Electronic Journal of Social and Strategic Studies
Date of publication: 15 August 2020
https://doi.org/10.47362/EJSSS.2020.1103

Volume 1 Issue 1
Aug-Sept2020

Bangladesh Playing Chinese checkers with India

Gp Capt AV Chandrasekaran (Retd)*

Abstract

India and Bangladesh has been maintaining amicable relations ever since the birth of Bangladesh in 1971. Despite differing border issues both the countries have never been overtly hostile to each other. However when India Bangladesh relations was at its best, Bangladesh sprung a surprise in 2016 by purchasing two submarines from China which in India's view was an offensive weapon and was not required as the boundary issues with both India and Myanmar was settled amicably as per the directions of the International court of Law. When India flagged its apprehensions to Bangladesh it was assured that the submarines were merely for training only. In 2017 Bangladesh went a step ahead and gave the contract to a Chinese state owned firm to construct a submarine base in Pekua North of Cox Bazaar much to the discomfort of the Indian strategic community. Indian apprehensions were brushed aside and the fact that Bangladesh was drifting towards China emerged clearer. In order to maintain the strategic balance in the Bay of Bengal region Indians have to adopt sound measures to enhance its maritime capabilities with special emphasis to anti-submarine warfare capabilities. The anti-submarine warfare mechanism is an expensive proposition and with the prevailing economic condition due to the hardships caused by the corona virus, India may find it difficult to spend a huge sum on the equipment's required for anti-submarine warfare. A cost effective method using unmanned systems has been proposed to ensure that India's coastal security is not compromised.

Keywords: Bangladesh, India, geopolitics, South Asia, ASW Warfare, maritime disputes, Bay of Bengal, China-Bangladesh Relations

*Group Captain AV Chandrasekaran (Retd) is an Independent Security Analyst, based at Chennai, India.

Electronic Journal of Social and Strategic Studies
Date of publication: 15 August 2020
https://doi.org/10.47362/EJSSS.2020.1103

Bangladesh Playing Chinese checkers with India

Background

The recent move of Bangladesh to construct a new submarine base in Pekua located in the north of cox bazaar (Fig 1) with Chinese assistance has set alarm bells ringing in India. India sees the presence of Chinese naval and technical personnel in the vicinity of India in the Bay of Bengal a potential threat to its security. Despite India's reservations Bangladesh went ahead and offered the contract to China. Are these indicators of a change in the Indo-Bangladesh relations, or is Bangladesh playing the giants against each other and reaping benefits?

Fig 1: Location of Pekua

SOURCE: https://www.thebangladesh.net/chittagong-division/coxs-bazar-district/chakaria-upazila-coxs-bazar.html, Accessed on –30-05-2020

Observers like Sadiq Ahmad find that Bangladesh's 'Look East' policy was essentially planned and designed to lessen its dependence on India and pioneer new avenues of cooperation with China and South-East Asia. However, in the process of ensuring this, Bangladesh's dependence on China has gradually increased manifold, thereby giving Beijing

greater leverage in bilateral ties (Ahmad, 2014). This has also manifested in China luring Bangladesh to do its bidding including major foreign policies. Reports such as by CSIS find China is Bangladesh's top source and favourite destination for arms imports; and Dhaka likewise is China's second-largest arms export destination in the world, behind Pakistan (CSIS, 2020). The primary cause for Bangladesh opting for Chinese arms are lucrative financial arrangements and lower cost of arms and in addition Bangladesh does not have the financial viability to opt for more superior arms from the western markets as they are expensive. CSIS report also observed that Bangladesh accounts for 20 percent of all Chinese arms sales world over. Between 2008 and 2018, China exported $15 billion worth of conventional weapons across the globe, making it the 5th largest arms supplier in the world – behind the United States, Russia, Germany, and France (CSIS, 2020). In yet another report, Anu Anwar found that Beijing till date has provided Dhaka with 5 maritime patrol vessels, 2 submarines, 16 fighter jets, and 44 tanks, as well as anti-ship and surface-to-air missiles. Most recently, in 2017 the Bangladesh Navy took delivery of 2 Chinese submarines at a minimum price which was the bone of contention between India and Bangladesh (Anwar, 2019).

In the ambit of Bangladeshi geopolitics, India has always been primary, and on expected lines the United States has had and exercised influence. China, even though a regional power, used to be on the periphery. India and Bangladesh have more cultural and societal links historically. Together Bangladesh, India, and Pakistan, are known as a subcontinent in view of this cultural connect.

China has woven a web of partnerships and coalitions with the states in the region in view of its strategic importance. Even though these relationships on the surface appear to be benign to promote economic cooperation they apparently contain long term goals supporting Chinas economic, political and strategic ambitions. In China's design Bangladesh apparently plays a pivotal role since it overlooks the strategically important sea lanes that links China with the Persian Gulf. A strategic partnership with Dhaka actually benefits China in securing its energy supplies over the oceans.

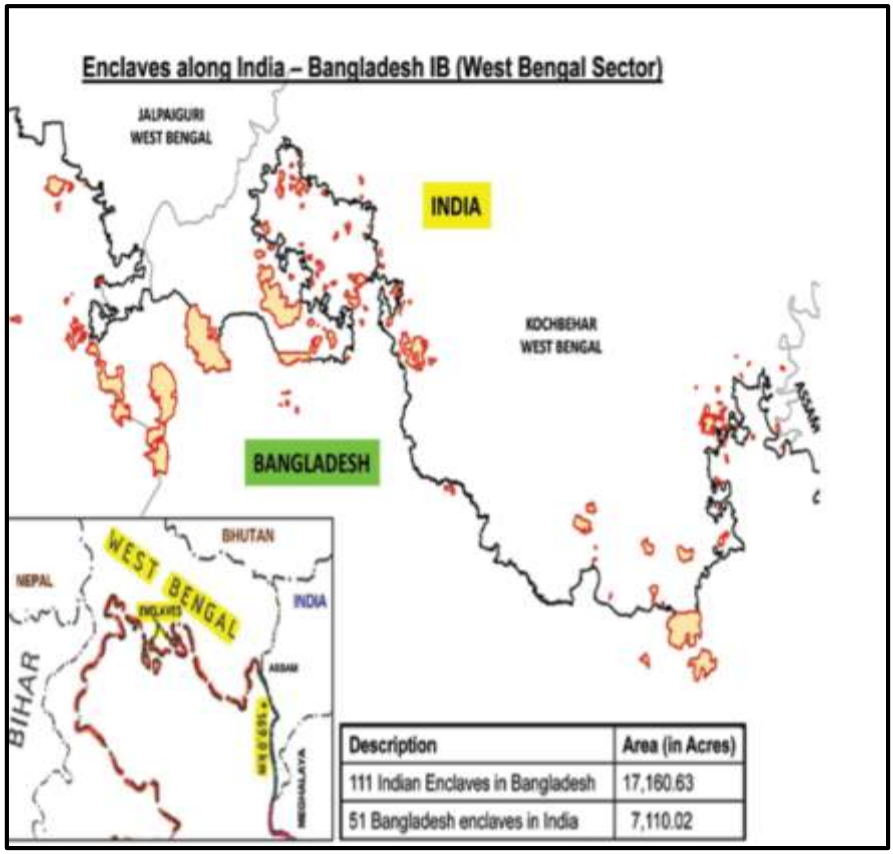
The number of countries world over operating submarines are just about forty, as they are considered an offensive weapon of sea denial and is the single most powerful piece of military hardware ever devised. The primary role of a submarine would be to remain invisible to prying eyes, venture where no ship can go, and if considered necessary strike without warning. It has the capability to apply pressure without being overt. By merely dropping hints about the

submarine operating in a specific area can increase the pressure on an adversary whether the submarine has actually been deployed or not. This stealth capability allows the submarine to pose a massive amount of uncertainty into the mind of an enemy forcing him to waste resources trying to track it down.

A Times of India report in November 2016 about Bangladesh's decision to buy two refurbished Ming class submarines from China at a cost of USD 203 Million raised eyebrows in the Indian strategic fraternity (TOI, 2016). Bangladesh shares a maritime border with only two countries, India and Myanmar. The fact that Bangladesh lies surrounded on three sides by India with whom it has no border disputes, made one wonder the decision of the country opting to enhance subsurface capabilities.

India and Bangladesh have had a running dispute over the land borders and this has been a major thorn in their bi-lateral relations. Nikita Nayar in an analysis observed, 'These were pockets of land embedded entirely in the foreign territory of its neighbour complicating the state's administrative control over the enclave and its residents, who in turn, were essentially ungoverned and disconnected from their respective home states for well over seventy years' (Nayar, 2020). It was this time both the countries decided to take up the matter with the tribunal. 'Bangladesh then moved to UN's International Tribunal for the Law of the Sea (ITLOS) in 2009. The issue went to the Permanent Court of Arbitration (PCA) at The Hague later in May 2011. The conflict was largely over delimitation of the territorial sea. While India wanted the determination of the boundary on 'equidistance' method which means a nation's maritime boundaries should conform to a median line equidistant from the shores of neighbouring nation-states, Bangladesh was pressing for equitable solution (a solution that led to equitable access to resources) to be reached by keeping in focus all relevant circumstances' (Manocha, 2015). The picture below (Fig 2) shows the clusters on both sides of the border.

Fig 2: India-Bangladesh Cross Border Enclaves

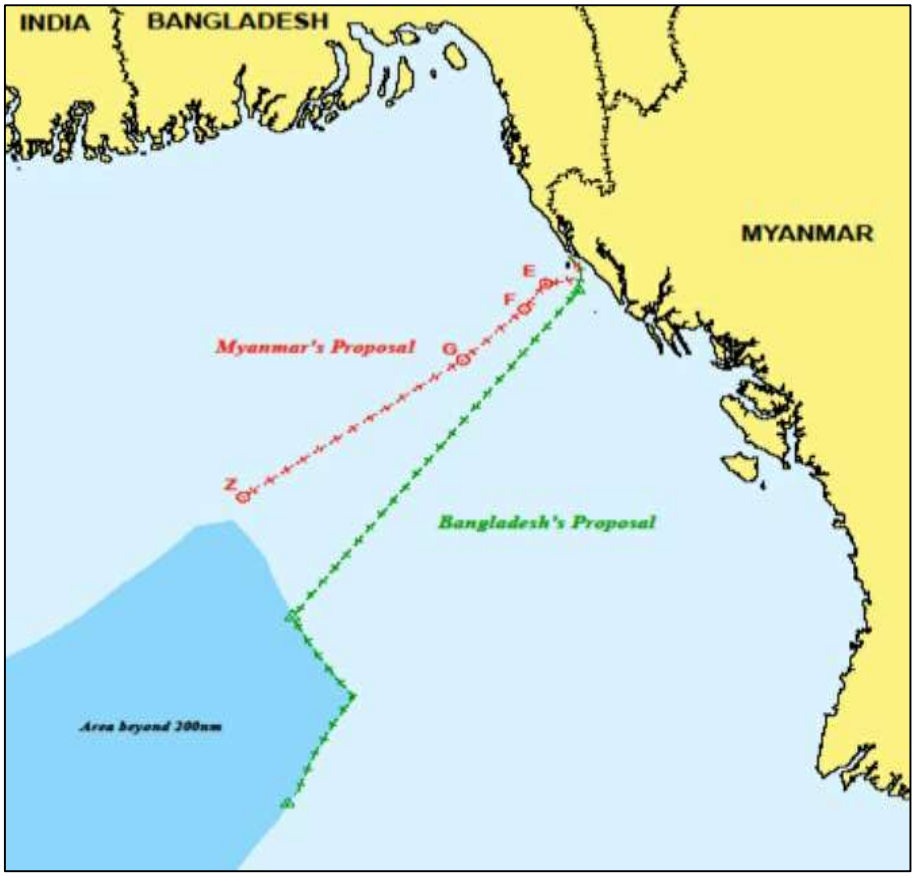


SOURCE: https://www.brookings.edu/blog/up-front/2020/05/12/sambandh-blog-india-and-bangladesh-exchanging-border-enclaves-re-connecting-with-new-citizens/, Accessed on – 29-05-2020

The verdict on the dispute regarding the delimitation of the maritime boundary between India and Bangladesh was delivered in 2014, with a United Nations tribunal awarding Bangladesh 19,467 sq. km of the 25,602 sq. km sea area of the Bay of Bengal (Habib, 2014).

India accepted the verdict and the transfer between both the countries was conducted incident free. On similar lines there was a maritime boundary dispute between Myanmar and Bangladesh. The claims by both the countries are shown below (Fig 3) and both sides were pretty adamant about their respective positions on the ownership. Myanmar and Bangladesh made competing claims to a section of ocean and seabed extending southwest in a widening sliver from the seaward terminus of their land border. Both countries mobilized their respective naval forces in the disputed area and the conflict narrowly escaped escalation. The picture below portrays both the countries claim line.

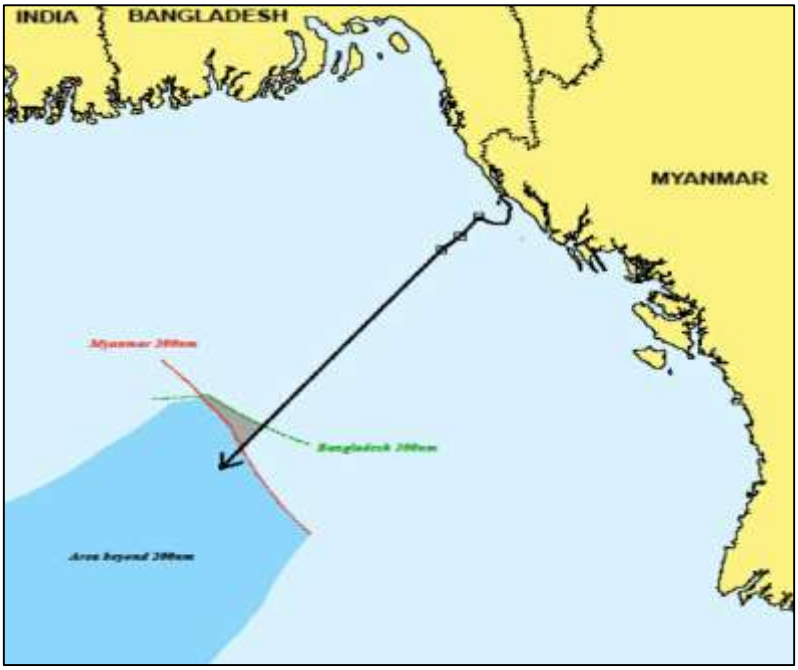
Fig 3: Myanmar-Bangladesh Maritime Boundary Claims



SOURCE: https://amti.csis.org/the-bangladeshmyanmar-maritime-dispute-lessons-for-peaceful-resolution/, Accessed on –30-05-2020

The matter was brought before the ITLOS (International Tribunal for the Law of the Seas) which had never ruled on a maritime dispute and probably it was this neutrality that made both the countries seek decision from the body. The tribunal chose, quite literally, a middle path and delivered its verdict in 2012. The ruling was noteworthy in part for the court's decision that it had jurisdiction to decide not only competing claims to waters but also the continental shelf, and for the creation of a "grey area" that is on Bangladesh's side of the boundary line drawn by the court but within the potential 200-nautical-mile EEZ of Myanmar (Watson, n.d.). In this grey area, Bangladesh controls the seabed but Myanmar the superjacent waters. The verdict was received with warmth by both the countries and has been implemented. The picture (Fig 4) depicts the verdict of the court.

Fig 4: Myanmar-Bangladesh ITLOS Settlement



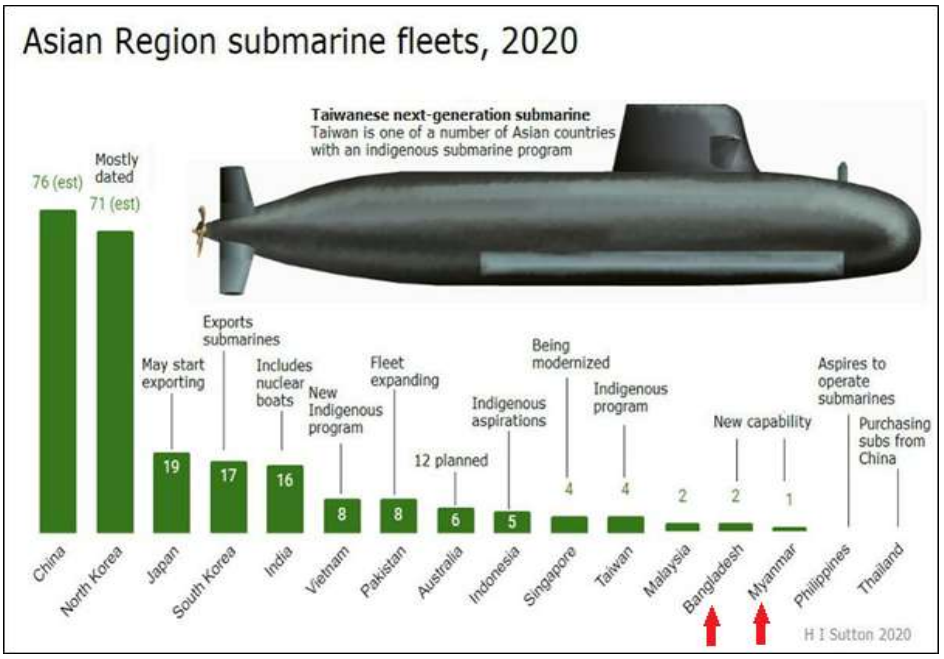
SOURCE: https://amti.csis.org/the-bangladeshmyanmar-maritime-dispute-lessons-for-peaceful-resolution/, Accessed on –30-05-2020

It is with this background that Bangladesh did not have any running maritime disputes either with India or with Myanmar which fuel speculations that a larger plot was in play as the necessity for a submarine is always considered as an escalatory mechanism. Bangladesh officially took delivery of both the submarines from China in 2016 and were formally inducted into the Bangladeshi Navy in 2017. Indians did not take kindly to the fact that Bangladesh is equipping herself with an offensive weapon which has enormous asymmetrical capabilities. The submarine sale to Bangladesh had also come at a rather inopportune time for the countries located off the Bay of Bengal. With the two-major maritime disputes having been resolved, the sub region was looking forward to enhanced maritime cooperation in various sectors like trade connectivity, blue economy and maritime safety and security, including through the revitalisation of the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) (Khurana, 2016).

The acquisition of submarines by Bangladesh has changed the strategic equation of the littoral countries forcing them to re-examine their maritime security strategies. The picture below (Fig 5) gives an overview of submarine fleets of Indo-Pacific littorals. In the Indian context, Indian Navy has little reason to be threatened by Dhaka's newly acquired sea-denial capability as its naval forces are far too superior. The proximity Beijing has gained through this submarine deal providing strategic presence to China in the close vicinity of India's nuclear submarine bastion

and critical naval assets needs to be factored in India's security calculus. The Bangladeshis when confronted were categorical in bringing out the fact that the submarines were merely for training purposes only and not for any hostile intent.

Fig 5: Submarine Fleets in Indo-Pacific



SOURCE: https://www.forbes.com/sites/hisutton/2020/02/18/undeclared-submarine-arms-race-takes-hold-in-asia/#53c446f345f5, Accessed on –30-05-2020

The only plausible explanation that Bangladesh could offer was that it wanted to become a three dimensional navy with its growing economic prowess. Bangladesh Navy commissioned the two Type 035G-class submarines, also known as Ming-class, naming them as BN Nabajatra and BN Agrajatra (ANI, 2017). The conventional diesel electric submarines are equipped with torpedoes and mines. The Bangladeshi Prime Minister also commented that Bangladeshi Navy has become truly powerful with the acquisition of the submarines. Such events as the purchase of submarines by Bangladesh greatly enhances the mistrust between India and Bangladesh and steps must be taken to reduce this gap. India was assured by Bangladesh that it would never do anything to compromise the security of India and the matter slowly settled down.

Despite the assurances and the golden saying that there are no permanent friends or enemies in international relations it does not take long for a friend to become a foe. Hence India started gearing up in its eastern shore through a combination of asset building and force multiplication. This necessitates overall policy change towards the Eastern sea board with the induction of

new warships, aircraft and spy drones in forwarding operating bases and operational turnaround bases to counterbalance the expanding sphere of influence of China in Indian Ocean region. Naval assets to protect India's long coastline and keep watch over the key trade corridors in the Indian Ocean are essential to Indian interests.

India's anxieties rekindled

The Bangladeshi submarines were docked in the Chittagong port and continued operating as per its strategic requirements. However the Bangladeshi Government in 2017 entered into a contract with a Chinese state owned company Powertech Technology Inc. for construction of a permanent submarine base at Pekua near the Kutubdia Channel off South Eastern Cox Bazaar. India was rather taken by surprise by this development even though the apparent logic was that the base was primarily to cater for the maintenance and the berthing of the two submarines. Chinese assistance in building the base was the obvious choice since the submarines were of Chinese origin. The company designated to execute the construction was appointed for the task through a government-to-government negotiation between Bangladesh and China. This development in Bangladesh has led to credibility deficit between both the countries. The construction of the permanent base, which would have facilities like wharfs, barracks, an ammunitions depot, repairing arrangements and training provisions, is expected to be completed and become operational by 2022. This obviously has irked India and has forced India to rethink its maritime strategy and also to put in place complete makeover to keep pace with the challenges of a fast-changing maritime environment. The reality of Chinese naval activity in India's neighbourhood, gives right to an anxiety concerning maritime security in the Bay of Bengal region.

The Assessments from the Indian naval intelligence brings out that the Bangladesh Navy will station the two ex-Chinese Ming-class submarines on the upcoming Pekua base of Cox Bazar that is located less than 1,000 km away from Visakhapatnam, the home to the Indian Navy's nuclear powered submarine fleet and the Defence Research and Development Organisation's (DRDO) missile test ranges at Balasore (Fig 6). For India, the Bay of Bengal is the launch pad for a 'Look East' policy that has received renewed attention under Prime Minister Narendra Modi. The presence of Chinese engineers including naval officers at Pekua is a sure shot threat as the proximity facilitates electronic eavesdropping of Indian naval movements.

Fig 6: Cox Bazar and Balasore

SOURCE: https://www.oneindia.com/international/4-militants-arrested-bangladesh-police-2096802.html, Accessed on –30-05-2020

The Indian Navy in an effort to build a navy capable of warding threats from China is enhancing force levels at its Visakhapatnam naval base and has a base for a proposed fleet of nuclear powered submarines at Rambilli (Fig 7), south of Visakhapatnam (Shukla, 2014). India's eastern seaboard on the Bay of Bengal, with deep water and harbours with over 10 metre depth, is far better suited as a nuclear submarine and aircraft carrier base than the western seaboard, where the shallower Arabian Sea is barely four metre deep along the coast (Shukla, 2014). In addition Rambilli also provides a natural cover through the forest area which was both desirable and essential as it would help "act as camouflage for defence needs". As Ubaid Ahmed observed, the area is located at the Sarada River and the naval base is coming up at the place where it opens up into the Bay of Bengal. Equipped with the 700-km range B05 submarine launched missiles, the Arihant-class submarines will have to patrol closer to the shores of a potential adversary. But equipped with the 3,500-km range K-4 missiles currently being developed by the DRDO, the Arihant and her sister submarines can cover both Pakistan and China with nuclear-tipped missiles from within the Bay of Bengal, providing the "robust second-strike capability" as stated in India's nuclear doctrine (Ahmed, 2018).

Fig 7: Vishakapatnam and Rambili

SOURCE: http://ajaishukla.blogspot.com/2014/08/new-naval-base-for-nuclear-subs.html
Accessed on –30-05-2020

Like China's massive nuclear submarine base at Hainan Island, the depth of water at Rambilli will allow submarines to enter and leave the base without being detected by satellites. This secrecy is crucial for SSBNs, which must remain undetected when they leave for months-long patrols, carrying nuclear tipped ballistic missiles. The base will be an "exclusive enclave by deepening at natural channel to have easy access to sea", and will have extensive underground storage facilities. Open source satellite images show that a lot of work has been completed in the first phase of the project, with more than a dozen tunnels being dug to create the underground facility. In addition at about 20 km away at Atchutapuram, the Bhabha Atomic Research Centre (BARC) is constructing a research and development complex that will support the submarine base (Vishnoi & Pubby, 2018).

Bangladesh has also acquired land and fenced locations at the Kutubdia Channel near Cox's Bazar for the ongoing submarine bases at Pekua and the country's largest naval base Rabanabad Channel near Patuakhali which will also boast of a facility to berth submarines. Kutubdia, intelligence officials say, is likely to feature enclosed concrete 'pens' to hide submarines (Unnithan, 2014). The possibility of Chinese submarines using this base provides a fresh equation to the strategic calculus, especially if Chinese arrangements with Sri Lanka, Oakistan and Djibouti are taken into consideration (Fig 8).

This changes the strategic advantage which India enjoyed till date and the possibility of Indian submarines becoming susceptible to tracking from the time they leave harbour looms high. The more serious among the two threats would be China's ability to be able to threaten our assured second-strike capability, and that effectively tips the deterrence balance (Unnithan, 2014)

Fig 8: The String of Chinese Submarine Presence around India

SOURCE: https://www.indiatoday.in/magazine/special-report/story/20141215-china-submarine-noose-using-undersea-vessels-to-project-power-in-india-806167-2014-12-04, Accessed on –30-05-2020

Exaggerated fear

The Bangladeshi's discount the Indian fear as highly exaggerated and not based on current reality. They argue that Bangladesh is one of a number of countries in the region that are expanding their fleets with sub-surface platforms. Through this force modernisation project, Bangladesh is seeking to be self-reliant and gain prestige for its military, as do many countries with growing economies. Bangladesh is increasing its contributions to maritime security in the Bay of Bengal and beyond and since 2010, it has deployed two ships to the UN Maritime Task Force off Lebanon (Zaman & Biswas, 2016). Moreover, having long been a recipient of disaster relief, Bangladesh now seeks to become a provider of such aid. Though the justifications appear

to be all fine on paper there are a few things that stand out. The submarines allows smaller navies to stand up to the most powerful nations and in this case India as arguably the submarines are among the most potent weapons available at present. The Indians obviously understand it is not an exaggerated fear but a sense of anxiety due to the Chinese footprints in the Bay of Bengal area which changes the entire security paradigm in the area.

The Bangladesh Navy's current assets are made up of small littoral warships and the institution exists to police the vast Bay of Bengal and is slowly building up its surface assets. Although Dhaka and New Delhi enjoy warm ties, Bangladesh's geopolitics are defined by an unwillingness to join India's orbit, hence it often seeks arms from China (Toremans, 2020).

India's Warning Shots

When Bangladesh was playing a willing partner to Chinese overtures despite Indian sensitivities, India decided to repay Bangladesh with its own coin. India in 2019 had supplied Myanmar a kilo class submarine which was in use in the Indian Navy and which has been commissioned by the Myanmarese navy in December 2019. The erstwhile INS Sindhuvir will be used by the Myanmar Navy which is looking at acquiring its own submarine fleet in the coming years for training purposes and countering any threats from an assertive Bangladesh. The Kilo class submarine, bought from Russia in the 1980s, was modernised by the Hindustan Shipyard Limited (HSL) in Vizag and was handed over in December 2019. India ensured that requisite permissions were taken from Russia the original manufacturer of the submarine and that it will be fitted with indigenous Indian systems to train the Myanmar Navy. The Bangladesh Government was not very happy over India giving a submarine to Myanmar with whom a feud over the Rohingya issue is currently ongoing. The Indian Defence Ministry has said the submarine to Myanmar was to "enhance defence co-operation, review joint exercises and training provided to Myanmar Defence Services, and strengthen maritime security by joint surveillance and capacity building and developing new infrastructure" (APN, 2019). The transfer of the submarine is likely to take place with a line of credit (LoC) that has been extended by India to Myanmar for enhancing military capability. Bangladesh should also not forget that for India, Myanmar is one of the strategic neighbours and shares a 1,640-km border with the north-eastern states, including Mizoram, Nagaland and Manipur. There is a 725-km India-Myanmar maritime boundary. India sharing military equipment with Myanmar started as early as 2006-07 when India supplied a pair of BN-2 Islander Maritime surveillance aircraft despite the United Kingdom having serious reservations on the transfer (Aroor, 2020).

As part of the capacity building in July 2019 India also supplied Myanmar with advanced light torpedoes named `Shyena' as part of a $ 38 million export deal that was signed in 2017 (Pubby, 2019). The torpedoes were manufactured by the state owned Bharat Dynamics (BDL). The deal with Myanmar also includes a significant training package to prepare the neighbouring nation for induction of a larger fleet in the coming years. Myanmar is to use INS Sindhuvir to train its sailors in the complex art of underwater combat operations from March-April 2020 (IANS, 2019).

But there is another less discussed submarine revolution taking place without the world paying much attention. All the smaller navies in the region are also building up submarine capabilities though it may not be in pursuant of threats envisaged. This is the part of an undeclared arms race which is changing the shape of the submarine threat worldwide. Thailand took note of a submarine acquired by Myanmar from India and the Royal Thai Navy wanted to deal with the "new situation" as its coasts border Myanmar. The Thai Navy signed an agreement to buy a Yuan Class S26T submarine worth 13.5 billion baht from China in 2017. It is expected to be delivered to the Thai navy in 2023 (IANS, 2019). The entire submarine revolution was initiated by China which gave two submarines to Bangladesh and started the arms race. Bangladesh is also unhappy with India over the supply of submarine to Myanmar as they feel they have lost the edge over Myanmar. But it has to be borne that the first shot was fired by Bangladesh when it added two submarines to its naval fleet. This action has led to a cascading effect which can have long term repercussions for the area.

Extended Deterrence

The Indian Navy's decision to transfer one of its fully operational Kilo-class diesel-electric submarine, INS Sindhuvir, to Myanmar hopes to limit Chinese military influence and aid Myanmar in its emerging naval competition with Bangladesh. On its part, Myanmar helps India secure its own maritime interests in the Bay of Bengal region. India's willingness to transfer a frontline submarine when it is facing a shortage of such platforms reveals a desire on New Delhi's part to consolidate the growing convergence in security interests with Myanmar. Gone is the time when there were fears of Myanmar offering a 'second coast' to China? (Jha, 2019) Instead, the Indian Navy and the Myanmar Navy today conduct institutionalised joint patrols, and India is constructing connectivity corridors of its own in Myanmar in the form of the Kaladan project. The Indian Navy Kilo-class submarine is also likely to feature export versions of Indian naval sensors such as the SMX2, which is a submarine sonar suite developed for the

international market by the Defence Research and Development Organisation. Although ostensibly being transferred for training purposes, the offensive potential of this submarine is undeniable, given that it is significantly more capable than the older Ming-class submarine, which the Bangladesh Navy operates (ibid).

Bangladesh does not want to fall out with either of her neighbours and hence is playing a deft game in diplomacy. In order to placate India over the Pekua submarine base the Chinese is building, it entered into an agreement with India for installation of coastal radars. This ensures India's enhanced surveillance along the Bangladeshi coastline and may have upset the balance, irritating China.

In accordance India will install a network of 20 Coastal Surveillance Radar Systems under a memorandum of understanding (MoU) the two countries signed during Bangladeshi Prime Minister Sheikh Hasina's visit to Delhi, in October 2019 (Bhaumik, 2019). It was officially announced that the radar systems would enhance surveillance on Bangladesh's maritime domain and eventually pave the way for a white shipping agreement, the sharing of advance information regarding identity and movement of non-military commercial vessels between the two countries. India has already set up radar stations in littoral countries such as Mauritius, Sri Lanka and the Maldives and is planning one in Myanmar, to strengthen its maritime security system in the Indian Ocean. The MoU on coastal surveillance radar may raise Beijing's eyebrows since radars are considered as strategic assets and not just a regular monitoring tool. Perhaps Beijing may see this as India's purposeful attempt for custodianship over the Bay of Bengal and ability to become the most capable sea-faring state in the region" (Uddin, 2019).

Path Ahead for India- Arc of Visibility

There is now a definite need for India to sit up and take the lead in the Bay of Bengal as it regains its place as a key geostrategic theatre. The presence of Chinese in the Pekua submarine base is going to constantly worry the Indian security establishment. The Indian Navy will have to additionally augment its sea denial capabilities in this sector at the earliest. The Bay of Bengal littorals are currently covered under the initiatives in the eastern Indian Ocean. India carries out regular coordinated naval patrols with Indonesia and Myanmar. As the dialogues on regional Maritime Domain Awareness (MDA) continues to grow the strategic importance of islands in the Bay of Bengal will multiply manifolds. It is but essential for India to develop offensive assets on Andaman group of islands that will boost regional surveillance capabilities

and will also enhance the capabilities in the region. While India continues to shape a Bay of Bengal community through BIMSTEC, it will have to manage its engagements with China keeping its strategic interest in mind. India may have to calibrate and accept an increased Chinese footprints in its maritime neighbourhood while continuing to protect its core imperatives as well as shaping a regional framework for the Bay of Bengal. The Sino-Indian dynamic in the maritime domain will largely shape the evolving security architecture in the region. The only concrete way to mitigate this security dilemma with China is to pursue a policy of cooperation where it can and competition where it is a must (Baruah, 2018).

Now that the Chinese have already started constructing the submarine base at Pekua there is very little Indians can do to stop the ongoing work. The difficult situation of Chinese specialists in the area keeping an eye on Indian activities will have to be endured by India. How does India overcome this predicament? The only way is to enhance its surveillance capability for which it is already installing the coastal radars and improving its anti-submarine warfare capabilities.

The Indian Navy currently operates 8 Boeing P-8 Poseidon aircrafts which are in its inventory and 4 more aircrafts to supplement the existing fleet are on their way. Additionally, as Franz Gady reported, "India's Ministry of Defense (MoD) has approved the procurement of 10 more Boeing P-8I Neptune advanced maritime patrol/anti-submarine warfare (ASW) aircraft for the Indian Navy, a version ahead of the P-8 in service with additional features. The P-8I is equipped with some of the most modern U.S. ASW technology including a Telephonic APS-143 Ocean Eye aft radar system and a cutting-edge magnetic anomaly detector. The aircraft would also be armed with weapons systems from the USA including Harpoon Block-II missiles, MK-54 lightweight torpedoes, and rockets" (Gady, 2019). The aircraft are all data-linked with Indian submarines in order to have the capability to pass on information about enemy vessels. With submarine threats looming on all the three sides the ASW aircraft are an inescapable necessity.

It is also reported that the Indian Navy has signed contracts procuring 16 Anti-Submarine Warfare Shallow Water Craft (ASWSWC) to enhance its surveillance of coastal waters, in 2019 for construction of eight ships each at the Cochin Shipyard Ltd (CSL), Kochi and the Garden Shipbuilders and Engineers Ltd (GRSE), Kolkata, at a cost of Rs.12,600 crore. The ships are to be delivered from October 2022 and two ships per year will be delivered by each shipyard subsequently. These anti-submarine warfare shallow water crafts are designed for a deep displacement of 750 tonne, speed of 25 knots and complement of 57 and capable of full scale sub surface surveillance of coastal waters (Himatsingka, 2019).

With both these assets in the Indian Navy's inventory would prove invaluable in enhancing India's ASW capabilities. However the ASW operations are a costly affair and requires both aerial and surface resources. With the corona devastating the economy frittering away valuable resources in acquiring certain essential assets would be difficult or may have to be postponed including the orders given to Indian shipyards. It is necessary to formulate a cost effective but operationally viable plan to carry out ASW operations. It is proposed the unmanned vehicles (UVs) can be effectively used for this endeavour. There is going to be a sequential increase in the number of submarines visiting the port of Pekua and berthing there. A lot of operational trials would also be conducted and all would certainly endanger the cloud of operational secrecy India is trying to maintain. So an alternate to this problem needs to be worked out at the earliest in order to ensure that India is geared up to tackle the problem before the base becomes fully operational. Hence a brief discussion on unmanned vehicles is necessary at this juncture.

Unmanned Vehicles- Deterrence and Assurance

The Indian Navy should instead increase the use of unmanned systems in ASW across the board, which cost a fraction to buy and operate compared to their manned counterparts. The future of anti-submarine warfare for countries who can't afford to invest in top-of-the-line submarines and maritime patrol aircraft could be a netted fleet of unmanned platforms that can, as Megan Egstein (Egstein, 2020) observes, "create 'passive acoustic barriers' at chokepoints or drag towed arrays through a country's territorial waters. ASW is 'high-end asset-intensive' and that, while unmanned vessels can't do everything a manned sub or plane can, they can perform some specific missions that would be cost-prohibitive to do with manned vehicles".

The unmanned undersea or surface vehicles could tow passive sonar arrays, and could also deploy low-frequency active sonars like those carried by undersea surveillance ships that can detect or drive off submarines from dozens of miles away. In a study pertaining to the US Nay, John Keller (Keller, 2020) recommends that, "although autonomous platforms will not have the on-board operators of a destroyer or patrol aircraft, improved processing is enabling small autonomous sensors to rapidly identify contacts of interest. Line-of-sight or satellite communications can connect unmanned vehicles and sensors with operators ashore or on manned ASW platforms".

While evaluating the merits of such a system Mike Ball evaluated Elbit systems which supply the Heron UAVs to all the three services of the Indian Armed forces also manufactures Seagull Multi-Mission Unmanned Surface Vessel (USV) in an ASW configuration that included an on-board Helicopter Long-Range Active Sonar (HELRAS) dipping sonar which can also be acquired by India. The Seagull autonomous multi-mission surface vessel features switchable, modular mission payload suites and can perform, in addition to ASW, Mine Countermeasure missions (MCM), Electronic Warfare (EW), Maritime Security (MS), Hydrography and other missions using the same vessel, mission control system and data links. Seagull offers navies a true force multiplier delivering enhanced performance to naval operations, reducing risk to human life and cutting procurement and operating costs (Ball, 2019). The Elbit systems of Israel has agreed to produce UAVs for India in collaboration with the Hindustan Aeronautical Limited (HAL) and they can be given the contract to supply the sea gull USVs to the Indian navy which can be effectively utilised in ASW operations in the Bay of Bengal area wherein the fixed wing assets may be earmarked for the more operationally active western coast. Moreover, the large number and long endurance of unmanned vehicles would enable the tracking and suppressing of many submarines over a wide area at lower risk than using patrol aircraft or destroyers. To affordably conduct peacetime surveillance and effectively defeat submarines in wartime, the Navy should increase the role of unmanned systems. Using manned platforms to conduct command and control, and unmanned vehicles to track, deter and engage submarines, could significantly reduce the costs of ASW operations and enable the Navy to scale its ASW efforts to match the growing threat posed by submarine fleets (Clark, 2019). Unmanned systems could address this shortfall in concert with a new approach to ASW that suppresses enemy submarines rather than destroying them.

The usage of unmanned aerial vehicles (UAVs) may also be considered for ASW operations in the Bay of Bengal. As Captain William Perkins USN observes, "Specific to ASW, this means an unmanned system could conduct certain time-consuming functions, such as loitering in a designated search location to monitor the ocean and conduct initial detection of a submarine moving through the area. This specific function has consumed a significant amount of the life-span of manned systems, such as the P-8 Poseidon series Maritime Patrol Aircraft (MPA), yet remains the most critical link in the ASW kill chain, as it is hard to engage a submarine with a Harpoon missile if you have not yet determined its location" (Perkins, 2019). He further observes, "However, in the role of initial acoustic detection of a submarine and subsequent monitoring of its movement, sufficient bandwidth to support off-board acoustic processing

remains a technical challenge, but research in this area is ongoing. Furthermore, persistent multi-sensor coverage provided by a single UAV can then cue in a manned system to conduct the next level of submarine prosecution, be it continued tracking or engagement with torpedoes. They could provide an invaluable service in the tracking function and reduce flight hours required from MPA and ASW helicopters" (Perkins, 2019).

Perkins, in his study also finds that 'Yet another unmanned platform that can be effectively used for ASW operations is the Aqua Quad which is being used by the US Navy for tracking of submarines. The small quad-copter drone also referred to as Aqua Quad is a floating, flying and swarming submarine hunter. It is an amphibious quad-rotor than can land on water, lower a sonar sensor to detect underwater objects, deploy a small acoustic sensor below the surface, retrieve that sensor and lift off to reposition itself and then take off again. It combines several features that together make it a step change in anti-submarine warfare: solar power gives it indefinite endurance; flight capability means it can travel long distances at high speed; swarming means that groups can combine to sweep a wide area. It will be effectively able to work alone or in teams. The seven-pound Aqua-Quad prototype isn't built to spend time underwater. It pairs the functions of an ocean drifter a buoy, for all intents with a drone. Being small and cheap, Aqua Quad could be deployed in large numbers. It may be a game-changer for naval warfare. In testing, it has proven capable of operating in 14 feet seas (4.3 m) despite its seemingly fragile frame. By inferring the concept of multiple networked drones self-synchronizing to perform a set of mission tasks, one can envision a fleet of Aqua-Quads serving both the initial detection **and** long duration tracking function' (Perkins, 2019).

The unmanned vehicles do not require a dedicated runway or a port to be launched into operations. The drones can be easily launched from a sailing ship or airfields located in Vizag, Charbatia (located 10km north of Cuttack) in Odisha, or Kalaikunda air base in West Bengal. The benefits of unmanned systems over manned systems is discussed below.

Benefits of Unmanned Systems over Manned Systems

In the opinion of Perkins (Perkins, 2019), in general, unmanned systems have the following characteristics which can be distinct from manned systems,

a) A major force multiplier, integration with other systems and capabilities above and below the surface without the overhead of training a manned crew.

b) Improved endurance

c) Operations in degraded/denied environments – greater risk threshold than manned systems

d) Higher proportion of platform dedicated to payload

e) Modularity -The UVs cannot support the weight of the total system, and hence the modular parts are used in the form of clip-in sensors or interchangeable cameras and modules. This increased the usability of the system by decreasing the weight but allowing for the same sensors to be attached.

f) Scalability- To enhance capacity for use in a range of capabilities.

g) Potentially lower unit cost than 'equivalent' manned platform.

Conclusion

India played a crucial role in the liberation of East Pakistan and the formation of Bangladesh in 1971. Even before its independence a very strong cultural linguistic and economic relations had existed between the Indian state of west Bengal and East Pakistan. After Bangladesh was born as an independent nation, the relationship with India suffered briefly during the regimes of Zia Ur Rahman, HM Ershad and Khaleda Zia. Bangladesh also became a hub for terrorist activities with organizations like HUJI who received full support from ISI Pakistan. However since the democratically government of Sheik Hasina came firmly to power in Bangladesh the relations between Bangladesh and India has vastly improved. India also recognises the importance of close relationship with Bangladesh as a part of its look east and act east policy. As Mossiuzamman observed, 'Regional forums like BIMSTEC have also given a new hope to Bangladesh to join the process of globalisation as well as economic prosperity. Some of the positive aspects of the relationship also have been the use of Bangladeshi ports Chattogram and Mongla for movement of goods to and from India; 1.82 Lakh cusec of water from Feni River in Bangladesh for drinking water supply scheme for Sabroom town, Tripura; and an Agreement concerning Implementation of the Lines of Credit (LoCs) committed by India to Bangladesh' (Mossiuzumman, 2019). This convergence should continue and at the same time Bangladesh can be politely but firmly made to understand that it was India which stood by it through thick and thin and not China.

Bangladesh has its own set of problems with India. The non-committal and non-condemning stand adopted by India on the Rohingya issue has not gone well with the masses in Bangladesh. The anti CAA bill also is perceived as India's hostile stance particularly against Bangladeshis and has apparently fuelled protests against India placing Sheikh Hasina the Prime Minister of Bangladesh in a difficult position. The refusal of the west Bengal government to honour the Teestha water sharing has portrayed the Modi government in poor light and the Bangladeshis feel peeved at being unfairly singled out by India. This cumulative problems is slowly making Bangladesh move towards China and the Pekua base is one such occurrence. With a huge Chinese investment forthcoming, Bangladesh would never antagonize China to placate India, however in case India-Bangladesh relations remain cordial, and this development may not do anything to endanger India's security. By isolating Bangladesh, the possibilities of Chinese submarines being permitted to berth regularly may cause serious security implications for India. It is better that India walks the tight rope by maintaining cordiality with Bangladesh without lowering her guard on the coastal security. The surface and the aerial assets are visible exhibition of powers and may lead to increased anxiety. To the contrary, the unmanned platforms would give India the required anonymity and also help India in effectively conducting ASW operations. The diplomatic and intelligence co-operation between both the countries should continue flourishing.

References:

Ahmad, S. (2014, November 13). *The 'look east' policy of Bangladesh*. Retrieved May 20, 2020, from https://www.thedailystar.net/the-look-east-policy-of-bangladesh-50030, accessed on 20 May 2020.: https://www.thedailystar.net/the-look-east-policy-of-bangladesh-50030

Ahmed, U. (2018, May 13). *Credibility of India's second strike capability*. Retrieved July 06, 2020, from https://moderndiplomacy.eu/2018/05/13/credibility-of-indias-second-strike-capability/

ANI. (2017, March 12). *Bangladesh commissions first ever submarines*. Retrieved May 30, 2020, from https://www.business-standard.com/: https://www.business-standard.com/article/news-ani/bangladesh-commissions-first-ever-submarines-117031200597_1.html

Anwar, A. (2019, July 12). *How Bangladesh is benefiting from the China-India rivalry*. Retrieved May 29, 2020, from https://thediplomat.com/2019/07/how-bangladesh-is-benefiting-from-the-china-india-rivalry/

APN. (2019, July 30). *Myanmar to receive its first Kilo class submarine from India*. Retrieved July 06, 2020, from https://www.apnlive.com/myanmar-receive-first-kilo-class-submarine-india/

Aroor, S. (2020, February 23). *Indian Submarine Refit Complete, Handover To Myanmar Next Month*. Retrieved May 28, 2020, from https://www.livefistdefence.com/2020/02/indian-navys-sindhuvir-submarine-refit-complete-handover-to-myanmar-shortly.html

Ball, M. (2019, May 16). *Seagull USV Demonstrates Anti-Submarine Warfare Capabilities*. Retrieved May 30, 2020, from https://www.unmannedsystemstechnology.com/2019/05/seagull-usv-demonstrates-anti-submarine-warfare-capabilities/

Baruah, D. M. (2018, March 01). *Maritime Security in the Bay of Bengal*. Retrieved May 29, 2020, from https://carnegieindia.org/2018/03/01/maritime-security-in-bay-of-bengal-pub-75754

Bhaumik, A. (2019, October 06). *India's radars in Bangladesh to monitor Bay of Bengal*. Retrieved July 06, 2020, from https://www.deccanherald.com/national/east-and-northeast/indias-radars-in-bangladesh-to-monitor-bay-of-bengal-766567.html

Clark, B. (2019, April 13). *US Navy should turn to unmanned systems to track and destroy submarines*. Retrieved May 30, 2020, from https://www.defensenews.com/opinion/commentary/2020/04/13/us-navy-should-turn-to-unmanned-systems-to-track-and-destroy-submarines/

CSIS. (2020, March 13). *How dominant is China in the global arms trade?* Retrieved May 30, 2020, from https://chinapower.csis.org/china-global-arms-trade/

Egstein, M. (2020, March 09). *Sonar Equipped Drone Fleets Could be Key to Future Submarine Warfare*. Retrieved May 30, 2020, from https://news.usni.org/: https://news.usni.org/2020/03/09/sonar-equipped-drone-fleets-could-be-key-to-future-submarine-warfare

Gady, F.-S. (2019, June 26). *India Approves Procurement of 10 More P-8I Maritime Patrol Aircraft*. Retrieved May 30, 2020, from https://thediplomat.com/2019/06/india-approves-procurement-of-10-more-p-8i-maritime-patrol-aircraft/

Habib, H. (2014, July 09). *Bangladesh wins maritime dispute with India*. Retrieved May 30, 2020, from https://www.thehindu.com: https://www.thehindu.com/news/national/bangladesh-wins-maritime-dispute-with-india/article6191797.ece

Himatsingka, A. (2019, April 29). *GRSE signs contract for 8 anti-submarine warfare shallow water crafts for Indian Navy*. Retrieved May 30, 2020, from https://economictimes.indiatimes.com/news/defence/grse-signs-contract-for-8-anti-submarine-warfare-shallow-water-crafts-for-indian-navy/articleshow/69099130.cms#:~:text=KOLKATA%3A%20Garden%20Reach%20Shipbuilders%20%26%20Engineers,pegged%20at%20Rs%206311.3

IANS. (2019, December 09). *Thai Navy takes note of Myanmar acquiring Indian sub*. Retrieved May 30, 2020, from www.outlookindia.com/: www.outlookindia.com/newsscroll/thai-navy-take-note-myanmar-acquiring-submarine-from-India, / 1681458

Jha, S. (2019, August 05). *India and Myanmar are sending a strong message to China – with a submarine*. Retrieved May 22, 2020, from https://theprint.in/opinion/india-is-giving-a-submarine-to-myanmar-and-both-are-sending-a-strong-message-to-china/272240/

Keller, J. (2020, April 23). *US Navy should rely on unmanned systems & sensors to find, track, & attack enemy submarines*. Retrieved May 30, 2020, from www.militaryaerospace.com/: www.militaryaerospace.com/unmanned/article/14174623/unmannned-antisubmarine-warfare-asw-sensors

Khurana, G. S. (2016, December 06). *China delivers submarine to Bangladesh-Imperatives, Intentions & Implications*. Retrieved May 30, 2020, from www.cimsec.org: www.cimsec.org/china-delivers-submarines-Bangladesh-imperatives-intentions-implications/29876

Manocha, V. (2015, July 04). *Bangladesh wins maritime dispute with India*. Retrieved May 27, 2020, from https://www.downtoearth.org.in/: https://www.downtoearth.org.in/news/bangladesh-wins-maritime-dispute-with-india-45193

Mossiuzumman, M. (2019, September 08). *Bangladesh to share water of Feni River with India*. Retrieved May 30, 2020, from https://bangladeshpost.net/: https://bangladeshpost.net/posts/bangladesh-to-share-water-of-feni-river-with-india-11474

Nayar, N. (2020, May 12). *India and Bangladesh: Exchanging border enclaves & (re-) connecting with new citizens*. Retrieved May 30, 2020, from https://www.brookings.edu/: https://www.brookings.edu/blog/up-front/2020/05/12/sambandh-blog-india-and-bangladesh-exchanging-border-enclaves-re-connecting-with-new-c

Perkins, C. W. (2019, March 21). *Unmanned Air Systems in NATO Anti-Submarine Warfare (ASW)*. Retrieved May 20, 2020, from https://www.japcc.org/unmanned-air-systems-in-nato-anti-submarine-warfare-asw/: https://www.japcc.org/unmanned-air-systems-in-nato-anti-submarine-warfare-asw/

Pubby, M. (2019, July 30). *Taking it to next level, India readies submarine for Myanmar*. Retrieved May 30, 2020, from https://economictimes.indiatimes.com/: https://economictimes.indiatimes.com/news/defence/taking-it-to-next-level-india-readies-submarine-for-myanmar/articleshow/70442448.cms

Shukla, A. (2014, August 26). *New naval base coming up near Visakhapatnam*. Retrieved May 28, 2020, from https://www.business-standard.com/article/current-affairs/new-naval-base-coming-up-near-visakhapatnam-114082601458_1.html

TOI. (2016, November 14). *Bangladesh buys two submarines from China*. Retrieved May 30, 2020, from https://timesofindia.indiatimes.com/world/south-asia/: https://timesofindia.indiatimes.com/world/south-asia/Bangladesh-buys-two-submarines-from-China/articleshow/55415904.cms

Toremans, G. (2020, March 10). *The Bangladesh Navy – An Available, Adaptive and Affordable Force*. Retrieved May 30, 2020, from https://euro-sd.com/: https://euro-sd.com/2020/03/allgemein/16528/the-bangladesh-navy-an-available-adaptive-and-affordable-force/

Uddin, K. M. (2019, October 13). *Bangladesh's act of balancing Asian giant foes*. Retrieved May 29, 2020, from https://www.aa.com.tr/en/analysis/analysis-bangladesh-s-act-of-balancing-asian-giant-foes/1611893

Unnithan, S. (2014, December 04). *China's Submarine Noose Around India*. Retrieved May 30, 2020, from https://strategicstudyindia.blogspot.com/: https://www.indiatoday.in/magazine/special-report/story/20141215-china-submarine-noose-using-undersea-vessels-to-project-power-in-india-806167-2014-12-04

Vishnoi, A., & Pubby, M. (2018, January 10). *India's nuclear submarine base gets a big boost—thanks to Narendra Modi govt*. Retrieved from https://theprint.in/defence/big-boost-india-secret-nuclear-submarine-base/27617/

Watson, S. (n.d.). *The Bangladesh/Myanmar Maritime Dispute: Lessons for Peaceful Resolution*. Retrieved May 30, 2020, from https://amti.csis.org: https://amti.csis.org/the-bangladeshmyanmar-maritime-dispute-lessons-for-peaceful-resolution/

Zaman, R. U., & Biswas, N. R. (2016, December). *Peacekeeping Contributor Profile: Bangladesh*. Retrieved from http://www.providingforpeacekeeping.org/2014/04/03/contributor-profile-bangladesh/