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BIPSS Towards a Secure World

The Urgency of Common Bay of Bengal Climate Security Framework

- *Asheer Shah Md* [1]

The effects of climate change make the Global South the most vulnerable, even though the states of this region are minimal contributors to carbon emissions.[2] Climate change is a global phenomenon, and the effects of this phenomenon do not consider any borderlines. It does not matter which states are contributing to the environmental catastrophe, the effects are experienced by all, and in this case, the states of the Global South are the victims. The boundless character of climate change makes it a global issue; thus, an integrated approach is required to mitigate this global issue. Considering the Global South, this commentary focuses on a segmented portion of vital interest and importance, historically and, at present, the Bay of Bengal. This commentary will evade the basic parameters of the Bay, such as the number of livelihoods dependent on the Bay and similar; rather, it will focus on a way forward to govern this aqua space in multiple dimensions. In this aquatic paradigm, the instrument deployed to govern the global issue of climate change, and security will be regional integration or collaboration, whichever falls under the pragmatic lenses of a rational policymaker. As a result, the heading of this commentary includes the word "common".

This commentary will initially explore the understanding of climate security and its implications. Following the overview, the commentary will highlight the common climate issues faced by the states surrounding the Bay of Bengal, which will eventually provide the rationale, significance and importance for developing a common climate security framework. Once a rationale has been established, the commentary will foster certain common climate security policy frameworks addressing multiple arenas where there is a need for integration or at least collaboration. The commentary will further produce routes for implementing the common policy frameworks. In simple terms, this commentary aims to produce a complete pathway starting from the common policy framework formulation and developing the pragmatic implementation procedure.

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[1] Asheer Shah Md is a researcher, project specialist and negotiator. He is a Global Studies & Governance (GSG) graduate, specialising in international relations, comparative politics and public policy. His research expertise lies in the regional integration of Europe and Asia. He is a Research Associate at the Bangladesh Institute of Peace and Security Studies (BIPSS). Mr Shah's future research interest lies in the cybersecurity governance aspects of regional integrations.

[2] Brock, H. (2012). Climate change: Drivers of insecurity and the global South. Oxford Research Group.

Climate Security and Its Implications

Understanding climate security is complex since it will vary how an individual perceives the two words. Traditionally, climate security refers to the tangible, economic, or societal impacts caused by climate change that significantly affects politics, budgets, livelihoods, infrastructure, food production and so forth.[3] Vulnerable countries are expected to experience an increase in conflicts due to the effects of climate change.[4] For instance, Mearns and Norton demonstrated how climate change could lead to conflict.

[5] The demonstration by Mearns and Norton was summarised and presented as a framework by Behnassi, which is presented below.[6] Figure 1 illustrates how conflict occurs from adverse climate change.

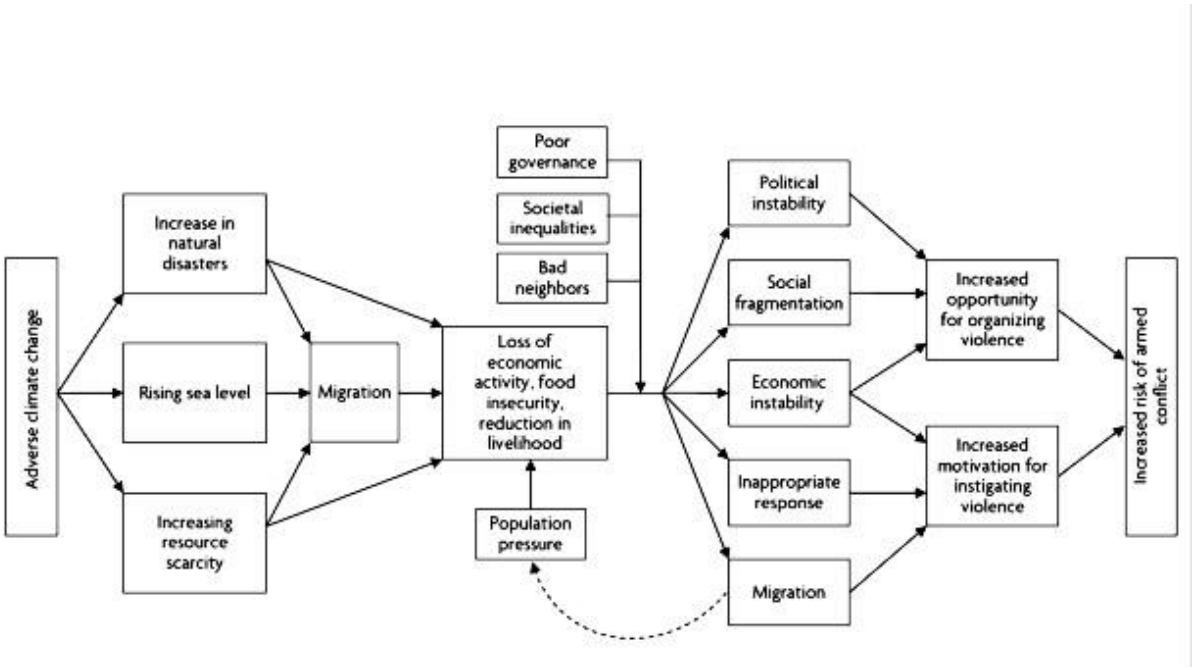

Fig 1: Climate change to conflict
Source: Figure utilised from the works of Behnassi[7]

[3] Climate Security | PNNL
[4] Mabey, N. et al. (2011). Degrees of risk – Defining a risk management framework for climate security, at: http://www.c2es.org/docUploads/Degrees-ofRisk_Defining%20a%20Risk%20Management-Framework-for-Climate-Security_Full- - Report.pdf
[5] Mearns, R. & Norton, A. (2010). Social dimensions of climate change: Equity and vulnerability in a warming world. World Bank, at: https://openknowledge.worldbank.org/handle/10986/2689
[6] Behnassi, M. (2017). Climate Security as a Framework for Climate Policy and Governance. In Behnassi, M. & K, McGlade (Eds.), *Environmental Change and Human Security in Africa and the Middle East* (pp. 3-24). Springer.
[7] ibid.

The consequences of climate change has transformed into a security agenda (as demonstrated in Fig 1). Climate change is no more just hurting the planet earth but also the individuals inhabiting the planet.

Common Climate Security Issues

Tapping the aspects of climate security involves the complex relations shared by neighbouring states. For instance, the problems of flooding faced by Bangladesh due to the waters released by India. It is not simply a climate security issue but also a water management issue involving geographical borders. The Chief Minister of West Bengal, Mamata Banerjee, once stated that she could not show sympathy to the people of Bangladesh and not her own West Bengal. As a result, creating a common framework for climate security is complex since it will require the consensus of all the parties involved. Through critical research and analysis, this commentary discovers that the issues of plastic pollution, mangrove deforestation and damaged coral reefs are common apolitical aspects of climate security, and thus, the emphasis is being invested in the mentioned aspects.

Indonesia is a significant plastic polluter to the Southern Indian Ocean.[8] The funnel shape of the Bay of Bengal and the wind patterns heavily contribute towards the accumulation of plastic waste in the Bay of Bengal. According to multiple scholars, plastic soup already exists in the Bay of Bengal. The evidence of such can be found in the beaches of Bangladesh, where 60% of the waste collected was plastic, according to a study conducted by Dhaka Tribune.[9] The concept of recycling and reusing is not a pragmatic route to deal with plastic since it only leads to higher dissemination of nano plastics. For instance, Bangladesh exports PET flakes to Dubai, Taiwan, Europe and many others for producing finished products. The containers leave Chittagong port through the Bay of Bengal, thus, transporting scraps are feeding the waters. These plastics have formed the dead zone in the Bay of Bengal, which is now the talk of the globe.

The mangrove ecoregion of Myanmar is now history. The mangrove forests are the pride of Sri Lanka, India, Bangladesh, Thailand, Malaysia and Indonesia. The mangrove forests are not simply a matter of pride, bio-diversity and aesthetics; it is the first line of defence for the

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[8] Mheen, M. et al. (2019). There's No 'Garbage Patch' in the Southern Indian Ocean, So Where Does All the Rubbish Go? Conversation, at: There's no 'garbage patch' in the Southern Indian Ocean, so where does all the rubbish go? (theconversation.com)

[9] Amin, M. (2018). Reckless Plastic Waste Dumping Greatly Endangering Bay of Bengal. Dhaka Tribune, at: Reckless plastic waste dumping greatly endangering Bay of Bengal | Dhaka Tribune

Bay of Bengal states from oceanic natural disasters. The mangrove forests are a security measure for these states. However, due to the increased commercialisation of these zones, the mangrove forests are now facing threats of extinction. For instance, the Rampal Powerplant is only 17 kilometres from the Sundarbans of Bangladesh. The case of Myanmar should have been sufficient enough as a threat to the policymakers governing the mangroves. However, the current policymakers seem to lack analytic knowledge of history.

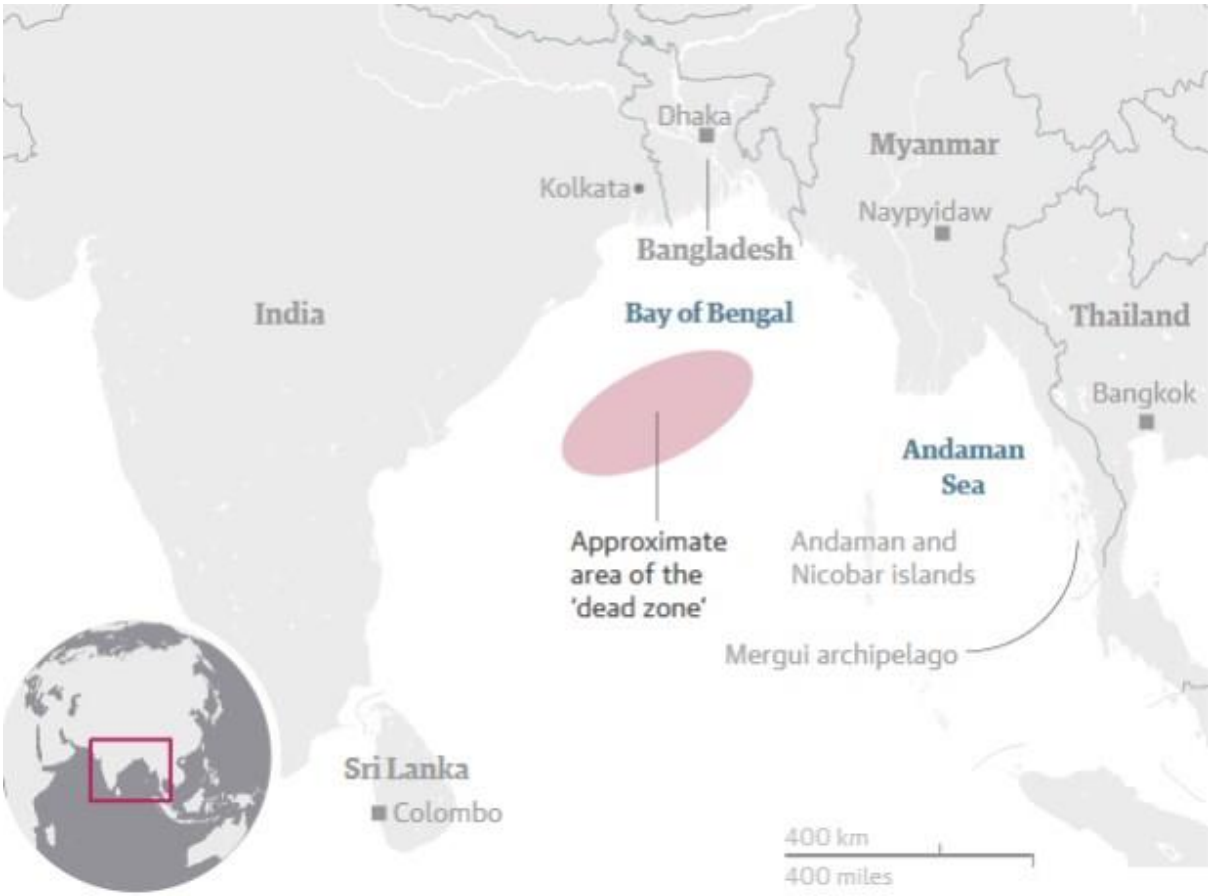

Fig 2: Dead zone location
Source: Bay of Bengal: depleted fish stocks and huge dead zone signal tipping point | Fishing | The Guardian

The Bay of Bengal hosts a 60,000 sq km dead zone where the oxygen content is significantly low.[10] A dead zone means the aquatic space is unsuitable for fostering marine life since the coral reefs are non-existent and cannot sustain fish stocks. Suppose the population surrounding the Bay of Bengal cannot sustain itself on the Bay. In that case, they will migrate, leading to a refuge and migration issue on the already volatile borders of South Asia.

[10] Ghosh A. and Lobo A.S. (2017). Bay of Bengal: depleted fish stocks and huge dead zone signal tipping point. The Guardian, at: Bay of Bengal: depleted fish stocks and huge dead zone signal tipping point | Fishing | The Guardian

Illegal fishing by the fishermen of neighbouring states, intentional and unintentional, is a marine security challenge. If one floats on the Bay of Bengal on a ship or speedboat, it is not simply hardship but almost impossible to distinguish the marine borders. It is because the marine borders only exist in documents, and only a set of navy personnel are aware of the borders.

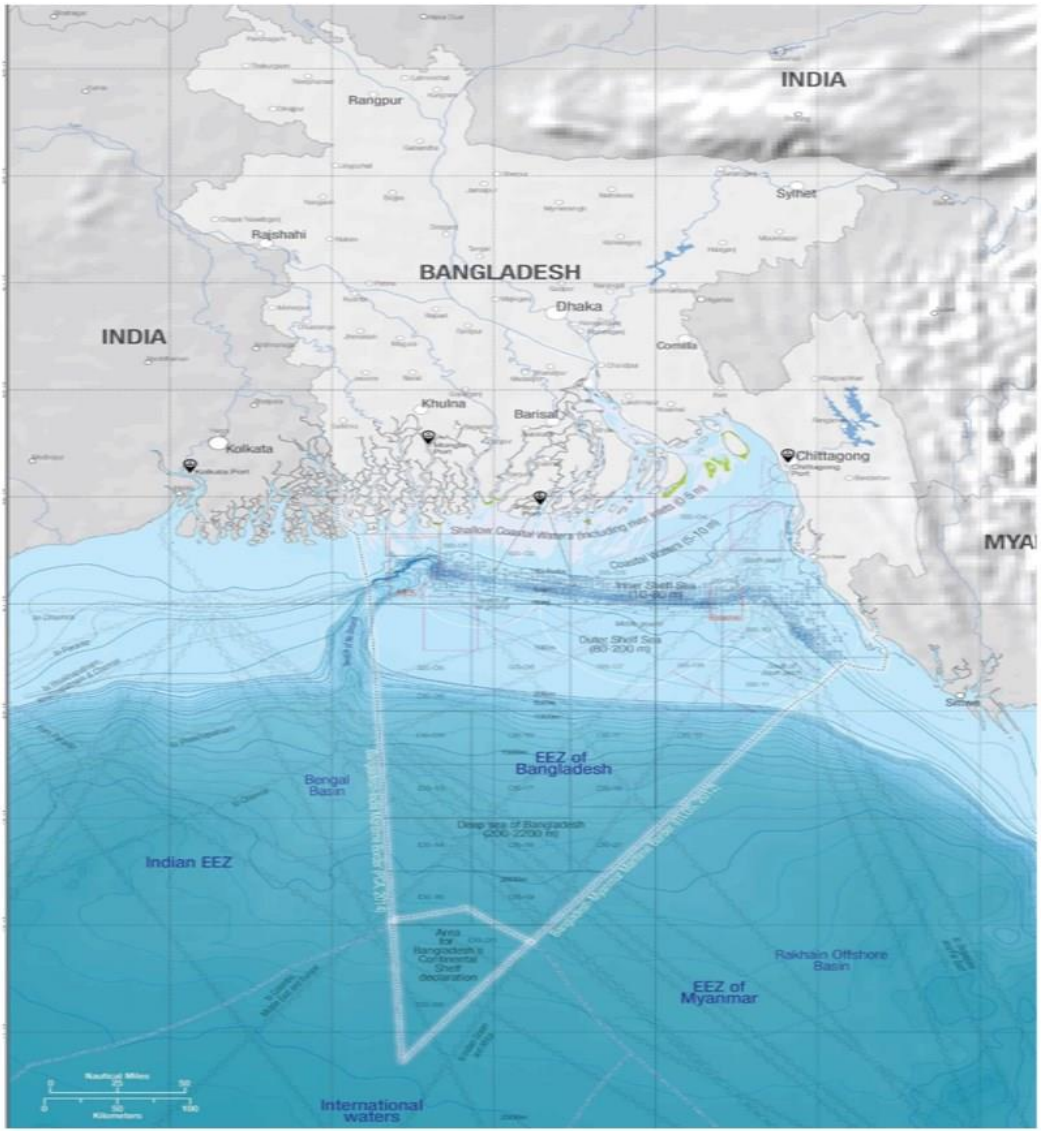

Fig 3: Bay of Bengal Maritime borders
Source: Intergovernmental Oceanographic Commission 2019.[11]

[11] Khasru, S.M. and Noor, R. (2019). MARITIME SECURITY IN BAY OF BENGAL: POTENTIAL CHALLENGES AND OPPORTUNITIES. Institute for Policy, Advocacy, and Governance (IPAG), at: MARITIME SECURITY IN BAY OF BENGAL: POTENTIAL CHALLENGES AND OPPORTUNITIES – The Institute for Policy, Advocacy, and Governance (ipag.org)

Intriguingly, maritime borders become relevant and are studied when there is an existence of a geographical location, and the states are in a bargain to claim whose territory it is. When it comes to a fisherman, are the circumstance, knowledge and borderlines applicable to them? Furthermore, how will the marine border formulators educate the fishes and plankton on the maritime borders they have so scholarly enacted? The paradigm is arbitrary and abstract. Traditional policymaking and practice will not foster a pragmatic governance mechanism for the Bay. Collaboration, coordination and exchange of expertise are mandatory for the climate security of the Bay of Bengal.

Common Climate Security Policy Framework

The word common is aimed at the countries surrounding the Bay of Bengal. The Bay of Bengal, in terms of economics, is a public good for the surrounding states. In a particular state, national public goods are managed by the state or local government. Complexities arise when the public good is not national but international or regional. Can any single state govern and manage all the aspects of the Bay of Bengal? Can they govern and manage the climate security aspects of the Bay by dividing and managing their share of the Bay? Is it even possible to share the Bay following the division theory? It is only possible to share the Bay following the addition theory. Add the divided parts of the Bay and govern as a whole region.

Establishing a Common Bay of Bengal Climate Security Framework can be one of the instruments to be deployed in the marine governance paradigm. The framework should address the factors of plastic wastage, mangrove conservation, dead zone restoration and fishing dilemma. Under the framework, two research centres addressing plastic and mangrove issues and one restoration committee must be initiated to secure the Bay.

Bay of Bengal Zero-Plastic Policy must be enacted by Sri Lanka, India, Bangladesh, Myanmar, Thailand, Malaysia, and Indonesia. The ***goal*** of this policy is to ensure zero entrance of plastics into the Bay of Bengal from the surrounding states. Achieving the zero-plastic goal will require banning the usage of plastics and also innovating alternatives to plastics. A ban on plastic bags exists in Bangladesh; however, absolutely no implementation of the policy is evident. The implementation process can be partially blamed since no other ***'fit for purpose'*** alternative to plastic exists. Innovating alternatives to plastic will require the collaboration and exchange of expertise by marine scientists, marine governance experts, water waste management specialists and researchers from every surrounding state. As a

result, it can be comprehended that a ***centre for plastic reduction & innovation*** can be initiated by the stakeholder states of the Bay, which will initially aim for zero-plastic at the Bay and later the whole globe by producing pragmatic data, innovations and policies.

Similar to the zero-plastic policy, the ***mangrove conservation policy*** must be enacted by the stakeholder states under the Common Bay of Bengal Climate Security Framework. The research centre on mangrove conservation will function by learning the status quo, producing prosperity plans, monitoring the reserves and providing future mangrove policy recommendations.

Revival of the dead zone will need a restoration team of experts. Reviving the dead zone is almost impossible by a single state, but that does not mean that the dead zone will not stretch to a single or multiple state's marine territories. The dead zone is the closest to India, Bangladesh, and Myanmar. On account of such, the dead zone must be studied further in terms of reviving the coral reefs and marine livelihood. The restoration team of experts will require to research the characteristics and biochemistry of the Bay of Bengal waters.

Conclusion

The aspects of collaboration already exist in the region with the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC). Given its name, the cooperation is incomplete since Malaysia and Indonesia are not members yet. A BIMSTEC *plus* solution has been previously recommended by the veteran ambassador and political analyst Tariq A. Karim.[12] The recommendation is rationale when assessed in terms of the balance of power and the location of the Bay. It is a challenge in itself to initiate a regional collaboration. Hence, utilising BIMSTEC can be one of the pragmatic routes in establishing a Common Bay of Bengal Climate Security Framework. Even if BIMSTEC *plus* does not take place, the framework must be initiated jointly by BIMSTEC, Indonesia and Malaysia. The framework will be a step ahead towards Asian integration.

[12] Karim, T.A. (2020). Bangladesh's Role in Forging a Bay of Bengal Community. The National Bureau of Asian Research (NBR), at: Bangladesh's Role in Forging a Bay of Bengal Community - The National Bureau of Asian Research (NBR)