TRINCOMALEE CONSULTATIONS 2018

Secure and Safe Bay of Bengal
for Common Development and Prosperity

March 27th, 2018
Colombo, Sri Lanka

Organized by the Centre for Indo-Lanka Initiatives and Law of the Sea
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Concept Note for Trincomalee Consultations 2018
Secure and Safe Bay of Bengal for Common Development and Prosperity

The Indian Ocean Region is home to nearly one-third of the world's population and is of high economic and strategic significance due to its location and traffic that passes through it. It is estimated that nearly half of the world's containers, one third of bulk cargo traffic and two thirds of oil shipments pass through the Indian Ocean.

Also, there is a shift in global economic weight and influence from the Atlantic and Pacific oceans to Indo-Asia-Pacific. The rise of China to second and India to sixth position in the world economic order is a clear example of this economic shift. With a growing population in India and already a large population in China, there will be a requirement to produce and trade more. Therefore, in the 21st century, the Indian Ocean has become the key ocean for energy, trade and food security. This has led to a new interest in the freedom of navigation and overflight in the Indian Ocean. The Indian Ocean is part of global commons and many major trading nations such as the USA, Japan, China, South Korea, Australia and Asian countries have shown their interest in this ocean. There are also some politically and security-wise unstable states in the Indian Ocean, which add to the volatility of strategic maritime security. Also, the presence of non-state actors such as pirates, terrorists, hijackers, IUU fishers, religious extremists, and smugglers of weapons/narcotics/humans, make maritime security a complex scenario.

Sri Lanka, being in the geographical epicentre of the Indian Ocean and having balanced relations with other states in the region, has a unique advantage in bringing scholars, practitioners and think-tanks from across the Indo-Asia Pacific region to discuss a wide variety of topics and can become a hub for new concepts such as Maritime Domain Awareness (MDA) and an International Oceanology Research Centre focusing on the Bay of Bengal Region.

The Centre for Indo-Lanka Initiatives (CILI) of the Pathfinder Foundation, together with Carnegie India, conducted a successful track 1.5 conference in February 2017 focusing on the topic "Trincomalee Consultations: Regional Cooperation for Economic Prosperity and Maritime Security in the Bay of Bengal", with the participation of government officials, scholars and subject experts from India, Bangladesh, Nepal, Maldives, BIMSTEC, Japan and Sri Lanka.

The agenda of the conference was designed to focus on the following sub-themes:

- Review the unfolding geo-strategic significance of and assess the regional security cooperation demands in the Bay of Bengal region.

- Examine the current state of cooperation among the countries in the Bay of Bengal Region in maritime transportation, aviation and other sectors of economic activity.

- Discuss the potential for developing Trincomalee as a regional hub for shipping, aviation and other sectors of economic activity to serve the Bay of Bengal Region and develop a way forward for further enhancement of cooperation.

Based on the outcome recommendations of the Trincomalee Consultations 2017, three separate research projects have been conducted with the sponsorship of the Government of Japan, which formed the backbone of 'Trincomalee Consultations 2018'.

The Indian Ocean is part of global commons and hence should be accessible to all states for peaceful purposes. Sri Lanka, situated in a geographically strategic position and having a balanced and equidistant foreign policy, could play a catalyst role in moving ahead with an “Indian Ocean Order” for maintaining stability and security of seaborne commerce and freedom in the Indian Ocean.

The ‘Trincomalee Consultations - 2018’ focus on the following broad areas:

- Review the unfolding geo-strategic significance of and assess the regional security cooperation demands in the Bay of Bengal Region.

- Examine the current state of cooperation among the countries in the Bay of Bengal Region in maritime transport, aviation and other sectors of economic activity. Establishing centers for Maritime Domain Awareness (MDA), Humanitarian Assistance and Disaster Relief (HADR), Law of the Sea and a Maritime Research Center in Trincomalee, focusing on the Bay of Bengal.

- Discuss the potential for developing Trincomalee as a regional hub for shipping (with special focus on coastal shipping), aviation, Petro-chemicals, high-speed rail connectivity, electricity grid connectivity, enhancing people-to-people connectivity

through religious, cultural, eco-tourism and other sectors of economic activity to serve the Bay of Bengal Region and develop a way forward for further enhancement of cooperation.

This forum will also aim to highlight the challenges in information sharing, while underlining the required mechanisms, infrastructure and technical expertise to promote a stable, peaceful and free Bay of Bengal.

Address by the Chief Guest

Hon. Ruwan Wijewardene
State Minister of Defence of the Democratic Socialist Republic of Sri Lanka

I am indeed honoured to be invited by the Pathfinder Foundation to attend the inauguration of '*Trincomalee Consultations - 2018'*, which is the second round, following the successful first round held in 2017. The theme of the conference is *"Secure and Safe Bay of Bengal For Common Development and Prosperity",* and I take that, what is intended to be discussed is development potential for prosperity of the countries and people living around the rim of the bay in a secure environment.

The Bay of Bengal is a dynamic region located in the Indian Ocean, which is home to nearly one quarter of the world's population. Moreover, the Indian Ocean is of high economic and strategic significance to the world due to the sheer volume of maritime traffic that passes through it. It is estimated that nearly half of world's container shipping, one third of bulk cargo traffic and two thirds of oil shipments pass through the Indian Ocean.

The Bay of Bengal is the world's largest bay, which plays a significant role in maritime affairs of the world as the connector between the Indian and Western Pacific Oceans. Its waters wash shores of Bangladesh, India, Myanmar and Sri Lanka. Several other countries are located in the periphery of the Bay, including Indonesia, Malaysia and Thailand. The combined population of these countries is close to 2 billion.

Over the years, there has been a gradual shift in global economic weight and influence from the Atlantic and Pacific Oceans to Indo-Pacific. Rise of China to the second and India to the sixth position in the world economic order, is a clear example of this dynamic economic shift, which is constantly changing leading to strategic concerns. With a growing population in India and a slightly larger population in China, there will be a need to produce, transport and trade more, generating demand and competition for raw materials. Consequently, the Indian Ocean has become the key ocean for supply of energy, trade and food security in the 21st century. These developments have also led to rivalries leading to new interest in the freedom of navigation and overflight in the Indian Ocean.

The Indian Ocean is part of global commons and many major trading nations such as the USA, Japan, China, Republic of Korea, Australia as well as other major maritime users appear to be concerned of recent developments in the Indian Ocean region. There are also several politically and security-wise unstable states in the Indian Ocean region, which add to the volatility of

strategic maritime security. Also, presence of non-state actors such as pirates, terrorists, hijackers, IUU fishers, religious extremists, and smugglers of weapons, narcotics and humans, make maritime security a complex task.

India and Sri Lanka have the unique advantage of straddling the Arabian Sea as well as the Bay of Bengal. With India's "Act East Policy", Japan's "Free and Open Indo-Pacific policy", the USA's "Rebalance to Indo-Pacific strategy" and "China's 21st Century Maritime Silk Road" project, the Bay of Bengal has assumed immense strategic significance.

Sri Lanka, situated in the epicentre of the Indian Ocean and having cordial relations with all states in the region, is geographically well positioned to bring scholars, think-tanks and policy makers from across the Indo-Pacific region to discuss a wide variety of subjects and new concepts such as '*Maritime Domain Awareness'* (MDA) and institutions such as '*International Oceanology Research Centre'*, focusing on the Bay of Bengal region. Similarly, taking advantage of Trincomalee, one of the largest natural harbours in the world, Sri Lanka could play a significant role in enhancing connectivity for shared development among the countries in the Bay of Bengal region.

Sri Lanka has been tasked to function as the lead country to develop a new maritime security and safety framework for Indian Ocean Rim Association (IORA). There is a special committee appointed to undertake this task and I am of the view that contribution from this conference would be beneficial for such deliberations as well. We need a collaborative approach, we need partnership, we need fresh thinking and we need to work together to protect the common heritage of the oceans for present and future generations.

I consider this consultation process focusing on the common destiny and shared prosperity of the Bay of Bengal is timely and important. I would like to congratulate Pathfinder Foundation for the initiative taken in creating progressive academic discussion and supporting the common endeavours of the Bay of Bengal community. It is refreshing to see that Pathfinder has succeeded in assembling an expert team representing the Bay of Bengal countries and other stakeholders for this event and I am confident these deliberations will be of considerable value for the Bay of Bengal community. I wish to express my appreciation to Carnegie India and Vivekananda International Foundation for partnering Pathfinder in this endeavour. I also appreciate the interest and continued commitment of the Government of Japan to prosperity of the Bay of Bengal Region.

I wish you a successful Conference.

Keynote Address

Dr. Indrajit Coomaraswamy
Governor of the Central Bank of Sri Lanka

There are almost everybody I suspect in the room is far better versed than I am on matters related to security, and so, I am going to focus on economic issues, which I hope can add some value to the discussions today.

What is happening in terms of the dynamics of the Bay of Bengal region, which may be changing the prospects of the countries of the region? As you know, South Asia is the least integrated region in the world. If you look at trade and investment, it is less integrated than every other region and sub region in the world and even the BIMSTEC region hasn't got the traction I suspect all of us hoped it would. So, what are the prospects of things changing? That's really the question I tried to answer and let me share some thoughts on it.

I think it is realistic to say that within the SAARC framework progress will continue to be very muted. There is much we, in this region, can learn from East Asia. There is a somewhat troubled history between Japan and Korea, between Japan and China but it doesn't stop them from doing billions and billions of dollars' worth of business. There are tremendously strong commercial relations among those three countries. In South Asia we have not being able to transcend our historical legacy. I think the difference is that the East Asians are very pragmatic and very focused on commercial advantage. In South Asia, we tend to be rather emotional and somewhat easily distracted. That's the difference and that's not going to change in the near future.

So what about the rest of the Bay of Bengal region? There, I suspect the narrative is different. There are changes, which we were already beginning to see, which I think are opening up new possibilities. Already if you look at the northeast of the sub-continent, you look at rail and road transit, energy grid sharing, even water sharing. Now there is progress being made between India, Bangladesh Nepal, Bhutan etc. So there is real progress, which wasn't there maybe five years ago. In the south we have made some progress in terms of grid connectivity and of course Sri Lanka and india are negotiating the Economic and Technical Cooperation Agreement (ETCA), which I think can be a very useful template for other countries in Bay of Bengal region as well.

Arguably the biggest change factor is really India's posture in the region. I will take the political

and then the economic changes and the dynamics of India's position vis a vis its neighborhood. I suspect India's neighborhood first policy is rooted at least in part to a clear recognition that instability and friction in the neighborhood will compromise India's ambitions as a global power and a rising global player. So, it is in India's interest to invest in peace and security of the region. and there seems to be a consensus across the major political groups in India, that the last two governments have both been committed to the neighborhood, which really opens up a lot of opportunities by changing the overall landscape within which bilateral relations within the overall Bay of Bengal region are evolving.

There are also changes as far as the economic dimensions are concerned, again spreading out from what is happening in india. The rise of Japan and then China pulled the whole of East and Southeast Asia up along with them. Economists talk about the 'wild geese formation', where Japan was first the lead goose and then China and the other countries, followed largely through cross border production sharing arrangements. The various supply chains that were created as Japanese and then Chinese manufacturing came to dominate the world, we haven't had that kind of scenario. India's growth has been muted. It has been at a higher level since 1991, but more recently now that the effects of de-monetization are wearing out and the glitches associated with the General Services Tax are being resolved, there is now the prospect of India, which is already the fastest growing large economy in the world, being able to sustain seven percent plus growth for some time, and if that happens that should create opportunities for the countries in the world, particularly if India's 'make in India' strategy gains traction, because that will then create supply chains and the cross border production sharing arrangements, which we have seen to the east of us being replicated in the Bay of Bengal region as well.

These are all important changes that are taking place, which have in many ways transformed the opportunities that are possible for countries in the Bay of Bengal region. Historically, particularly the small countries in the region have tended, as small countries, which are neighbors to much larger countries all over the world feel, to think of India as much as a threat than an opportunity. But now, I think the way India's political interests and global interests on the one hand, and it's economic development on the other are evolving, I think the opportunities far outweigh any potential threat.

But clearly, those of us in the region would need to be sensitive to India's geopolitical interests. I think we in Sri Lanka have learned the hard way that there are some red lines that one needs to be conscious of. That is the reality of geography, which we can't get away from. So provided we have good communication at all times and understand each other's sensitivities, I think the

political developments and the economic impetus that we seeing in India does create opportunities for the rest of the countries in the BOB region.

Let me finish by saying why I think the ETCA that SL is negotiating with India can be used as a template for other countries in the region. Whenever small countries negotiate bilateral agreements with much larger countries, clearly there is genuine and understandable concern about the asymmetry of the economies involved. so how does one deal with that asymmetry so that you get a win - win situation, whereby the smaller country also benefits? And fortunately we don't need to reinvent the wheel. There are other agreements from which we can learn, and one lesson is the agreement between a smaller and larger country must be based on the principle of non-reciprocity and special and differential treatment. What that means in practice is that the smaller country would have much longer negative lists when it comes to trade in goods, much shorter positive lists when it comes to trade in services and the smaller country will have much longer transition periods in terms of the liberalization that has been agreed as part of the trade deal. And also, there are safeguard arrangements and anti-dumping laws, which you can introduce - Sri Lanka just introduced an anti-dumping and safeguards provisions law. What the safeguard provisions do is, you can set a limit in terms of an import surge. You can say, if imports grow faster than fifteen percent in a year, you can trigger off some tariffs. So, this is again protection that a small country can have in terms of safeguards and also clearly anti-dumping legislation is necessary to ensure that there isn't any industry, which is adversely affected by dumping by being swamped by cheap imports.

There are these well-known principles as well as mechanisms that can be used to ensure that the smaller country does get a decent deal when negotiating with the larger country. One can also build in a robust dispute resolution mechanism. This is very important. Let us assume that there is no agreement between Sri Lanka and India and other countries also don’t have agreements with India. The Indian economy is going to continue to grow and grow fast. The asymmetry between India and its neighbours is going to increase. In such a context, it's in the interest of the smaller country to have a rules based framework within which trade, investment etc. takes place, because if you don’t have those rules, given the size of the Indian economy and given the rate of growth India is going to record, it will be a much more untidy and potentially more disruptive process, if you don't have a rules based framework to govern the bilateral relationship between the two countries.

In fact, it's not often understood that rules based frameworks are actually the protection for small and vulnerable countries. If you can, the more rules based frameworks you can to determine

bilateral and international relations, the greater protection there is for relatively smaller countries. There is a very, very strong rationale for putting this bilateral relationship, whether it is Sri Lanka, Nepal or Bangladesh, Bhutan or Myanmar, to put the relationship with a much larger player in the region, with the fast growing in the region, within a rules based framework, whereby the relationships between a smaller country and India can evolve within a predictable and stable environment.

Finally let me talk a little bit about Trincomalee. Clearly if the BOB region takes off, the strategic importance of Trincomalee which has been known for millennia, would be reinforced even further. not only just the port, which is very well placed as a hub for the BOB region, but also the hinterland around Trincomalee can be developed, whereby it can become an engine of growth not only for Sri Lanka but for the broader region as well. To sum up, from my point of view, there are a number of trends, which are playing themselves out, which have increased the potential for countries in the BOB to grasp opportunities, which are now there, which have emerged, which were perhaps not there five-ten years ago. So the challenge now is to grasp these opportunities, to negotiate effectively, to make sure that each of our national interests are pursued vigorously within a cooperative framework.

Thank you.

Speech by Mr Fumio Shimizu

Deputy Director General of Southeast and Southwest Asian Affairs, Ministry of foreign Affairs, Japan

First of all, I am pleased that the Trincomalee Consultations 2018 are held to exchange our views and deepen our understanding upon regional cooperation for economic prosperity and maritime security in the Bay of Bengal under the auspices of the Pathfinder Foundation, Carnegie India, Vivekananda International Foundation and the government of Japan. I hope that these consultations will contribute to the development of the Indian Ocean including the Bay of Bengal. Given the strong economic growth of the South Asian region, the Bay of Bengal is becoming more and more important as a major economic corridor to connect the Indian Ocean and the Pacific Ocean.

Today's consultations are very timely, for it allows relevant policy planners and experts to frankly exchange views on how to strengthen multilateral cooperation to make the Bay of Bengal free, open and stable. The 21st century will be an era in which the Indo-Pacific plays a leading role. In particular, the Indian Ocean including the Bay of Bengal is playing an increasingly important role as a sea of commerce: approximately 90% of the oil imported by Japan passes through this ocean and it also supports trade and business in East Asia, Southeast Asia, South Asia, the Middle East and Africa, where high growth rate is expected in the coming years.

Japan aims to secure the stability and prosperity not only in this region but also in the international community. We will do this by promoting the "Free and Open Indo-Pacific Strategy." This Strategy consists of three pillars:

1. Promotion and establishment of the rule of law and freedom of navigation:
2. Pursuit of economic prosperity by improving connectivity through quality infrastructure development in accordance with international standards:
   and
3. Commitment for peace and security, for example, capacity building on maritime law enforcement cooperation for anti-piracy, humanitarian assistance and disaster relief, and non-proliferation.

The "Free and Open Indo-Pacific Strategy" is open to all countries that support this idea and are ready to work with us. On the other hand, we must raise our voices together and confront initiatives that could prevent the Indo-Pacific oceans from being "free" and "open." Free and

open Indo-Pacific oceans cannot be realized by one country alone. It is necessary for partners sharing ideas to work together to advance relevant initiatives. In particular, the role of Sri Lanka, which is located in the core of the sea lane of the Indian Ocean, is so important. We would like to deepen cooperation with Sri Lanka to realize a free and open Indo-Pacific oceans based on the rule of law. Recently, President Sirisena visited Japan, had a summit meeting with our Prime Minister Abe and both leaders confirmed further cooperation. The role of India is also important. India has strong historical ties with both Asia and East Africa. Based on the mutually complementary relationship between India and Japan, the leaders of the two countries have agreed to seek greater synergy between the "Free and Open Indo-Pacific Strategy" and the "Act East" policy.

As we strive to meet the enormous infrastructure demand in the Indo-Pacific region, improving connectivity within the Indo-Pacific oceans regime and among the regions of the world is of vital importance. For many years, Japan has been cooperating with countries in the region to advance their national, social and economic development. This refers to the improvement of 3 types of connectivity "Physical connectivity" including ports, railroads, and roads; "people-to-people connectivity" through human resource and "institutional connectivity" through facilitation of customs procedures and other institutions. By revitalizing the flow of people and goods through such measures, we have made efforts to expand the economic zone and to build a foundation for the economic prosperity of the entire region.

The values of freedom, democracy, and rule of law and market economy have already taken root in Southeast and Southwest Asia, fostering confidence, responsibility and leadership. It is important to share our experience in Asia with the Middle East, Africa and the Pacific island countries, to draw out the potential power of these regions. Therefore, we must improve the "connectivity" between the Asia-Pacific, the Middle East and Africa. Furthermore, by creating economic zones through the encouragement of private sector business and development of a business environment, we aim to promote the stability and prosperity of the wider region.

We envision an era in which a sophisticated value chain ties together ASEAN countries, Southwest Asian countries, Middle Eastern countries African countries and Pacific island countries. For this purpose, we aim to improve regional connectivity, develop business environment through the conclusion of investment and economic partnership agreements, and take comprehensive initiatives that include outer island development and energy development.

Japan puts importance on "quality infrastructure" in order to support the steady growth of developing countries. When providing investment and support to infrastructure projects such as ports, railroads, roads, it is important to develop quality infrastructure in accordance with international standards. Specifically, the financial viability of recipient countries among other factors should be ensured. Furthermore, ensuring openness and transparency in the operation of the infrastructure is also important.

In order to ensure a free and open Indo- pacific ocean including the Bay of Bengal to be based on the rule of law, it is important that infrastructure such as ports in Sri Lanka, which is located in vital point of Indian Ocean, is developed in accordance with international standards and operated openly and transparently. In order to assist the development of Trincomalee Port, Japan has provided equipment for the port and conducted studies on distribution networks. I hope that Trincomlee Port will be developed as a hub of the Bay of Bengal.

At the same time, the Indo-Pacific oceans region is facing a variety of threats and uncertainties, which are threatening the free and open maritime order based on the rule of law. North Korea's nuclear and missile development is without doubt one of the most dangerous threats among others although we see development in the relationship between South Korea and North Korea we have not heard the change of North Korea policy toward the denuclearization directly from north Korea. We cannot achieve peace in the Asia-Pacific region without denuclearization of the Korean peninsula. We need to keep maximized pressure on North Korea, including through the full implementation of United Nations Security Council Resolutions so that North changes its policy concretely. I hope for further initiatives by the countries participating here today.

Against such backdrop, deterrence, response capabilities, and confidence building are important for ensuring security in the international community. I must repeat that a free and open maritime order based on the rule of law is the foundation of peace, stability and prosperity of the international community. When we face unilateral measures and provocations, it is necessary to use deterrence to stop attempts to change the status quo. In Particular, freedom of navigation is the key in the Indo- Pacific oceans where sea lanes exist.

At the same time, confidence building and each country's capacity building play an important role to avoid contingencies. Japan strongly supports countries in the region including Southeast Asia for their capacity building. In particular, capacity building assistance for maritime law enforcement capabilities, including Maritime Domain Awareness (MDA), is important. Japan will do whatever we can to support the efforts of coastal countries in the Indo-Pacific oceans

region. In order to solve the fundamental causes of piracy, terrorism, proliferation of weapons of mass destruction, natural disasters, and illegal operations, Japan will combine various options including ODA, defense equipment and technology cooperation to seamlessly support the capacity of countries in need to safeguard the seas. As both leaders of Sri Lanka and Japan agreed in the recent summit meeting, we will extend assistance for Sri Lanka's capacity building for maritime security and safety.

The "Free and Open Indo-Pacific Strategy" is not a strategy for the sake of one country alone. It is not opposed to specific countries nor initiatives. We are eager to collaborate and cooperate with all countries that share our vision. I believe that the Trincomalee Consultation will be a step forward towards deepening mutual understanding and strengthening relationship among the related countries with a view to promoting regional cooperation to lead economic prosperity and maritime security in the Bay of Bengal.

Thank you very much for your attention.

Speech by Vice Admiral Anil Chopra

Member of the National Security Advisory Board, Government of India

Hon. Minister, dignitaries of the dais, ladies and gentlemen,
I am here as a representative of India to contribute to the useful discussions in this forum. I am particularly glad to be here as for me, personally, the Bay of Bengal has been an area, which I have been deeply associated with, both in the Navy and Coast Guard and I am familiar not only with most of its problems but its immense potential if handled properly.

I would like to begin by following on what Dr. Coomaraswamy spoke of and talking a bit about India before any specifics of the Bay of Bengal. I am glad that Dr. Coomaraswamy mentioned that it has dawned on the Indian leadership that the stability in our neighbourhood is critical to India's continued growth as an economic entity and therefore, I would be more than happy to partner many such initiatives, which contribute to this particular objective. The phrase that I'm borrowing from Dr. Coomaraswamy is that nations in the region need to be a little more sensitive to India's geopolitical interests, when dealing with the economic stratum. As we are all aware of the geopolitical and geoeconomic realities of this region. We in India do realise that we are central not only geographically, but the realities are that we are not only the largest country in size but also in economy, military and population to be able to play a role in stabilising the entire region for the common good. Therefore, in the last years, there is tremendous emphasis for security and growth for all in the region. It is not something that is merely a slogan, but it is clear that if we are to achieve economic development, it should be together. Therefore, I think India is reaching out to its neighbours and its entire stance is one of cooperation and understanding rather than assertiveness, which may at time come across due to it being a large state.

Let me now focus on the Bay of Bengal. from the point of view of security, you would all agree that is has been a somewhat placid water in the turbulent seas in the Indian Ocean in the recent past. It is in all our interests that it remains so. Any geopolitical tensions in the Bay of Bengal would not be in anyone's interest. That is something we and even other countries realise and all our initiatives, policies and interactions with each other should be to strengthen and enhance this Bay of Bengal community so that we don't invite any sort of geopolitical tension in the region. The waters of the Bay, unfortunately are being stirred if not shaken a bit by the presence of more military activity than before. Although some would say that this is natural, it has to be contained or else it would lead to an over-militarisation of certain sea areas. This could be discussed by the think tanks represented here.

As for the economy, we can only rise as it is an area of relative poverty. But I would like to caution on one thing, which is in over optimism about the rate of growth and consequent over capacity of infrastructure and other such capital consuming initiatives. Infrastructure and connectivity greatly enhance trade and development but it can also be a drag if they preempt the development of particular regions and the local demand and local manufacturing industry. I believe that local manufacturing and demand is a precursor to big infrastructure projects and not the other way around. For example, statistics of trade in the Bay of Bengal are not great and is yet to reach the level of activity of Southeast Asia at the end of the last century. There has to be solid growth in Bangladesh, Myanmar etc. and India has to live unto its potential of being the second largest economy in the world in the next decade.

Cannot avoid commenting on extra regional activities in the Indian Ocean. for centuries it was an area of relative calm but with colonisation there was militarisation and enormous conflict. In the post-colonial era, India and Sri Lanka wished to maintain this area as a zone of peace, which was idealistic as seas are common for everyone. Today, what is of concern is not the economic activity of extra regional powers in the Bay of Bengal and the Indian Ocean, but the undue militarisation on the part of some powers, which is leading to certain amount of disquiet resulting in instability in certain areas of the Bay of Bengal. I should mention that the way Japan operates is so much more contributory to the region by it is a strategy of engagement along with assistance for the common benefit without any undue militarisation. Hence, when we speak of the Bay of Bengal, we should talk of the growth and activity of the community contributing to connectivity and other governance issues rather than the region becoming an extra regional funnel, which may not fully contribute to our community in this peace loving area of the world.

As for maritime security, as a naval officer I find that this term is used loosely and many are unsure of what it means. It is better to use maritime governance or maritime administration, which is the series of processes and organisations put in place to handle non-traditional threats at sea including piracy etc. Otherwise, we confuse geopolitical issues with very broad constabulary economic issues. In my view, it is of concern to all that we proceed with flexible arrangements rather than formal architectures. Today, technology offers the possibility of non-centric arrangements for handling everything from maritime domain awareness to issues like piracy. On the other hand, a rules based framework is needed and most large countries understand not only the desire, but also the need to assuage and assure smaller countries of such a framework.

Thank you.

ENHANCING CONNECTIVITY IN THE BAY OF BENGAL FOCUSING ON TRINCOMALEE HARBOUR

Rohan Masakorala - CEO, Shippers Academy Colombo, (Pvt) ltd
Dileepa Dissanayake – Country Director, APL logistics Lanka (Pvt) ltd

Note: *This paper has been constituted in two Parts where part one (1) discusses the overall macro picture of the bay and potential new opportunities and the second part (2) deals with specific possibility of cargo (container) handling in Sri Lanka using Trincomalee in the medium term by understanding the current dynamics of transshipment and port connectivity*.

Executive Summary

The Bay of Bengal region has about 6-8 major sea ports that are being developed for shipping. In addition, many harbours along the coast facilitate the fishing industry, and smaller ports such as KKS in Sri Lanka can be developed for regional trade among SMEs and ferry services. In the long run major ports will handle greater volumes from the Bay region in terms of exports, imports and transshipment. New markets along the region are poised to grow connecting new economic corridors of the Indian subcontinent and increasing costal shipping activities.

The region has a few challenges to transform the Bay of Bengal into a greater connected ocean area. The overall infrastructure remains poor and has large gaps to fill in order to facilitate transport and trade; hence large investments in the short to medium term are needed in many areas to support port and logistics growth. The legal systems of most countries hinder development, there are weaknesses in port state control laws, ratification of IMO conventions and specifically environment related laws, country laws relating to coastal shipping and cabotage laws among others. Secondly, the data availability is insufficient to develop proper blue prints at this moment. Furthermore, connectivity through trade facilitation is very low and so is intra region trade volume due to the combination of all these factors, but as economic activity increases, these trade barriers are expected to be reformed and volumes for both direct and indirect trade and transshipment of the Bay countries will certainly increase over the coming decade. The governments in the region must focus better and have greater cooperation to develop connectivity through the ocean, as it will yield greater economic benefits for over 2 billion people that live around and in the hinterland, connecting the Bay of Bengal. Developing ports alone is not the solution, all land-based services such as, river, road and rail connectivity to markets will have to be upgraded to achieve greater scale and bring down unit cost per ton of

cargo, which will in return bring in more service providers for logistics and shipping connectivity.

The port of Trincomalee has growth potential as it can be developed to become a regional distribution hub to service the Bay of Bengal trade and logistics needs. It will be a relatively low-cost investment to operate terminals due to the natural depth and protected harbour basin. The location is ideal to develop into an industrial/service port and a cruise ship turnaround port and to be a key node for regional security. The port may be also attractive for container feeder vessels, if other connectivity measures for mother vessels at transshipment hubs can be economically offered.

Using railways to connect ports and facilitate trade is an option, but a more detailed study and analysis is needed to develop a scaled model to get the best possible outcome. The two-way container traffic growth to and from the bay region needs to be mapped out with a long term forecast which may help to draw up the master plan for Trincomalee to be facilitated as a transit hub for transshipment of container traffic via Colombo or Hambantota.

Part 1

Rise of Asia & strategic economic corridors

The rise of Asia has been a topic of much deliberation over the past few decades, and at present this phenomenon is felt stronger than ever not only within the region, but also worldwide. It is in this context that the connectivity in the Bay of Bengal comes into play as a strategic economic corridor for trade, transport and security. The Bay along its southern border is adjacent to the busiest east west shipping route that carries 50% of global trade.

Increased focus on the largest bay of the world

The Bay covering more than 2,173,000 square kilometers is situated between vital and major sea routes and stretches from Sri Lanka up to the coast of eastern India, Bangladesh and Myanmar and heading south along Thailand and Malaysia, until it reaches the northern coast of Sumatra in Indonesia connecting the busy Malacca Straits. The waterways have been used as a primary medium of trade and have provided impetus for growth of the maritime industry and enterprises for densely populated countries.

The Bay of Bengal is increasingly gaining salience as part of a strategic maritime space and is witness to the play of geo-political interests of the many actors that are part of it. The economic front, the political front and the security aspects around the largest bay in the world and a region that connects South Asia to the rest of Asia is poised to play a significant role in maritime activity in the coming decades.

The recent growth of the Indian economy, which is forecasted to be the second largest economy in the world within a period of less than two decades, the Bay of Bengal economic corridors are poised to increase trade activities as a considerable population of over two billion people will use the ocean for economic activity through direct and indirect engagement of resources of the ocean, be it energy resources, fisheries, tourism or transport in general. The maritime related activities and role of ports will be key for growth and better connectivity.

Maritime connectivity- connecting the future

Maritime trade and maritime connectivity have been one of the oldest forms of cross-cultural and cross-civilizational interaction. It is important to understand and study the future trade, economic activity, development agendas of countries around the bay and the interests of global powers, to ensure reliable, uninterrupted and safe movement of people, goods, energy and resource supplies throughout the Indian Ocean and the rest of the world.

On the other hand, China's One Belt One Road project has got major traction among international players as it connects 65+ countries through ocean and road, where the Indian ocean and the Bay of Bengal has specific connectivity to this project. Ensuring trade and connectivity is important, but it is pragmatic that such connections should be ensured through a peaceful ocean.

This paper will attempt to analyze the ports of the Bay states scattered along the coastline of the Bay of Bengal. There will be focusing on port infrastructure, hinterland connectivity and connectivity with Bay countries. It will seek to estimate how connectivity may be improved and evaluate the implications of such developments on the life of the port community. The paper focus will be the Port of Trincomalee, which is a natural port of the east coast of Sri Lanka, which can be a regional hub for the distribution of shipping services.

The salient points:

- Bay of Bengal, maritime connectivity is likely to increase its container shipping as the countries connected will continue to increase import of consumer goods. However, many ports are identified as congested areas, port gate and on road making logistics expensive and slow.
- Currently almost all container shipping to the east coast of India except for few new ports, and/ is handled through transshipment ports of Singapore, Colombo and Tanjun Pelapast, whilst bulk shipping is done through direct callers.
- BIMSTEC countries score poorly in the World Bank's 2016 "doing business and LPI index". It is a fact that the region collectively lacks hard infrastructure, soft infrastructure and knowledge-based infrastructure to facilitate trade/ transport and lags behind global standards in almost all these areas. For the last 10 years there have been some improvements in logistics index and doing business index, but none of the countries have come within the top 30 in the world.
- Inland transport corridors connect India, Bangladesh, Nepal, Bhutan, Myanmar and Thailand. However, the region has a huge gap in terms of ports and equipment and connecting ports to the hinterland, be it road and rail or inland waterways and networked dry ports. There is enormous potential for private sector to invest and PPP to develop the regional connectivity by linking all major ports and regional transshipment hubs. Also, the potential space for dredging and canal development is huge to connect communities.
- Inland Water Transport (IWT) Corridor routes remain highly underutilized, partly due to lack of adequate drafts, navigational aids, security and limited number of ports of call and non-renewal of the protocol for longer periods. (These would require extensive measures in developing the needed hardware and software – also lack of cross border agreements.
- Being optimistic of the region and the Bay of Bengal, it is possible to assume that international investments will come into Trincomalee, especially if doors are open for global capital with strategic development polices and transparent projects are planned; if so, international partners and FDI could be in the pipeline without a problem. One must not forget the massive investment China is initiating with the One Belt One Road project in 65 countries.

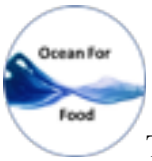
Trincomalee as a better connectivity option is:

- To fill the gaps on hard infrastructures deficiencies, systems and process gaps.
- Study to what extent the existing infrastructure serve the purposes of connectivity in the Bay of Bengal?
- What are the key difficulties in existing infrastructure and how can they be addressed?

- What are the key areas of improvement for establishing better connectivity in the Bay? To what extent is it feasible to develop ocean traffic?

Connecting for what?

People and communities connect for numerous reasons, it's important to understand the economic and geographical reasons, where activities are connected due to the expansion of transport networks of countries over a period. It is important to identify the fundamentals for this reason. The following key areas have been identified for future connectivity.



The Ocean is a major resource for coastal communities and countries that uses the maritime borders for development. Fisheries is a key component that helps economic growth and sustainable development helps to expand markets.

The Bay of Bengal region has a strong fisheries community; thousands of fisheries villages that depend on the ocean for livelihood and produce for export and domestic consumption. As economic prosperity increases and the demand for food keeps increasing with population growth, it is prudent that connectivity between harbours and ports linked with fisheries community and processing communities develop more export based cold supply chains. Therefore, the maritime connectivity through coastal shipping activity, cold storage are essential development projects to connect large and small ports in the Bay of Bengal region. Therefore, large ports such as Trincomalee and small ports such as KKS have potential in Sri Lanka to serve the needs of the fisheries industry and to formalize general trade that is happening in a minor and unorganized manner among various coastal communities. The region needs to connect better for global access through maritime networks.

In international trade, energy is a key component that will continue to be needed for economic development. The current economic growth of the Bay region countries calls for increased demand for energy resources, be it petroleum or new forms of energy such as LNG, LPG. Port connectivity for such energy sourcing, transportation and storage would be vital economic links for the countries around the Bay. Therefore, specialized transport nodes would be required for raw materials and finished products of energy to be connected among countries and for supply

chain through international shipping routes. Currently there are no strategic locations for energy management although demand and the population are on the rise. It would be a key factor for players in the region to develop infrastructure for strategic handling and distribution of energy through properly managed shipping and storage requirements. In this sense, historically the Port of Trincomalee is identified as a location that can be transformed into an energy hub for the Bay of Bengal region. Oil/LNG tank storage can be expanded as regional capacity for infrastructure needs such as upgrading. In addition, many international players seem to be looking at harnessing the energy resources in this part of the world and looking for supply chain security options for land-based nations and economic corridors of the larger nations such as India and China.

The ocean transportation can be broadly divided into few sectors: namely, break bulk, dry bulk, liquid bulk, Ro/Ro, energy, containerized and passenger

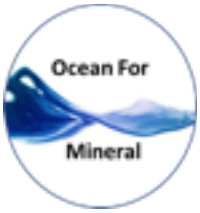
The passenger transportation of the Bay of Bengal region remains minimal. The containerized cargo for general commodities and bulk commodities are growing but remains a lower volume compared to the Arabian Sea as the main shipping route crosses the Bay on the southern tip of Sri Lanka and the Malacca Straits by passing the other Bay of Bengal countries. As a result, transshipment via Sri Lanka, Singapore and Malaysia is the preferred option by the shipping companies for containerized cargo. However, it must be noted that the shipping industry will certainly keep increasing the transshipment feeder vessel size, as the mother ships are getting larger. Therefore, port infrastructure in the coastal belt of the Bay of Bengal needs expansion to cater to this demand over the next decade in order to avoid delays and congestion for the future.

The Sagarmala project and costal countries connecting to the bay

Over the coming decade the demand for energy and bulk shipping in the region will see a considerable volume increase because of rapid economic growth among all the nations. India's development of the economic corridors along its east coast, expansion of port infrastructure under the India's Sagarmala project and opening its coastal shipping industry is bound to change the connectivity land scape along the sea belt of the Bay. It will be an important development as some of the cabotage laws are being relaxed. The India -Bangladesh coastal shipping agreement has already seen economic activity increasing among the two nations.

Bangladesh is increasingly strategically important for the economies of north-east India, Nepal and Bhutan. Bangladeshi seaports can provide competitive maritime access for the landlocked regions /countries. China also views Bangladesh as a potential gateway for its landlocked south-west, including Tibet, Sichuan and Yunnan provinces. The progress within Bangladesh – China – India – Myanmar Economic Corridor (BCIM EC) and many other connectivity nodes and growth centers should also merit consideration for greater connectivity.

The passenger transportation industry through coastal shipping is a promising economic opportunity. For decades governments have ignored this factor, but since a strong middle-income group is emerging many of the coastal states ferry and small passenger ships will have a greater opportunity to link the South Asian and ASEAN region for this segment of the market. This could even connect river ports to hinterland through low draught ferry services. This connectivity will help small businesses, passengers on pilgrimages, regional tourism and in the long run ports such as Trincomalee in Sri Lanka will be able to attract regional cruise line players to develop it as a turnaround destination.



As the global population increases and new sophisticated technologies are developed, it is evident and it is a matter of time that ocean resources will be further tapped for the usage of mankind. In this sense, it is a well-known fact that the biggest Bay in the world, which has a rich base of minerals bordering almost all countries, will attract new ocean-based investments. The activity to harness such resources, store, value add, and transport will be the requirement for investors and nations and proper and secure connectivity will be needed from costal states that surround the bay. This calls for major port facilities and infrastructure investment, both offshore and within the ports of many of countries in the Bay region and currently what is available seems not sufficient to even cater for the demand in the basic shipping sector in some ports.

AS the trade and business activity in the region expands, the importance of security in this part of the Indian Ocean must ensure to have an ocean of peace for international trade to take place and to ensure supply chain security. This will require new infrastructure for coast guards and navies to ensure border control and secure connectivity for both cargo and passenger service that will emerge. A regional coastal support services center can be provided in a natural harbour such as Trincomalee, which is closer to the main east-west shipping route than any other major port in the Bay.

Passengers, resources, cargo movement, all these needs economic sense for transport companies to take them from one destination to another. Volumes, distance, time, infrastructure all matters when shipping options are looked at to connect trade and people. Therefore, one of the most efficient ways of providing such services is through achieving economies of scale. The concept of transshipment and logistics hubs come into play due to this fundamental factor. Therefore, creation of transport nodes to multiple ports and harbors is strategically important. One of the fundamental factors a ship owner/operator decides when route planning is the location of a port from a main shipping artery. As vessel diversion time cost both money and time and may seriously impact the operating cost of a ship. In the current global container shipping industry, which accounts for about 40 merchandises that use the hub and spoke model under a fix liner schedule, allows mother vessels to call at selected ports around the world and connect cargo at transshipment locations via smaller feeder vessels. It is only the tanker/ bulk and other types of ships that make direct sailings on charter voyages.

Part 2

Potential for development of high speed rail connectivity between Colombo port and Trincomalee port to facilitate container traffic connectivity: Current dynamics of the three major ports in Sri Lanka

The Colombo Port has been a significant port on the Asia Europe Maritime route, mainly as a transshipment hub for the South Asian Region. Geographical positioning, growing trade within

India and the Bay of Bengal region, significant port developments including facilities and infrastructure in the port of Colombo as compared to other regional ports, have contributed to the growing importance of Colombo as a hub for the region.

Among the container terminals in the Bay of Bengal, only Chennai & KCPT port can handle fifth generation (5000-8000+ TEUs) container vessels. The other three major container terminals - Kolkata, Chittagong and Yangon - can handle only limited container cargo due to constraints such as basin depth, investment in infrastructure etc. Further, these are river ports and ships must travel up the river, which adds to travel time, and are thus not highly profitable due to long turnaround time, which adds to costs. Vishakhapatnam, Mongla and Kattupalli can handle only small volumes of container traffic due to space and depth constraints.

In the absence of any major container ports, regional trade is mostly connected to Singapore, Port Kelang, Tanjung Pelepas and Colombo, which have been labelled as global standard transshipment hubs and handle ships carrying 6500 TEU to 20,000 TEU. In essence, every container entering or leaving the Bay of Bengal must be loaded/unloaded at least once before it reaches any destination outside the Bay.

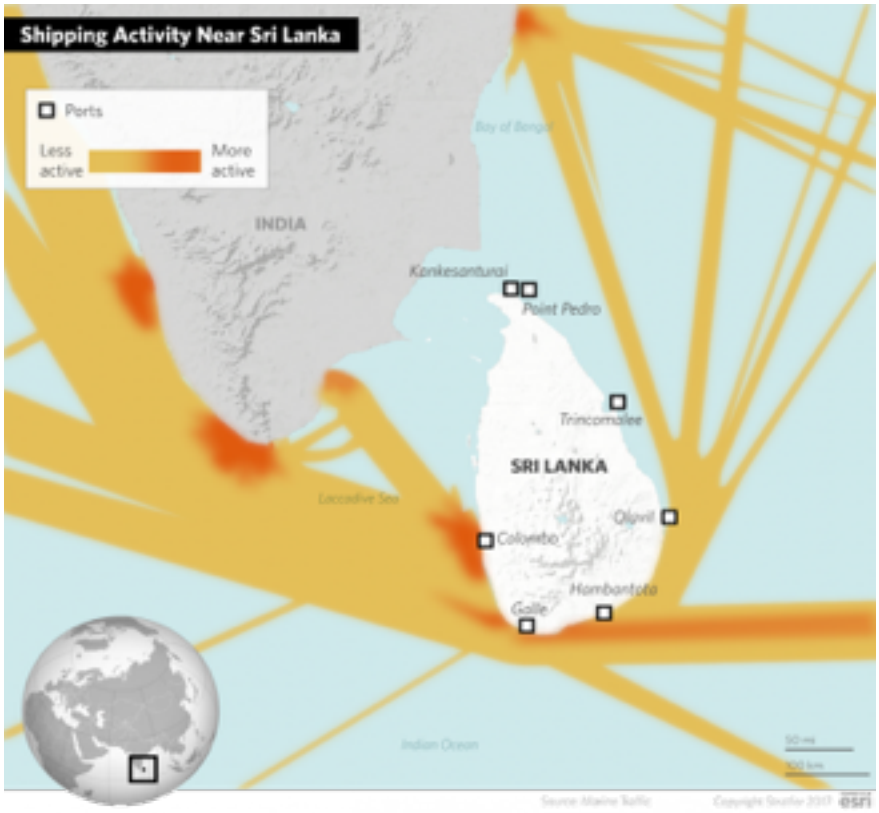
	Port Name	**Anchorage depth**	**Cargo pier depth**	**Oil terminal depth**
India	Port of Chennai	7.1m - 9.1m	7.1m - 9.1m	14m - 15.2m
India	Port of Nizampatnam	N/a	n/a	n/a
India	Port of Krishnapatnam	N/a	n/a	n/a
India	Port of Cuddalore	11m - 12.2m	1.8m - 3m	n/a
India	Port of Nagappattinam	7.1m - 9.1m	7.1m - 9.1m	14m - 15.2m
India	Port of Ennore	15.5m - 16m	14m - 15.2m	14m - 15.2m
India	Port of Kakinada	9.4m - 10m	1.8m - 3m	n/a
India	Port of Machilipatnam	7.1m - 9.1m	7.1m - 9.1m	n/a
India	Port of Vishakhapatnam	3.4m - 4.6m	9.4m - 10m	9.4m - 10m
India	Port of Pondicherry	7.1m - 9.1m	1.8m - 3m	n/a
India	Port of Paradip	9.4m - 10m	11m - 12.2m	14m - 15.2m
India	Haldia Dock Complex (HDC)	11m - 12.2m	9.4m - 10m	9.4m - 10m
India	Port of Gangavaram	N/a	n/a	n/a
Sri Lanka	Cod Bay	N/a	n/a	n/a

Sri Lanka	Galle Port			
Sri Lanka	Malay Cove	N/a	n/a	n/a
Sri Lanka	Port of Oluvil	N/a	n/a	n/a
Sri Lanka	Port of Trincomalee	23.2m - OVER	4.9m - 6.1m	9.4m - 10m
Indonesia	Port of Lhoknga	N/a	n/a	n/a
Bangladeh	Port of Chittagong	7.1m - 9.1m	7.1m - 9.1m	7.1m - 9.1m
Myanmar	Port of Sittwe	N/a	n/a	n/a

Source: http://ports.com/sea/bay-of-bengal/map/#

Deep sea terminals and transshipment

With the addition of Colombo International Container Terminals (CICT), the 2.4-million-TEU deep-sea terminal, the Port of Colombo is now the only deep -water terminal in South Asia equipped with facilities to handle mega ships. This is giving the port the unique advantage of being able to handle the increasing number of mega ships that are travelling the route.



Source: https://worldview.stratfor.com/article/big-power-little-sri-lanka-india-china-rivalry

Of the countries that border the Bay of Bengal, the main maritime countries are considered to be India, Sri Lanka and Bangladesh. 95% of India's global trade is conducted via sea out of which the Port of Colombo accounts for almost 20% of Indian trade volumes moving as transshipments. This accounts for approximately 70% of the Colombo Ports transshipment volume. The lack of direct shipping services between India, Pakistan and Bangladesh has also resulted in Colombo being used as a hub port for much of the intra- SAARC trade as well.

While India's investments in deep water ports such as Navsheva , the port of Vizhinjam in Kerala could potentially result in some reduction in transshipment volumes to Colombo from India, Colombo's geo proximity to the main Asia-EU marine route, and initiatives such as China's One Belt One Road is likely to drive transshipment volumes in the medium to long term. At present China is Africa's largest trading partner with annual trade totaling $ 2 billion and likely to grow significantly because of China's investments in Africa. The Trincomalee port, which lies on the eastern coast of the country has a basin depth of 20+ m and is considered to be the second deepest natural port in the world. The harbor includes 1600 hectares of Sea mass and 2000 hectares of land mass, which is almost 10 times the area the Colombo Port has.

In 2017, the port handled 233 ships and 4 million tons of cargo movement, which accounts for approximately 4% of the entire Sri Lanka tonnage. Currently the port handles mainly breakbulk and liquid cargo and is mainly used by Holcim for Clinker and Gypsum, the Indian Oil Corporation for petroleum products and Prima for Flour transportation. Container traffic is limited mainly due to the facts such as Colombo attracting most of the current container volumes and the Trincomalee port's lack of required infrastructure to attract containerized ships.

Emergence of Hambantota

The Hambantota Port is located on the southern tip of Sri Lanka within 10 nautical miles from the world's busiest maritime lanes; between the Malacca Straits and the Suez Canal linking Asia and Europe. It is ideally located at the intersection of the major international shipping routes. Approximately 200 to 300 ships are said to sail through this route daily. Hambantota Port is strategically positioned in terms of domestic trade perspectives also. While it can serve the southern half of the country, it is directly linked with the Central and Eastern Provinces through roadway connections.

Once completed, the Hambantota Port will occupy an area of 1,815 hectares and, according to the Master Plan, it will have the capacity to accommodate 33 vessels at a time. Once it is fully

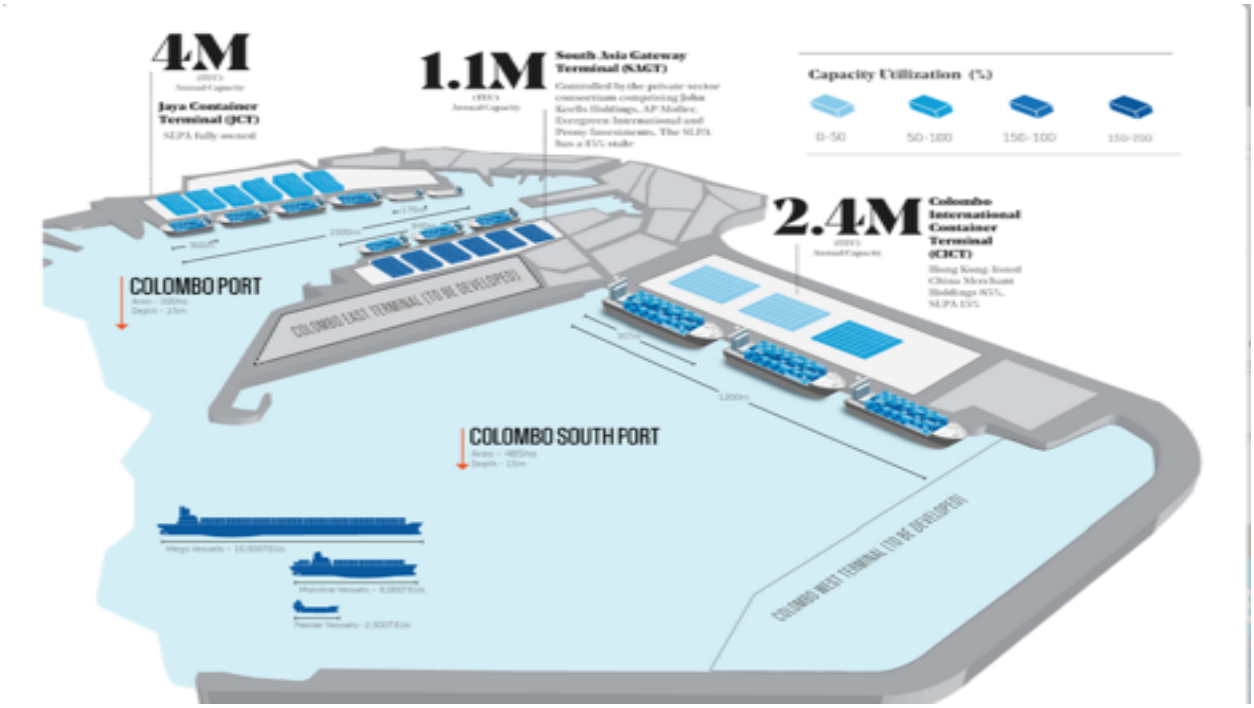
operational, it will be the world's largest port built on land, and will be able to handle up to 05 million TEUs per annum.

Despite the Hambantota port's superior geographical positioning in terms of proximity to the main East West trading route, Colombo Port continues to dominate the three ports in terms of ability to attract ships. Colombo Ports competitive advantage compared to Hambantota however lies mainly on its established reputation; while Hambantota's dismal performance could be attributed mainly to the facts such as time lag of the development and the lack of an established marketing strategy.

The changing Landscape and impact on port dynamics within the country

Port development is viewed as a key step towards achieving Sri Lanka's dream of becoming the maritime and logistics hub for the South Asian Region. The government's focus on the sector, as well as geo-politics in the region, has resulted in the three major ports in the country; Colombo, Trincomalee and Hambantota attracting considerable investments particularly from India, China, Japan and more recently Singapore.

The ongoing Colombo Port Expansion Project will add two new deep-water container terminals (East and West Terminals) to the existing four container terminals at the Port of Colombo, increasing capacity to 12 million TEUs over the medium term. Modernization of the older Jaya terminal is also under way, which will involve extending the quay length by 120 meters and procurement of three ship-to-shore gantry cranes that would enable the terminal to handle simultaneously two 330 meter length ships. The development of deep water capacity and efficiency in Port of Colombo is vitally necessary to stay competitive, particularly considering that India is increasingly looking at developing their own deep water ports and also since mega ships are increasingly becoming the norm in international maritime trade.



Source: Sri Lanka Ports Authority, industry sources

The future of Colombo vs Hambantota

Although the Colombo Port has traditionally been the dominant port in the country, the take-over of the Hambantota port by China for a period of 99 years could potentially change the status quo, where Colombo has enjoyed its position as the dominant port in Sri Lanka. Although the Hambantota port was initiated with the view of developing it as an industrial and a RO-RO port rather than a transshipment hub, there are several factors that could potentially result in Hambantota overtaking the Colombo port as a major transshipment hub in the long term.

Firstly, Hambantota is closer than Colombo to the world's busiest shipping route between the Malacca Straits and the Suez Canal. Hambantota port is only 10 nautical miles from the shipping route, while the Colombo port is in an average 4 hours. As a result, the time saving for a ship calling to Hambantota as opposed to the Colombo port is 3 hours one-way. Secondly, it is likely that with China, one of the largest port operators in the world operating the port of Hambantota, the port will be equipped with the latest technology; thereby enabling them to enjoy gains from efficiency, as well as economies of scale. This has the potential to drive down costs compared to Colombo.

Thirdly, the proposed 6000-acre industrial zone in Hambantota, funded by China as part of its One Belt One Road (OBOR) initiative could result in an increase in domestic inbound and outbound cargo which could in turn result in increased demand for port capacity in Hambantota. While Hambantota and Colombo could potentially start competing for transshipment hub status from mainly containerized cargo, there is growing interest in developing the Trincomalee port to cater mainly for liquid, break-bulk and possibly gas. Japan in particular has shown interest in developing the Trincomalee port and an Industrial Development Zone in the district. India too has shown some interest; however, its focus is mainly on the Oil tanks in the region. Apart from the interest shown by foreign parties, the government of Sri Lanka too is increasing looking at developing the Trincomalee as a metropolis growth center.

Despite plans to develop the port of Trincomalee particularly through investments by Japan, India and Singapore, it is unlikely that Trincomalee would be a focal point for container cargo in the short to medium term unless there are significant infrastructure investments such as an industrial zone which can generate significant trade volumes.

A comparison of distances and time between major ports in the Bay of Bengal and Colombo verses Trincomalee reveal that there is no significant advantage of diverting Bay of Bengal container cargo from the established Colombo Port to Trincomalee. Although comparative data is not available for connectivity between Hambantota and Bay of Bengal ports, it could be reasonably assumed based on the fundamentals of demand for maritime transportation, that the time cost saving from diverting Bay of Bengal container transshipments from Hambantota to Trincomalee is even less considering that Hambantota lies between Colombo and Trincomalee.

	Distance (Nautical Miles)	Time (hrs.)	Distance (Nautical Miles)	Time (hrs.)	Distance Variance (Nautical Miles)	Time Variance (hrs.)
	Colombo		**Trincomalee**			
Chittagong	1292	127	1040	104	252	23
Vishakapatnam	866	87	571	57	295	30
Chennai	590	59	288	29	302	30
Kolkata	1244	131	974	97	270	34
Yangon	1249	125	1039	104	210	21

Transshipment option for Trincomalee

Thus, despite Trincomalee Port's relative proximity to the Bay of Bengal and its natural basin depth, which makes it one of the best maritime ports in the world, the above analysis indicates that there would be no significant saving for shipping lines to use Trincomalee as a transshipment port instead of Colombo or Hambantota.

Another factor that may prevent Trincomalee becoming a significant port for container cargo is the current price differential in cargo handling charges between Colombo and Trincomalee. The main reason for this price differential is the relatively lower domestic export volumes from Trincomalee as compared to Colombo, which is the gateway for export cargo from the country's economic hub, the Western province. For the price differential to be more competitive the Trincomalee port would also need to increase its export volumes by developing a vibrant economic zone, which will use Trincomalee as the exit port. However, this is not likely to happen immediately, and thus Colombo would continue to be cheaper port at least in the short run.

However, possibly potential for Trincomalee to become a petroleum hub for the region. Bay of Bengal shipping primarily features liquid bulk (crude oil and petroleum products) and dry bulk (coal, iron ore, grains, bauxite, fertilizer). Container trade (merchandised goods) is quite low due to lack of infrastructure, as also the manufacturing capacity of the trading countries.

The Indian Oil Corporation (IOC), which currently runs 15 out of the 99 oil storage tanks in the lower oil tank farm in Trincomalee is currently negotiating with the Government of Sri Lanka to enter into a joint venture agreement to manage the remaining oil tanks. Reports indicate IOC is looking to use the China Bay facility to store bulk petroleum products and then transship bulk petroleum through feeder vessels to various parts of India. As one of the largest importers of petroleum in Asia, India's potential interest in developing Trincomalee as a storage facility for petroleum could bode well for the Trincomalee port's status as a hub for petroleum products.

Apart from being a transshipment point for petroleum products, there is also potential for developing a bunkering business from Trincomalee. Currently IOC is engaged in bunkering on a limited scale. Having a large fuel storage facility next to a functioning deep- water port thus makes Trincomalee a viable option for a potential hub considering the already available resources.

Current and Proposed Connectivity Platform between ports

The main modes of connectivity between the three major ports in Sri Lanka include road, railway air and sea. Inland port to port connections, however, are not vital under current demand conditions, since a major portion of the cargo to the port of Colombo and Hambantota is transshipment cargo, which is directly transferred to the main shipping route from these respective ports. Likewise, cargo arriving at the port of Trincomalee is mainly liquid, break bulk cargo and wheat, which is used for domestic consumption and thus transported inland rather from port to port.

Road connectivity is the pre-dominant mode of transportation for inland freight and is being developed substantially with expressway connections currently being developed. Colombo to Hambantota is expected to have improved connectivity through the Southern Expressway, while Colombo and Trincomalee is expected to have faster connectivity through the Northern Expressway which is already under construction. However, air connectivity is limited, although all three ports have air ports in close proximity.

The use of the existing Sri Lankan Railways to transport cargo has declined drastically in recent years due to the poor railway infrastructure. The track and rolling stock have been neglected for years and there is a lack of mechanical handling equipment, including container-lifting equipment. Furthermore, there is a shortage of storage capacity at major logistical hubs. Rail

cargo is operational, though in insignificant measures, and is currently limited to the transport of fuel (including aviation gas) and bagged wheat from the flourmill in Trincomalee to Colombo.

High speed rail is usually competitive on distances exceeding 500km. Sri Lanka is a small country where any cargo leaving Colombo by road can reach its destination within the day. Road trucks deliver their loads direct to the warehouses and the road transporters are responsible for the loading and offloading of vehicles. By contrast, local rail service is slow, does not supply cargo handlers and in most instances delivers cargo only to stations, which necessitates additional transportation arrangements.

In order to evaluate the exiting connectivity modes and proposed high speed rail connection between Colombo and Trincomalee, an analysis was carried out to compare the time and the cost of the four modes of transport, which can link the port of Colombo and Port of Trincomalee

Comparison between the four transport modes connecting the Port of Colombo and the Port of Trincomalee

	Travel Time (Hours)	**Distance (Km)**	**Max Load Capacity (Tons)**	**Max volume per Move (TEUs)**	**Avg. Volume per Move (CBM)**	**Cost per Kg (US $. / Kg)**
Air	45 Minutes to 1 Hour	238	1	1	25	30 (theoretical)
Road	6 Hours	256	30	2	50	0.01
Rail (Current)	8 - 9 Hours	298	240	8	200	0.23
Rail (High Speed)	1.5 to 2.5 Hours	298	240	8	200	Subject to potential investment
Sea	24 - 36 Hours	593	51,000	1500 - 1750	35,000 - 45,000	0.016 (theoretical)

The above analysis indicates that the most viable mode under prevailing market conditions of demand and supply is in fact the road connection. Although air transportation provides the fastest transit time, it is the most expensive.

Furthermore, the Trincomalee airport is situated between the sea and the lagoon, and therefore is unable to expand capacity beyond the current capacity of 10,000 sq. ft. Yet another constraint is that the airport can only accommodate small to medium size freighters and is mostly dedicated for military movements at present.

There have been a few attempts to promote coastal shipping between Colombo and Trincomalee, but this has stalled due to the short maritime distance, which does not provide the cost and scale economics to make sea mode viable. This can be mainly attributed to the demand in Trincomalee being not enough to create the required scale to make the sea transport economically sensible.

Existing rail freight between Colombo and Trincomalee is limited mainly due to the relatively small amounts of cargo transported between Colombo and Trincomalee and the lack of infrastructure between these ports.

Thus, although a high-speed rail connection between Colombo and Trincomalee could indeed make rail transportation more viable in terms of cost and time savings, the feasibility of such an investment would largely depend on the growth in volumes/scale and domestic demand rather than transshipment volumes alone.

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DISCUSSION POINTS - SESSION ONE

- A couple of observances connected with the topic:

  a) Isn't it right and necessary that we break down geopolitical tension, faultiness etc. into geo-economics? The more you consider the business and private sector in Sri Lanka and elsewhere we see that business and the private sector are leading players in the economy. The strategic discourse follows.

  b) Looking at prosperity and stability, it is important to create space for wealth creation and ways to get the wealth distributed. Bring in the smaller supply chains. There are smaller regimes in the North-eastern part of South Asia and the next forum can consider this case. For example, during the last 3 years of development between Delhi and Dhaka, conversations have taken place at the political level if you look at the point where the river Ganges enters Bangladesh, economic geography matters. This is a solid case for how to translate stability, prosperity and wealth creation.

  c) As per the topic, it has to be not only a safe bay, but also the hinterland. It is possible to bring in other interlocutors such as rail operators who deal with logistics as the rail landscape will substantially change. It should be complimentary with maritime connectivity.

In terms of policy, need to look at policy within national domains. For example, Bangladesh concluded coastal shipping agreements with a couple of countries. If you look at the Bay of Bengal, it needs point to point, as well as linear connectivity. A limiting factor is the merchant shipping Acts.

- Where connectivity is concerned, Sri Lanka has moved to No. 13. Therefore, the GDP growth rate should also commiserate with that growth. but unfortunately that did not happen in Sri Lanka. Mere connectivity in trans-shipment has not given the desired results. All agree on the importance of Trincomalee port therefore the request is whether this port can be used as a regional port? Under the Sagarmala project some eastern ports of India are closer to Trincomalee than to their western ports. That is where development is taking place. Suggest to make Sri Lanka’s northern and eastern ports part of Sagarmala as it also goes well with the concept. The speaker agreed that Trincomalee port being incorporated as Sagarmala + 1. There are 12 major and 15 minor Indian ports connected for coastal shipping and industrial collaboration. Sri Lanka can connect to the coastal shipping network which has not been done. The regional coastal network has not been studied in-depth. Laws governing coastal shipping such as the Merchant Shipping Law have to be reformed. Trincomalee can be a regional distribution port on the eastern side of Sri Lanka where Thailand is looking at a similar model

on the other side of the bay. We could achieve Sagarmala + 1 through dialogue with India to make Trincomalee a distribution centre for the region.

- Regarding connectivity and security, an observation was made that the Bay of Bengal has been a region of tranquility, but data suggest that the reason for this is that there is nothing much of significance going on in the region at present. With increasing connectivity, we have to be ready for a surge of non-state actors attempting to exploit the situation. With such developments, cross border terrorism and smuggling could take place. From the point of view of connectivity, what would you suggest for researchers and think-tanks in the region, as issues to look into, when increasing connectivity? *Response:* Andaman and Nicobar islands are looked at as security points in the Bay of Bengal by Indian authorities to service the main shipping route connecting east and west. Singapore and Bangladesh are connecting energy networks. It is important that BIMSTEC countries get activated and reach a common agreement as coast-guard and naval operations should be looked at in the long run as trade increases. There should be a blueprint and a plan. One of the biggest problems encountered in the research in the Bay of Bengal was the unavailability of data, so no proper analysis.

- Shipping and logistics are a huge market-based operative. Certain fundamental policy frameworks are necessary including government stability and policy consistency. The development of Trincomalee should happen through business and industry initiatives rather than government driven. In Sri Lanka, shipping should be liberalised with policy reforms that allow global business to drive itself. *Response:* The government has announced shipping liberalisation. Owners of shipping enterprises are not present in Sri Lanka, which is agency dominated. Therefore, decisions cannot be taken. At the moment, only looking at a trans-shipment model, where the unit costs are calculated. Sri Lanka is the only country in South Asia with an ocean economy where shipping is not 100 percent liberalised.

- We need shipping Acts or maritime regime governance in our sub-continent with rules, regulations and laws. This is a major lacuna. From this forum, can we extract a research topic to be presented in the next seminar on studying the legal regimes of South Asia? We can try to influence our governments that legal regimes should be in the hands of practitioners. This is a job for experts.

- There is a question of legal frameworks, which are archaic and work against businesses than facilitating them. There is a call for maritime governance rather than security. We will increasingly see police, coast-guards, constabularies rather than navies or state-to-state initiatives. This is a different geo-political issue.

ESTABLISHMENT OF A MARINE RESEARCH CENTRE

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Abstract

There is a requirement to conduct scientific research on marine environment and eco-systems, with a view for sustainable utilization of living as well as non-living resources from the Bay of Bengal Region, in keeping with objectives of the Blue Economy. In order to facilitate this, Trincomalee is an ideal location to set up such a facility to conduct research and educational programmes.

The Bay of Bengal (BoB) is the world's largest Bay and some of the world's highly populated countries rim this bay. Therefore, BoB need to be studied and understood to ensure the sustainability of its resources for the wellbeing of the billion plus world population. Its water body affects the countries even beyond the region as the land-air-sea interaction of this bay determine the climate, weather, rain-fall and thereby the livelihoods of the region.

The research by the resource personnel first examines how marine research and maritime research is defined in the world as the countries of the Bay of Bengal region being one unit appears to be non-committal to demarcate the differences. The paper then looks at the well-established marine science research in the region whilst focusing on the renewed interest on Blue Economy by the BIMSTEC members since of late. The research identifies that marine research is configured to serve national purposes rather than efforts to serve the region as a whole, indicating lack of well-established research collaborations.

Thus, making marine research a stepping stone, the study points out that maritime research could be a cooperative platform for the region as the waters of BoB seamlessly affect the whole region. In this context, Trincomalee is proposed as an idealistic location to establish a Regional Maritime Research Centre with the high potential to cater to the region as a collaborative base highlighting the need and academic value of such an endeavour. Trincomalee is offering the region the necessity of researching-together, achieving regional goals as one single forum, whilst fulfilling individual national aspirations.

The Bay of Bengal

The Bay of Bengal (BoB) is under the world's spotlight, simply because of its value in regional and global contexts are better understood now thanks to the widening scientific studies and understanding of the complex inter-related economics, environment and the oceans. Its value has been reviewed with the revival of BIMSTEC focusing on the blue economy. This Bay is the world's largest with approx. 2.2 million Sq Km of area, extending to around 1800 Km on north-south alignment but the fact that it is bordered by the world's 2nd (India) and 8th (Bangladesh) largest populations; make it even more significant on geo-politics and ocean-based resources.

The Bay is in receipt of a high volume of fresh water throughout the year primarily from the three great rivers of Ganges, Brahmaputra and Meghna and has numerous estuaries with high tidal ranges. It also has a thick sediment layer tapering down towards the southern edges of the BoB. The Andaman Nicobar ridge towards the eastern edge curtails the extension of the Bay and traps the sediment flow from the rivers. This unique feature of the sea bed makes the BoB an enclosed sea area with unrestricted access of to the Indian Ocean from only the south at a width of about 1400 Km.

The BoB is a highly populated geo-physical feature with 22% of the world population living bordering the BoB[1]. This demands that the maritime sphere be better understood through scientific studies to ensure that the environment remains sustainable in resources to cater to the requirement of the population and to uplift their livelihood.

Blue Economy, BIMSTEC and recent developments

As per the definition by the World Bank, Blue Economy is the sustainable use of ocean resources for economic growth, improved livelihoods and jobs, while preserving the health of marine and coastal ecosystems[2].

Blue economy has been specifically focused on by the BIMSTEC member nations as per the articles in '*Cooperative partnership and sustainable development; a strategy through Blue economy among BIMSTEC Countries'*; a book published by the Coastal Association for Social

[1] http://bimstec.org/overview/

[2] http://www.worldbank.org/en/news/infographic/2017/06/06/blue-economy

Transformation (COAST) Trust in November 2016. This publication (with opinions expressed by eight academics; all Fulbright scholars) discusses several aspects of economic integration among the member states to highlight the potentials of blue economy in uplifting the social status at all strata of the region. In all these articles, the relevance of ocean-based research/studies indicated that the BoB is unique in many ways and is yet to be scientifically understood. Among all member states, Bangladesh appears to be determined in all aspects to pursue its aspirations for a blue economy, when compared with other members of BIMSTEC. The Ministry of Foreign Affairs of the People's Republic of Bangladesh's, commentary titled 'Ocean/Blue Economy for Bangladesh' by Rear Admiral M. Khurshed Alam[3], indicates the wider application and the potential opportunities of blue economy for the state.

'Blue Economy Vision 2025: Harnessing Business Potential for India Inc. and International Partners' is yet another document that was published by the Federation of Indian Chambers of Commerce and Industry (FICCI)[4], in June 2016. Although the document was primarily prepared as a 'knowledge paper' this also emphasized the immense potentials of the BoB and the lacuna of scientific data to fully comprehend the potentials. Therefore, the necessity for enhanced and

[3] http://www.mofa.gov.bd/content/about-blue-economy

[4] http://ficci.in/spdocument/20896/Blue-Economy-Vision-2025.pdf

inter-linked maritime research in a politically demarcated yet seamlessly connected water mass appeared to be well endorsed by the policy makers, corporate sector and the authorities.

BIMSTEC @ 20

The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is a regional body of seven member states that was established on 9th June 1997. As its declaration indicates, the objectives of the organization are:[5]

a. To create an enabling environment for rapid economic development through identification and implementation of specific cooperation projects in the sectors of trade, investment and industry, technology, human resource development, tourism, agriculture, energy, and infrastructure and transportation.
b. To accelerate the economic growth and social progress in the sub-region through joint endeavours in a spirit of equality and partnership.
c. To promote active collaboration and mutual assistance on matters of common interest in the economic, social, technical and scientific fields.
d. To provide assistance to each other in the form of training and research facilities in the educational, professional and technical spheres.
e. To cooperate more effectively in joint efforts that are supportive of and complementary to national development plans of member states which result in tangible benefits to the people in raising their living standards, including generating employment and improving transportation and communication infrastructure.
f. To maintain close and beneficial cooperation with existing international and regional organizations with similar aims and purposes.
g. To cooperate in projects that can be dealt with most productively on a sub- regional basis and make best use of available synergies among BIMSTEC member countries.

On 6th June 2017, whilst celebrating its 20th anniversary, BIMSTEC initiated several new programmes to expand its interests to cater to the now almost 21% of the world population[6] that the organization represents. As some analysts pointed out at the BIMSTEC @ 20 summit, '*BIMSTEC region is notable for its diversity and the member states need to build on regional synergies and work towards utilising the available resources in the most optimal manner. This*

[5] http://bimstec.org/overview/

[6] https://idsa.in/idsacomments/bimstec-at-20-hopes-and-apprehensions_skundu_200617

would help build a stronger and a more dynamic BIMSTEC'[7]. Thus, what is needed focus at this juncture is to launch mechanisms for harnessing regional synergies and what could have been more applicable than to start with the maritime research!

Status of Maritime Research in the BoB

Maritime Research activities in the BoB region is fast developing and expanding, as countries and even the world is interested to investigate the maritime affiliation of the BoB globally. It appears that oceanographic research that had a national interest at first now has grown to be one of regional and even extra-regional interest. The new millennium has seen several collaborations more especially as a result of the devastating Boxing Day Tsunami on 26th Dec 2004. The deployment of Tsunami Buoys in the BoB is a clear indicator of how common concerns have contributed to these collaborations among nations.

Another new development is the relationship of the ocean and the atmosphere where scientists are interested to study the air-sea interaction that determines the weather, climate and rainfall not only in the BoB, but even beyond its immediate periphery. The initiative of Air-Sea Interaction in the Northern Indian Ocean (ASIRI) is one such significant multi-science study involving a number of research institutions from all over the world that plans to study the upper-ocean and lower-atmosphere processes and interactions in relation to Indian Ocean monsoons[8]. This study has combined research involving sixteen universities, ocean research institutions and agencies of three countries pooling their assets to study the air-sea interaction. The research demonstrates the very nature of scientific research.

This also demonstrates the necessity to engage in research beyond one's boundaries to fully comprehend the complexities of our environment. Countries may have the best research capacities in term of facilities, scientists and knowledge, but unless they have the data from someone else's domain the real potentials of these capacities cannot be fulfilled, especially in a semi-enclosed huge bay such as the BoB. The United Nation's Convention on Law of the Sea (UNCLOS) has recognised both concerns on sovereignty and science; hence have prevented engagements of scientific research in maritime jurisdictions unless mutual agreements are made.

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[7] ibid

[8] American Meteorological Society, Oct 2016

Therefore, in the BoB, the time has come for the exclusive regional or sub-regional collaboration. This collaborative arrangement attempts to look at the region as a whole as far as research studies are concerned, in order to make science work for the benefit of humankind; in this case the world's largest bay with nearly 2 billion of population who primarily depend on agriculture and fisheries for their livelihood.

Agencies in the neighbourhood

On analysing maritime research institutions in the BoB region, it is quite evident that much enthusiasm has been demonstrated for the study of maritime issues by the rim nations. Bangladesh has nine such institutions that deal with activities related to the ocean and some of them are of a collaborative nature. Some of these such as Nansen-Bangladesh International Centre for Coastal, Ocean and Climate Studies (NABIC), National Oceanographic & Marine Institute (NOAMI), Bangladesh Oceanographic Research Institute (BORI) and National Oceanographic Research Institute (NORI) are leading national institutions with high potential. India has the largest number of Institutions that deal with ocean research which total to around thirty-five where some are considered among the world best. However, there is only one national institute in Sri Lanka - National Aquatic Resources Research and Development Agency (NARA), whilst several universities have made substantial progress in ocean studies.

Further analysis of these institutions based on their published work indicate that almost all are pre-occupied with serving national interests; thereby creating a void for regional collective effort. In fact, as indicated in this paper, the BoB is a seamless water body which affects all these nations, hence, demand a space to work jointly on ocean and maritime research. If all BIMSTEC members yield high results from the blue economy that the organization is vigorously pursuing, then it is imperative that the subject of maritime research in the BoB is seen as a joint collaborative effort.

There will also be the extra-regional interests which are two dimensional. On one hand, scientists are probing the inter-connected nature of changing weather patterns as many global engagements are adding oceanographic and marine data to researching agencies. Secondly, there are geo-political interests stemming from the oceanic space which require the same data to make strategic decisions with commercial impact. This is very visible in the Indian Ocean today due to the presence of two extra-regional powers with two different ideologies. Whilst one presumes the its traditional hegemony is at stake, the other believes that improving connectivity of roads, rails and ships brings a win-win situation to all.

With the advent of blue economy, scientific research on the marine environment and eco-systems, and sustainable harvest of living as well as non-living resources from the Bay of Bengal Region are to be treaded on cautiously. On one hand national interests need to be addressed, whilst on the other, regional collaborations become a necessity but should be addressed without a compromise.

Compete or Collaborate

In this context, collaboration presents a better option than competition in a volatile geographical region of different strategic objectives and alliances. As different political masters expressed their view on the blue economy and national vision to yield results, the ultimate results depends on the amount of data in possession on maritime matters.

Indian Prime Minister Narendra Modi has spoken about the blue economy on several occasions at national and international levels. He commented 'To me the Blue chakra or wheel in India's national flag represents the potential of Blue Revolution or the Ocean Economy. That is how central the ocean economy is to us.[9]' He endorsed blue economy as a new pillar of economic activity in coastal areas and linked hinterlands through sustainable tapping of oceanic resources and announced his vision for the seas through "Security And Growth for All in the Region" (SAGAR)[10].

Bangladesh's 7th five-year plan (2016-20) has underlined the importance of the blue economy in overall socio-economic development, and has identified specific projects for sustainable growth in fisheries, especially improved aquaculture, marine culture, deep-sea fishing; renewable energy; maritime industry, including ship and boat building; eco-tourism; maintenance of inland waterways; and capacity building, including the setting up of a marine academy.[11]

Whilst all policy makers are clear on the necessity to 'conduct scientific research on the marine environment and eco-systems, with a view for sustainable harvest of living, as well as non-living resources from the Bay of Bengal Region, in keeping with objectives of the Blue Economy', the implementation of the concept needs a locality that would cater to and also facilitate

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[9] Blue Economy Vision 2025: Harnessing Business Potential for India Inc and International Partners, FICCI

[10] Blue Economy Vision 2025: Harnessing Business Potential for India Inc and International Partners, FICCI

[11] ibid

connectivity, environment for collaborative research and idealistic surroundings. As existing research agencies in the region are pre-occupied with their scheduled programmes catering to multi-faceted national issues, this paper supports the establishment of a dedicated new establishment to fulfil regional aspirations. In this context Sri Lanka is opined to be the best location as the island offers the interacting seam for the BoB and the Indian Ocean.

Location for the Joint Marine Research Centre

The City of Trincomalee

Trincomalee is a port city located in the Trincomalee district in the Eastern Province of the Country with a population of 99,000 in the district. The city is located 265 kms from Colombo with accessibility of land (road and rail), sea and air. Main economic activities are fisheries, tourism, agriculture and trade. Trincomalee is located in the dry zone of the country and is therefore exposed to longer dry and shorter wet seasons. The average rainfall is 1,570mm and temperature ranging from around 26°C (79°F) in December and January to approximately 30 °C (86°F) during the warmest months of the year from April through September. The geography of the district consists of a series of parallel ridges rising to about 300 feet in height, with several lagoons and estuaries offering a combination of eco-systems. The city's most attractive high ground are the rocky cliffs that drop 400 feet directly into the sea. The sea around Trincomalee is frequented by whales and dolphins due to the unique upwelling taking place because of the bathymetry in the seas.

Trincomalee Bay is the largest bay in the eastern coast of Sri Lanka, fringed and overlooked by terraced hills. The bay connects to the open ocean towards the northeast. Trincomalee Bay has a length of 13 km and a width of 10 km, while the mouth of the bay is 5 km wide and the entrance is guarded by two headlands. The bay has three differentiated parts, while the main bay is enclosed and deep and known as Koddiyar Bay located on the south and southeastern side of Trincomalee. It harbours Round Island, Elephant Island and Clappenburg Island in the main bay. The northern indentation is called Inner Harbour where the commercial harbour and Great Sober Island and Little Sober Islands are located. Thampalagam Bay is a mostly shallow, un-navigable western indentation with large extents of mangroves and wetlands.

The island's longest river, Mahaweli, originating from the central hills meets the sea at Koddiyar Bay in three river-mouths forming a delta that is famous as a spawning ground. In the outer harbour within the Koddiar Bay is the famous Trinco canyon with depths of more than 1000m. The high ridges in the rim of the harbour offer shelter for many flora and fauna, whilst jungles

edging to the harbour are populated by wild elephants. These features offer an environment for marine, eco and geographic studies from the territorial point of view, whilst the BoB just at the bay mouth offers a complete glimpse to the oceanographic studies with relevancy to its rim nations of India, Bangladesh and Myanmar. In fact several years back, these high grounds of Trincomalee housed the long range cyclone tracking radar installed under the UNDP project, covering the BoB to forecast the monsoons and the inter-monsoonal cyclones.

Why Trincomalee?

There are a number of reasons for the selection of Trincomalee as the site to establish a marine research centre in the BoB region.

a. Availability of space for infrastructure development
b. Weather and climatic condition in the area
c. Natural bay provides sheltered lagoons
d. Uniqueness of the location, Mammal – elephant and whale habitats
e. Availability of coastal ecosystems ranging from sand dunes to deep canyons
f. Shipping and air connectivity
g. Diversity of tourism activities for visitors

Availability of space for infrastructure development

To establish a fully furnished marine research laboratory, a coastal land located in a sheltered lagoon is of utmost importance. Infrastructure such as laboratories, lecture and discussion rooms, accommodation and dining facilities are essential for the research crew and a jetty, slipway, wet laboratory, mini marina and enclosed in-situ tanks in a calm environment and clean, clear marine water at a close distance are needed for practical marine research. Furthermore, easy access through the road network and uninterrupted water, electricity and communication supply provide a higher importance to the research complex. Unlike other cities in Sri Lanka, or in the region, Trincomalee provides a number of options for such facilities in several locations in the Trincomalee bay.

Weather and climatic condition in the area

Sunny calm days are essential to marine field research. Dry seasons are comparatively long in Trincomalee and the prevailing tropical climate is ideal for underwater research. Weather anomalies such as cyclones, tornadoes, floods and excess rain are far less. Such conditions facilitate day-night and offshore marine research. Drought conditions create opportunities to conduct research on high salinities and extreme conditions which impacts ecosystems. Further, freshwater outflow of the Mahaweli river in Koddiyar bay provides opportunity for studies on the dynamics of thermocline and freshwater and sediments recycling in Trincomalee bay.

Natural bay provides sheltered lagoons

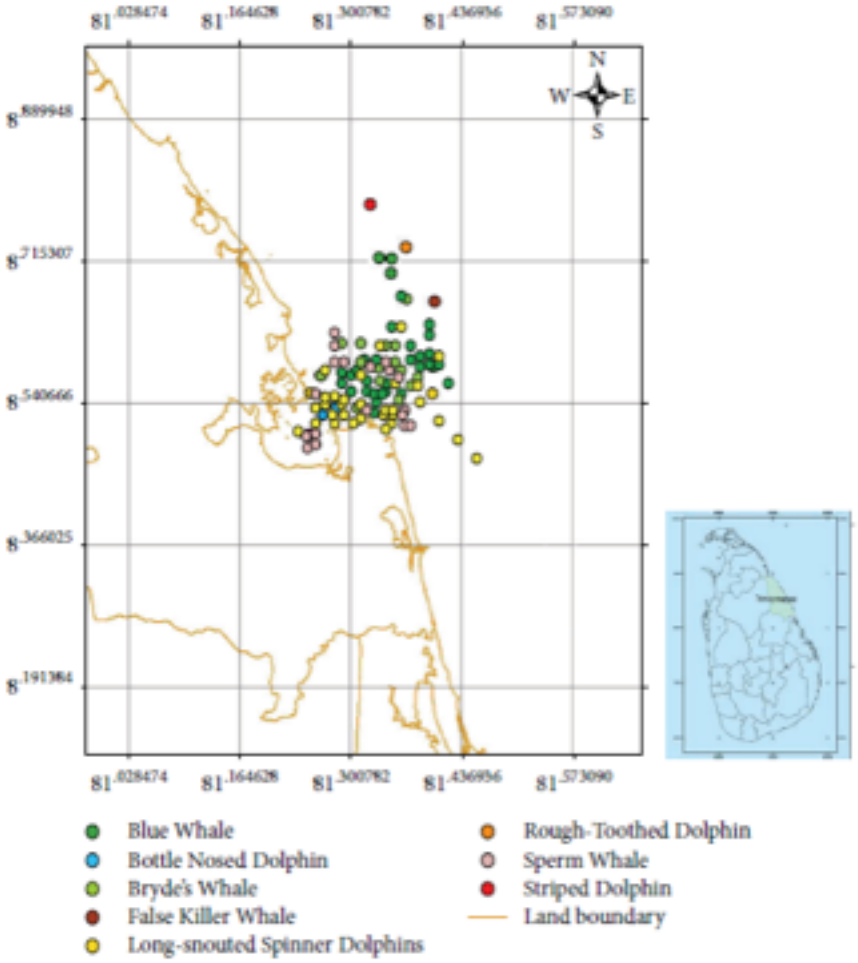
Calm flat sheltered waters are ideal for the establishment of marine in-situ research facilities. Especially in research such as coral culture, tuna and tropical ornamental fish breeding, a well circulated pond systems are the key for its success. In some areas there is a possibility to establish an extensive setup of such mesocosms and operate them even in windy conditions due to the protection given by the surrounding underwater lagoon topography and high-altitude hill structure situated around most of the lagoons. Further the deep calm waters provide excellent opportunities for underwater research, environmental and biological and underwater photography and filming throughout the year.

Uniqueness of the location, mammal - elephant whale scenario

Trincomalee is the only place where one can observe the largest existing mammal on the planet, elephant (*Elephas maximus*) and the largest existing mammal in the ocean, Blue whale (*Balaenoptera musculus*) present at the same vicinity. The best period for whale watching in Trincomalee is from March to August. Particularly July and August are particularly good for spotting whales in abundance and around 6-8 nautical miles from the coast whales are usually

encountered. It is well known that Swamy Rock is the best publicly accessible on-shore whale watch point in the world for watching Blue Whales.

According to Nanayakkkara (et al), a total of 11 species of cetaceans (whales and Dolphins) were positively identified in Trincomalee. The identified species included two species of Baleen Whales (Mysticeti), namely, Blue Whale (Balaenoptera musculus), Bryde's Whale (Balaenoptera edeni), and nine species of Toothed Whales (Odontoceti), namely, Sperm Whale (Physeter macrocephalus), Killer Whale (Orcinus orca), Dwarf Sperm Whale (Kogia sima), Longman's Beaked Whale (Indopacetus pacificus), False Killer Whale (Pseudorca crassidens), Rough-Toothed Dolphin (Steno bredanensis), Bottlenose Dolphin (Tursiops truncates), Striped Dolphin (Stenella coeruleoalba), and Spinner Dolphin (Stenella longirostris). In addition, three unidentified cetaceans were recorded, two Baleen Whales and one Beaked Whale. However they were unable to identify species level on three sightings due to the distance and short duration of the sightings.



Locations of sightings of the cetaceans in Trincomalee (Nanayakkara et al)

Availability of coastal ecosystems ranging from sand dunes to deep canyons

Trincomalee provides a plethora of coastal and marine ecosystems for ecologists, marine scientists and ecosystem managers. Within the bay, natural islands, coral reefs, sea grass beds, mangroves, lagoons, estuaries salt marshes, deep canyons and open ocean habitats can be observed. On the coastal land stretch, wide beaches, coastal vegetation and sand dunes can be observed. Further away from the bay, one of the most diverse marine park is located, namely Pigeon Island National Park, which is one of the two marine parks in the island. It is located 1km from Nilaweli coast extending 471.429 hectares, out of which, around five hectares consist of land area and the balance is the sea. The buffer zone extends up to 1000m radius from the landmass. The sea area around the national park, outer bay and the inner bay, provides a heaven for recreational divers and whale, dolphins and fish watchers. Furthermore, Trincomalee harbour canyons and deep water canyons provide excellent opportunities for deep water marine research at a short distance from the shore.

Shipping and Air connectivity

Trincomalee harbour is a deep sea port located in Koddiyar bay. It has a strategic importance due to its location and the connectivity and is the second best natural harbour in the world and the size (7.5 km2) is about ten times larger than the Port of Colombo and the only harbour in the Indian Ocean that can be accessible to all types of craft in all weathers. Its entrance is guarded by two headlands, therefore, well protected from the monsoon winds. Between headlands are three major bays; namely, Back Bay, Dutch Bay and Inner Harbour. Trincomalee harbour is a former British naval base and naval dockyard built by the side of the harbour by the British because of its sea route importance. The Ashroff Jetty is popular for Commercial and Cruise ships. These entire infrastructures provide excellent sea connectivity for researchers, research cruises, research boats and other research facilities. The China Bay air strip adjoining the harbour is another facility where research studies involving air assets or air-mobile instruments can enjoy. This airstrip can be accessed by large fixed winged aircrafts in the form of C-130 or IL-76 and potentials are high on deployment of air assets to further and broaden scientific studies covering the entire BoB region.

Diversity of tourism activities for visitors

Trincomalee not only provides opportunities for researchers and research activities, but also provides diverse leisure activities. Sport fishing, dolphin and whale watching, scuba diving, deep sea diving, snorkelling, fish watching, pigeon island visits and snorkelling in marble beach and shell bay, and enjoying the sunny sandy beaches are the most popular coast and ocean based

tourist activities. In addition to that, temple tours such as Koneshwaran kovil and Thiriyaya[12] temple, nature tours to the hot springs, wilderness of Kantale and Habarana are possible land based tourist attractions, especially famous for elephant rides and safaris. In order to facilitate tourists, accommodation facilities ranging from star-class hotels and cost effective home stays are available in the area.

Conclusion/ Recommendations

Despite the rim nations of the BoB being well established with research facilities to cater to their national aspirations, a void is visible in the context of the region where seamless seas dictate the environment, habitability and economic prosperity. Therefore, the authors argue on the necessity to synergise the efforts for common good of the BoB sub-region, by having a research facility where all researchers can meet, study and discuss common concerns and efforts. The facility could be the meeting point, which needs a repository of digital data, publications and study material with access to the World Wide Web in pursuant of knowledge and resources. The facility needs to be accessible to regional or extra-regional intellectuals, scientists and researchers where science can take precedence over bureaucracy in this endeavour for better understanding the maritime space and its associated periphery. The facility invariably needs the patronage of the States of the BoB, as collaborative management and funding would support national aspirations through better regional understanding.

Maritime research depends on acquisition and analysing of data; from yesteryears to the present, through numerous sources available in present day context, some regional and some global. It is the culmination of this big-data, which will generate, model and predict the impact of the marine environment on the livelihood of billions that belong to the Rim Nations. Hence, decision makers at the national level need to have a vision for collective action, especially in the maritime domain where political borders have little effect on its repercussions. As sharing of marine data may pose a possible concern from the national perspective, even though it is for the purpose of scientific research, there are measures to address such concerns. Many world-wide institutions provide examples for this and as a sub-regional collaboration, the proposed marine research facility in Trincomalee with adequate infrastructure architecture can address these national interests through procedures and system designs.

[12] An archeological site of what believed to be the first Stupa built in the island

In establishing the proposed Maritime Research Centre, the core strength would be the repository of marine data collected by the regional maritime research agencies to be used for the common benefit of stake holders. This arrangement is bound to fill the void of data for studies on marine, atmosphere and eco-systems particular to the BoB. However, will all agencies cooperate for a common sharing mechanism? As some of the data is collected under collaborative arrangements involving numerous third-party agencies, would the existing agreement's legal regimes allow them to be shared? Does the country's policies allow to view the BoB region as a seamless territory? The authors' view is that despite these kinds of future challenges ahead, the benefits of collaboration are worth the efforts in an era of globalization.

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Commodore Y N Jayarathna is a serving Sri Lankan Naval officer with 30 years of distinguished service. He is a Batch-Topper Officer Cadet with extensive combat experience in fighting asymmetric threats at sea on board Fast Attack Crafts. He had been the Defence Adviser at the Sri Lanka High Commission in New Delhi, India in 2010-2011 and the Naval Assistant to the Commander of the Sri Lanka Navy during 2013-14. He was the Commandant of the Naval and Maritime Academy, Trincomalee in 2014-16.

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(1) The 'String of Pearls' Syndrome; Understanding the realities, the case of Sri Lanka*:* United States-China-India Strategic Triangle in the Indian Ocean Region edited by Dr Sithara Fernando (The paper was based on a lecture presented at the National Maritime Foundation in India in 2013)

(2) Competency Building and Capacity Enhancement of the Emerging Gas and Oil Industry of Sri Lanka, Workshop Proceedings of University Grant Commission conducted programme

(3) University of Western Australia: In 2005 was invited to present an ***analysis paper on effect of 2004 Boxing Day Tsunami in relation to the bathymetry in coastal area of Sri Lanka.***

(4) KDU, Sri Lanka: In 2013 presented a paper on ***Maritime Space; Our Final Frontier***

(5) The Influence on the role of Military to secure benefits of One Belt One Road Initiative, paper was presented at the International Symposium at College of Defence Studies, NDU, China in 2017

DISCUSSION POINTS - SESSION TWO

- A maritime research centre would be the first towards the development of Trincomalee. It will not just generate economic benefits but environmental, industrial, scientific and many aspects of the usage of the ocean.

- With the research activity, will the clear water remain? When you are talking about the whole development activity in Trincomalee, how much of a priority is it to develop a research centre? Response: There is a conflict of ideas within the country where it has been proposed to UNESCO that Trincomalee should be a cultural and national heritage. However, there is also a massive development plan. The issue is due to the sensitivity and uniqueness of the eco system, the developers should strike a balance between development and nature as the eco system can also generate revenue. The clear water might have a problem with the cement industry, cargo and pollution. Trincomalee bay has a natural process of flushing out waste through tides and flooding. The only way this could be adversely impacted is by increasing the population in the coastal area. Although Sri Lanka is an island nation there is no maritime vision. To create awareness, this issue needs to be taken to policy makers and the general public.

- Suggested to tie up with research centres in Mauritius and Seychelles.

- What is the scenario in the absence of a marine research centre? *Response:* right now in the absence of a marine research centre, there are experts and observers from foreign universities, who conduct research in the southern coast, which is used to further their goals. If Sri Lankans conduct research, they can address problems relevant to the country.

- Is it possible to come upon with a sustainable business model? Propose a regional research centre controlled by a Board of Directors from the region in a public private partnership. Though this centre can answer questions arising from the government and private sectors, it should be an independent entity.

- Need a strong political will. As it is for the region, it is necessary to have relations with IORA or BIMSTEC. Have to invite investment to ensure its sustainability. Can follow up at South Asian level.

- Suggest a high speed railway from Colombo to Trincomalee as currently everything is concentrated in Colombo.

ESTABLISHMENT OF A CENTER FOR MARITIME DOMAIN AWARENESS (MDA) AND HUMANITARIAN ASSISTANCE AND DISASTER RELIEF (HADR) IN TRINCOMALEE FOR THE BAY OF BENGAL AREA

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Abstract

Global affairs have today become more maritime centric than never before in history. The Indian Ocean for obvious reasons has been at the centre of international geopolitics and is considered as one of the most strategically important ocean spaces, mainly due to the spread of some of the vital maritime energy and trade routes. Cooperation and collaborative efforts among the Bay of Bengal littorals, therefore, remain essential if the region is to have a broader view of the Bay of Bengal maritime domain. Therefore, sharing vital information related to maritime affairs takes center stage among the others. There is a need for a Regional Maritime Information Fusion Center such as the one located in Madagascar and Singapore specifically to cover the Bay of Bengal Area. This center could play a vital role in collecting, fusing, and disseminating of essential information pertaining to maritime affairs among regional, as well as other partners, for the benefit of Bay of Bengal littorals.

Furthermore, man-made or natural disasters are also taking place and most of the countries are not ready to mitigate or respond to such events. There is a need for preparedness and awareness of such disasters and to be ready to respond in order to save lives and then to rehabilitate the affected populations. There is a need for a center to respond to Humanitarian Assistance and Disaster Relief (HADR) in the Bay of Bengal Region in a timely manner.

Sri Lanka being located in the most geographically and geo-strategically advantageous location could play a substantive role in both MDA and HADR concepts focusing Bay of Bengal. Trincomalee being one of the largest naturally protected, deep harbour with abundant land area could be considered as ideally suitable for set up such MDA or HADR centers, to cater to the needs of Bay of Bengal region.

Introduction: Seaborne Trade and Bay of Bengal

Global affairs have today become more maritime centric than never before in history (Gera, 2012). The Indian Ocean for obvious reasons has been at the centre of international geopolitics and is considered as one of the most strategically important ocean spaces mainly due to the spread of some of the vital maritime energy and trade routes.

A staggering 80 percent of the world's seaborne trade is transited through some of the critical Indian Ocean choke points such as Strait of Hormuz, Strait of Malacca, and the Bab el-Mandab Strait (Ranasinghe, 2011). According to the 'Global Marine Trends 2030, '*the marine world in 2030 will be almost unrecognizable owing to the rise of emerging countries, new consumer classes and resource demand'*. Further, the reports highlights that the major maritime bilateral trade is expected become Sino centric in 2030, which in turn highlights the significance of the Indian Ocean as the majority of the Sea Lines of Communication connecting the east and west spans across this ocean apace.

The profile and potential of the Bay of Bengal region has increased because the region is gaining attraction due to growing economic and strategic value. This sub region is identified as an area where a great deal of economic potential and growth is possible mainly due to some of the growing economies like India and other promising Bay of Bengal littorals.

Major Powers and Strategic Competition

The influence of some of the leading power players in the Indian Ocean continue to increase at a rapid pace, especially during the last decade. One could only expect this trend to continue making the Indian Ocean one of the most influential ocean space in the entire world. Some of the key players like the U.S., Japan, China, India etc. continue to be active in the Indian Ocean. Like never before, the challenges that the vast ocean present to the regional, as well as international players, has also been enormous. Being an integral part of the Indian Ocean, the Bay of Bengal's strategic significance too has grown over the years (Pattanaik, 2016). Even though no major discussion has taken place in terms of developments that take place in the Bay of Bengal, one would see that some of the most important countries, as well as access to the east is spread across this area. Known as the largest bay in the world, this area has much more to offer than the resources it possesses as it is fast becoming a key area of economic and strategic competition in the broader Indo-Asia-Pacific region.

The Importance of Maritime Security

Maritime security plays a key role in the Bay of Bengal affairs as similar to other ocean areas (Rahman, 2017). The vastness of the Indian Ocean and the inability to monitor each and every square kilometre by the navies and Coast Guards make the situation complicated as various none state actors have taken advantage of this situation. Even though we do not see maritime terrorism becoming a serious threat to Bay of Bengal affairs, it is worth noting that the area is fast becoming a frequent route for human smugglers, drug traffickers, marine polluters, IUU fishing and piracy. In addition to the above, environment pollution, degradation of ocean health, unlawful exploitation of marine resources, natural disasters, oil/chemical spills, grounding/accidents, climate change etc. could pose a serious challenge to the countries that are bordering the Bay of Bengal region in particular and to the Indian Ocean in general. Further to the above, the region suffers from political instability, communal and religious conflicts which have spillover effects.

Maritime Blindness in the Bay of Bengal

The inability to effectively monitor activities that take place in the Bay of Bengal region has contributed to maritime blindness in a significant way. The limitations in obtaining a clear picture of the Indian Ocean, as well as that of the Bay of Bengal maritime sphere, is a major concern as not having information with regard to activities that take place in the maritime space leads to critical issues when it comes to decision taking, decision making and implementation of strategic and tactical level plan of actions that are aimed at protecting the maritime space. As no navy/Coast Guard in the region is capable of single handedly addressing the issues in the Indian Ocean or for that matter in the Bay of Bengal, one best way of addressing this issue will be to have a sound mechanism(s) among the regional partners to enhance Maritime Domain Awareness (MDA) (Joseph, 2017). Even though there are few entities that discuss maritime security related issues in the Indian Ocean region in general, the absence of a major institutional framework that holds the responsibility of looking at the broader picture of the region is seen as a hindrance to the progress of many aspects. Various entities have their own areas of interests to investigate based on a number of facts that are more ‘sector oriented’ than ‘region focused’. The necessity to form a single coalition that focuses on the maritime security aspect, as well as other maritime security related challenges, is seen as one way forward in addressing the emerging maritime related issues and challenges.

Need for a New Regional Maritime Security Architecture

Despite the lack of an overarching framework to monitor Indian Ocean affairs, one would see that initiatives such as the Indian Ocean Rim Association and specially the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation' (BIMSTEC), playing a commendable role in building an alliance to harness shared and accelerated growth through mutual cooperation in different areas of common interest by utilizing regional resources and geographical advantages (Cordner, 2015). The objectives laid down by these organizations have clearly identified the importance of sustainable use of ocean resources.

It is of paramount importance to highlight the Bay of Bengal region as an important geo-political entity. The littorals of the Bay of Bengal benefit through initiatives that already exist and is expected to yield positive results through new initiatives that are planned to be implemented. However, like many other ocean spaces in the world, the Indian Ocean is not immune to a wide range of maritime security threats and challenges that continue to evolve at a rapid pace. Considering the above aspects, it is essential that the littorals in the Bay of Bengal region have a clear understanding of the activities that take place in their maritime domain. The maritime security related issues that are encountered by the Bay of Bengal countries are not different to what the others experience in the broader Indian Ocean maritime space (Mahnken, 2011). Due to the complexity and dynamic nature of traditional, as well as nontraditional maritime security threats, finding solutions in isolation has become a mammoth challenge.

The existence of certain mechanisms in the Indian Ocean littorals to share information pertaining to activities in the maritime domain such as the Trilateral Maritime Security Cooperation signed between India-Maldives-Sri Lanka has progressed in certain vital areas in the past. Sharing of white shipping information between some of the countries is yet another example in this regard. Yet, one would agree that it is an impossible task to monitor the entire maritime domain using existing mechanisms/sensors/platforms.

Cooperation and collaborative efforts among the Bay of Bengal littorals, therefore, remain essential if the region is to have a broader view of the Bay of Bengal maritime domain. Sharing vital information related to maritime affairs, therefore, take centre stage among others. The Regional Maritime Information Fusion Centers located in Madagascar and Singapore play a vital role in collecting, fusing, and disseminating of essential information pertaining to maritime affairs among regional as well as other partners (Bueger, 2017). The

Bay of Bengal region in particular lacks a similar center which could be effectively used for the benefit of Bay of Bengal littorals.

Furthermore, man-made or natural disasters are also taking place and most of the countries are not ready to mitigate or respond to such events. There is a need for preparedness and awareness of such disasters and a readiness to respond in order to save lives and then to rehabilitate the affected populations. There is a need for a center to respond to Humanitarian Assistance and Disaster Relief (HADR) in the Bay of Bengal Region in a timely manner.

Objective of The Research

This paper looks at the option of establishing a center for Maritime Domain Awareness and Humanitarian Assistance and Disaster Relief for the Bay of Bengal Area to benefit the littorals in having a center for Maritime Domain Awareness, as well as for Humanitarian Assistance and Disaster Relief in a strategically important location overlooking the Bay of Bengal region.

A new Security Environment and Maritime Domain Awareness

The Bay of Bengal is an area of primary importance to the Indian Navy since instability in the region directly affects India's security environment. India's geographic location in the Indian Ocean naturally renders the Indian Navy as one of the key players in the region and an important partner for the Indian Ocean community to keep the area stable and secure. The security environment in the Indian Ocean today, however, is changing rapidly with a rise in strategic competition. Maritime Domain Awareness (MDA) is increasingly playing a vital role in Delhi's new maritime outlook, as well as in its expanding maritime partnerships. This paper underlines the emerging initiatives under MDA aimed at enhancing surveillance capabilities in the Bay of Bengal region improving its domain awareness. The conclusion recommends the greater need to work with likeminded partners to achieve a favourable maritime domain in the region.

A Coherent MDA

A coherent MDA strategy includes three components; space based, terrestrial and sea based. Information gathered from all three components together presents the broad picture of activities in the maritime domain. India has taken multiple initiatives to enhance the vast scope of MDA and the implementation challenges in the wider maritime domain. The Indian

Navy, like most other navies, categorises MDA under coastal surveillance and surveillance beyond EEZ. The Indian Navy now is shaping a category, that of MDA in the wider region, in congruent with its changing perception of the Indo-Pacific.

India today has a strong surveillance framework in place for its coastal waters. However, just like 26/11(Mumbai Attack), developments in the wider Indian Ocean region is shaping Delhi's maritime outlook and its growing importance for MDA. India in recent years has taken a number of measures to strengthen its MDA capabilities beyond its coastal waters. While New Delhi has always been concerned about developments in the Indian Ocean region, the security environment today poses a set of new challenges to India's security and strategic interests that add an element of urgency to its MDA project. The Indian Navy considers itself a prominent power in the Indian Ocean region and its strategic space in the domain has largely remained uncontested.

MDA through partnerships

While India realises the need to expand its MDA operations, the Navy is also aware of the challenges in MDA implementation. The maritime domain is too vast for one country to have a single picture of all activities in that domain. Countries must work together and share resources and assets in mapping and scoping the activities in areas of interest. For the Indian Navy, the Indian Ocean region in its entirety remains the most important maritime domain. To overcome the operational challenges of MDA, Delhi is partnering with friends and neighbours, big and small in creating a regional MDA structure. MDA collaboration allows India to expand its reach and presence in the wider Indian Ocean and provides strategic advantages in responding to a changing maritime environment in the Indian Ocean.

New Delhi has unfortunately failed to tap into the strategic potential of its own islands, the Andaman and Nicobar (ANI). However, the current government has put some importance on the islands and is looking to develop them into a maritime hub. There is a political will to transform the islands marking a shift from India's earlier approach of neglect. Although there is a political will to realise the full strategic potential of the islands, much work remains to be done. The ANI provides an unmatched advantage to the Indian Navy, given its proximity to the Malacca Strait, a key SLOC connecting Indian Ocean and the South China Sea. The ability to monitor and track surface and sub-surface vessels in that area gives an impressive boost to India's MDA capabilities.

India to Play a Lead Role in MDA for Bay of Bengal

There is now a need for India to take the lead in the Bay of Bengal as it regains its place as a key geo-strategic theatre. The Bay of Bengal littorals are currently covered under the initiatives in the eastern Indian Ocean. The revival of BIMSTEC and greater discussion among the littorals of the Bay has opened the scope for focused MDA collaboration in this sub-region. India currently has White Shipping agreement with Bangladesh, Myanmar, and Sri Lanka and has ongoing conversations to sign the agreement with Thailand and Indonesia. India carries out coordinated patrols with Indonesia and Myanmar. The development of MDA assets and resources in the Andaman Islands could seriously advance regional MDA capabilities.

India's approach to MDA has gone through a considerable shift in light of its changing environment. On direct MDA collaborations, India is keen to collaborate with smaller island nations to boost its own and their maritime capabilities but it is still hesitant to work closely with larger nations on MDA.

Where priorities converge, India will have to learn to take advantage of existing opportunities for strategic gain. New Delhi must also begin discussing concepts such as burden sharing with key partners in the Indian Ocean region. New Delhi's current approach to building a network of partners will be critical given India's history of largely working in isolation. A network with common goals and shared assets can shape India's security environment in a favourable manner. In this regard, Sri Lanka being located in a geographically advantages position and close proximity to India and the busiest Est-West shipping line can play a key role in developing a wider MDA concept for the region or for a Information Fusion Center. Trincomalee harbour would be a suitable location for a Bay of Bengal focused MDA.

While New Delhi continues to build its capabilities as a response to a changing maritime domain, India must continue to partner with friendly navies in advancing its MDA goals. India today is well placed to shape its terms of engagements as the region needs India's leadership as much as India wants to reinforce its dominance. New Delhi today is well placed to negotiate the terms of engagements as it continues to forge a closer relationship with nations big and small. India must continue to work with nations, big and small as it builds its MDA capabilities and experiences in a changing security dynamic.

Sri Lanka as a Hub for Humanitarian Assistance and Disaster Relief Operations

The International Federation of Red Cross and Red Crescent Societies (IFRC) describes disaster as "a sudden, calamitous event that seriously disrupts the functioning of a community or society and causes human, material, and economic or environmental losses that exceed the community's or society's ability to cope using its own resources. Though often caused by nature, disasters can have human origins" (IFRC,2017). The United Nations Office for Disaster Risk Reduction states that "Disasters often follow natural hazards. A disaster's severity depends on how much impact a hazard has on society and the environment. The scale of the impact in turn depends on the choices we make for our lives and for our environment. These choices relate to how we grow our food, where and how we build our homes, what kind of government we have, how our financial system works, and even what we teach in schools. Each decision and action makes us more vulnerable to disasters - or more resilient to them" (UNISDR). Disasters can occur without much warning and do not follow a regular pattern. People and physical structures anywhere can be vulnerable to a disaster. Poor undeveloped regions may be more vulnerable than a developed community. But disaster can impact even affluent communities in a highly developed country such as the case of category five Hurricane IRMA, which devastated the southern states of the USA.

Vulnerability in the context of disasters can be defined as "the diminished capacity of an individual or group to anticipate, cope with, resist and recover from the impact of a natural or man-made hazard" (IFRC,2017). Lack of preparedness may result in a slower response to a disaster and leading to greater loss of life or prolonged suffering. The Indian Ocean Region (IOR), specially the Bay of Bengal (BOB), have been experiencing many forms of disasters and is quite often dependent on external assistance to cope up and mitigate the damages to human lives, as well as infrastructure. There is a need to conduct humanitarian Assistance and Disaster Relief (HADR) in a coordinated, effective, and efficient manner in the IOR.

Some of the Common Disasters in the Region

a. ***Climatological Hazards: Droughts:*** Drought is an insidious phenomenon. It can gradually destroy an area and in some cases, can last for several years. Droughts can be detrimental to agriculture and water supply; furthermore, droughts can impact severely the sustenance of human and animal lives. Drought could be a result of changes in weather patterns and a deficiency in rainfall over an extended period. Lack of rain water would lead to inadequate water supply to plants, animals, and humans. A drought can result in shortage of food,

famine, malnutrition and spreading of epidemics. Drought can also result in large scale displacement of populations. If the drought persists for longer periods it would even lead to desertification and the land would become arid and less capable of sustaining vegetation. Drought can also lead to reduction in food crops yield and famine affecting large number of people. In case of food shortage, there can be malnutrition and as a result people's resistance to disease will reduce, resulting in outbreaks of preventable diseases. Lack of water will also force people to use unsafe water, which could lead to water-borne diseases.

b. ***Hydrological Hazards: General and Flash Floods:*** When there is excessive rainfall in a certain catchment area, rivers can bring down large volumes of water to low lying areas. This can flood population centers. Further, in heavy built up areas, the drains and canals may be blocked and inability to cope up with the rainfall and could lead to flooding. Generally flooding can be predicted and preventive measures can be taken to minimize the damage, especially to humans. Flash floods are a sudden and extreme volume of water that flows rapidly and cause inundation. Flash floods are difficult to forecast and hence reaction time for people and livestock to escape is minimal. Floods destroy houses, crops, seeds for cultivation, livestock, transport systems and water systems. Moreover, contaminated drinking water and can have serious implications for humans. Excessive rainfall can result in landslides and mudslides as well. In extreme conditions dams are likely to collapse when excessive rainfall fill the reservoir to overflowing.

c. ***Geophysical Hazards: Tsunami:*** South Asia was quite unprepared for the Tsunami as was demonstrated by the Boxing Day tragedy that occurred in 2004. This author was caught up in the first wave of that Tsunami in the Eastern province of Sri Lanka, but survived as he was able to climb up to a higher floor for safety. A tsunami is a series of waves caused by a rapid displacement of a body of water. The major causes which can trigger Tsunamis are earthquakes, volcanic eruptions, and mass movements of tectonic plates under the sea. The impact of a Tsunami in a coastal area, as shown in 2004 Tsunami, can be extremely destructive. Waves created by a Tsunami can advance to a coast and further inland with much force and ferocity. Tsunamis can destroy human life, livestock, vegetation, housing, roads, small bridges, and transport networks.

d. ***Meteorological Hazards: Tropical Storms and Cyclones:*** Tropical storms and Cyclones are in the same disaster category. These disaster type refers to a large scale closed circulation system in the atmosphere which combines low pressure and strong winds that

rotate counter clockwise in the northern hemisphere and clockwise in the southern hemisphere. This system is referred to as cyclones in the Indian Ocean. Usually cyclones originate over tropical or sub-tropical waters. Cyclones can be predicted several days in advance but the exact time of it hitting the land can be predicted only few hours ahead. High winds associated with a cyclone can cause major damages to infrastructure and housing as witnessed in Hurricane Irma in Southern Florida in September 2017. Cyclones can also create strong tidal waves to batter coastal communities and industries such as fishing adversely.

e. ***Technological Hazards: Industrial Accidents:*** There can be dangers emanating from lack of industrial and technological safety procedures, infrastructure failure, human activities or due to a natural hazards. These hazards can cause loss of life or injury, property damage, social and economic disruption, and even environmental degradation. The technological disasters are considered as non-natural occurrences, which may include: accidental release of hazardous chemical substances during production, transportation and handling; explosions including chemical explosions, nuclear explosions and release of radiation; pollution by noxious industrial, chemical or biological waste, from debris due to mismanagement of natural and environmental resources; acid rain due to mixing of acidic components in the atmosphere; chemical pollution of water or air by industries; atmospheric pollution, contamination of the atmosphere by large quantities of gasses, solids or radiation by burning of natural and artificial fuels, chemicals and other industrial processes and nuclear explosions. These hazards can impact humans, livestock and vegetation, drinking water and air quality, which can lead to large scale displacement of populations.

Complex/Manmade Hazards: Displaced Populations

Large scale displacement of populations can take place due to a sudden impact such as a violent conflict, or a natural disaster. The displacement can be within the state or across the borders to other state/states. Conflict and natural disasters can deny populations of safe shelter, basic sanitation, medical care and health services, and food and water. Some of these populations may move away with the intention of returning when the situation becomes favourable for them to do so. However, some groups may seek permanent migration across the borders or within the same state. However, in certain unfortunate instances, these vulnerable populations may be caught between warring parties to the conflict and used as a human shield. (IFRC, 2017)

Humanitarian Assistance

As per the World Health Organization glossary of humanitarian terms, Humanitarian Action means “Assistance, protection and advocacy actions undertaken on an impartial basis in response to human needs resulting from complex political emergencies and natural hazards”. The same glossary defines Humanitarian Assistance as “Aid that seeks, to save lives and alleviate suffering of a crisis affected population" (World Health Organization, 2008). It is clearly evident that humanitarian assistance involves both conflicts and natural hazards. As per the executive summary of Challenges of International Cooperation in Complex Humanitarian Emergencies, “the prospect of state-to-state wars has decreased significantly in the last decade, whereas the incidence of intrastate wars has increased exponentially. Of the last 100 wars, 95 of them have been intrastate wars. These wars frequently cause humanitarian emergencies in the forms of migration of refugees and internally displaced personnel” (Executive Summary, 2003). Violent insurgencies and terrorism related campaigns are a regular occurrence in the IOR. Humanitarian assistance is now being provided in hostile conditions, endangering the lives of the provider. Humanitarian Assistance is linked with disaster relief as man-made conflicts can cause disastrous consequences to populations. As complex emergencies grow more difficult, especially in conditions of armed conflict, there is a need for greater understanding and collaboration between the military and humanitarian agencies. The military and the humanitarian agencies have different mandates and operating procedures to accomplish their missions. There is a need to develop mechanisms to make both these communities to understand each other and respect each other’s mission and role. Natural disasters exacerbated by climate change are affecting a greater number of people and humanitarian assistance should look beyond borders with the participation of multiple stakeholders such as civil society, international, national and regional organizations, Non-governmental organizations, private sector, academia, Diaspora groups, technical experts, and also the people affected (UN Secretary General, 2016).

Responding and Mitigating a Disaster

As per the Road Map for Disaster Management (2005. p.37), “The aim of a mitigation strategy is to reduce losses in the event of potential hazard occurrences. The primary aim is to reduce the risk of death and injury to the population. Secondary aims include reducing damage and economic losses to public sector infrastructure and reducing private sector losses in as far as they are likely to affect the community as a whole”. Disasters impact entire communities.

The immediate effect could include loss of life and damages to property and infrastructure. There will be shortage of shelter, food, water, sanitation facilities, and medical supplies. Some of the victims may suffer from shock and trauma. The primary aim of a disaster response plan should be to rescue affected people as quickly and as safely as possible in an organized manner and to evacuate them to a sheltered location away but close to the disaster area, where their basic needs can be provided. Further they should not be exposed to a secondary disaster as in the case of an earthquake. Stabilization of physical and emotional conditions of the survivors should follow next. Thereafter, restoration of essential services such as power and water should be prioritized. Once the basic infrastructure facilities are restored, victims should be assisted to return to their localities and assistance should be available to repair/rebuild shelter, enabling the returnees to recommence livelihood and social life. Some disaster victims are entitled to receive compensation.

Preparedness and Response Plans

As per the Road Map for Disaster Management, volume 1 (2005. p.31.), "The objective of disaster preparedness plans is to minimize the adverse effects of a hazard through effective precautionary actions and adequate responses to ensure the timely and coordinated delivery of relief and assistance following a disaster". Disaster preparedness refers to measures taken to prepare for and reduce the effects of disasters. That is, to predict and, where possible, prevent disasters, mitigate their impact on vulnerable populations, and respond to and effectively cope with their consequences (IFRC,2017). Disaster preparedness and response involves establishing and regularly testing of warning systems, plans for evacuations and regular drills, education and training of officials of various stake holders and, educating vulnerable communities. Activities should also include designing of policies, standards, and arrangements for coordination, including command and control in an eventuality. Moreover, these plans should cater for obtaining necessary funding, resources and materials required for disaster response. Alternative communication methods, especially emergency communication procedures, involvement of mass media organizations and the non-governmental organizations are important components of a preparedness plan. The health sector should be alert to respond consequent to a disaster as well. The involvement of armed forces and police forces, and other para military units should also be included in the disaster relief plan. Disaster preparedness is a continuous and integrated process resulting from a wide range of risk reduction activity and resources.

The Sendai Framework for Disaster Risk Reduction 2015-2030

The Sendai Framework was adopted at the Third UN World Conference in Sendai, Japan, on March 18, 2015. It is the outcome of stakeholder consultations initiated in March 2012 and inter-governmental negotiations from July 2014 to March 2015, supported by the United Nations Office for Disaster Risk Reduction at the request of the UN General Assembly (Sendai Framework, 2015). The United Nations Framework focuses more on Disaster Risk Management as opposed to Disaster Management. The scope is broadened to include both man-made and natural hazards and related environments, technological and biological hazards and risks. Health resilience is promoted throughout strongly. This framework further addresses the issues of strengthening international cooperation and global partnership. There is also clear recognition of the Global Platform for Disaster Risk Reduction and the regional platforms for disaster risk reduction as mechanisms for coherence across agendas, monitoring and periodic reviews in support of UN Governance bodies (Sendai Framework, 2015).

There is a renewed understanding that International, Regional and Sub regional and transboundary cooperations are essential in supporting states, their national and local authorities, as well as communities and businesses to reduce disaster risk. Developing, middle income and small Island states face specific challenges in disaster risk reduction. These countries need support to augment domestic resources and capabilities through bilateral and multilateral channels in order to undertake capacity building, financial and technical assistance and technology transfer. Hence there is a need to address existing challenges and prepare for future ones by focusing on monitoring, assessing and understanding disaster risks. Disaster preparedness, response, recovery and rehabilitation are now needed to be looked at through regional cooperation in the Indian Ocean.

Disaster Context in South Asia and Comparison with ASEAN

Nearly 90 percent of natural disasters and 95 percent of disaster-related deaths worldwide occur in developing countries. During the decade 1992-2001, disasters have claimed 96,285 lives in the South Asian Sub continent (Ariyabandu and Wickramasinghe, 2005. p. 19). The South Asia region is exposed to a variety of hazards, mainly due to its geographical location. This region is one of the most disaster-prone in the world. Three out of ten deadliest natural disasters since 1980 have happened in South Asia (Espada, 2014). These disasters include Tsunamis, Earthquakes, Cyclones, and low-intensity conflict. Climate change has increased exposure to these hazards, resulting in more frequent and more intense natural disasters

(White, 2015. p.5). Regional cooperation in South Asia is not easy. Political sensitivities, trust deficit between states, and the vast disparity between the size and wealth of different countries make it hard to fine mutual ground on many trans-boundary issues.

Although SAARC has developed a comprehensive framework for disaster management and disaster prevention in 2005 and established a number of SAARC Disaster Management and Prevention Centers (SDMC), progress to build disaster risk management capabilities of South Asian states through regional cooperation has been slow (White, 2015). There is a success story in the case of ASEAN in providing Humanitarian Assistance. In November 2011, ten ASEAN nations signed an agreement on disaster management and created the ASEAN Coordinating Center for Humanitarian Assistance and Disaster Management (AHA Center) in Jakarta, Indonesia. This was aimed at facilitating cooperation and coordination among ASEAN member states with the United Nations and International organizations for disaster management and emergency response in the region. The motto of the AHA center is "One ASEAN One Response" (AHA Center).

South Asia has been at the core of frequent natural and manmade disasters. Natural disasters can be exacerbated by human interference or inaction. Some of the areas which need attention in providing effective and timely humanitarian assistance are developing institutional framework, lack of economic capacity, lack of proper early-warning systems, lack of ready-to-use resources, lack of coordination in among various stake holders, domestic, international and regional agencies, recording/analyzing of disaster responses and learning from mistakes (Thuzar, 2015). ASEAN states have overcome most of these drawbacks by developing operational procedures to respond collectively and expeditiously to disasters including setting up of a ASEAN disaster relief fund, mobilizing relief assistance, expediting customs and immigration clearance, utilizing civil-military combination and carrying out simulation exercises to test emergency responses on a regular basis (Thuzar,2015).

Sri Lanka as a hub for Humanitarian Assistance and Disaster Relief operations

Sri Lanka's unique advantage in the India Ocean is the geographical location. Sri Lanka is located in the centre of the Indian Ocean, almost equal distance from the eastern and western Indian Ocean littorals. Further, Sri Lanka is located just 12 nautical miles from the busiest east-west shipping route across this ocean, linking Europe, Americas, Far East, Middle East and Asia, which is considered a key shipping lane in the 21st century. Sri Lanka is blessed with deep-water ports and deep navigable waters around the country and especially along the

approaches to major ports. The Port of Colombo is the only port in the region which is capable of docking and handling even the latest version of mega container ships. Sri Lanka maintains a balanced and equi-distance diplomatic posture and is considered to be a friendly country by many other nations. Sri Lanka is the only country in this region, where nationals of all states are able to enter without many restrictions; be it Indians, Chinese, Pakistanis or Americans. Sri Lanka is well connected digitally to the world and possesses an advanced telecommunication network. Sri Lanka is also enjoying well connected aviation network linking major cities in the region and beyond. It has already taken leadership roles in the India Ocean related to the initiative of making the Indian Ocean a Zone of Peace in 1971 although it did not succeed due to mistrust between major players, and, its role in creating SAARC and UNCLOS. Sri Lanka has presently taken the initiative to discuss a Code of Conduct for Major Maritime Users in the Indian Ocean region and a new Indian Ocean Order. The country has also taken effective measures to Disaster response with a well-established Disaster Management Center (DMC) under government patronage. The DMC coordinates all the stake holders, both domestic and foreign, in responding to disasters rapidly, in a coordinated manner. Considering these factors, Sri Lanka would be the most suitable location to act as a hub for HADR in the Indian Ocean Region.

Trincomalee Harbour is one of the largest natural harbours in the world. It is well protected from both monsoons and blessed to have an un-dredged average depth of 25 meters. There is a large body of water available for shipping related activities and plenty of land available for any purpose. These land areas could be used to store disaster relief equipment and supplies for immediate use. There is also large sea and land areas available for training on HADR purposes. Trincomalee harbour is the biggest harbour in the Bay of Bengal. This can be easily accessible to and from any of the Bay of Bengal countries. Furthermore, there is a domestic airport adjacent to the harbour, which also can play a crucial role in HADR operations.

Conclusion

Maritime Domain Awareness is the answer to overcome maritime blindness and to ensure that collaborative mechanisms are practiced by states with common interest of maintaining freedom of maritime commerce and navigation and overfly in the Bay of Bengal Region. A coherent MDA strategy includes three components, space based, terrestrial and sea based. Information gathered from all three components together presents the broad picture of activities in the maritime domain. The Indian Navy being the biggest navy and coast guard and as an emerging economic power in the world, is keen to enhance the MDA concept in

partnership with its neighbours and friends. By utilizing its geo-strategic location and balanced relations with all the states in the Indian Ocean Region, Sri Lanka can play a key role in serving as a MDA Center or an Information Fusion Center to enhance maritime security in the Bay of Bengal and even the wider Indian Ocean.

Disasters are becoming increasingly common and dangerous. Many populations are vulnerable to disasters. As large populations are now urbanized and living in coastal areas, they are more prone to disasters. Disasters can occur without much warning. Many governments and populations are quite unprepared for facing or recovering from a disaster. Therefore, the focus should be more on disaster risk management, rather than disaster management. Humanitarian assistance is needed; whether following hostilities or in natural disasters. There is a need to develop greater understanding and collaboration among humanitarian agencies and regional mechanisms and organisations to provide humanitarian assistance in the south Asian region. The Sendai framework calls for international, regional, and sub-regional cooperation in supporting states in providing humanitarian assistance. Sri Lanka is ideally located geographically to be the hub for this region. With its deep-water ports, navigable waters, eased up customs procedures for humanitarian relief items, and a well-established Disaster Management set up and easy connectivity, Sri Lanka is the best location to be a hub for humanitarian assistance. Further, due to balanced friendly international relations, Sri Lanka is easily accessible for all states and agencies.

The large Trincomalee natural harbour and the adjacent airport in Trincomalee is ideally suited to establish a HADR center focusing on the Bay of Bengal Region. This harbour is well protected during both the monsoons and hence can be operated safely throughout the year. Many of the HADR training exercises also be easily conducted in and around Trincomalee Harbour as well.

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Admiral (Dr.) Jayanath Colombage

Admiral Dr. Jayanath Colombage is a former chief of Sri Lanka navy who retired after an active service of 37 years as a four-star Admiral. He is a highly decorated officer for gallantry and for distinguished service. He served the Sri Lanka navy during the entire spectrum of war with the LTTE terrorism and commanded various ships and four naval areas. He is a graduate of Defence Services Staff College in India and Royal College of Defence Studies, UK. He holds a PhD from General Sir John Kotelawala Defence University (Sri Lanka). His doctoral thesis; 'Asymmetric Warfare at sea: The Case of Sri Lanka' is now published by Lambert Academic Publishing, Germany. He also holds MSc on defence and strategic studies from Madras university and MA on International Studies from Kings college, London. He is an alumnus of Asia Pacific Center for Security Studies (USA-Hawaii) as well. He is a maritime security practitioner/specialist with wide experience in countering maritime terrorism. He has presented and published papers on maritime security, IUU fishing, blue ocean economy, combatting global terrorism and extremism and countering maritime terrorism, Indo-Lanka relations, China-Lanka relations in various local and international forums. He is a visiting lecturer at University of Colombo, Defence Services Command and Staff college (Sri Lanka), KDU, BCIS and BIDTI on maritime strategy, maritime security, countering terrorism, blue economy, maritime governance, Indian Ocean Strategic Issues and fisheries management related subjects. He was the former Chairman of Sri Lanka Shipping Corporation and an adviser to the President of Sri Lanka on maritime affairs. He is a Fellow of Nautical Institute, London UK. Admiral Colombage is currently the Director of the Centre for Indo- Lanka Initiatives of the Pathfinder Foundation. He is also a member of the Advisory council of newly formed think tank under the Ministry of Defence, 'Institute of National Security Studies Sri Lanka'. He is a Guest Professor at Sichuan University, Chengdu, China.

Captain (ND) Rohan Joseph RSP, psc, BSc (DS) Hons, MCPS

Captain Rohan Joseph joined the Sri Lanka Navy in October 1994. He has held a number of staff and sea command appointments during his 24-year naval career. He has performed duties at the Joint Operations Headquarters, Naval Headquarters and at the Ministry of Defence. He has also performed duties as the Naval Assistant to the Commander of the Sri Lanka Navy and Deputy Director Naval Research Wing, prior to taking up his present appointment as the Secretary to the Chief of Defence Staff. He completed his sub specialization in Sri Lanka (first in order of merit), specialization (Navigation and Direction) in Pakistan, completed Junior Naval Staff course at the Sri Lanka Military Academy (first in order of merit) and later, completed Staff Course at the Naval Command College, China where he excelled in his studies and graded excellent for overall academic performance. He was selected as the 'Honour Graduate' in the International Maritime Officers Course (Course No 46) conducted at the U.S. Coast Guard training centre Yorktown, Virginia. He is the only Sri Lankan naval officer to achieve this honour to date. He holds a Masters Degree in Conflict and Peace Studies (MCPS) from the University of Colombo.

Captain Joseph was awarded with a gallantry medal (Ranasura Padakkama) for act of bravery in the face of enemy and is a recipient of five 'Letters of Commendation' from the former Commanders of the Navy for his outstanding performances. He has presented seven consecutive research papers on maritime security aspects at the KDU annual International Research Symposium since 2011. He has also represented Sri Lanka Coast Guard and the Sri Lanka Navy in a number of foreign symposiums, seminars, and discussion forums during his tenure. He recently represented a two-member naval delegation that went to Seychelles to assist in drafting the 'Seychelles Maritime Security Strategy'.

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Darshana M. Baruah is a research analyst and program administrator with Carnegie India. Her primary research focuses on maritime security in Asia with a focus on the Indian Navy and its role in a new security architecture. She writes regularly on maritime issues such as India's naval strategy, India's naval engagement with regional powers, Sino-India competition, geopolitical developments in the Indian Ocean region, India's maritime strategic outlook, and the South China Sea. Her work also examines the strategic implications of China's infrastructure and connectivity projects in the Indian Ocean region and South Asia.

DEVELOPMENT OF THE TRINCOMALEE BAY AND REGIONAL GROWTH OF THE BAY OF BENGAL AREA

Prof. Go Ito

China's One Belt and One Road (OBOR)

The usage of the Trincomalee Bay should be considered in context of China's grand strategy called "One Belt, One Road (OBOR)." Its vision of invoking the ancient Silk Road to frame and its inter-regional OBOR opens up intellectual and political space for debating twenty first century international order in Asia. However, what has emerged from President Xi Jinping's most elaborate articulation of the OBOR is a top down process and one that envisions a distinct position for Chinese strategic leadership. Two large portions of Xi's speech at the Belt and Road Forum for International Cooperation on 14 May 2017 bear this out. This first part establishes a less than subtle China-centered discourse on what OBOR means:

In the autumn of 2013, respectively in Kazakhstan and Indonesia, I proposed the building of the Silk Road Economic Belt and the 21st Century Maritime Silk Road, which I call the Belt and Road Initiative. As a Chinese saying goes, "Peaches and plums do not speak, but they are so attractive that a path is formed below the trees." Four years on, over 100 countries and international organizations have supported and got involved in this initiative. Important resolutions passed by the UN General Assembly and Security Council contain reference to it. Thanks to our efforts, the vision of the Belt and Road Initiative is becoming a reality and bearing rich fruit.

These [past] four years have seen deepened policy connectivity. I have said on many occasions that the pursuit of the Belt and Road Initiative is not meant to reinvent the wheel. Rather, it aims to complement the development strategies of countries involved by leveraging their comparative strengths. We have enhanced coordination with the policy initiatives of relevant countries, such as the Eurasian Economic Union of Russia, the Master Plan on ASEAN Connectivity, the OBOR Road initiative of Kazakhstan, the Middle Corridor initiative of Turkey, the Development Road initiative of Mongolia, the Two Corridors, One Economic Circle initiative of Viet Nam, the Northern Powerhouse initiative of the UK and the Amber Road initiative of Poland. We are also promoting complementarity between China's development plan and those of Laos, Cambodia, Myanmar, Hungary and other countries. (Xi Jinping, 2017)

Yet in the preamble of this speech, Xi honoured the memory of ancient Silk Road travelers such as Du Huan of China, Marco Polo of Italy, and Ibn Battuta of Morocco. He neglected to note that these were independent individuals, and in many cases, spiritually motivated ones. Moreover, sovereign states had not existed at that time. Xi then lauded the ancient Silk Road as manifesting the virtues of peace and cooperation, mutual learning, openness and inclusiveness and other win-win outcomes. This is a certainly positive note and a nod to 'history [as] our best teacher' (Xi Jinping, 2017). In subsequent paragraphs, Xi went against this current by elaborating on people-to-people exchanges as an appendage of state-led efforts at forging harmonious relations on the OBOR:

> These [past] four years have seen strengthened people-to-people connectivity. Friendship, which derives from close contact between the people, holds the key to sound state-to-state relations. Guided by the Silk Road spirit, we the Belt and Road Initiative participating countries have pulled our efforts to build the educational Silk Road and the health Silk Road, and carried out cooperation in science, education, culture, health and people-to-people exchange. Such cooperation has helped lay a solid popular and social foundation for pursuing the Belt and Road Initiative. Every year, the Chinese government provides 10,000 government scholarships to the relevant countries. China's local governments have also set up special Silk Road scholarships to encourage international cultural and educational exchanges. Projects of people-to-people cooperation such as Silk Road culture year, tourism year, art festival, film and TV project, seminar and think tank dialogue are flourishing. These interactions have brought our people increasingly closer.
>
> These fruitful outcomes show that the Belt and Road Initiative responds to the trend of the times, conforms to the law of development, and meets the people's interests. It surely has broad prospects. (Xi Jinping, 2017)

There is a built-in irony to all this. People to people relations should ideally be unforced and even spontaneous. But the state – specifically the Chinese state – has to count the quality of social interactions in terms of the volume of scholarships, numbers of exchanges, tourism events, 'culture year' and art festivals and so forth. In short, this is the bureaucratic framing of the twenty-first century Silk Road that detracts from the latter's historical precedent.

Understandably, the discourse of the OBOR today needs to accommodate significant aspects of modernity thriving amongst the states and societies partaking in the OBOR. Modern and modernizing states tend to be jealous of preserving their own sovereign powers and

institutionalizing the domestic rule of law. Many Asian states have also yet to fully build nations that are inclusive of all ethnicities and accepting of a social contract between the ruler and the ruled. Additionally, many Asian states, including democratic ones, officially practice a national ideology that guides development and national stability. This is an inevitable offshoot of modernization. But this road to modernization is fraught with uneven accomplishments and reversals. (Apter, 1965; Diamond, Lipset, & Linz, 1987) State-society relations may occasionally be tense over matters such as economic distress, the gap between rich and poor, environmental disasters and ethnic representation in government. Connecting all these conditions along the geographical expanse of the OBOR will prove extremely challenging.

Hence, in this paper I contributed to scholarship on China's OBOR by examining the many possibilities that the OBOR is about adjusting paradigms and frameworks of cooperation between peoples, economies and states, as well as occasionally philosophizing about what connectivity can holistically mean in the twenty-first century. I am not that critical of China's OBOR as an agent of possible displacement and initiator of a new Asian international order from an ideological standpoint. As President Xi's remarks have rightly alluded, the OBOR is an unprecedented strategic vision but it also needs to be examined in terms of which obstacles it might encounter. Additionally, the OBOR has upped the ante at a moment of intellectual efflorescence in the study of international relations: the inquiry into forms of non-western 'IR' that posit fluidity, plurality and harmony between peoples as much as states. (Ling, 2014; Chong, 2012) More comprehensively, I will delineate the implications of what OBOR means for inclusiveness or exclusiveness of development on national, regional and international scales.

Normative Concerns and the Shadow of Geopolitical Censorship

The scholarship of Harold Innis, Marshall McLuhan and Ronald Deibert have persistently argued that territorial projects are often accompanied by biases in these powers' communication policies and technologies. In studying the ancient Greek civilizational empire for instance, Innis came to the conclusion that despite the odd example of Sparta, most of the factionalized Greek city states never approximated the absolutist empires of Asia at the time. In Innis' perspective, 'the powerful oral tradition of the Greeks and the flexibility of the alphabet enabled them to resist the tendencies of empire in the East towards absolute monarchism and theocracy.' (Innis, 2007, p. 104) Likewise, when one scrutinizes the enunciation of the OBOR in relation to the governing conditions within the People's Republic of China, one quickly realizes that Beijing is controlling the discourse of promoting the OBOR very tightly. As internal official documents have elaborated, the Xi government has announced that critical attitudes towards China articulated

under the influence of liberal openness or from western sources are collectively a national security threat. (Buckley, 2013; Myers & Cheng, 68 things you can't say, 2017) This extends likewise to discussions of the OBOR.

On the other hand, Beijing sees no contradiction between restricting critical thought and promoting pro-China propaganda through Chinese language courses, Confucius Institutes and even online adult education courses. The entire climate of corporate and journalism-driven financial news reporting has come under a cloud of censorship. (Hernandez, 2015; Tsang, 2015) Beijing makes no apologies for sanitizing the Internet of content deemed inimical to China's national security. (Myers & Wee, China feels vindicated in its control over Internet, 2017)

More disturbingly, the idea of academic and civil society freedom to improve government by supplying constructive criticism has retreated significantly since the era of reforms initiated by Deng Xiaoping. In the latest study on the subject of Chinese civil society, a China-born sociologist argued that when dramatic social calamities such as the 2008 Sichuan earthquake occurred, spontaneous social 'self-help' efforts mounted by citizens was approved *post facto* by the government under labels such as 'nationalism' and acts of 'citizenship'. (Xu, 2017, pp. 8-28) The Chinese authorities were in fact slow to respond on the ground, prompting local citizens to take matters into their own hands since they were equipped with 'prior experience of providing social services' such as purchasing, delivering and distributing food and water; updating rescue information and donation notices online, cooking for survivors; babysitting and so on. (Xu, 2017, p. 43) In a clear sign of defensiveness, the official *People's Daily* published an editorial two days after the earthquake that compared the relief operations to a 'great battle' that ought to occupy the attention of all levels of the Chinese Communist Party. The editorial stressed that disaster relief was 'first and foremost a political task.' (Xu, 2017, p. 44) Once this call to mobilization was explained, saving people's lives became top priority and the government was compassionate to earthquake victims and survivors alike. This is obviously symptomatic of an insecure great power.

In March 2017, a report issued jointly by the Centre for International Media Assistance and the National Endowment for Democracy argued that China has transcended a defensive position associated with its censorship of all domestic media and the formidable Great Internet Firewall. The report noted that 'without much fanfare, it [China] has turned its focus outward, seeking to take its influence over the information environment global. Through a combination of market-oriented mechanisms, propaganda pressure tactics, and action in international arenas, China is attempting to harness the global information ecosystem in unprecedented ways.' (Kalathil, 2017,

p. 1) The report highlighted three prongs of this new information manipulation strategy. Firstly, influencing foreign media reporting through press releases, briefings, and other cultivation; secondly, articulating the need for Internet sovereignty at the UN and other world forums; and thirdly, influencing 'global culture' into becoming more pro-China through funding and shaping cultural festivals, sports events and engaging Hollywood's film narratives through instruments of financing, market access and personal influence with film makers. (Kalathil, 2017, pp. 3, 32)

True to expectations, the widely respected journal *China Quarterly*, published by Cambridge University Press, was initially forced in August 2017 by China to excise 315 published papers from its online database hosted in the country. A massive outcry by academics worldwide forced Cambridge University Press to stage a U-turn within days of complying with Beijing's demands. The Press decided that it was more palatable to defy Chinese censorship than to sacrifice the spirit of academic inquiry. Less successful in resisting Chinese pressure is the Australian publisher Allen and Unwin whose author, Professor Clive Hamilton, alleged in a book ominously titled *Silent Invasion* that China's proxies had sought to influence Australia's democratically elected parliament and political parties through OBORbes and other illicit measures. (Westcott, 2017) This volume studying the OBOR echoes the concerns of media theorists, civil society quarters and academic publishers caught up in the daunting campaign of censorship and silence surrounding Chinese foreign policy ventures abroad.

On the contrary, the ancient Silk Road was a mostly ungoverned and spontaneous transmission belt of knowledge in both eastward and westward directions. (Elisseef, 2000) Whenever war in eastern Europe and the Mediterranean sought to close off trade with Asian centres between the 1000s and 1200s, itinerant Europeans like the Polo brothers, pilgrims like Ibn Battuta, numerous adventurous Arab merchants pioneered their own pathways to the East. Historian Peter Frankopan noted that until the era of Marco Polo's sojourn in Mongol-controlled China, the latter's knowledge of the outside world had been 'distinctly sketchy and limited'. (Frankopan, 2015, p. 185) Subsequently, the famed naval expeditions of the early 1400s led by Admiral Zheng He and his compatriots during the Ming Dynasty represented a high point of ancient Chinese attempts to actively reach out to the rest of the world. Thereafter, it was a return by Chinese dynasties to the comfort of passivity and relative isolation vis-à-vis foreign contact. Therefore, a critical study of OBOR ought to probe the geopolitical, economic and ideological significance of what the ancient Silk Road meant. In fact, as Frankopan and others have trenchantly argued, there were many Silk Roads on land and via the sea. (Frankopan, 2015, pp. 1-26) Scholars have addressed the of plurality of ideas, governance, economic intercourse, social adaptation and toleration as characteristics of the original Silk. More interesting is the reflective

inquire into how travelers on the ancient Silk Roads found answers to the eternal question of cohabiting with human differences in beliefs and customs. It is good to ask if intra-Asian international frictions could be overcome through the paradigmatic change offered by the creative pathways embedded in the OBOR. Trade, infrastructure and twinning civilizations all go together in restoring intra-Asian amity in the spirit of the pre-sovereign, ancient Silk Roads. Both the metaphor and reality of the ancient Roads still challenge us today. If the ancient Persian & Greek alike viewed the roads as pathways to empire, others perceived the Roads as civilization builders. Non-state pilgrims also generated their own paradigm for the religious Roads in seeking Providence through revelation. (Dawson, 1966) These were then proverbial and literal roads to faith. Can these not be reprised today given the rich repositories of Islamic, Buddhist, Zoroastrian and Christian artefacts preserved all along today's asphalt, rail and waterborne Roads?

Critical Geopolitics

Another significant theme that arises from scanning President Xi's remarks on the OBOR is that of the geopolitics of political reputation, national identity and the nature of the development process itself. This is evident in the two quotes earlier from Xi containing conflated references to state-driven development, people-to-people connectivity, and the desire to connect development processes that were designed through the lenses of national sovereignties. One is tempted to simply dismiss Xi's elaboration of the OBOR as stock Chinese propaganda about development. Instead, the prospect of reviving the ancient Silk Road connects directly with the popular field of study known as critical geopolitics. As stated by John Agnew and Stuart Corbridge, two of the foremost proponents of this perspective, the reading of geopolitics 'must not be confined to a reading of a world ordered geographically into a more or less fixed hierarchy of states, cores and peripheries, spheres of influence, flashpoints, buffer zones and strategic relations.' (Agnew & Corbridge, 1995, p. 5) Agnew and Corbridge go on to argue that the dominance of the Westphalian territorial state is 'not a trans-historical given', and therefore that economic transactions across sovereign borders cannot be assumed to be linear, inexorable and unchanging once implementation has commenced. (Agnew & Corbridge, 1995, pp. 5-6) The interactions between politics and economics are diachronic rather than synchronic in nature. Agnew and Corbridge argue that critical geopolitics liberate political economy from confinement to physical parts of the globe. They boldly posit that 'success or failure' of different localities in the world capitalist economy 'is due to their historical accumulation of assets and liabilities and their ability to adapt to changing circumstances, and not the result of "natural" resource endowments.' (Agnew & Corbridge, 1995, p. 6) In this regard, international political economy

today is as much concerned with flows of labour, goods and services, as with spaces of representation of those flows. A critical geopolitics, therefore, refers 'not only to the material spatial practices through which the international political economy is constituted, but also to the ways in which it is represented and contested.' (Agnew & Corbridge, 1995, p. 7)

The Rest of Asia: Satellites, free riders or equal partners?

On the political economy front, scrutiny of the OBOR necessarily takes on a policy-oriented direction. These are critical perspectives in the sense that in every bilateral or multilateral partnership, the questions of equality of status and empathy towards the respective national interests arise. Although Xi's statements articulate the desire for the OBOR to accommodate assorted national development plans, the existing scholarship on Chinese aid and investment policies towards the Global South and Asia do not provide adequate reassurance for the participants in the OBOR.

Firstly, some scholars have floated the idea that Chinese development imperatives overseas are little more than the substitution of the familiar western policy template of neo-imperialism and 'development of underdevelopment'. A case study of Chinese investment in Angola since the early 2000s has argued that they have mostly propped up an authoritarian nationalist regime by delivering mass-produced housing and infrastructure in the name of a vaguely understood notion of inclusive progress. (De Morais, 2011) Not only have Chinese construction proven shoddy and delayed, the Chinese companies appear to have only minimally engaged local Angolan labourers. Worse, Chinese government-to-government agreements with the government in Luanda have merely opened the way for Chinese private and state-owned corporations to dominate the contracts in Angola at the expense of local labourers and companies. Additionally, the government in Luanda has been accused of turning a blind eye to criminal resource expropriation rackets run by the expatriate Chinese community in the country. Incidents of anti-Chinese vigilantism by Angolan citizens angry and fearful of Chinese economic penetration have become quite common as a result. (De Morais, 2011, pp. 73-74) Echoes of such lessons can be found in the on-going Sino-Japanese geo-economic competition for high speed rail projects across Southeast Asia and South Asia. China is often perceived to be outbidding Japan because of the collusion between Chinese foreign policy goals and the ability to compel Chinese rail firms to competitively offer price and political 'discounts' to seal the deal. (Kesavan, 2017)

Secondly, another theme can be identified in recent scholarship: the statist, top-down implementation characteristic of Chinese aid and investment. This is both good and bad. It is

positive in the sense that unlike democratic great power donors where aid packages have to be often debated and ratified in their domestic political arenas following government-to-government signature, China can guarantee that whatever is promised at the negotiating table and sealed with bilateral signatures will be delivered. This is Beijing's advantage as a one-party state that controls civil society and other forms of domestic dissent. But this also opens the way for a tremendous amount of bureaucratic politics between China's Ministries of Foreign Affairs, Commerce, Health, Science and Technology, Communications, Education and Agriculture, as well as the assorted state-owned enterprises and banks that actually deliver the aid on the ground. (Breslin, 2013) According to Shaun Breslin, most analyses of China's aid and investment to the Global South will encounter trends of incoherence. More importantly, Breslin finds that 'the balance between challenge and opportunity largely depends on the existing political economy of the partner country.' (Breslin, 2013, p. 1287) This clearly implies that the OBOR remains in a 'plasticine' stage. It is wide open to country-specific negotiation as to what suits the government of the day in the local partner territory. (Bozzato, 2017) Yet, others lament that Chinese aid and investments may suffer implementation difficulties simply because Beijing is not learning from the earlier difficulties of the World Bank and Asian Development Bank in consulting local civil society and non-governmental organizations (NGOs) about the social, economic and environmental impacts of large scale infrastructure projects. This has happened with China's African ventures and it is repeating itself in Beijing's partnerships in Indochina. (Alden & Hughes, 2009; Dosch & Hensengerth, 2005; Hensengerth, 2015) The blind spot of a top down approach to aid and investment lies in the neglect of the displacement effects of large-scale ground-breaking projects on people and their livelihoods, as well as on the ecological environment. Additionally, some political economists have pointed out that Chinese aid and investment guidelines enjoy wide political latitude that cannot be mapped in any sense to standards set by the OECD, World Bank or G7 donor policies. (Bräutigam, 2011) China does not have a dedicated Ministry of Official Development Assistance, or its equivalent, and does not appear to have drawn up a standard, transparent suite of developmental loan policies. Hence it can price the interest rate on loans below prevailing market rates and supplement them with 'add on' concessionary grants or loans to sweeten a bilateral aid package, as has happened in the early 2000s with 'special state loans' to Angola and the modernization plan for Nigerian railways. (Bräutigam, 2011, pp. 757-759) A converse reading of Beijing's wide political latitude to making loans is, however, also possible. Beijing's aid is exceptionally attractive to many Global South states simply because it is willing to be flexible and accommodative to local needs. The invocation of 'friendship' considerations, the presumed ideological solidarity of countries on the modern Silk Road focused on development, and the avoidance of loan conditionality upon prevailing market rates and human rights standards, all act to enhance the appeal of China's

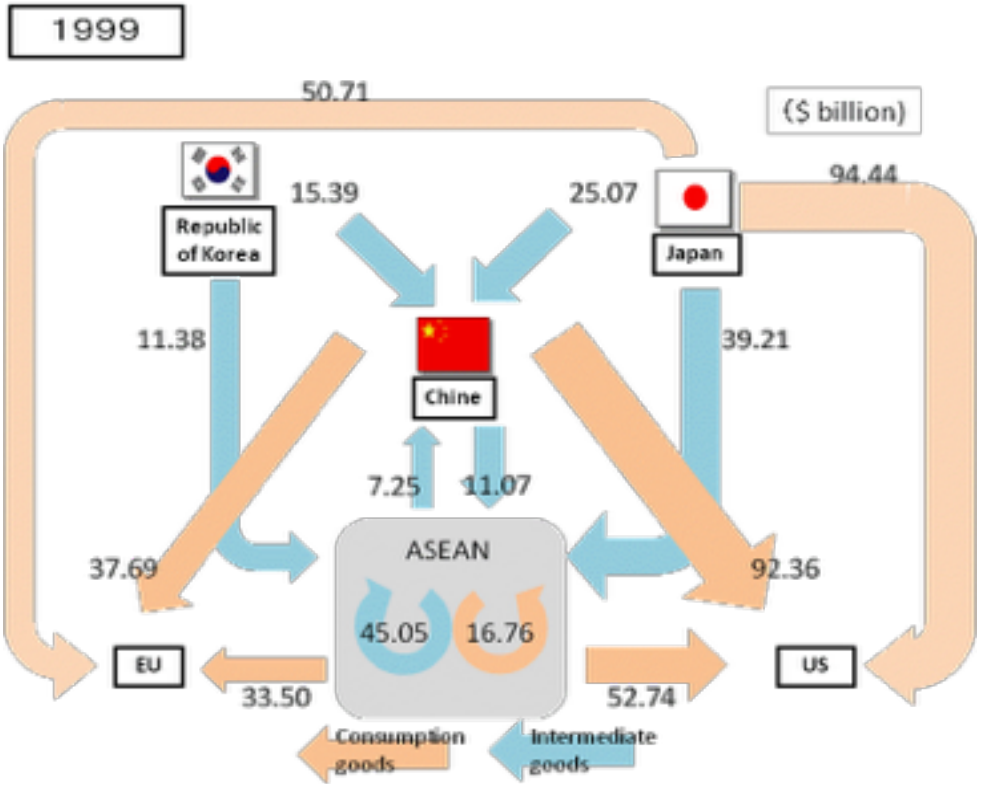
OBOR vision.

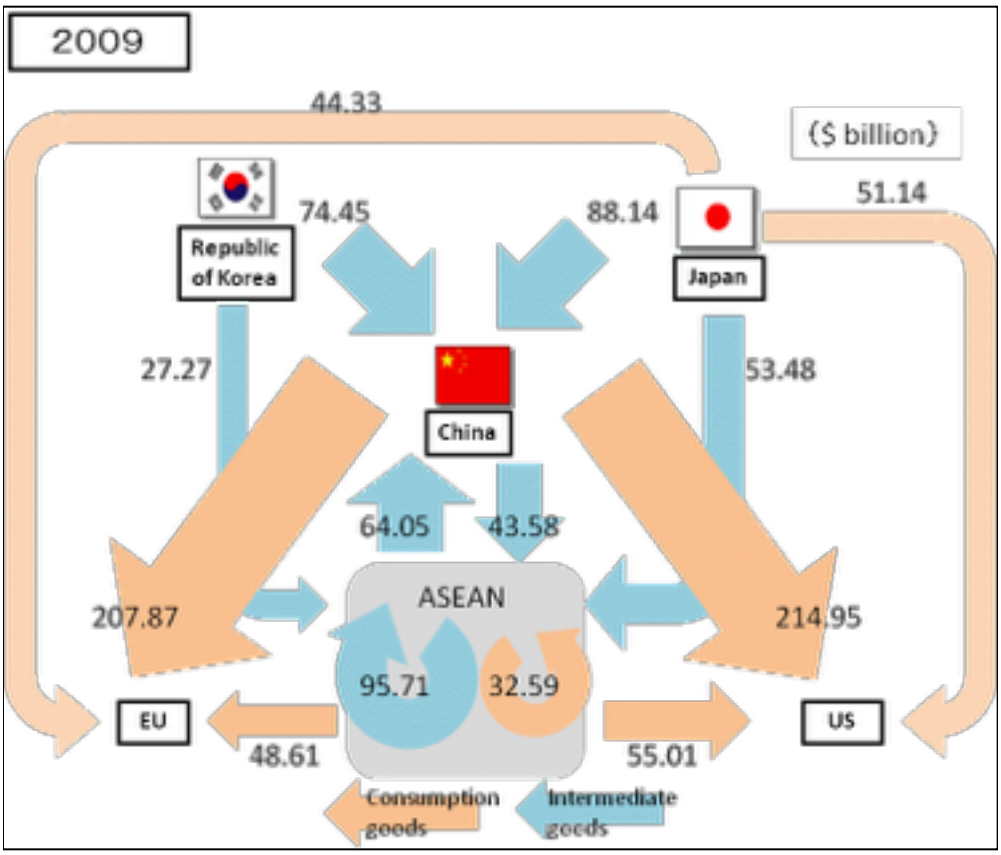
Indeed, some have praised the attraction of China's blandishments regarding the OBOR as being helpful for 'South-South Cooperation' as opposed to the conditionality and political strictures set by the G7 states. At the same time, China's OBOR aid potentially marginalizes existing international law and extends China's economic reach towards possible political domination in partner countries' domestic politics. I have also contributed to debate by raising the prospect that China may well be aspiring to displace the US' benevolent hegemony in international political economy through the OBOR. This in turn may trigger negative counter-reactions by Japan, as a stakeholder in the US-led post-1945 liberal economic order, as well as other states benefitting from current Bretton Woods-descended international economic institutions.

De Fact Interdependence in the Asia-Pacific

Today, China's GDP has become three times as large as Japan's. Also, the first decade in the 21st century marked China's growth of export to the United States. Within China there are both large numbers of supporters for the government, along with a tremendous number of protests against the government.

In the 21st century, the production connectivity in the Asia-Pacific region has altered into the following way. The above figure is a bit outdated, but it clearly indicates the changing characteristics. First, ever since the year 1999, a production network could be realized within East Asia. Intermediate goods were exported from Japan to China/ASEAN and China/ASEAN exported final products to the U.S. and EU. Meanwhile, Japan's exports of final products to U.S. and EU were larger than those of China/ASEAN's export of final products to the U.S. and EU. In the first 10 years of the 21st century, however, the production network for intermediate goods have expanded within the East Asia region. ASEAN expands intermediate exports to China, and the trace between the ASEAN and Japan has become larger than between the United States and Japan.


1999
($ billion)
50.71
94.44
15.39
25.07
Republic of Korea
Japan
11.38
39.21
Chine
7.25
11.07
ASEAN
37.69
92.36
45.05
16.76
EU
US
33.50
52.74
Consumption goods
Intermediate goods


2009
($ billion)
44.33
51.14
74.45
88.14
Republic of Korea
Japan
27.27
53.48
China
64.05
43.58
ASEAN
207.87
214.95
95.71
32.59
EU
US
48.61
55.01
Consumption goods
Intermediate goods

Usage of the Trincomalee Bay

I visited Trincomalee Bay for the first in February 2018. In fact, my visit to Sri Lanka occurred a few years ago when a US-based leadership program organization, Eisenhower Fellowships, conducted a regional conference in Colombo.[13]

After participating in the conference, I was taken to Sigiriya with one of my former students currently working for the Kelaniya University, and it took us hours to get there from Colombo. It would be significant to reflect about the significance of the development of Tricomalee according to the points listed below; First, inland connectivity will be of utmost importance for the industrial accumulation in the Eastern part of Sri Lanka. When the size of population becomes bigger, there will emerge various types of demand and the price will also become higher. The efficient transportation system will contribute to the entire development of all regions within Sri Lanka.

Second, the maritime research center will be needed for global research regarding the usage of Trincomalee, but it does need to involve as many people as possible. Otherwise, the center will comprise of only a group of experts not backed by finance.

Also, judging from the current status quo of the Trincomalee Bay, I can pick up both good and bad points. The former relates to the geographical location of Trincomalee. The forms of the gulf have naturally generated well for the making of seaports. Second, while Trincomalee is the second largest city in Sri Lanka, its usage has been much less than expected. Thus, there will hope for the entire development of Sri Lanka.

However, there are also some concerns regarding the development of Trincomalee. The biggest concern is that the geographical location of the city will be less beneficial than the cases of Colombo and Hambantota. While the seabed forms should be of use for the logistics of vessels, the fact that the Trincomalee seaport is located along the eastern seashore will make vessels spend another few days to arrive at the seaport.

Therefore, there will be different perspectives needed for the entire development of Trincomalee.

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[13] Regarding the list of fellows for this fellowship, please see
http://ef-srilanka.org/fellows.html

First, the issue is not just on Sri Lanka, but rather for the entire region of the Bengal Bay. When individual countries of the Bengal area become more prosperous, the Trincomalee seaport will become more essential for the connectivity of the regional economy. Thus, the issue is not just on the global connectivity, but rather on the regional dynamics of economy within the Bengal Gulf. In this sense, Sri Lank will need to cultivate ties with India, Bangladesh, and Myanmar

Second, we will have to alter our perspectives from global connectivity to regional connectivity. The regional development plus Sri Lanka's inland connectivity, if both realized, will contribute to the upgrade of Trincomalee's usefulness. Thus, issues are not Sri Lanka-Japan bilateral agenda, but rather regional and multilateral matters.

I close my paper with expectations that participants today will find it necessary to focus on regional development around the Bengal Bay, and will consider the usage of Trincomalee from regional perspectives.

Prof. Go Ito

Professor Go ITO, Meiji University, Tokyo, received his Ph.D. at the University of Denver, USA, and currently specializes in a wide array of IR issues in the Asia-Pacific region. He has received several domestic and international honors for his work, including Eisenhower Fellowships and the Yasuhiro Nakasone Award. His major works include: *Alliance in Anxiety* (Routledge), "Japan's Participation in UN Peacekeeping Operations," *Japan in International Politics* (Lynne Rienner), "A New Pro-Asia Doctrine?" *Strategic Currents* (Institute of Southeast Asian Studies), and "Japanese Perspectives on the Rise of India and China," *India and China in the Emerging Dynamics of East Asia* (Springer).

DISCUSSION POINTS - SESSION THREE

- There is Japanese development aid for several projects in the country. They comprise the LNG plant, Colombo Port, Trincomalee, LRT, Central expressway and Kandy city development to name a few. Since 2015, a number of high level visits between Heads of State have taken place, where plans for developing connectivity have been made.

- How is MDA and HADR in Trincomalee going to be operationalised? Under the BIMSTEC or IORA framework? Can IONS be included in this? As mentioned, there is a need for more information sharing, but if intelligence is brought in, it might result in complications.

- Referred to Prime Minister Modi's policy of 'Look East', 'Rising China' and balancing US in the Indo-Pacific. With that environment, will there be a possibility to secure a number of actors to have a secure Bay of Bengal in Trincomalee?

- With regard to the role of the Quadrilateral in addition to the existing architecture, will it be more active in the region?

- Concerning the Japanese position vis a vis OBOR. Japan is not against this initiative but as Prof. Ito mentioned, Japan lays emphasis on openness, transparency and economic viability of the infrastructure projects. In terms of infrastructure development, Japan believes that international standards should be met in the OBOR projects. The idea of a free and open Indo-Pacific strategy is not against OBOR. If China shares the same views, cooperation is possible.

- Response to the query regarding Intelligence sharing, was that it is complicated, but it happens mostly on a bilateral level and information sharing can lead to intelligence sharing. As for, a regional model for information sharing, there are fusion centres in Singapore and Madagascar but models differ, therefore they will have to be streamlined. If the focus is on the Bay of Bengal, then IONS is too vast and BIMSTEC could be a better option.

- India's willingness to share information on white shopping should be taken as a positive step going ahead with the MDA concept. It is necessary for an individual nation's sovereignity to be slightly compromised for the common good of the region. The idea is, for like-minded states coming together for a common purpose.

- With regard to continuity of this initiative, the objective as a think-tank was to bring to light the three aspects focused on and invite stakeholders from the region in creating awareness. Have been successful in that regard. Will come up with an outcome document with recommendations and feedback, which should be shared with policy makers and the governments in the respective countries. Suggest not having a plethora of organisations in carrying this forward as BIMSTEC is most suitable, but will share the outcome with all organisations.

- Sri Lanka is in a good position as IORA has nominated it to be the lead country in maritime safety and security with today's topics directly relevant to those. Suggest regional solutions to regional problems. When that is not successful, then external parties provide solutions at a cost. BIMSTEC, IORA, IONS and Sri Lanka's own Galle Dialogue are sufficient to address our issues. As regards the involvement of Quad, feel that there is an unofficial cold war in the Indian Ocean, which the Quad could aggravate by making it official.

- A Regional Maritime Fusion Centre in Madagascar has been established and functioning as is the one in Singapore. But this leaves a gap between the east and west with Sri Lanka being the most suitable location to have a regional maritime fusion centre by connecting the two ends.

SESSION FOUR

COUNTRY PERSPECTIVES

BIMSTEC Views of Maritime Connectivity and Security: Current Initiatives

Ambassador Sumith Nakandala

BIMSTEC began as BISTEC with Bangladesh, India, Sri Lanka and Thailand as member states converging for economic cooperation and the four maritime nations have had maritime connections across the Bay of Bengal since time immemorial. 'Crossing the Bay of Bengal' by Dr. Sunil S. Amit provides a vibrant narrative of how people have travelled across the region, not just by way of migration but also ideas and culture.

BIMSTEC now includes Nepal and Bhutan which are landlocked countries that have a claim to the Indian Ocean and Bay of Bengal under the Law of the Sea. The organisation is merely trying to rediscover the common heritage and build a structure based on it. The common heritage was based on maritime connections, people to people contact and vibrant trade links across the Bay of Bengal which have lasted over centuries.

In 20 years of BIMSTEC's existence, there have been certain milestones. In 1997, it was established in Bangkok and in 1998, in less than one year, it started focusing on economic cooperation. However, unfortunately, even after twenty rounds of trade negotiating committee meetings, a BIMSTEC Free Trade Agreement (FTA) has not been finalised as there were differences between two member states in 2015 which has been a drawback. Economic cooperation and free trade agreements are the most fundamental to the success of a regional grouping. Sri Lanka is encouraging FTAs not just for goods but investment as well. For example, the recently signed FTA with Singapore whilst FTAs with China, Malaysia and Thailand are in the pipeline.

There are several regional dynamics. the Regional Comprehensive Economic Partnership and Trans Pacific Partnership (TPP) will have a profound impact on the region, especially in the Bay of Bengal. The other major development in BIMSTEC took place in 2016 when Prime Minister Modi hosted a BIMSTEC retreat in Goa at the end of which the leaders present agreed on a sixteen point agenda on maritime connectivity and security. A few other notable events followed. Thailand's deputy Prime Minister proposed that BIMSTEC should have a connectivity master plan and with the support of the Asian Development Bank, BIMSTEC established BTILS (BIMSTEC Transport Infrastructure and Logistics Study) to develop a connectivity master plan

taking over all modes of connectivity into consideration. This was a very important step towards connectivity in a more holistic manner.

The Bay of Bengal Gateway Projects an example. Several other developments are also taking place parallel to this. The United Nations Economic and Social Commission for the Asis Pacific (UNESCAP) led two projects: the Asian Highway Project and the Trans-asian Railway Project. Intergovernmental agreements were finalised in 2010 and 2011 but these two have been reopened again to establish an Asia Pacific Information Super Highway. Another important aspect that was a result of the Goa retreat was the establishment of a National Security Advisors' structure. This was the first instance BIMSTEC had a high level structure created to look into security related matters in the region.

With regard to Maritime Domain Awareness, the best platform in the region in BIMSTEC as it is not subject to amy bilateral disputes and provides a solid foundation to discuss and deliberate security related issues. At the annual meeting of National Security Chiefs of member states, the following were discussed:

a) Coastal shipping agreements for member states soon to be finalised.
b) BIMSTEC Motor Vehicle Agreement which will also provide connectivity and has provision for maritime connectivity. Discussed Inland waterways agreements.
c) BIMSTEC Trade Facilitation Agreement
d) Custom Cooperation Agreement

In consideration of the above, a bright future can be envisaged for the Bay of Bengal region vis a vis BIMSTEC. The organisation is engaged in the basic framework for connectivity encompassing maritime, digital and other areas but most important is connecting the minds through people to people contact without a parochial mindset.

Maritime Security in Bay of Bengal

Commodore Somen Banerjee

Introduction

In today's geopolitical landscape, oceans have become the locus of competition, conflict and cooperation. The Indian Ocean Region (IOR) is too diverse and large to always comprehend holistically. Therefore, and rightfully Pathfinder Foundation has broken it down into smaller sub-regions the Bay of Bengal (BoB) where littoral states share similar challenges and aspirations. Unlike the Atlantic and Pacific which sweep from North to South, Indian Ocean is an embayed Ocean. The inverted triangle of South Asia forms two great bays. Whilst the Arabian Sea is oriented towards the Middle East, the Bay of Bengal is towards Southeast Asia. Today we focus our gaze on the maritime neighbours in the BoB which includes Sri Lanka, Bangladesh, Myanmar, Thailand, Malaysia, Indonesia and India.

If we step back and take a look at the Indo-Pacific as a whole, the Bay of Bengal (BoB) is right in the middle. As the Western adjunct of the South China Sea, the waters of the BoB connect the Indian and Pacific oceans[14]. It also lies in the midst of regional structures such as the ASEAN, BIMSTEC and SAARC. The BoB influences China's southern landlocked region and is at the heart of economic emergence of the riparian and landlocked countries of the Indo-Asia-Pacific. The idea of the BoB as a multilateral, strategic, and economic community has thus engendered multiple interests and narratives[15].

Historical Perspective

Until the Bay of Bengal was reduced to a strategic backwater by the British Raj in the early decades of the 19th century, it was the site for major geopolitical contentions among the Asian and European powers[16]. The raids of SMS Emden of the Imperial German Navy and the ensuing naval battles during World War I highlight the strategic significance of the BoB. Once again,

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[14] C Raja Mohan and Darshana Barua, Why India must draw Australia into the BoB, ASPI, June 07, 2017. https://www.aspistrategist.org.au/india-must-draw-australia-bay-bengal/

[15] Constantino Xavier and Marc Xarex, Mapping strategic narratives in the BoB, Carnegie India, June 15, 2017. http://carnegieindia.org/2017/06/15/mapping-strategic-narratives-in-bay-of-bengal-region-event-5634

[16] Op cit, C Raja Mohan and Darshana Baruah.

during World War II, the BoB had emerged as a *sea of churn*. This reaffirms the allure and vulnerability of the region from external influences. The BoB was divided horizontally during the colonial era between the British and Dutch. Post WW II it got divided vertically between S Asia and SE Asia. BoB started to resume its shape as a singular entity quite recently, after the states were able to set their gaze outward, post internal consolidations.

Strategic Perspective

The BoB has emerged as a critical arena for security, trade, environment and maritime geopolitics and has been transformed into a major crossroad for international relations. Overlapping and intersecting interests undergird the complex strategic environment that is charecterised by growth, interdependence, vulnerability and competition[17]. These have been supplemented by new risk such as piracy and terrorism. Interdependence also entails vulnerabilities. SLOCS represent chokepoints and natural resources engender risk to environment. To navigate through this complicated maritime realm the states in the BoB will have to adopt collaborative strategies on security, environment, trade, transport, resources and climate change[18].

Interestingly, varying strategic perspectives are being developed by a multitude of players, mostly external to the region which includes the US and China. This has been influenced by the rise of China, increased trade with countries in the BoB and geographical centrality of the region on the maritime highway of world trade and energy. These accelerating changes have created a security landscape that encompasses both soft and hard power ranging from trade, maritime partnership, HADR exercises, to active demonstration of combat power[19]. Whilst the region falls within the jurisdiction of US PACOM, China too has been balancing its cooperation and competition adroitly. Though some external players like Japan have played a more constructive and transparent role for socio-economic development of the region. Despite these power plays, the region has been able to maintain its strategic stability due to the resonance, trust and combined capacities that exist amongst the nations of BoB.

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[17] Diane French, David Michel, and Ricky Passarelli, Sea Change, Stimson, December 2014, Pp 11. https://www.stimson.org/sites/default/files/file-attachments/SEA-CHANGE-WEB.pdf

[18] Ibid

[19] Ibid

Maritime Security Challenges

Increased flow of people, ideas, goods and resources has raised a new set of maritime security challenges. Indeed, historical concerns stemmed from geopolitical fragility, internal political upheaval, sea-lane security, territorial disputes, interstate tensions and insurgency. New challenges in the BoB entail asymmetric risks from non-traditional threats (NTT) such as piracy, drug trafficking; environmental degradation resulting from resource depletion, climate change and natural disaster; and internecine conflicts. Diverse challenges confront equally diverse nations. Unlike the South China Sea (SCS), BoB does not have territorial conflicts due to the observance of international laws by all in the region under the overarching rubric of the UNCLOS. This has been further backed by robust policy initiatives that have been sensitive to each others' concerns and adequate resource availability amongst states of the BoB to meet any contingency. This is one of the primary reasons why the Code of Conduct (CoC) like the one envisaged in the SCS is not considered necessary in the BoB.

The perils of non-state actors involved in piracy, trafficking etc have been largely defeated through the intrinsic tactical capacities and synergy that already exists between with the states in BoB. In the case of BoB, the coordination of anti-piracy is done under the ambit of the Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP) which is the first regional government-to-government agreement to in Asia that has twenty states.

Maritime Security Structure in the BoB

All states in the BoB seek economic, environmental and political stability. To that end, countries have been proactively involved in capacity building and regional cooperation. Capacity building has been ensured through asset provision, military training and education. Regional cooperation has been enhanced through multilateral exercises, HADR, hydrography and information sharing.

Capacity building

Advance OPV – It has indeed been a proud moment for India when the first AOPV built by M/s Goa Shipyard Limited was commissioned by the Sri Lankan Navy as *SLNS Sayurala* on 02 Aug 17. Another AOPV has been accepted just yesterday. Similarly, India has inducted a large fleet of Fast Interceptor Craft from Sri Lanka. Such mutual support events garner trust and friendship in the region. India has more than two dozen public and private shipyards building ships and

submarines for the Indian Navy and looks forward to partnership with all in the region for mutual capacity building in the region.

Regional cooperation

Multilateral exercises - MILAN is one such multilateral exercise conducted biennially in the Andaman Sea. MILAN 2018 was conducted between 06-18 Mar 2018. It provides an excellent opportunity to the participating navies to come together in a spirit of collaboration and mutual understanding to nurture stronger ties. MILAN made modest beginnings more than two decades ago when it was first held in 1995. The first edition saw participation of four littoral navies. The event achieved quick success during the ensuing years owing to high standards of professional content of the event. The growing participation over the years bears testimony to the success of this multilateral initiative. From an event of sub- regional context, MILAN has now grown into a prestigious international event and encompasses participation by maritime forces from not just the Bay of Bengal and South East Asia but the larger Indian Ocean Region (lOR)[20].

Langkawi International Maritime and Aerospace Exhibition (LIMA) - Similarly, LIMA is a biennial maritime exhibition organised by the Malaysian Navy. It is aimed at improving maritime cooperation and bringing together military and civil industrial partnership. The Indian Navy has been participating regularly in LIMA. Last *INS Kora* participated in LIMA 17 at Langkawi, Malaysia.

Exercises for IOR Littorals - In a significant step taken towards synergising BoBs HADR efforts the Indian Navy had invited 'Observers' from Sri Lanka, Maldives, Bangladesh and Myanmar to participate in the '*Annual Tri-Service HADR Exercise*' conducted by the Indian Navy in May 17.
Familiarization with Blue water operations- In addition, to expose mid-level leaders of IOR littoral nations to Blue Water operations, the Indian Navy conducted 'Exercise *SAMBANDH*', *in* Oct 17, wherein 'Observers' from 18 Friendly Foreign Countries were present, which included all BoB countries.

Indian Ocean Naval Symposium (IONS) - The IONS presently has 23 member countries which includes all the 07 BoB countries. Bangladesh is the current 'Chair' of IONS. The IONS Multilateral Maritime Search and Rescue Exercise (IMMSAREX) was conducted at Cox Bazar, in Nov 17. IONS has become an important Maritime construct to promote maritime cooperation amongst the member countries.

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[20] Year end review, 2017, Ministry of Defence, India, Press Information Bureau. http://pib.nic.in/newsite/PrintRelease.aspx?relid=174471

Navy-to-Navy Staff Talks-The Indian Navy held Staff Talks with the navies of Bangladesh, Myanmar, Thailand and Indonesia last year. Extensive discussions on maritime cooperation and bilateral issues were held with during the 'Staff Talks'. Operation interaction, cooperation in hydrography, training and sharing of White Shipping Information are a few common issues discussed during the 'Staff Talks'.

HADR

The Rakhine refugee crisis was addressed jointly by India, Bangladesh and Myanmar. INS Gharial, an amphibious ship, had landed with 777 tons of relief material in Sep 17 in Chittagong. In addition, an *IN* Ship based on anticipation, *was* deployed in the Northern Bay of Bengal to provide immediate assistance in the aftermath of Cyclone 'Mora'. During this deployment, the ship rescued 33 fishermen at sea and also recovered one body in Jun 17. Also, was able to provide relief to countries affected.

In another example of coordination at the functional level, just one a call by the High Commissioner and assistance would rescue MV *MSC Daniela* (a Panama flagged container vessel) that had reported a fire onboard in Apr 2017. A helicopter was utilised for locating the seat of fire and directing firefighting efforts which were undertaken by CGS. The fire was brought under control and all crew were rescued to safety.

Hydrography

Hydrography is an essential element for safe navigation in the BoB. The Indian Navy has had the opportunity to deploy two ships in 2017 for a total of 115 days for the conduct of hydrographic surveys based on the request to host governments[21].

Information sharing

Information sharing in the BoB is conducted by states under the framework of Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP). The ReCAAP information sharing centers (ISC) conducts timely and accurate information sharing on incidents of piracy and sea robbery. The ReCAAP ISC manages a network of information sharing with the Focal Points of Contracting Parties on 24/7 basis. Through this information sharing, the ReCAAP ISC issue warnings and alerts to the shipping industry and facilitate the responses by the law enforcement agencies of littoral states. Based on

[21] Ibid

the detailed information of incidents collected, verified and collated, the ReCAAP ISC provides accurate statistics and analysis of the piracy and armed robbery situation in Asia by its periodical reports (weekly, monthly, quarterly, half-yearly and annual reports). In order to strengthen its network of information sharing, the ReCAAP ISC also conducts capacity building activities of the Focal Points of the Contracting Parties through the training of their reporting skill, sharing best practices, updating the situation of piracy and armed robbery. It also facilitates the Focal Points to promote cooperation with other governmental agencies and shipping industry. Bangladesh, Myanmar, Sri Lanka, Thailand and India are already the focal points that collate the information in the BoB. Thus the necessity of an arrangement akin to the Djibouti Code of Conduct (DCoC) is not felt. The DCoC as you are aware is primarily meant to enhance capabilities and coordinate efforts of the East African states.

The ReCAAP ISC promotes cooperation with other regional and international organisations to share information and best practices and to enhance its network in order to address the piracy and armed robbery collectively. It has signed documents of cooperation with like-minded organisations such as IMO, INTERPOL, BIMCO, INTERTANKO, ASA, IFC and DCoC[22].

BIMSTEC

This presentation would be incomplete without mentioning Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC). BIMSTEC comprises 14 areas of cooperation. A few correspond to the maritime domain[23]. India is the lead country for transport and communication under which 167 projects have been identified. Multimodal transport, logistics, infrastructure development and maritime transport are part of this sector. The Fisheries sector is led by Thailand. Awareness building for expansion of aquaculture and application of appropriate technology and new cultivable species for aquaculture have been exchanged under this sector. Once again India is the lead country for environment and disaster management. The first BIMSTEC Annual Disaster Management Exercise was held in New Delhi in Oct 2017. The counter-terrorism and transnational crime sector is led by India. The sector conducts its business through the Joint Working Group on Counter Terrorism and Transnational Crimes (CTTC). There are six Sub-Groups, each working on a specific aspect of CTTC cooperation, and they all report to the BIMSTEC Joint Working on CTTC. These are:

[22] http://www.recaap.org/

[23] https://bimstec.org/

a. Sub-Group on Narcotic Drugs, Psychotropic Substances and Precursor Chemicals (SGNDPSPC);
b. Sub-Group on Intelligence Sharing (SGIS);
c. Sub-Group on Legal and Law Enforcement Issues (SGLLEI);
d. Sub-Group on Anti-Money Laundering and Combating the Financing of Terrorism (SGAML-CFT);
e. Sub-Group on Human Trafficking and Illegal Migration;
f. Sub-Group on the Cooperation on Countering Radicalization and Terrorism.

The Climate change sector is led by Bangladesh. During the 1st BIMSTEC Summit, India had proposed for cooperation in information sharing on Remote Sensing for the purpose of agricultural, environmental, and catastrophe management. A Centre has been functioning in National Centre for Medium Range Weather Forecasting (NCMRWF), Noida, India that assists BIMSTEC countries.

BIMSTEC framework conforms to the geography of BoB. Therefore, I recommend that maritime security structure of the Bay can be engendered under BIMSTEC. Already consensus appears to existing at the political level. The NSAs of BIMSTEC had met on the sidelines of the BIMSTEC meet at Goa in Mar 2017. The Meeting noted that BIMSTEC Member States face common security challenges and underlined the necessity of addressing traditional and non-traditional security challenges. The Meeting underscored the importance of recognizing the Bay of Bengal as common security space and agreed to work out collective strategies for common responses. The Meeting recognised the need for urgent measures to counter and prevent the spread of terrorism, violent extremism and radicalization and decided to take concrete measures to enhance cooperation and coordination among their law enforcement, intelligence and security organisations and enhance capacity building. The Meeting emphasised the importance of maritime security in view of the significance of the Bay of Bengal for the well-being, prosperity, security and socio-economic development in the BIMSTEC Member States and decided to examine ways to further strengthen maritime security cooperation, including Humanitarian Assistance and Disaster Relief (HADR)[24]. The next meeting of NSAs is scheduled at Dhaka on 28-29 Mar 2018.

Conclusion

[24] http://www.mea.gov.in/press-releases.htm?dtl/28193/First_meeting_of_the_BIMSTEC_National_Security_Chiefs_March_21_2017

Peace in the maritime environment depends on mutual understanding, cooperation and constructive engagement. Several regional initiatives already exist. In addition, inter-governmental organisations such as the FAO, IMO and UNEP help protect maritime environment and ocean resources. From the legal perspective UNCLOS seeks to resolve multinational disputes on freedom of navigation (FON), coastal rights, traditional fishing rights, piracy, pollution, conservation and maritime delimitation. Though not panacea, legal and regional organisations have played a valuable role in maintaining peace and stability of the BoB. This has been possible due to political trust and collective capacity of the nations in the region. In order to maintain the present tranquility for perpetuity, unity of political will would be more significant than maritime Codes of Conduct.

In order to take the collaboration forward and to ensure that no extra or intra regional state is able to upend the present calm in the Bay of Bengal, may I suggest the creation of a maritime security structure under the aegis of BIMSTEC, which is also a need of the hour for better coordination in the Bay.

Importance of Maritime Connectivity - Bangladesh Perspective

Rear Admiral Anwarul Islam

This paper "Maritime Connectivity in the Bay of Bengal - Bangladesh Perspective" aims to highlight some areas of collaboration and concern in order to discover potential avenues in promoting maritime connectivity for facilitating trade and commerce. This is also a very important time for Bangladesh to discuss this issue, as we have graduated ourselves from LDC to a developing country. In order to sustain this development and progress further there is no alternative to ensure a Safe and Secure Bay of Bengal for trade and prosperity.

It is well established that the Bay of Bengal (BoB) is assuming strategic and economic significance at an unprecedented pace. About 1.4 billion people live along its coastline and almost a fourth of the world's total population calls this region home. The countries situated around the Bay of Bengal (BoB) have a combined GDP of approximately over US$ 3.064 trillion and an impressive average rate of economic growth of over 6%. As the Bay of Bengal is the world's largest bay, it is also rich in untapped natural resources. The region is of pivotal importance for China, Japan, East and Southeast Asian states; as they are seeking to secure their access to crucial energy resources.

It is so encouraging to see that China, India and Japan are involving themselves in maritime infrastructure investment throughout the region. Some of those projects are intended to tie the region together as well as with rest of the world. The new linkages between southern China, India and Japan through the BoB will have a transformative impact on the region and Bangladesh being at the apex of the Bay would like to see it sooner than later.

There cannot be any disagreement that connectivity is one of the most important factor of a nation's economic growth, where sea and river ports are the gateways of facilitating the trade from within and among the nations. The single most important feature for connectivity is the psyche - the positive mind-set of the policy makers. Connectivity also underpins the 'infrastructure development' to the truest sense of the term to link the hinterland with communication hubs within the national jurisdiction and beyond the national borders. Maritime connectivity is even more essential considering that maritime transportation accounts for more than 80 percent of global trade volume and Bangladeshis no exception.

Hon. Prime Minister Sheikh Hasina rightly reiterates that Bangladesh is a maritime nation. Hence, Bangladesh is blessed with an ancient maritime tradition and a huge maritime population. It also blessed with a vast sea area and rivers, streams and canals. But, the country has neglected its maritime trade capacity for some time. However, it is reengineering this maritime capacity. Bangladesh's geographical location is very strategic as she lies in the proximity of two giant economies: China and India and also between two major regions of Asia: South Asia and Southeast Asia. This provides a unique opportunity for the country to benefit from greater trans-border trade, services and investments. Improved connectivity will enable Bangladesh to decipher the potential opportunities to reap geopolitical and geo-economic benefits through strengthened sub regional, regional and global integration. Hon. Prime Minister, Sheikh Hasina should be applauded for for the visionary leadership to settle maritime boundary issues with the neighbouring countries India and Myanmar through the international legal regime.

Bangladesh is striving to balance between rebuilding a totally devastated war torn country vis-à-vis feeding its millions of people living in such a small land. Thanks to the prudence of the leadership that the country was economically steered steadily to the extent that the country never experienced a negative growth despite diverse challenges and the country has transformed herself from 'aid dependant nation to a trade dependant nation'. The maritime sector and particularly maritime connectivity by default forms has tremendous potentials as the nucleus of Bangladesh's economic progress.

Seaports of Bangladesh are not deep enough to accommodate the deep draught mother vessels, therefore we depend on the services of feeder vessels, transiting between seaports of Bangladesh and Singapore/Malaysia/Indonesia/ Sri Lanka based deep sea port or hub. This increases the freight cost and loss of valuable time. Even the EU, Africa and Middle East bound cargoes travels opposite direction to board the mother vessels. Here, we need to stress the need for Coastal Shipping Agreement with in the littorals of BoB. Where small size containerized or bulk cargo carrying vessels should be able to transit directly between the ports. This will ensure economy of effort and speed of delivery. The idea of developing Trincomalee harbour as a deep sea port to serve this region is also commendable. Bangladesh's 3rd Sea Port is developing at Payera, which will be able to accommodate ships up to 14 meters, once the total project is completed. There are some more initiative on the maritime sector taken by the Government of Bangladesh to meet the demand of future trade of the country including our neighbours.

The coastal shipping agreement between India and Bangladesh was signed on 06 June 2015 with a view to reduce the pressure on road, to reduce cost and importantly to enable the movement of

cargo to the NE Indian states from Chittagong port. This connectivity could further develop by using Mongla and even Payra port in future to connect Nepal and Bhutan also. Bangladesh has also such arrangement with Myanmar between Akyab of Myanmar and Teknaf of Bangladesh and has contributed substantially over the years. The draft text of BIMSTEC Coastal Shipping Agreement which aims to facilitate coastal shipping in the region deserves much appreciation and we would like to see it happen earliest. Shipping agreement between/ Shipping Bangladesh and Sri Lanka would be worthy to transcend the trade.

If the ports in the Bay of Bengal are to remain competitive, India, Bangladesh and Sri Lanka would have to invest in new deep sea port projects and modernize the existing ports facilities to enhance efficiency and also develop hinterland links. It is true that port projects are cost-intensive and have long gestation periods. Therefore the Bay of Bengal littorals will have to rely on other non-regional ports for international commerce. In the interim, it will be useful to explore the coastal sea shipping arrangements (bi-lateral or regional).

Bangladesh's trade openness has significantly increased over the years with a reduction in tariff peaks, tariff bands, and Para-tariffs. It is praiseworthy that, Bangladesh's trade with the US and EU, South Asia and Southeast Asia has been on the rise since the country's independence in 1971 and much at a faster pace in the post 2000 era. However, trade with the region through maritime a route is not that significant. Indeed, the trade could have been more, so would have been the 'national standing' had Bangladesh 'connected' to the region much earlier.

Focusing on "a secure and safe BoB for common development and prosperity", which is also related with security of trade itself. As a region we all have common aspirations for socio-economic development and also face a common threat from the Non-Traditional Maritime Security Challenges (NTMSC). Challenges such as piracy in our trading routes i.e. off Somalian coast and South East Asia, drug and human trafficking, gun running, specially natural disasters originating in and around 10-degree latitude at sea in our part of the world have the potential to not only threaten socio economic progress but even the national security and stability. More so, Bangladesh is burdened with over a million refugee from Myanmar deserve special mention here. Apart from the socio-economic burden, this will have tremendous impact on cross border terrorism, gun running, drug and most importantly human trafficking. This is not a problem for Bangladesh alone. This will have far reaching effect in the region and globally as well; unless it is addressed urgently with priority.

In view of the above, an operationalised framework for the region could be a viable option under the aegis of an existing cooperative mechanism such as BIMSTEC, SAARC or IONS etc. ushered by Trincomalee Consultation initiative. However, transparency, inclusiveness, unbiased functioning and proactive participation by the stakeholders would be crucial for success of such a framework.

The author is hopeful that this session will help in understanding the importance of maritime connectivity and the related business potentials for Bangladesh with neighbouring countries and beyond. In conclusion is a list of a few challenges that perhaps deserve contemplation:

1. Geo-Strategic importance of the maritime connectivity under discussion.
2. Civil vis-à-vis military use of the maritime connectivity in the Bay of Bengal.
3. Activity and challenges of non-state actors in the BoB region.
4. Nature and volume of maritime traffic in the foreseeable future and their support infrastructure.
5. Strategic vision and political will of the littoral states and concerned regional cooperative mechanism.

"*Thou knowest that all our fortunes are through maritime connectivity*"

William Shakespeare
(Merchant of Venice)

Maritime Security in the Bay of Bengal: A Perspective from Myanmar

Dr Naing Swe Oo

Abstract

Myanmar Navy has close conduct with the regional countries to protect all forms of terrorism such as piracy and armed robbery, drug trafficking, human trafficking, gun running, illegal fishing, proliferation of weapon of mass destruction and natural disasters in Myanmar sea area and contiguous zone. Myanmar cooperates with ASEAN countries as well as international organizations for maritime security. Human Trafficking, Sea Robbery and Piracy are most common threats for regional maritime security. To enhance maritime security in the Bay of Bengal and Andaman Sea, Myanmar Navy has conducted Navy to Navy Staff Talks with Bangladesh Navy for one time, with Indian Navy for four times. As the result of the Talks, Indian Navy and Myanmar Navy could conduct four CORPATs since 2013. Myanmar Navy also participated in MILAN Multilateral Naval Exercises hosted by the Indian Navy.

Introduction

The changing maritime security scenario in the post-Cold War era is reflected in the transformation of naval doctrines, strategies and force structures evident in several Indian Ocean navies. There is an increasing focus on combating against the common non-traditional threats of the region through naval cooperation. Observing that maritime safety and security is a multi-faceted issue, especially in the realm of non-traditional threats. The emerging problems ranging from piracy and territorial disputes in the regional seas to global environmental pressures on coastal and marine resources pose significant governance challenges for maritime policymakers in the Bay of Bengal.

The creation and maintenance of security at sea is essential to mitigating threats short of war, including piracy, terrorism, weapons proliferation, drug trafficking, and other illicit activities. Countering these irregular and transnational threats protects the homeland, enhances global stability, and secures freedom of navigation for the benefit of all nations.

What are the Maritime Security Challenges?

Traditional Maritime Security	Non-Traditional Maritime Security	Maritime Safety
Government owned or Military Vessels	Piracy and Armed Robbery against Ships	Safety of Navigation
Threat to/Use of Force	Maritime Terrorism	Design, Construction, Manning, Equipment
War	Trafficking of Drugs	Rules of the Road
	Human Trafficking and Smuggling of Migrants	
	Illegal Trade of Arms	
	IUU Fishing	
	Others	

Figure: 1 Elements of Maritime Security
(Courtesy of Zhen Sun, *Research Fellow, Centre for International Law, National University of Singapore)*

Figure: 2 Piracy and Armed Robbery Against Ships in 2017
(Courtesy of International Maritime Bureau)

Myanmar as a Bay of Bengal Country

Bay of Bengal is a key geostrategic area, especially in response to China's increasing inroads, and this is reflected in India's recent 'Act East' policy. Myanmar links South and Southeast Asia and lies on maritime shipping routes from Indian and Pacific Oceans. A key pillar of its national development agenda is establishing an efficient and integrated transport system to become Asia's newest maritime hub. Recent political and economic reforms have already had significant impact on national trade flows. According to Central Statistical Organization, annual value of total trade (exports and imports) during 2004 - 2010 remained below US$5 billion. In 2014-2015, this figure increased to US$29 billion. Of this trade, more than 85% is maritime-based. The security of the sea lines of communication (SLOCs) in regional waters would therefore appear to be a national priority.

Measured from the mouth of the Naaf River on the border with Bangladesh to Kawthaung, the border crossing from Thailand, the Myanmar coastline has a total length of 2,228 kilometers. The Rakhine coastline measures 713 kilometers, the Ayeyarwaddy Delta coastline 437 kilometers, and the Tanintharyi coastline 1,078 kilometers. Myanmar's waters also comprise 852 islands of various sizes. These are distributed in the Bay of Bengal, mostly off the Rakhine coast, south of the Ayeyarwaddy Delta, and form the Myeik archipelago off the Tanintharyi coast. In addition, Myanmar also has sovereignty over the Coco islands that geographically form part of the Andaman and Nicobar Islands archipelago.

India and Myanmar signed 11 agreements in a range of sectors, including one on maritime security cooperation, to further strengthen their multifaceted partnership during India's Prime Minister visit to Myanmar last year. The two sides signed an agreement for sharing white shipping information to improve data sharing on non-classified merchant navy ships or cargo ships.

Myanmar is promising to become more active as regards bilateral and multilateral naval cooperation. For some years, it had participated in the biannual MILAN (Meeting of the Littorals of Bay of Bengal, Andaman, and Nicobar) exchanges and exercises, but in 2013 Myanmar's navy also embarked on a port call to the Indian mainland, involving a frigate and a corvette for bilateral exercises and patrolling in the southern Bay of Bengal. Malaysia has invited Myanmar to become an observer of the Malacca Strait Patrols (MSP) initiative to combat piracy. This initiative was formed in 2006; it comprises the Malacca Strait Sea Patrol, Eyes in the Sky, and the MSP Intelligence Exchange Group. Over the longer term, Myanmar's navy, thus, also stands

to become more integrated in collaborative efforts to address wider maritime security challenges. Myanmar Navy aims to become a blue-water navy with regional capability in response to regional naval modernization, and to protect its long coastline and extensive exclusive economic zone from both state-based and non-traditional threats.

Non – Traditional Maritime Security Issues

Myanmar is also concerned about some non-traditional security challenges in its maritime environment. One relates to the apparent rapid depletion of fish stocks, which is linked to a combination of overfishing and illegal fishing. Hundreds of foreign owned offshore fishing vessels seem to have compounded the issue of overfishing in Myanmar's EEZ. Other factors have also been contributing to greater earnings, including the global decrease in fuel costs and the depreciation of the Myanmar currency, the kyat. As a consequence of these factors, the value of fisheries exports has reportedly risen from USD 40 million in 2003 to USD 144 million in 2014. The protection of Myanmar's delineated maritime space is thus perhaps more important than ever. Incidents of piracy and armed robbery have at times been a source of serious concern for some Southeast Asian governments. In recent years, such incidents have affected numerous vessels in the Bay of Bengal. Although most reported crimes refer to petty theft and robbery, mostly when ships are at anchor off Bangladeshi ports, some incidents have also occurred around Myanmar, often involving Singapore-flagged tugboats. Three such incidents occurred in the Bay of Bengal in 2010, one in 2011, and two in 2014. In the Andaman Sea, the last reported incident happened in 2010, involving a robbery on a Singapore flagged LPG-tanker. In marked contrast to Bangladesh, very few reported robberies have taken place with ships at anchor. Though numbers are relatively low, dealing effectively with piracy and armed robbery is a concern for Myanmar's authorities.

Myanmar Navy has close conduct with the regional countries to protect all the terrorism such as piracy and armed robbery, drug trafficking, human trafficking, gun running, illegal fishing, proliferation of weapon of mass destruction and natural disasters in Myanmar sea area and contiguous zone.

Myanmar cooperates with ASEAN countries as well as international organizations for maritime security. Ninth ASEAN Navy Chiefs' Meeting was held in Nay Pyi Taw during 19-22 August 2015. The main theme of the meeting was "Fostering ASEAN Naval Team Work in Regional Maritime Security". The meeting passed firm resolutions on ANCM Road Map, HADR SOP, and

ASEAN Multilateral Naval Exercise to support ASEAN Political and Security Community in making the theme "ASEAN Integration 2015" a great success.

Myanmar Navy has established a maritime Rescue Coordination Centre (Ayeyarwady MRCC) at the Ayeyarwady Regional Naval Command. Also signed and ratified the Regional Cooperation Agreement on Combating Piracy and Armed Robbery Against Ships in Asia (ReCAAP) established in Singapore. And a focal point was also established at the Ministry of Home Affairs. An officer of the Myanmar Navy was attached to the Information Fusion Centre (IFC) situated at the Command and Control Centre (C2 Centre) at Singapore Navy in February 2014 as International Liaison Officer (ILO). Myanmar regularly sends representatives to attend workshop, meetings on maritime security. As part of the National Search and Rescue Committee, Myanmar Navy participates as Maritime Rescue Coordination Centre (MRCC).

After the construction of Sittwe, Kyaukphyu deep sea ports there will be many shipping lines calling at these ports. Due to the significant increase of maritime trade, the challenges and threats to maritime security will become more complex and increase. Myanmar Navy has Direct Communication Link (DCL) and Hot Line with the neighboring navies for maritime security. To conduct maritime security effectively and efficiently Myanmar Navy is enhancing cooperation in intelligence, information sharing, concerning with maritime challenges and threats including search and rescue.

To enhance maritime security in the Bay of Bangle and Andaman Sea, Myanmar Navy has conducted Navy to Navy Staff Talks with Bangladesh Navy for one time, with Indian Navy for four times. Moreover, Myanmar Navy has conducted Navy to Navy Talks with Royal Thai Navy for four times and with Malaysian Navy for two times. The regular Talks between the neighboring countries and regional countries could assist the enhancement of the maritime security. As the result of the Talks, Indian Navy and Myanmar Navy could conduct four Coordinated Patrols (CORPATs) since 2013. Moreover, Myanmar Navy is arranging to be able to sign in the CORAT SOPs between the Bangladesh Navy and Royal Thai Navy to conduct the CORPAT.

Myanmar Navy participated in MILAN exercises since 2006 hosted by Indian Navy. MILAN is an effective platform for social, cultural and professional interactions and promoting comraderies, maritime cooperation’s and inter-operability during humanitarian missions. The 10th edition of MILAN 2018 exercise was held in Adman and Nicobar Command from March 6 – 13. It was the largest exercise since the beginning. There were 20 Ships from 11 countries

participated in MILAN 2018. Myanmar sent an indigenously built Guided Missiles Frigate UMS King Sin Phyu Sin (F14) and Offshore patrol vessel UMS Inlay (54) to the exercise. After the exercise Myanmar Naval vessels will conduct CORPAT with Indian Naval vessels.

Regional Situation: The Perspective of Myanmar

Human Trafficking, Sea Robbery and Piracy are the most common threats for the regional maritime security. However, maritime security is developing as the ASEAN and regional countries are cooperating and the ASEAN navies are coordinating with law enforcement agencies and ASEAN plus countries to enhance the capacity building in implementing ASEAN Political and Security Community of ASEAN Integration 2015.

Myanmar government released a formal South China Sea Code of Conduct on13 July 2016. It is mentioned that Myanmar does not inflict the prosperity of the South China Sea but adherents the South China Sea to solve the problems by peaceful means for the development of South China Sea. Myanmar is going to coordinate with ASEAN countries and China to solve the disputes through the international laws and negotiations by peaceful means.

Human Trafficking at Sea

Myanmar water is adjacent to the Bay of Bangle and Andaman Sea. Illegal migrants and human trafficking are the Maritime threats encountered in geographically important Myanmar waters. Human trafficking affects every country of the world, as countries of origin, transit or destination. Despite it is important to prevent the human trafficking; it is also needed to provide the humanitarian assistance at sea.

Myanmar is not the original country of boat people; it is just the transit country. However, Myanmar is giving the immediate assistance to the illegal migrants at sea. Myanmar Navy searched and rescued 1047 victims of human trafficking from 2012 to 2015. Myanmar is now providing the humanitarian assistance to the boat people and repatriating them to their original country. Myanmar Navy is actively cooperating with the ASEAN navies in providing the humanitarian assistance and preventing the illegal migration at sea.

Conclusion

Myanmar cooperates with ASEAN countries as well as international community liked Bay of Bengal countries for the maritime security cooperation. Human Trafficking, Sea Robbery and Piracy are most common threats for regional maritime security. Not only sharing future prosperities but also sharing regional security cooperation is important for Bay of Bengal countries.

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Indian Development Cooperation in the Bay of Bengal Region: Ports & Infrastructure Investments as the Engine of Growth?

Dr. Rani D. Mullen

The Bay of Bengal: A region with great economic potential

Sitting at the juncture of South Asia and Southeast Asia, the Bay of Bengal (BoB) region has all the attributes that make it ripe for greater economic growth. Historically it was once a hub for flourishing maritime trade that reach from the Persian and Roman empires in the West to the Chinese, Southeast Asian and Japanese empires in the East. Today countries in this region have a combined population of over 1.5 billion or one-fifth of the global population, have a young population, and have experienced some of the highest economic growth rates in the world over the past decade. Moreover, some of the world's busiest shipping routes pass through this region and trade as a percentage of GDP has increased significantly in every BoB country, with trade in South Asian countries doubling over the past decade. East Asia and South Asia have also enjoyed the world's largest and second largest economic growth rates respectively since the turn of the century. Clearly, the region has great economic potential.

The Bay of Bengal is also an important region due to its geo-strategic significance. It is the world's largest natural bay and sits at the heart of the Indo-Pacific, which is increasingly a focus of not only regional, but also global strategic interest. This region connects the South Asian Association for Regional Cooperation (SAARC) with the South the Association of Southeast Asian Nations (ASEAN), and established countries such as Singapore and Japan and China, as well as rising powers such as India have started to focus political, economic and defence resources in this region.

Yet growing attention to the need to devote political and economic resources to the BoB region have been evident over the past few years. SAARC countries recently concluded an agreement on the South Asian Free Trade Area (SAFTA) and several countries in the region have also concluded free trade agreements. ASEAN has increased its recent outreach to BoB countries and international financial institutions such as the Asian Development Bank have committed significant resources to improving infrastructure and connectivity in the region. And while much of bilateral development assistance to the region has historically come from the United Kingdom

and the United States, increasingly eastern donors such as Japan, Singapore and Australia are interested in helping to spur integration in the Bay of Bengal region.

Challenges to Increasing trade and growth in the Bay of Bengal (BoB) region

Despite the great economic potential and the geo-strategic significance of the region, there are also significant challenges to unlocking its potential that will take political and economic willpower to overcome. Colonial-era rivalries and economic policies post-independence that were inward-looking, resulted in an artificial division of the Bay between South and Southeast Asia. This man-made political division in turn held back investments and historical economic linkages, resulting in a region that is infamous for today being the least integrated region in the world, with intra-regional trade accounting for less than five percent of total trade. Trade between all South Asian countries and Southeast Asian countries is also only twenty-five percent of total trade and intra-regional investments within South Asia account for less than one percent of total investments. These intra-regional trade barriers have resulted in a situation where it costs at least 20 percent more to export a good from India to Bangladesh than it does to export that same good to Germany or Brazil.

Political and economic barriers still prevent the countries in the BoB region from improving intra-regional connectivity and trade. Addressing these is a precursor to integration. Though countries in the region are now committed to once again integrating the region and have launched several cross-border organizations ranging from the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) to the Bangladesh-Bhutan-India-Nepal (BBIN) initiative, as well as free trade and maritime agreements, few of these initiatives have taken off despite their tremendous potential.

While efforts to tackle the political and economic roadblocks to integration in the region are underway, the physical and structural barriers to competitiveness of the region are also garnering attention. These barriers include poor supply of port infrastructure, lack of transportation infrastructure to and from ports, and weak transportation services. These infrastructure and service weaknesses lead to the average cost of importing and exporting a container within the South Asia region as a whole to be more than twice the cost in East Asia,[25] despite significantly lower labor costs. Better port infrastructure and logistics in the BoB region would help to boost trade, further attract investments, and increase economic growth in the region. The need for

[25] Dappe, Matiás Herrera and Ancor Suárez Alemán. Competitiveness of South Asia's Container Ports: A Comprehensive Assessment of Performance, Drivers, and Costs (Washington D.C.: The World Bank, 2016), xv -3.

greater port and connecting infrastructure in the BoB region is clearly there, with the estimated demand for general infrastructure in India alone being US$1.5 trillion.[26]

Indian development assistance to the BoB region

Despite India's own tremendous need for infrastructure development, India is one of the largest regional providers of foreign assistance in South Asia. Greater analysis of India's development assistance to the region provides some insights into how the Bay of Bengal region could tap into a variety of resources to fund their tremendous infrastructure needs. The majority of Indian grant and loan assistance goes to its South Asian neighbors and of this assistance, the majority goes to fund infrastructure and connectivity projects.

Table 1: Indian grants and loans to Bangladesh, Sri Lanka and Myanmar 2014-2018 (in US $ millions)

Government of India: Total grants & loans to foreign governments (in US$ million)			
Year	Bangladesh	Sri Lanka	Myanmar
2014-15	350	500	330
2015-16	250	500	270
2016-17	150	230	400
2017-18	125	125	225
2018-19	175	150	280

Source: Indian Development Cooperation Research, Centre for Policy Research, Delhi, 2018.

In addition to the concessional grant funds given, India has increasingly started to lend resources to foreign countries through India's Exim Bank's Lines of Credit (LOCs). India views these credit lines as a tool which enable it to share its development experience through trade, capacity building and skills transfer, and infrastructure development.[27] These LOCs are beneficial for both the partner country as well as India. Indian LOCs provide resources for infrastructure development in the Bay of Bengal countries and beyond, thereby injecting resources into a sector with great demand. Since all Indian LOCs have a requirement that at least 75% of the goods and

[26] Vinod Rai, Distinguished Visiting Research Fellow, speech at an symposium on "India's Changing Financial Landscape," hosted for the Institute for South Asian Studies (ISAS), National University of Singapore, March 23, 2018.

[27] Exim Bank website, www.eximbankindia.in/lines-of-credit, accessed March 23, 2018.

services contracts covered by the credit line be sourced from India, they also benefit Indian exporters who are able to expand their business without the payment risk from overseas importers. The Exim Bank raises the funds for these credit lines in the private markets, which the Government of India only subsidizing the interest rate and providing guarantees. As of March 2018, India's Exim Bank had US$21 billion in operational Lines of Credit.[28]

India's overall development assistance and engagement to countries to its east were reinvigorated under Prime Minister Modi's Act East foreign policy, which has at its core a focus on engaging with India's eastern neighbors, also in order to try to balance China's increasing influence in the Bay of Bengal region. Indian development assistance has been one of India's soft power "tools" in order to spur intra-regional trade and growth and thereby offer the BoB countries some other sources of assistance. To illustrate India's engagement with Bay of Bengal countries, it is useful to look at the examples of Bangladesh and Myanmar in particular. In Bangladesh, India's development cooperation has deepened since the 2014 signing of the Land Boundary Agreement between the two countries. Grants and loans committed to Bangladesh since the signing of the agreement have totalled over US$1 billion. Yet, given India's limited resources and the ability of the Exim Bank LOCs to leverage private market resources and thereby offer access to larger credits, it is the Line of Credits that have been the major focus of Indian development cooperation in Bangladesh. India has offered Bangladesh four LOCs, three of them since 2014, totalling US$8 billion for seventeen pre-identified infrastructure and connectivity projects such as railways, roads, shipping, and ports.

These LOCs have been offered at highly concessionary rates of one percent interest rate, a five year moratorium, and a 20 year repayment – terms that are well below the rates that the World Bank and other financial institutions offer the lowest income countries. While India gains from the increased connectivity these projects will ultimately also offer to India's northeastern states and the increased access for Indian businesses to work on infrastructure projects in neighboring Bangladesh, these credit lines have significantly increased the size and diversity of infrastructure financing available for Bangladesh.

While Indian development assistance to Myanmar has not been of the same scale as its development assistance commitments to Bangladesh, they have nevertheless also been significant for their focus on infrastructure. Nearly four-fifths of the grants and loans and approximately thirty percent of the over US$700 million in Line of Credits committed to

[28] Ibid.

Myanmar have been for transportation and infrastructure, with a significant focus on the Kaladan Multi Modal Transit Facility. Leveraging India's resources to help build a port in Myanmar, connectivity between the port through waterways to India's northeastern states, and increased connectivity between Myanmar's and India's ports is again a win-win for both countries.

However, despite the significant development assistance resources India is allocating towards countries in the Bay of Bengal region, many of these projects have experienced cost overruns, often due to bureaucratic hurdles on the Indian side relating to feasibility studies and finding appropriate contractors. For example, India has also offered a US$1 billion credit line to ASEAN countries for infrastructure projects in the region, but as of the beginning of 2018 these funds had not been availed of by any of the ASEAN countries.

Beyond India: Other new funding for ports and other infrastructure in the region

Ports are the key to increasing connectivity, trade and prosperity in the Bay of Bengal region. China has been funding the development of several new ports in the Bay of Bengal region, but as Sri Lanka has experienced, the interest rate charged and other longer-term issues of sovereignty are often significant downsides to these credit lines. Given the large demand for port development in the BoB region and the significant resources that India and other donors such as Singapore and Japan are willing to invest to enhance connectivity, it is worthwhile exploring port development funding by several governments and through private-public partnerships.

Maritime Law in the Bay of Bengal

Dr. Dan Malika Gunasekera

Discussing about marine and maritime, there is not much of a difference between the two in the legal spectrum. It generally refers to ocean and maritime affairs. The ocean belongs to the public domain where the law of the sea comes under public international law whereas maritime law in the private legal domain is involved with navigation.

Sri Lanka is a member of UNCLOS 3 having being party to it in 1994. Our maritime zones law defines the respective maritime zones that we are entitle to as per UNCLOS. The late Shirley Ameresinghe led UNCLOS 3 and since then, Sri Lanka has been playing a very important role in it. It is fortunate that Sri Lanka won its case in the UN for the extension of the continental shelf. It is not yet officially published.

The Bay of Bengal has not much maritime activity unlike the Southern belt of Sri Lanka, where huge container and tanker passage takes place. However, according to the legal domain of public international law which is the UNCLOS, Sri Lanka is entitled to a 12-nautical mile zone where vessels that traverse in this area have to go on innocent passage. These ships should not carry out any activity that threatens peace and order of the state. In line with the above, Sri Lanka also respects the freedom of navigation in the Indian Ocean and in the Exclusive Economic Zone (EEZ) in the high seas. The Sri Lanka Navy followed the 'hot pursuit' concept within these areas and acted well within the international law that Sri Lanka was entitled to practice under UNCLOS.

Sri Lanka is also party to the Indian Ocean MOU. Not much has been spoken of this initiative which is an important element when it comes to maritime activity as the IOMOU is the one that regularises port state controls. When considering the Bay of Bengal as a region, all stakeholders within the region become parties to the IOMOU, which has not been able to fully utilise its powers within the regions when it comes to environment, security control and the safety elements. However, there is much Sri Lanka and regional partners can achieve through the IOMOU for international recognition of freedom of navigation.

Sri Lanka has a dualistic legal system where being a commonwealth state, no international law can straightaway be applied in Sri Lanka. Any law has to first pass through the Sri Lankan parliament which should create a dual or parallel local legislation to give effect to the

international law. Sri Lanka has yet not been able to enact or legalise many of the legal instruments that have been ratified internationally. Proposal have been made to the government that laws should be enacted to act regionally within the IOMOU to protect the Bay of Bengal region.

In conclusion it can be stated that while emphasizing economic and security aspects, the legal mechanisms that are needed to put all laws into force should not be neglected. Suggest to take this initiative forward through Trincomalee Consultations in order to promote the legal domain for the benefit of the Bay of Bengal region.

Nepal’s Foreign Trade: Issues and Challenges

Prof. Kushum Shakya, PhD

Abstract

The foreign trade sector is instrumental in reating sustainable economic development and growth. It plays an important role in a country's economy as it providesemployment opportunities and increases foreign exchange earnings. Foreign trade helps understandtrade gap, trade deficit, balance of payment and other macroeconomic indicators. Before 1951, Nepal’s foreign trade was only with India and Tibet. Currently, Nepal has international trade with 164 countries worldwide. The aim of this paper is to analyze trends and pattern in Nepal's foreign trade, and to present the direction, composition, trade gap and trade deficit in Nepal’s foreign trade, including issues and challenges. Data from the Ministry of Finance and Nepal Rastra Bank has been analyzed.

The volume of export and import increased tremendously in Nepal after economic liberalization in the 1980s. Overall, only about one-third of trade has taken place throughexport and the remaining two-third is through import. Thus, the trendof trade balance is always negative in Nepal.

The paper focuses on major internal and external issues and challenges. Some internal challenges are the geographical position/land-locked country, difficulties in transportation, poor connectivity, rising imports and trade deficit, lack of competition, lack of export oriented products, related policies and the 2015 earthquakes. The most important external issue and challenges are related to work for free trade region like other countries Bangladesh, India, Myanmar, Sri Lanka, Thailand and Bhutan.

Key Words: Foreign Trade, Import, Export, Trade Gap, Trade Deficit, Issues and Challenges.

Background

Foreign trade plays an important role in a country's development because all countries cannot produce all goods and services efficiently and sufficiently. Foreign trade involves transaction of goods and services between different countries. According to G.L. Luckeet, “The purchase

of goods and services by the citizens of one country from the citizens of another country is called international trade." Shakya (2007) mentioned that economic development is closely related with foreign trade and foreign direct investment in a country.

In mid 1980s, Nepal began economic liberalization, trade liberalization and policy reforms, and encouraging private sector participation in economic development and foreign account convertibility. Nepal started engaging in foreign trade to create employment opportunities, to increase foreign exchange earnings, etc. Nepal's foreign trade volume and trading partners are increasing year after year. But, the rate of increase in import is higher than export, causing a major trade deficit problem in Nepal. As a result, Nepal has a big trade gap, indicating the trade deficit throughout the year in high or low levels.

Nepal is a member of the Bay of Bengal Initiative on Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), the South Asian Association for Regional Cooperation (SAARC) and the World Trade Organization (WTO). Nepal has been a member of WTO since year 2004. Nepal is also a founding member of South Asian Free Trade Agreement (SAFTA) and a signatory in various multilateral and bilateral trade agreements. Nepal has trade relations with India and Tibet only before 1951 AD. In the 1950s, over 90% of Nepal's foreign trade was with India where goods were moved through India, by land, for at least a few hundred kilometers for export and import (Kafle, 2017).

Review of Literature

According to the gravity model on the study of foreign trade, the gravity equation is empirically successful to explain trade flows but maintains that the theoretical foundation is weak in respect to projecting the potentiality of the model (Bergstrand, 1985). Wang, Wei, and Liu (2010) found the causes of trade flows between 19 OECD countries from 1980 to 1998 by using the augmented gravity equation. Their results demonstrated that geographical distance, domestic technology (R&D) stock, inward Foreign Direct Investment (FDI) and total inward FDI stock, level of GDP and factor endowment are the major factors affecting trade flows.

Thapa (2013) applied the gravity model to estimate Nepal's trade potentiality using 19 trading partner countries in 2009. The trade potentiality is simply calculated using the ratio of predicted trade to actual trade. Similarly, Acharya (2013) has used the gravity model to identify determinants of international trade in Nepal. Using country specific fixed effect, Acharya (2013) revealed that time invariant factors are one of the significant determinants of trade.

Furthermore, Prasai (2014) also focused on the gravity model using a comprehensive panel dataset covering Nepal's 94 trading partners over a 29 year time period. Results appear robust to specification, time period and trade determinants, and empirical results show the fundamental of gravity model as the study reveals positive coefficients for economic size and negative coefficients for distance. No significant structural break was found in the determinants of trade after economic liberalization.

Singh and Khanal (2010) focused on Indo-Nepal trading patterns post 1990s. The rising proportion of exports and imports from India in Nepal's total trade increased its dependency on this neighboring country for trade. Foreign trade is a backbone of a country's economic development. Some factors such as export growth, capital stock, labor force, average propensity to save (APS), relative price index (RPI), and ratio of government development expenditure to GDP (Gross Domestic Product) can affect international trade on Nepal's economic development (Sharma and Bhandari, 2005).

Similarly, Kafle (2006) identified effectiveness of existing trade policy on foreign trade of Nepal and concluded that foreign trade is an appropriate mean to gain rapid economic development. The study concluded that Nepal's external sector policy should focus on infrastructure development, establishment of industries that utilizes local resources and fulfill local needs, surplus production to export, creation of tourism friendly environment and massive promotional activities of tourism.

Ghimire (2016) concluded that poor infrastructure and poor business environment are amongst the major reasons for deindustrialization in Nepal, which may widen Nepal's trade deficit. As a result, domestic industries have not been able to capitalize opportunities unveiled by robust growth in domestic demand and by Indo-Nepal free trade accord that opens access to 400 million consumers in bordering India. However, it is high time that the government pays urgent attention to improve basic infrastructure such as electricity and road access.
Thus, literature review shows that there is a need to identify issues and challenges of foreign trade in Nepal.

Objectives of the Study

This paper aims to: 1) analyze trends and pattern of foreign trade of Nepal, 2) find the direction, composition, trade gap and trade deficit, and 3) present foreign trade's issues and challenges, including Bay of Bengal, to work for free trade region.

Research Methodology

Data for this study has been collected from secondary sources. These sources include publications from Trade and Export Promotion Centre (TEPC), Nepal Rastra Bank (NRB), National Planning Commission of Nepal (NPC/N), Economic Surveys and Journals. Time series data from fiscal year 1974/75 to 2016/17 was used to analyze the growth of Nepalese foreign trade.

To analyze Nepal's foreign trade composition and the direction of Nepal's foreign trade, commodity trade from Standard International Trade Classification (SITC) for FY 2015/16 and export and import data from fiscal year 2011/12 to 2015/16 issued, respectively.

Findings and Discussion

Status of Foreign Trade in Nepal

The status of foreign trade is discussed below by trends and pattern, composition, direction, trade deficit and trade gap.

Trends and Pattern of Foreign Trade in Nepal

Nepal's foreign trade is increasing over the years. Trend shows an increase in value of exports, imports and the total volume of trade. Table 1 shows growth in Nepal's foreign trade since fiscal year (FY) 1975/76. In the fiscal year 1975/76, Nepal's export was equivalent to Rs. 1185.80 million, the import was Rs. 1981.70 million, the total volume of trade was Rs. 3167.50 million and the trade deficit was Rs.795.90 million. Thus, import is higher than export throughout the year. Export increased sharply between fiscal year 1976/76 and FY 2000/01, however, exports declined sharply after FY 2001/01. In FY 2014/15 and FY 2015/16, export growth was negative as compared to previous fiscal year (Kafle, 2017). Thus, in Nepal's foreign trade, both imports and exports continue to grow at rapid rate in all fiscal years except in FY 2015/16, which saw a reduction possibly due to the 2015 earthquakes.

Table 1: Growth Trends and Pattern of Foreign Trade of Nepal
(Rs. in Million)

Year	Exports	Exports Growth Rate	Imports	Imports Growth Rate	Trade Balance (Import - Export)	Total Trade	Total Trade Growth Rate
1975/76	1,185.80	-	1,981.70	-	(795.90)	3,167.50	-
1980/81	1,608.70	35.66%	4,428.20	123.45%	(2,819.50)	6,036.90	90.59%
1985/86	3,078.00	91.33%	9,341.20	110.95%	(6,263.20)	12,419.20	105.72%
1990/91	7,387.50	140.01%	23,226.50	148.65%	(15,839.00)	30,614.00	146.51%
1995/96	19,881.10	169.12%	74,454.50	220.56%	(54,573.40)	94,335.60	208.15%
2000/01	55,654.10	179.93%	115,687.20	55.38%	(60,033.10)	171,341.30	81.63%
2005/06	60,234.10	8.23%	173,780.30	50.22%	(113,546.20)	234,014.40	36.58%
2010/11	64,338.50	6.81%	396,175.50	127.97%	(331,837.00)	460,514.00	96.79%
2011/12	74,261.00	15.42%	461,667.70	16.53%	(387,406.70)	535,928.70	16.38%
2012/13	76,917.10	3.58%	556,740.30	20.59%	(479,823.20)	633,657.30	18.24%
2013/14	91,991.40	19.60%	714,365.80	28.31%	(622,374.40)	806,357.20	27.25%
2014/15	85,319.10	-7.25%	774,684.20	8.44%	(689,365.10)	860,003.30	6.65%
2015/16	70,117.10	-17.82%	773,599.10	-0.14%	(703,482.00)	843,716.30	-1.89%
2016/17	73,049.10	4.18%	990,113.20	27.99%	(917,064.10)	1,063,162.30	26.01%

Source: MoF (2017), Economics Surveys

Composition of Nepal's foreign trade

Composition of foreign trade describes items exported and imported between countries. Study of changes in composition of foreign trade helps to analyze economic progress of a country. Table 2 shows the composition of Nepalese foreign trade in FY 2015/16. In Nepal, commodities traded with foreign countries are classified according to the SITC. It categories imported and exported goods into ten groups:

Table 2: Commodity Trade by SITC Group in Nepal, 2015/16

S. N.	SITC Group	Exports		Imports	
		Rs. in Million	%	Rs. in Million	%
1	Food and live animals	16421	23.42	109756	14.19
2	Tobacco and beverage	478	0.68	6413	0.83
3	Crude materials and inedible	2218	3.16	3392	4.32
4	Minerals, Fuels, and lubricants	1	0.00	84088	10.87
5	Animals and vegetable oils and fats	107	0.15	21153	2.73
6	Chemical and drugs	4618	6.59	103962	13.44
7	Classified by materials	32666	46.59	163132	21.09
8	Machinery and transport equipment	400	0.57	189764	24.53
9	Misc. manufactured articles	13205	18.83	45864	5.93
10	Not classified	3	0.00	16074	2.08
Total		**70117**	**100.00**	**773598**	**100.00**

Source: MoF (2017), Economic Survey-2016/17

Nepal's foreign trade composition consists of the following:

(i) Composition of export

Major exportable goods of Nepal are woolen goods, carpets (hand-knitted woolen), Nepalese product and paper products, readymade garments, handicrafts, ornaments, pashmina, pulses, cardamom, medical herbs, etc. It is clear that the value of “classified by materials” occupied majority (46.59%) of the total export for FY 2015/16, followed by “food and live animals” (23.42%) and “miscellaneous manufactured articles" (18.83%) (Table 2).

(ii) Composition of import

Major goods imported in Nepal are various finished goods, machinery, equipment, semi-finished goods, raw materials of industry, chemical fertilizers, petroleum products, gold, electrical goods etc. "Machinery and transport equipment" occupied majority (24.53%) in the FY2015/16, followed by "classified by materials"(21.09%) and "food and live animals"(14.19%). TEPC said that the contribution of export and import in total trade was 11.5% and 88.5%, respectively (Table 2).

In addition, Appendix 1a and Appendix 1b show the composition of top ten exports and import items in foreign trade of Nepal.

Direction of Nepal's foreign trade

In the past, Nepal's foreign trade was directed towards India with about 95% of the total trade carried out with India and a small percentage of trade with Tibet. Trade with overseas countries was almost none. However, at present, Nepal's foreign trade is directed towards many countries. But, India is still a major trading partner of Nepal. Currently, more than two-third of Nepal's foreign trade, import and export, is with India. Recent direction also shows that the proportion in total trade with China is increasing. For example, total trade share with China increased from 9.40% in FY 2013/14 to 11.90% in FY 2014/15 and then to 13.90% in FY 2015/16 (Table 3).

Table 3: Direction of Nepal's Foreign Trade

(Rsin Millions)

Description	2011/12	2012/13	2013/14	2014/15	2015/16
Export	**74,261.00**	**76,917.00**	**91,991.00**	**85,319.10**	**70,117.00**
India	49,616.30	51,000.00	59,614.00	55,864.60	39,494.00
China	-	2,086.00	2,841.00	2,230.00	1,682.00
Other Countries	24,644.70	23,832.00	29,537.00	27,225.00	28,942.00
Import	**461,667.70**	**556,740.00**	**714,366.00**	**774,684.20**	**773,599.00**
India	299,389.60	367,031.00	477,947.00	491,659.90	477,213.00
China	-	62,451.00	73,319.00	100,166.00	115,694.00
Other Countries	162,278.10	127,258.00	163,100.00	182,862.00	180,692.00
Total Trade	**535,928.70**	**633,657.00**	**806,357.00**	**860,003.30**	**843,716.00**
India	349,005.90	418,031.00	537,561.00	547,524.50	516,707.00
China	-	64,537.00	76,160.00	102,396.00	117,376.00
Other Countries	186,922.80	151,090.00	192,637.00	210,087.00	209,634.00
Total Trade Share (%)	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**
India	65.10	66.00	66.70	63.70	61.20
China	-	10.20	9.40	11.90	13.90
Other Countries	34.90	23.80	23.90	24.40	4.80

Source: MoF, (2017), Economic Survey, 2016/17

Appendix 2a shows that India, USA, Turkey, Germany and UK are the major countries that export goods and services from Nepal. Similarly, Appendix 2b shows that India, China, UAE and France are the major countries that import to Nepal.

Table 4: Foreign Trade Balance of Nepal (First Six Months Provisional: July-December)

Rs. In Billion

Fiscal Year	Total Exports	Total Imports	Total Trade	Trade Deficit	Export: Import Ratio
F.Y. 2015/16 (2072/73) *Share % in Total Trade*	32.78 10.4	283.63 89.6	316.40	250.85	1: 8.7
F.Y. 2016/17 (2073/74) *Share % in Total Trade*	36.56 7.3	466.43 92.7	502.99	429.87	1: 12.8
F.Y. 2017/18 (2074/75) *Share % in Total Trade*	41.16 7.1	534.58 92.9	575.74	493.42	1: 13.0
Percentage Change in First Six Monthsof F.Y. 2016/17 compared to sameperiod of the previous year	**11.5**	**64.5**	**59.0**	**71.4**	
Percentage Change in First SixMonthsof F.Y. 2017/18 compared to same period of the previous year	**12.6**	**14.6**	**14.5**	**14.8**	

Source: MoF (2017), Economic Surveys-2016/17

For foreign trade balance, import is always more than export. Table 4 shows that import is increasing gradually compared to exports, for example, in FY 2015/16, FY 2016/17 and in FY 2017/18, import is 8.7 times, 12.8 times and 13 times higher than export, respectively. Since trend of import is increasing tremendously, Nepal has trade deficit and trade gap or there is no trade balance.

Trade Deficit

Thus, the **trade deficit** has continued to grow at higher rate since last few years. In this context, containing trade deficit within desired limit through export promotion and import substitution by addressing structural and supply related problems of economy thereby increasing production and competitive capacity is a big challenge. The total trade deficit is also increasing smoothly like Rs 250.85 billion in 2015/16, Rs 429.87 billion in 2016/17 and Rs493.42 billion in 2017/18 throughout the year (Table 4).

Of the total trade deficit, the trade deficit with India increased by 63.4percent in the review period against its decline of 17.3 percent in the same period of previous fiscal year. Likewise, trade deficit with China that had declined by 0.8 percent last year grew by 17.5 percent during the review period (MoF, 2017). Nepal's trade deficit with India is very high as compared to other nations. If Nepal's current foreign trade deficit continues, Nepal can go bankrupt any time. As there is no immediate sign to increase Nepal's exports, the economy has to rely on human exports to contain the swelling trade deficit.

Trade Gap

Above presentation and discussion shows that exports and imports are the two components of foreign trade. The difference between the value of export and value of import is called trade gap. High import and low export is one of the major problems of foreign trade in Nepal. Nepal imports more than its exports both in terms of items and value (Table 2, 3 and 4). Most of the exported items are agricultural products, handicrafts and raw materials, which don't earn much. It imports a lot of goods of daily consumption goods and expensive luxurious items. As shown in the present trade gap (Table 4), Nepal cannot sustain it for a long period of time.

Issues and Challenges of Foreign Trade in Nepal

Above data findings on the status of foreign trade by its trend and pattern, composition, direction, trade gap and trade deficit show that Nepal is not in favour situation for foreign trade. Therefore, following section presents some internal and external issues and challenges for foreign trade in Nepal.

Internal Issues and Challenges of Foreign Trade in Nepal

The internal issues and challenges of foreign trade in Nepal are as follows;

Geographical Position/Land-Locked: Nepal is a landlocked nation between China and India. The boarders with China have Himalayas and mountains which makes transportation very difficult. Hence there is only one operational highway connecting Nepal to Tibet, China. On the other side, boarders with India have plain regions and road transportation is well established and connected, therefore both countries can travel without any restriction. The nearest port to Nepal is Kolkata Port in India. Hence, the majority of goods imported in Nepal also arrive via Kolkota port of India. Hence due to geographical position and poor connectivity, Nepalese entrepreneurs are importing majority of goods from India.

Open Border is one of the major problems of foreign trade in Nepal, it is bordered by India from three sides, has open border policy with India. There is a large flow of Indian goods at cheap price. At borders, on one hand, Indian goods are smuggled in and imported foreign goods smuggled out into India through unofficial routes. This has been hurting foreign trade badly.

Nepal has open border with India, therefore, Nepal has agreed land routes for mutual trade are; 1) Pashupati, 2) Kakarbhitta, 3) Bhadrapur, 4) Biratnagar, 5) Setobandha, 6) Rajbiraj, 7) Siraha, 8) Jaleswor, 9) Malangawa, 10) Gaur, 11) Birgunj, 12) Bhairhawa, 13) Taulihawa, 14) Krishnagar, 15) Koilabas, 16) Nepalgunj, 17) Rajapur, 18) Prithvipur, 19) Dhanagadhi, 20) Mahendranagar, 21) Mahakali and 22) Darchula.

Trade Policy 2009

The Government Policy regarding foreign trade is defective. The Government hasn't been able to provide adequate export incentives. The lack of proper trade policy is one major problems of foreign trade in Nepal. Nepal has adopted a liberal trade policy since 1990. According to this policy, Nepal has been following open door policy. This allows uncontrolled flow of foreign goods into Nepal, whereas Nepal does not have the capacity to counter this. This is causing large trade deficit. Nepal has introduced the following trade policy-2009.

Industrial Policy 2010

The Industrial Policy (IP)-2010 aims at enhancing the contribution of industrial sector in the national economy and reducing poverty through the harmonized actions and interventions of the public, private and cooperative sector.

Moreover, the policy emphasizes on increasing the export of industrial products, use of local resources, skill and raw materials in production, adoption of environmental friendly production process, effective protection of intellectual property rights and improvement of human resources skills and knowledge for creating business friendly environment. Thus, IP-2010 aims at transforming country as preferred destination for FDI.

Foreign Investment Policy 2015

The Government of Nepal has bought out Foreign Investment Policy 2015 replacing the Foreign Investment and One Window Policy-1992. The Foreign Investment Policy aims at making the national economy competitive and dynamic by attracting the foreign capital, technology, skill and knowledge for increasing the output and export of the industrial products.

The new policy attempts to address the challenges in promoting the foreign investment through prioritizing the areas of investment, managing the investment of Non Resident Nepalese (NRN), promotion of portfolio investment, utilization of domestic capital markets, facilitation of investment in special economic zones and providing physical securities to the industries.

Earthquake of Year 2015, the devastating earthquake that occurred in year 2015 has badly affected the first operational highway i.e. Kodhari Highway connecting Kathmandu to Tibet, China has been damaged severely. As a result, all trade occurring via road transportation has come to halt. The road damaged has not been reconstructed yet. Thus trade with China via Tatopani – Khasa boarder between China and Nepal has declined and trade with India has increased after earthquake in 2015.

External Issues and Challenges of Foreign Trade in Nepal

Besides above mentioned internal issues and challenges in foreign trade of Nepal, the paper has also incorporated some external issues, which are major responsible for exports and imports, and creates the trade deficit and trade gap.

Nepal became a member of the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) and the members include Bangladesh, Bhutan, India, Burma, Sri Lanka and Thailand. The main objective of BIMSTEC is technological and economic cooperation among South Asian and Southeast Asian Countries along the coast of the Bay of Bengal.

The Bay of Bengal occupies a significant part of the Indian Ocean surrounded by Bangladesh, India, Myanmar and Sri Lanka. It has transit agreements with India and Bangladesh for use of seaports. A lot of cargo movement between the member countries can be done through the cost effective, environment friendly and faster coastal shipping routes. However, Nepal has not been able to capitalize on the opportunities that have come its way in international commerce due to various reasons like, lack of human resources, well versed in business and international trade laws. In addition, the easy access of transportation from one country to another country, digital connectivity and backend infrastructure- needs to be improved across all BIMSTEC countries, which is greatest advantage of member country's access to the Bay of Bengal. Further, Nepal does not have maritime trade connectivity with member countries; it needs to further promote cooperative costal shipping in the region. More shipping links particularly between Sri Lanka,

Bangladesh, India and Myanmar, and countries need to focus on border connectivity. Strengthening maritime connectivity would bring the way for higher trade and investment.

Furthermore, BIMSTEC Plus Model could be highly beneficial to Myanmar, Bangladesh, Bhutan and Nepal through strengthen maritime linkages with Malaysia, Singapore, and Indonesia. It seems enormous opportunities in trade and value chains with BIMSTEC, but growth of intra–regional investment is negligible and the region is yet to witness any regional connectivity projects on the ground.

Several other countries such as Indonesia, Malaysia, Thailand and Singapore are located in the periphery of the Bay of Bengal. The Indian Ocean is of high economic and strategic significance due to maritime traffic that passes through it. It is estimated that nearly half of world's container shipping, one third of bulk cargo traffic and two thirds of oil shipments pass through the Indian Ocean. The Bay of Bengal occupies a significant part of the Indian Ocean.

Conclusion

The paper analyzes the trends and pattern of foreign trade of Nepal including the direction, composition, trade gap and trade deficit. This paper also focuses on the internal and external issues and challenges of foreign trade in Nepal.

A huge trade deficit is created due to increase in imports and decrease in exports, which has been a major problem in Nepalese foreign trade. Economic liberalization has failed to encourage export diversification and to reduce the trade deficit. Instable political environment and frequent changes in government has contributed to frequent changes in trade policy which is responsible for growing trade deficit.

Nepal needs the collaborative development of the Bay of Bengal. In addition, Nepal requires in a secure environment in the transaction of goods and it is required as being the major issues and challenges of foreign trade because of Nepal's foreign trade is a lot of cargo movement between the member countries through the cost effective, environment friendly and faster coastal shipping routes.

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Appendix 1

Appendix 1a Table - Top Ten Exports of Major Commodities
Rs in '000

EXPORTS

S.N.	Commodities	Unit	F.Y. 2015/16		F.Y. 2016/17		% Value in Value
			Quantity	Value	Quantity	Value	
1	Woolen Carpet	Sq.Mtr.	605,294	8,061,417	503,474	7,299,518	-9.5
2	Readymade Garments	Pcs.	13,319,723	5,884,597	12,317,336	5,303,109	-9.9
3	Hides & Skins	Sq.ft.	9,723,137	732,038	11,750,053	766,595	4.7
4	Lentils	Kg.	7,611,840	1,290,528	6,688,350	1,031,929	-20.0
5	Cardamom	Kg.	3,438,353	4,614,612	3,429,302	3,875,750	-16.0
6	Tea	Kg.	13,289,066	2,400,120	11,745,003	2,502,765	4.3
7	Ginger	Kg.	28,351,823	643,086	4,499,956	243,388	-62.2
8	Noodles, pasta and like			633,568		847,314	33.7
9	Medicinal Herbs			1,244,010		995,647	-20.0
10	Essential Oils	Kg.	36,859	259,845	58,155	395,215	52.1

Source: FNCCI, 2017

Appendix 1b - Top Ten Imports of Major Commodities

Rs in '000

S.N.	Commodities	F.Y. 2015/16	F.Y. 2016/17	% Change in value
1	Gold	16,079,515	23,231,730	44.5
2	Silver	7,122,105	8,607,514	20.9
3	Iron & Steel and products thereof	78,250,399	103,706,099	32.5
4	Copper and articles thereof	4,757,397	5,141,941	8.1
5	Aluminium and articles thereof	7,064,469	8,592,915	21.6
6	Zinc and articles thereof	3,552,451	4,345,346	22.3
7	Machinery and parts	57,112,432	81,802,010	43.2
8	Electronic and Electrical Equipments	34,578,154	38,681,034	11.9
9	Transport Vehicles and parts thereof	66,630,557	79,775,455	19.7
10	Telecommunication Equipment and parts	23,727,617	30,859,265	30.1

Source: FNCCI, 2017

Appendix 2 a: Top Ten Major Export Countries of Nepal

Rs. in '000

S.N	Countries	F.Y. 2015/16	F.Y. 2016/17	% Change In value
1	India	39,695,134	41,500,844	4.5
2	U.S.A.	9,340,679	8,967,113	-4.0
3	Turkey	2,135,443	4,199,324	96.6
4	Germany	3,157,137	3,046,900	-3.5
5	U.K.	2,851,640	2,522,772	-11.5
6	China P. R.	2,156,758	1,809,834	-16.1
7	France	1,283,749	1,193,606	-7.0
8	Italy	1,138,298	1,184,349	4.0

9	Bangladesh	1,208,104	1,047,913	-13.3
10	Japan	1,204,034	1,023,559	-15.0

Source: FNCCI, 2017

Appendix 2b: Top Ten Major Import Countries in Nepal

Rs. In '000

S.N	Countries	F.Y. 2015/16	F.Y. 2016/17	% Change in value
1	India	487,597,307	646,019,022	32.5
2	China P.R.	117,209,982	130,241,442	11.1
3	U.A.E.	20,568,035	29,198,838	42.0
4	France	7,243,804	13,350,336	84.3
5	Indonesia	11,041,766	11,969,124	8.4
6	Argentina	8,161,798	11,682,487	43.1
7	Thailand	10,291,083	10,654,311	3.5
8	Canada	6,993,909	8,908,778	27.4
9	Korea R	5,016,038	8,880,874	77.0
10	U.S.A.	8,703,010	8,465,222	-2.7

Source: FNCCI, 2017

DISCUSSION POINTS - SESSION FOUR

- Agree that BIMSTEC remains a much under used network and the absence of one country may have been a contributory factor, but under the leadership of Amb. Nakandala it was revived. Do not agree with the idea that BIMSTC can only progress within the region, as it should build linkages outside the region without confining itself to the BOB region.

- Japanese inputs were a driver to energise value chains of ASEAN towards investment driven development. Can also see OBOR as a driver in the BOB region. The strategic aspect could be managed by employing multilateral diplomacy.

- With regard to trade within the region, more ports will result in more trade and more interdependency. There should be complementarity of products with division of labour between countries.

- BIMSTEC should not only look to China, as there may be inherent limitations on the Chinese economy.

- Requirements for a regional organisation to survive are leadership and external linkages. However, within BIMSTEC even an FTA has not been effected. Therefore, external linkages are secondary. Sometimes member states give less importance to trade within the BIMSTEC structure and engage bilaterally.

- US perspective - The American government is not the most conducive right now, therefore suggested to engage with think-tanks and supportive bureaucrats, who are committed to remain engaged in the Indo Pacific region.

- Should establish an information fusion centre for the region in Sri Lanka or India, which will enhance maritime security cooperation.

SPEAKER PROFILES - SESSION FOUR

Ambassador Sumith Nakandala

Ambassador Sumith Nakandala is Additional Secretary at the Ministry of Foreign Affairs, Sri Lanka. He holds a B.Sc in Agriculture from the University of Peradeniya, Sri Lanka and Masters Degree in International Relations and Development from the Institute of Social Studies in The Hague, the Netherlands. Before entering into the Sri Lankan Foreign Services, he was working in the Sri Lanka Department of Agriculture and the Central Environmental Authority as a Research Officer and Environmental Officer respectively. Since his joining in the Sri Lankan Foreign Services in 1988 he has served many important positions at home and abroad. He was the Ambassador of Sri Lanka to Nepal and Iraq. He also held the posts of Deputy High Commissioner at the Ambassadorial level in Chennai and London. He was the First Director of the Technical Cooperation Programs of the Ministry of Foreign Affairs of Sri Lanka where he conducted 11 major training programs in 2000-2001 for officers from Bhutan, Maldives, Nepal, Myanmar, Vietnam, Lao PDR and Cambodia. Apart from the official engagements, Ambassador Nakandala was a member in the International Partnership Committee of the National Science Foundation and in the Committee on Genetic Resources at the Sri Lanka Council on Agricultural Research Policy. Apart from his South Asian bilateral experience for more than 20 years, Ambassador Nakandala had also dealt extensively with regional organizations such as SAARC, BIMSTEC, IORA, ACD, G-15, ESCAP, AMED, WIPO while working at the Ministry of Foreign Affairs of Sri Lanka. In 2012, Ambassador Nakandala was nominated as the First Secretary General of BIMSTEC.

Commodore Somen Banerjee

Commodore Somen Banerjee is a naval officer and specializes in Anti-submarine warfare. He is currently researching on maritime policy initiatives as a Senior Fellow at the Vivekananda International Foundation. He has been involved in Indian naval plans and procurement and is a commentator on maritime issues, especially with respect to security and governance of Indian Ocean.

He has had extensive exposure in the Indian Ocean region during his operational tenure and had the privilege of commanding frontline warships of the Indian Navy. He has completed his post-graduation from the Madras University and MPhil from Mumbai University and is currently pursuing his PhD from the Mumbai University on Indo Pacific.

His latest commentaries have been on Doklam incident, India-Africa cooperation in Western Indian Ocean, India-EU cooperation in the IOR and the QUAD grouping of India, Japan, Australia and United States. He has completed a monograph recently titled ‘Maritime power through Blue Economy – an Indian Context’ which will be published shortly.

Rear Admiral Anwarul Islam

Rear Admiral Muhammad Anwarul Islam, NGP, ndc, afwc, psc, has joined NDC as Senior Directing Staff (Navy) on 15 Apr 2013. He joined Bangladesh Navy as on Officer Cadet on 05 November 1979 and was commissioned in Executive Branch on 05 May 1982.

Rear Admiral Anwar attended number of courses at home and abroad. He has done his Midshipman and Ag Sub Lt course at Britannia Royal Naval College, UK. He has done Surface Warfare Officers course in USA and Long Navigation and Direction course in India. He is a graduate of Turkish Naval War College and Armed Forces War Course, NDC, Bangladesh. He is also a graduate of National Defence College, India.

Rear Admiral Anwar has a distinguished career in command, staff and instructional appointments. He has commanded number of ships and establishments of Bangladesh Navy. He has served as Commander BN Fleet, Commodore Superintendent Dockyard, Commodore Special Warfare Diving and Salvage Command and Commander Chittagong Naval Area. He also served as the Chairman of Chittagong Port Authority. He served as Directing Staff in the Armed Forces War Course Wing of National Defence College, Bangladesh. He also had the opportunity to serve as ADC to the Hon'ble President. For his outstanding contribution in the Navy he has been awarded with Nau Gaurab Padak (NGP).

Dr. Naing Swe Oo

Dr. Naing Swe Oo is the Founder and Executive director of the ThayNinGa Institute for Strategic Studies, a defence think tank established in 2015. He previously taught at the Myanmar Defence Services Medical Academy and also served as a medical officer in the Army Medical Corps. He is a graduate of the Myanmar Defence Services Medical Academy. Dr Naing Swe Oo also holds an MBA and doing PhD in business management from Aldersgate College in the Philippines.

Dr. Rani D Mullen

Dr. Rani D Mullen is a Visiting Research Fellow at the Institute of South Asian Studies at the National University of Singapore; an Associate Professor of Government at the College of William & Mary, United States; and a Senior Visiting Fellow at the Centre for Policy Research in New Delhi, India, where she directs a research programme on Indian development cooperation. She was a Senior Fulbright Fellow at India's only Afghanistan Studies Centre at Jamia Millia Islamia, New Delhi, in 2013-14 and a Visiting Scholar at the School of Advanced International Studies, Johns Hopkins University as well as a Liechtenstein Scholar on Afghanistan in 2008-09. Prior to teaching at the College of William & Mary, Dr Mullen worked as the Asia Project Manager at the Liechtenstein Institute on Self-Determination at Princeton University, was a consultant at the World Bank, the Asian Development Bank and the United States Agency for International Development, and worked for a German think tank as well as for a member of the German Parliament.

Dr Mullen's research and teaching focus is on South Asian politics, particularly state-building and democracy in and foreign policies of India and Afghanistan. Her book, Decentralization, Local Governance, and Social Wellbeing in India, was published in 2011 by Routledge. She has published articles in Asian Survey and Foreign Affairs and book chapters on state-building in Afghanistan, India's democratic institutions, and Indian foreign and aid policies in several Oxford University Press and Routledge publications. She is also a founding member and co-chair of the South Asia in World Politics section of International Studies Association.

Dr. Dan Malika Gunasekera

Dr. Dan Malika Gunasekera is an Attorney-at-Law with over 21 years of PQE in civil and commercial litigation. He holds a Master of Laws (LLM) in International Law from University of Utrecht, Netherlands with honours cum laude, and a PhD in International Commercial Maritime Law from University of Hamburg, Germany with honours cum laude. He was also a Max Planck Fellow who received a scholarship to follow his PhD research at Int'l Max Planck Research School for Maritime Affairs, Hamburg. He was a Junior Counsel in law for late Mr. Chula de Silva, Presidents' Counsel, Mr. Shibly Aziz, Presidents' Counsel and former Attorney General , Mr. Mohan Peiris, Presidents' Counsel and former Attorney General. He was also a Judicial Intern to former Chief Justice of Sri Lanka Hon. G. P. S. de Silva, Presidents' Counsel. Dr. Gunasekera has held the positions of Executive Director, Ceylon Shipping Corporation, the national carrier of Sri Lanka, Director of Lanka Coal Company, the national supplier of coal for electricity generation for the Sri Lanka, Director of Ceylon Shipping Lines, and Director of Ceylon Ports Services Limited. He is also an Advisor of the Advisory Committee on Logistics of the Export Development Board, Moderator of the National Maritime & Logistics Policy under the Ministry of Ports & Shipping, Sri Lanka, Dean of the Faculty of Management, Humanities & Social Sciences, CINEC Campus, Malabe, Sri Lanka, Consultant of DANMAR Consultancy, Senior Visiting Lecturer of the Department of Economics, Faculty of Arts; Faculty of Law, University of Colombo; and Faculty of Law, Dalian Maritime University, China. He is the Provisional Member for Sri Lanka in the Committee Maritime International, and former Member of the Executive Council of Ceylon Association of Shipping Agents, Executive Committee Member of the Nautical Institute UK, Sri Lanka Branch. He has also held office as Treasurer of the Colombo Law Society, and as member of the Bar Council of the Bar Association of Sri Lanka.

Prof. Kushum Shakya, PhD

Prof. Kushum Shakya is the Head of Department of the Central Department of Economics, Tribuvan University. Dr Shakya has PhD in Economics from Tribhuvan University and M.A in Demography from the Australian National University and PG Diploma in Population and Development from the Institute of Social Studies, The Hague, The Netherlands. Dr Shakya was Director of Quality Assurance and Accreditation (QAA) in the University Grants Commission and still member of QAA Council, UGC. Dr Shakya has achieved different awards like Australian Alumni Excellence Awards for Community Services-2016, AusAID Australian Alumni Award-2012, Nepal Vidyabhusan-2010, and National Education Award-2010. Dr. Shakya has 30 years experienced on teaching and, she involves in different research and has experienced of various presentation and publication at national and international level. Dr. Shakya also involves in different professional organizations.

CONCLUSIONS: TRINCOMALEE CONSULTATIONS - 2018

'Trincomalee Consultations- 2018: 'Secure and Safe Bay of Bengal for Common Development' was an over-all success with new insights being brought to light to the dynamics in geo-strategic, maritime security and maritime governance concepts in the Bay of Bengal. The main themes of this conference included enhancing maritime connectivity, the need for establishing a marine research centre focusing on the Bay of Bengal and expanding, Maritime Domain Awareness (MDA) and readiness for Humanitarian Assistance and Disaster Relief (HADR). The general agreement was that Trincomalee is particularly suited for above requirements, as it has the biggest natural harbour with adequate depth, sea room, and land area for such ventures. It was also emphasized that Trincomalee harbour should not aspire to be a global player as Colombo and Hambanthota are already moving in that direction. Instead, it should be a regional hub for the Bay of Bengal Region.

The conference also concluded that the maritime domain in the Bay of Bengal should remain free from threats posed by state or non-state actors and safety of navigation and flight and a rule based maritime order needs to be maintained for the benefit of littorals in the region as well as maritime users of this important global common. Moreover, it was opined that this type of dialogue should continue in order to enhance collaborative efforts among the regional players, which would contribute to alleviate mistrust and help establish a free and open Indo-Pacific policy. Peace and stability in the Bay of Bengal is of critical importance to the development and prosperity of the entire region. The objective should also be to prevent further militarization and nuclearization of the Indian Ocean, which is also a priority for peace in the region. Hence, special attention should be paid to maritime governance.

BIMSTEC was identified as the most relevant regional organization to focus on the region and initiatives taken by it should be supported by member countries to achieve collaborative, actionable activities to maintain the good order in the region. Some of the recommendations, that were made at the conference are as follows:

- To continue the discussion to enhance maritime security and governance, as the situation is fluid and dynamic, and new trends and opportunities are evolving at all times.

- To develop the Port of Trincomalee to enhance coastal and regional shipping activities. Trincomalee harbour could be the gateway for Eastern Indian, Bangladesh and Myanmar maritime trade.

- To develop/enhance hinterland connectivity, specially by rail, to facilitate trade and transportation between port of Trincomalee and rest of the country.

- To study and develop a framework to establish a 'Marine Research Centre' in Trincomalee to function as a repository of marine data collected by regional marine research agencies for the common benefit of all interested parties.

- To further develop MDA concept, which has been launched, with India, Maldives and Sri Lanka, by including states in the Western Indian Ocean and the Bay of Bengal, such as Mauritius, Seychelles, Bangladesh and Myanmar.

- To study the feasibility of setting up a centre for Humanitarian Assistance and Disaster Relief (HADR) focusing on the Bay of Bengal Region on the same line as the ASEAN Coordinating Centre (AHA) in Jakarta for Humanitarian Assistance on Disaster Management.

The next round of this dialogue is expected to take place at Track 1.5 level in the first quarter of 2019 with participation of relevant states and institutions focusing of maritime security and governance in the Indian Ocean.

AGENDA

Inaugural Session

0845 - 0900	Registration
0900 - 0905	Lighting of the Oil Lamp
0905 - 0915	Welcome Remarks by Mr. Bernard Goonetilleke, Chairman, Pathfinder Foundation
0915 - 0930	Opening Address by the Chief Guest, Hon. Ruwan Wijewardene, State Minister of Defence
0930 - 0945	Keynote address by Dr. Indrajit Coomaraswamy, Governor of the Central Bank of Sri Lanka
0945 - 0955	Address by Mr. Fumio Shimizu, Deputy Director General, Southeast and Southwest Asian Affairs, Ministry of Foreign Affairs, Japan
0955 - 1005	Address by Vice Admiral Anil Chopra, Member of National Advisory Security Board, Government of India
1005 - 1020	*Tea/Coffee Break*
Session 1:	**Enhancing Connectivity in the Bay of Bengal focusing on Trincomalee Harbour as a focal point**
1020 - 1025	Chair - Vice Admiral Anil Chopra, National Advisory Security Board, Government of India.
1025- 1055	**Presentation of Research Project: Enhancing Connectivity in the Bay of Bengal focusing on Trincomalee Harbour as a focal point**
	Researchers: Mr Rohan Masakorala - CEO, Shippers' Academy Colombo (Pvt) Ltd.

Mr Dileepa Sewwan Dissanayake - Director, APL Logistics

1055 - 1125 Discussion

Session 2: Establishment of a Maritime Research Center

1130 - 1135 Chair – Prof. Go Ito - Professor of International Relations, Meiji University, Japan

1135 -1205 Presentation of Research Project: Establishment of a Maritime Research Center

Researchers:
Dr. P B Terney Pradeep Kumara - GM/CEO, Marine Environment Protection Authority
Commodore Y N Jayarathna - Deputy Commandant, Sri Lanka Coast Guard

1205 - 1235 Discussion

1235 - 1330 Lunch

Session 3: Establishment of a Centre for Maritime Domain Awareness (MDA) and Humanitarian Assistance and Disaster Relief (HADR) in Trincomalee

1330 - 1335 Chair – Ambassador Sumith Nakandala
Additional Secretary, Ministry of Foreign Affairs and
Former Secretary General, BIMSTEC

1335 - 1405 Presentation of Research Project: Establishment of a Centre for Maritime Domain Awareness (MDA) and Humanitarian Assistance and Disaster Relief (HADR) in Trincomalee

Researchers:
Admiral Dr Jayanath Colombage - Director, Pathfinder Foundation

Captain Rohan Joseph - Secretary to the Chief of Defence Staff
Ms Darshana Baruah - Research Associate, Carnegie India

1405 - 1425 Summary of Research Projects and Paper by Project Coordinator,
Prof. Go Ito - Professor of International Relations, Meiji University, Japan

1425 - 1455 Panel Discussion

1455 - 1515 *Tea/ Coffee Break*

1515 - 1715 Country Perspectives

1515 - 1530 BIMSTEC views on Maritime Connectivity and Security: Current Initiatives
Amb. Sumith Nakandala, Additional Secretary, Ministry of Foreign Affairs and Former Secretary General, BIMSTEC

1530 - 1545 Maritime Connectivity in the Bay of Bengal
Rear Admiral Anwarul Islam, National Defence College, Bangladesh

1545 - 1600 Maritime Security in the Bay of Bengal
Commodore Somen Banerjee, Vivekananda International Foundation, India

1600 - 1615 Challenges of Maritime Trade for Nepal
Prof. Kushum Shakya, Tribhuvan University, Nepal

1615 - 1630 Maritime Security in the Bay of Bengal, a Perspective from Myanmar
Dr. Naing Swe Oo, Thayaninga Institute of Strategic Studies, Myanmar

1630 - 1645 Indian Development Cooperation in the Bay of Bengal Region: Ports and Infrastructure Investments as the Engine of Growth
Dr. Rani D Mullen, Institute of South Asian Studies, Singapore

1645 - 1715	Discussion
1715 - 1730	Concluding Remarks and Vote of Thanks Admiral Dr Jayanath Colombage

LIST OF PARTICIPANTS

1. Hon. Ruwan Wijewardene, State Minister of Defence, Sri Lanka
2. Dr. Indrajit Coomaraswamy, Governor, Central Bank of Sri Lanka
3. Mr. Fumio Shimizu, Deputy Director General, Southeast and Southwest Asian Affairs, Ministry of Foreign Affairs, Japan.
4. Vice Admiral Anil Chopra, Member, National Advisory Board, India
5. Mr. Rohan Masakorala, Chief Executive Officer, Shippers' Academy Colombo (Pvt.) Ltd.
6. Dr. Terney Pradeep Kumara, General Manager/ Chief Executive Officer, marine Environment Protection Authority
7. Commodore Y N Jayarathna, Deputy Commandant, Sri Lanka Coast Guard
8. Capt. Rohan Joseph, Secretary to the Chief of Defence Staff
9. Ms. Darshana Baruah, Research Analyst and Programme Administrator, Carnegie India
10. Prof. Go Ito, Professor of International Relations, Meiji University, Japan
11. Amb. Sumith Nakandala, Additional Secretary, Ministry of Foreign Affairs and Former Secretary General, BIMSTEC
12. Dr. Dan Malika Gunasekera, Legal Counsel/ Consultant and Dean, Faculty of Management, Humanities & Social Sciences, CINEC Campus
13. Commodore Somen Banerjee, Senior Fellow, Vivekananda International Foundation
14. Rear Admiral Anwarul Islam, National Defence College, Bangladesh
15. Dr. Naing Swe Oo, Executive Director, Thayaninga Institute of Strategic Studies, Myanmar
16. Dr. Rani D Mullen, Senior Fellow, Institute of South Asian Studies, Singapore
17. Mr. Md Jannatul Habib, Assistant Secretary, Ministry of Foreign Affairs, Bangladesh
18. Ms. Asha Sundaramurthy, Researcher, Vivekananda International Foundation, India
19. H.E. Kenichi Suganuma, Ambassador of Japan to Sri Lanka
20. H.E. Riaz Hamidullah, High Commissioner of Bangladesh to Sri Lanka
21. Sri Arindam Bagchi, Deputy High Commisioner, India
22. Mr. Tim Huggins, Deputy High Commissioner, Australia
23. Ms. Susan Jones, First Secretary, High Commission of Australia
24. Mr. Kiichiro Iwase, First Secretary, Head of Political Section, Embassy of Japan
25. Capt. Moroe Atsuhiro, Defence Attaché, Embassy of Japan
26. Additional General Manager, Dept. of Railways, Sri Lanka
27. Amb. H M G S Palihakkara, Formerly Ministry of Foreign Affairs, Sri Lanka
28. Gen. Daya Rathnayake, Former Commander, Sri Lanka Army
29. Maj. Gen. Milinda Peiris, Former Chief of Staff, Sri Lanka Army and Vice Chancellor, Gen. Sir John Kotelawela Defence University

30. Admiral Jayantha Perera, Former Commander. Sri Lanka Navy
31. Ms. Imogen Canavan, Research Fellow, Max Planck Foundation for International Peace and the Rule of Law
32. Dr. Harinda Vidanage, Director, Bandaranaike Centre for International Studies
33. Mr. Lain Marlow, Bloomberg News
34. Ms. Anusha Ondaatje, Bloomberg News
35. Mr. Barana Waidyatillake, Research Fellow, Lakshman Kadiragamar Institute
36. Mr. Buddhika Perera, Research Fellow, Verité Research
37. Mr. Niruthan Nilanthan, Research Fellow, Bandaranaike Centre for International Studies
38. Ms. Senuri Samarasinghe, Researcher, Bandaranaike Centre for International Studies
39. Mr. Bernard Goonetilleke, Chairman, Pathfinder Foundation
40. Mr. Balasundaram, Director/ Chief Executive Officer, Pathfinder Foundation
41. Mr. Luxman Siriwardana, Executive Director, Pathfinder Foundation
42. Mr. Lalith Weeratunga, Senior Fellow, Pathfinder Foundation
43. Mr. G S Godakanda, Director, Media and Public Relations, Pathfinder Foundation
44. Ms. Gayathri de Zoysa Nanayakkara, Research Associate,
45. Ms. Yasalanie Amerasinghe, Programme Manager, Pathfinder Foundation
46. Ms. Mandree Dissanayake, Project Executive, Pathfinder Foundation
47. Ms. Anushani Thilakaratne, Project Executive, Pathfinder Foundation
48. Ms. Kaveesha Fernando, Accounts Executive, Pathfinder Foundation
49. Mr. Upul Perera, IT Executive, Pathfinder Foundation
50. Mr. Ravi Jayawickrama Arachchi, IT Assistant to Media, Pathfinder Foundation