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# Geostrategic Essence of the Bay of Bengal & Its Implications on the Energy Security: A Bangladesh Perspective

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ARTICLEINFO	A B S T R A C T
<i>Keywords</i> : Bay of Bengal, Energy Security, Sino-Indian Rivalry.	The Bay of Bengal has received huge interest from global powers after the Second World War. The rivalry between India and China exists for decades. The research aims to showcase the Geostrategic essence of the Bay of Bengal and its implication
Received: 13 August 2021Revised: 11 October 2021Accepted: 14 October 2021	on energy security through the perspective of Bangladesh. The paper also focuses on the complexities created on energy security by Sino-Indian rivalry and vice versa along with the challenges for Bangladesh's energy security as well as regional peace and harmony. Finally, the research paper would employ its analysis to illustrate some possibly reliable recommendations to mitigate the complexities of energy security in the Bay of Bengal region.

#### **INTRODUCTION**

Considering the factors like geostrategic location and reserve of natural resources of the Bay of Bengal littoral countries as well as their sociopolitical realities, all the great powers, especially after the second world war, have profoundly strived for their national interests in the Bay of Bengal. And this phenomenon has created a very complex interplay within the relations among the regional, sub-regional, and global powers involving the states from the littoral countries like India, Bangladesh, and Myanmar to the neighboring and distant powers such as China, Japan, and United States. Moreover, when it comes to the question of energy security, it gives a profound ground for competition among the major demanders and the growing economies strive for a safe supply line for their required energy resources through the Bay of Bengal. In doing so, militaries of all the involved regional and global powers make this region of 838,600 sq miles one of the world's most militarized zones to attain their own objectives (Samaranayake, 2012). Energy security, in another way, has always influenced this ever-emerging security architecture in the Bay of Bengal. For example, significant security measures like the assertive encirclement of India by the Chinese maritime initiative known as the 'String of Pearls'. Scholars argue that, for the most part, this initiative is derived from the question of China's energy security in the 21st century rather than just a revival of the old maritime silk route. In contrast, some counter-balancing strategies from India are also being projected to imply and maintain its own guardianship as a regional power such as strengthening its military capabilities and joint military exercises in the Indian Ocean and Bay of Bengal (Devare, 2008). Furthermore, the involvement of the United States as a global power develops more complexity in the context. This region also serves as the energy supply route for other East Asian and Oceanian states too which involves a few more stakeholders in the scenario. Hence, this project paper tends to focus upon the Sino-Indian rivalry as well as securitization of the Bay of Bengal to understand the challenges and prospects for Bangladesh to both serve its own economy with a secure and reliable supply of resources as well as to minimize the nascent Sino-Indian competition for a cooperative coexistence in this modern age of high industrialization.

#### METHODS

This research has been conducted by employing qualitative research methods to conclude

the analyses. However, it incorporates secondary research materials to facilitate the data collection process for the discussion such as related scholarly journal articles and books, eBooks, blogs, government reports, official websites, and newspaper articles on the particular topic. The related literature has given a suggestive structure for this research. Alongside, this literature has also indicated clearly the best possible theoretical narrative of the context.

A dynamic review and study on the related existing literature have been pursued to attain the analysis process. However, a vigorous theoretical perspective has also been assigned to generalize the view. The theoretical aspect made the issues a lot easier to discuss systematically. This theoretical understanding also helps to generate а comprehensive look at the recommendatory policy formation for the stakeholders in the context. Lastly, this research work employs an analytical method to produce this paper for those to whom it may concern to look at its outcomes.

The research, in the collection of data for its analysis, relied on the related existing academic literature on the particular topic. The existing literature provided an outline for the research. The literature also provided the necessary information to conceptualize the background, development as well as contemporary interplays among the variables. In a nutshell, a phenomenological approach has been occupied in the collection of data as well as for making the arguments in this research work. Information has been taken with a selective approach so that the overflow of data can be avoided, and the unnecessary information can be filtered out.

The paper focuses on a contemporary and important foreign engagement issue of the Bay of Bengal. This paper aims at researching with high ethical implications and maximum caution. Yet this research faces some limitations. However, the research focuses on some issues in which actors are contemporary being engaged. Alongside, the context of this research paper belongs to a certain geographic location as well as some particular actors in the scenario. As a result, the discussions and ideas of this paper may vary in case of variations in those characters as far as the subjectivity of this research question suggests, this paper tends to bring some recommendatory conclusions in minimizing the complexities of energy security created by the Sino-Indian rivalry in the Bay of Bengal and vice-versa in the contemporary time despite all its limitations.

## **RESULTS AND DISCUSSION**

In his article "The Long Littoral Project: the Bay of Bengal, A Maritime Perspective on Indo-Pacific Security", Nilanthi Samaranayake (2012) addresses an emerging Sino-Indian competition in the Bay of Bengal with regards to both the states' economic and strategic interests around the Bay of Bengal littoral countries. He also showed that both the parties seeking access to the bay from their landlocked territories, namely, Yunnan province of China and Northeast India, via Burma (Myanmar). Moreover, the development of seaports with the assistance of China in the coastal countries of the Bay of Bengal such as Hambantota port, Sri Lankaare more or less considered to be the potential security threats for India where she herself also tends to advance her might especially the Tri-Service Andaman-Nicobar Command as well as Eastern Command. Here, Bangladesh, Sri Lanka, and the Maldives are merely looking forward to their economic and infrastructure development receiving as much external assistance- namely, India, China, the USA, and Japan as possible.

The presence and influence of the USA in the Asia-Pacific Region are making this bilateral rivalry into a multilateral one where it would more likely to be fostering some good relations with Muslim majority countries like Bangladesh and Maldives in the context of counter-terrorism, trafficking, etc. and with Sri Lanka to take their experience of tackle the LTTE's maneuver in the waters as learning deal with similar situations in the Strait of Hormuz as well as the Pacific. In brief, this report gives a comprehensive overview of the emerging security context around the Bay of Bengal as well as the long Asian littorals.

In India-Myanmar Relations – Geopolitics and Energy in Light of the New Balance of Power in Asia, the author Dr. Marie Lall showed the changes in Indian foreign policy over the last decade, and at a time it also shows the critical changes between India and Myanmar relations. There were four influences behind this context – The economic development of the Northeastern region of India,

India's intent to enhance trade with ASEAN, India's search for energy security, and increased Chinese involvement in Myanmar and the Bay of Bengal. The paper presumes that in recent Indo-Myanmar relations have improved, and mostly India looking for better relations with Myanmar authorities. But building a relationship with Myanmar, India has been slow for that it is losing out to China. There is a general view of only Chinese influence on Myanmar where India is seen as a potential balancer. The author addressed some factors behind the change in the Indo-Burmese linkages including uncertainty about Myanmar administration, lack of clear policy on trade and energy exchanges, internal administrative and bureaucratic complexities from the Indian side along with the factors such as Burmese claims about India's unorganized slow process and administrative problems whereas China's rapidness and offer to build a seaport at Kyawk Pyiu as well as road and pipeline for gas and crude oil in two years to Yunnan province. Alongside, the author posits about India's recent emphasis on the Indo-US nuclear deal and after that the Iran Pakistan India pipeline which might reduce the concentration of India a bit from Myanmar. He also addresses India's look east policy to be more apprehended for the development of its Northeastern landlocked region.

The ADB's report "Bangladesh: Third Natural Gas Development Project" (2013) states that Bangladesh has been experiencing a significant shortage in gas supplies, which the government attempts to address via exploration initiatives and thorough evaluation, development, and workover of existing wells. To supplement these actions, the government should consider introducing disincentives to discourage any new captive power plants that are inefficient consumers of a significant proportion of Bangladesh's gas. Similarly, it also suggests that the government-owned power plant utilities should be establishing time-bound plans to replace inefficient generation units with more efficient ones.

Mohammad Humayun Kabir and Amamah Ahmad (2105) in their article "The Bay of Bengal: Next theatre for strategic power play in Asia" argue that the key significance of the Bay will increment in a nascent manner in the coming years. As the countries included are major and rising forces, the strategic maneuver in the region will unavoidably reshape the dynamic security relations of the region. The interests that are in question are additionally of critical significance to the nations included; thus, their security will likewise request a fast militarization of the littoral countries. The greater part of these nations is currently diverting their concentration from land to marine, which is adding a radical shift to the significance of the Bay. This paper contends that coexistence and rivalry are in every one of the countries' best interests, as any contention in the Bay locale could acquire political, economic, and energy influencing all the concerned nations. Another part of this paper investigates is the ramifications of this rivalry on the smaller actors and their job in the strategies of the bigger powers. To manage a comprehensive and all-encompassing perspective, empirical, geostrategic, economic, and social components have been considered in this writing.

Christian Winzer (2012)argues in "Conceptualizing energy security" that energy security is one of the principles focuses of energy strategy. However, the term has not been perceptibly characterized, which poses difficulty to balance in terms of another policy mechanism. They marked the vagueness of the definition of energy security. Utilizing contextual investigation for three European nations, they delineate how the determination of conceptual limits along these measurements decides the result. This brings a definition of energy security with regards to its supply and demand. If security is characterized from the point of view of private usage, end consumers, or community workers, the idea could additionally be drawn to the coherence of product and service supplies, or the effect of supply discontinuities on the pace of the economy.

In the "Indicators for energy security" Bert Kruyt et. al. (2009) wrote that the concept of energy security is a widely used one, yet there has been no consensus on its precise interpretation. In this research, the authors widely talk about how energy security is a fact and how oil is relevant to political stability. The authors also focus on the interest in energy security is based on the notion that an uninterrupted supply of energy is critical for the functioning of an economy. However, an exact definition of energy security (or its synonymsecurity of supply (SOS) is hard to give as it has different meanings to different people at different moments in time. They define it from different perspectives. The authors find out some energy indicators which depend on oil. In this paper, the author divided four perspectives of the energy system on which they focus into the four categories-Availability, Accessibility, Affordability, and Acceptability.

The Department of Electricity of Bangladesh government's Ministry of Power, Energy & Mineral Resources highlights the necessity and the supply and production of energy in its Annual Report. In the Annual Report 2013-14 the department claims Bangladesh should increase its electricity generation by at least 2400 MW with more than 600 km of new grid line within 2021 and eventually 4000 MW with 11000 km grid line by 2030. The report says Bangladesh could just maintain 65% of its total production capacity where it met only 53% of its total needs in 2013.

According to the Power System Master Plan 2010, Bangladesh plans to import 3500 MW electricity under sub-regional cooperation activity which included a few neighboring countries along with India majorly. As a result, in 2010, a hundredkilometer 400 kV HVDC construction has been inaugurated, and the expected 500 MW addition of electricity in the national grid planning to hit the 2400 MW with 19,000 km grid line by 2021. This report also delineates the suggestion to look for diversification of power generation by including atomic energy and other renewable energy sources.

## Geostrategic Essence of Bay of Bengal

Geostrategy is the study of geopolitical and strategic facts in a region. Geostrategy is a big factor in shaping foreign policy. It is the sub-sector of geo-politics. The Bay of Bengal has geographical and strategic importance for its basin country and also great power (USA, China). The Bay of Bengal is quickly turning into a key and important zone of monetary and key rivalry in the Indo-Pacific region. The Bay is the biggest cove on the planet, and it has extraordinary geographical and strategic an significance. The Bay of Bengal is the extension of the northeastern part of the Indian Ocean. The Bay of Bengal is secured by India on its western side and Thailand to its east, with Bangladesh, Myanmar, and Sri Lanka in the middle, this piece of the Asian littoral has a gigantic population and is passed by a portion of the world's most critical exchanging region. Nations, for example,

Bangladesh, Sri Lanka, and Myanmar passed up the incredible monetary experienced by the East Asian tigers amid the last piece of the twentieth century. The Bay isn't given the vital consideration showered on East Asia, West Asia, or the Middle East. Nor has it seen the promotion given to India as a rising local power. In reality, a great part of the Bay has been of little enthusiasm to the world. The Bay also has great importance for natural resources, location, the strategic importance of south Asia.





The Bay of Bengal is situated in the Northern Part of the Indian Ocean. The Bay covered all most 2,173,000 square km area (World Atlas-2018). The bay is geographically most important because of its sea routes, it begins from Sri Lanka up to the shoreline of Eastern India and bending Bangladesh Myanmar, Thailand, Malaysia, and some part of Indonesia. Statics show that world 1/3 people live in this region and the number is all most .5 billion (World Atlas-2018).

In this map above, this is clearly seen that the bay is based upon three huge economic regional blocks:

- 1. SAARC - The South Asian Association for Regional Cooperation.
- 2. ASEAN The Association of Southeast Asian Nations.
- BIMSTEC Bay of Bengal Initiative for Multi-3. Sectoral Technical and Economic Cooperation.

This three-regional organization connects the East Asian economy to middle eastern oil resources. Statics of British Petroliam (BP) shows that 100 trillion cubic feet of unexploited oil and gas are reserved in the Bay of Bengal and its 1% of the world energy. These natural resources make geostrategic importance of the Bay of Bengal and its covered country (Bangladesh, Myanmar, Malaysia, Thailand, Indonesia, Sri Lanka, and India). As a global power, the USA and China have a strategic influence over the Bay of Bengal as well. **Factors Behind the Importance of Bay of Bengal** 

For a long time, the Bay of Bengal was a backwater and isolated from world concern. The  $20^{\text{th}}$ importance increases in the century approximately in 1980 when Myanmar opened its contribution to the world community. Over the years influence now that changed shape to compete in between India, Myanmar, China, USA, Bangladesh, and southeast Asian Neighbor country. There are some factors behind the competition among the regional and global power in the Bay of Bengal. The factors are,

# 1. Economic

The ascent of Asian economies started with the Chinese movement to neighboring Asian nations in the sixteenth century achieving its peak in 1949. Chinese policy has a great impact on the basin country of The Bay of Bengal. If we see, In the ongoing years' japan put a ton of cash in the development of infrastructure and technological advancement and modern division around the bay basin country, that makes this district financially more grounded. After individual nations had picked up their autonomy, present-day ventures followed in oil, car plants, and telecoms driving the economies. Sending out RMG item additionally a major wellspring of the economy of this district exceptionally Bangladesh, India. The accompanying ASEAN part nations are the significant movers in the locale's economy. Then again BIMSTEC, SAARC, ASEAN have increased two-sided exchange, and financial collaboration, mutual trust, among the country.

If we break down the financial state of southeast Asian Country-we see that China is the country that has turned into the primary merchant of crude materials, is one of the greatest assembling countries all around, and is irrefutably the biggest purchaser showcase on the planet. India and the littler littoral nations have likewise expanded fares and reciprocal exchange with South and Southeast Asian nations. Bangladesh likewise assumes a fundamental job with regards to the southeast Asian Economy.

## 2. Energy

Most of the Asian nations have growing energy demand because of industrialization in this region. Asian superpower China is expected to surpass the USA in terms of energy demand by 2015. China and India are the highest net oil importers among all the developed country (World Energy Report-2015). China and India have now become heavily dependent on oil imports, which are expected to rise to 75% and 95% respectively of their total oil consumption by 2030. India mainly imports its oil from Iran and middle-eastern countries. In terms of natural gas, their imports are also expected to increase to 40% (China) and 50% (India) (HCSS 2010). This will make the two nations (China, India) alliance on vitality imports over land and via ocean. Therefore, the significance of the Bay of Bengal as a traveled area will continue expanding, as it will observe the development of SLOCs and increase of maritime nearness for the two power India and China. Because of its vital area, the Bay of Bengal not just serves the littoral countries around the Bay yet, in addition, other significant performing artists like China and Japan, which through the Malacca Strait, get to it for exchange merchandise and vitality.

# 3. Politics

Southeast Asian countries' politics are now more stable. Now India is the world's biggest democratic country. In the 20<sup>th</sup> century, the political condition of South Asia is not stable. The assassination of political leaders in this period happened rapidly. The politics of South East Asia especially in Bangladesh and India controlled by family politics. Indira Gandhi, Rajiv Gandhi, Sheikh Mujibur Rahman killing is the result of the political instability of the 20th century in Southeast Asia. On the other hand, the politics of China is controlled by one-party rule and their Chinese communism has a big influence over Chinese people. This political stability makes China now the world superpower, economical giant. Now the political stability and democracy make south Asia the world rising political power. India now plays as a regional power.

## 4. Connectivity

South Asian countries' connectivity through BIMSTEC, SAARC, ASEAN plays an important role. Bilateral co-operation increasing among the country. We see that South Asian countries signed-(SAFTA) South Asian Free Trade Area through SAARC and growing connectivity in the development and technology sector through BIMSTEC. Now we see that bilateral connectivity increasing among the nation, Indo-Bangla, Indo-China, Bangladesh-China bi-lateral trade relations, and trade agreements are signed. Chinese investment in the Bay of Bengal region also increases connectivity among the nation.

#### **Regional Significance**

Bangladesh is being arranged in South Asia its significance on account of its geopolitical area is expanding step by step with the expanding significance of South Asia and extensively in Asian Politics. Two victories,

- UN tribunal has awarded Bangladesh nearly four-fifths of an area sprawling over 25000 sq km in the Bay of Bengal region, ending a threedecade-old dispute over a sea border with India (Al Jazeera, 2014).
- 2. According to the recent verdict of the International Tribunal for the Law of the Sea (ITLOS), Bangladesh has exclusive economic and territorial rights for 200 miles into the Bay of Bengal, a substantial share of the outer continental shelf beyond 200 miles, and a full 12-mile territorial area around St. Martin Island (Daily Star, 2012).

The land area of Bangladesh is a dominant actuality that impacts the chiefs in making remote strategies. Because of the various elements in the formulation of foreign of a country, geographic location occupies a significant position. Not only India has an interest in the geopolitical location of Bangladesh. Yet, in addition, nations like Nepal, Bhutan, China, and the USA and even retainers like Japan and Australia are demonstrating their enthusiasm considering the geopolitical significance of Bangladesh. Nepal and Bhutan being land bolted and not having ocean get to particularly intrigued to utilize Bangladeshi's ocean ports to cultivate their exchange. Nepal, India are willing to use Sonadia deep seaport, and Payra deep seaport as China has a contending association with India dependably looks for chances to contain India geo deliberately where Bangladesh ends up one of the ideal positions to her expectation. Although the USA has its greatest maritime base in the Andaman Nicobar Islands, it intends to utilize Chittagong Sea ports to fortify its vital position in south Asia thinking about the significance of the area in World governmental issues. Even more unquestionably to the extent of any discussion with India and China, Chittagong port is the better place to contain two nuclear

powers, and which are emerging as superpowers in the region. Japan and Australia in like manner for their national interest keep up incredible relations with Bangladesh and where Australia has endeavored and help in an unprecedented plan in Chittagong slant Tracks. No state directs its outside strategy without being spurred by its national intrigue.

The Bay of Bengal is deliberately central for India due to the nearness of peripheral islands, Andaman Islands and the Nicobar Islands, and a few noteworthy ports, for example, Kolkata, Chennai, Vizag, and Tuticorin along its drift with the Bay of Bengal. A great part of the maritime activities of the 1971 Indo-Pakistani War occurred in the Bay of Bengal.

Malaysia, Thailand, and Indonesia to increase their strategic reach in the region. India also established Far Eastern Naval Command off Port Blair to increase surveillance in the adjoining Andaman Sea. The potential of natural gas exploitation also makes the Bay of Bengal important for India, Bangladesh, and Myanmar. Disputes over rights of some oil and gas blocks have caused brief diplomatic spats between India and Bangladesh. The disputed maritime boundary between Bangladesh and Myanmar has twice resulted in military tensions, in 2008 and 2009 (journal of current south Asian Affairs-2012). Myanmar and Bangladesh are currently pursuing a settlement to the boundary dispute through the International Tribunal on the Law of the Sea, while India and Bangladesh are working towards a settlement using an arbitrator. Bangladesh wins the territory of the Bay of Bengal. Bangladesh gets its control of 200 nautical miles. Through the ITLOS Bangladesh gets control of the Bay of Bengal. Through the announcement of ITLOS Bangladesh gets oil and natural gas-oriented territory. For the last 38 years between Bangladesh and Myanmar has a dispute about the control of the Bay of Bengal. Through this raid, the dispute was solved. Bangladesh gets 1 lac 11 thousand sq km control in the sea. (Daily Star, 2012) Thus the importance of Bangladesh increases in the International Arena and the superpowers have a great impact over The Bay of Bengal. But as a regional power, India wants to act as big power among the basin countries of the bay.

## **Recent Significance**

Once upon a time, Andaman and Nicobar Island were known as Kalapani. People participating in the anti-British movement were sent here in exile. The islands are mixed with the names of many legends. However, the island is still heard. On November 16, 2018, American Christian missionary John Allen Chaouk was shot dead by indigenous Sentinelese. He tried to land on North Sentinel Island for the promotion of Christianity. But the indigenous people did not want him to go there. They wanted to be like them. The Christian gentleman has been killed, the most remote and most isolated island of the Andaman Islands. The Indian government cannot go here. That island is a talk of a US priest. But there is a big story behind the scenes of Andaman, and modern geopolitical problems arise.

In the remote islands in the middle of Southeast Asia and the India sub-continent, India is now building sophisticated and highly decorated bases. India is now seeking to conduct surveillance of surveillance Chinese submarines in the Malacca Route Andaman and Nicobar Island adjacent to India has developed the Andaman and Nicobar Command. This is India's first and only Tri-service command. Its headquarters in the main city of Port Blair and Nicobar has its own boat station. In the context of China's expansion of its naval presence in the Indian Ocean, Andaman became the land of the geopolitical competition for two Asian giants. India's Prime Minister Narendra Modi is scheduled to tour Andaman on December 30. The purpose of his visit will be to celebrate the 75th anniversary of the hoisting of the Indian National Flag at Port Blair and the Azad Hind Declaration. Azad Hind was a temporary government established in 1943. This government was established with assistance from Japan, Germany during World War II. During the war, the Japanese captured Andaman and Nicobar. This was the only Indian territory under Tokyo's control.

At that time the allies of Japan were Indian National Army chief Subhash Chandra Bose. He was fighting alongside Japanese forces. Modi will take part in the ceremony organized in memory of the war Now Japanese and Indian nationalists are in the same position. This is what happened in this incident. Modi and Japanese Prime Minister Shinzo Abe believe in a similar concept. In a short time, the ships of the Japanese Navy also appeared in Port Blair. Both aim to resist China in the Indian Ocean. Apart from China's Belt and Road Initiative (BRI), Japan and India are also in the same position. The decision to set up military command in Andaman was made before the BRI, in 1995. That decision was taken at a closed-door meeting between Prime Minister of India Narseema Rao and US President Bill Clinton. It was clear that China wants to establish its presence in the Indian Ocean. The plan was finalized during Clinton's visit to India in 2000. The US naval ship was anchored in Port Blair. India has opened its naval fleet to the US in 2016, in exchange for the benefit of arms to reduce the military technical gap with China. In particular, India is getting US assistance to identify Chinese submarines. But during the Donald Trump period, India is not getting assured support as usual. That is why they are going to Japan.

During the visit of Modi to Japan last October, the two countries agreed on various military assistance. Especially the advantage of surveillance is that India has the advantage of getting more. There are logical reasons for the Chinese presence in the Indian Ocean. Most of the country's trade is on this route, with most of its energy being imported here. The military establishment on China's first overseas ground in Djibouti proves that China Navy will set up bases in Gwadar of Pakistan, Myanmar's Kyawk Pyiu, and Sri Lankan Hambantota. Modi's upcoming Andaman tour is actually an attempt to make relations between Japan and India closer. The members of the isolated Sentinelese do not even know what they are going to be on the very nearby island. But the rest of the world knows, the new Cold War is beginning on the horizon of the Indian Ocean, and this battle is going to be the important center for the Andaman Islands. But who will benefit? At least those who own the islands, they are not at least. They want to live in the cleanness of nature. They do not believe in the corruption of the modern world. Without understanding them, their area is now turned into a land of horrific competition.

## **Future Challenges for Bangladesh**

Bangladesh has been advancing towards a middle-income country from low income in recent years. Bangladesh has developed very decent industrialization especially in the 1990s onwards which made Bangladesh the second-fastest growing

economy in 2016 by IMF's account with a rate of 7.1 percent (Devnath, 2016). The economy has grown at least six-folds by the past two years. Besides, this rapid growth in industrialization has also made Bangladesh a massive consumer of energy resources as well. But, not being a producer of the most utilized resource, Bangladesh heavily depends on imported petroleum resources mostly from the Middle East although it produces natural gas from the domestic gas fields. For the growing need for energy resources, India and Bangladesh have come under an agreement on a 136 kilometers oil pipeline construction which is to be completed by 2020. From this pipeline, Bangladesh would receive 10,000 to 12,000 kiloliters of diesel to facilitate its northern territories (Bose, 2018). On the other hand, Bangladesh depends on Middle Eastern crude oil mostly alongside imports some other petroleum byproducts such as tar, naphtha, and bitumen from Malaysia and Singapore (Devare, 2008).

According to the Annual report 2013-14 the department of electricity, production needs to be increased 24000 MW within 2021. On the other hand, the next goal is to produce 40000 MW in 2030. Bangladesh government Plans to construct 600 km grid line in 2021, at a time 11000 km grid line will be constructed within 2030. Production capacity in 2013 was 10264 MW and the highest production was 6675 MW. In 2014 the production capacity was 11265 MW and the highest production was 7418 MW. Which is only 65% of the total production capacity. According to the annual report 2013-14, the highest production of electricity was 7747 MW.

In the power system master plan 2010, a longterm blueprint has been made because the electricity production planning commission declared coal is used as the main fuel in electricity production. So, there is no doubt about the subtle impact of coal on electricity production. It has been declared that 20000 MW which is 50% of total production will be coal-based electricity. Efficient allocation of coal in electricity production can be very fruitful for your country but in that case, proper surveillance of government is a must. On the other hand, under a sub-regional cooperation activity, 3500 MW electricity import planning has been taken within 2030. Which includes India and many other countries. In the presence of both countries' prime ministers, the agenda has been already made in the year 2010 that from Baharampur (India) to Veramara (Bangladesh) 100 km 400 KV line HVDC will be constructed. This leads to 500 MW electricity importation from the year 2013. It's a bilateral contract between two countries. Beyond any doubt, it has been an appreciable step taken by the Bangladesh government. In the SAARC summit, a framework agreement for energy cooperation was signed in 2014. 73 percent of electricity is produced by the use of gas which grew up to 89 percent in the year 2009.

In the context of Bangladesh, electricity production is time-consuming and very expensive. The government has taken the necessary steps to ensure the proper distribution of electricity throughout the country within 2021. The main challenge is to accumulate the bulk amount of capital for the mammoth size of the project. There are hundreds of steps that have been taken to secure the electricity problem but the fact is the technological limitation and lack of skilled labor. The present scenario of electricity is pretty convincing, so we can hope an unprecedented change in electricity production is sailing in recent future.

diversification of energy resources The proposed in the PSMP is 50% coal, 5% oil, 20% others (atomic, sustainable, regional cooperation), and 25% gas biased. Mostly the goal is to hit the production capacity 2400 MW by 2021 and operate lines approximately 19000 circuit km. The distribution line will be increased to 4 lack 80000 km by 2021. Minimum 10 percent of total electricity production must produce from 3500 MW sustainable resources. electricity importation will satisfy through the regional grid. By 2021, 6000 MW coal-based electricity production (Ministry of Power, Energy and Mineral Resources, 2016).

Bangladesh has large natural gas resources rather than the resources of oil and coal. The commercial energy demand is fulfilled by imported oil resources almost entirely often the 71% consumption of natural gas. In the context of Bangladesh, only 18% of the population (25% in urban areas and 10% in rural areas) has access to electricity (Bangladesh Country Analysis Brief, 2001). On the other hand wood, animal wastes, and crop residues (non-commercial energy sources) are accounted approximately half of the country's energy consumption. Wood consumption for fuel also contributed to deforestation and as well as environmental problems in Bangladesh. Most importantly Bangladesh loses around \$1 billion per year, because of unreliable energy supplies. As a result, Bangladesh cannot import more energy from its neighboring states. (World Bank)

Hence, it is obvious to say how much petroleum resources are needed to facilitate its growth and economic development as well as the force of industrialization and urbanization. Therefore, the vulnerable energy supplying routes and the rivalry between China and India for the strengthened sphere of influence pose potential insecurity in the Bay of Bengal region. Bangladesh needs to minimize this security dilemma to enhance better trade and commerce for common development. And this can only be ensured through the cooperative coexistence of the major powers in the region in this age of globalization and a freemarket economy.

## **CONCLUSION**

In the case of global politics, the Bay of Bengal is becoming a major issue. The geostrategic location and the reserve of natural resources in the Bay of Bengal littoral countries make the region attractive to the great powers. The rivalry between India and China is prominent regarding energy security issues. Other countries in the Bay of Bengal littorals like Bangladesh and Myanmar are also becoming important actors regarding this issue. This has created a complex situation between the countries near the Bay of Bengal. The rising energy demand for India and China is driving the competition between them which is making the Bay of Bengal an important region to hold their control over. For their intense rivalry, the Bay of Bengal littoral countries like Bangladesh and Myanmar are becoming important.

 To solve the complexities of the relationship between these great powers regarding the Bay of Bengal regional and multilateral cooperation is needed based on a neoliberal approach towards the vulnerabilities and the economies of the states. In this case, the multilateral platforms like BIMSTEC, ASEAN, ASEAN + 3, etc. would so influential regimes to initiate and implement the cooperation along the region.

- 2. Regional energy cooperation agreements are considered by the SAARC or ASEAN's activities: The ASEAN + 3, SAARC, etc. organizations should first look towards mitigating the difference and clash of common interests such as between Indonesia and Malaysia on the oil-rich island Ambalat in the Sulawesi sea, four states' rivalry over the oil-rich Spratly Islands in the South China Sea and between India and Bangladesh over transborder rivers and so on.
- 3. Trans-regional cooperation like BIMSTEC is also favorable to solve the complexities between the countries impacting their energy security. BIMSTEC, in this regard, has already drawn an action plan on energy exchange and development project in October 2005.
- 4. The implementation of the 'energy charter' of BIMSTEC adopted in October 2005 can be updated to enhance the energy trade among the member states. Additionally, cooperation can be drawn on the trans-regional sharing of technical know-how to mutually improve the regional energy supply-demand dynamics. In that case, the BIMSTEC countries agreed 'power transmission network' can be a very influential catalyst.
- 5. An implementation of the BISTEC considered transregional gas pipeline would be very helpful in cooperation with the potential rival countries.
- 6. Energy independence is another issue that can be included here. Energy independence for power generation may well be within the realm of possibility. The perspective of the Bay of Bengal and the littoral countries make a huge impact here while turning themselves towards renewable energy sources such as the Quaid-e-Azam Solar Park Project, a cooperative between China and the Government of Punjab, Pakistan since 2014.

Hence, these policy recommendations would be very influential in developing more complex interdependence economically which, thus, would drive the actors to neutralize the tensions and pursue a cooperative policy formulation process over the Bay of Bengal's energy dimension. Here, Bangladesh's job is to contribute to the regional platforms with political and diplomatic initiatives as lead or supporting role player in particular -BIMSTEC could be the most influential one to better include the East and Southeast Asian nations.

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