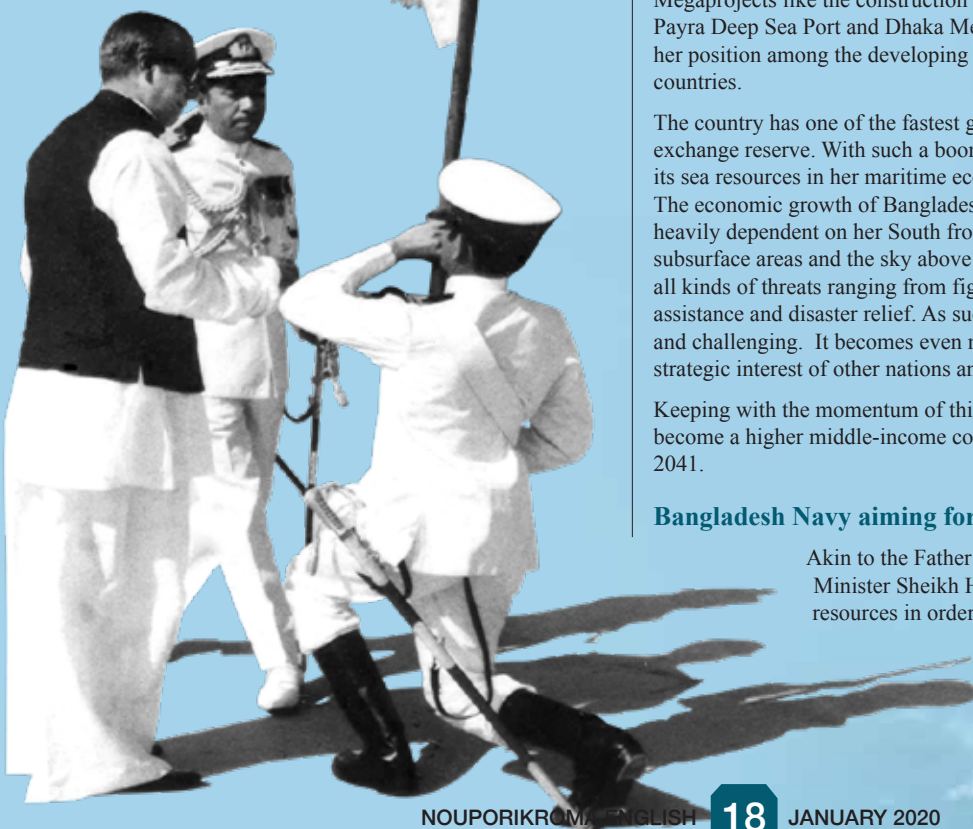
Admiral Aurangzeb is also a recipient of Performance Gold Medal for his extraordinary attainments during his training in the Federal Republic of Germany. He was awarded the highest achievement awards from Navy namely 'Nou Bahini Padak' (NBP), 'Osamanyo Sheba Padak' (OSP) and 'Bangladesh Coast Guard Medal' (BCGM), 'Bangladesh Coast Guard Medal Seba' (BCGMS) as well as 'President Coast Guard Medal' (PCGM) from Coast Guard in recognition to his supreme professional excellence and distinguished services both in Bangladesh Navy and Bangladesh Coast Guard Force respectively.

Bangladesh, riding the waves

The odyssey of a valiant Navy

Nouporikroma Desk

Bangabandhu had the vision of raising the war-stricken people of this country into an industrialised nation that would be free from hunger, poverty and corruption. He led to build a valiant naval force of Bangladesh for the safeguard of the maritime rights and resource of the new-born nation. He also promulgated the first five-year development plan for the country.



Bangladesh, rising from the pit of a war-ravaged nation and turning itself into a champion of the space within just fifty years of its independence, is truly a wonder. It implies pure love immersed from profound sacrifice, fierce bravery and fearless valour. The triumph owes its glory to the Father of the Nation, the greatest Bengali of a thousand years, Bangabandhu Sheikh Mujibur Rahman who almost single-handedly ignited the fiery spirit of freedom in the people's heart of the Bengali nation. The blood-soaked struggle of Nineteen Seventy One was the outcome of the response of the nation to his motivating call, thus writing the saga of our victory. The country entered the global ground holding on to his strength and will.

Bangabandhu had the vision of raising the people of this country into an industrialised nation free from hunger, poverty and corruption. He led in the building of a valiant naval force of Bangladesh for the safeguard of the maritime rights and resource of the new-born nation. He also promulgated the first five-year development plan for the country. Realising, the economic emancipation of these people lies in the seas; he took the decisive step to enact the Territorial Waters and Maritime Zones Act in 1974.

Bangladesh on the spur of progress

After becoming the ruling party, Honourable Prime Minister Sheikh Hasina undertook a number of development initiatives for the betterment of the country and its people. Bangladesh is moving fast on the track of progress in an array of different sectors including making its marks of achievements in the Millennium Development Goal or MDGs, Sustainable Development Goal or SDGs encompassing issues like education, health, gender parity, agriculture, poverty alleviation, export-oriented industrialisation, games and sports as well as custom and cultural expansion. Megaprojects like the construction of Padma Bridge, Ruppor Nuclear Power Plant, Payra Deep Sea Port and Dhaka Metro Rail are underway. Bangladesh now secured her position among the developing nations rising up above the line of least-developed countries.

The country has one of the fastest growing economy and the second highest foreign exchange reserve. With such a booming economy, it is now striving hard to explore its sea resources in her maritime economic zone under the concept of Blue Economy. The economic growth of Bangladesh and its sustainability had been and will remain heavily dependent on her South front, the Bay of Bengal. Therefore, its water, subsurface areas and the sky above the sea area need to be secured and kept free from all kinds of threats ranging from fighting armed aggression down to humanitarian assistance and disaster relief. As such, the spectrum of naval operations is quite vast and challenging. It becomes even more challenging when such blue water has ample strategic interest of other nations and their navies.

Keeping with the momentum of this forward march Bangladesh is destined to become a higher middle-income country by 2021 and a rich and developed nation by 2041.

Bangladesh Navy aiming for the zenith

Akin to the Father of the Nation, her daughter Honourable Prime Minister Sheikh Hasina too put great emphasis on our maritime resources in order to unleash the economic development of the

nation. Thanks to her bold prudence, Bangladesh already has attained its sole authority over a vast area of territorial water in the Bay of Bengal unfolding the potential of Blue Economy under her unparalleled discretion. It is now the responsibility of the Bangladesh Navy to safeguard this maritime resource and keep the economic wheel rolling forward. The Navy currently observes the peacetime duties in addition to supervising the implementation of and providing security to different Blue Economy activities. As an active agent of the Blue Economy Cell, the Navy monitors over activities like the searching of the ocean resource, conducting of seismic survey, setting up of mooring buoy and pipeline for the transfer of crude oil, construction of Coal-based Power Plant at Matarbari and LNG Terminal at Maheshkhali and many other similar high-end projects besides providing security to the LNG and other cargo vessels in the sea through Operation Blue Guard. The naval forces also help in running the seaports of the country in an efficient manner in addition to providing security to the inland rivers. With a vision to reach beyond, Honourable Prime Minister has set a matchless instance in building a state-of-the-art and three-dimensional naval forces for comprehensive growth and economic development of this nation.

The primary role of the Bangladesh Navy is to use force at or from the sea against any kind of threat both internal and external in her area of jurisdiction. Navies are required to remain active for the traditional tasks at sea when they are called at any time and at a short notice. The core traditional capabilities are vital to accomplishing one of the navies' main missions: defending countries sovereign rights and the freedom of the seas.

Bangladesh Navy ensures the security of its maritime jurisdictional area in cooperation with other government agencies such as Coast Guard, Immigration, Customs, Police and Port Authorities. The Navy is the statutory, chief custodian of the defence and security of the nation's economic base.

Composition of Bangladesh Navy

Bangladesh Navy comprises of its surface fleet, fixed and rotary-wing aircraft, submarines, auxiliaries and Special Forces. It has an approximate strength of 27,500 personnel which includes Officers, Junior Commissioned Officers, Petty Officers, sailors and civilian personnel. Its organisational structure is well balanced to enable effective operational and administrative control of its platforms and men. The layers of command are organised and structured in an efficient manner in order to fulfil her commitment to the nation.

Chief of Naval Staff (CNS) exercises operational and administrative command of Bangladesh Navy from Naval Headquarters, Dhaka. He is assisted by four Principal Staff Officers (PSO) namely Assistant Chief of Naval Staff (Operations) looking after all operational activities including overseas and multinational engagements, Assistant Chief of Naval Staff (Personnel) looking after recruitment training and welfare, Assistant Chief of Naval Staff (Materiel) looking after the material preparedness and maintenance, and the Assistant Chief of Naval Staff (Logistics) looking after logistic operations, transportation and supplies.

Besides these operational and administrative commands, CNS is the Chairman of the Board of Directors of Chattogram Dry Dock Limited, Khulna Shipyard Limited and Dockyard and Engineering Works Limited which are being managed by Bangladesh Navy.

The ushering of the submarine era, adding frigates and helicopters, beefing up SWADS

In light of Forces Goal 2030, the naval fleet has been strengthened with 25 battleships equipped with the avant-garde technology and fire-power. Queuing in line are two powerful missile frigates and two corvettes. Bangladesh Navy has come a long way in metamorphosing its standing from a buyer into a builder over its planning of building battleships and frigates under its own canopy beside the patrol crafts, large patrol crafts, submarine tugs and survey vessels. The Naval Aviation that set off with just two helicopters and two maritime patrol aircraft will soon be joined up by two more fresh maritime patrol aircraft. In coordination, pilot competence has been sharpened for operations like landing on and flying off the deck of a moving vessel. Training of our maintenance team at home and abroad has honed efficiency enabling precision schedule maintenance of

MPA and the helicopters. Successive training has been given to the SWADS (Special Warfare

The primary role of the Bangladesh Navy is to use force at or from the sea against any kind of threat both internal and external in her area of jurisdiction. Navies are required to remain active for the traditional tasks at sea when they are called at any time and at a short notice.





To further capacitate the Navy, modernising of the state-of-the-art surveillance equipment and combat system are currently underway. Besides, 3D search and surveillance radar, helicopter landing control facility including fresh navigational radar, tactical data link system and IFF system have also been installed onboard.

Diving and Salvage), the specialised naval commando team quipped with all the amenities of modern warfare in recent days that was initially formed with the view to ensure the overall security of the country as well as harnessing the evil spread of militancy and terrorism. Exclusive 'Close-door firing range' and 'shoot-house' for SWADS have been accommodated on BNS NIRBHIK to enable unrestricted training scopes for better success in counter-terrorism and hostage rescue.

In March 2017, our long-cherished vision came to reality with the addition of two submarines 'BNS NOBOJATRA' and 'BNS JOYJATRA' to the naval fleet at the behest of the Honourable Prime Minister Sheikh Hasina. Safe harbour for the subs has been constructed and that is supported by underwater diving detection sonar awaiting a full-fledged base station in addition to establishing submarine fleet headquarters, submarine school and centre, battery and air charging station and repair workshop.

Enhancement to modern warfare and expanding the services

To further capacitate the Navy, modernising of the state-of-the-art surveillance equipment and combat system are currently underway. Besides, 3D search and surveillance radar, helicopter landing control facility including fresh navigational radar, tactical data link system and IFF system have also been installed onboard.

Keeping in line with the incessant development of the Navy, general capacity of the BN Dockyard has been enhanced with the addition of high-tech gears and modern pieces of machinery. The organisation by dint of its own manpower and 24 modern workshops has

achieved the capability of implementing work order valued at BDT 3,380 crore. Honourable Prime Minister awarded BN Dockyard with the prestigious National Standard in March 2018. CNRD has also gained further confidence and capability in facing the challenge of ever-changing technology through the modernising of different control and monitoring system, devising of new designs and implementing of complicated and research projects. Exclusive boat workshop for the Navy has been established beside motor transport repair workshop for the proper maintenance and repair of vessels.

A navy with modern training facility

Bangladesh Navy has the privilege of modern training facilities today. Training opportunities are provided both home and abroad. Bangabandhu Complex at Bangladesh Naval Academy is providing modern training facilities for its personnel and in a continuous process of offering contemporary training and courses. BNS ISSA KHAN also has modern training facilities. There is NETS Multipurpose Building with barrack facility and Training Complex in Khulna Naval area to offer training for the seven thousand sailors. Not only that, there is also Navy Training and Doctrine Command (NATDOC) designed to provide skilled manpower for the navy by training them with the devising of policy and doctrine, improving training standard, evaluation and monitoring besides coordination of specialised training.

Navy in shipbuilding

The comatose shipbuilding industry has once again been revitalised with the creative touch of Bangladesh Navy in the 21st century Bangladesh. Not only the shipyards being run by the naval management but also the private



Pride of the nation, BNS BANGABANDHU on patrol in the Bay of Bengal along with other BN ships

shipbuilding ventures have gained the capacity of building fast-moving battleships. Frigates for Bangladesh Navy are being built at the CDDL, Chattogram. Composite boat workshop has been built at Narayanganj Dockyard. Khulna Shipyards has been building battleships and the construction of an international standard rubber factory empowering the Navy with further confidence and capability. Over these endeavours, Bangladesh Navy has successfully refurbished itself from a buyer navy into a builder navy.

Maritime research

Bangladesh Institute for Maritime Research and Development (BIMRAD) has been established with the view to conducting research on maritime science and technology for an all-encompassing development of the country. The think-tank is moving forward in full swing over a recently organised international seminar making its debut footprint in the global maritime arena.

Expanding Infrastructures and amenities

Keeping in pace with the on-going development spree, the BN has added more naval bases and new installations. The first naval base in Dhaka is named after the Father of the Nation, BNS SHEIKH MUJIB. In the list of upcoming additions, there are BNS SHER-E-BANGLA, sustaining aviation facility in Patuakhali and the first submarine base BNS SHEIKH HASINA in Pekua. All these additions will decorate the naval force of Bangladesh with more capacity to prepare serve better in the near future.

The Navy is building its own firing range. Bellman Hanger has been built in Dhaka and Chattogram naval area for the purpose of arranging state-level important programmes as well as providing secured maintenance of naval helicopters during adverse weather. BN also built a state-of-the-art IFF Centre for the three services of the country. BN offers international standard sailor barracks in Chattogram and Khulna areas with accommodation capacity for 4,000 sailors.

There is also an addition of 22 multi-storied buildings in all the naval zones that include 17 multi-storied residential buildings for providing residence to 1,559 members of the families of the officers and sailors and civilian staff of the Navy. Other projects include 14 storied multi-purpose building at BNS HAJI MOHSIN and residential facility for the manpower of National Disaster Management Centre, a multi-purpose complex at Chattogram RRB and sailor's colony, SM Barrack at BNS SHAHEED MOAZZAM, mosques at the sailor colonies, storage and issuing of modern ration and many other likely development initiatives.

BN Township in Savar has begun with the view to mitigating the residential crisis of retired navy personnel.



Frigates for Bangladesh Navy are planned to be built at the CDDL, Chattogram

The complex will include schools, hospital, shopping complex and all modern facilities.

BN believes that by improving the amenities a better service can be ensured. Apart from training and accommodation facilities, the naval force is now adorned with new digital combat dress to announce their new journey, all naval hospitals has modern treatment facilities, additional 30 civilian doctors are offering medical services besides the navy physicians. Bangladesh Navy also focuses on the retired naval officers and sailors and has various measures to provide amenities.

BN for the call of humanity

At the behest of Honourable Prime Minister Sheikh Hasina, Bangladesh Navy built temporary shelters on the Bhasan Char Island of Noakhali for the citizens of Myanmar who had been forcefully evicted from their homeland. With support from the relevant ministries and experts from home and abroad BN completed this mega project within a period of six months only. A number of 120 cluster villages can provide temporary shelters to an estimated one lac forcibly displaced citizens of Myanmar till they return home. All the villages have access to clean drinking water and concrete roads for internal communication. Coastal defence barriers have been elevated to protect the island from tidal waves besides greenery along the coastal belt to provide protection against storms and cyclones.

BN is always by the side of the people in case of natural calamities like the cyclone, flood or any similar situations when the call of humanity is considered to be a supreme duty to serve the nation and its people.





BN ships provide security for vessels contributing to the development of maritime trade and commerce of Bangladesh

More than 5,000 members of the naval staff have rendered services in more than 30 countries worldwide and earned appreciation and fame for the country.

Not only that, BN is always by the side of the people in case of natural calamities like the cyclone, flood or any similar situations when the call of humanity is considered to be a supreme duty to serve the nation and its people.

BN footprint in the international sphere

Bangladesh Navy today is a glorified brand among the international maritime community.

Bangladesh Navy, being a navy of a developing country plays an important role to uphold the foreign policy: friendship to all and malice to none. As a part of its diplomatic role, navy undertakes attachments and exchange programmes of personnel with other foreign navies. These include reciprocal positioning of naval personnel in diplomatic billets, training and technical support teams, and onboard each other's ships for short durations, especially at sea. Bangladesh Navy also regularly takes part in exercises with various foreign navies, at bilateral and multilateral levels. International events like 'IMSAREX 2017' in the Bay of Bengal or

Coordinated Patrol (CorPat) in a joint venture of India and Bangladesh Navy are worthy to mention among many.

For most navies around the world, Humanitarian Assistance and Disaster Relief (HADR) is no longer a secondary mission. Indeed, for the last two decades, the increasing number of reported catastrophes worldwide has triggered a universal consciousness, urging governments to develop national HADR capabilities for both civilian and military capacities. The Bay of Bengal and whole of the Indian Ocean Region (IOR) is particularly vulnerable to several natural disasters. The naval platforms, because of their quick mobilisation, are extremely useful in the early stages of a crisis for providing relief material, first aid and succour. Thus, the navy is deployed to provide immediate support and relief efforts in case of major disasters.

Bangladesh Navy is always ready to provide a comprehensive logistics base for humanitarian operations in support of the peace initiative. Seaborne natural disasters in the form of the cyclone and tidal

surge are a common natural phenomenon to Bangladesh. Devastating tropical cyclones hit the coastal areas and offshore islands very frequently causing enormous loss of lives and property. Bangladesh Navy can reach the destitute soon after the disaster for conducting rescue operation and provide all kinds of assistance and relief. A large amount of resource of the navy has been earmarked for dealing with the disasters.

Success at peacekeeping mission

In addition to the carrying out the responsibility of keeping the territorial water of the country free from enemy aggression and maintaining peace, Bangladesh Navy has sent over its soldiers, battleships and naval contingent to different countries responding to the call of the United Nations. More than 5,000 members of the naval staff have rendered services in more than 30 countries worldwide and earned appreciation and fame for the country. Currently, BN members are engaged in seven global missions performing their duties as military observers, staff officer and members of the contingent. Bangladesh is the only country in the subcontinent being engaged in UNIFIL peacekeeping missions in Lebanon under the multinational maritime taskforce in the Mediterranean Sea. BNS BIJOY has been deployed to fend off infiltration of illegal arms and ammunition in Lebanon. Besides, they are also providing support to maritime interdiction operation, intelligence monitoring of suspicious ships and aircraft, rescue operation for mishaps at sea and providing training to members of the Lebanese Navy.

Maritime education

Bangladesh Navy is relentless in advancing the maritime education of the country through establishing different institutions besides the maritime university. Schools and colleges run by the Navy in Dhaka, Khulna and Chattogram are committed to building a responsible future generation by providing them with a first-rate education curriculum.

Excellence has no end

Nowhere on earth has another instance of such a brilliant accomplishment that has been attained by Bangladesh Navy within such a short period. Today, under the



The fearless, the invincible- SWADS team of Bangladesh Navy

pragmatic leadership of the Chief of Naval Staff, Admiral Aurangzeb Chowdhury, NBP, OSP, BCGM, PCGM, BCGMS, ndc, psc, our dynamic naval force is shaping up for more excellence. The visionary leadership is preparing the naval force of Bangladesh to supersede all the precedence and build a naval force of the future.

Gaining this altitude has been made possible solely for the singular concern, sharp vision and sincere backing from our Honourable Prime Minister Sheikh Hasina. As recognition to the selfless sacrifice, sheer patriotism and humanitarian empathy demonstrated by Bangladesh Navy, it has been awarded the highest accolade in the country the Medal of Independence (SWADHINATA PADAK). Rekindled with the value of independence, the Navy is committed to maintaining peace and security as well as to uphold the sovereignty of our country. As such, we firmly believe our dear motherland and the Navy will continue to march forward in the coming days towards the building of a golden Bengal reflecting the vision of our Father of the Nation and establish the country as a matchless role model before the rest of the world.

As recognition to the selfless sacrifice, sheer patriotism and humanitarian empathy demonstrated by Bangladesh Navy, it has been awarded the highest accolade in the country the Medal of Independence (SWADHINATA PADAK).





Exercise 'Tiger Shark' was held with the participation of Bangladesh Navy and US Special Forces

Joint training of Bangladesh and US Navy

On 4 November 2019, the opening ceremony of the joint training 'Co-operation Afloat Readiness and Training 'CARAT 2019' by Bangladesh and the US Navy was held at the auditorium of 'School of Maritime Warfare and Tactics' (SMWT) of BNS ISSA KHAN. Assistant Chief of Naval Staff (Operations) as Chief Guest and Commander of the United States Navy's Western Pacific Command Logistics Group (Task Force-73) Rear Admiral Murray Tynch as Special Guest attended the ceremony. The training was held in two phases. In the first phase, on 2-3 November various preparations and coordination meetings were held while the second phase on 4-7 November comprised of various subject-based trainings and exercises. The joint training was conducted

under the overall supervision of Commander BN Fleet. The US Navy's Air Craft (P-8A) besides a significant number of naval members as well as members of the Special Forces SWADS and Naval Aviation of Bangladesh Navy participated in the training exercise.

In the first quarter of the year 2019, Ex Tiger Shark, the US-Bangladesh Special Force joint sea-exercise was conducted under the management of Commodore SWADS Command, Bangladesh Navy. The exercise that began on 24 March 2019 is a regular feature of the Special Forces of the two countries. 35 naval commandos including 12 US Special Force members and three officers participated in the exercise held at different naval bases in Kaptai and Chattogram. The closing ceremony was held in BNS NIRVIK at the naval commando base of Dangarchar in Chattogram on 18 April 2019.

Officers from the Inter-Services and Ministry along with the Navy members participated in the Exercise LIMA-2019 and had a photo session on BNS SOMUDRA JOY



BNS SOMUDRA JOY at LIMA-2019

BNS SOMUDRA JOY visited Malaysia to participate in the Lankawi International Maritime and Aerospace Exhibition (LIMA-2019). A total of 263 naval personnel's including 34 officers and 43 midshipmen under the leadership of Captain M Abdul Wadud took part in the five-day long trial held from 26 to 30 March 2019. The exhibition was attended by naval ships, battleships and military personnel from different countries of the world. The ship returned home on 20 April 2019.

INS KORA at Chattogram on goodwill visit

INS KORA came to Chattogram on 13 April 2019 on a goodwill visit to strengthen bilateral maritime cooperation between the naval forces of Bangladesh and India.

During the visit, the Captain of INS KORA one called on the Commander of Chattogram Naval Area and the Commander of BN Fleet. For the visiting guests, a reception party was held on BNS SOMUDRA AVIJAN. Indian Naval personnel interacted with their counterparts from Bangladesh Navy and visited various historical sites of the port city. Such goodwill visit strengthens the mutual bond between Bangladesh and Indian Navy officers, cadets and soldiers. The ship left Bangladesh on 15 April 2019.

BNS DHALESHWARI at IDEX-2019

To participate in the 14th International Defence Exhibition (IDEX-2019) and 5th Navy Defence Exhibition, BNS DHALESHWARI visited the United Arab Emirates (UAE). The ship took part in the naval arms exhibition and the Navy personnel participated in different international seminars at the IDEX-2019 held from 17 to 22 February 2019. Commanding officer of BNS DHALESHWARI Captain Mohabbat Ali was the delegation head of the team of 182 members. The exhibition was attended by ships from 15 different countries, globally renowned 1,100 naval arms companies, naval observers and naval experts as well as over one lac (one hundred thousand) spectators.

BNS PROTTOY at the International Fleet Review

To participate in the 70th anniversary of PLA Navy held from 22 to 25 April 2019, BNS PROTTOY visited China. A number of 117 naval members including 24 officers under the leadership of Captain M Mehedi Hassan took part in the four-day long celebration. The Chief of Naval Staff Admiral Aurangzeb Chowdhury was present in International Fleet Review. CNS



Bangladesh Navy's quick response to relief and medical care in the aftermath of cyclone 'Fani'

met the Chinese President Xi Jinping and the Chief of PLA Navy Vice Admiral Chen Zinlong and discussed issues of bilateral interests during the visit.

BNS SOMUDRA AVIJAN's training voyages in Sri Lanka and India

BNS SOMUDRA AVIJAN participated in training voyages to friendly countries Sri Lanka and India. The ship was stationed at Colombo port in Sri Lanka from 7 to 8 September 2019, and at Visakhapatnam, India from 14 to 17 September 2019. Head of the delegation Commander M Zahurul Haque served as the commander of the visiting ship.

32 naval ships and contingents in rescue and relief operation of cyclone 'Fani'

Bangladesh Navy took all out preparations in facing the post emergency rescue, relief and medical operation of cyclone 'Fani' and kept ready 32 naval ships in Chattogram, Khulna and Mongla. Besides, naval contingents were deployed in the affected areas of Khulna, Bagerhat, Satkhira, Barguna, Patuakhali, Barishal, Pirojpur and coastal areas. To manage post-disaster situation, BN ship BNS MEGHNA left BNS TITUMIR naval jetty in Khulna for Mehendiganj and BNS TISTA for Hijla of Barishal on 4 May 2019. In addition, naval ship LCT-104 left Digraj base of Mongla for Nildumur of Satkhira while LCVP-011 was previously deployed in Patuakhali. The ships carried food items for 2,000 families that would sustain them for three days. Medical teams provided free treatments and distributed free medicines among over 5,000 men, women and children. The naval contingents were kept prepared with relief items on land for the rescue and relief operation for Chattogram, Khulna and Mongla Naval Areas as well.

Rescue, relief and medical support

In the consequence of the cyclone 'Bulbul', naval contingent and medical teams including five warships in Barishal, Jhalakathi, Patuakhali, Barguna and Satkhira, three in Chattogram and two in St. Martin's island were kept at ready to be deployed for emergency rescue, relief and medical support. BNS KARNAPHULI, TISTA, PADMA, LCVP-012 and LCVP-013 were deployed to conduct rescue and relief operations in the coastal areas of Khulna region. Besides, four naval contingents were kept ready to deal with any emergency. Three ships in Chattogram, BNS SHAHJALAL, SHAH PORAN and ATONDRO were prepared to depart with relief supplies for the coastal affected by the storm. BNS SOMUDRA JOY and SOMUDRA AVIJAN stayed at the St. Martin's island with emergency supplies. Tourists stranded at the island due to the cyclone were provided with shelter and support. The Navy personnel of St. Martin's Forward Base along with two naval

battleships were also ready to assist the cyclone affected people. Besides, the battleships and naval contingents were kept ready with relief and medical assistance to cope with the situation in Chattogram and Dhaka. In the wake of the cyclone, the Navy adopted a comprehensive three-tier action plan and implemented them through constant communication with the Ministry of Disaster Management and Relief and the local administration.

Exercises of the naval commandos and the divers

Ambush exercise of the naval commandos and the divers was held on 17 February 2019 on the occasion of Exercise Safeguard 2018 which is a method of making sudden attack against the enemy during war. Besides, a hostage and rescue exercise was held for successfully completing rescue operation within the least possible time. Also, the Surface Supply Diving System (SSDS) exercise was held where the divers communicated with the surface people

BNS PROTTOY took part in the International Fleet Review held in China on the 70th anniversary of the PLA Navy





Firing practice of BN helicopter in BNS SHAHEED MOAZZAM firing range

and availed the supply of air from above under the water. In addition, an underwater welding and cutting exercise was held while Visit, Board, Search and Seizure (VBSS) was conducted with the support of MV Jahan. Besides, the exercises also aimed at running a rescue operation coordinated with helicopters and fast moving boats when the enemy launches an attack.

EOD and GPMG firing exercise

Explosive Ordnance Disposal (EOD) exercise of Naval Commando Group was held at the Char Bakulia area on 18 June 2019 under the command of Commodore SWADS Command with a view to building capacity and enhancing specialised skill for the naval commandos. In addition, General Purpose Machine Gun (GPMG) firing of the naval commandos was

held at the sea area adjacent to Kutubdia conducted by the SWADS Command.

Winching operation of BN helicopter held

BN helicopter S3 VHB, for the first time completed its winching operation on the naval aviation tarmac on 19 July 2019. This was a milestone in naval aviation of Bangladesh. During the operation, BN helicopter successfully lifted 100 kg of weight hovering at an altitude of 50 feet.

Successful firing from BN helicopter

For the first time in BN history, 5 air-gunners from Bangladesh Navy performed 3 types of firing from helicopter rotor stop, rotor turning

and helicopter hover position at the BNS SHAHEED MOAZZAM Firing Range on 19 May 2019. Commodore Naval Aviation was present at the firing range and inspected the firing. Chief of Naval Staff congratulated all members of the naval aviation for the successful completion of the firing exercise from BN helicopters.

Rappelling exercise

Rappelling exercise of naval commando trainees of the special warfare school of the Commodore SWADS Command was held with support from helicopters of Bangladesh Air Force on 6 February 2019. That exercise was designed to run emergency rescue and operational programmes in a minimum timeframe by making a faster landing from helicopters.

Joint patrol and exercise between Bangladesh and Indian Navy

For the second time in the Bay of Bengal, a joint exercise (Coordinated Patrol and Joint Exercise) between Bangladesh and Indian Navy was held in the designated waters of the Bay of Bengal from 10 to 12 October 2019. The joint exercise was conducted to eliminate various criminal activities including IUU fishing, smuggling, human trafficking, piracy and terrorism as well as drug trafficking in the sea. Two ships of Bangladesh Navy BNS SHADHINOTA and BNS ALI HAIDER and two from Indian Navy INS RANAVIJAY and INS KUTHAR participated in joint exercise including Indian Maritime Patrol Aircraft (MPA). At the end of the exercise, warships arrived at Visakhapatnam and participated in various joint patrol operations. BNS SHADHINOTA and BNS ALI HAIDER returned home after completing the exercise.





The UN peacekeeping medals were awarded to 110 members of BANCON-9 at the BNS BIJOY medal parade in Lebanon

Medal Parade of BNS BIJOY in Lebanon

110 members of Bangladesh Naval Contingent-9 (BANCON-9) of BNS BIJOY were awarded with the United Nations Peacekeeping Medals during the Medal Parade on 12 June 2019. For this, a 3-member special delegation from Naval Headquarters visited Lebanon headed by Rear Admiral M Mozammel Haque, NUP, ndc, psc. Commander of the Maritime Task Force Rear Admiral Edoardo Augusto Wieland took the Guard of Honour as the Chief Guest while Contingent Commander Captain M Nazrul Islam (N), psc, BN distributed the medals to the officers and the sailors. Bangladeshi Ambassador to Lebanon Abdul Motalab Sarker, Chief of Lebanese Navy Rear Admiral Hosni Daher, head of the special delegation Rear Admiral M Mozammel Haque, diplomats and military attaches of different countries stationed in Lebanon, high officials of UNIFIL and other dignitaries were present. Maritime Task Force Commander Edoardo Augusto Wieland and the head of Bangladesh Navy special delegation made their speeches on the occasion.

Medal Parade of BANFMU-4 in South Sudan

Medal Parade of BANFMU-4 was held on 26 June 2019 attended by the head of Bangladesh Navy delegation Rear Admiral M Khaled Iqbal BSP, ndc, psc as the Chief Guest and OIC Force Commander-in-Charge of UNMISS Brig General Nitin Khare as the Special Guest. The Chief Guest and the Special Guest awarded medals to the UNMISS members who participated in the March-past.

During his South Sudan visit, Rear Admiral M Khaled Iqbal met South Sudan Chief of Defence General Gabriel Jok Riak and Defence Minister Kole Manyang Junk at the SSPDF Headquarters. He also visited BANFMU Malakal Unit on 27 June 2019.

Army Chief visits BANFMU

Bangladesh Army Chief General Aziz Ahmed along with his companions paid a visit to the BANFMU (Zuba) unit on 24 April 2019. During the visit, he exchanged pleasantries with the Contingent Commander of BANFMU and other officers. He greatly appreciated the dynamic role of BANFMU in South Sudan.

Lebanese Navy Chief visits BNS BIJOY

Chief of Lebanese Navy Rear Admiral Hosni Daher visited BNS BIJOY on 7 February 2019. He was given a Guard of Honour during his visit. Later, he was informed about the operational activities and training of the Lebanese Navy with an excellent presentation. The Lebanese Navy Chief greatly praised the comprehensive efforts of Bangladesh Navy and hoped for the continuance of the training

The head of naval delegation of Bangladesh Navy, Rear Admiral M Khaled Iqbal awarded the UN Peacekeeping Medal to BANFMU-4 naval personnel in South Sudan



programme. He also expressed his gratitude to Bangladesh Navy for their support and cooperation in the establishment of the Naval Force of Lebanon.

COE inspection of BANFMU-4 and BNS BIJOY

A seven-member inspection team from the United Nations Mission in South Sudan (UNMISS) Headquarters visited the BANFMU-4 Unit and inspected the practice and maintenance of the Contingent Owned Equipment (COE) of BANFMU-4 on 5 February 2019. Besides, a inspection team from the Nakura Headquarters also inspected the COE of BNS BIJOY on 14 March 2019. During the visit, they were shown the functionality of the different apparatus and equipment of the ship.

BNS BIJOY's Transfer of Authority ceremony

Transfer of Authority between the outgoing Continental Commander of UNIFIL BANCON-9 Captain M Nazrul Islam, (N), psc, BN and newly appointed Contingent Commander the new captain of BNS BIJOY, Captain M Joynal Abedin, (ND), afwc, psc, BN was held on 16 July 2019. At the ceremony, Maritime Task Force Commander Rear Admiral Eduardo Augusto Wieland as the Chief Guest handed over the UN flag to the outgoing and new Contingent Commanders. Through that programme, Captain M Joynal Abedin (ND), afwc, psc, BN took over the Commander's Task Group, the only Maritime Task Force under the UN. Senior officials of UNIFIL Headquarters and other invited guests were present on the occasion.



“Despite our efforts to contain it, the crisis is now becoming a regional threat. Besides, increasing congestion and environmental degradation is challenging health and security in the area.”

Hon’ble Prime Minister Sheikh Hasina on Forcibly Displaced Myanmar Nationals (FDMNs) at the 74th UN General Assembly

A call for humanity

Bhasan Char rehabilitation project

Cdre Abdullah Al Mamun Chowdhury, (N), ndc, psc, BN

Since the end of August 2017, brutal military campaign and atrocities against minority Rohingyas in Rakhine state have forced them to leave Myanmar. Nearly 1.1 million Myanmar nationals fled to Bangladesh. Bank of river Naaf and adjoining border areas in Bangladesh filled with grief and agony of those distressed people. Besides, overcrowded and unplanned dwelling in Kutupalong hills is posing serious threats to the environment and internal security. The government of Bangladesh steered diplomatic persuasion to achieve international support for them. In addition, Hon’ble Prime Minister Sheikh Hasina made a clarion call to the UN General Assembly for their return with safety, security and dignity.

The nation always recalls the period of 1971 Liberation War when our people were also forcibly displaced by the aggressor and took shelter in India. Inspired by the spirit of our independence, our Hon’ble Prime Minister, as a vibrant example of humanity, allowed the temporary shelter to the Forcibly Displaced Myanmar Nationals (FDMNs) in Bangladesh until they return to Myanmar.

Shelter close to the border

As a large number of people took refuge in this hilly area of Teknaf, Cox’s Bazar, life within improvised shelters made of bamboo sticks and tarpaulin is getting unbearable. At the same time, these shelters are causing a serious threat to the environment. Possibility of landslides due to deforestation has raised the risk of casualties for FDMNs. In view of this, ‘Mother of Humanity’, Hon’ble Prime Minister Sheikh Hasina directed to seek a quality shelter for FDMNs in a suitable location before they return to their country. Consequently, the Island Bhasan Char

of Hatia upazila under Noakhali district was chosen by the government to develop and provide safe and transient accommodation for FDMNs. Considering the safety and security of the displaced people of Myanmar, local environment and economic issues, the government of Bangladesh has given highest priority to FDMNs crisis and assigned Bangladesh Navy to implement the Ashrayan 3 project at Bhasan Char with the aim to develop a sustainable and eco-friendly project.

From the inception of this project, the government of Bangladesh has been working to ensure civic amenities and security on the Island with Bangladesh Navy’s (BN) support. In order to materialise the government’s vision, BN started this huge development of infrastructure on 1,702 acres of land in Bhasan Char from January 2018 taking project management and planning guidelines from the consultants. A temporary jetty with landing facility was gradually developed to bring a large number of materials, equipment for the development of such huge infrastructure at Bhasan Char. BN personnel along with consultant engineers are continuously engaged in supervision and monitoring of this project. Apart from that, BN ships and boats were also deployed for carrying personnel, material and to conduct emergency evacuation duties. As a result of the hard work of more than 30 contractors and 15,000 labourers every day as well as keen supervision of BN, consultants and engineers, the barren land in Bhasan Char has been transformed into a standard dwelling place.

Bhasan Char- a green safe home

The government of Bangladesh planned to shift 1,00,000 Forcibly Displaced Myanmar Nationals





View of the cluster houses built on Bhasan Char

(FDMNs) to Bhasan Char to ease unhealthy dwelling at Cox's Bazar. 120 cluster houses were constructed for accommodation and each of them has 12 large tin-shed houses. Each house can lodge 16 families. There are kitchens and separate toilets for male and female. Apart from cluster houses, variety of facilities including schools, hospitals, community clinics, playgrounds have been developed to create a standard living condition.

In order to reduce the heat inside the houses, hollow blocks have been purposefully used for the masonry wall construction instead of traditional bricks. A natural ventilation system was incorporated to minimise the effect of heat due to the use of profile sheets, thereby ensuring a greater level of comforts.

The inhabitants and onshore infrastructure at Bhasan Char are protected from tidal surge and wave by 12.1 km long and 3 m high flood defence embankment with an integrated drainage system. Shore protection measures, such as wave screen, geobag and gravel are also in place to protect wave impact. For internal communication, around 40 km paved road has been constructed, which will ensure safe connectivity to each cluster houses, shelters with nonformal learning centre, mosques, playgrounds, hospital and community clinics, warehouses etc. In October 2019, during cyclone 'Mora' where the tidal surge was

more than 4-5 feet, hundreds of fishermen with their boats took safe shelter in this secured Island of Bhasan Char under the arrangement of Bangladesh Navy. About 400 fishermen took shelter at there during the cyclone 'Bulbul' and they were accommodated at newly built shelters.

Generators and solar panels are in place for electricity generation. There is a solar grid with one MW capacity and three generators with two MW capacity. In addition, each house is powered predominantly by separate house solar to get electricity round the clock. It will be possible to ensure continuous electricity supply to every cluster houses and shelters of Bhasan Char.

Eco-friendly design features

Under an eco-friendly design, solar powered submersible pumps are used to draw groundwater to meet the water needs of the residents. Rainwater harvesting systems in each cluster house and shelter are also available. Apart from that, 120 ponds are serving as an alternative water source. Biogas plant for waste management and separate food waste collection bins in every cluster have been built in a sustainable manner for comfortable living.

Four-storied 120 multipurpose cyclone shelters have been built with composite structure (RCC and



"We have received bone-chilling accounts from those who fled – mainly women, children and the elderly. This is unacceptable and must end immediately."

**United Nations
Secretary-General
António Guterres** on
August 2017 crackdown by
Myanmar military in
Northern Rakhine state





Shelter Station



Solar Panel



Animal Husbandry



Animal Husbandry



Mobile Tower



Embankment



Cluster House

Various facilities have been built for sustainable living in Bhasan Char

structural steel). They are designed to withstand wind speed up to 260 km/h during a cyclone.

Each cyclone shelters can accommodate 1,000 people in an emergency situation. People inside the shelter station will be safe even in 16 feet tidal wave. There are 4 community clinics and 2 hospitals, which will have all kinds of modern medical equipment and will be operated by HED (Health Emergency Department). Besides, there are housing facilities for INGO, NGO, Law Enforcing Agencies (LEA), including the office and residence for United Nations agencies by modifying existing shelter. Also, shelters are being modified for 2 non-formal learning centres and 3 mosques. Two local bazaars, playground and super shop facilities have been set up. In future, more facilities will be developed to promote eco-tourism.

Livelihood

One of the objectives of Ashrayan 3 project is to develop an appropriate strategy for generating sustainable livelihood and income-generating activities for FDMNs. Many experimental

livelihood activities like rice cultivation, vegetation, fish farming, poultry farming were explored by BN which can be meticulously done by concerned departments. In future, it may be possible to engage FDMNs in dairy production and production of handicraft.

For the safety and security

Security houses have been constructed to ensure overall security for the area. Two helipads have been built for emergency rescue operation by helicopters. Under BN supervision, Bhasan Char has become a unique habitat for standard, healthy and safe living. Here, these FDMNs will remain healthy and safe until they return to their homeland. Upon their return, the government has a plan to allocate the shelters to the landless people, like any other Ashrayan project in Bangladesh.

Bhasan Char is not only a dwelling haven but also a symbol of humanity. A lighthouse has been constructed for safe navigation of inland cargo and commercial vessels en route from Chattogram to other coastal districts of

Bangladesh. The lighthouse of Bhasan Char is symbolising the “Lights of Humanity” envisioned by Hon’ble Prime Minister.

Conclusion

Father of the Nation Bangabandhu Sheikh Mujibur Rahman was the pioneer to set a paragon of humanity. Following father’s ideology, Hon’ble Prime Minister Sheikh Hasina stood by the oppressed and gave hope for all sort of humanitarian assistance to FDMNs. The world has witnessed and given recognition to her humane approach towards regional peace restoration.

Bangladesh Navy, entrusted with the responsibility to implement Asrayan 3 project in facilitating house and shelters and aid to FDMNs, has implemented the project with utmost sincerity and devotion. Under its supervision, more than 1 lac persecuted people will take shelter in Bhasan Char island. At present, Bhasan Char has become the ‘Beacon of Hope’ and an iconic example of a sustainable eco-friendly development project of Bangladesh.



Agriculture Field and Pond



The Chief of Naval Staff Admiral Aurangzeb Chowdhury and others were present at the Keel Laying ceremony of 5 patrol craft in Khulna shipyard

Keel laying of five patrol craft by CNS

Keel laying of five patrol craft of BN was held at Khulna Shipyard on 2 December 2019. CNS Admiral Aurangzeb Chowdhury, NBP, OSP, BCGM, PCGM, BCGMS, ndc, psc was present on the occasion as the Chief Guest. Those patrol craft have a length of 51.6 metres and a width of 7.5 metres and are capable of running at 21 nautical miles per hour. With completion of construction, these warships will be handed over to Bangladesh Navy. These warships will increase the overall operational capability of Bangladesh Navy, including patrolling the coastal areas, run anti-smuggling operations, post-disaster search and rescue activities, conservation of fishery resources and preventing environmental pollution. Besides, by acquiring valuable resources at sea and supporting the government's Blue Economy activities, they will play a vital role in the economic well-being of the country. The shipyard has already constructed five patrol craft and two large patrol craft implementing the domestic technology and transferred those to Bangladesh Navy.

Inauguration of JCO Training Institute in BNS ISSA KHAN

To promote BN training programme into a global standard, Junior Commissioned Officer (JCO) Training Institute was formally inaugurated by the Chief of Naval Staff,

Admiral Aurangzeb Chowdhury on 29 October 2019. This will play a supportive role for the JCOs in their respective branches in gaining professionalism and leadership qualities. Speaking at the ceremony, the CNS said, there is no substitute for smart, well-trained manpower to meet the ever-increasing challenges of the rapidly changing technology in maritime arena. Training modules are being modified including modernisation of the schools. In particular, this institute will help in increasing the theoretical and practical knowledge of the trainees as the JCOs will be able to perform their duties in a more efficient manner.

Handover of Metal Shark boat

Five Metal Shark boats were handed over to Bangladesh Navy by the US Commander Rear Admiral Murray Joe Tynch on 25 April 2019. This is the first phase of the ten Metal Shark boats being purchased from the USA on G-to-G basis. A three-week long training exercise was conducted from 15 April to 3 May 2019 coordinated by the representatives of the manufacturing company of the Metal Shark boats and the naval personnel.

Five metal shark boats are purchased from the USA for Bangladesh Navy





Bangladesh shipbuilding industry in global and local context

Commodore Khandakar Akhter Hossain, (E), psc, BN (retd)

The shipbuilding industry is accountable for the design and construction of oceangoing vessels all around the globe. The shipbuilding industry is involved in the construction and modification of ships and these operations are carried out in specialised facilities and those are known as shipyards.

Shipbuilding industry becomes more global than local due to increasing global demand for new ships. The industry is always dominated by maritime nations like Britain, France, Germany, USA, Japan, Korea and China. Shipbuilding has two main segments named as commercial segment and naval segment. Presently, commercial shipbuilding sector is dominated by China, Japan, Korea, Thailand whereas naval shipbuilding sector is dominated by USA, China, Russia, Japan and India. Shipbuilding is considered to be one of the most strategic, oldest, most open and highly competitive markets in the world. The shipbuilding industry is accountable for the design and construction of oceangoing vessels all around the globe. The shipbuilding industry is involved in the construction and modification of ships and these operations are carried out in specialised facilities known as shipyards. The key factors driving the growth of the market are GDP, global seaborne trade, improved economic growth, rising urbanisation, low fossil fuel price, and an increase in global steel production. Some of the noteworthy trends and developments of this industry are green shipbuilding technology, automation in the industry, modular shipbuilding technique, advanced outfitting, ship

launching airbag, LNG/LPG fuelled engines and solar and wind-powered ships. However, the expansion of shipbuilding industry can be affected by increased competition, environmental regulations, enhanced globalisation and political and financial instability.

Advantages of a ship

A ship has got unique characteristics and a good number of advantages in carrying the trades. Few of them are given below:-

- A ship can carry a huge volume of cargo at a time. No other transport other than a ship can carry that huge cargo at a time.
- The overall fuel consumption is very low in comparison with any other transport.
- It is more economical to carry goods by ships than by any other means.
- A ship is the most environment-friendly mode of transportation.
- Petrol, gas, liquid and other dangerous goods cannot safely be transported by any other mode of transportation.



Khulna shipyard builds Tug boats for navy

Advantages of shipbuilding

On the other hand, shipbuilding has wonderful returns toward a nation. Mentionably these are as follows:-

- Shipbuilding industry catalyses the industrialisation. This was the case when South Korea initiated and committed on shipbuilding in the 1970s. The more recent case is China. Because the nation recognised the shipbuilding industry is a basic industrial sector that promotes a sustainable economy.
- The industry is characterised relatively as labour intensive, which absorbs large numbers of labour.
- The technology of the industry is obtainable and relatively easy to learn and handle under the background of internalisation and globalisation nowadays.
- The requirements of raw materials, components as well as appliances for ships by the industry further boost other major industries, for instance, shipbuilders are one of the biggest buyers of steelworks and machinery.
- The development of shipbuilding industry needs a large investment in facilities and infrastructures, which will absolutely benefit other sectors.

History of Bangladesh's shipbuilding

Indigenous shipbuilding in this region dates back to a time immemorial. It is one of the early industries developed in Bengal based on its tradition of building boats and sea-going vessels. Many countries of Asia and Europe used to regularly buy ships built at Chattogram. Ibn Battuta (1304-68) came to Bengal in the 14th century and went back in a wooden ship built in a dock located at Sonargoan, Dhaka. Such historic ships are being preserved in European Museums. According to an European traveler, Caesar Frederick, Chattogram was the centre of building ocean-going vessels during the middle of the 15th century. During the 17th century, a fleet of ships of the Sultan of Turkey was built at Chattogram. During the Mughal period, Bengal took the lead in building ships and boats. The Mughal Naval Force had a large number of ships built at Chattogram. The British Navy used warships built at Chattogram in the famous Battle of Trafalgar in 1805. In 1818 the wooden hull frigate Deutschland was built in Chattogram and delivered to German Navy. During the first half of the 19th Century, the shipyards at Chattogram built ships up to 1,000 DWT. During Pakistan period public sector enterprises dominated the shipbuilding industry. At

present, the private sector has emerged as the major player of Bangladeshi shipbuilding. There are more than fifty shipyards concentrated at Dhaka, Chattogram, Narayanganj, Barishal and Khulna regions, where inland coastal and fishing fleet are being built. In 1979, FAO funded contract for the supply of 8 food-grain carrying vessels to Bangladesh Inland Water Transport Corporation (BIWTC) was secured by High-speed Shipyard, Narayanganj through an international tender. Mitsui Engineering and Shipbuilding Industry of Japan has entered into a joint venture in shipbuilding of Bangladesh and construct 4 deep-sea fishing craft. Recently, some shipbuilding industries including Ananda Shipyard and Slipways Ltd, Dhaka and Western Marine Shipyard Ltd, Chattogram have come up with modern shipbuilding facilities that enabled them to receive export orders. However, in 2008, Ananda exported her first ocean-going ship to Denmark and secured the name of Bangladesh in the list of ship exporting nations in the world.

Shipbuilding practice in modern days

Conventional shipbuilding was a labour intensive and low-tech industry. On the other hand, modern shipbuilding needs a lot of automation and line production manufacturing skilled workforce. Modern shipbuilding makes considerable use of prefabricated blocks or modules. Entire multi-deck segments of the hull is built elsewhere in the yard, transported to the building dock or slipway and then lifted into place. This is known as 'block construction'. The most modern shipyards pre-install equipment, pipes, electrical cables, and any other components within the blocks to minimise the effort needed to assemble or install components deep within the hull once it is welded together. Ship design work, also called naval architecture, is usually conducted using a ship model tank or basin. Modern ships, since roughly 1940, have been produced almost exclusively of welded steel. Early welded steel ships used steels with insufficient fracture toughness, which resulted in some ships suffering catastrophic brittle fracture and structural cracks. Since roughly 1950, specialised steel such as high tensile strength and tough steel with good physical and chemical properties for ship construction have been used.

Global shipbuilding trend

Historically, the shipbuilding industry has suffered from the absence of global control and a tendency towards over-investment due to the fact that shipyards offer a wide range of technologies, employ a significant number of workers and generate income. Shipbuilding is always a state-supported industry and enjoys government subsidies. As a result, shipbuilding is an attractive

Indigenous shipbuilding in this region dates back to a long time. It is one of the early industries developed in Bengal based on its tradition of building boats and sea-going vessels. Many countries of Asia and Europe used to regularly buy ships built at Chattogram. Ibn Battuta came to Bengal in the 14th century and went back in a wooden ship built in a dock located at Sonargoan, Dhaka.

This LPC is an example of Bangladesh's capability to build its own battleships





Indigenous high-speed boat for Bangladesh Coast Guard

Evaluating the trend of the global shipbuilding industry, it is found that Japan had been the dominant shipbuilding country from the 1960s to the end of 1990s but gradually lost its competitive market to the emerging industry in South Korea which had the advantages of much cheaper wages, strong government backing and a cheaper currency. South Korean production overtook Japan's in 2003 and Japanese market share has since fallen sharply.

industry for developing countries. After World War II (1939-45), Japan used shipbuilding in the 1950s and 1960s to rebuild its industrial structure; Again South Korea started to make shipbuilding a strategic industry in the 1970s, and China is now in the process of repeating these models with large state-supported investments in this industry. Conversely, Croatia, Brazil, Philippine, Myanmar, Vietnam are privatising its shipbuilding industry. After the World War II, shipbuilding (which encompasses the shipyards, the marine equipment manufacturers, technical workforce, and related knowledge and services providers) grew as an important and strategic industry in a number of countries around the world.

Shipbuilding is declining in countries with high labour cost since the state subsidies have been removed and domestic industrial policies do not provide adequate support. The British shipbuilding industry is a prime example. Its shipbuilding industries have been suffering badly from the 1960s. In the early 1970s, British yards still had the capacity to build all types and sizes of commercial vessels but today they have been reduced to a small number specialising in defence contracts, luxury yachts and repair work. The decline has also occurred in other European countries, although to some extent this has been reduced by protective measures and industrial support policies. In the USA, the Jones Act (which places restrictions on the ships that can be used for moving domestic cargoes) has meant that commercial shipbuilding continues, albeit at a reduced rate, but such protection has failed to penalise shipbuilding inefficiencies. As a result, the contract prices rise higher than those of any other country building oceangoing ships. China is an emerging shipbuilder that overtook South Korea during the 2008 to 2010 global financial crisis as they won new orders for medium and small-sized container ships. China is the world's largest

World Shipbuilding Market Share by Countries

Rank	Country	Combined (GT)	Percentage
1	China	67,000,000	45
2	South Korea	53,000,000	29
3	Japan	28,000,000	18
4	Philippines	6,000,000	1
5	European Union	4,500,000	1
6	Rest of the world	11,000,000	6

shipbuilder with around 45% of the world's total orders, and its quality and technology have improved significantly.

Evaluating the trend of the global shipbuilding industry, it is found that Japan had been the dominant shipbuilding country from the 1960s to the end of 1990s but gradually lost its competitive market to the emerging industry in South Korea which had the advantages of much cheaper wages, strong government backing and a cheaper currency. South Korean production overtook Japan's in 2003 and Japanese market share has since fallen sharply. From 2010, China has become the number one shipbuilding nation leaving behind Korea and Japan. Philippines has been placed fourth among the shipbuilding nations of the world by producing more than 6 million GT of ships.

Local shipbuilding potentials

Bangladesh is a maritime nation with a glorious history of shipbuilding. Local shipbuilding potential has been discussed below in brief:-

- Presently, more than 50,000 skilled workers and 100,000 semi-skilled workers are employed in this industry.
- About 12,000 inland and coastal craft have been plying all over the country, which are carrying more than 90% of total oil product, 70% of cargo and 35% of passengers.
- All inland ships are constructed and repaired locally in local shipyards.
- Bangladesh is the second-largest ship-breaking industry in the world. About 50% steel of the total domestic use of Bangladesh comes from local ship-breaking industry.
- Local shipyards are capable of manufacture of multipurpose vessels, coasters, trawlers, tugs, tankers, passenger vessels, cargo vessels, patrol boats, inspection launches, dredgers, small warships, container ships, pollution control vessels, barges, tourists vessels, ferries, water taxis, hospital boats, speed boats, etc.
- Bangladeshi component manufacturers can manufacture 50% of the total material, machinery and equipment for the inland/coastal vessels, which were built in Bangladesh.
- The proportion of contribution to an international classed vessel built in Bangladesh is only 20% at present. It can be raised up to 40% if the industry is guided professionally.
- Cost of the local items including labour, which is at present about 40% of total ship cost, and this can be upgraded up to 70% as well if the industry is guided professionally.
- Bangladesh has convenient geographical advantages both in coastal areas and in river-side. It has a very good riverine network connected to the sea and there are ample places to build or expand existing potential shipyards.
- Availability of easily trainable workforce (a little training is necessary to elevate the existing workforce to international standard).
- Support of backup industries are also cheaper with respect to the shipbuilding industries of other nations.
- Existing local shipyards of Bangladesh are capable of manufacturing quality ships with competitive price.
- Present global financial crisis may increase the demand for low-cost ships. This is favourable for Bangladesh shipbuilding.
- Average hourly semi-skilled labour charge in

Bangladeshi shipyards is USD 1.00 and which is the lowest labour charge in the world. The Bangladeshi labourers are very hard workers and devoted to the service.

- Recently, the Government has taken some steps to improve the shipping and shipbuilding sector as a whole like dredging of rivers, tax-free activities for export-oriented shipyards, ease of rules for shipbuilding, declaration of some development strategy for the industry and negotiation with related other sectors to improve the local shipbuilding.

Local shipbuilding challenges

Despite its rich heritage, Bangladesh has failed to keep pace and consistency with the continuous technological development of global shipbuilding. Challenges of local shipbuilding have been discussed below in brief:-

- Lack of adequate working capital loan and high rate of interest on industrial and working capital loan.
- Cost of bank guarantee is high due to the double guarantee system. Again, the high rate of LC Margin is a potential challenge for local shipyards.
- There exists a gap between sectoral needs and curriculum of institutions related to the Maritime Industry. Again, the existing course curriculum of the universities, technical and vocational Institutes match little with the requirements of heavy industries.
- A substantial number of skilled manpower from this sector leaves the country for overseas employment.
- Bureaucratic problem is everywhere and steps should be taken by the government toward the improvement of the local shipbuilding industry.
- Insufficiency of ancillary industries which act as the backward linkage is another challenge. There is no backup industry to produce the required standard of MS plate, bar, angle, stiffener, girder, etc.
- Lack of testing and laboratory facility (Towing Tank, NDT Lab, etc.)
- Other than few, most of the shipyards are located in and around Dhaka, far away from the sea.
- The rivers and channels are frequently silted. It is very difficult to maintain a desired level of navigability for ships manoeuvre. Bridges and overhead cables induce further restriction to the ship size.
- Negative image of the nation hinders ship export.
- Lack of public and private activities to promote Bangladesh as a shipbuilding nation.
- According to the European buyers, the requirement for safety and standard of work at the shipyards are quite high and without compliance it is not possible to receive or seek new orders from European owners.



- Most of the local shipyards do not follow corporate management culture. Family members occupy the important managerial appointment in the local shipyards.
- Poor job satisfaction is observed in most of the shipyards and employees do not feel belonged to the organisation. Most of the local shipyard owners do not care about the welfare of the employees. Most of the labourers are employed on a casual basis.
- Lack of Research and Development (R&D), which ultimately fail to bring about any innovation and technological development for price competitiveness in International ship markets.

Conclusion

It is more economical to carry goods by ships than by any other means. The development of shipbuilding industry needs a large investment in facilities and infrastructures, which will absolutely benefit other sectors. Shipbuilding is considered to be one of the oldest, most open and highly competitive markets in the world. Although the shipbuilding industry has vast experiences in surviving peaks and slumps of the economy, the current global crisis has hit the shipbuilding industry severely. Strong government support and political stability are required in this industry because of being highly capital intensive. We need to improve the R&D sector for the global shipbuilding market analysis. There is still huge room for the shipbuilding industry to grow in the next decade.

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Five patrol craft built in Khulna Shipyard





The Chief of Naval Staff of Bangladesh, Admiral Aurangzeb Chowdhury received a grand welcome from the Indian Navy Chief Admiral Karambir Singh at the Indian Naval Headquarters in New Delhi

CNS visits India

Chief of Naval Staff Admiral Aurangzeb Chowdhury, NBP, OSP, BCGM, PCGM, BCGMS, ndc, psc visited to India on 7 December 2019 on a five-day state visit. On 10 December 2019, he had a courtesy meeting with the Chief of Indian Navy Admiral Karambir Singh. During the meeting, they exchanged pleasantries and discussed bilateral issues. This include discussions on the upcoming Indian Ocean Naval Symposium (IONS), international sea exercise 'Milan 2020', along with cooperation for conducting joint training and goodwill visits between the two countries. Earlier, when the CNS arrived at the Indian Naval Headquarters in New Delhi, an elite team of the Navy conferred him with the Guard of Honour. He inspected the guard and took the salute. The visit of the Naval Chief is expected to further enhance the mutual cooperation between the two neighbouring friendly countries in areas of professional skill development, training and other relevant areas.

CNS at Sea Power Conference

The Chief of Naval Staff Admiral Aurangzeb Chowdhury, NBP, OSP, BCGM, PCGM, BCGMS, ndc, psc attended the 'Sea Power Conference 2019' held in Sydney organised by the Australian Navy from 7 to 15 October 2019. The conference discussed on strengthening the areas of multilateral cooperation among the littoral states for ensuring protection of maritime trade and the global as well as regional maritime security and safety for the people who are dependent on maritime resources. Besides, the CNS met Vice

Admiral Michael Noonan, the Australian Chief of Navy, Admiral Christoff Prajuk, the French Chief of Navy, Vice Admiral William Bill Marge, Chief of the 7th Fleet of US Navy and Vice Admiral Atul Kumar Jain, the Indian Chief of its Eastern Naval Command. He also exchanged views with delegates from other countries attended the conference.

Observation of Genocide Day

On 25 March, Genocide day-2019, special prayers were held at all the mosques of Dhaka, Chattogram and Khulna Naval Areas for the departed souls of the martyrs of the independence war. Officers and sailors including civilian staff took part in the prayer. Early on that day, individual naval ship's respective skippers delivered the messages of

the Hon'ble President, Hon'ble Prime Minister and Chief of Naval Staff as well as explained the significance and importance of the Genocide Day. One minute of symbolic Black Out was also observed through clock synchronisation highlighting the context of the day.

National Plantation Campaign 2019

The Chief of Naval Staff Admiral Aurangzeb Chowdhury launched the 'National Plantation Campaign 2019' by planting a sapling in the premises of Banani Naval Headquarters on 24 June 2019. Afterwards, a prayer was held for the success of the campaign. Through the campaign, initiatives were taken to plant saplings of herbal, fruits, timber and shade providing trees. Chattogram and Khulna Naval Area also take same initiative.

Celebration of Bangla Nobo Borsho (New Year)

Keeping the Bengali tradition in mind, celebration of Bangla Nobo Borsho (New Year) 1426 Pehela Boishakh was held in Dhaka, Chattogram and Khulna Naval Areas through various types of events and programmes including morning rally, cultural shows and Boishakhi Fair. Interesting features of the joyful celebration comprised of exhibiting local fruits and food items, showcasing of handicrafts and hand-made toys, monkey games and snake charming, marry-go-round, tomtom and puppet show. Senior officials, officers of different ranks, sailors and civilian

The Chief of Royal Saudi Naval Forces Vice Admiral Fahad Bin Abdullah Al-Ghofaily received a Guard of Honour from Bangladesh Navy at the Naval Headquarters





During his visit to Turkey, the Chief of Naval Staff Admiral Aurangzeb Chowdhury met with the country's Chief of the General Staff, General Yasar Guler

staff along with their families joined the celebration.

CNS visits UN Headquarters

In June last year, Chief of Naval Staff Admiral Aurangzeb Chowdhury had a four-day visit to the United Nations Headquarters in New York. During his four-day visit, Naval Chief had meetings with the Assistant Secretary General and Military Adviser of the UN Headquarters Lt General Carle H Loyeti. In addition, he also met the head of UN peacekeeping mission activities Jean Pierre Lecroisky and the head of support division to the operational activities Atul Khare. During these meetings, discussions were held on issues of mutual interest and naval activities in mission areas.

Promotion Celebration-2019 held

A 'Promotion Celebration-2019' was held at BNS SHEIKH MUJIB bellman hangar for the promoted officers of Dhaka Naval Area, who were promoted from Captain to Commodore, Commander to Captain, Lieutenant Commander to Commander and from Lieutenant to Lieutenant Commander.

Besides, in an epaulette wearing ceremony, Chief of Naval Staff Admiral Aurangzeb Chowdhury officially awarded the epaulettes to six officers who were promoted as Rear Admirals. They are Commodore M Mozammel Haque, (G), NUP, ndc, psc, BN (P No. 467), Commodore M Nazmul Hassan, (N), NPP, ncc, ndc, psc, BN (P No. 552), Commodore M Moyeenul Haque, (E), NPP, nswc, psc, BN (P No. 546), Commodore Mohammad Musa, (G), NPP, rcds, afwc, psc, BN (P No. 593), Commodore M Mahbub-ul-Islam, (N), BSP, ndc, psc, BN (P

No. 536) and Commodore S M Abul Kalam Azad, (G), NGP, ndc, psc, BN (P No. 604).

Saudi Naval Chief on state visit to Bangladesh

On a three-day state visit, Saudi Naval Chief Vice Admiral Fahad bin Abdullah Al-Ghofaili met the Chief of Naval Staff of Bangladesh Navy Admiral Aurangzeb Chowdhury at the Naval Headquarters. On 2 September 2019, on his day of arrival, a squad of Bangladesh Navy conferred him the Guard of Honour. Referring to the traditional relations between the two countries, the Chief of the Naval Staff of the two countries discussed on the continuation of mutual cooperation on professional training for the development of the navy members. They also discussed the employment of trained manpower of Bangladesh in various development activities in Saudi Arabia. At the

same time, the CNS highlighted on the expertise of Bangladesh in the construction, repair and maintenance of ships. They also discussed the friendly visits of ships to further strengthen the friendly relations between the two countries. After the visit, the Saudi Naval Chief returned home on 3 September 2019.

Bangladesh Navy Chief visits Turkey and Russia

Chief of Naval Staff Admiral Aurangzeb Chowdhury made state visits to Turkey and Russia from 21 July to 31 July 2019. He met Turkey's Chief of the General Staff, General Yasar Guler and Chief of the Naval Staff Admiral Adnan Ozbal on 22 July 2019. During the meeting, both Naval Chiefs discussed various matters of mutual cooperation in training, shipbuilding and cybersecurity.

The Naval Chief participated in the Naval Parade held on 28 July 2019 on Russian Navy Day, where he exchanged views with Naval Chiefs and senior officers from different countries. He later met Admiral Nikolai Anatolevich Yevmenov and senior officials of the Russian Navy. He also paid a visit to the Russian Naval Headquarters. During his stay in Russia, he visited various navy ships, museums and sights of the country.

Naval Chief's visit in Chattogram and Khulna Naval Area

For the first time as the Chief of Naval Staff, Admiral Aurangzeb Chowdhury paid a visit to Chattogram and Khulna Naval Area in February last year. In Chattogram, A static March-past was held at BNS ISSA KHAN parade ground in his honour. After receiving the Guard of Honour, the CNS delivered his valuable speech to officers, sailors, civilian officers and other staff. Later, Naval Chief handed over the 'Efficiency Shield Award

The Chief of Naval Staff and BNFVA President are seen at the Promotional Celebration-2019 of the promoted officers held at BNS SHEIKH MUJIB bellman hangar





Visiting Indian Navy Chief on a courtesy call with the Chief of Naval Staff at Naval Headquarters

2016-2018' to BNS ISSA KHAN. Commander of the base Commodore M Nizamul Hoque, (TAS), NGP, psc, BN received the award. Later, the CNS exchanged views with all officers at the CSD conference room. He also visited BNS NIRVIK, submarines (BNS NOBOJATRA and BNS JOYJATRA), BN Flotilla and Naval Aviation.

In Khulna, a static March-past and a Guard of Honour were held in his honour at BNS TITUMIR parade ground in presence of all officers and sailors including civilian staff. The CNS was given a Guard of Honour at BNS TITUMIR. Later, the CNS delivered his valuable speech to attendees. Following the parade, a meeting was held in the Area Conference Room with the CNS as its President. Afterwards, he planted a sapling and later joined the gala dinner arranged in his honour at the Fairway Multipurpose Hall.

Indian Navy Chief's visit to Bangladesh

The Indian Navy Chief Admiral Karambir Singh paid a four-day visit to Bangladesh and departed on 24 September 2019. The Indian Navy Chief met the Chief of Naval Staff, Admiral Aurangzeb Chowdhury at the Naval Headquarters in Banani on 22 September 2019. They emphasised on strengthening regional maritime security and developing friendly relations by strengthening the area of multilateral cooperation in tackling maritime security risks and protecting maritime trade. He also discussed the need for strengthening the interdisciplinary training activities to improve the occupational skills of the two countries.

Earlier, the Indian Navy Chief paid tribute to the memory of the members of the martyred Armed Forces during the glorious Liberation

War by offering wreaths at Shikha Anirban. He also had meetings with the Hon'ble Prime Minister's Security Adviser, Bangladesh Army Chief and Principal Staff Officer of the Armed Forces Division.

Annual Divisions of Commander Chattogram Naval Area and Commander BN Fleet

Annual Divisions of Commander Chattogram Naval Area and Commander BN Fleet were held at BNS ISSA KHAN parade ground. Annual Division of BN Fleet was held on 23 June 2019 attended by all officers and sailors including civilian staff of the BN Fleet. During the Annual Division, Commander Chattogram Naval Area and Commander BN Fleet inspected the platoons and delivered their directorial speeches.

Goodwill visit of Japanese warships

'BANJO' and 'TAKASHIMA', Two warships from Japan's Maritime Self-Defence Force, arrived at Chattogram port on 6 October 2019 for a three-day long goodwill visit. Representatives of the Japanese Embassy in Bangladesh including senior officials of BN were present on the occasion. During the ships stay in Bangladesh, the Commanders of the two ships and representatives of the Japanese Embassy in Bangladesh met with the Commander Chattogram Naval Area, Commander BN Fleet and Chairman of the Chattogram Port Authority. The officers and sailors of the ships also visited the BNS SOMUDRA JOY, Bangladesh Naval Academy, School of Maritime Warfare and Tactics (SMWT), BNS SHAHEED MOAZZAM base,

special children's school 'Ashar Alo' beside making tours to historical sites of Chattogram. During their visit to Bangladesh, they also participated in a joint sea exercise along with BNS PROTTOY and BNS DURJOY.

Seminar on Maritime Security and Blue Economy on BIMRAD anniversary

The seminar on Maritime Security and Blue Economy was held on 23 September 2019 celebrating the first anniversary of Bangladesh Institute of Maritime Research and Development (BIMRAD), one of the leading maritime research institutes of the country. The seminar was held at Naval Headquarters, Banani. The Chief Guest of the seminar was Admiral Aurangzeb Chowdhury, the chief patron of the organisation and the Special Guest was Admiral Karambir Singh, Chief of Naval Staff of India. The keynote was presented at the occasion on various issues related to maritime security and maritime affairs of Bangladesh. The Chairman of the Department of International Relations of Dhaka University Prof Dr Rasheduzzaman and Rear Admiral A S M A Awal (retd) spoke on the occasion. BIMRAD Chairman, former Navy Chief Admiral Nizamuddin Ahmed (retd) thanked the visiting guests at the seminar.

Foreign military advisers visit BNS SHAHEED MOAZZAM base

A number of resident and non-resident foreign military advisers along with their family members and Bangladeshi dignitaries visited BNS SHAHEED MOAZZAM. During their visit, they enjoyed the swimming spot and boat pool as well as took part in some waterborne activities. Later, they visited Kaptai Lake, PDB Project and the Kaptai dam. A cultural show and a bar-b-cue party were arranged in the honour of the visiting delegation at the swimming spot in the evening.

Chancellor's Gold Medal

Commodore Syed Misbahuddin Ahmed stood first securing CGPA 4.00 in the final exam of 'Master in Strategies and Security Studies' held under the National Defence College of Bangladesh University of Professionals (BUP). As recognition to this extraordinary achievement, the Hon'ble President and Chancellor of BUP Md Abdul Hamid awarded him with the Chancellor's Gold Medal at the 4th convocation of BUP. The research paper of Syed Misbahuddin titled 'Delving deeper: branding Bangladesh through maritime strategy' was published in the National Defence College Journal.



Climate change conflicts: Implication for armed forces

Commodore Mohammed Nurul Absar, ndc, psc (retd)

Earth's climate is changing. Throughout the world today, we are witnessing the growing frequency of natural disasters, ranging from floods, cyclones, storms, droughts, persistent forest and bush fires to earthquake and Tsunami. All these are disrupting the known configuration of societal set-up, causing dramatic consequences for those affected, entailing the loss of property and livelihood, famine and life-threatening situations. In future, climate change will exacerbate resource scarcity, create mass population dislocations and ultimately fuel violent conflicts. Hence, the above perception rightly portrays the future challenges of climate change. The forces of nature are undoubtedly unpredictable, dangerous and devastating. They have far-reaching implications and heart-wrenching impacts. By studying the link between various climatic factors and rate of historical violence, researchers have speculated that the climate trends will experience hot temperatures, more erratic rainfall patterns and a rising sea level over the next century. These can make conflict and war more common in the future.

Why climate change matters for armed forces

While enormous energy and time have been spent on establishing the scientific basis of climate change, earlier there was less attention given to its security ramifications and how they would further impact the armed forces. So, armed forces should not wait to be sure about climate change; rather they should start preparing for the change now. In fact, there are at least two reasons why it is important to understand how climate change may have an impact on military organisations. First, military organisations are often expected to be at the forefront of security arrangement of climate change, such as humanitarian crises, large scale disasters, social unrest and even border protection, protection of maritime resources, or areas etc. Secondly, climate change is not a stand-alone environmental or ecological phenomenon. It also relates to or has significant impacts on other policy areas such as energy security, maritime security, geopolitics etc.

So, armed forces should not wait to be sure about climate change; rather they should start preparing for the change now. In fact, there are at least two reasons why it is important to understand how climate change could have an impact on military organisations.

Climate change and the consequent change in the geopolitical landscape

The notion that climate change can trigger wars and cause geopolitical instability gained popularity in military and intelligence circles in the late 2000s. For example, anticipated ice-free Arctic and thus, the chance to exploit Arctic oil fields will bring its neighbouring actors like Russia, Canada, Norway and the USA into disputes. Given that an estimated 25% of the world's undiscovered oil and gas lies under the Arctic, the U.S. military may be called upon in the area to protect commerce, ensure freedom of the seas, and monitor adherence to legal decisions over territorial claims over the Arctic seabed, thereby preventing resource-grabs by other major powers. Similarly, Europe may suffer as a result of global climate change, which would shorten its growing season and could make the EU more depended on Russian energy and agricultural exports. Meanwhile, the small Russian population might have substantial difficulty preventing China from asserting control over much of Siberia and the Russian Far East as it goes in search for energy. Climate change is going to cause a redrawing of the physical map of the planet. As such, rising sea levels will complicate maritime boundaries and escalate incidents at sea into a broader conflict.

Bangladesh - specific implications for her armed forces vulnerabilities and challenges

Bangladesh, as one of the most disaster-prone countries in the world due to climate change, is expected to experience warmer temperatures, increased precipitation (in the northern islands), decreased precipitation (in the southern islands), and changes in the seasonality of precipitation and the timing of monsoons. These phenomena could increase the risk of either droughts or flooding, depending on the location, and could also reduce biodiversity, lead to more frequent forest fires and other natural disasters, and increase diseases. It's clear that climate change poses a significant threat to Bangladesh's internal stability. Its direct and indirect effects threaten to inflame domestic tensions, especially if the negative effects reinforce social differences, whether they are ethnic or religious. Bangladesh's coastal and hilly areas, where ethnic and religious groups

are already economically disadvantaged, are perhaps the most susceptible to climate change-induced unrest. The research that was undertaken by Safe World and Bangladesh Institute of International and Strategic Studies (BISS) shows that socio-political pressures are increasing as more and more people migrate due to frequency and intensity of flooding, rising water salinity and loss of land. This, in turn, may lead to growing insecurity and instability in the regions of origin, transit and destination, as competition increases over land and water resources. In Bangladesh, this violent unrest may have an effect on the stability and internal security of the country. Additionally, environmental stresses combined with socio-economic factors will probably further weaken the state's ability to confront multiple sources of instability including extremist-terrorist threat. One must remember that any sort of destabilisation along a South Asian border is extremely dangerous because the region is nuclear armed and prone to conflict. Hence, all these will affect international security. That's why we see the interest of big powers in our part of the world.

The strategic shift in the security discourse

It is easy to equate "national security" or "global security" with military defence against rogue states and terrorism, but a leading US military expert says that this view is far too narrow and could lead to catastrophe if it is not changed. And change has to be on account of threats emanating from climate change. In future, climate change will be the threats and capabilities to change the climate will be the powers. Hence, in the security discourse, climate change is going to have definitive and most significant bearing for the nations. Given the lack of serious research on the subject and the "when it happens we will see" attitude of the military, it is doubtful if our armed forces are prepared to deal with eventualities that may arise due to climate change. Transcending the traditional interpretations of security threats, natural disasters, food security, pandemics, flood, water scarcity, resource conflict etc. are going to be the main topics of security concern. As a nation on the zero-line, we cannot afford to ignore this and continue with age-old ideas of security of focusing on conventional or traditional threats. The challenge for the

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armed forces of Bangladesh will be to come out of the classical teachings of manoeuvre, firepower, operational tempo, offense vs defence, control of seas etc. and reorient ourselves with the invading threats of natural disasters, effect of sea-level rise or flood and other unpredictability of climate change-related sufferings of our people.

Implications due to change in the geopolitical landscape

The melting of Arctic ice and consequent sea-level rise is going to bring an unprecedented change in the geopolitical landscape of the world and these are going to change the world's maritime configuration, leading to revival of a number of maritime disputes and implications for United Nations Convention on the Law of the Sea (UNCLOS). Disputes over the claim in the Exclusive Economic Zones (EEZ) and Continental Shelf will be more. Such cases will emerge in the Indian Ocean and the South China Sea. Hence, there will be a new polarisation between the navies of the world. Our armed forces will be caught between the rivalries of great nations because the grass suffers when the elephants fight. So, we need to study these developments very carefully.

Doctrine and role of the armed forces

In the aftermath of natural disasters or in the face of impending climate change, the concepts of pitched battles, out-maneuvring the enemy, fleet-in-being of the naval fleet or the overarching demand for air-superiority will become meaningless, if not useless; and there will be more demand for proactive, timely and appropriate response from the armed forces for Humanitarian Assistance and Disaster Relief (HADR), casualty evacuation, medical support, flood evacuation etc. International efforts will be there for stabilisation operations, search and rescue, disaster relief or reconstruction operations. As such, in the face of such changed realities, role and doctrines of our forces will have to be changed. Warfighting as a whole is likely to be affected by climate change and this would demand an altered perspective on certain military doctrines. For example, like other navies, we will need to revisit our strategic interests and mission types in a view of the changing geopolitics in future. At the tactical level, for

example, changing temperatures will affect hydrological conditions, affecting Submarine/ sonar operating conditions. Changing temperatures may also affect air temperatures/local weather conditions, which in turn could possibly affect radar operations, helicopter operations, communications, etc. Due to climate change, campaign timing, fire plan logistics plan etc. will have profound implications at the operational level of war.

Training, force structuring and procurement

Our forces are trained and equipped for facing the conventional and unconventional threats. Like most of the militaries, we are structured in two conventional ways. Our focus is either towards large-scale continental or naval war against a foreign aggressor or geared to maintain domestic security and stability. The former requires a large standing military with ORBAT that rely heavily on infantry brigades and strike forces (Army), frigates, submarines, destroyers and amphibious capabilities of Navy, and tactical fighters and medium to long-range bombers (Air Force). The latter structure meanwhile would generally require a large Army that relies on the use of Special Forces, and deployment of intelligence, police etc. Now the enemy is a natural disaster, or its affect or the impact of climate change, or the enemy is flood or the sea level rise. All these will require significant changes for training and force structuring. For example, more engineering, medical, signal corps will be needed for the Army. The Navy will require more amphibious capable ships, and ships with higher sea-keeping and longer endurance for HADR operations. Air Force will need more general-purpose helicopters or transport planes as opposed to conventional fighters. Due to climate change, known areas or communications zones or Lines of Communications (LOC) will change.

Conclusion

Climate change is now becoming an all-pervasive issue; and will touch the entire society and domain of civilisation's sustenance. We cannot remain naive on the issue of climate change and its implications for the armed forces. As a ground-zero nation, we need to wake up, lest we should be caught with total surprise and face the obsolescence of our forces, concepts and doctrines.

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Sustainable ocean management benefits the Blue Economy

Commander Fahmida Mohsin, (L), BN

Over the past 50 years, the world's oceans have been subject to greater human pressure than any time in recorded history. This pressure has taken a considerable toll on the resilience and productivity of the marine environment. Collapsing fisheries, vanishing habitat and global pollution are threatening the marine ecosystem as well as goods and services on which humanity depends for the future generation.

As the world's largest ecosystem, oceans are essential to the very survival of humanity. The ocean provides sustainable living condition for us. From air we breathe to the food we eat, the goods we trade and the medicine we need, the ocean is the source of our survival. The rising importance of ocean-based resources has resulted in the emergence of the term 'Blue Economy'. Once thought to be never-ending, ocean resources are showing serious signs of decline in a global scale. However, as well as passing a growing threat to coastal and island communities, oceans themselves face a growing array of threats including acidification, pollution and the degradation of biodiversity, deltas and estuaries.

Over the past 50 years, the world's oceans have been subject to greater human pressure than any time in recorded history. This pressure has taken a considerable toll on the resilience and productivity of the marine environment. Collapsing fisheries, vanishing habitat and global pollution are threatening the marine ecosystem as well as its goods and services on which humanity depends for the future generation. The rising demand for ocean resources in combination with technological advances, climate change, biodiversity and habitat loss has put ocean health at tremendous risk. Increasing atmospheric carbon dioxide (CO₂) concentrations have resulted in ocean acidification rising by 26%, and oxygen levels in the oceans decreasing as a result of ocean warming and other factors such as coastal eutrophication.

Urgent and concerted action on a global scale needs to be

ramped up to ensuring necessary progress in improving the health of oceans and ocean services to offset the rapid decline. Challenges and opportunities related to oceans highlight the inextricable link between environmental, social and economic progress, and their essential role in delivering the 2030 Agenda for Sustainable Development and the Paris Agreement on Climate Change. This includes not only goal specifically designed to preserve life below water, but also those for poverty alleviation, hunger and sustainable production and consumption. It is, therefore, crucial to develop capacity building for ocean governance.

The relation between sustainable management of the ocean and the concept of Blue Economy

The concept of Blue Economy is still at an evolving stage where there is yet to be any comprehensive definition. Gunter Pauli, in his book *The Blue Economy: 10 years, 100 innovations, 100 million jobs* brought the Blue Economy concept into prominence. He defined the Blue Economy as "improvement of human well-being and social equity, while significantly reducing environmental risks and ecological scarcities." Vijay Sakuja and Kapil Narula in their book *Perspectives on Blue Economy* defined Blue Economy as "integration of ocean economy development with the principles of social inclusion, environmental sustainability and innovative dynamic business models". Interestingly, the Blue Economy addresses both, resource scarcity and waste disposal systemically that enhance human development in a holistic manner. The ecosystem approach

helps to ensure that the physical environment, resources, and biodiversity are treated as intrinsically interconnected which underpin the concept and practice of Blue Economy.

The economic value of sea

According to the UN, the commercial value of various activities in the world's ocean is estimated to be between USD 3 trillion to USD 6 trillion and is accrued from services and resources such as marine transportation, global communication (submarine cables), sources of food (fisheries and aquaculture feed 4.3 billion people), oil and gas (over 30% is produced from offshore), marine tourism (5% of global GDP and 6 to 7% of global employment) and shore-based commercial activities (75% of megacities is in coastal area). Besides, the ocean provides pharmaceuticals and sea vegetation as food. Oceans are emerging sources of energy. Tide waves, currents and offshore wind are increasingly tapped to enhance energy security.

Impact of human activities on the marine environment

Fisheries

Humans living near the coast have probably always used the ocean as a source of food. However, with advances in fishing equipment, larger ships and new tracking technologies, many fish stocks around the world have reduced significantly. Fish stocks in continental shelf areas are now widely considered to be fully or overexploited. Again, in the developing countries coastal or shallow waters are overexploited due to the lack of sufficient deep-sea fishing gears. Aside from reducing fish stocks, unsustainable fishing practices can have other negative impacts on the marine environment.

Pollution

Our oceans have long been used as an intentional dumping ground for all sorts of waste including sewage, industrial run-off and chemicals. Some marine pollution may be accidental, for example, oil spills caused by tanker accidents. For an example, an oil spill that occurred on 9 December 2014 at the Shela River in Sundarban, Bangladesh, was an ecological catastrophe. Some may be indirect when pollutants from our communities flow out to sea via stormwater drains and rivers. Some effects may not be immediately obvious, for example, bio-accumulation - the process where levels of toxic chemicals in organisms increase as they eat each other at each successive trophic level in the food web. All marine pollution has the potential to seriously damage marine habitats and life in the sea.

Eutrophication

It is caused by the release of excess nutrients into coastal areas via streams and rivers. These nutrients come from fertilisers used in intensive farming practices on the land. Additional nutrients in the sea can lead to excessive phytoplankton growths that result in 'blooms'. When these large numbers of organisms die, the sharp increase in the decomposition of the dead organisms by oxygen-using bacteria depletes oxygen levels. In some cases, this can result in death by oxygen starvation of large numbers of other organisms such as fish. Due to the effect of eutrophication, algae blooms have created the world's largest dead zone in the Baltic Sea.

Introduced species

Introduced species in our terrestrial ecosystems have

contributed to a significant loss of biodiversity. It is not always easy to monitor or prevent the introduction of unwanted marine organisms, and visiting ships may introduce them accidentally on their hulls, in ballast water or on equipment. Not all introduced species will spread or even survive, but once established, it may be difficult or impossible to remove.

Ocean acidification

Human activities have caused the amount of CO₂ in our atmosphere to rise dramatically. This impacts on the marine environment as the world's oceans currently absorb as much as one-third of all CO₂ emissions in our atmosphere. This absorption of CO₂ causes the pH to decrease, resulting in the seawater becoming more acidic. However, a relatively recent discovery is that even small changes in water pH can have big impacts on marine biology. Thus, ocean acidification has the potential to decrease marine biodiversity on a very large scale.

Concepts for sustainable ocean management

Introduction of marine strategy framework directives

It focuses on achieving sustainable management and good environmental status of the ocean. It is an action plan mainly aiming at the economic, social and environmental valorisation of the national maritime space through the implementation of sectorial and cross-sectorial projects, as well as already existing national strategy plans or those in preparation. The EU is following this strategy since 2008.

Implementation of blue growth strategy

It is a long term strategy to support sustainable growth in the marine and maritime sectors. This strategy as a whole considers the predicted economic and population boom in the region which will pose increasing economic and social needs and also the available resources in the area. The strategy also signifies the use of emerging multidisciplinary methods towards the Blue Economy in the region. There should be some way out to avoid the development error of the twentieth century.

Introducing science to action approach

Ecuador, Fiji, and Panama over the four years exemplified how data can better inform actions in what

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we call it a science to action approach. It indicates that the collection of oceanic data through marine scientific research and other related data is a prerequisite for effective policy making.

The rationale behind the economic benefits of the ocean and coastal systems in the decision-making process

It provides a compelling case that highlights the need to mainstream the value of ocean ecosystem services for human development and economic policies at the various scale of decision making (local, regional, national and global). Finally, it provides insight into improved ways to maintain and enhance ecological qualities, environmental health and social well-being in the context of the ocean ecosystem.

Marine protected areas

It should be established that it is sufficient in size and there is spatial distribution to assure that ocean services are sustainable in the face of increasing human impacts, environmental variability and ecological uncertainty. Recent professional assessments have suggested 20% of marine areas should be designated as marine protected areas. In the Gulf of Kutch of India, 110 km² was declared as marine protected area to save the endangered wildlife.

Operationalising the ecosystem-based approach

This environmental management approach focuses on the range of benefits received from the marine system rather than on individual benefit. It integrates social and ecological concerns in ocean management, engaging multi-sectorial stakeholders, giving priority to cooperation and coordination, and adjusting changes in circumstances.

Occasional closing of seas to fishing

Occasional closing of seas to fishing may be beneficial for the rebuilding of fish biomass, increasing the quantity and increasing the resilience of fish stocks to climate change. Studies suggest that conservation of biodiversity is essential for the sustainable functioning of the entire ocean. Before doing it, an assessment must be made on how the closure of seas will impact food security for the poorest and fish dependent communities. Closing of rivers and coastal areas for fishing during the breeding period of Hilsha fish increased the growth of hilsa 8% to 10% every year.

Application of co-management fishing regime

Success application of a co-management fishing regime between the fishery community and government stakeholders effectively improves resource management. Co-management fishing regime in Saruga Bay of Japan has successfully contributed to the sustainable management of Sergestid shrimp.

Socio-economic impacts of marine litter and cost of policy inaction

Marine litter degrades the environment highly and it may cause the decline of tourism. It can also lead to loss of value in the sales of certain types of seafood and fish. The loss of marketable lobster owing to mortality caused by abandoned or lost fishing gear is estimated to lead to a global loss of USD 250 million per year.

Monitoring the effects of taxes and subsidies on sustainable ocean management

The contrast between the two fiscal instruments is so great that they could be described as ‘the minnow’ (taxes) and ‘the whale’ (subsidies). Fishing subsidies generally lead to overexploitation of ocean resources. So, it is important to distinguish between harmful subsidies and beneficial or ‘good’ subsidies that could help sustainable management of oceanic resources. Bangladesh government provided 224,000 hilsa fishermen with a three-month access to social security during the fishing ban period. It had a significant effect on the conservation of Jatka (small hilsa) fish.

Adaptation of strategy for ocean acidification

Only a small handful of studies have attempted to estimate the potential social and economic impacts of ocean acidification. It affects a range of physiological process including behaviour, growth rates and reproduction in many species. To control the ocean acidification there are win-win options that need to be exploited. In particular, any kind of action that improves marine ecosystem health, resilience or biodiversity could delay and reduce adverse effects of ocean acidification.

Tackling marine plastic pollution

Many initiatives have evolved at local, national, regional and global levels, showing that sustainable solutions for reducing marine plastic pollution needs to encompass a mix of voluntary and legally binding exercises. It needs to involve different stakeholders from the plastic and waste management sectors, tourism and fishing industries, research community, non-governmental org, local authority and national government.

Use of UN regulations for policy making

The stand-alone SDG on ocean sustainability has the possibility to give an injection to effective and integrated global governance. UNCLOS is playing a vital role in facilitating better governance for ocean research and management for a safer, more equitable, cleaner, and more prosperous ocean for all. Countries should make policies to take maximum benefit of these UN initiatives for sustainable ocean management.

Private governance in ocean management

Industry and civil society actors are becoming increasingly active in ocean governance. Private governance can potentially complement state governance, particularly where public institutions are weak. For example, sustainability certification by private organisations is observed as a market-based governance

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arrangement. This certification incorporates the setting of standards for ecological and social interactions and the auditing systems that measure compliance against these standards. Some of the institutions are Marine Stewardship Council (MSC) for fisheries, the Aquaculture Stewardship Council (ASC) for aquaculture and Blue Flag certification for beach and marine tourism. However, at the same time, private governance initiative alone cannot attain policy objectives in what is essentially an open-access or common-property resource.

Utilisation of Global Environment Facility (GEF)

As the largest financial institution with the ability and experience to confront the challenges facing shared marine and coastal ecosystem, the GEF is committed to ensuring the long term sustainability of the oceans. It has allocated a total of USD 1.14 billion in project grants. Weaker nations should utilise this facility for the management of the ocean.

Regional ocean governance

It is found very effective for the protection of the ocean environment and its biodiversity. It has been taking place through:

- Regional seas programme, many of them supported by the UN.
- Regional fishery bodies, some establish under the framework of FAO.
- Large marine ecosystem mechanism, including project supported by GEF.

Ocean literate citizen

Ocean literacy relates to more established concepts such as scientific literacy and environmental literacy. Education and communication have a key role to play in fostering our appreciation of the importance of oceans, our understanding of own responsibility in their destruction and our awareness of the relevance of their protection.

Protection of the marine environment from land-based activities

In November 1995, over 108 governments laid down their commitment to protect and preserve the marine environment from the impacts of land-based activities. The commitment was made under the auspices of the Global Program of Action (GPA). It was very successful to deal with land-based impacts upon marine environments, specifically resulting from sewage, persistent organic pollutants, radioactive substances, heavy metals, oils, nutrients, sediment mobilisation, litter, and physical alteration and destruction of habitat.

Challenges for sustainable management of ocean

Challenges for sustainable ocean management can be divided into four broad categories. These are as follows:-

- Economic efficiency, where the marginal social cost has to be equal or less than the marginal social benefit, over time and space.
- Social effects of marine management have to be acceptable and affordable by different social groups (social equity), intra and inter-generationally.
- Environmental and ecological effects of activities under consideration have to be sustainable over time and space (ecosystem resilience).
- Intergovernmental cooperation is required but the problem is complex and solutions are fragmented in the case of the ocean. To combat climate change there is one main convention but when it comes to regulating the oceans there are over 567 agreements relating to their governance. A global ocean governance framework is therefore crucial.

Conclusion

The significant contribution of oceans to the three dimensions of sustainable development (economic, social and environmental) was not given the attention it deserved. However, the inclusion of goal 14 in the SDG framework is a recognition of the vital importance of healthy oceans to sustaining life livelihoods on Earth. It is not just a coastal state or small island developing state issue - we all stand to benefit from healthy, productive and resilient oceans and seas.

Today, there is little doubt that the world faces great challenges to sustain the health of its ocean and the usage of marine resources. Adverse changes are taking place at an extraordinary rate.

One of the fundamental barriers to restoring ocean health is the lack of coherent global governance, including weak compliance and lack of enforcement. The ocean governance approach must ensure integration in key areas, such as sustainable aquaculture, fisheries reform, combating marine pollution, conserving critical habitat and species, and engaging in integrated ecosystem-based management. Through this, we can provide attractive Blue Economy opportunities while also improving sustainable management practices and governance in vulnerable coastal communities. Although we are starting to see national and regional maritime spatial planning and integrated coastal management, crucial works still lie ahead. Simultaneously, human activities on land and in the oceans are causing a rapid deterioration in the marine environment. It is crucial to address successfully the link between land and sea activities. It is important to have a system that can adapt rapid technological development and engage with the science-policy mechanism.

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Female officers play a big role for Bangladesh Navy

Commander Rokaiya Noor Popy, (E), psc, BN

From the beginning of the civilisation, females have been contributing to constructive jobs. They give birth to soldiers, bring up with utmost care and prepare them for battles. But in this era of equity, they need to prove that they can serve in every sector including military services. Females have been playing important roles in the navies of the USA or UK for a century. But the scenario in a third world country like Bangladesh is different. In 2000, Bangladesh Navy (BN) incorporated female officers for permanent commission service and as short service officers. It was a great breakthrough in the military services of Bangladesh. Enrolment of female officers in BN has already brought international recognition for Bangladesh.

History shows that females stepped in Navy as nurses. Afterwards, the role of females in direct military combat of a navy continues to generate interesting and sometimes controversial debate around the world. Initially, in all navies, females' duties were restricted to shore bases. With the passage of time, they are being deployed in ships.

Female intake in foreign navies

In 1980, first female officers of the US Navy graduated from U.S. Naval Academy. The English Royal Navy was the first of the UK's armed forces to recruit females. The Women's Royal Naval Service (WRNS) was the female branch of the Royal Navy. It was finally integrated into the regular Royal Navy in 1993. Turkish females have voluntarily taken part in the defence of their country. The Turkish Navy commissioned its first female graduates from the Naval Academy in 1957. In 1989, as the

navy expanded, Pakistan also employed female naval officers in Pakistan Navy for Short Service Commission. Indian Navy (IN) started enlisting female officers in the early 1950s. However, they were limited to the Medical Corps. In the early 1990s, the IN opened its door for females in education, logistics, law and air traffic control branch as Short Service Commissioned (SSC) officers. Sri Lanka employed female officers in Sri Lankan Navy in 1984.

Female officers in Bangladesh Navy

Like other countries, Bangladeshi females have a glorious history of serving in medical services in armed forces. They have been showing excellent performance as doctors from their early days of employment. There was a provision of Short Service Commission only for female officers. Due to the establishment of Mymensingh Girls' Cadet College in the year 1980, females were motivated for military life and started to dream about serving in Armed Forces in permanent commission service irrespective of branches or cops. Bangladesh Navy is the first organisation within the armed forces of Bangladesh that made their dreams come true. Bangladesh Navy was pioneer in enrolling female officers in armed forces in the year 2000. Later, Bangladesh Army and Air Force followed the footsteps of Bangladesh Navy. With the motto of serving their beloved country and upholding tremendous patriotism, 16 promising female officers as cadet entry and two direct entry education branch female officers joined Bangladesh Naval Academy on 12 January 2000 and made the day historical.

In Bangladesh Navy, female officers are recruited in all the Branches like Engineering, Electrical, Supply and Education other than Executive Branches. Till now, these branches have commissioned quite a good number of female officers. They are now holding important deployments in various naval bases. Also, six lady officers have been appointed onboard ships. They have successfully performed their duty onboard sea-going vessels as departmental heads. Already, 14 female officers of Bangladesh Navy have served for the UN peacekeeping missions, whereas, 4 officers are still serving under the UN as peacekeepers in different parts of the world.

Initially, female cadets, like their male counterparts, used to join BNS S R AMIN to complete Midshipman training on completion of cadet training in the Naval Academy. They used to perform all the duties including watch duties in silent hours like male midshipmen. Afterwards, a decision was made to land them to the shore establishment when the ship sailed for the sea. Sea adaptation of female officers is done phase-wise from a day trip to a prolonged stay. Recently, a good number of female officers, midshipmen and cadets have availed a long cruise for more than a month. Thus, the female officers have shown their resilience to sea and attained the quality even to lead the Executive Branch.

Time for females

In Bangladesh, females are increasingly demonstrating marks of accomplishment in all walks of life, be it politics, industries, business or civil administration. The Navy should not lag behind in providing scope for females to become proud members. Females today are being recognised as important, powerful and meaningful contributors to the national development. The situation is mature enough to take concrete steps to induct females in Navy by allowing them to exercise their rightful role in defence of their motherland. They need opportunity and training. Even though some navies have demonstrated that the integration of females really works, still the biases remain. In particular, it is still doubted whether females can match the required physical demand. However, with technological advancement physical demands should not be blown out of proportion since females, willing to be trained in combat roles, can at least meet the minimum physical requirement necessary for their duties.

Female officers of Bangladesh Navy participating in the UN mission. Seen here, briefing by BN female officers at HQ MINUSCA (Central African Republic)



Bangladesh Navy is playing the pivotal role in advancing female empowerment of the country

Designation	Number
Commander	17
Lieutenant Commander	39
Lieutenant	49
Sub Lieutenant	11
Acting Sub Lieutenant	-
Midshipman	13
Cadet	26
Sailor	112

Female serving in Bangladesh Navy

At present, a total of 154 female officers and 112 female sailors are serving Bangladesh Navy.

Conclusion

Female officers inherently possess some positive attributes. They are better communicators in keeping people informed and they always prioritise the success of the team first. They use influencing skills rather than authority and they are better team players. About the physical performance in the naval academy, female cadets are found slightly weak but they are good in academic performance. Problems and difficulties which they face initially are gradually addressed and solved but many issues are yet to be resolved like separate accommodation and training environment. Matrimony and pregnancy-related issues need to be brought under a suitable policy guideline as well.

Having said that, BN has to utilise the potentials of females. At the same time, female officers have to set their goals in order to match their steps. They have to be dedicated to the service as the way they are dedicated to their families. As pioneers, they have to uphold their dignity and create a positive impression so that females' participation in BN increases in the near future.

BN prioritises quality training

Nouporikroma Desk



Good health is necessary to achieve goals. Officer Cadets in physical activities in front of Bangladesh Naval Academy Bangabandhu Complex

Bangladesh Navy (BN) started out of scratch with only two gunboats during our glorious Liberation War in 1971. Since then, BN never looked back and continued to grow. Being a maritime nation with a large population and fast-depleting land resources, our sea dependency has increased manifold.

The Bay of Bengal (BoB), being adjacent to the Indian Ocean, becomes the rim observer of power struggle. The BoB is linking us with the Indian Ocean—a gateway to future prosperity, economic health and global connectivity. BN, being at the maritime frontier, is fulfilling the need to have a balanced Navy to undertake forthcoming challenges with ever readiness. And the naval readiness starts right from the training desk of Directorate of Naval Training because it is firm belief that training shapes the force's future.

Training philosophy

Recognising these roles and mission, BN furbish her training philosophy to train and educate her officers and men to groom leadership, warfighting competency, adapt technological changes ensuring fleet readiness and mission accomplishment, i.e. to float, move and fight.

Training objectives

Following are the broad training objectives of BN:

- To attain leadership and professional skill of expected level.
- To achieve the standard required for joint-service operations.
- To be capable of multi-national operations and exercises.
- To be able to render assistance to our civil administration in the time of need.
- Finally, enhance knowledge on global and regional issues for the diplomatic role of the Navy including participation in UN Mission.

Training strategy

To achieve the training objectives, BN adopts few strategies.

In-service training

Firstly, the strategy for in-service training is as follows:

- Recruit young people of required intellectual level and professional aptitude.
- Formulate training syllabus which can gradually develop an individual's efficiency in performing duties.



A moment of new entry sailors' regular physical activity

- c. Evaluate training to keep pace with the changing technology and operational concepts.
- d. Concentrate to develop an efficient workforce for effective manning of her ships and bases.
- e. Interact with other government organisations to develop interoperability.

Inter-service training

- a. Develop mutual understanding and interoperability with sister services.
- b. Plan and conduct various joint exercises with other services.
- c. Foster the concept of resource and concept sharing to multiply the training benefits.

Civil-military training

- a. Explore avenues for training with various government and private organisations which might prove to be useful for the Navy.
- b. Emphasis civil-military interactions through workshop, seminars etc.
- c. Provide training supports like diving, salvage, fire fighting, technical training, etc. to civil organisation as an aid to human resource skill development.

Foreign training

- a. Achieve technological knowledge.
- b. Invite foreign experts in Bangladesh to conduct equipment based training.
- c. Remain a forerunner to participate in seminars, symposiums and exercise abroad to expand our horizon of knowledge.

Training mechanism

BN visualises training as a system with three distinct but interrelated elements as shown below:-

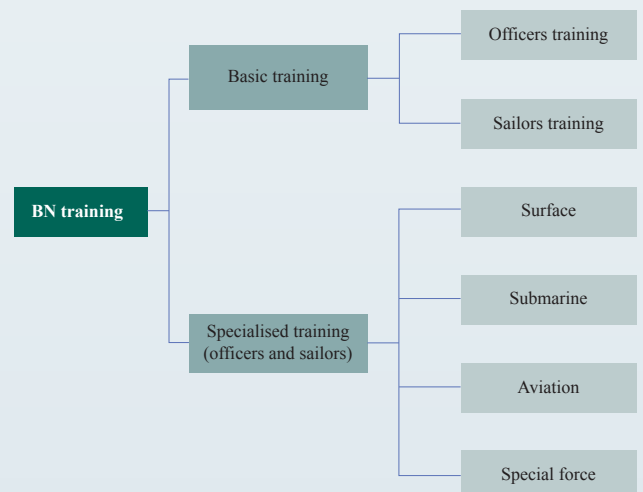
- a. Preparation of training:** During preparation, BN determines the training requirements, develops training curriculum, formulates the training policies and approves the syllabus.
- b. Conduct of training:** While conducting the training, BN utilises a combination of classroom approach, simulator facilities, practical training events, and On-job Training (OJT).
- c. Evaluation of training:** The evaluation segment measures the effectiveness of training system. In BN, Operational Sea Training Guide (OSTG) acts as the umpire.

Training organogram

Training in BN follows a well formulated organogram to fulfil all the training policies and strategies. Directorate of Naval Training (DNT) works under ACNS (P), who is a 2-star Admiral. Naval Education, Training and Doctrine Command (NATDOC) is also working under ACNS (P) in coordination with the training directorate. Other directorates forward training requirements to DNT.

Categories of training

BN training is divided into basic training and specialised training in all dimensions of naval warfare:-





Practical sea training of officer cadets of Bangladesh Navy

Branch system of officers

Branches of BN operate as a composite unit onboard ship. Different trades and Branches complement each other to conduct operations, ensure propulsion, power and logistics.

The Executive Branch: The Executive Branch is commonly employed for operational tasks like Seamanship, Navigation, Communication, Above Water Warfare, Under Water Warfare and Hydrography.

The Engineering Branch: The Engineering Branch deals with the ship's hull, structure, propulsion system machinery of the ship and shipbuilding.

The Electrical Branch: Commonly known as Weapon Electrical Branch, this branch is responsible for the power generation and its distribution in the ship, maintenance of all electrical/electronic equipment which include radio, radar, weapon systems, Electronic Warfare and armaments of the ship.

The Supply Branch: The Supply Branch is responsible for providing all logistics support, secretarial duties and supply chain management.

Education and Medical Branches: The other two Branches are Education and Medical. The officers from the Education Branch remain mostly committed to instructional duties. Doctors from Army Medical and Dental Corps are deputed in the Navy for medical services.

Basic training of

The under trainee of 4 years of training, years they take Later, 1-year is conducted onboard Keeping. In the

officers

officers of BN undergo a total out of which, in the first 3 pre-commissioning training. post-commissioning training ships as a part of Watch initial days of their

training, all officer cadets undergo 10 weeks of joint services training in Bangladesh Military Academy with Army and Air Force cadets. In the Naval Academy, they continue for another 18 months. The 4th-semester training is conducted onboard ships for 6 months. Then they are promoted to the rank of Midshipman and are allocated with respective Branches. The Executive and Supply Branch Midshipmen undergo Executive Branch Officers' Basic Course (XOBC) and Supply Branch Officers' Basic Course (SOBC) training respectively for 1-year in the Academy.

Specialised training of officers

Officers in the rank of Lt to Lt Cdr are selected for Junior Staff Course (JSC), various specialisation courses at home or abroad on the basis of their seniority, performance and requirement of the service. Officers in the rank of Lt Cdr to Cdr are selected for staff courses and various modular courses. For enhancing the conceptual skills, senior-level officers of the rank of Captain and Commodore are nominated for higher staff courses like National Defence University (NDU), National Defence College (ndc), Naval Command Course (NCC) and other higher management courses.

Branches of sailors in Bangladesh Navy

BN sailors are divided into 5 main Branches; these are Seaman, Engineering, Electrical, Supply and Medical Branch. For sailors, each branch is further divided into a number of sub-specialisations as described below:-

Seaman Branch: Above Water Warfare, Under Water Warfare, Navigation, Diving, Physical Training, Hydrography, Communication Branch, Regulating (Provost).

Engineering Branch: Mechanical Engineering and Shipwright.

Electrical Branch: Electrical, Radio Electrical and Ordnance (Ammunition).

Supply and Secretariat Branch: Writer and Store (Warehouse management).

Domestic Branch: Cook, Steward and Topass.

Medical Branch: This Branch is subdivided into various sub specialisations.

Sailors basic training

On recruitment, the sailors attend 22 weeks of basic training and get their naval orientation. After that, the new recruits are allocated with Branches according to their aptitude. Then they are sent to various schools for the basic professional training for the next 26 weeks. The technical sailors go to Engineering and Electrical School and Seamen go to Seamanship School and Supply Branch sailors to logistics school. On completion of basic professional training, the sailors irrespective of their Branch are sent onboard ships for practical application of their theoretical knowledge. To go up the ladder, a sailor has to undergo various other professional training in due course of time in respective branches.

JCO training

BN has recently inaugurated JCO's Training Institute (JTI) to impart leadership and management training to JCOs of BN. On completion of the courses, it is expected that JCOs would perform their duties with required confidence and sincerity.



New entry sailors preparing themselves with rigorous training to serve the country



Bangladesh Naval Academy conducts international standard training facilities. Here an Officer Cadet is working in the laboratory

Training facilities of BN

The shore training in Bangladesh Navy is mainly conducted in 6 (six) main establishments and a dedicated training ship:

Bangladesh Naval Academy: The function of Bangladesh Naval Academy is to train the cadets. The Junior Staff Training Institute (JSTI) under the supervision of the academy conducts the Junior Staff Course of 10 weeks duration.

BNS ISSA KHAN: BNS ISSA KHAN in Chattogram is a major training establishment of BN. In this establishment, Executive Branch officers and sailors are being trained. The base also houses various DC and FF simulators.

School of Maritime Warfare & Tactics (SMWT): SMWT is the modern training institute of BN with Action Speed Tactical Trainer (ASTT), Bridge Simulator, and Sonar Simulator etc. This gives training to BN officers and men in various warfare packages.

BNS SHAHEED MOAZZAM: All technical schools of BN are located at BNS SHAHEED MOAZZAM in Kaptai. The basic training of junior officers on technical subjects, specialisation course of Engineering and Electrical Branch officers and trade training of Seaman, Engineering and Electrical Branch sailors are conducted in this base.

BNS TITUMIR and School of Logistics and Management (SOLAM): BNS TITUMIR and SOLAM are situated in Khulna in the South-Western part of the country, which mainly run training on supply subjects as well as the boot camp training of new entry sailors.

Joint services training

Basing on the fact that future warfare is never going to be single service engagement, BN amply emphasises on joint services training and exercises. BN always explore feasibilities to send her officers and men to the sister services institutions for the training of mutual interests. This helps to foster understanding of other services intricacies and develop inter-operability.

An Officer Cadet studying in the spacious and library of Bangladesh Naval Academy



Overseas training

BN sends its officers and sailors overseas for various training to build a relationship, exchange knowledge and be at par with new technologies. At the same spirit, BN also invites foreign officers and men to undergo training at her training schools to build two-way communication.

Recent development

Recently, BN has given greater emphasis on the training and development of personnel to take full advantage of her modern fleet. BN is exercising some time-tested concepts to make out development a sustainable one.

Ensuring education vis-à-vis training: Apart from the professional training, BN encourages her personnel to pursue higher education like Masters, MPhil, PhD and BBA course at BNA. BN also encourages Technical Branch sailors to pursue various masters and diploma degrees. Bangabandhu Sheikh Mujibur Rahman Maritime University has opened up a new opportunity for higher education.

Augmenting diplomatic tool: Being blessed with the unique attributes of versatility and flexibility, the Navy has always been used as the diplomatic tool of the country. UN missions, goodwill visits, participation in multi-national exercises like Cooperation Afloat Readiness and Training (CARAT), Langkawi International Maritime and Aerospace Exhibition (LIMA) and various humanitarian calls at home and abroad come under this role.

Transfer of technology, training and concepts: Submarine and aviation capability in BN are in an infant stage. So, BN is yet to develop her own full-fledged training facilities for submarine and aviation wing. This is indeed critical and challenging. BN has taken initiative to focus on the transfer of technology, training and concepts.

Fostering Research and Development (R&D): BN shipbuilding capacity is now on the rise. BN is now planning to build frigate size ships in its own shipyards. All these demands more budget and focus in the field of R&D. So, recently BN has established Naval Training and Doctrinal Command as a full-fledged organisation to research doctrinal concepts and publications. BN has expanded Centre for Naval Research and Development (CNRD) to undertake various technical innovative research work like IFF, Drone etc. In 2018, Bangladesh Institute of Maritime Research and Development (BIMRAD) was launched as a milestone institution not only for the naval but also for the maritime development through research works.

Future outlook vis-à-vis challenges of BN training system

Quality vs quantity

Bangladesh Navy by 2041 will have a number of surface ships, submarines, MPAs, and Helicopters. Special Warfare Diving and Salvage (SWADS) is going to be a brigade-size force to conduct special operations. From the concept of buyer's Navy, BN is shifting to the concept of the builder's Navy. As such BN is in the process of striking a balance between the quality vs quantity factor.

Diversity in types of equipment

BN uses diversified equipment onboard ships, submarine and aircraft. Many of these pieces of equipment originate from different countries and manufacturers. To overcome this challenge, gradually BN is shifting to simulator-based training.

Conclusion

Land resources of Bangladesh are in a course of depletion in meeting our needs which quite necessarily demands exploration of maritime resources. These resources can open a new horizon for the future of this country. Further, with the change of geo-strategic sea-scape in the Indian Ocean, sustainable use of sea resources and maritime security have become intertwined. It can be argued that the enhancement of maritime security in the Bay of Bengal will pave the way for sustainable development. Maritime security and a deterrent navy are two sides of the same coin. Therefore, despite numerous challenges, BN is putting emphasis on making a trained force to meet the requirement of the 21st century.



The Chief of Naval Staff among the champions of the navy swimmers team in 29th national swimming competition

Bangladesh Navy won championship in the national swimming, diving and water polo

Bangladesh Navy won championship in the '29th National Swimming, Diving and Water Polo Competition 2019' organised by Bangladesh Swimming Federation and sponsored by Max Group held from 10-13 March 2019. Out of 42 events, the champion team clinched 33 gold, 19 silver and 16 bronze medals while Bangladesh Army became runner up with 9 gold, 20 silver and 17 bronze. The closing and prize giving ceremony were held at the Syed Nazrul Islam National Swimming Complex in Mirpur on 13 March 2019. President of Bangladesh Swimming Federation and Chief of Naval Staff Admiral Aurangzeb Chowdhury attended the ceremony as the Chief Guest and distributed prizes and trophies among the winners.

Khulna Naval Area won BN Hockey

'Annual Hockey Competition 2019' of Bangladesh Navy came to a close on 17 April 2019 at BNS ISSA KHAN Regional Sports Complex. On the final day, Commander BN Fleet attended the ceremony as the Chief Guest and gave away prizes among the winners. Nine teams comprising of different ships and bases competed against each other in the eight-day

tournament from 10-17 April 2019. On the final day, Commander Khulna Naval Area defeated BNS HAJI MOHSIN and became the champion.

Bangladesh Navy won Fencing title

Bangladesh Navy came out as the top scorer in the '3rd Independence Day Fencing Championship 2019' held at the Mirpur

Shaheed Suhrawardy Indoor Stadium bagging 4 gold, 3 silver and 5 bronze medals followed by Bangladesh Ansar being runner up with 4 gold, 2 silver and 4 bronze. Border Guard Bangladesh clinched 3 gold, 3 silver and 4 bronze and Bangladesh Army bagged 1 gold, 4 silver and 7 bronze. On the final day, Minister for Liberation War Affairs A K M Mozammel Haque attended the ceremony as the Chief Guest and handed over prizes among the winners.

BNS HAJI MOHSIN and Commander Khulna Naval Area team came face to face in the final match at 'Annual Hockey Competition 2019' of Bangladesh Navy





Fastest male and female are seen waving the flag of Bangladesh Navy

Bangladesh Navy Champion at 15th National Summer Athletics

On 31 August 2019, 15th National Summer Athletics was held at Bangabandhu International Stadium. Bangladesh Navy earned the distinction of becoming the Champion winning a total of 45 medals including 19 gold, 15 silver and 11 bronze. Bangladesh Army won 14 gold, 13 silver and 12 bronze and was the runner-up. Four new national records were set up there, of which three were achieved by Bangladesh Navy.

Bangladesh Naval Academy champion at ‘Inter Academy Meet 2019’

For the first time, ‘Inter Academy Meet 2019’ was held at Bangladesh Military Academy from 5-9 September 2019 attended by three academy’s best players in football, swimming and volleyball beside debaters in debate competitions. Participating in four events, Bangladesh Naval Academy was able to achieve excellence among the three academies by becoming the champion in three events and the runner-up trophy in one.

The BNA debate team was also able to showcase their unique performance in a series of successes.

Navy swimming and water polo competition

The closing ceremony and prize distribution ceremony of Bangladesh Navy’s ‘Swimming and Water Polo Competition 2019’ was held on 28 August 2019 at the swimming pool of the

Naval Headquarters. A total of nine teams of different ships and bases of Bangladesh Navy participated in the 8-day competition organised by BNS HAJI MOHSIN. On the closing day, the Commander Khulna Naval Area became Champion in swimming with 228 points and BNS HAJI MOHSIN became runner-up with 155 points. BNS ISSA KHAN (Chattogram) defeated Commander Khulna Naval Area 9-7 in Water Polo to clinch the Champion trophy.

BN Fleet Inter-Ship Tennis and Squash Competition

BN Fleet Inter-Ship Tennis and Squash Competition was held from 22-26 September 2019 at the BNS ISSA KHAN Tennis Ground. BN Fleet’s ships were divided into six teams.

In the final round of the competition, Commander Ashraf Mahmood Riyad, (TAS), BN (Foxyer) became the Champion by defeating Commander K M Nazmul Islam, (E), BN (Sea Wolf) team in singles. On the other hand, in doubles, Commander A F M Ahsan, (C), BN and Commander K M Nazmul Islam, (E), BN (Sea Wolf) team became Champion by defeating Commander Ashraf Mahmood Riyad, (TAS), BN and Sub Lt Yasin, (X), BN (Foxyer) team.

In the squash competition, acting Sub Lt Imran, (X), BNVR (Sea Daddy) team became champion by defeating Lt Mostafiz, (L), BN (Sea Dragon) team.

The Chief Guest handed over prizes among the winners of BN Fleet Inter-Ship Tennis and Squash Competition



Contributions and sacrifices of BN in UN peacekeeping missions

Nouporikroma Desk

According to the recommendations of strategic review conducted in January 2017, the ships have been replaced by one Corvette (BNS BIJOY) only with total crew ceiling of 110. At present BNS BIJOY is operating in the Mediterranean sea successfully. Such deployment to a great distance in the Mediterranean Sea away from the home port is a true manifestation of BN operational and sustenance capability under the UN mandate.

Bangladesh is well-known to the world for her commitment and contributions to the global pursuit of peace and stability since her birth. During her creation, the country's obligation in upholding peace was enshrined within the constitution with the foreign policy dictum "Friendship to all, malice to none." The Father of the Nation Bangabandhu Sheikh Mujibur Rahman in his inaugural speech at the United Nations General Assembly also pronounced this pledge back in September 1974. Thenceforth, her commitment to peace has not remained limited within the confines of proclamations and documentations, rather Bangladesh has gone to the extent of sparing her meagre resources and troops for the cause of peace under UN mandate within only 22 years after the emergence, thus realising her pledge.

Bangladesh Navy (BN) on its quest to establish world peace has already made significant contribution under the auspices of blue helmet and widely recognised as an iconic entity in the peacekeeping reign. Bangladesh Navy personnel have been participating in UN peacekeeping mission since 1993. So far, 5,775 officers and sailors have participated in 30 UN peacekeeping missions with utmost sincerity and devotion.

A boat section of Bangladesh Navy was deployed with Army contingent in United Nations Iraq-Kuwait Observation Mission (UNIKOM) post Gulf-War-1 in 1997 to patrol in the waterways demarcating the Iraq-Kuwaiti border as a part of demilitarized zone (DMZ) enforcement. Following that footstep, Bangladesh Navy deployed the first independent Force Riverine Unit (FRU) in UN mission in Sudan (UNMIS) in 2005 which continued till 2012. In 2005, Bangladesh Navy also deployed a Boat Detachment Unit in Ivory Coast (ONUCI) and operated for 11 years in the Lagoons

of Abidjan. One Bangladesh Riverine Unit (BANRU) was deployed in MINUSMA (MALI) with 133 personnel, 08 x High speed boat and 01 x LCT for two years since 2014. The BANRU was repatriated from Mali on 15 December 2015. All these deployments terminated with the establishment of peace and successful completion of the UN mandate.

Aspired by the tremendous commitment of Hon'ble Prime Minister, two BN ships were deployed in Maritime Task Force (MTF) of UN Interim Force in Lebanon (UNIFIL) with total crew ceiling of 320 in 2010. According to the recommendations of strategic review conducted in January 2017, the ships have been replaced by one Corvette (BNS BIJOY) only with total crew ceiling of 110. At present BNS BIJOY is operating in the Mediterranean sea successfully. Such deployment to a great distance in the Mediterranean Sea away from the home port is a true manifestation of BN operational and sustenance capability under the UN mandate. Since





An exercise on a BN ship in Lebanon

June 2015, a Force Marine Unit (FMU) from BN has been deployed in UN Mission in South Sudan (UNMISS). According to the Statement of Unit Requirement (SUR), the unit is providing armed escort to UN supply barges by deploying Autonomous Vessel Protection Detachment (AVPD) onboard the barges/pushers.

Since 2009, BN started deploying competent female officers as Staff Officer (SO)/Contingent Member. A total of 18 female officers have so far participated in various UN Missions and 5 female officers are presently deployed in UN mission (Central African Republic -2, D R Congo -1, Western Sahara -1 and Mali -1. This year BN has deployed first ever female observer (Instr Lt Cdr Shanjida Hosssain, (C), BN) in MINUSMA (Mali). BN is always maintaining the ratio of deploying minimum 15% female officers of total UNMO/SO deployment. Considering the role of women in promoting peace and security of mission areas, BN will also continue to deploy more female officers and sailors in UN Mission in days to come.

Beside these maritime units and riverine contingents, BN has been deploying its personnel as Military Observer, Military Liaison Officer and Staff Officer in UN Missions including DPO since 1993. The military observers are performing their tasks in various team sites and Staff Officers are employed in UN Headquarters, Force Headquarters and Sector Headquarters. Presently, 27 UNMOs and SOs are deployed in seven different missions.

Activities of Bangladesh Navy ships and contingents in UN mission area

UNIFIL-Lebanon

The first ever Multinational Maritime Task Force (MTF) under United Nation Interim Force in Lebanon (UNIFIL) was formed in 2010 to enforce UNSCR 1701 and 1884. Bangladesh Navy Ship (BNS) OSMAN (FFG) and MADHUMATI (OPV) joined the UNIFIL, MTF in May 2010 along with Brazil, Germany, Turkey, Greece and Indonesia. After successful completion of four years tour of duty both the ships were replaced by two new platforms i.e. BNS ALI HAIDER (FFG) and BNS

NIRMUL (OPV) in June 2014 with multidimensional and advanced capability. According to the recommendations of strategic review conducted in January 2017, these BN ships have been replaced by one Corvette (BNS BIJOY) only with total crew ceiling of 110. At present BNS BIJOY is operating in the Mediterranean Sea successfully. BN is proud to be a member of elite maritime task force of UN. Major tasks of BN ships in UNIFIL, MTF are:

- a. Conducting surveillance and patrolling in the Area of Maritime Operation (AMO).
- b. Conducting Maritime Interdiction Operations (MIO) in the Area of Maritime Operation (AMO).
- c. Contribute to UNIFIL, AIR Surveillance.
- d. Contribute to UNIFIL Intelligence, Surveillance, Reconnaissance (ISR).
- e. Training of Lebanese Navy personnel.
- f. Detect, locate, hail, positively identify and classify any vessel inside AMO.
- g. Deter, escort and/or handover all suspicious vessels to Lebanese authorities.
- h. Conduct inspection boarding at sea onboard suspicious vessels.
- i. Exercise self-defence/area defence against all possible threats.
- j. Provide force protection as required.

Bangladesh Force Marine Unit (BANFMU) in South Sudan (UNMISS)

Peacekeeping Operations have been going on under the banner of United Nations Mission in South Sudan (UNMISS) to establish peace among the belligerent ethnics in South Sudan under Security Council Resolution 2155 (2014). For enhancing the peace process in general and protecting the barge carrying UN supplies and humanitarian assistance through White Nile River in particular, the United Nations has included Bangladesh Force Marine Unit (BANFMU) in the beginning of 2015. BANFMU consisting of 200 personnel including 12 x

Beside maritime units and riverine contingents, BN has been deploying its personnel as Military Observer, Military Liaison Officer and Staff Officer in UN Missions including DPO since 1993. The military observers are performing their tasks in various team sites and Staff Officers are employed in UN Headquarters, Force Headquarters and Sector Headquarters.

Bangladesh, in her quest to establish world peace and stability, has already made enormous contributions under the auspices of blue helmet. For the last several years Bangladesh retained her position within the top 5 of highest troops contributing countries.



Two female officers of the Bangladesh Navy in UN peacekeeping mission

High Speed Boat as LPC (6 x RHIB, 6 x DCB) fitted with heavy and light machine guns and other major and self-sustainment equipment. Presently, BANFMU-5 is operating from Juba and Malakal of UNMISS (South Sudan). Bangladesh Navy is very proud to be a member of this multi-dimensional force of UN. In this mission, BANFMU is tasked with:

- a. Provide armed escort to UN barges in order to secure movement of UN supplies, equipment and personnel.
- b. Collect and report any intelligence.
- c. Conduct medical evacuation for the assigned Protection Teams.
- d. Protecting designated ports and riverine infrastructure.
- e. Provide fire support to ground forces.
- f. Conduct Search and Rescue operations (SAR).
- g. Riverine Patrol (RP) operations.

Boat patrolling of Bangladesh Navy in Malakal, South Sudan



Sacrifices of BN in UN peacekeeping mission

Many members of Bangladesh Armed Forces have laid their lives for the cause of peace while upholding the UN mandate. To carry out the challenging and dangerous activities under distress four of Bangladesh Navy personnel have sacrificed their lives as mentioned below:

- Ex O No 890192, M Nurul Islam, LS (CD) of Bangladesh Navy was Killed in Action (KIA) by the local militia in ENGOKI on 25 February 2005, while he was performing the patrol duty with BANBAT-2 deployed in MONUSCO (D R Congo). Recognising his supreme sacrifice, UN awarded him with DAG HAMMARSKJOLD Medal and USD 50,000 for his family.
- Ex Personal Number 5095 Anowarul Islam Khan expired on 14 April 2013 onboard Bangladesh Navy Ship OSMAN in UNIFIL (Lebanon) due to cardiac arrest. Recognising his supreme sacrifice, UN awarded him with DAG HAMMARSKJOLD Medal.
- Ex Official Number 930479 M Jahangir Alam, Leading Seaman (LS) expired on 31 October 2014 in MINUSMA (Mali) also due to cardiac arrest. Recognising his supreme sacrifice, UN awarded him with DAG HAMMARSKJOLD Medal.
- Ex Personal Number 1820 Ex Instr Lt Cdr M Ashraf Siddiqui was deployed in UN Mission in South Sudan (UNMISS) as Military Liaison Officer (MLO) on 20 May 2018. He was Killed in Action (KIA) by gunshot fired by unknown armed group during an armed attack on an UNMISS Convoy near Yei City in South Sudan on 26 June 2018 while performing his duties. Recognising his supreme sacrifice, UN awarded him with DAG HAMMARSKJOLD Medal.

Bangladesh, in her quest to establish world peace and stability, has already made enormous contributions under the auspices of blue helmet. For the last several years Bangladesh retained her position within the top 5 of highest troops contributing countries. Today, Bangladesh is widely recognised as a brand name in the realm of peacekeeping.



The Chief of Naval Staff and BNFVA president attended the cultural event organised on the occasion of the 43rd anniversary of Bangladesh Navy Family Welfare Association (BNFVA)

43rd anniversary celebration

To commemorate the 43rd anniversary of Bangladesh Navy Family Welfare Association (BNFVA) at BNS SHEIKH MUJIB Bellman hanger, a cultural programme was organised on 12 March 2019. BNFVA President Professor Dr Afroza Aurangzeb was the Chief Guest on the occasion. In addition, the former Presidents of BNFVA, the ex-Chairmen of BNFVA Dhaka Branch, hon'ble members of BNFVA central committee, members of BN Ladies Club Dhaka as well as the members of the central executive committee were present during the occasion.

Bangla Nobo Borsho (New Year) celebration

To celebrate the Bangla Nobo Borsho (New Year) 1426 Pahela Boishakh, a cultural programme was held at BNS SHEIKH MUJIB Bellman hanger. BN Ladies Club Dhaka Branch organised the programme where the Chief of Naval Staff Admiral Aurangzeb Chowdhury graced the occasion as the Chief Guest and BNFVA President as well as the Chief Patron of BN Ladies Club Professor Dr Afroza Aurangzeb was the Special Guest.

The students of Nou Paribar Shishu Niketan Dhaka School and BN College Dhaka organised a pleasant cultural programme and a Baishakhi Fair in the Sailors' Colony ground under the management of BNFVA Dhaka Branch. All officers and sailors including civilian staff were present during the occasion. On the other hand, BNFVA, Chattogram and Khulna Branch also celebrated the Bangla Nobo Borsho 1426 Pahela Boishakh, with cultural programme and Boishakhi Fair.

Reception ceremony of the President and Chief Patron of Ladies Club

A reception ceremony with a cultural programme was organised on 8 February 2019 in honour of Professor Dr Afroza Aurangzeb, President of BNFVA and Chief Patron of Ladies Club, the Chief of Naval Staff Admiral Aurangzeb Chowdhury.

On the occasion of the reception ceremony, officers, hon'ble members of BNFVA central committee, members of BNFVA Dhaka, members of BN Ladies Club Dhaka, Coast Guard Family Welfare Association (CGFWA) central committee members and officers of Dhaka Naval Area were present.

President of BNFVA and the Chief Patron of BN Ladies Club Professor Dr Afroza Aurangzeb graced the indoor sports competition as the Chief Guest



Indoor games competition at BN Ladies Club Dhaka

The closing of the indoor sports competition and award giving ceremony were held on 2 May 2019 by the management of BN Ladies Club Dhaka Branch at Sagarika Hall of Naval Headquarters. President of BNFVA and the Chief Patron of BN Ladies Club Professor Dr Afroza Aurangzeb was present as the Chief Guest. The Chairman of BN Ladies Club Dhaka Branch, members of the Executive Committee and officers' wives of Dhaka Naval Area were present on the occasion. Later, the Chief Guest awarded prizes among the winners and participants of the competition.



BNFWA president Professor Dr Afroza Aurangzeb inaugurated the Vitamin A Plus campaign under the management of BNFVA Dhaka Branch

Vitamin A Plus campaign in Naval Areas

Vitamin A Plus campaign was held in Dhaka, Chattogram, Khulna Naval Areas for the physical and mental health development of the children. Under the management of BNFVA, the children of the naval officers and personnel of Dhaka, Chattogram, Khulna and Kaptai were given vitamin A Plus capsules. On 22 June 2019, National Vitamin A Plus Campaign was held at the CWC&MC of Dhaka Sailors' Colony and Naval Headquarters MI room. President of BNFVA Professor Dr Afroza Aurangzeb graced the occasion as Chief Guest. Ranging between six months to five years of age, a total of 1,516 children were given vitamin A Plus capsules. On the same day, children were given vitamin A Plus capsules in BNS UPASHAM, Sailors' Colony Khulna, BNS SHAHEED MOAZZAM CWC, BNS PATENGA, Khulna CWC, Mongla and Mongla Annex.

International Women's Day celebration

On 8 March 2019, BN Ladies Club Dhaka Branch organised a seminar at Sagarika Hall on the occasion of International Women's Day. Chairman of BN Ladies Club Dhaka Branch Begum Rehana Akhter was the Chief Guest at the seminar while the wives of Dhaka Naval Area officers were present there. The success and well-being of the working women of the Navy family were discussed during the occasion.

BN Ladies Club Chattogram and Khulna also organised a discussion programme in observance of the International Women's Day. Officers' wives of Chattogram Naval Area were present on the occasion. An award giving ceremony for indoor games was held on the same day and it was organised by BN Ladies Club Chattogram.

Visit of President of BNFVA to Chattogram and Khulna Naval Areas

Professor Dr Afroza Aurangzeb, the President of BNFVA visited the Chattogram and Khulna Naval Areas at her helmsmanship. On that occasion, she exchanged views and held courtesy meetings with the members of BNFVA and Ladies Club of Chattogram and Khulna Naval Areas. She also visited Nou Paribar Shishu Niketon, Ashar Alo Chattogram, BN schools and colleges as well as Navy Anchorage schools and colleges of Chattogram and Khulna Naval Areas. During her visits, cultural programmes were organised in her honour.

Indoor games and Spring Festival in Chattogram

Indoor games competition and Spring Festival were organised by BN Ladies Club Chattogram

BN Ladies Club Chattogram Branch arranged an 'Indoor Games Competition and Spring Festival' where Begum Laila Farzana, Chairman of BNFVA Chattogram Branch graced the occasion as the Chief Guest



Branch on 20 February 2019. A total of 70 contestants participated in seven events including Ludu (single and double), Carrom (single and double), Badminton (single and double) and Chess. BNFVA Chattogram Branch Chairman Begum Laila Farzana distributed prizes among the winners as the Chief Guest.

National plantation campaign 2019

As part of the 'National Plantation campaign 2019', a plantation programme was organised by BNFVA Dhaka Branch on 22 June 2019 at Nou Paribar Shishu Niketan Dhaka School premises. As the Chief Guest, the President of BNFVA Professor Dr Afroza Aurangzeb planted a sapling in the school premises. Begum Monira Raushan Iqbal, Chairman of BNFVA Dhaka Branch, members of the Executive Committee and school students were present during the occasion. In addition, a similar programme was organised on 24 June 2019 by BNFVA Chattogram and Khulna Branch.

Children's health competition and indoor games in Khulna

BNFWA Khulna organised 'Children's Health Competition 2019' on 28 February 2019 where mothers of Khulna Naval Area participated in 3 different groups. Medical officers of BNS UPASHAM and members of the Executive Committee of BNFVA Khulna Branch were also present during the health competition. In addition, the prize distribution of 'Annual Indoor Games Competition 2019' was held under the management of BNFVA Khulna Branch on 7 March 2019. As the Chief Guest, Chairman of BNFVA Khulna Branch Mehzebabin Haque distributed prizes among the winners.



BNFWA Khulna Branch Chairman Mehzabin Haque is seen at 'Children's Health Competition-2019'

BNFWA Chattogram initiates culinary workshop

Considering healthy and tasty food habit for the members of the Navy, several culinary workshops were organised by the Bangladesh Navy Family Welfare Association, Chattogram Branch on 18 July, 5 August and 11 September 2019. In order to learn how to cook healthy and tasty foods, sailors' wives of Chattogram Naval Area participated in that event.

Training for teachers on students with special needs

A training workshop on 'Learning Disability of Intellectual Disability and Autism, Behaviour and Class Management Programme with Autism' was held in the conference room of Ashar Alo School on 18 January 2019. The workshop was organised by BNFWA Chattogram Branch. At the workshop, Aowana Marzia, Senior Lecturer at Proyash Institute of Special Education and Research and a faculty member of Bangladesh University of Professionals (BUP) facilitated training for the teachers and educators of Ashar Alo School.

Prize distribution for child health contests, sewing certificates and indoor sports

Prize distribution for child health contests, sewing certificates and indoor sports were held on 7 July 2019 at the Shaheed Moazzam Hall of the Dhaka Sailor Colony organised by the BNFWA Dhaka Branch. The President of BNFWA Professor Dr Afroza Aurangzeb awarded prizes and certificates among the winners.

Discussion on the benefits of yoga

On 23 September 2019, BN Ladies Club Dhaka organised a seminar on the benefits of yoga.

Besides, a prize awarding ceremony of the swimming and badminton competition with the members of BN Children's Club Dhaka was held. Professor Dr Afroza Aurangzeb, President of the BNFWA and the Chief Patron of the BN Ladies Club was present as the Chief Guest. In addition, Chairman of BN Ladies Club Dhaka Branch, members of the Executive Committee, wives of all officers working in the Dhaka Area and members of the Children's Club Dhaka were present on the occasion.

Indoor and outdoor games in Kaptai

With the initiative of BNFWA Kaptai Branch, an indoor and outdoor games competition was held for sailors' wives on 12 January 2019. Deputy Chairman of BNWFA Kaptai Branch Begum Farhana Zia attended the programme as the Chief Guest. All members of the Executive Council of BNFWA Kaptai Branch were also present at the sports event. On the same day,

Deputy Chairman of BNFWA inaugurated indoor-outdoor games at BNFWA Kaptai Branch



'Indoor and Outdoor Games 2019' was organised for the officers' wives by BN Ladies Club Kaptai. Chairman of the club Begum Farhana Zia attended the event as the Chief Guest. All Executive Council members of the club were also present.

World Autism Day observed

World Autism Day was observed on 2 April 2019 in Ashar Alo School run by BNFWA Chattogram Branch. A rally was organised to commemorate the day. Students and teachers with special needs of Ashar Alo School participated in the rally. Afterwards, students participated in a painting competition organised by Chattogram Shilpakala Academy.

Visits to Ashar Alo School

On 7 October 2019, Japanese naval officers and sailors paid a visit to the Ashar Alo School run by the Bangladesh Navy Family Welfare Association of Chattogram Branch. The Principal of the Ashar Alo School was present while the team checked out different classrooms of Ashar Alo School. During the visit, the class teachers informed them about different activities of its learners.

A delegation of US Navy led by Rear Admiral Murray Joe Taunch visited Ashar Alo School and its different classrooms on 5 November 2019. They were briefed on different activities of the students. During their visit, Begum Laila Farzana, Chairman of BNFWA Chattogram Branch, General Secretary, Treasurer, Acting Officer and Principal of Ashar Alo School were present. Later, in honour to the visiting team, a pleasant cultural event presented by the students with special needs was held at the conference room of Ashar Alo School.



Nouporikroma English Edition

An annual publication of
Bangladesh Navy