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Conceptualization of Region-Specific Comprehensive Ocean Management Re-gime (COMR) for Maritime Economic Exploitation

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Abstract
The history of the global economy is the history of global international trade; whoever could command the oceans could control the wealth of that Era, e.g., Phoenicians and Arabs commanded the world before Europe's colonial expeditions through seas. When the Cold War Bipolar Era ended, the USA has been enjoying the benefits of globalization through military presence and hegemony across oceans in the unipolar Era. The Indian Ocean is said to contain most of the significant sea trade routes of the world, and the Bay of Bengal in the Northeast does the same more precisely while interfacing with the South China sea. Regional peace and stability is a precondition for the sustainability of international maritime trade and other blue economic functions. Here, this research is to propose region specific COMR (comprehensive ocean management regime) model to achieve blue economic objectives sustainably for the BOB (Bay of Bengal) maritime-littoral region. This research examined coastal and ocean initiatives like Maritime Protected Areas and Integrated Coastal Zone Management for their challenges at policy, management and operation levels leading towards a conceivable solution, choosing to make a few insinuations to the nations and areas of the world. Sectoral data that has been aggregated might be confusing, and quantitative data lacks validity and precision. In an outcome, in the deficiency of quantitative data, the presentation is created qualitatively. Moreover, the study also uses the Delphi method to address the research objectives of this study because, to establish a consensus, the Delphi technique includes obtaining expert opinion through a series of progressive and iterative investigations.

Keywords: Ocean Management, Maritime, Global international trade, Sustainability, Globalization.

1. INTRODUCTION

1.1 Background

Oceans and seas cover two-thirds of the globe, and about 80% of global trade is carried through water transportation (The Ocean Economy, 2016). Marine transportation is a significant, if sometimes less conspicuous, component of the global economy (Semenov & Igolkina, 2019). According to Tanhua et al., (2021), the last 5000 years of the history of civilization prove that those who controlled the Ocean Routes and maritime trades had control over the global wealth of that Era. After ancient Phoenicians and Greeks controlled the Mediterranean, Arabs took over as Admirals of seas for centuries until Europeans made their colonial expedition (Stephenson et al., 2019).

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Ocean Sphere in Geopolitics of the Blue Planet

The transition between the twentieth and twenty-first centuries was characterized by profound structural distinctions in geopolitical balances. These are all, in consequence, linked to other sectors in science, technology, economics, and the environment. Emerging nations like the nations of Brazil, Russia, China, and India (BRIC) are an example of this kind of transformation because of their public importance, in which new actors usurp those who "historically" have power (Pendleton, Evans, & Visbeck, 2020). A fortunate maritime space of unclear political complexity may develop from the State's need for a geographic region over which to exercise power and a social body deeply entrenched in connecting land (Pendleton, Evans, & Visbeck, 2020). In contexts of geopolitical doctrine, contemporary geographic location created spatial patterns of political organization for systems of global significance that incorporated enormous territorial regions of a freshly explored world from its advent (Charles, Loucks, Berkes, & Armitage, 2020). Even while the seas were recognized for their role in crafting big geostrategic ideas, they were mostly seen. Classical geographers like Carl Ritter and Richthofen did not count them as part of the oikumenes or occupied world when they were young because they were more than just a shell (Suárez de Vivero, 1979). (Le Cornu, Kittinger, Koehn, Finkbeiner, & Crowder, 2014) They do not have the physical and political features that would make them the main focus of world claims. Since the international power balance has changed, including the decline of imperialist maritime powers, as well as the new laws of the sea have become more stable (which happened at the same time as the independence process), new areas of regional interest that are mostly marine have started to take shape (Rudd et al., 2018). In this way of thought, growing economies have changed the balance between political and economic forces and the global chessboard (Novaglio et al., 2021). As a part of the general trend of "maritimization" (Vigarié, 1990), countries try to add their own marine areas. This is also important from a strategic point of view (Santos et al., 2019). Geographical features such as islands, archipelagos, and the continental shelf enable the expansion of sovereign rights as states, the territorial units that serve as the ground for the political world, gradually absorb the marine domain through jurisdictional expansion. This event explains some of the geographic features that, as a result of the UNCLOS, are altering States' territorial bases and hierarchies that were formerly based solely on emerging land, and it identifies new areas of geostrategic interest associated with the incorporation of new political actors and their spheres of influence over the ocean. (Sumaila et al., 2019) With this oceanic geography exercise it is also intended to analyze situations in which power is exercised, as well as some of the key concepts and background information that allude to the earlier paradigms of classical geopolitics.

A New Maritime Paradigm

Oceans have gained prominence on the political agenda as the new century has progressed.

1.2 Explanation of Rapports

1.2.1 Sustainable Development Approach and SDG 14

Sustainable development is a strategy for structuring society to ensure its long-term viability. It means thinking about both temporary and enduring objectives, like social and economic equality and protecting the environment. This can help reach SDG 14, which is to protect and use oceans, seas, and marine resources in a safe way for sustainable development. Sustainable growth came about because of industrialization. In the 2nd half of the 19th century, people in the West learned that their economic and industrial actions changed the atmosphere and social balance. Multiple biological and social tragedies around the world (Bennett et al., 2019) made people more aware of the need for sustainability.

1.2.2 Economic Growth and Development towards human well-being

Economic development raises per-capita and national income. Per capita income increase indicates economic progress since it improves living conditions for everyone. Real national income, not money or nominal national income, is used to quantify economic growth. Thus, the growth

should indicate that more products and services are being produced, not merely higher costs. For a long time, real income growth should be: Real national income growth and gains in per-capita income should go on for a long time. (Castro-Santos, Bento, Silva, Salvaco, & Soares, 2020) It is important to tell the difference between economic growth and short-term seasonal or temporary increases in income. The growth of sales should be based on a rise in productive capacity: Increases in income can only be kept up if the economy's productive capacity improves in a big way and for a long time. This could be done by modernising or using new technology in manufacturing, improving infrastructures like the transportation system, or making more electricity (Castro-Santos et al., 2020; Lundquist & Granek, 2005). Economic growth is a steady rise in the material well-being of a society. It includes social, cultural, political, and economic changes that make the natural world better, as well as growth in the national income. It involves making changes to the amount of resources available, the rate at which capital is created, the size and make-up of the people, the level of technology, skills, and efficiency, as well as institutional and organisational frameworks. These changes help reach the bigger goals of a more fair division of income, more jobs, and less poverty. The net national product of a country will finally go up because of a long chain of linked changes in the most important factors that affect supply and demand. Sala et al. (2018) call this process

1.2.3 Maritime Trade for net worth growth

Maritime transport underpins the global economy and accounts for 80% of global trade. Global supplier chains complicate trade flows. This network affects ecological and economic development in impacted places. Research also demonstrates that maritime trade flows assume a random walk on the sea link network structure, underlining its importance in maritime commerce development (Zuzanna, 2020).

1.2.4 Blue Economic functions agreed at SBEC 2018 Nairobi.

From November 26 to 28, 2018, Nairobi, Kenya, hosted the Sustainable Blue Economy Conference. The conference, themed "The Blue Economy and the 2030 Agenda for Sustainable Development," drew almost 18,000 delegates from 184 nations. Seven heads of state and government, 84 ministers, and leaders from various levels of government, science and academia, the scientific and research community, UN along with other intergovernmental bodies, international organizations, business and private sector entities, and the scientific and research community were among them. Participants actively participated in panel discussions and other conversations across the three days of the conference about how to utilize and maintain aquatic resources such as oceans, seas, lakes, and rivers in a manner that is good for people, fair to everyone, and beneficial for aquatic ecosystems. Smart shipping, ports, transportation, and global connectivity are embraced within the nine most often mentioned issues.

1.2.5 Marine protected areas (MPAs)

World Conservation Union says that MPAs are areas of intertidal and subtidal settings which set aside and preserved by law or other efficient means (IUCN-WCPA, 2008). This includes the water above them, the plants and animals that live there, and other features. Even though MPAs are primarily geographic in form, many studies of MPA economics, especially those that focus mostly on theory, are based on models that are the same everywhere. It has been decided that spatially diverse models are needed, and work is being done to make them. These models will give needed information on things like the best place for an MPA to be in a certain area from the economic viewpoint and the best way to "design" MPAs to get the most economic benefits (Sumaila et al., 2019).

1.2.6 Sovereignty of State and it's maritime jurisdiction under UNCLOS

Some of the concepts that UNCLOS 1982 is based on are Sovereignty over Resources, Precautionary Acting, Common Heritage of Humanity, Conservation of the Environment, Sustainable Development, and International Cooperation, etc. Continental Shelf are all parts of a state's area of control. While the "High Seas," "Superjacent Aerospace," "Deep Seabed," and "The Area" are all part of the "Common Heritage of Mankind," which means that every country, even ones that are isolated, as well as study or busi

ness groups, can take part in economic expeditions. Frameworks have been added for Border Determinations, Fishery and Aquatic Resources. International Court of Justice, ITLOS, Annex VIII Special Arbitration, and the Annex are all part of the system for resolving disagreements. It's important to note that there is no national authority beyond TS, CZ, EEZ, and CS. This means that in regional sea areas, more regional structures would be needed to bring together different national interests in a way that does not disrupt efforts to make the blue economy work.

Evolution of Comprehensive Ocean Management Regime (COMR)

Since the early 1970s, advocates have called for a more integrated strategy to ocean management, concentrating primarily with relation to the seaside region. Because the effects of coastal development on marine ecosystems are so obvious and straightforward, Integrated Coastal Zone Management was first within its type. After the 1992 UNCED conference in Rio de Janeiro, however, the concept of integrated management of ocean systems was expanded beyond the coast to include the formulation of ocean policy and governance in national and international jurisdictions. In 1992, this modification took place. The notion of a "ecosystem approach to management" was developed in response to this tendency (Arkema, Abramson, & Dewsbury, 2006). These developments, say Alexander and Haward (2019), underscore the biological, ecological, and biogeochemical interdependence of the ocean's natural ecosystems. This frame of view is grounded on the empirical study of the natural world. From a sociopolitical perspective, this shift acknowledges that management is ostensibly the governance of human behavior associated with extracting human benefits and that there will always be competing interests that need to be resolved, ideally through rational, consensual, and peaceful means while managing the ocean resources. Furthermore, it acknowledges the reality that management must constantly account for the presence of opposing interests. Within the first half of the twentieth century, the United States of America's Naval Forces superseded the Strength of the British Royal Navy and took over the control of strategic Ocean Routes (Tanhua et al., 2021), then came up with a project called Marshall Aid, which proposed the development of Europe or rebuilding Europe for sustaining USA hegemony in the long run (Stojanovic, Green, & Lymbery, 2010). Encouraged by the success of the European Union other initiatives took place in East Asia, and South East Asia, where China as a major economic player, was growing in the vicinity, another Sub-regional effort like the Nordic Shipping revival also came out as a success story of Regionalism (Semenov & Igolkina, 2019). Trade increases income by encouraging the accumulation of physical and human capital and boosting production per unit of capital (Biermann et al., 2012). The marine sector affects commerce and economic growth in poor nations (Cash et al., 2003). According to Markusson, Ginn, Ghaleigh, and Scott (2013), the maritime sector faces many challenges. Countries that cannot adapt to such quick changes will not be able to build their trade industry Cash et al.(2003). Biermann, Pattberg and Zelli, (2010) report that: The globalization movement brought new challenges and possibilities to commercial and political participants, changing not just the rules of the game but also the playing ground itself. As a collective, the Nordic nations continue to play a significant role in international shipping, elucidating the potential strength of regionalism (Mathews & Turner, 2017). It further states to explain the sustainability of Nordic Shipping in the longer term, The 'erosion' of the home factor is one of the key ingredients in this growth; leading Nordic enterprises have been able to stay at the top of their game by becoming 'less Nordic' (Petterson, Kim, & Gill, 2021). This reveals that by complying with only national policy any country would not be able to sustain her growth for long in truly dynamic and international industries like shipping; definitely to become 'more global', one has to be 'less national' to accommodate international rules of the game to at one's advantage, that is known as regionalism for smaller nations (Mullan, Kingsmill, Agrawala, & Matus Kramer, 2015; Petterson et al., 2021). It could also be explained as the Maritime Cluster approach in regional cooperation building for sustainable blue economic growth (The Ocean Economy, 2016) (See figure 1.1).

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Figure 1. 1: Summary of the study

background

The growing concern for ensuring sustainable development is a response to conflicts inherent in two worldwide trends: quickly expanding human well-being and rapidly increasing environmental deterioration. These two phenomena have become the confusing and dangerous characteristic of what many are now calling the Anthropocene System (Wing, Zalasiewicz, Waters, and McNeill, 2019). According to Mensah et al. (2019), the ultimate objective of S.D. is to strike a balance between environmental, economic, and social sustainability; hence, these pillars serve as the basis for S.D. Measurement of progress, promotion of equality, adaptation to shocks and surprises, transformation of the system, linking of information, and the development of governance frameworks are the six interdependent capabilities that are required for the successful pursuit of sustainability. Sustainable development tactics may be bolstered by cultivating a set of six fundamental skills. Capabilities include (a) measuring sustainable development, (b) fostering equity, (c) weathering unexpected events, (d) shifting systems within the sustainable development pathways, (e) connecting knowledge with action, and (f) designing governance arrangements that facilitate cooperation among individuals (Clark). The Millennium Development Goals (MDGs) were established in 2000 by consensus of the United Nations' member states. From 2000 to 2015, the global development agenda was supposed to be driven by these aims. The MDGs were established to combat eight major problems: extreme poverty, illiteracy, violence against women and girls, infant mortality, preventable illness, environmental degradation, and lack of international collaboration. There were eight subsets created for these objectives. More than 60 indicators were to be monitored, and there were 21 subgoals for each overarching objective. In response to the mounting pressures posed by environmental degradation and social conflict, in 2015's September, about 193 states contracted United Nations Sustainable Development objectives for 2030 (also referred to as the SDGs or "Global Goals") (Diz et al., 2018). The Sustainable Development Goals (sometimes known as "Global Goals") are a target collection to be met by 2030. Goal 1 of SDG 2030 aims to end extreme poverty around the world by 2030, with specific targets including "enhance the resilience of the poor and vulnerable people by reducing their exposure and susceptibility to climate-related severe events and other economic, social, and environmental shocks and disasters," "ensure significant mobilization of resources from a variety of sources," "encourage innovative approaches to financing for development," and "promote partnerships that strengthen the capacity of developing countries to implement SDGs," among others. All 193 member states have pledged to work toward attaining the 17 SDGs (Sustainable Development Goals) laid forth in Agenda 2030. Whether or whether humanity is able to max-

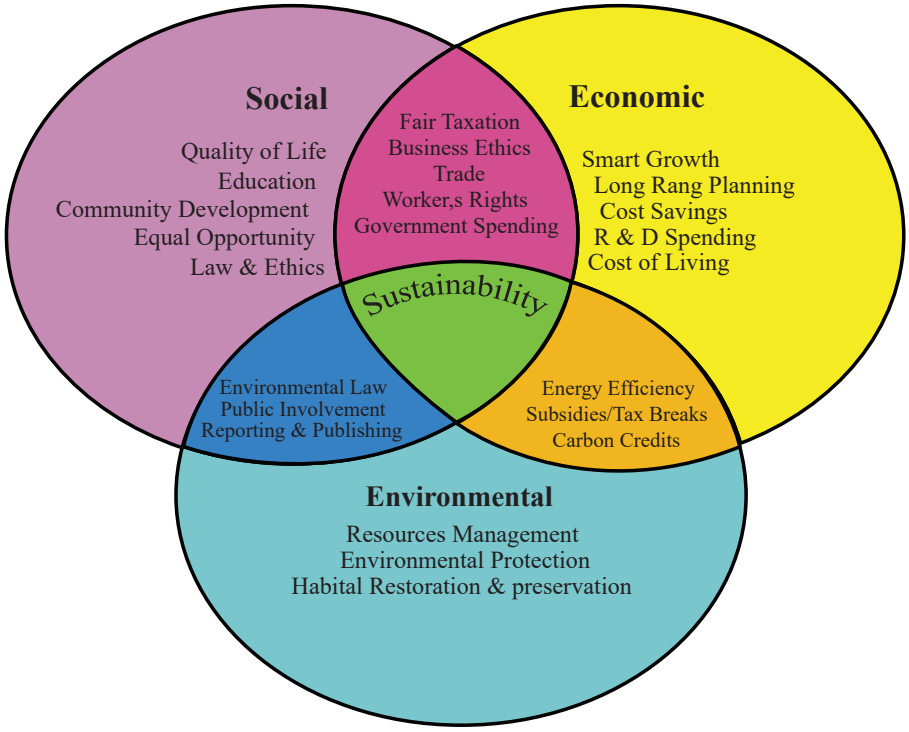

Figure 1. 2: Relationships among social, environmental and economic sustainability

imize synergies and develop solutions to current trade-offs across the SDGs is one of the most crucial aspects that will decide whether or not this agenda is successful (Kroll et al., 2019).

Regionalism to Maritime Clustering

Clusters are collections of several interconnected industries as well as other important competitors. These embrace, for instance, providers within the specialized inputs like constituents, equipment, and services, in addition to those that offer specialized infrastructure (Jones, Lieberknecht, & Qiu, 2016). Additionally, they comprise suppliers of specialized infrastructure. Clusters often spread to other channels and clients, as well as laterally to producers of complementary products and businesses in industries linked by comparable technology, skills, or inputs. Additionally, clusters sometimes propagate laterally to producers of complementary goods. Last but not least, many clusters consist of governmental and non-governmental organisations that offer specialised instruction, education, information, research, and technical assistance. Examples of these types of institutions include universities, vocational training providers, think tanks, trade group and standard-setting bodies (Doloreux et al., 2009). In general, all these could be termed as Bottom-up maritime clusters. Still, forming a Regional Integration Association (RIA) among member states of a sea area could be termed as a Top-down maritime cluster, which could also be viewed as maritime regionalism, unlike much other land-based regionalism (Voyer, Quirk, McIlgorm, & Azmi, 2018).

Balance of Power and Balancing for Blue Economy

The rising disagreement among realists about how to conceive and operationalize the essential idea of "balancing" analysis indicates a three-tiered distinction between balance of power theory, power balance theories, and balancing theories (Bennett et al., 2019; Jouffray, Blasiak, Norström, Österblom, & Nyström, 2020; Klinger, Eikeset, Davíðsdóttir, Winter, & Watson, 2018). Recognizing this distinction not only disproves numerous arguments against broadening the idea of balancing to include "nontraditional" versions, but it also explains why we should not avoid articulating nontraditional balancing in terms of hard and soft balancing. On the other hand, realists are perhaps better suited to taking the elevated nuanced and complete perspective

to power-political rivalry. The entire discipline would benefit from recognizing "balancing" and "balance of power" as independent subjects of study rather than as the domain of realism theory (Nexon, 2009). Balance of power would add to stability at global, regional, and national political systems. Balancing traditionally or non-traditionally could be a methodology to achieve any objective, such as sustainable Blue Economic Growth through peaceful regionalism in a sea area.

National Interest versus Regional Interest

A country will always prioritize the preservation, protection, defense, and security of its national interests, which include its claims, objectives, goals, demands, and interests, in its interactions with other countries. There are many opinions on what constitutes a topic of "national interest." When it comes to international relations, governments often choose one of at least five tactics to promote and safeguard national interests. Asaad, Lundquist, Erdmann, van Hooidonk, & Costello, 2018; Haward & Vince, 2008; Rilov et al., 2019) list five such strategies, these integrates, economic tactics, propaganda, treaties and alliances, and the coercive measures (Case: Asaad, Lundquist, and Erdmann v. Both Bennett et al. (2019) and Voyer et al. (2018) define "international interests" as the interests that all states share or the interests that all people share. This may integrate interests of only a few states or they may be more comprehensive. Common international interests refers to the final category. In the 1950s, the Soviet Union only recognized as foreign policy priorities the interests that were common to the communist bloc as a whole. The American view of international affairs was narrowly focused on the concerns of other western capitalist countries. The Soviet Union and the USA collaborated to achieve their joint global goals rather than their separate global interests. Over the next several years, the importance of international and global concerns will only increase. Advancement in the technology, trading, environmental protection, economic relations, and population control, the fight against natural disasters, the eradication of hard drugs, criminal protection, nuclear non-proliferation, and fight in contradiction of AIDS, immigration crises, human rights violations, and so on are all examples of the many cross-bor der challenges that humanity faces. These are some examples of the difficulties. Since the conclusion of the Cold War and the following focus on regionalism, the importance of a country's domestic, regional, and international interests has increased, as stated by Katona et al. (2017). Experts in international relations have offered a constructivist-institutionalist model to explain how countries' foreign policy and national interests develop. This model puts out many broad ideas concerning the possible, conditional, and unequal effect that institutionalized interstate connections may have on the interests and policies of states. To do this, it focuses on the shifting relationships between international institutionalization and construction logic and domestic considerations. Experts agree that regularized inter-govern mentalism, primarily symbolic actions and practices, and para-public foundations of interstate relations are the three most important factors in the institutionalization and building of international relations between states (Kortz, 2022).

Global Player (GP) and NGP countries integration in the Value Chain

Recently a group of researchers has argued that, due to a lack of balance within the team, the Regional Integration Association (RIA) consisting of Global Player (GP) and Non-global player (NGP) countries together would not function successfully, hence NGP countries required to form their own RIA prior proceeding to engage with any G.P. country for the more balanced outcome of negotiations. Therefore, researchers have proposed KRA positive indexing to evaluate country strength to assist in policy formulation leading to regionalism in the International Relations of NGP countries (Chowdhury et al., 2022). The primary factors of GVC involvement are country-specific structural features. Nevertheless, policy may have a big impact. Low import tariffs both domestically and in export markets, as well as participation in regional trading agreements, can make backward and forward GVC interaction easier. Backward integration and inward receptivity to foreign direct investment are strongly correlated. GVC integration is predicted to be impacted by trade facilitation, logistical efficiency, intellectual property protection, the standard of institutions, and the infrastructure. Policymakers in the regions

may analyze their nations' GVC involvement and discuss policy choices by using the country-specific empirical study as a starting point (Participation of Developing Countries (OECD, 2015).

Management of RIA, MSP and QMS

"Maritime Spatial Planning" is described by the EU as "planning and regulating all human uses of the sea while protecting marine ecosystems." As explained in the EU Directive 2014/89/EU (EU, 2014), the difference is that "marine" spatial planning tends to mean more about the environment, while "maritime" spatial planning means more about business. The structure and underlying quality management goals can be used for all types of spatial planning in the sea, whether they are driven by economic, biological, or social goals. The Intergovernmental Oceanographic Commission of UNESCO created a ten-step strategy to define marine spatial planning (MSP). Ecosystem-based coastal resource management may include MSP. Make and use a marine spatial plan in ten steps: Funding, Pre-planning, involving stakeholders, defining and evaluating present and future situations; Preparing, approving, implementing, and enforcing the spatial management plan; monitoring and evaluating performance; and acclimatizing the marine spatial management process. ISO 9001 (ISO 9K: 2008) stipulates that a company must oversee and regulate quality in a structured and transparent manner. To achieve this, it must take into consideration the requirements of all parties involved and implement quality management practices throughout the entire management process and in the products it manufactures. The standard outlines eight quality management principles designed to enhance the performance of an organization.

These are more focused towards consumers, leadership, participation of employee, process approach, system approach to management, continuous improvement, decision-making process which is based on the facts, and supplier relationships that are mutually beneficial International Council for the Exploration of the Sea (2015). A quality management system (QMS) necessitates a system of quality policies, objectives, and procedures that are cohesive. From an applied standpoint, a policy describing the organization's long-term vision, smart quality objectives for continuous improvement, a structured process with defined inputs and outputs, and quality management elements for the interrelated processes, including corrective actions, internal audit, management review, external audit, preventive action, and stakeholder feedback. According to research, there are two types of collective action problems that states try to solve in order to promote Regional Integration: coordination games and collaboration games. Games of collaboration are the ones in which participants are tempted to breach an agreement for short-term rewards, while games of coordination are the ones in which participants struggle to reach an agreement with one another. Countries that did not wish to establish a supranational entity to manage difficulties involving collective action have gradually built viable enforcement mechanisms by making regional organizations more centralized. This has been done in order to address the issues. They have also focused on finding solutions to coordination issues in a manner that encompasses nations and ecosystems outside of their geographical scope (Yoshimatsu, 2006). Hence the more a Regional Integration Association (RIA) implements QMS, it would resolve more of collaborative problems through institution building. In contrast, the more RIA moves to engage, interact and negotiate with external entities, that would resolve more of the coordination problems.

COMR an answer to the Blue Economic sustainability challenges

Understanding that population increase has brought more significant problems to managing land resources to satisfy the needs of civilization, as well as more than 71% of the world's surface is made up of water bodies that have yet to be exploited for its immense blue economic potential (Lawrence, Suddaby, & Leca, 2009; Mullan et al., 2015). Many nations also have limited or no green economic potential left to be exploited (Borchers, Bowman, Palmer, & Johnston, 2019), realizing that the expansion of agriculture in littoral states is further constrained by factors such as salinity, tidal effects, and rising sea levels and that the maritime-littoral region has an alternative opportunity to experience sustainable economic growth by examining blue economic potential (Van Assche, Hornidge, Schlüter, & Văidianu, 2020). How

ever, the first challenge is how to make the blue economic activities of nations sustainable, as G.P. (Global Player) countries have fought more and cooperated less at sea (Petterson et al., 2021). To exploit the blue economic potential, many scholars suggest it is required to keep international trade and other financial functions at sea in safe and sound conditions, which cannot be achieved without peace, stability, and regional cooperation (Hieronymus & Kalén, 2020; O'Hagan, Paterson, & Le Tissier, 2020; Van Assche et al., 2020). The second concern is how to preserve peace, stability, and blue-collar economic development through regional collaboration (Haas et al., 2021). Any blue economic activity has a measurable positive impact on Social Development (S.D.) and Environment Protection (E.P.) of a nation (Santos et al., 2020; Weise et al., 2020). In addition, the oceans are humanity's last and vast source of resources for realizing their cherished dreams of a just and better life for all members of society, a protected environment (Folke et al., 2021). Finding the right set of blue economic functions in this expansion of the region-specific Comprehensive Ocean Management Regime (COMR) is required would be another challenge. It would be determining how those blue economic functions positively affect sustainability (social, environmental, and economic) dimensions or whether there is a relationship between blue economic functions and sustainable development objectives (Bax et al., 2020; Klinger et al., 2018). As every ocean or sea or bay or Gulf or Strait beyond the jurisdiction of the national territory, which is termed as The Area in the United Nation's Convention on the Law of the Seas, has its particular features and diversities a single set of Blue Economic Functions could not be applicable in all ocean areas, hence while considering COMR, it requires to identify an appropriate set of blue economic functions for the ocean/ sea/ gulf/ bay maritime littoral region in consideration, prior proposing a COMR model for achieving sustainable growth targets through blue economic functions. Moreover, oceans keep on supplying a plethora of resources and have the ability to fulfill the increasing demands of the world's population (Vij et al., 2017). As a result, non-global player nations such as Bangladesh face significant policy problems in the maritime resources, conservation and acquisition. The fisheries sources with in EEZ (Exclusive Economic Zone) and petroleum and natural gas on the continental shelf are perhaps the most economically significant of these resources (Asaad et al., 2018). Within 200 miles of the EEZ, 90% of live marine resources are extracted (Bennett, 2019). Maritime exploration has shown the offshore distribution of economically valuable minerals. Manganese oxide nodules, are found in the deepest parts of oceans within high seas, which are known as the common heritage of mankind. Other non-living resources outside polymetallic nodules include salt, Sulphur, gravel, sand, phosphate, and hydrocarbons. (Beunen, Patterson, & Van Assche, 2017). The continental shelf's undiscovered oil potential is believed to be greater than 60 percent of total known reserves of world (Bennett et al., 2019; Biermann, Pattberg, & Zelli, 2010a). However, because most countries in the Bay of Bengal maritime-littoral region, including Bangladesh, continue for using 1982 UNCLOS-III as basis for their ocean policies, the Convention serve via prism through which Ocean Policy will be dispensed into various levels of action and different zonal and functional issues in this sea area (Blasiak et al., 2019; Chakraborty, Gasparatos, & Blasiak, 2020; Jouffray et al., 2020; Vij et al., 2017). Navigation and aviation, maritime environment protection and preservation, ocean resource conservation and acquisition, marine scientific research, pirate prevention, control, naval armaments control, immigration monitoring and other major ocean policy concerns must be integrated (Jouffray et al., 2020).

The shipping sector is growing at a very fast rate. (Bennett et al., 2019; Jouffray et al., 2020) say that innovation and technology are leading to the growth of marine companies and the start of new ones. (Cohen et al., 2019; Novaglio et al., 2021) It is generally agreed that there is a need for a sustainable paradigm that allows social and economic growth to happen without harming the environment or making things unfair. (Bennett et al., 2019; Klinger et al., 2018; Voyer et al., 2018) say that conflicts and regional economic interests amid temporary economic benefits or current requirements and enduring prosperity and the healthy ocean are attaining more obvious and causing government problems. Pollution, Climate change, and the loss of species

around the world are all adding to this problem. Because of this, prospects and challenges for sustainable ocean and sea development are at international agenda's top at places like the Ocean conferences, United Nations, World Economic Forum, Our Ocean conferences, and the Increased Level Panel for the Sustainable Ocean Economy (Campbell et al., 2016; Rilov et al., 2019). However, this study finds that a successful Comprehensive Ocean Management Regime (COMR) has some things in common and some things that are unique to each setting. These include environmental setting, local knowledge, raising local initiatives, and the need to share data and build up capacity. In light of the above, this study wants to create QMBEIS (Quality Management for Blue Economic Initiative Sustainability) and TDML-CP (Top Down Maritime Littoral Clustering Policy) as a management tool and policy choice for a region-specific COMR model. But before we can make a COMR model for a certain maritime-littoral area, we need to answer the following three questions: - How can the economies of different countries be managed in a way that is sustainable? How could people in different parts of the world work together to keep peace, security, and steady economic growth? Which acceptable set of blue economic functions would require a COMR development for any maritime-littoral area, and will these blue economic functions contribute to sustainability (i.e., social development, environmental protection, and economic growth)?.

Conclusion

As the apex country of Bay of Bengal, Bangladesh is a high population density growing coastal region that must deal with various coastal, marine, and environmental difficulties and potential prospects. A sustainable framework must be appropriately implemented to maximize the advantages and limit the hazards. The nation's coastline is very dynamic; the Sundarbans, a hydrological region which is the second largest or delta throughout the globe, as well as other ecological and geomorphological characteristics, provide the coast uniqueness in the whole globe. Moreover, the marine environment is deteriorating and is expected to worsen. It is due to marine pollution, land pollution, the information lack along with, the least level of collaboration, brackish water shrimp farming, unsustainable fish harvesting, insufficient management methods, and uncoordinated or unplanned development activities. The lack of regional collaboration and inter-sectoral coordination has prevented the country from finding practical solutions to its coastal and transboundary problems. A significant amount of pressure may get placed on the marine environment by the government's present plans for development operations within the regions, integrating deep ocean and coast, including as the development of the deep-sea port, oil and gas exploration activities, and ecotourism. Therefore, it is reasonable and essential to do research on enhanced management for rising coastal and ocean concerns, with potential future challenges and possibilities, in order to come up with sustainable solutions that are in line with the post-2020 sustainable development goal. The waters also serve as the final and most significant source of blue economic resources with tremendous potential for sustainable development. The expanding population puts further strain on the land resources of nations and leaves many with few or no options for green economic expansion. The future of achieving the SDGs globally depends on the durability of projects like those in the blue economy. With this study, the researcher desires to help find a sustainable approach to blue economy activities and pathway to sustainable blue growth. Sustainable blue economic initiatives can ensure the achievement of global SDG (sustainable development goals). However, the sustainability of blue economic functions remains a significant challenge due to the limited capacity of NGP (non-global player) countries, vastness of maritime affairs or mega infrastructure plans, and jurisdictional limitation on open seas; this research aims to resolve this challenge and unleash benefits of blue economic functions and resources for entire mankind through sustainability dimensions of social development, environment protection, and economic growth. Future researchers may replicate this concept to propose region-specific COMR for other maritime-littoral regions of the world.

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