

**NON-TRADITIONAL MARITIME SECURITY CHALLENGES IN
INDIAN OCEAN AND REGIONAL RESPONSE: ROLE OF
PAKISTAN**

By

LARAIB ALI

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Thesis/ Dissertation Title: **NON-TRADITIONAL MARITIME SECURITY CHALLENGES IN INDIAN OCEAN AND REGIONAL RESPONSE: ROLE OF PAKISTAN**

Submitted by: **Laraib Ali**

Registration #: **20 MPhil/IR/21**

Masters of Philosophy
In International Relations

International Relations
Discipline

Dr. Maliha Zeba Khan

Research Supervisor

Signature of Research Supervisor

Dr. Muhammad Riaz Shad

HOD (IR)

Signature of HOD (IR)

Prof. Dr. Khalid Sultan

Dean (FSS)

Signature of Dean (FSS)

Brig. Syed Nadir Ali

Pro-Rector Academics

Signature of Pro-Rector-ACAD

CANDIDATE DECLARATION FORM

I Laraib Ali

Daughter of Ali Haider

Registration # 20 MPhil/IR/S21

Discipline of International Relations

Candidate of **Masters of Philosophy** at the National University of Modern Languages do hereby declare that the thesis: **NON-TRADITIONAL MARITIME SECURITY CHALLENGES IN INDIAN OCEAN AND REGIONAL RESPONSE: ROLE OF PAKISTAN** submitted by me in partial fulfillment of MPhil degree, is my original work, and has not been submitted or published earlier. I also solemnly declare that it shall not, in future, be submitted by me for obtaining any other degree from this or any other university or institution.

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DEDICATION

I dedicated this thesis to my parents, **Mr. Ali Haider** and **Mrs. Riffat Shamim** who have been my constant source of love and encouragement throughout my academic pursuits. Their unwavering support and belief in me have kept me motivated during the most challenging times.

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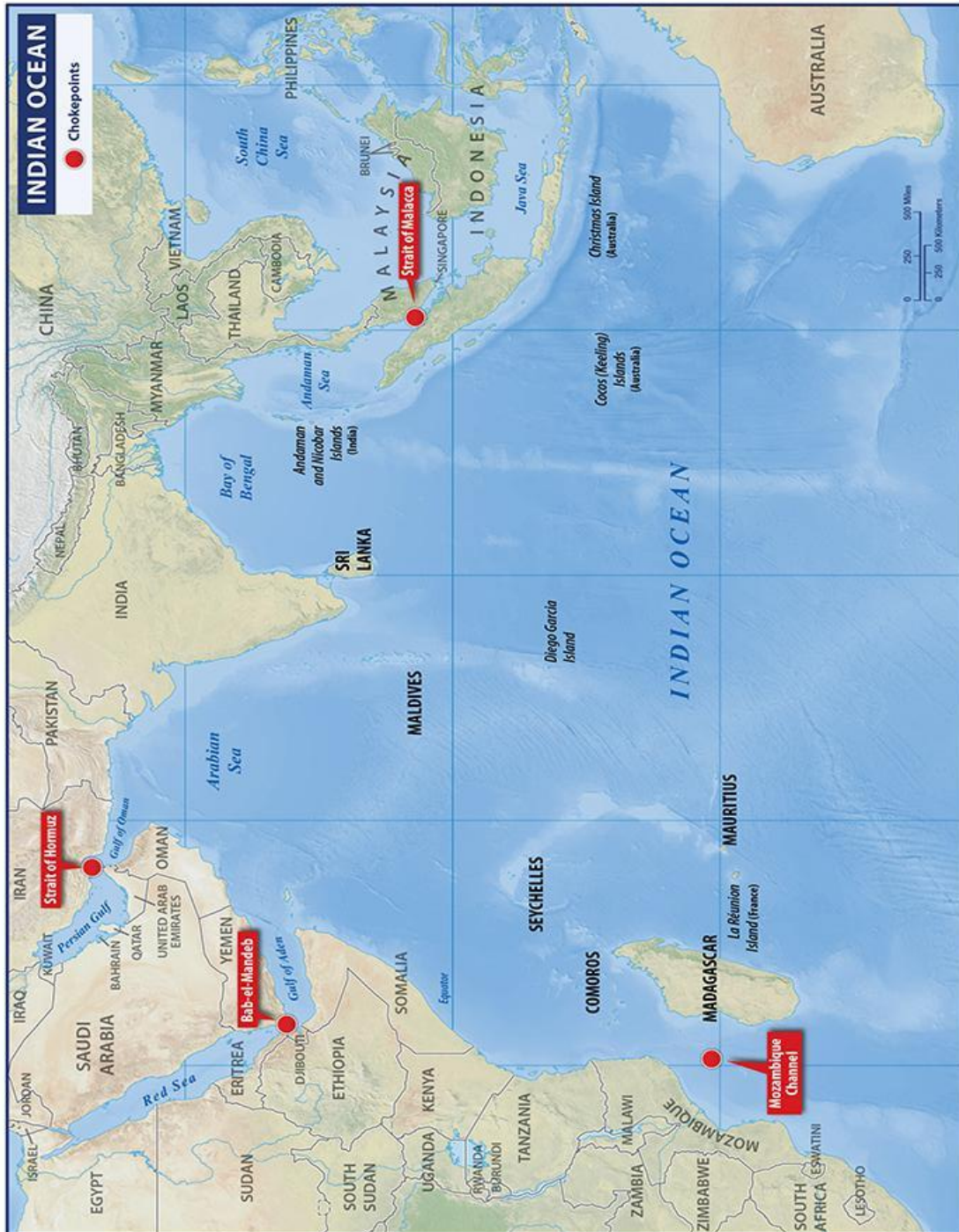
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Map 1: Indian Ocean



Source: Web Image

Map 2: Golden Crescent



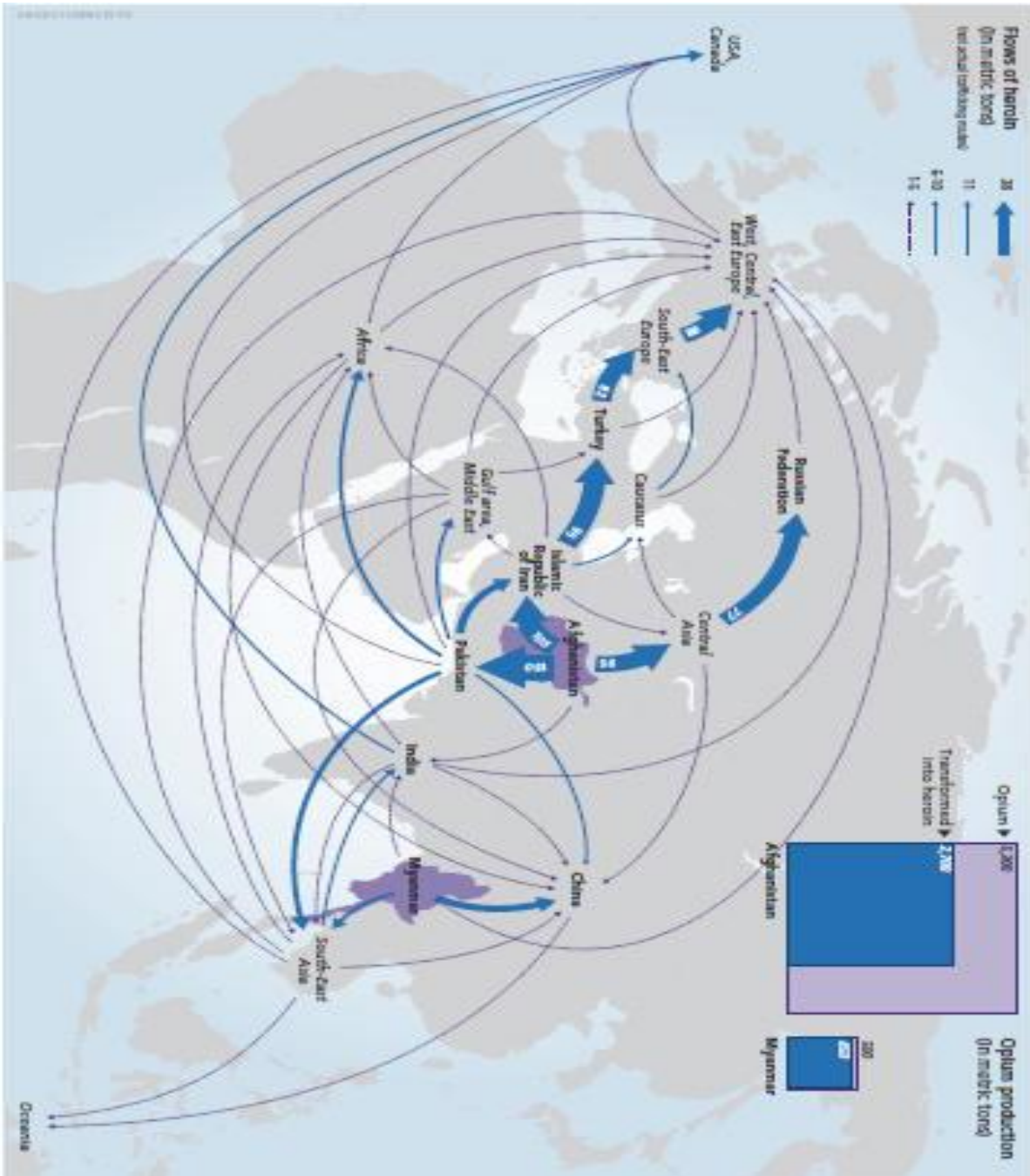
Source: Web Image

Map 3: Golden Triangle



Source: Web Image

Map 4: Global Drug Flows 2010 report¹



Source: Global Drug Report

¹ United Nations Office on Drugs and Crime, WORLD DRUG REPORT 2010, (Vienna: United Nations, 2010), accessed June 20, 2022, https://www.unodc.org/documents/wdr/WDR_2010/World_Drug_Report_2010_lo-res.pdf.

List of Abbreviations

APEC.....	Asia-Pacific Economic Cooperation
BIMCO.....	Baltic and International Maritime Council
CARICOM.....	Caribbean Community
COAS.....	Chief of Army Staff
CPEC.....	Pakistan China Economic Corridor
CSCAP.....	Council for Security Cooperation in Asia Pacific
CTF.....	Combine Task Force
DIOZP.....	Declaration of the Indian Ocean as a Zone of Peace
ECOWAS.....	Economic Community of West African States
EEZ.....	Exclusive Economic Zones
EU.....	European Union
FAO.....	United Nations Food and Agriculture Organization
GCC.....	Gulf Cooperation Council
GFCS.....	Global Framework for Climate Change
GMCP.....	Global Maritime Crime Programme
ICC.....	International Chamber of Commerce
ICS.....	International Chamber of Shipping
IMB.....	International Maritime Bureau
IMO.....	International Maritime Organization
IMX-22.....	International Maritime Exercise 2022
INDARE.....	Indian Ocean Data Rescue Initiative
INGOs.....	International non-governmental Organizations

INTERCARGO..... International Association of Dry Cargo Shipowners
 INTERTANKO.....International Association of Independent Tanker
 IOC.....Indian Ocean Commission
 IOMACIndian Ocean Marine Affairs Cooperation
 IONS.....Indian Ocean Naval Symposium
 IORIndian Ocean Region
 IORA.....Indian Ocean Rim Association
 IORC..... Indian Ocean Research Group
 IOT.....Indian Ocean Territory
 IOTC..... Indian Ocean Tuna Commission
 IP..... International Politics
 IRISL.....Islamic Republic of Iran Shipping Lines
 ISA..... International Seabed Authority
 IUUF..... Illegal, Unreported, and Unregulated Fishing
 IWCO..... Independent World Commission on the Oceans
 KCCDZ..... Karachi Coastal Comprehensive Development Zone
 KoFHA..... Korangi Fisheries Harbour Authority
 KPT..... Karachi Port Trust
 LoN..... League of Nations
 MERCOSUR..... Southern Common Market
 MNCs..... Multinational Cooperations
 MOMA..... Ministry of Maritime Affairs Pakistan
 MSR..... Maritime Silk Route

NAFTA.....	North American Free Trade Agreement
NATO.....	North Atlantic Treaty Organization
NTS.....	Non-Traditional Security Threats
NMDCP.....	National Maritime Disaster Contingency Plan
NPS.....	New Psychoactive Substances
NOSCP.....	National Oil Spill Contingency Plan
OCIMF.....	Oil Companies International Marine Forum
OEF-MIO.....	Interdiction Operation
PA	Pakistan Navy
PMA.....	Pakistan Marine Academy
PNSC.....	Pakistan National Shipping Corporation
PIRA.....	Provisional Irish Republican Army
PQA.....	Port Qasim Authority
R&D.....	Research and Development
ReCAAP-ISC.....	The Regional Cooperation Agreement on Combating Piracy and Armed Robbery in Asia and the Information Sharing Centre
RMSP.....	Regional Marine Security Patrols
RSC.....	Regional Security Complexes
SACEP.....	South Asia Cooperative Environment Programme
SADC.....	Southern African Development Community
SAR.....	Search and Rescue
SASP.....	South Asia Seas Programme
SCO.....	Shanghai Cooperation Organization

SHADE..... Shared Awareness and De-confliction

SLOC..... Sea Lanes of Communication

SoM..... Smuggling of Migrants

SWIOFC..... South West Indian Ocean Fisheries Commission

TLP.....Tehreek-e-Labbaik Pakistan

TTW.....Territorial Waters

PCG.....Pakistan Coast Guards

PMSA..... Pakistan Maritime Security Agency

POL.....Petroleum, Oil and Lubricants

PTPA.....Prevention of Trafficking in Persons Act

QUAD..... Quadrilateral Security Dialogue

UEMOA..... West African Economic and Monetary Union

UN.....United Nations

UNDP..... United Nations Development Program

UNICEF..... United Nations Child’s Labour Fund

UNLOCS..... United Nations Law of the Sea Convention

UK..... United Kingdom

USA..... United States of America

USSR..... Union of Soviet Socialist Republics

WW2..... World War 2

WAEC..... West African Economic and Monetary Community

WPNS..... World Naval Symposium

WWF..... The World Wild Life fund

Abstract

Non-traditional security challenges are evolving in the maritime domain and added into the complexity of threats and cause tensions and chaos in the region of Indian Ocean. The research revolves around the socio-economic non-traditional security challenges and their solutions, which are hindrances to peace and stability not only for Pakistan, but the entire Indian Ocean Region. With increasing role of states as well as non-state actors in IOR, there is consequential increase in NTMS challenges, moreover, regional actors find themselves in a dire need to ensure maritime security. Therefore, Pakistan is in quest of deal with these NTMS challenges effectively in its maritime zones as well as area of responsibility assigned by IMO within Indian Ocean. The main objectives of the research is to identify non-traditional maritime security threats in Indian Ocean Region, highlight the role of regional maritime-related organizations within IOR and to analyze their efficacy, discuss non-traditional security of Pakistan in maritime domain, evaluate the mechanisms and procedures designed by Pakistan to enhance peace and stability in the region of Indian Ocean and evaluate the possibility of new mechanisms that Pakistan might use as a guiding post for policy initiatives. Qualitative research design is used by the researcher and it is explanatory in nature. Data is collected through both primary and secondary sources, including archives (PMSA), structured interviews (qualitative in nature), and existing literature through secondary sources like books, research papers, reports, blogs, and existing literature on internet. Furthermore, conceptual framework is designed by the synthesis of securitization and neo-liberal institutionalism theories. This research is an attempt to gather existing knowledge regarding NTS threats in IOR and provides a framework to deal with non-traditional security threats in Indian Ocean Region and describes the role of Pakistan in region.

Introduction

Security is a phenomenon to feel safe from all kinds of threats and endangerments. Traditionally, the concept of security is associated with the military, wars, and use of force; however, in contemporary era, security has been linked with both traditional and non-traditional threats. According to Copenhagen school of thought, the concept is wide and spread in all facets of life including economy, society, environment, and politics along with the military. The non-traditional security (NTS) threats cannot be separated from the traditional security paradigm in the maritime domain.

Similarly, in the contemporary era, non-traditional security (NTS) challenges emerge in the maritime domain as a consequence of globalization and technological revolution. Maritime security is in the spotlight not only due to trade and commerce, but it is a source of living and food for the people residing in coastal areas. Still, the concept of maritime security is evolving, although, concept of maritime security is largely described in accordance with security of vessels, offshore economic activities, and ocean environment from a number of challenges, such as environmental degradation, climate change, piracy, armed robbery, maritime terrorism, illicit trafficking and smuggling by sea, i.e. narcotics, small arms, human, commodities, liquor and currency, and cargo theft, etc.² Historically, Indian Ocean remained very important for trade and other activities.

For millennia, Indian Ocean has served as a major conduit for religious, cultural, social, economic, and linguistic exchange. The Indian Ocean Region (IOR) has risen to prominence as host of major energy and economic corridors. Furthermore, it connects three continents, including Africa, Asia, and Australia. It consists of 37 littoral states.³ There are five controlled territories, including Ashmore and Cartier Islands, British Indian Ocean Territory, Christmas Island, Cocos (Keeling) Islands, and Heard Island

² Lutz Feldt, Peter Roell, and Ralph D. Thiele, "Maritime Security – Perspectives for a Comprehensive Approach," *Institut für Strategie- Politik- Sicherheits IPSW*, no. 222 (April 2013), accessed March 17, 2022, https://www.files.ethz.ch/isn/162756/222_feldt_roell_thiele.pdf.

³ National Intelligence Council Report, *The Future of Indian Ocean and South China Sea Fisheries: Implications for the United States*, (National Intelligence Council Report, 2013), accessed March 17, 2022 <https://www.dni.gov/files/documents/nic/NICR%202013-38%20Fisheries%20Report%20FINAL.pdf>.

and McDonald Islands. Moreover, Madagascar, Comoros, Mauritius, and Seychelles are sovereign islands that are in the waters of African continent. Indonesia has 17,508 islands of which 600 are inhabitants; however, the main islands include Sumatra, Java, Borneo, Sulawesi, and New Guinea and there are 8222 tiny islands in Australia, but the main islands are Tasmania, Kangaroo, Melville, and Groote, etc. Indian Ocean has remained the center of attention among regional and international powers because of its geographical location, natural resources, and warm waters.⁴

America has a presence at Diego Garcia; this is a part of British IOT. Moreover, the interaction of external and regional powers, including USA, France, UK, India, Japan, and China have been creating both traditional and non-traditional challenges in the region, such as social, economic, and environmental challenges. Nevertheless, empowerment and interference of non-state actors adds on to the complexity of non-traditional security challenges in the region. Although there is competition among different powers, NTMS demands cooperation among different actors. Furthermore, Pakistan has been kept away from regional cooperation due to the diverging interests of regional actors.⁵ In history, there are several non-traditional attacks on Pakistan in the maritime domain,⁶ including the attack on Karachi Shipyard and Engineering Works in 2014.⁷

Non-traditional maritime security (NTMS) affects human security directly. It includes mass migration, resource depletion, infectious diseases, natural disasters, and transnational crime. Their nature is more complex than the traditional security challenges. There are number of organizations working in IOR to counter NTMS including IORA, GCC, and IMO, etc.

The phenomenon of regionalism has emerged with the increase in economic integration near after WW2. The key purpose of the regional institutions and organizations is to

⁴ See Map 1

⁵ Safia Mansoor, "Enhancing Pakistan's Maritime Domain Awareness through the BRI," Center for Strategic and Contemporary Research (CSCR), October 23, 2020, accessed March 17, 2022, <https://cscr.pk/explore/themes/defense-security/enhancing-pakistans-maritime-domain-awareness-through-the-bri/>.

⁶ Mehran Naval Base (PNS Mehran Naval Attack), accessed March 17, 2022.

⁷ Karachi Shipyard & Engineering Works LTD, Steel Cutting Ceremony of 4th Fast Attack Craft (Missile) Held at Karachi Shipyard, (Karachi: Karachi Shipyard & Engineering Works LTD, 2016), accessed March 18, 2022, <https://www.paknavy.gov.pk/Press%20Release%2029%20Dec%2016.pdf>.

make friends in international sphere, achieve common goals, and strengthen economy, trade, security, tourism, cultural, and political linkages.⁸ So, Pakistan is also playing its role in region to enhance regional cooperation.

Pakistan is the party to a number of conventions, including London Convention on Prevention of Polluting the Environment of Ocean (1972) which helps not only to protect environment but also secure the economic conditions, such as fishery because there is a significant population who are dependent on fisheries. Pakistan is the part of Indian Ocean Naval Symposium (IONS), member of SAARC and a part of several naval exercises including PASSEX 2020 to promote regional cooperation.

Furthermore, under PNS Alamgir, Pakistan has been providing medical assistance to Kenya. Pakistan Navy has been acquainting with African states since 2021 under “engage African policy” to explore new possibilities of cooperation and development in the region with African states.⁹ Maritime security agencies, coast guards, related departments, and navies of regional states are maintaining the security of Indian Ocean.

Pakistan has the Ministry of Maritime Affairs, Pakistan Maritime-Security Agency, Pakistani Navy, and Pakistani Coast Guards. Pakistan Navy and law enforcement agencies related to maritime domain do cooperate with international agencies and states to counter non-traditional maritime security threats (NTMS). Pakistan has also introduced the National Maritime Disaster Contingency Plan (NMDCP), national oil spill contingency plan, and disaster response centers to counter NTMS challenges in its maritime zones and Area of Responsibility.¹⁰

Furthermore, a number of courses have been introduced and taught in different universities, awareness-building programs are launched, and think tanks are researching different aspects of maritime and Indian Ocean. Pakistan Navy is also

⁸ Michael J. Oghia, "The rise of regionalism," FOREIGN AND SECURITY POLICY, November 4, 2020, accessed March 18, 2022, <https://www.ips-journal.eu/topics/foreign-and-security-policy/the-rise-of-regionalism-4771/>.

⁹ International the News, "PN ship sets up free medical camp in Kenya," International the News, January 22, 2022, accessed March 18, 2022 <https://www.thenews.com.pk/print/927171-pn-ship-sets-up-free-medical-camp-in-kenya>.

¹⁰ Pakistan Maritime Security Agency, Operation: Marine Pollution Control, (Karachi: Pakistan Maritime Security Agency, n.d), accessed March 19, 2022 <https://pmsa.gov.pk/operations/marine-pollution-control>.

conducting maritime security workshops. However, there is a need for a proper mechanism to counter non-traditional socio-economic challenges in Indian Ocean.

The study is focusing on Pakistan's socio-economic challenges in maritime domain, such as blue economy, liquor and currency, illegal fishing, drug smuggling, human trafficking, over-exploitation of resources, education, population (gender), health, facilities, housing, and employment.¹¹ Pakistan cannot deal with the existing and evolving non-traditional socio-economic challenges in Indian Ocean alone; therefore, there is a need for extensive cooperation in the maritime domain. It does not only open doors of economic integration, cultural exchange, the revival and deepening of relations with African and Arab states, and strengthening existing ties with different states, nevertheless, it secures the national security of Pakistan.

Ultimately, it does not only help Pakistan to counter NTS in maritime domain, but also aids to resolve socio-economic issues like poverty, illiteracy, unemployment, etc. Therefore, there is a need to take effective steps for regional cooperation to sustain maritime security in IOR. Pakistan is concerned about regional collaboration and cooperation, law enforcement, and good governance in IOR not only for its security but for the security of all the states and living beings belonging to the region because no state or nation alone fights non-traditional security threats in maritime domain.

Problem Statement

Due to innovations and technological advancements, the concept of maritime security has been transitioned from traditional to non-traditional domain and making borders and boundaries largely ineffective. The socio-economic non-traditional maritime security (NTMS) challenges and threats affecting socio-economic conditions are now broader than ever due to advancements in means of communication. Many entities and actors (state and non-state actors) are active in the region and endeavour to achieve their goals, this creates a number of non-traditional socio-economic challenges in the region not only for Pakistan, but for

¹¹ Illyani Ibrahim, Azizan Abu Samah, and M. Z. Asmawi, "REVIEWS ON THE SOCIO-ECONOMIC INDICATORS FOR SPATIAL URBAN SCALE," *PLANNING MALAYSIA* 15, no. 4 (November 2017), accessed March 19, 2022, doi:10.21837/pm.v15i4.324.

all the coastal and littoral states and islands in IOR. Therefore, there is a need for regional cooperation in the maritime domain to deal with such socio-economic non-traditional security threats. The key purpose of the research is to promote peace, cooperation, safe navigation, economic sustainability, and human security in the region through reliable channels with the proper mechanism. This study exposes the regional strategic policy consultations, which help for the betterment of inter-regional relations. The study also identifies existing policy gaps, unknown challenges, and threats that have been analyzed in the context of maritime security, and advising feasible measures to protect Indian Ocean Region from socio-economic non-traditional security threats. This study acts as a precursor to researchers, policy makers, and activists.

Objectives of Study

- To identify non-traditional maritime security threats in Indian Ocean Region
- To highlight the role of regional maritime-related organizations within IOR and to analyze their efficacy
- To discuss non-traditional security of Pakistan in maritime domain
- To evaluate the mechanisms and procedures designed by Pakistan to enhance peace and stability in the region of Indian Ocean
- To evaluate the possibility of new mechanisms that Pakistan might use as a guiding post for policy initiatives

Literature Review

A thematic literature review has been followed for this research. It focuses on three themes, including theory, maritime security in Indian Ocean Region, and regional response. The literature is available on the socio-economic NTMS in IOR and role of Pakistan to counter such threats, but it's scattered. Moreover, there is significant literature available on securitization and neo-liberal institutionalism, but synthesis is not available in compiled form in the context of NTMS in IOR.

Table 1: Themes of Literature Review

Theory	Maritime and Non-Traditional Security Threats in IOR	Regional Response
<ul style="list-style-type: none"> • Essentials of International Relations by Karen A. Mingst, Heather Elko Mckibben, and Ivan M. Arreguín-Toft. • Theories of New-Regionalism: A <i>Palgrave Macmillan Reader</i> by Palgrave Macmillian. • “Towards a Theory of Securitization: Copenhagen and Beyond” by Holger Stritzel. • Security: A New Framework for Analysis by Barry Buzan, Ole Wæver, and Jaap de Wilde. 	<ul style="list-style-type: none"> • Indian Ocean Region: Maritime Regimes for Regional Cooperation by Manoj Gupta. • Maritime Perspectives 2016 by Vijay Sakhuja and Gurpeet S Khurana. • On the Move: Migration Challenges in the Indian Ocean Littoral is produced by Stimson. • Maritime Terrorism Risk and Liability by Michael D. Greenberg, Peter Chalk, Henry H. Willis, Ivan Khilko, and David S. Ortiz 	<ul style="list-style-type: none"> • Regionalism, globalism and complexity: a stimulus towards global IR? by Giovanni Barbieria • Maritime Security Governance: Pakistan Perspective by Mohid Iftikhar • Blue Economy and Maritime Cooperation in the Bay of Bengal: Role of Bangladesh by Mohammad Rubaiyat • Cooperative Mechanisms to address Non-Traditional Maritime Security Threats in the Indian Ocean Region (IOR) by Captain Deepak Singhal

	<ul style="list-style-type: none"> • “What is Maritime Security?” by Christian Bueger • Non-Traditional Security Challenges to Pakistan by Report Ghazala Jalil et al. • “Maritime Security – Perspectives for a Comprehensive Approach” by Lutz Feldt, Dr. Peter Roell, and Ralph D. Thiele. 	
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Source: Researcher has developed the table.

Migst, McKibben, and Toft explain there are different lenses to describe, explain, and predict the phenomena. The book discusses the most prominent perspectives, including neo-liberal institutionalism. In 1970s, neoliberal institutionalism has come into existence as a result of observations on cooperation and coordination in international system.¹² Furthermore, it defines various approaches to analyse international relations.

In contrast to realist predictions, neo-liberal institutionalism cooperation is difficult to obtain due to their concern for relative gains and the security problem. Liberals such as Robert O. Keohane and Joseph S. Nye have questioned: “why there is so much collaboration, despite the international system's anarchy”. Their explanation is found in their three part concept of complex interdependence.

First, states are linked through a variety of routes, not simply formal exchanges. Informal connections between governments are common, and players such as

¹² Karen A. Mingst, Heather Elko McKibben, and Ivan M. Arreguin-Toft, *Essentials of International Relations* (New York: W.W. Norton & Company, 2018), accessed March 17, 2022,.

multinational businesses operate across state borders, bringing states together in significant ways.

Second, the issues are not categorized. States are not just concerned about security issues, but also care for shared interests. Consequently, there is a decrease in use of military force. The key examples are environment and trade which are given by Mingst, Mckibben, and Toft. When it comes to absolute gains, cooperation becomes a critical component of states' objectives.

The benefits of cooperation depend on the period of interaction among states, balancing a states' motivations to exploit the acts of others for its short-term advantage. This is especially true when it comes to non-traditional security problems like economy, where everyone can be benefited from trade and investment cooperation. Reciprocity over time can assist sustain this motivation, especially when states' connections are characterized by complex interdependence and reciprocity can be executed through numerous channels and concerns. As a result, military strength isn't the only source of power. Both economic and social sectors are important in terms of power.

According to neoliberal institutionalists, international bodies, organizations, and treaties, plays a vital role in promoting cooperation and collaboration. International organizations provide a secure framework for interactions, fostering a culture of constant connection and reciprocity. Moreover, authors have given the example of EU, there were number of issues among states, but resolved with time. International treaties are also important in establishing the expectation of ongoing engagement. For example, the North American Free Trade Agreement, which was negotiated by the US, Canada, and Mexico, created a climate in which those countries could expect to have long-term trade connections.

Researcher identifies that the author emphasizes on different lenses to examine international events and occurrences, but it does cover the approach of neo-liberalist to counter non-traditional security challenges. Moreover, it does not cover the synthesis of securitization and neo-liberal institutionalism to counter non-traditional threats in maritime domain. It does not provide any mechanism to counter socio-economic challenges in Indian Ocean Region.

At early stages, regionalism means that policy is focused on removing trade barriers within an area while doing nothing to increase external tariff barriers to the rest of the world. Furthermore, Macmillian argued that since the late 1980s, there has been an explosion of regionalist programmes and ideologies almost everywhere in the globe. The European Union's (EU) broadening and strengthening is arguably the most contentious illustration of this tendency. The reemergence, transformation, or intensification of regional projects and organisations, such as the Southern Common Market, ASEAN, NAFTA, SADC, the Economic Community of West Africa, and so forth have been witnessed in different parts of the world.¹³

The Second World War and the severe effects of interwar nationalism served as the foundation for the first wave. It began to take off in Western Europe in the late 1940s, and despite being transferred to a number of other Southern regions, it vanished in the late 1960s and early 1970s. Midway through the 1980s, the second wave started to emerge, this time beginning in Western Europe (with the White Paper and the Single European Act) and gradually expanding to become a more global phenomenon. Old and current regionalism share both similarities and continuities. In the 1980s and 1990s, for instance, a lot of regional programmes and organisations that had been started during the time of the old regionalism were merely revived or reinstated.

Macmillian also discusses the multilateral approach of regionalism. Multilateral regionalism would entail regular interactions between all regional bodies, forming a localised version of global governance. A world order like that is only currently visible in its earliest stages. Trans-regional communication has been undoubtedly hampered by the fact that many of the new regions are still inherently fragile structures. However, a regionalized world resulting from this early stage would work toward a multicentric world order with self-centered but not autocratic areas, each with roots in ancient civilizations, and would oppose the homogenising tendency of modern globalisation. The areas should be internally diverse, much like past empires, which gave humanity a functional government for a considerably longer period of time than nation-state system.

¹³ F. Söderbaum and T. Shaw, eds., *Theories of New Regionalism: A Palgrave Macmillan Reader* (Basingstoke: Springer, 2003rd) accessed March 19, 2022.

Additionally, the areas should cohabit in a normative world of convergent cosmopolitan ideals that was developed through intercivilizational communication and intersubjective understanding. In general, the movement towards regionalism during the end of the 1980s and in the 1990s was a step towards it rather than serving as an alternative to globalism.

Researcher finds the author focuses on the new-regionalism approach which is the transformed form of regionalism. The institutions are formulated over time all across the world for cooperation and collaboration, the key examples are EU and ASEAN; however, the regionalism was adopted to reduce the tariffs and enhance trade all across the regions and world. The book does not discuss the non-traditional security threats in the region of Indian Ocean. Furthermore, role of Pakistan in countering NTS in IOR has been fully ignored in the debate.

Gupta explains the international security has entered into the new phase.¹⁴ The peace and security meanings and definitions become broader with the empowerment of non-state actors and economic interdependence. Therefore, it is difficult for a state to tackle security challenges alone. Major challenges, include transnational crimes like international terrorism, drug trafficking, illegal immigration, and natural challenges, such as, environmental degradation, and resource scarcity.

In Indian Ocean Region, South Asia is the best example of regional security complexes (RCS). RCS is a collection of units whose main securitization, de-securitization, or both processes are so intertwined that it is unreasonable to analyse or address their security issues separately. Furthermore, Indian Ocean has been used as a source of communication due to its geostrategic location between Atlantic and Pacific Oceans and its security is important for all the nations residing on it.

Regional order of Indian Ocean has been transforming with the evolution in international system. It was open for all during ancient time, in 1500 to WW2, it was intensified because of great power politics and under the rule of British Empire, after WW2, Britishers withdrew from the region, but still have territories. Moreover, in the

¹⁴ Manoj Gupta, *Indian Ocean Region: Maritime Regimes for Regional Cooperation* (Berlin: Springer Science & Business Media, 2010) accessed March 21, 2022.

era of Cold War, the region has again intensified due to insurgencies, terrorism, boarder clashes, arm race and invention of nuclear. After the Cold War, USA become sole super power and the extra-regional powers have gained dominance in the regional affairs; however, one state cannot control over the regional challenges of the digital age; therefore, the crisis is increasing and challenges are enhancing day by day due to the absence of regional order in Indian Ocean.

First initiative was taken by the UN in 1971 to make the region of Indian Ocean to address the security issues under the Declaration of the Indian Ocean as a Zone of Peace (DIOZP) initiative. After that another initiative has been launched in 1985 under UN convention law of sea; however, the cooperation and coordination for economic benefits have been started under the Indian Ocean Marine Affairs Cooperation (IOMAC).

According to a 1995 International Forum on the region, number of intergovernmental, nongovernmental, and other Indian Ocean organisations have been initiated with missions for collaboration. Furthermore, The Indian Ocean Rim Association for Regional Cooperation (IOR-ARC) has launched for economic integration among rim states of Indian Ocean. Unfortunately, after a decade of its inception, it was failed badly.

Researcher analyzes that the counter strategy is absent to counter non-traditional security threats in IOR in this book. Moreover, the book also reveals the absence of regional order in Indian Ocean Region and does not explain the role of Pakistan in countering NTS threats in maritime realm.

Sakhuja and Khurana explains the maritime doctrine and strategy in context of India's response to CPEC, in the second phase it explains the piracy during Mughal period, also discuss the piracy at Somalian region, the chines capabilities and forces at Indo-Pacific, and its activities in the Indian Ocean Region.¹⁵

Researcher analyses that authors does not discuss the nature of non-traditional maritime challenges in Indian Ocean Region, role of Pakistan in countering non-traditional

¹⁵ Vijay Sakhuja and Gurpreet S. Khurana, eds., *Maritime Perspectives 2016* (New Dehli: National Maritime Foundation, 2017 accessed April 25, 2022,).

security threats, neoliberal institutionalism and regionalism. Furthermore, it does not cover the securitization theory in context of non-traditional security threats in IOR.

The authors describe that the migration has direct links with the climate change, political disruptions, and economic factor. Migration due to changes in the climate is not new, there are many examples in history that masses migrated due to climate intensification. However, the situation is intense and critical due to the securitization of massive migration and prediction of increase in number of migrant refugees in different reports.¹⁶

Norman Meyers, a frequently acknowledged expert on the subject has presented in the paper “Environmental Refugees: An Emergent Security Issue, in 2050, there may be 200 million climate migrants.” On 13th economic forum.¹⁷ In 2010, there may be 50 million "environmental refugees," according to a 2005 warning from the UN University's Institute for Environment and Human Security.¹⁸ By the end of the century, climate change migration may have rendered 125 million people homeless, including 75 million people from Bangladesh alone.¹⁹

Furthermore, the author builds an argument, as a result of natural disaster, migration is temporary because people prefer to go back to their native areas, but the migration results due to climate change is permanent. The small littoral states and islands are more vulnerable due to this situation because due to climate change, sea level rises, ocean acidification enhances, species endanger, and there is a chance of drowning of land under the oceans.

Therefore, Maldives' president Mohamed Nasheed announced plans to create a sovereign wealth fund in 2008 that would be funded by tourism revenue and could be used to purchase land in other nations to rehouse the island nation's 300,000 residents

¹⁶ Ellen B. Laipson and Amit Pandya, eds., *On the Move: Migration Challenges in the Indian Ocean Littoral* (Washington DC: The Henry L. Stimson Center, 2010) accessed April 1, 2022.

¹⁷ Michael E. Ikehi et al., "Farming Families and Climate Change Issues in Niger Delta Region of Nigeria: Extent of Impact and Adaptation Strategies," *Agricultural Sciences* 05, no. 12 (2014), accessed April 10, 2022, doi:10.4236/as.2014.512124.

¹⁸ Sudhir M. Rajan, *Climate Migrants in South Asia: Estimates and Solutions*, (Chennai: Green Peace, 2008), accessed April 12, 2022 <https://wayback.archive-it.org/9650/20200429073925/p3-raw.greenpeace.org/india/Global/india/report/2008/3/blue-alert-report.pdf>.

¹⁹ *Ibid.*

in the event that the land became submerged due to rising sea levels. This statement served as a harsh reminder of the current humanitarian situation. But as a result of this intense migration, number of religious, political, cultural, and ethical issues arise.

Researcher examines that the authors cover all the aspects of migration and its consequences on the world. Author does not focus on other non-traditional security threats in Indian Ocean Region. Pakistan's role in mitigating such challenges have not discussed. Furthermore, the neo-liberal institutionalism and regionalism approach is fully ignored.

Greenberg, Chalk, Willis, Khilko, and Ortiz open up a debate with the change in security dynamics after the cold war. New kinds of challenges have been emerged worldwide. Moreover, the new kinds of challenges are transnational in nature and cannot be addressed by traditional defenses.²⁰

According to the Council for Security Cooperation in Asia Pacific (CSCAP), Maritime terrorism is the commission of terrorist acts and activities which occur inside the marine environment, against ships and fixed platforms, or any of ship or boat's crew members, passengers, or property, coastal infrastructure or communities, including tourist destinations, port regions, and port towns or cities.

Attacks by terrorists can destroy privately owned or possessed property. Attacks can also have an impact on the public sector by destroying government property and obstructing the revenue streams that support public goods and services. Moreover, attacks have both direct and indirect impacts on private and government sector. Such as, business communities and private firms cannot perform their tasks timely because of infrastructure devastation.

Due to terrorist attacks, people, private firms, business communities and public sector do not only suffer because of infrastructure; however, they have psychological impacts as well. Hence, maritime terrorism impacts all facets of life.

²⁰ Michael D. Greenberg et al., *Maritime Terrorism: Risk and Liability* (Santa Monica: Rand Corporation, 2006) accessed April 20, 2022.

Researcher identifies that author explains maritime terrorism overall. They do not focus only Indian Ocean Region. Only on non-traditional maritime security threat has discussed in the book which is maritime terrorism. Securitization, neo-liberal institutionalism, and regionalism are not the part of the debate.

Stritzel explains in article, the debate about social theory has begun in 1980s in Europe, but it took prominence in international affairs in 1990s.²¹ American and Europe realists have dynamic perspectives regarding security theories. Moreover, the idea of securitization has emerged and articulated in Copenhagen School of thought. Securitization comes into existence via Barry Buzan and Ole Waever's speech act. Within a political society, it's an inter-subjective understanding which has developed to perceive anything as an existential threat to a valued referent object, and allowing for a call for immediate and extraordinary steps to address the threat rather than giving a unified perspective, the securitization debate has only just begun to translate the new concept into a more comprehensive security theory. There are three layers of securitization.

- 1) The per-formative force of an articulated threat text,
- 2) Its embeddedness in existing discourses and
- 3) The positional power of securitizing actors

The author claims that there is something that poses a threat to the referent objects that is something existential and it is beyond the established games of 'normal' politics. According to Ole Waever's examination of the concepts of traditional security is the idea of security which revolves around the concept of national survival. The idea of security is not associated with the description of performed action; moreover, the rhetorical discourses have the ability to generate a new reality. The mode of exceptionality of Copenhagen School is to deal with an issue in an innovative way and the major consequence of uttering security is to allow an audience to tolerate violations of rules that would otherwise be followed.

²¹ Holger Stritzel, "Towards a Theory of Securitization: Copenhagen and Beyond," *European Journal of International Relations* 13, no. 3 (2007), accessed April 15, 2022, doi:10.1177/1354066107080128.

Butler expresses that speech act is powerful in its way and has influence to hold the authority and bring the change rather than any pre-existing framework which has an ability to empower actors and bring change. There are three elements of comprehensive security defined by the Copenhagen School, including speech act, securitizing actor, and audience.

According to Buzan and Waever, there is a need to understand the concepts of power and inter-subjective establishment of the threat to understand the speech acts. It is mandatory to bring securitized issues in front of a relevant audience. And when a securitizing actor brings the issue in front of a relevant audience, it depends on the audience whether they accept it or reject it.

Holger claims that the Copenhagen school has not clearly defined the relationship between the audience and the securitizing actor. Moreover, audience is significant, but the relevant audience is not defined clearly by them.

The researcher identifies that author does not discuss liberal institutionalism to provide a proper mechanism for policy recommendations of securitization theory. Moreover, it does not discuss the non-traditional maritime security challenges in Indian Ocean and securitizes the NTS challenges in IOR. However, their focus is not securitization of non-traditional security threats in maritime domain.

The Giovanni contends that social interactions lead to the emergence of international political complexity, which necessitates the development of novel strategies for addressing both social and political events. Additionally, regionalism is a result of World War II; nevertheless, the Cold War and the Post-Cold War are when it first emerged. Politics and ideology from various historical eras are what constitute regionalism.²² Two regional blocs served as antagonists and rivals throughout the Cold War. On the other hand, the need for regional blocs with political and economic

²² Giovanni Barbieri, "Regionalism, globalism and complexity: a stimulus towards global IR?," *Third World Thematics: A TWQ Journal* 4, no. 6 (2019), accessed April 17, 2022 doi:10.1080/23802014.2019.1685406.

objectives has been eliminated in the Post-Cold War era due to changes in the global system of power.

The regional alliances formed during the Cold War were primarily for political reasons; however, the post-Cold War era witnessed the revival of many of these groups as well as the emergence of new ones, including the North American Free Trade Agreement (NAFTA), the Asia-Pacific Economic Cooperation (APEC), the West African Economic and Monetary Community (WAEC), and ASEAN (MERCOSUR).

As a result, IP underwent significant changes following the Cold War. Variation in international politics was the most fundamental change to the international system, and this opens up new possibilities for the process of autonomous regional integration. Since there is no East-West conflict, international actors (state and non-state) are compelled to think about the challenges and opportunities that access to the global market through regional projects for their economies. Additionally, in 1985, Jacques Delors published a white paper that fostered the integration of Europe; yet, it also drew attention to the need for South Asian and Latin American states to improve their ability to continue participating in global markets. The same concerns may be regarded as the impetus behind the NAFTA discussions, which gave the US the opportunity to define its terms for reevaluating its economic power at the regional level in the shadow of Fortress Europe.

Additionally, Giovanni emphasizes that the continual evolution process is a result of the world's increasing interdependence. Private and public players alike welcome regionalism in order to stay up with the rapidly evolving conditions of economic openness, interdependence, and increasing competition and to review their place within the global system for their financial and economic growth.

Research explores the study does not focus on the regionalism in Indian Ocean region and does not define mechanism to counter NTS in context of regionalism approach at IOR. It excludes the neoliberal approach to dealing with non-traditional security threats. Furthermore, it pays no attention to link the combination of securitization and neo-liberal institutionalism towards regionalism which aids in combating NTS in the

maritime domain. It lacks any mechanism to address the Indian Ocean Region's socio-economic concerns.

The two key ideas which have been evolved in new security studies are state-centric security complex and a societal component of the wider security agenda. The book provides us with an innovative and inclusive security agenda.²³ Authors emphasize the new paradigm of security and reveals that it is more complex than traditional security. Security is a self-referential phenomenon based on the real existence of the issue. Buzan argued that non-traditional security threats concern more on the international political economy.

Ole Wæver has introduced the term securitization and explained that it is an advanced form of politicization. Buzan emphasizes that there are vulnerabilities in both military and non-military sectors; therefore, there is a need for security not in the military sector but also in the non-military domain. Buzan has introduced various security sectors, including the economic sector, environmental sector, social sector, political sector, and military sector. All the sectors are interrelated and cannot be separated from each other. The sectors facilitate the analysis and reduce the complexity in the way of analysis.

Moreover, military security denotes the interaction between governments' offensive and defensive capabilities, as well as their perceptions of one another's intentions. Political security discusses the organizational stability of governments, political systems, and the ideologies that legitimize them. Access to the resources, finance, and markets required to maintain acceptable levels of welfare and state authority is called economic security. Traditional patterns of language, culture, religious and national identity, and custom are all concerned with societal security within acceptable evolutionary parameters. Environmental security refers to preserving the local and global biospheres, which serve as the foundation for all other human endeavours. Therefore, the extra-measures are necessary to mitigate such threats.

Buzan also introduced the security complex theory to explain regionalism threats and security. He also categorizes the maritime security issues in the environmental sector.

²³ Barry Buzan, Ole Waever, and Jaap D. Wilde, *Security: A New Framework for Analysis* (Boulder: Lynne Rienner Publishers, 1997) accessed April 18, 2022.

The rise of sea level, pollution, and oil spills in maritime domain results in the endangerment of species and challenges maritime security. Several regional arrangements are made to mitigate maritime pollution because regionalism is more effective and comprehensive to counter regional threats. Non-traditional maritime threats are not only restricted to the environmental domain; however, military, economic, political, and societal sectors are also influenced due to the threats to the maritime.

Researcher analyses the study does not focus on the Indian Ocean and role of Pakistan to cope non-traditional security challenges in Indian Ocean. Furthermore, regionalism and multilateralism approach are not the part of the debate.

According to Bueger, one of the most recent buzzwords in international affairs is Maritime Security. Major players have begun to incorporate maritime security into their mandates or have reframed their activities in this manner. Maritime security is a word that brings new concerns to light and mobilises support for addressing them.²⁴ Despite this, no international agreement on what constitutes maritime security has arisen. In the absence of unanimity, buzzwords allow for worldwide coordination of actions. On the other hand, buzzwords are constantly exposed to the potential of masked disagreements and political strife. Because there are few chances of definitively defining marine security, frameworks for identifying commonalities and disputes are required. Bueger proposes three frameworks. First and foremost, maritime security must be described with reference to other ideas such as marine safety, sea power, the blue economy, and resilience. Second, the securitization framework allows researchers to investigate how maritime risks are created and the various political claims that these threats involve in order to discover political interests and ideologies. Finally, security practice theory allows researchers to investigate what actors actually do when they acknowledge to be working to improve maritime security. These frameworks when combined allow for the mapping of maritime security.

Researcher analyzes that the study does not focus on the neo-liberal institutionalism and regionalism approach. After providing the frameworks, a writer still does not

²⁴Christian Bueger, "What is maritime security?" *Marine Policy* 53 (2015), accessed April 11, 2022, doi: 10.1016/j.marpol.2014.12.005.

conclude to define maritime security. Bueger describes the maritime security framework is overall for UK, EU, AU, and NATO; however, the regional response is not part of the debate. It does not cover the Indian Ocean region and nature of non-traditional maritime security threats in Indian Ocean and role of Pakistan in countering NTS threats in the region. Furthermore, it discusses collective security, but it does not define how to achieve it. It also covers the securitization theory of Barry Buzan and Ole Weaver, but also raise a question about referent objects and securitization actor.

As per report, Pakistan has been facing a plethora of Non-Traditional security issues, which affect Pakistan's development and economic progress more than traditional security issues. Moreover, NTS has been creating problems in the way of political stability in Pakistan. NTS is a threat to the national security of Pakistan.²⁵ Environmental degradation, Climate change, and water and food scarcity are on the top. Therefore, there is a chance of war in the near future over water. As per the Global Climate Risk Index 2018, Pakistan's rank is seventh among the most vulnerable states. Pakistan has taken measures to deal with Non-Traditional security threats, such as Pakistan adopted Sustainable Development Goals.

The non-traditional security extends horizontally, upward, and downward in every direction. The horizontal includes political, economic, social, and environmental security. Upwards indicates the earth to the biosphere, and downwards shows nations to individuals. The report also illustrates that the NTS and Traditional security concepts are not different from one another. Furthermore, the term security in the current scenario is not associated only with territorial integrity and sovereignty; however, it is accompanied by public security. Pakistan has faced both short and long-term challenges due to NTS. The report also indicates that 2016 is considered the warmest year in history, and it resulted in the melting of glaciers and a rise in the sea level; therefore, the aquatic species are endangered and cause floods in the Northern portions of Pakistan.

²⁵ Ghazala Jalil et al., Non-Traditional Security Challenges to Pakistan, (Islamabad: Institute of Strategic Studies, Islamabad (ISSI), 2018), accessed April 17, 2022 https://issi.org.pk/wp-content/uploads/2018/06/Seminar_Report_March_28_2018.pdf.

Nevertheless, due to climate change, Pakistan's snow patterns and rainfall circles are disturbed. The report further explains that tropical cyclones were not common but increasing in the Arabian Sea. There is also a need to address the NTS in the Maritime affairs of Pakistan, which are also a threat to the national security of Pakistan, including piracy, illegal fishing, exploitation of resources, etc.

Researcher identifies that the report focuses only on the NTS facing by Pakistan. It covers a bit of maritime domain but ignores the other aspects. Authors do not focus on the Indian Ocean and role of Pakistan to cope non-traditional security challenges in Indian Ocean. Furthermore, regionalism and multilateralism approach are not the part of the debate.

Feldt, Roell, and Thiele explain that the concept of Maritime security is nebulous.²⁶ Maritime security is significant in terms of freedom of high seas, secure and facilitates commerce and trade in the oceans, and governance on high seas. The writers further explain that maritime security is different than maritime safety. Maritime safety is a set of preventative and reactive procedures designed to safeguard the maritime domain. It mitigates the effects of unintentional natural dangers and environmental damage risks. On the other hand, Maritime security has no proper definition.

The authors further argued that piracy is properly defined in the United Nations International Law of the Sea. The coast of Somalia and the region of the Indian Ocean are vulnerable due to piracy. Singapore, Malaysia, and Indonesia's cooperation and collaborations successfully combat piracy in this region. Operations are launched to counter piracy, including air and sea surveillance operations, eye in the sky, and Malacca Strait Patrols. Due to their efforts, piracy has reduced in this region compared to 2009 as to the International Maritime Bureau and International Chamber of Commerce 2012.

Moreover, the Guinea Gulf, Strait of Malacca, and the South China Sea are dangerous due to Non-Traditional Security threats. Maritime terrorism and threats are enhanced

²⁶ Lutz Feldt, Peter Roell, and Ralph D. Thiele, "Maritime Security – Perspectives for a Comprehensive Approach," *Institut für Strategie- Politik- Sicherheits ISPSW*, no. 222 (April 2013), accessed April 1, 2022 https://www.files.ethz.ch/isn/162756/222_feldt_roell_thiele.pdf.

in the ports, including Singapore, Hong Kong, Tokyo, Yoko, Hama, Pusan, Shanghai, and Kaohsiung in Southeast Asia. Nevertheless, the Oceania regions of America and Europe are vulnerable due to pirates. In the 2008 Mumbai attack, the terrorists voyaged through the Arabian Sea and hijacked Indian Kuber (fishing trawler).

Therefore, to counter threats in the Oceans, the USA, UN, EU, NATO, African Union, and Non-Align Nations have taken measures. As a result of Shared Awareness and De-confliction (SHADE), there is an agreement among India, Japan, and China to secure the Gulf of Aden. SHADE has promoted mutual trust and confidence in the region and facilitated to secure the region from piracy. Nevertheless, The Regional Cooperation Agreement on Combating Piracy and Armed Robbery in Asia and the Information Sharing Centre (ReCAAP–ISC) are proof of a successful maritime collaboration to improve maritime security through a comprehensive approach.

Iftikhar explains that in the maritime domain, Pakistan's strategic importance has been increased because of Gwadar port under Maritime Silk Road. The region of the Indian Ocean is perilous in terms of Somalia Pirates, Sea Tigers, and other Non-State Actors, including TLP.²⁷ They create hindrance in the Seaborne activities. He further demonstrates the difference between Pirates and Maritime Terrorists. The maritime terrorists do not involve in robberies like pirates; terrorists earn through achieving their objectives in Oceans.

Furthermore, Maritime time security is rooted in security studies and international relations. And transnational crimes in the maritime domain could be overcome through regional cooperation and integration. The law is significant in terms of maintaining good governance in the Indian Ocean, especially in the Gulf of Aden and Horn of Africa because the region is perilous because of Yemeni and Somali pirates. Gwadar contributes to the emergence of new economic substructures in the regional and global levels; moreover, it reinforces regional integration. It's the key port; it connects Africa, Asia, and Europe and is also substantial for Pakistan's growth and stability.

²⁷ Mohid Iftikhar, "Maritime Security Governance: Pakistan Perspective," *Governance and Management Review* 1, no. 1 (December 2016), accessed May 12, 2022, http://pu.edu.pk/images/journal/IAS/PDF/Article-3_v1_1_16.pdf.

Iftikhar demonstrates Maritime security from three perspectives, including regionalism, critical security studies, and constructivism. Regionalism is significant to economic integration, trade, regional connectivity, and the strengthening of national interests. However, the critical perspective has a realistic approach, it focuses on the legitimacy of securing the economic, political, and social objectives. It is the social substance that involves the development of international relations, encompassing the interests of the states. Cooperation and constructive achievements between nations are achievable due to the establishment of mutual trust.

Furthermore, there are naval alliances such as the EU and Combine Task Force (CTF) in the region and quite successful in countering piracy and other non-traditional security threats in the Indian Ocean Region. Pakistan is reliant on the MSR to counter non-traditional security issues. There is a need for cooperation under SLOC. Piracy is not the only issue in the Indian Ocean Region; the rise of sea level, pollution, endangerment of aquatic life, and abrupt exploitation of resources are grave concerns not only for Pakistan but all the littoral states of the Indian Ocean.

Researcher analyses that the study does not focus on the Indian Ocean and role of Pakistan to cope non-traditional security challenges in Indian Ocean. Furthermore, regionalism and multilateralism approaches are not the part of the debate.

In the article, Rubaiyat highlighted numerous ways for different countries to work together to attain food security through sustainable resource exploitation.²⁸ The Bay of Bengal is a section of the Indian Ocean that is bordered by five countries and is rich in fishing opportunities. The conflict over maritime boundary delimitation between Myanmar, India, and Bangladesh was discussed.

According to the Rubaiyat, the maritime economy directly supports 30 million people. The author also discusses various issues and their remedies which have been faced by countries which are surrounded by Bay of Bengal.

²⁸ Mohammad Rubaiyat, "Blue Economy and Maritime Cooperation in the Bay of Bengal: Role of Bangladesh," *Procedia Engineering* 194 (2017): 356–61, accessed May 10, 2022 <https://doi.org/10.1016/j.proeng.2017.08.157>.

Researcher explores that study does not explain non-traditional security threats in context of securitization theory. It does not cover the role of Pakistan in regional activities in context of Oceans and blue economy. He focuses on regional cooperation, but does not focus on the institutionalism framework.

Singhal argues that Seas have been used for trade, transportation, and conquest for millennia. Oceans foster religious, cultural, and linguistic proliferation all across the globe and illustrates the importance of IOR because of its warm waters and choke points.²⁹

According to Singhal, there are a number of incidents in IOR regarding piracy, weapons of mass destruction, human and drug trafficking, and terrorism. There are many intra-regional organizations working in the Indian Ocean to confront such challenges but failed due to inactiveness. So, India has taken the initiative and formulated IORA. Unfortunately, it is insufficient in countering non-traditional maritime security challenges in Indian Ocean Region.

There is no rule of law in Somalia Basin, Strait of Malacca, and the Red Sea. That's why India is seriously concerned about its trade and economy. Singhal claims that the Golden Crescent which includes Pakistan, Iran, and Afghanistan, and the Golden Triangle, which includes Myanmar, Thailand, and Laos, are interweaved by drug trafficking, which results in money laundering that fuels gunrunning, insurgency, and terrorism in the region.

Both state and non-state actors are responsible for non-traditional marine security challenges in IOR, including political instability, economic disparity, and humanitarian crisis. Economic security is frequently followed by a better knowledge of political and security issues. Singhal argues that the USA's role shrinks in the region, which is alarming for India. India believes in regionalism; subsequently, it has formulated another organization IONS, it seems quite effective and shows naval cooperation with

²⁹ Deepak Singhal, "Cooperative Mechanisms to address Non-Traditional Maritime Security Threats in the Indian Ocean Region (IOR)," *Naval War College Journal* (n.d.), accessed May 6, 2022, https://www.indiannavy.nic.in/sites/default/themes/indiannavy/images/pdf/resources/article_15.pdf.

little progress. It assists in the translation of maritime security agendas into practical mechanisms.

Pakistan's economic and other activities, such as political and social interactions, cultural exchange, are in threat due to evolving NTMS challenges in IOR. Various actors exist in the region, some of them might have evil agendas, moreover, the region has a history of primitive rivalries; therefore, certain mechanism and proper framework is required to ensure maritime security in IOR.

Research Gap

There is significant research gap when it comes to Pakistan's Non-Traditional Security issues in Maritime Domain. Despite that the fact that socio-economic growth and development is backbone of Pakistan's national security, there is a limited academic work available in this regard; however, there are many gaps in the policies to counter non-traditional maritime security issues and cooperation mechanisms with regional states. The study is based on the following points.

- Limited books available on NTMS in the Indian Ocean and regional cooperation.
- Content is produced by Western, Indian, African, and Chinese authors, but there are a few scholarly accounts by Pakistani authors.
- Pakistan's national security policy 2022-2026 emphasizes maritime security, but there is a limited academic work available in this regard; however, there are many gaps in the policies to counter non-traditional maritime security issues and cooperation mechanisms with regional states.
- The non-traditional security issues are not discussed from the perspective of a combination of securitization and neo-liberal institutionalism theories.

Research Questions

1. In which way sectoral dynamics play their role in structuring the non-traditional maritime security paradigm within IOR to counter non-traditional socio-economic security threats?
2. How can the approach of regionalism be made more effective for non-traditional maritime security in IOR?
3. How effective has Pakistan been in playing a role within regional arrangements currently working in Indian Ocean Region in countering non-traditional security threats in the region?

Core Argument

With increasing role of states as well as non-state actors in IOR, there is consequential increase in NTMS challenges, moreover, regional actors find themselves in a dire need to ensure maritime security. Therefore, Pakistan is in quest to deal with these NTMS challenges effectively in its maritime zones as well as area of responsibility assigned by IMO within Indian Ocean.

Conceptual Framework

Synthesis of two theoretical approaches have used in the undertaken research which is securitization to elaborate on non-traditional security and intuitionism under the premises of regionalism. NTS part discusses the nature of threats and challenges in IOR, whereas institutional regionalism focuses on countering strategies with the help of/ formation of institutions. The details are given in Chapter I.

Securitization theory argues that security is a dynamic and evolving concept that is shaped by a variety of non-traditional security (NTS) and non-traditional maritime security (NTMS) challenges affecting human security. Furthermore, it offers policy recommendations for addressing these challenges.

On the other hand, neo-liberal institutionalism provides legal mechanisms and frameworks to dissolve security issues, and supports a regionalism approach to security

threats. It focuses on state, security, multilateralism, and policy input, which are also areas of convergence with securitization theory.

Regarding non-traditional maritime security challenges in the Indian Ocean, Pakistan plays a significant role in addressing these issues. Piracy, terrorism, illegal fishing, and smuggling are some of the NTS challenges that have been affecting the region's security. Pakistan has been actively participating in various regional initiatives to address these challenges, such as the Indian Ocean Rim Association (IORA) and the Maritime Security Patrols (MSPs) with other navies.

In this context, both securitization theory and neo-liberal institutionalism could offer valuable insights for addressing these challenges. Securitization theory could help in identifying the security threats and provide policy recommendations to address them, while neo-liberal institutionalism could offer legal mechanisms and frameworks to dissolve security issues and support regionalism approaches. Pakistan could leverage these theoretical frameworks to develop its own regional response strategy to non-traditional maritime security challenges in the Indian Ocean.

Research Methodology

The research has been carried out by using an explanatory research design. It is secondary research which identifies the socio-economic non-traditional security threats and challenges in Indian Ocean Region and also covers the role of Pakistan in it, moreover, it is relying upon both primary data and secondary data which is in present in both quantitative and qualitative form. The used archived material is based on quantitative data. Moreover, the researcher has taken targeted structured interviews with practitioners and scholars are both international and national maritime security experts via Google Meet to support the primary data. These interviews were qualitative in nature, providing valuable insights and perspectives on the research topic.

Secondary data has collected through books, research articles, newspapers, research reports and websites. This research has used specific quantitative data from Pakistan Maritime Security Agency (PMSA) to analyses NTMS in IOR. Researcher has visited the PMSA and related departments to understand the role of Pakistan in countering NTMS in Indian Ocean.

Nonetheless, the undertaken research is deductive; it would be established on the premises of NTMS on regionalism making it a synthesis of approaches. The theory of regionalism is applied to gather data; therefore, it is based on the deductive approach. The study has all dependent, independent, and intervening variables. The dependent variables are regional response and Pakistan, independent variable includes non-traditional security challenges, and intervening variables are international law, regional environment, and non-state actors in Indian Ocean.

Different regional states and international actors have taken initiative to counter non-traditional security threats in maritime domain; therefore, the researcher has used existing bodies' infrastructure and policies in the research. Therefore, this study also adds a new dimension to theoretical and academic perspectives. It aids Pakistan's government in formulating policies to address non-traditional security challenges in the maritime sector in future.

Researcher used journals and articles which are related to the non-traditional security challenges in maritime domain, including Research Gate, Third World Thematic, Marine Policy, International Affairs, The International Archives of the Photogrammetry, Institut für Strategie- Politik- Sicherheits ISPSW, Comparative Migration Studies, American Journal of International Law, Governance and Management Review, Agricultural Sciences, Journal of Contemporary Studies, Institute of Defence and Strategic Studies Singapore, The Palgrave Encyclopedia of Global Security Studies, Politics and Governance, International Studies, Observer Research Foundation (ORF), Procedia Engineering, West East Institute, Naval War College Journal, European Journal of International Relations, and Planning Malaysia.

The books, include The Evolution of International Security Studies, A New Framework for Analysis, An Introduction to Non-Traditional Security Studies: A Transnational Approach, Maritime Terrorism: Risk and Liability, Indian Ocean Region: Maritime Regimes for Regional Cooperation, editors. On the Move: Migration Challenges in the Indian Ocean Littoral, editors. Indian Ocean Rising: Maritime Security and Policy Challenges, Essentials of International Relations, The Blue Economy: 10 Years, 100 Innovations, 100 Million Jobs, Fisheries Exploitation in the Indian Ocean Region,

International regions and the international system, Maritime Perspectives 2016, and Theories of New Regionalism: A Palgrave Macmillan Reader.

Significance of Study

Regional cooperation is essential for the regional peace and stability; however, regionalism is evidently lesser effective in IOR, therefore, it makes this research more relevant regarding seeking countering strategies of NTMS. Regional cooperation within IOR is far more significant than continental land masses because oceanic spaces are considered as shared common. Regional cooperation further supports the diplomatic channels and ways of communication that diminishes the anarchy in the region; moreover, sharing of ideas, collective efforts to achieve common goals, people to people contacts further enhance business and trade along with governmental relations and defence cooperation to counter NTMS in IOR.

Regional cooperation not only mitigates the socio-economic NTMS challenges, but protects national security of Pakistan. Furthermore, it opens new ways of employment, business, facilitates fruitful education, and research opportunities within the state and the region. Therefore, cooperation in maritime domain is vital for peace and stability not only in Pakistan but for the entire region. This study is for academic purposes and contributes to policy making.

Delimitation

The study has not directly focused on traditional security threats. It covers non-traditional security in maritime domain which affects socio-economic development in IOR. Securitization and neo-liberal institutionalism lenses are used to explain the regionalism approach in IOR.

Organizational Structure

Chapter I: Maritime Security in Indian Ocean Region: Conceptual Framework

In this chapter concept of security has been analyzed from different perspectives of different researchers and explains securitization, neo-liberal institutionalism, and regionalism. The concept of security evolves with the evolution of the international system, and its connotation changes with time. A conceptual framework has drawn to understand and counter non-traditional maritime security threats, primarily based on securitization and neo-liberal institutionalism theories.

Chapter II: Sectoral Dynamics of Non-Traditional Maritime Security (NTMS) Paradigm in Indian Ocean Region (IOR)

The chapter is based on five sections to describe non-traditional security threats to societal and economic sectors in Indian Ocean Region. First, the chapter explains the dynamics of socio-economic challenges and causes of NTS threats in Indian Ocean. Secondly, socio-economic challenges include over-exploitation of resources, mining, fishing, sand, and gravel. Third, the relationship between Barry Buzan's five sectors, transnational crimes; piracy, smuggling, trafficking, maritime terrorism, and natural hazards; oil and chemical spills, technological threats; cyber-warfare, and the causal factors behind the NTS threats in IOR. Lastly, it enlightens the endeavors and strategies to counter NTS socio-economic challenges in IOR.

Chapter III: Dealing with NTMS in IOR: Role of Regionalism

The chapter is based on analyzing various regional organizations dealing with non-traditional security threats in Indian Ocean. It has also explored the challenges faced by the organizations in countering NTS. Moreover, it provides approaches, including comprehensive security framework, and region-centric multilateral approach to make regionalism approach more effective in countering socio-economic non-traditional security threats in IOR.

Chapter IV: Pakistan's Response to NTMS in IOR and Regional Cooperation

The chapter aims to illustrate Pakistan's involvement in protecting off socio-economic non-traditional maritime security challenges in the Indian Ocean Region. It first clarifies the functions of the Ministry of Maritime Affairs, Pakistan Maritime Security Agency (PMSA), the Navy, and the Coast Guard. Furthermore, it outlines Pakistan's activities with regional organisations and intelligence agencies. The chapter also demonstrates Pakistan's efforts to secure the region at various levels.

Conclusion and Recommendations: Given in the end.

Chapter One

Maritime Security in Indian Ocean Region: Conceptual Framework

1.1 Introduction

Security is a hyphenated concept because it cannot be separated from the referent object. The concept of security is incomplete without a referent object.³⁰ Security means freedom from threat and to secure something from threat. The nature of threat changes from time to time; therefore, the security has been associated with security of different referent objects.

Since its inception, the concept of security has been associated with human security because king's survival and kingdom's security were concerned with the number of individuals and human resource. The primary objective of security was to secure the rule of kings or monarchs. Still, after the treaty of Westphalia, the referent object has changed from monarch's and king's security to the state's security. Therefore, security has shifted from a human-centric approach to state-centric security.

In era post-WW2, national interest has taken place due to the great depression. The welfare agenda of USA has been replaced by the national interest. Moreover, the national security concept emerges as a result of Cold War between the USA and USSR. It is due to both domestic issues and external threats to the state. Due to the transformations in the concept of security, confusion has been generated between national interest and national security because national security and national interest had been used interchangeably.

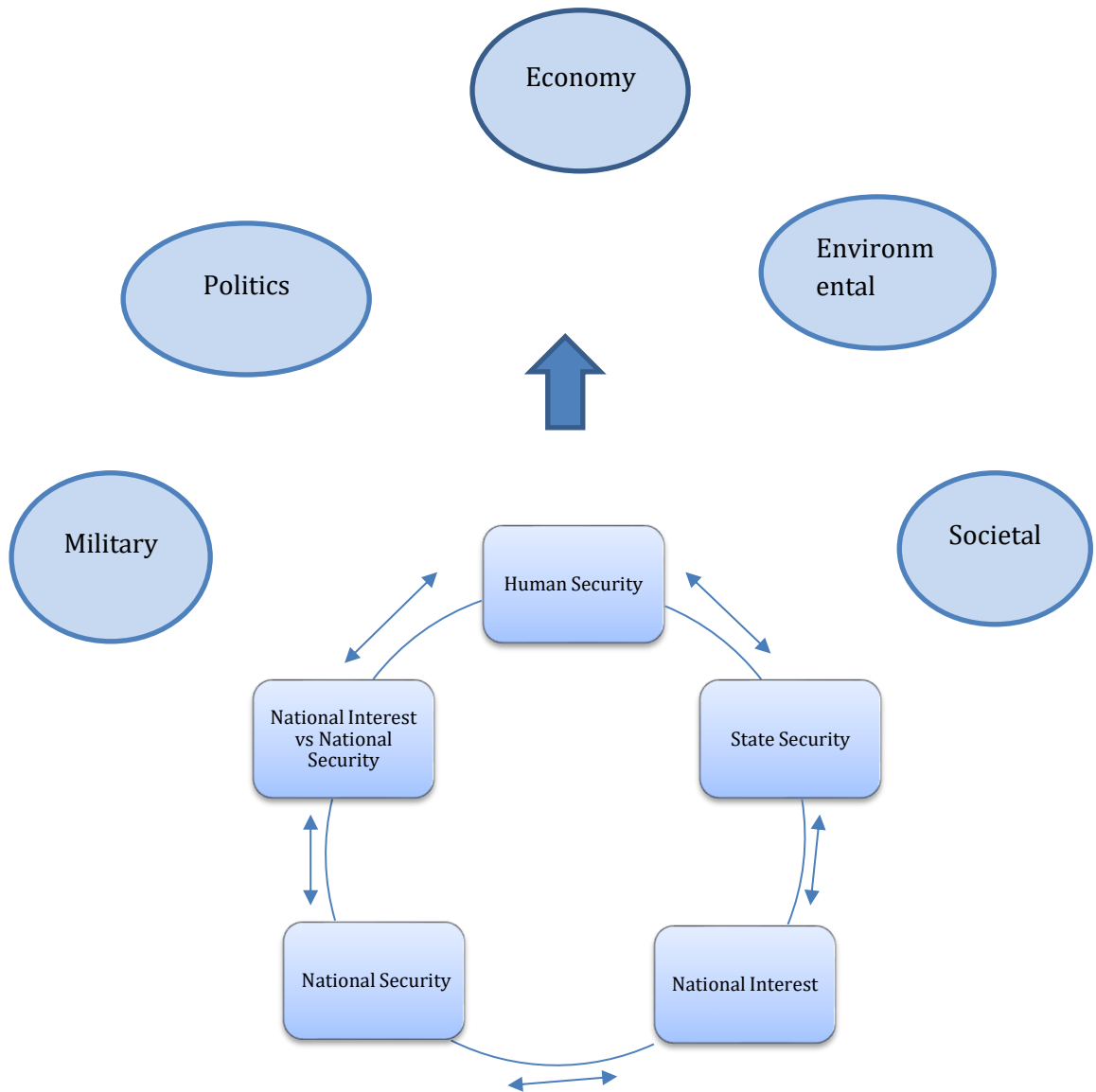
After disintegration of the USSR, critical theories emerge in international politics.³¹ Threat to human beings has been taken as a threat to national security. Copenhagen

³⁰ Barry Buzan and Lene Hansen, *The Evolution of International Security Studies* (Cambridge: Cambridge University Press, 2009) accessed May 20, 2022.

³¹ Özcan Sezer, "securitization of energy through the lenses of Copenhagen school 1," West East Institute, 2013, accessed May 21, 2022 <https://www.semanticscholar.org/paper/SECURITIZATION-OF-ENERGY-THROUGH-THE-LENSES-OF-1-%C3%96zcan/5f0f25a403695e6e467c1f7dcc7b2c457a8c479b>.

school of thought has emerged in their discourse and speech act, the traditional security concept has been widened, and new threats have been identified or securitized, which are called non-traditional security threats in the international system.

Figure 1: Shift in Security



Source: Researcher has developed the pictorial infograph.

Finally, it approaches again to human security, but it's not only because of the emergence of non-traditional security debate in international relations, but human security became the center of attention among global powers because threats to human beings are considered a threat to the national security of the state. Furthermore, security could be analyzed through various levels, including national, regional, and international levels.

The chapter has been divided into various parts i) the evolution of security, ii) levels of analysis to analyze security; iii) synthesis of securitization and neo-liberal institutionalism and iv) regionalism approach.

a) National Security

It is the duty of the government to safeguard state's sovereignty and protection of territorial integrity by providing security to its citizens and their values (primary fundamentals and their needs), and political and economic institutions; hence, it is called national security and defence. It also provides protection from both internal and external threats.³² The threats to national security are both natural and social in nature; moreover, they include both traditional and non-traditional threats. Such as pandemics (Covid-19), hurricanes (tropical cyclones), terrorism, fifth-generation warfare, cyber warfare, climate change, and transnational criminal groups (which disrupt the culture and functioning of institutions; moreover, promote corruption, de liquor the currency of state, smuggling, and hijack the economic well-being).³³

i) Human Security

Security is irrelevant without a referent object. For ages, the referent object has been human. According to the realist perspective, security is directly associated with the survival of the state. Furthermore, it is fused with the national interest and sometimes linked with national security. However, this concept has been more inclined or relevant to human security after the Cold War.

Security is centered on emancipation, which relates to justice and human rights.³⁴ Moreover, this concept of security explains that it is not merely about commodities such as nuclear weapons; rather, it talks about relationships between and among various actors. The relationship can be positive or negative; furthermore, the equation of

³² ECU Online, "What Are Some of the Biggest National Security Risks, and How Can Governments Prepare? Learn More," ECU Online, September 3, 2020, accessed May 21, 2022 <https://safetymanagement.eku.edu/blog/threats-to-national-security/>.

³³ Robert Longley, "National Security Definition and Examples," ThoughtCo, September 24, 2021, accessed May 22, 2022, <https://www.thoughtco.com/national-security-definition-and-examples-5197450>.

³⁴ Paul D. Williams and Matt McDonald, *Security Studies: An Introduction* (Oxfordshire: Taylor & Francis, 2018), accessed May 23, 2022.

security and insecurity can be understood with the help of commodities, but it does not determine the relationships among actors. Consequently, human security is the main subject of NTS, and it is not relying upon weapons; it fuses with human dignity. There are different categories of human security.

United Nations Development Program (UNDP) maintains that human security is divided into two categories: first of all, it entails protection from long-term risks such as famine, disease, and suppression. Secondly, it involves protection from abrupt and harmful interruptions in daily living routines - whether in homes, workplaces, or communities. At all levels of national affluence and development, such risks can exist.³⁵

ii) Societal Security

Societal security is another key referent object; however, it cannot be separated from security discourse and the human security realm. Human security is embedded with both traditional and non-traditional concepts of security.

Simon Dalby declares that after the end of Cold War, new circumstances have arisen, and as a result, security is more linked with society than a state.³⁶ The global agenda of security has been reformulated to counter emerging new threats such as societal insecurities, human rights, and autonomy of civil society.³⁷

As a result of Barry Buzan's work, the concept of societal security has come into existence; furthermore, five sectors of Buzan have five different dimensions, including culture and identity.³⁸ A key concept of security is survival, and societal security is identity. Ole Weaver also agrees with Barry Buzan, "When identity has vanished,

³⁵ Kofi Annan, Definitions of Human Security United Nations Definitions, (n.d), , accessed May 23, 2022, <https://www.gdrc.org/sustdev/husec/Definitions.pdf>

³⁶ Simon Dalby, "Contesting an Essential Concept: Reading the Dilemmas in Contemporary Security Discourse," Academia.edu - Share Research, January 1, 1997, , accessed May 24, 2022, https://www.academia.edu/25564925/Contesting_an_essential_concept_Reading_the_dilemmas_in_contemporary_security_discourse.

³⁷ Simon Dalby, "Contesting an Essential Concept: Reading the Dilemmas in Contemporary Security Discourse," Academia.edu - Share Research, January 1, 1997, , accessed May 24, 2022, https://www.academia.edu/25564925/Contesting_an_essential_concept_Reading_the_dilemmas_in_contemporary_security_discourse

³⁸ Barry Buzan, *People, States & Fear: An Agenda for International Security Studies in the Post-cold War Era* (Essex: ECPR Press, 2016), accessed May 25, 2022.

survival becomes impossible.” Moreover, societal security is the survival of language, culture, traditions, national identity, and religion.³⁹ Mass killings, attacks on religious affiliations, and de-culturation (restrictions on costume, language, and rituals) are categorized as threats to societal security.

iii) Economic Security

Economic security does not only protect the economy’s capacity of the people but also ensures that the government and public are independent in their financial and economic decisions. It also protects economic freedom from domestic issues and external threats. Therefore, bilateral and multilateral agreements (to ensure trade and finance). Monetary policies are designed, and law enforcement agencies are formulated to secure economic and financial issues. Economic security is directly or indirectly linked the human security because it helps to eliminate poverty, unemployment, and hindrances in the way of income equality.⁴⁰

iv) Maritime Security

It has been evolved since 1990s but gained prominence in 2000 because of the intensification of terrorism and piracy on the Somalian coast. Oceans and seas remain the central point of dispute, rivalry, geopolitics, and interstate warfare during colonialism and globalization. In 1998, a report had published by the Independent World Commission on the Oceans (IWCO) and released with the collaboration of the UN international year of oceans. The report concludes that there are several military and non-military threats to international marine order and maritime security governance; therefore, there is a need to reconstruct governance order at sea and oceans.

In the current scenario, due to globalization, great power politics, international regime building, and developments in international relations, the maritime security agenda has been transformed. There is also a need to reconstruct maritime security agenda because there is a vast transformation in every facet of life, and new kinds of security threats

³⁹ Salvin Paul, "Societal Security," The Palgrave Encyclopedia of Global Security Studies, 2019, accessed May 25, 2022, doi:10.1007/978-3-319-74336-3_359-1.

⁴⁰ Kim R. Holmes, "What is National Security?," The Heritage Foundation, October 7, 2014, , accessed May 26, 2022, <https://www.heritage.org/military-strength-essays/2015-essays/what-national-security>.

have evolved with time. The old security agenda does not have enough capacity to deal with advanced and vast security issues.

Reconstruction also becomes a challenge because human beings are more focused on land. In the point of view of John Mack, human beings have been struggling to master the sea since its inception; however, oceans have been taken as the most insecure and dangerous by human beings throughout history. Furthermore, he argues that the seas have been presented as an 'unwelcome and unwelcome wilderness where the land is a reassuring point of reference.' Therefore, there was a lack of clarity about security threats; however, in the recent past, scholars have started working on maritime security.

b) Regional Security

The concept of regional security is defined as the cooperation and coordination of states which belongs to a particular area to secure the region through common threats.

According to Barry Buzan and Ole Weaver, the concept of security underpins the regional clusters because threats quickly spread in the closer areas (short distance) rather than areas far from the particular state or region (long-distance).⁴¹ Moreover, organizations like SAARC, EU, ASEAN, IORA, and SCO are formulated for ensuring and maintaining regional security.

c) International Security

According to Olaf Palme, International Security is defined as the alliance for joint survival, but not for the threats of mutual destruction.

The concept evolved at the end of Cold War as a result of the adoption of a collective security system. International security is in threat due to transnational crimes and criminal groups. Nations and states cannot fight alone to such transnational crimes; that's why it is categorized as a global security issue. International security issues

⁴¹ Monika Barthwal-Datta and Soumita Basu, "Reconceptualizing regional security in South Asia: A critical security approach," *Security Dialogue* 48, no. 5 (2017), accessed May 26, 2022, doi:10.1177/0967010617717619.

include; migrants, smugglers, immigrants, e.t.c. The activities enhance the illegal harvest of natural resources, improper dumping of waste products, money laundering, organized crimes, theft, and financial fraud, which affect international markets and international regulatory systems and norms.

1.2 Historical Evolution of Security

In international relations, different societies have different notions and meanings about security; for some, its education, for some, its health, and for some, its development. However, it is a dominant political tool to prioritize items and seek the government's attention. It also aids to aware public about traditional and non-traditional security threats which are in their minds. The concept of security is based on a politics of security which determines whether the security is instrumental or conservative in a particular situation.⁴² Threats and its ranges are both military and non-military in nature. Threats emerge due to the clash of interests and values.

Security is defined as freedom from threat. The connotation of threat has evolved or changed with time, and the nature of the threat defines the security, whether it comes under national security, regional security, and global security. Moreover, different perspectives and theories have evolved on security to describe the legitimization and rationalization of a state's behavior and actions.

After treaty of Westphalia in 1648, security was linked with state; furthermore, realists, liberalists, and constructivists have different perceptions about security.⁴³ Realists linked security with the security of the state. On the other hand, liberalist relates security with the security of individuals and institutions. In addition, neo-realists and liberalists describe the concept of security in terms of values. Liberals believe there are different values, including the identity of individuals and communities, growth and development, culture and traditions, religion and rituals, the health of individuals, and environmental protection. However, these are threatened by illegal migrations, an influx of refugees,

⁴² Ken Booth, *Theory of World Security* (Cambridge: Cambridge University Press, 2007) , accessed May 28, 2022.

⁴³Umaru I. Yakubu and Shuaibu Mohammed, "The Concept of Security and the Emerging Theoretical Perspectives," *Research Gate*, July 2016, , accessed May 29, 2022, doi:10.21203/rs.2.19950/v1https://www.researchgate.net/publication/339676247_THE_CONCEPT_OF_SECURITY_AND_THE_EMERGING_THEORETICAL_PERSPECTIVES.

drug and human trafficking, and anti-social elements which spread viral diseases, economic disparities, and smuggling; moreover, these are emerging as serious security threats and come under NTS.⁴⁴ Albeit, constructivists describe that the identity and interest of individuals define security; likewise, identity expresses the interest.

During Cold War, the concept of security has diversified, evolved, and revolved around the national interest. Still, it is evolving with the technological revolutions and modernizations of the global system. The concept of security is not limited to military concerns. The connotation of security has changed with time. However, during Cold War, it was linked with safety and protection from nuclear threats; however, in the 20th century, security agenda expanded into other domains.

After 9/11 attack, the meaning of security shifted towards terrorism, extremism, and non-state actors like Al Qaeda. The network of Al Qaeda has spread because of global mobility and means of communication which are products of technological revolution and globalization. Therefore, terrorists and criminal groups do not need geographical connections to spread their activities and achieve their goals. In the contemporary age, it associates with human security, economic security, environmental security, societal security, and food security, and it can be explained through multiple concepts.

Therefore, Security is not a substantive concept but flexible. Security is both negative and positive in nature.⁴⁵ Achievement of security through cooperation and collaboration without any violence comes under positive security, for example, food security and environmental security: because states cooperate with each other without being violent against threats. On the contrary, protection is needed to secure states because of conflict, violence, and chaos; moreover, the example of terrorism best suits to describe negative security.

⁴⁴ Nongmaithem M. Singh, "Mapping Security: A Study on India's Northeast from Non-Traditional Security Discourse," *Rethinking Energy Security in Asia: A Non-Traditional View of Human Security* 1, no. 10 (2012), accessed May 29, 2022, https://www.worldwidejournals.com/paripex/fileview/mapping-security-a-study-on-indias-northeast-from-nontraditional-security-discourse_October_2012_9195485275_0305109.pdf.

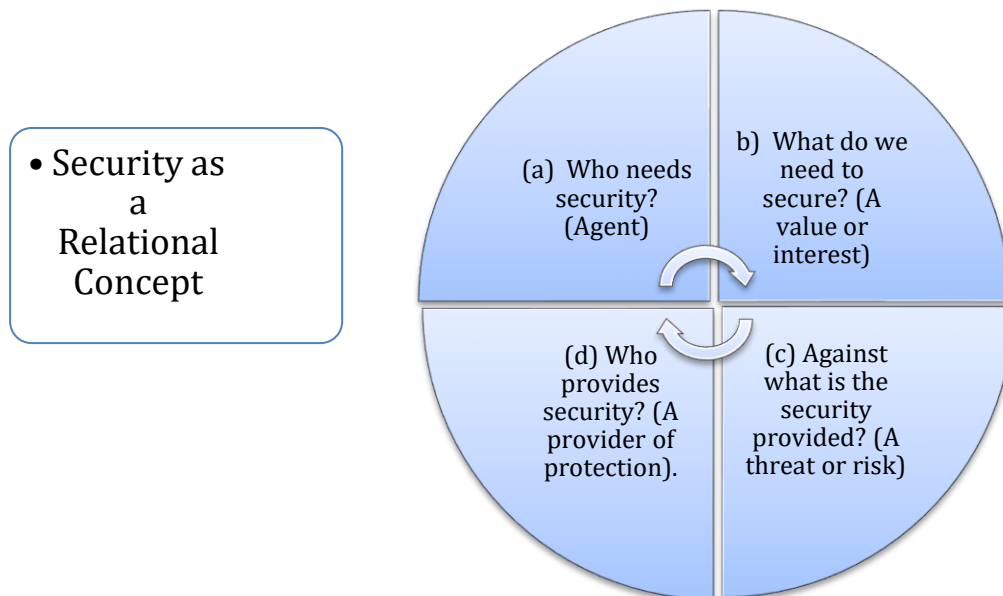
⁴⁵ GUNHILD HOOGENSEN GJØRV, "Security by any other name: negative security, positive security, and a multi-actor security approach," *Review of International Studies* 38, no. 4 (2012), accessed May 29, 2022, doi:10.1017/s0260210511000751.

There are different forms of security, including nominal security and verbal security. Nominal Security undertakes solidity and measurability; therefore, it is hard to capture; consequently, it is explained with the help of the relational concept of security; the reason behind this; content revolves around the context. On the other hand, verbal security is simple and defined as keeping secure or keep safe. In addition, security has both rational and conservative dimensions.

a) Security as Relational Concept

Security is also considered as a relational concept; therefore, there is a need to understand the facts to understand the concept of security.

Figure 2: Security as Relational Concept



Source: Researcher has developed the pictorial infograph.

Security is a context-sensitive phenomenon, and it is silent when it comes to the level of analysis, interests, values, types of risks and threats, and security providers. However, it is dependent on the political theory and politics of security to determine

the interests and values.⁴⁶ Consequently, it is a relational concept rather than formal because it provides relation among the above mentioned factors in figure 2, and sometimes factors are categorized as variables. The nature of the discussion about security depends on these variables or factors.

b) Security as a Conservative Concept

Security is also a conservative concept. It's not a matter of maintaining the status quo; however, it reflects the conservative approaches and policies towards politics. Security cannot be limited to existential threats. Security becomes more relevant when referent objects are discussed as security of whom?, and security of what? Before declaring and announcing an existential threat, there is a need to identify the security level, values, and interests that are at threat.

According to Barry Buzan, security is freedom from all kinds of threats. In addition, it is the capability of states or societies to sustain their separate and autonomous identities and functional integrity against hostile forces. Survival is the root cause of security; however, there is a wide variety of concerns and fears regarding living conditions. Furthermore, the urgency of security requires taking immediate or exceptional actions (use of force) to counter threats, and it becomes part of everyday life's uncertainties.⁴⁷

1.3 Copenhagen School of Thought and Securitization

There are different perspectives of security developed during the Cold War, and they revolved around the concepts of traditional security, and threats from other states. After the cold war, when there were no significant traditional security threats in the international system, then scholars of security studies started expanding the scope of security studies and included non-traditional security issues in the discussion of security. Copenhagen school of thought added new discourse in the debates of security

⁴⁶ Rhonda Powell, "The Concept of Security," Research Gate, June 2012, accessed May 30, 2022, https://www.researchgate.net/publication/263662107_Security.

⁴⁷ Barry Buzan, "New patterns of global security in the twenty-first century," *International Affairs* 67, no. 3 (1991), accessed May 30, 2022, doi:10.2307/2621945.

studies. As a result, a new theory regarding security has been introduced in global politics.

The theory of Securitization is formulated by Barry Buzan and Ole Weaver. The theory is based on non-traditional security threats, which are self-referential in nature. However, there are three steps of securitization theory, including

- Identification of existential NTS threats
- Securitization and make a mechanism or policy to take immediate actions to counter such threats
- De-securitization

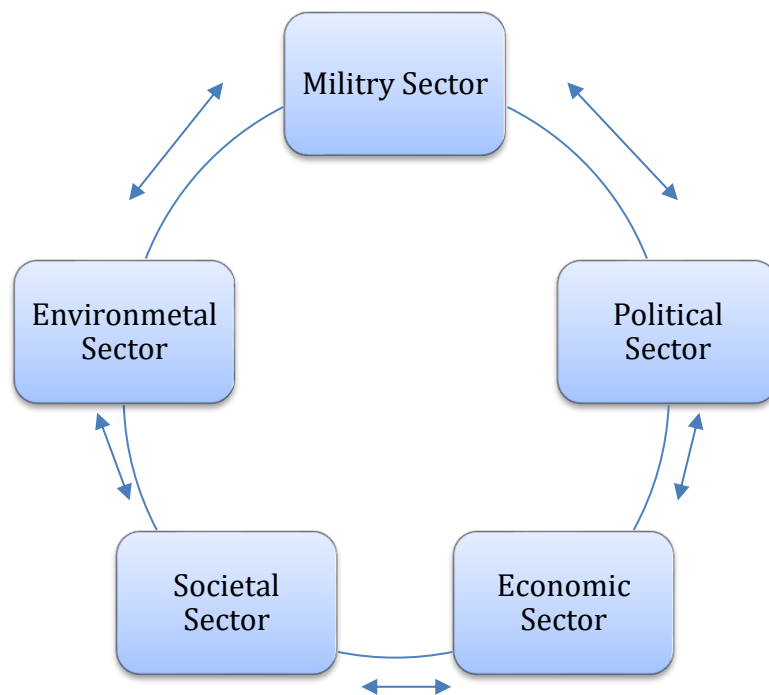
The theory is not based on objectives; it comes into existence as a result of speech act between narrowers and wideners. Narrowers associate security with traditional threats; on the other hand, wideners feel insecure due to poverty, food shortage, water scarcity, environmental degradation, and the rise of sea level. They believe such threats are more violent than the traditional ones because these issues ignite anytime and transform from minor-level disorder to full-scale or civil war.

As a result of climate change, the ice is melting, and the sea level is rising and is endangering the inhabitant of coastal areas and islands. Nevertheless, piracy, smuggling, and trafficking are creating chaos in maritime domain and affect activities in maritime sector.

Before Barry Buzan, Ole Weaver, and Copenhagen School of thought, military was associated with traditional security. According to Buzan, security is rooted in five sectors that are embedded in each other and cannot be separated fully from each other. End of Cold War opened new doors of connections and relations in international affairs and globalization has changed the nature of cooperation and relations among states. Not only economical, but globalization has societal and environmental effects on the globe. Subsequently, the whole scenario of security has changed and become more vibrant and wider in comparison to traditional security. The five sectors of non-traditional security are;

- Military
- Economy
- Political
- Societal
- Environmental

Figure 3: Relationship between Sectors



Source: Researcher has developed the pictorial infograph.

Due to governance issues, lack of facilities, illiteracy, social and economic injustices, corruption, and poverty, the region is under the influence of non-state actors. Therefore, the crimes are not limited to national boundaries but expanded internationally. There are various ethnicities residing in coastal areas, and in case of political disruptions, the non-traditional security issues could easily spread at coastal areas, for example the areas of Southeast Asia including the strait of Malacca, Sulu, and Celebes Seas and this could impact the economy and give rise to transnational crimes. The trade routes are not secure because of smugglers, traffickers, and pirates in the region, illegal fishing, dredging, over-exploitation of sand and gravel, and vice versa. Transnational crimes enhance economic instability and affects the societal sector as well.

For example, ship recycling and breaking affect marine environment. As a reaction to environmental degradation, rising sea levels, and water acidification, the region's people start migrating. And as a result of migration, not only crimes, extremism, terrorism, and ideological clashes rise; however, the economic sector is also affected due to corruption, unemployment, and overburden on the host state. Hence, all sectors are equally embedded with each other.⁴⁸

Illegal migration is not only a societal issue but can impact the military, political, economic, and environmental sectors as well. There are several people who migrated from Bangladesh to India. According to Josy Joseph, 10 million illegal migrants of Bangladesh are residing in India.⁴⁹ These illegal migrants are not only a threat to society, like a cultural clash, language issues, and rituals or religious practices; they are a burden on the economy of the host state. They can also cause political disruptions because of ideological differences and hidden aims; therefore, sometimes it leads towards chaos or disruptions in society.

Barry Buzan argues that people are more aware of their rights and needs than before because of technological revolution, globalization, people-to-people connection, and vast means of communication. Therefore, the concept of military security expands and is out of the realm of traditional security.

Military security is not only significant because of bullets, guns, and bombs. There are no definite boundaries, territories, and enemies for contemporary warfare. The concept has transformed due to the evolution of international system. New issues have been emerging due to advancements in technologies and means of communication. The attacks are not predictable, and the attacker is not visible. Anyone can launch attacks from anywhere, such as cyber-warfare, hybrid warfare, and electronic warfare.

Political Security directly links with the governance and political system of states. Disparities, injustices, and discriminations in society indicate a weak political system.

⁴⁸ E. L. Dabova, "Non-Traditional Security Threats in the Border Areas: Terrorism, Piracy, Environmental Degradation in Southeast Asian Maritime Domain," *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences XL-4/W3* (2013), accessed June 1, 2022 doi:10.5194/isprsarchives-xl-4-w3-51-2013.

⁴⁹ Josy Joseph, "Securitization of Illegal Migration of Bangladeshis to India," *Institute of Defence and Strategic Studies Singapore*, 2006, accessed June 1, 2022 <https://dr.ntu.edu.sg/handle/10356/79875>.

Therefore, the weaknesses in political system can cause political unrest in society. If the governments and heads of state do not respond effectively to the situation, the political unrest can convert into a full-fledged civil war. This civil war opens doors for hidden enemies to intervene in the political system, unstable the system, ignite the situation and hijack the state's political system.

Economic security is significant as territorial integrity. In the current scenario, deprivation of bread and butter, poverty, unemployment, inflation, hunger, and water scarcity are more dangerous than the incapability of nuclear power and missiles. The deprivation can convert to full-fledged civil war anytime and can cause chaos, turmoil, and disorder not only within the state but a serious concern for the region. If state takes funds, e.t.c. from developed states, it again leads them into chaos in the form of a debt trap and harms their sovereignty.

Barry Buzan describes "societal security is the ability of societies to reproduce their traditional patterns of language, culture, association, religious and national identity, and customs within acceptable conditions for evolution."⁵⁰ Every state has fault lines, which can ignite anytime and create more frustration than traditional security threats. Such as Islamophobia, LGBT, ban on rituals and traditions (ban on veil, gown, and force for gown and veil), discrimination, injustice (like White and Blacks), and mass killing of some particular creed in society. This can alter anytime into severe clash among or between groups in society, and sometimes to control the situation, it becomes vital to use traditional means of security like guns and bullets, e.t.c. which can further lead towards civil war and turmoil in the states.

All sectors are essential in terms of non-traditional security threats. However, military, political, economic, and societal security cannot be assured without ensuring environmental security. The industrial revolution and advancements in every facet of life have direct impacts on the environment. In the current scenario, climate change, environmental degradation, ice melting, change in rain patterns, and acid rain are common; subsequently, summers are longer than winters all across the globe. This leads

⁵⁰ Salvin Paul, "Societal Security," *The Palgrave Encyclopedia of Global Security Studies*, 2019, doi:10.1007/978-3-319-74336-3_359-1.

towards water scarcity, food shortage, and endangerment of species and introduces new diseases every day.

The study is limited to socio-economic sectors of security. Thus, the economic and societal sectors can harm not only the political system but also cause severe threats to the military sector, and disturb the environmental sector. Apparently, economic and societal issues do not seem as threatening, but if ignited, they are more harmful than traditional threats. Every sector has its referent object and threats.

a) Referent Object

The object which is in danger and needs to be secured by the securitization actor is called referent object. According to the Copenhagen school of thought, the possible referent objects to the states, include environmental habits, national economies and sovereignty, and collective identities.⁵¹

b) Securitizing Actors

There are two kinds of actors; functional actors and securitizing actors. Functional actors cannot securitize the issue. On the other hand, securitizing actors are the individuals who have the authority and power to securitize the issue (existential threat). Moreover, the actor who presents an existential threat to a referent object and emphasis to take immediate action to counter a serious threat is called a securitizing actor.

c) Audience

They are the individuals who have the authority to consider and approve the existential threat defined by the securitizing actor and the power to allow taking legal action on the issue.

In 2004, humanitarianism is securitized by UNICEF due to Indian Ocean Tsunami. There are almost 227, 000 people died, which belongs to fourteen countries in the

⁵¹ Marius Ghincea, "The Audience(s) in Securitization Theory," Research Gate, March 2017, accessed April 15, 2022, https://www.researchgate.net/publication/320508412_The_Audiences_in_Securitization_Theory.

region.⁵² In Sri Lanka high alert had imposed. The tragedy affected all the regional states; therefore, UNICEF put relief efforts on the most affected states, including Sri Lanka, Indonesia, and Maldives.⁵³

Bagnoli's have been migrating towards India for years due to economic and political contention. The Indian government has securitized this issue of illegal migrants from Bangladesh; however, the problem is still intense. Indian people are also suffering from poverty and unemployment; furthermore, it is estimated that over 10 million migrants are residing in India; therefore, the aggression and hatred of Indians are going to enhance day by day due to illegal migrants. Moreover, the migrants are also considered as a threat to the intelligence agencies of India. Due to the illegality, there is a bloody situation in Tripura and Northeast India.⁵⁴

In this situation, the ethnic population of Northeastern India is a reference object. Nearly all people of India, who belonged to different tribes, believed that the encroaching Bangladeshis posed a severe threat to their culture, economy, and other rights. The intelligence agencies and the Indian government are the securitizing actors, and the citizens of India are their audience.

1.4 Background of Neo-Liberal Institutionalism

The idea of liberalism evolved after WW1 when Woodrow Wilson gave fourteen peace points. As a result, the first institution came into existence to prevent wars and bloody conflict in the international system (LoN). The theory of liberalism is based on the idea of liberty, justice, equality, and values. It explains that human beings are good by nature instead of brutal, selfish, and self-centered (described by realists). They believe in cooperation, coordination, and friendly relations. According to liberalism, international

⁵² UNICEF, The 2004 Indian Ocean Tsunami Disaster: Evaluation of UNICEF's Response (Emergency and Initial Recovery Phase) - Synthesis Report - World, (New York: UNICEF, 2006), accessed April 15, 2022, <https://reliefweb.int/report/world/2004-indian-ocean-tsunami-disaster-evaluation-unicefs-response-emergency-and-initial>.

⁵³ Scott D. Watson, "The Securitization of Humanitarian Migration," SAGE 42, no. 1 (2009), accessed April 16, 2022, doi:10.4324/9780203876794.

⁵⁴ Josy Joseph, "Securitization Of Illegal Migration of Bangladeshis To India," Institute of Defence and Strategic Studies Singapore, no. 100 (January 2006), accessed April 17, 2022 <https://www.rsis.edu.sg/wp-content/uploads/rsis-pubs/WP100.pdf>.

relations are not limited to state-state interaction; however, they include relations among people, organizations (MNCs, INGOs), and groups.

There are five key assumptions of liberalism.⁵⁵

- All state, non-state and transnational actors (MNCs, INGOs, human rights groups, and environmental protection groups) are important in global political affairs.
- Individuals are the unitary actors instead of states. They focus on interconnectedness and interdependence not limited to the economic sector, but it links with the social, cultural, and political sectors as well.
- International politics is beyond the limits and boundaries of military-security issues. It includes environmental, social, and economic issues along with military and security issues.
- Policies are designed and decisions are taken by the bureaucrats or specific groups and bureaucrats are individuals, their knowledge might be less or fewer on some particular issue, the individual level analysis has impacted the outcomes and international relations; therefore, states are not considered as rational actors.
- Liberalism also focuses on the condition and level of cooperation and collaboration among states and individuals. It emphasizes that in situations of chaos and turmoil, peace is possible and it is achievable through coordination and cooperation.

International organizations are playing significant role in spreading interdependence and regional integration. Furthermore, governmental and non-governmental organizations' role is substantial in promotion of friendly networks and strong connections in international sphere. Liberalists believe in integration, interdependence, global governance and neo-liberal institutionalism. Thus, the theory of neo-liberal institutionalism is rooted in liberalism.

⁵⁵ Paul R. Viotti and Mark V. Kauppi, *International Relations Theory* (Lanham: Rowman & Littlefield Publishers, 2019) accessed April 20, 2022.

1.4.1 Neo-Liberal Institutionalism

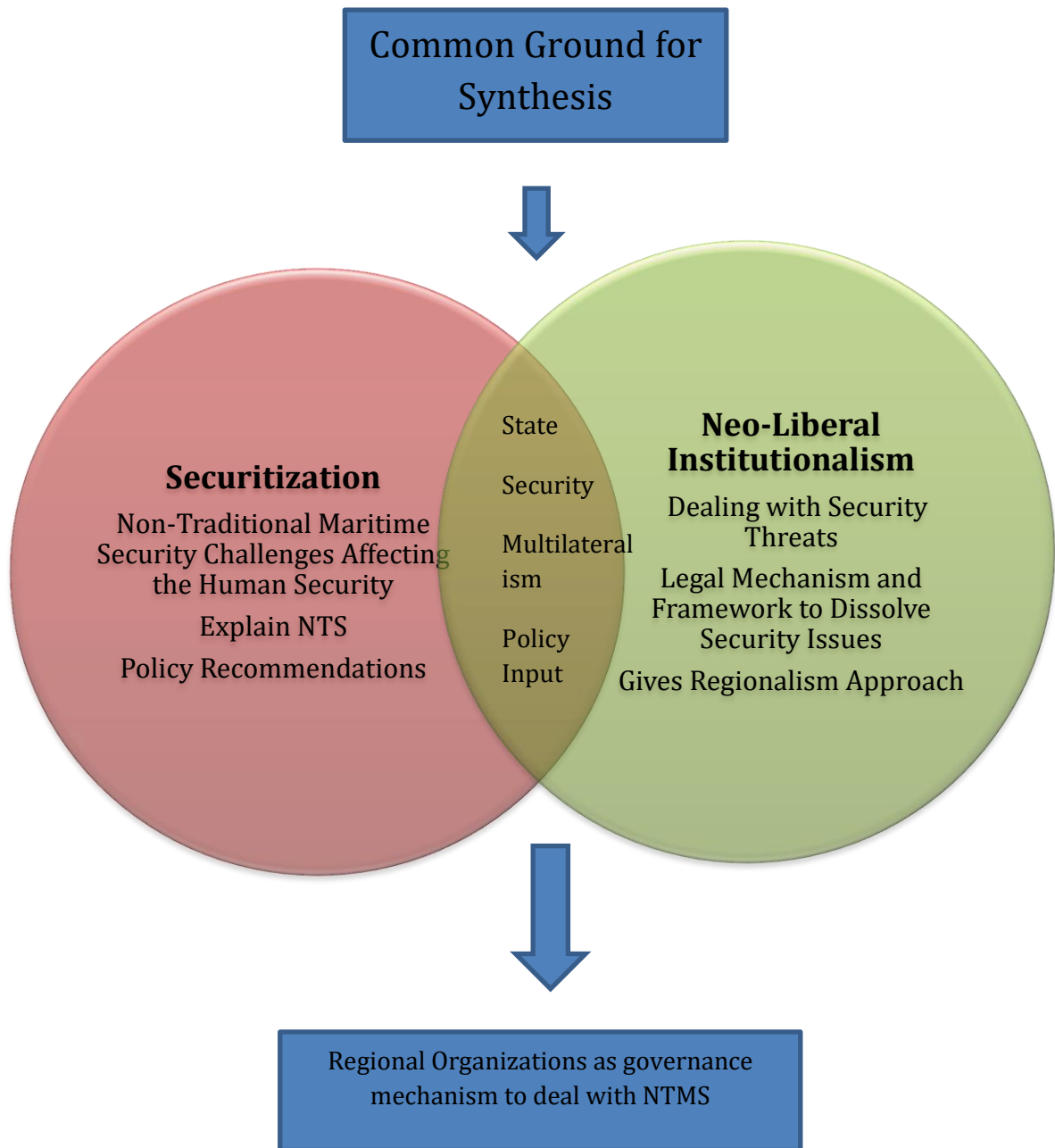
The theory of neo-liberal institutionalism is the new branch of neo-liberalism, and it is formulated in the 1970s. It comes under consideration as a result of an analysis of states' behavior. States cooperate most of the time in international anarchic structures because of two reasons; security dilemmas and relative gains. Joseph S Nye and Robert O Keohane explain that the cooperation of states is because of complex interdependence. States are not interacting through direct channels; however, indirect channels are also involved, such as MNCs and INGOs. States cooperate not only security related issues but also on common shared interests; as a result, there is a considerable decrease in the use of hard power (military force).

According to Joseph S Nye and Robert O Keohane, its assumptions are similar to the assumptions of realism.⁵⁶

- States are unitary actors in IP on demands of public/citizens
- According to neo-liberal institutionalists, states and governments cooperate and interact not just focusing on relative gains, but are concerned about absolute gains.
- States pay attention not only to security, but also to areas where their mutual interests converge.

⁵⁶ Karen A. Mingst, Heather Elko McKibben, and Ivan M. Arreguin-Toft, *Essentials of International Relations* (London: W.W. Norton & Company, 2018) accessed April 22, 2022.

Figure 4: Synthesis of Securitization and Neo-Liberal Institutionalism



Source: Researcher has developed the pictorial info-graph.

Securitization describes NTS, NTMS challenges affecting human security, and provides policy recommendations. On the other hand, neo-liberal institutionalism deals with security threats, provides legal mechanism and framework to dissolve security issues, and supports regionalism approach. The converging areas of both theories are state, security, multilateralism, and policy input.

1.5 Regionalism and its Evolution

Regionalism is defined as regionalist organizations, regionalist systems, and regionalist doctrines. Regionalism comes as a consequence of WW2; however, its emergence is associated with two time periods which are Cold War and Post-Cold War. Regionalism is defined by the perspectives of politics and ideologies within different time periods. During Cold War period, antagonism and rivalry were functions by two regional blocs. On the other hand, in the Post-Cold War era, the shifts of power in the global system obviates the need for regional blocs to have political and economic purposes.⁵⁷

Several regional economic integration agreements were developed in Europe in the decades after World War II, notably the European Free Trade Association in 1960 and the European Community in 1957, which underwent a reorganisation to become the European Union in 1993.

The most fundamental kind of economic regionalism is found in free-trade zones like the European Free Trade Association, which entirely or significantly cuts customs charges between its members. By levying a uniform tariff on countries that are not members, custom unions like the EU demonstrate a deeper level of integration. These agreements are strengthened by common markets like the European Economic Area, which permit free trade in goods and services between its member nations. With the use of a common currency, a shared economic strategy, and the removal of all tariff and non-tariff trade barriers, monetary unions, like the European Monetary System, which

⁵⁷ Giovanni Barbieri, "Regionalism, globalism and complexity: a stimulus towards global IR?," *Third World Thematics: A TWQ Journal* 4, no. 6 (2019), accessed April 22, 2022, doi:10.1080/23802014.2019.1685406.

ran from 1979 to 1999, demanded a high level of political integration between member states. Hence, during Cold War, regionalism has largely based on economic gains.⁵⁸

The Cold War period has limited to the regional alliances based on political purposes; however, the quantity and success of these agreements increased; Post-Cold War era revives the regional organizations, including ASEAN, the Southern African Development Community (SADC), the Caribbean Community (CARICOM), and the Economic Community of West African States (ECOWAS), as well as the birth of new ones such as the North American Free Trade Agreement (NAFTA), the Asia-Pacific Economic Cooperation (APEC), the West African Economic and Monetary Union (UEMOA) and the Southern Common Market (MERCOSUR).

The significant changes underwent in international politics (IP) at the end of Cold War. The most significant transformation in the international system was variation in international politics, and this brought new opportunities for the autonomous regional integration process. Because there is no East-West conflict, international actors (state and non-state) have forced to consider the problems and prospects for their economies posed by access to the world market through regional projects. Moreover, Jacques Delors presented a white paper in 1985, which further aided the European integration process; nevertheless, it sought the attention of South Asian states and the Latin American States to enhance their capacity to remain active in international markets. Under the shadow of Fortress Europe, the same worries may be seen as the driving force behind the NAFTA negotiations, which allowed the US to set its terms for reassessing its economic strength at the regional level.

The evolution process has been ongoing due to the growing interdependence in the international system. Private and public actors both welcome regionalism to keep up with the fast-changing circumstances of economic openness, interlinking, and emerging competition and reassess their position within the international system for their financial and economic growth.

⁵⁸ Robert Longley, "Regionalism: Definition and Examples," ThoughtCo, last modified December 21, 2021, accessed May 15, 2022, <https://www.thoughtco.com/regionalism-definition-and-examples-5206335>.

1.5.1 New-Regionalism

New regionalism is the second wave of regionalism which has been begun since 1980s as a result of the demise of integration theory.⁵⁹ It is quite different from the regionalism approach.

The new regionalism can be described as a multifaceted process of regional integration that takes into account components of the economy, politics, society, and culture. Whether it is a foreign policy or an economic policy, it is a package rather than a single program.⁶⁰

- The new regionalism is emerging in a more multipolar world order, as opposed to the old regionalism, which took root in a bipolar Cold War environment.
- The new regionalism is a more natural process from within and "from below," as opposed to the previous regionalism, which was constructed from outside and "from above" (i.e. by the superpowers)
- The new regionalism is a more thorough, multifaceted approach than the old, which was more focused on specific goals.

Hence, it is driven in a way that geographical area is now transformed into a common interest. Thus, the new regionalism suggests a stronger focus on the political aspects. Economic and security-focused regional groups have developed after the Second World War and they have typically organised from above and outside the region. In the post-Cold War era, where "national" economies are outpacing their national polities, the new regionalism is beginning to take shape. Additionally, despite beginning in Europe, like the first wave, it is a global phenomenon. Since every single regionalization process has systemic effects in certain places all over the world, it can be referred to as a world order notion. It is also called distant regionalism.

Old regionalism and new regionalism both are enhancing cooperation; moreover, old regionalism focused on states, and new regionalism added interaction of non-state

⁵⁹ Norman D. Palmer, *The New Regionalism in Asia and the Pacific* (California: Lexington Books, 1991).

⁶⁰ Bjorn Hetne and Andras Inotai, "The New Regionalism Implications for Global Development and International Security," UNU-WIDER : UNU-WIDER, accessed August 5, 2022, <https://www.wider.unu.edu/sites/default/files/RFA14.pdf>.

actors and states. The interaction does not only for countering common challenges and threats, but it may lead towards regional development.

1.5.2 Regional Development with Regionalism

Regional development is undoubtedly a multifaceted idea with a wide range of socioeconomic conditions that depend on a variety of variables, including the availability and accessibility of capital, the quality and quantity of labour, investments in productive and overhead projects, entrepreneurial culture and attitude, physical infrastructures, sectoral structures, technological infrastructure and advancement, open-mindedness, and public support systems.

Regionalism is significant to economic integration, trade, regional connectivity, and the strengthening of national interests. Several regional arrangements are made to mitigate non-traditional security threats because regionalism is more effective and comprehensive to counter regional threats.

The development of a regional civil society that favours regional solutions to local and global issues is another prerequisite for the new regionalism. This has the implication that social and cultural networks are growing faster than formal political collaboration at the regional level, in addition to economic networks.⁶¹

1.5.3 Synthesis of Regionalism

Regionalism is defined as regionalist organizations, regionalist systems, and regionalist doctrines. It has been considered as a key feature of global politics since the 20th century. Since WW2, numerous groups have emerged with regionalism scope and nature. In addition to this, the regional doctrines of those groups define the regionalism approach, its potential, prospects, and scope.⁶²

⁶¹ Norman D. Palmer, *The New Regionalism in Asia and the Pacific* (California: Lexington Books, 1991) accessed May 28, 2022.

⁶² A.P. Rana, "Regionalism as an Approach to International Order: a Conceptual Overview," *International Studies* 18, no. 4 (October 1979), accessed May 30, 2022, doi:10.1177/002088177901800401.

Regionalism and region have different understanding to different individuals. According to Bruce Russett, regionalism is defined by criteria, including social and cultural homogeneity, shared political attitudes and behavior, and political interdependence in the form of shared institutional memberships, economic interdependence, and geographical proximity.⁶³ There are different perspectives on the formation of regionalism.

According to Joseph S Nye, Regionalism is the formation of interstate association or grouping based on the region. The concept of regionalism has taken prominence in international relations near the end of the Cold War. Regionalism is centered on the economic, political, and social systems integration based on common interests among regional states with a similar culture or ideology.⁶⁴

The EU formulation was based on the idea of institutional regionalism. Furthermore, the ASEAN, African Union, and SAARC are established on the same motive under regionalism. Therefore, the same model of institutional regionalism is significant to counter existential NTS threats in IOR.

1.6 Non-Traditional Security Framework

At its most fundamental level, NTS is going to depart from the old security paradigm of state-centricity and military focus. NTS owes its development to postcolonial approaches and third-world security concerns. The NTS framework was developed by Mely Caballero-Anthony and Alistair D.B. Cook in their book "In Non-Traditional Security in Asia: Issues, Challenges, and Framework for Action." The underlying premise of securitization theory is continued in the non-traditional security framework, which recognises that security is not restricted to traditional security. The security environment has evolved since the end of the Cold War. New non-traditional security dangers are also surfacing. The previous security framework prioritised the state. The old security concept was centered on the state and its ability to survive amid anarchy. It overlooked other sources of instability, such as people's identities, histories, and

⁶³ Bruce M. Russett, *International regions and the international system* (Inter-university Consortium for Political and Social Research, 1967) accessed May 22, 2022.

⁶⁴ For detail, see J. Nye, *International Regionalism*, vii. (Wikipedia)

resources, which were not generated by the interstate war. Climate change, resource scarcity, infectious diseases, natural catastrophes, irregular migration, and starvation are examples of non-traditional security challenges that influence people's survival and well-being.⁶⁵

Human security and comprehensive security share space with non-traditional security concerns. According to the non-traditional security framework, non-military and non-traditional security threats can escalate to conflict or even war. It demonstrates that while the NTS Framework discusses resolving challenges through multinational firms, it does not rule out the potential of state competition, conflict, or even war. Individuals and states are both security objects in the NTS framework. Traditionalists define security in terms of sovereignty, which is insufficient because the nature of challenges in the modern day has changed dramatically. Economic security, health security, environmental security, community security, and people security are all important aspects of the human security concept. Human Security prioritises people over the state.⁶⁶

1.7 Non-Traditional Maritime Security Framework

According to Christian Bueger and Timothy Edmunds, maritime security has been categorized into three parts: security policy planning, formulation, and documentation. Furthermore, there are various challenges in the way of actors who are dealing with maritime security, such as coordination of action and operations in the field because of a lack of awareness about the maritime domain. Maritime security agendas can be disseminated through capacity building (spread of knowledge and skills) and reforms in the security sector to the locals.⁶⁷

⁶⁵ Caballero-Anthony and Cook, "NTS Framework" accessed May 30, 2022.

⁶⁶ Mely Caballero-Anthony, "Understanding Non-Traditional Security," in *An Introduction to Non-Traditional Security Studies: A Transnational Approach*, ed. Mely Caballero-Anthony, 1st ed. (Lond: SAGE Publications Ltd, 2018), 3–19, accessed May 27, 2022, <https://doi.org/10.4135/9781473972308.n1>.

⁶⁷ Christian Bueger and Timothy Edmunds, "Beyond seablindness: a new agenda for maritime security studies," *International Affairs* 93, no. 6 (2017), accessed May 25, 2022, doi:10.1093/ia/iix174.

Moreover, in the contemporary scenario, nature of maritime security has four domains, including national security, marine environment, economic development, and human security.

The national security domain depends on deep-rooted naval strategy and sea power traditions. It focuses on the development of naval power first and then its application. It also emphasizes the projection of the military for security and protection at sea; moreover, warships use to secure the routes (which are used for trade and commerce), keep the deterrence, and surveillance (spying, cyber-warfare).

In comparison to national security, the maritime environment domain deals with a variety of issues; climate change, marine pollution, search and rescue, vessel safety and regulation, and health. It has a wider concept; it does not restrict to the issues within the ocean, but it has also concerned with coastal areas and activities (commercial shipping, piracy, terrorism, trafficking, environmental degradation, illegal fishery) and such activities are the reason for instability in maritime.

The second domain interrelates with the economic development domain. Maritime security agenda cannot be separated from the blue economy. Around 90% of global trade is transported by sea, and marine resources like fisheries and offshore oil are important economic assets. Piracy, criminality, and other types of maritime disruption can jeopardise global commerce, whereas coastal states frequently priorities marine resource protection and development because human security in coastal states depends upon marine resources. Hence, human security becomes a central component of maritime security.

Human security is the core concern of maritime security agenda. The lives of individuals and coastal communities are largely affected due to climate change and marine pollution; moreover, it changes the lifestyle of people and endangers living beings. Furthermore, human insecurity promotes at large due to piracy or criminality which leads to economic distress or collapse of individuals.

1.8 Non-Traditional Security Threats Demand Regional Cooperation

There are a plethora of non-traditional security issues emerging day by day around the globe as a result of social, economic, and environmental challenges. Almost every state has been facing non-traditional security threats, including food shortage, water scarcity, energy challenges, endangerment to wildlife, poverty, health facilities, inflation, unemployment, currency liquor, injustices, superiority and inferiority complex, religion and ideological clashes, and language issues, due to climate change and environmental degradation, economic instability, and cultural differences. These issues are the major cause of transnational crimes because criminals, extremists, and terrorists target regions where people are deprived of necessities of life.

Transnational crimes are spreading rapidly in developing areas in comparison to developed areas; therefore, drug trafficking, trafficking in firearms, human trafficking, money laundering, counterfeit goods, smuggling of migrants, e.t.c. are common in developing regions all across the globe. On the other side, cybercrimes, hybrid warfare, and fifth-generation warfare are common non-traditional security threats due to technological advancements and the internet revolution to every developed and undeveloped state and region.

Similarly, in Indian Ocean Region, there are a number of non-traditional security threats which enhance day by day with the advancements in every facet of life. The transnational criminals are adopting new ways to harm state's sovereignty and autonomy to achieve their evil goals. Illegal fishing, over-exploitation of resources, illegal economies, including smuggling and trafficking, sand and gravel smuggling, dredging and dumping at sea, oil spills, and piracy are common activities of criminals, smugglers, extremists, and terrorists in international and national waters. Furthermore, terrorism and extremism are promoted by the smuggling and trafficking of arms and weapons.

In IOR, no state can confront and fight alone with such NTS. So, there is a need for regional cooperation to prevent and confront the activities of criminal organizations and groups. Moreover, criminals are adopting new means of communication and advanced technology because of money laundering and crypto-currencies. So, it is quite difficult

for one state to tackle them alone. Therefore, sharing information, intelligence collaboration, and coordination is compulsory to counter such activities, strengthen the economy and build up society to establish peace and stability in the region.

When it comes to socio-economic non-traditional security problems, every state endeavors to overcome NTS. There are several international institutions, organizations, multinational corporations (MNCs), and treaties facilitate cooperation under a proper framework or mechanism to deal with common issues and are quite successful. The organizations are both inter-regional and intra-regional in nature. Therefore, the same model of institutional regionalism is significant in countering existential socio-economic NTS threats in IOR. Different entities are working in Indian Ocean Region based on the idea of institutional regionalism, including IORA, IONS, IOMAC, South African Development Community, East African Community, e.t.c. Hence, institutional regionalism is necessary to prompt a sense of common identity and goals to improve the lifestyle of people residing in coastal areas of Indian Ocean and combat non-traditional security threats.

Conclusion

Security is not a stagnant concept; it has been evolving day by day. Maritime security is not only about securing oceans and seas but linked with the human security, societal security, economic security, food security, environmental security and national security of the states. NTMS challenges are more violent and intense than the traditional maritime security challenges because it impacts all the sectors of life and have tendency to ignite and transform into traditional ones anytime.

Conceptual framework is design by the synthesis of securitization theory and neo-liberal institutionalism. Securitization describes NTS, NTMS challenges affecting human security, and provides policy recommendations. On the other hand, neo-liberal institutionalism deals with security threats, provides legal mechanism and framework to dissolve security issues, and supports regionalism approach. The converging areas of both theories are state, security, multilateralism, and policy input.

States cooperate most of the time in international anarchic structures because of two reasons; security dilemmas and relative gains. Therefore, number of organizations operational to govern the affairs of oceans and seas. Regional development is based on cooperation, coordination, and collaboration; moreover, it not only secures the defense system of the region, but enhance economic networks which mitigates the chances of NTMS challenges such as trafficking, smuggling, terrorism, and illegal migration, etc.

Chapter Two

Sectoral Dynamics of Non-Traditional Maritime Security (NTMS) Paradigm in Indian Ocean Region (IOR)

Security does not only encompass nation's safety; it also concerns with the welfare of its citizens. Through access to resources, capital, and markets, economic security implies the maintenance of predetermined levels of welfare and state authority. Within the framework of evolutionary change, societal security refers to the preservation of traditional patterns of language, culture, religion, societal order, and communal identity.

The concept of societal security arises when the identity of any state or group is geo-paradise. The threats might range from 'forbidding the use of language, names, and clothes, to the closing of facilities of education and worship, the deportation or killing of community members, e.t.c.

Economic growth is a key to societal progress and stability, but it does not ensure societal advancement or stability. Moreover, economic development and growth are significant in determining a state's position and standing in the international system. On the other hand, human capital is significant for the economic development and growth of states. Moreover, advancements in different domains are linked with economic development and opening doors for opportunities in socio-economic sectors like R&D, education, health, environmental security, improved public services, reduction of poverty, and employment prospects.

Oceans encompass about three-quarters of the earth's surface and provide a tremendous field where highly interconnected development and complex issues are evolving, such as climate change, livelihood, economies, trade, and insecurity. Indian Ocean is the world's third-largest ocean, with a surface area of more than 70 million square kilometers, huge exclusive economic zones (EEZ) of several countries, and high seas.⁶⁸

⁶⁸ WorldAtlas, "The Oceans Of The World By Size," World Map / World Atlas / Atlas of the World Including Geography Facts and Flags - WorldAtlas.com, last modified September 2020, accessed June 2, 2022, <https://www.worldatlas.com/about>.

The Global Ocean Commission highlights that ocean resources account for 5% of global GDP; moreover, it is a source of income for three billion people and supports the livelihoods of 350 million people.⁶⁹

Because the bulk of the littorals is developing countries, the economic and sustainable development concern in Indian Ocean Region is incredibly severe. One-third of the world's population lives in these countries, which rely heavily on marine resources for their livelihood and food security. Pollution, habitat deterioration, and over-exploitation are all stresses on the Indian Ocean's resources.⁷⁰

Overexploitation of resources, illegal economies, and transnational crimes, including smuggling, trafficking, illegal fishing, piracy, smuggling of sand and gravel, excessive coastal industries and constructions, dredging and dumping at sea, oil spills, changing lifestyle of people, including income, education, health, facilities, housing, and employment and poverty, endangerment of species, chaos and depression seems pervasive socio-economic non-traditional security issues at coastal areas of Indian Ocean Region. Moreover, these non-traditional security threats impact the economic development and growth of the states, which directly links with national security and human security.

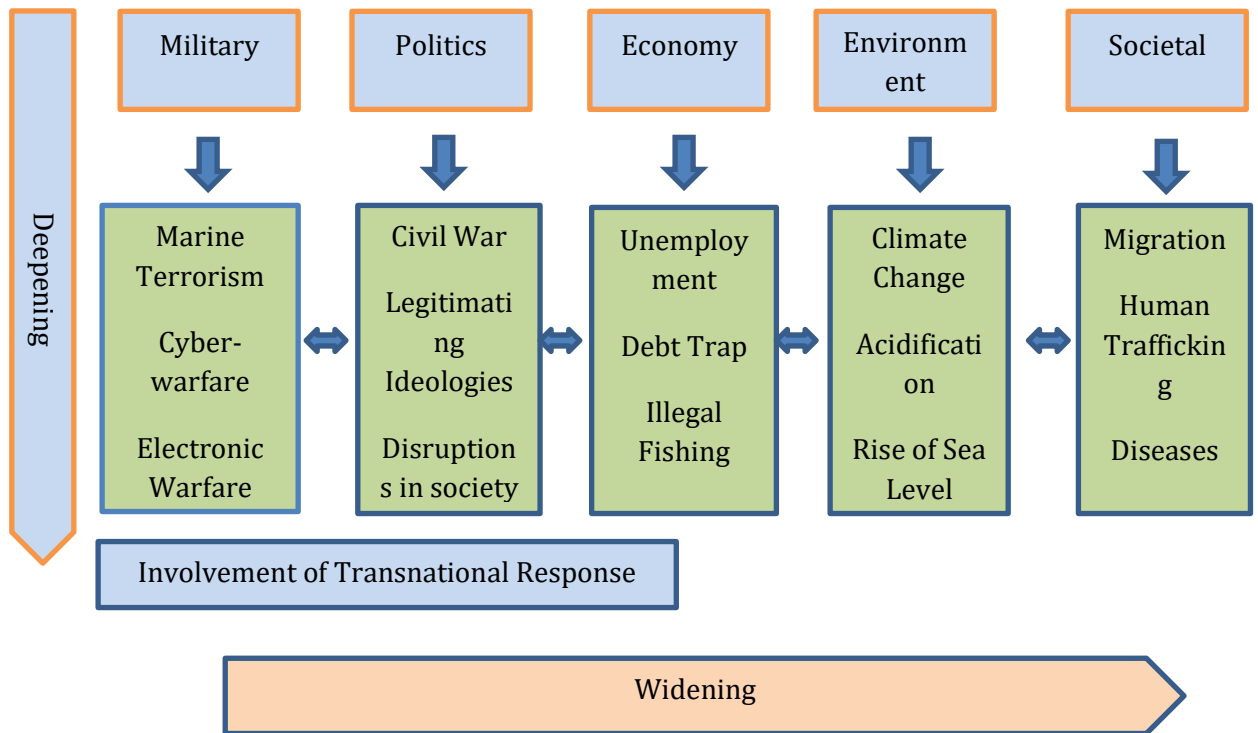
The chapter is based on four sections to describe non-traditional security threats to societal and economic sectors in Indian Ocean Region. i) dynamics of socio-economic challenges and causes of NTS threats in Indian Ocean, ii) kinds of socio-economic challenges include over-exploitation of resources; mining, fishing, sand, and gravel iii) transnational crimes; piracy, smuggling, trafficking, maritime terrorism, and natural hazards; oil and chemical spills, technological threats; cyber-warfare, and the causal

⁶⁹Joris Larik, *Blue Growth and Sustainable Development in Indian Ocean Governance*, (The Hague Institute for Global Justice, 2017), accessed June 2, 2022 https://www.academia.edu/32072333/Blue_Growth_and_Sustainable_Development_in_Indian_Ocean_Governance.

⁷⁰ Aparna Roy, *Blue Economy in the Indian Ocean: Governance perspectives for sustainable development in the region*, (Observer Research Foundation (ORF), 2019), accessed June 5, 2022 <https://www.orfonline.org/research/blue-economy-in-the-indian-ocean-governance-perspectives-for-sustainable-development-in-the-region-47449/>.

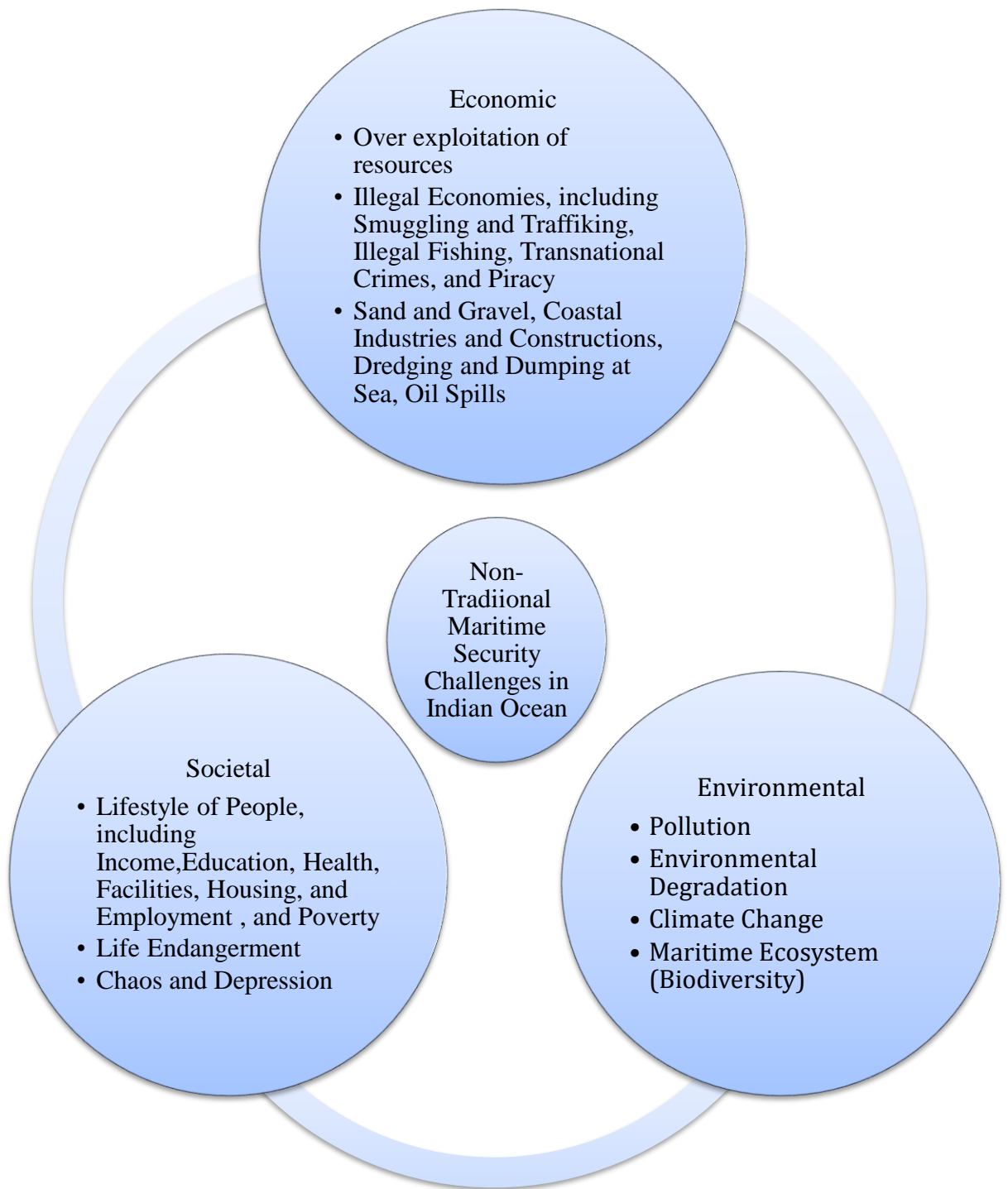
factors behind the NTS threats in IOR and iv) strategies to counter NTS socio-economic challenges in IOR.

Figure 5: Sectoral Dynamics of NTMS in IOR



Source: Researcher has developed the pictorial info-graph.

Figure 6: Nature of Maritime Non-Traditional Security Threats



Source: Researcher has developed the pictorial infograph.

2.1 Socio-Economic Related NTMS

All sectors of Barry Buzan are interrelated to each other. The sectors both deepen and widen the concept of security. The socio-economic non-traditional maritime security threats are given below.

2.2 Over Exploitation of Resources

Over-exploitation of resources such as illegal fishing, unreported fishing, illegal and excessive minerals extraction, dredging, illegal extraction of sand and gravel, coastal industries and constructions, and artificial islands construction leads towards food insecurity, minerals insecurity, livelihood insecurity, e.t.c.

2.2.1 Illegal, Unreported, and Unregulated (IUU) Fishing and Food Security

The problem of unreported and irregular fishing is not new. Illegal fishing has linkages with food insecurity, which is considered a threat to the national security of state because food links with human security. In the contemporary scenario, human security is taken as a matter of national security.

The population in coastal areas relies on seafood, and their income is associated with fishing. Due to illegal and unregulated fishing, the fish are endangered. Therefore, illegal fishing has a direct impact on employment and the economic sector of states. Not only this, it is leading towards food shortages in the coastal areas, not only in Indian Ocean Region but all across the world. Furthermore, the methods to hunt illegal fishing and overfishing also harm the habitat of ocean. They use explosives, gill nets, minute nets, beach seines, dynamite fishing, and use of cyanide; these methods destroy the coral reef and marine ecosystem along with the specific school of fish.⁷¹ Therefore, this results in climate change and affects the human security of the people residing in coastal areas. Furthermore, the coasts become more vulnerable to storms, hurricanes, and

⁷¹ Reef Resilience Network, "Overfishing and Destructive Fishing Threats," Reef Resilience Network, last modified 2022, accessed June 6, 2022, <https://reefresilience.org/stressors/local-stressors/overfishing-and-destructive-fishing-threats/>.

cyclones, which can result in damage and flooding because of the destruction of coral reefs.

Without coral reefs, the ocean is unable to absorb as much CO₂, resulting in more CO₂ being released into the sky and depleting the ozone layer. CO₂ also enhances ocean acidification. Moreover, tropical states are highly affected due to the destruction of reefs and impacts on the economy, food supply chains, and security of coastal residents. This effect also hit the wealthier industrialised countries because they also rely on seafood.

85% of the activities related to fishing occur in IOR, which means fishes are a source of food for the majority residing in coastal areas of IOR. According to the WWF report, there is a categorization of consumption of fish at IOR as per available data from 1991-2009.⁷²

- High Dependence
- Medium High Dependence
- Medium Dependence
- Low Dependence

⁷² Martin Quaas et al., —Fishing for Proteins,| Wwf Germany (Hamburg, 2016) accessed June 5, 2022.

Table 2: Dependence of Countries on Fishries

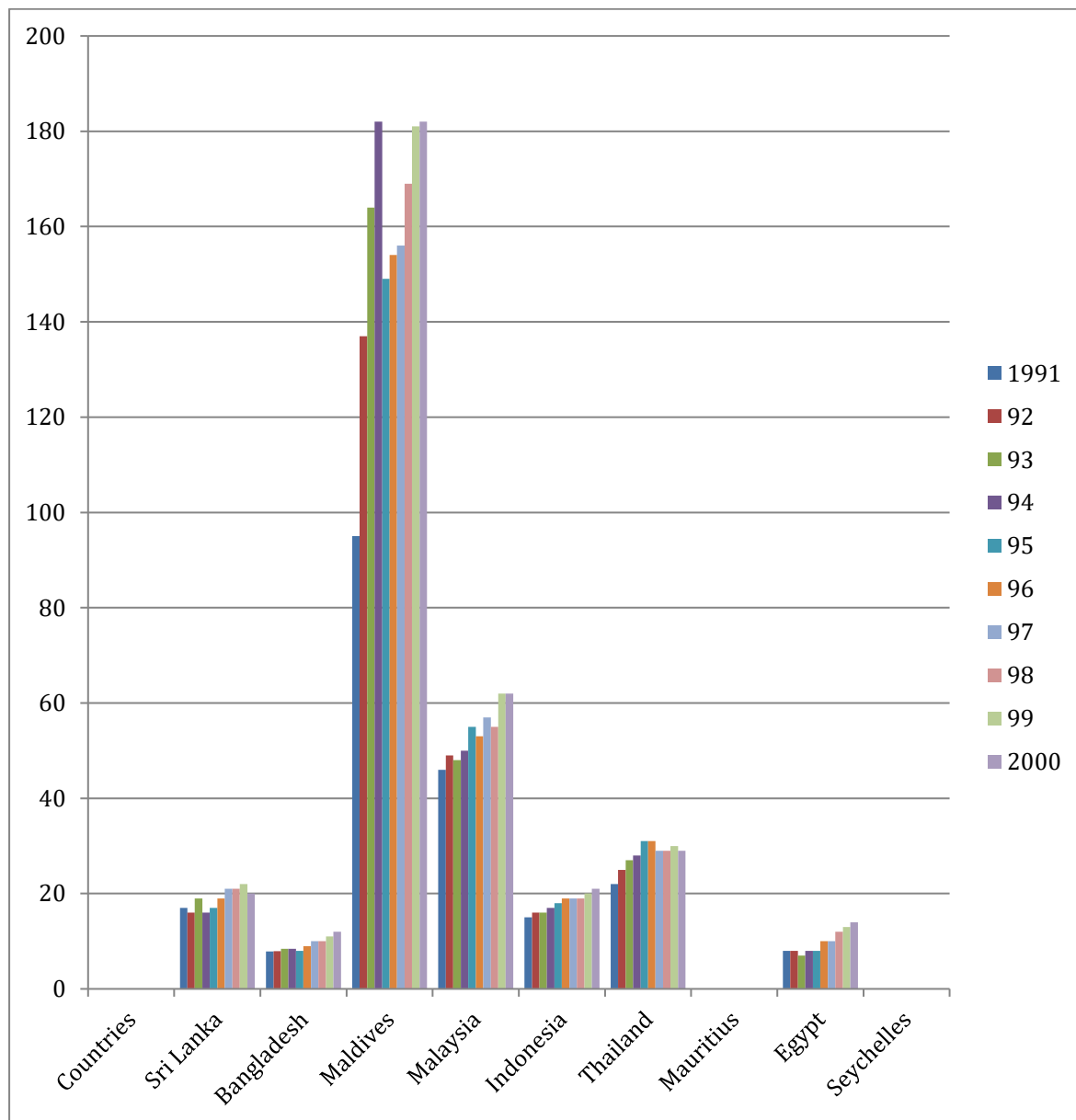
High Dependence	Medium Dependence	High Dependence	Medium Dependence	Low Dependence
<ol style="list-style-type: none"> 1. Sri Lanka 2. Bangladesh 3. Maldives 4. Myanmar 5. Thailand 6. Malaysia 7. Indonesia 8. Egypt 9. Mauritius 10. Seychelles 	<ol style="list-style-type: none"> 1. Madagascar 2. Mozambique 3. Tanzania 4. Somalia 5. Comoros 6. Sudan 	<ol style="list-style-type: none"> 1. Pakistan 2. India 3. Australia 4. Oman 5. Israel 6. South Sudan 7. Kenya 8. Djibouti 9. Yemen 	<ol style="list-style-type: none"> 1. Saudi Arabia 2. UAE 3. Kuwait 4. Singapore 5. Qatar 6. Bahrain 7. Iraq 	

Source: Researcher has developed the table.

It means a majority of the coastal states rely on seafood not only as a source of food, but their income depends on it. Hence, it's a serious concern for all the people residing in coastal areas because the endangerment of fish and sea species leads to a shortage of food. Furthermore, lack of food is the root cause of malnutrition and poverty in any society. Seafood resources, including fishing, have been facing challenges not only in IOR but all across the world.

Graph 1

High Dependence Fish Consumption Countries per capita consumption (kg) from 1991-2000⁷³

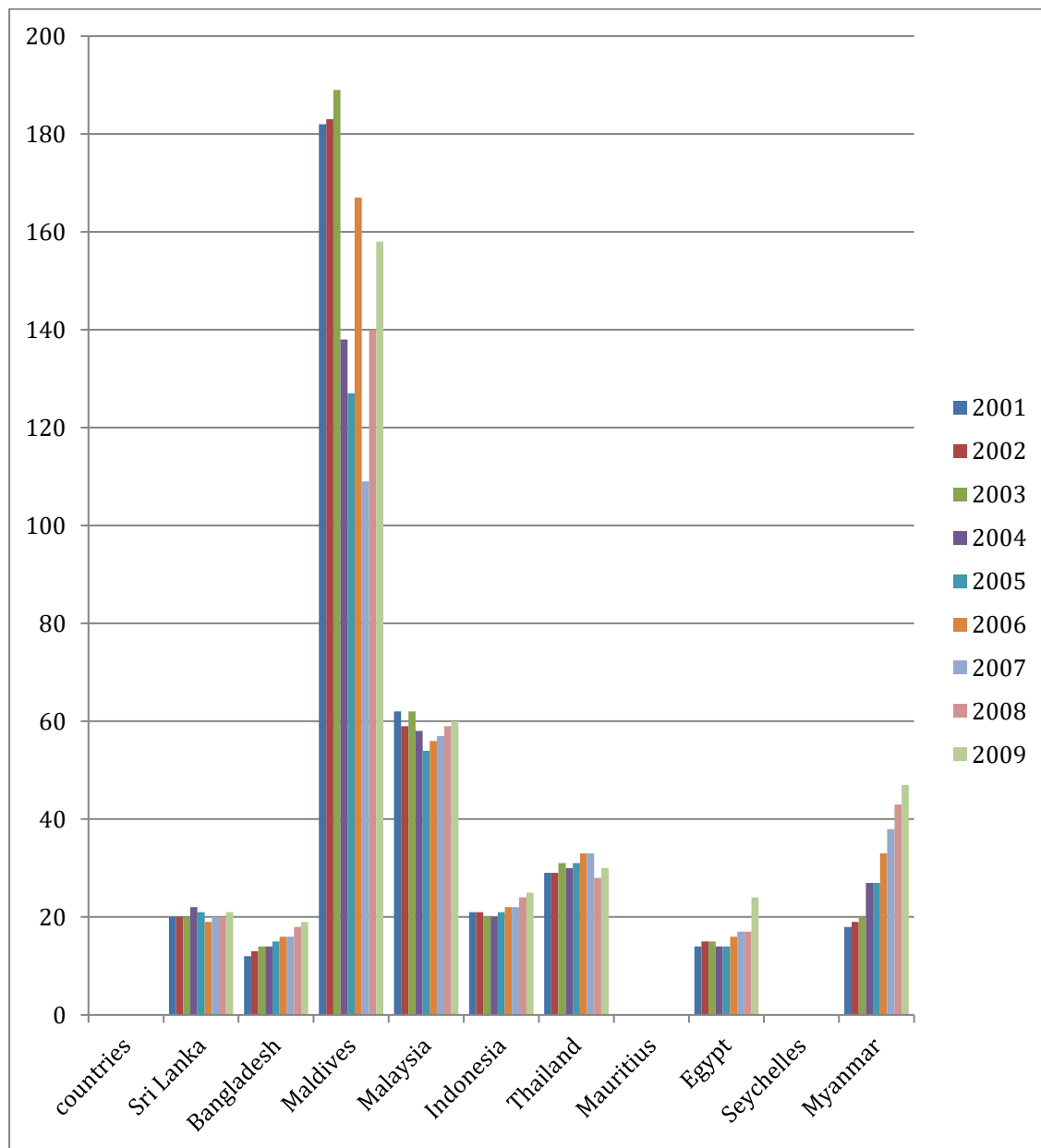


Source: FAO

⁷³ Food and Agriculture Organization of the United Nations, "Home | Food and Agriculture Organization of the United Nations," FAOHome, accessed July 19, 2022, <https://www.fao.org/home/en>.

Graph 2

High Dependence Fish consumption Countries per capita consumption (kg) from 2001 2009⁷⁴



Source: FAO

⁷⁴ Ibid.

The state of world fisheries and aquaculture report 2020 explains that there is a rise of +122% in fisheries consumption during 1990-2018.⁷⁵ Moreover, 2018 data of the mentioned report reveals that 59.9 million people have been employed in fisheries and aquaculture sector. 85% of world fisheries and aqua-cultural activities and employment belong to Asia. The report presents data;

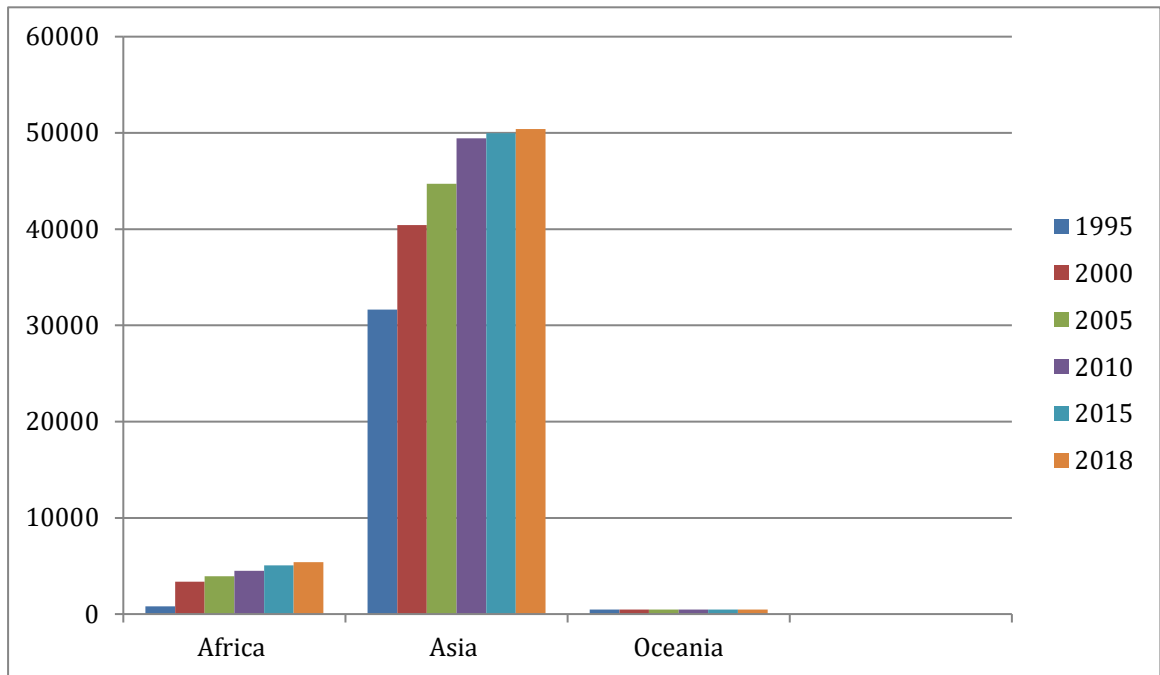
Table 3: Employment of People Depends on Fisheries (thousands)

Countries	1995	2000	2005	2010	2015	2018
Africa	812	3348	3925	4483	5067	5407
Asia	31632	40434	44716	49427	49969	50385
Oceania	466	459	466	473	479	473

Source: Researcher has developed the table.

⁷⁵ Food and Agriculture Organization (FAO) , The State of World Fisheries and Aquaculture (SOFIA), (Rome, Italy: Food and Agriculture Organization (FAO), 2022), accessed June 7, 2022 <https://www.fao.org/state-of-fisheries-aquaculture>.

Graph 3: Employment of People Depends on Fisheries (thousands)



Source: MarineRio Conservation Society

Consequently, IUU fishing is a serious non-traditional security threat. It is necessary to address the issue and take legal actions to secure the fish and other dying species in Indian Ocean before it's too late.

Oceans are significant not only for living resources for food like fish, but they are also crucial in the context of non-living resources, including minerals, sand and gravel, oil and gas reserves, and sometimes it's a source of fresh water.⁷⁶

2.2.2 Dredging

Dredging is another non-traditional security issue in the Indian Ocean. It includes excavation, transport, and disposal, which have both direct and indirect effects on the environment and the socioeconomic sector. Entrainment, habitat loss, noise, remobilization of toxins, sedimentation, and increases in suspended sediment

⁷⁶ MarineBio , "Ocean Resources ~ MarineBio Conservation Society," MarineBio Conservation Society, June 12, 2021, accessed June 25, 2022, <https://www.marinebio.org/conservation/ocean-dumping/ocean-resources/>.

concentrations are all harmful effects of dredging on marine species. Dredging has the ability to alter the ecosystem by increasing sedimentation on the bottom and producing turbidity in the water. Water quality is harmed as a result of changing the chemical proportion of the water.⁷⁷

As a result, Fish breeding areas are harmed and destroyed due to it; moreover, it also affects the river banks. Ultimately, silt floats in water and reduces oxygen levels, and sometimes releases dangerous compounds which are already present in it. This has an influence downstream on wildlife and water quality. Furthermore, it is significantly challenging to dispose of river silt when it has been contaminated by previous industrial activities in rivers' lower catchments. Dredging is also used in mineral extraction through the seabed.⁷⁸

2.2.3 Illegal and Excessive Minerals Extraction

High seas are all about freedom and for anyone, but this concept has been facing so many challenges due to the over-exploitation of minerals and natural resources. Every year, offshore oil and gas drilling gets deeper and deeper, and deep sea mineral exploitation is now a sad reality. The developing and powerful actors are exploiting sea resources rapidly, which causes troubles not only for them but also for the states and actors who are not part of it. Ultimately, everyone has been facing social and economic consequences, including sinkholes, erosion, and loss of biodiversity because of the over-exploitation of minerals.

China has been getting permission from ISA since 2011 regarding mining of Poly Metallic Sulphide up to 10,000 square km in the South Western Indian Ocean for 15 years; however, it has expanded its mining activities up to 86000 square km.⁷⁹ India got permission in 1981 from ISA and started extraction due to extraction of polymetallic

⁷⁷ Victoria State Government , "Dredging," Marine and Coasts, last modified July 28, 2021, accessed June 20, 2022, <https://www.marineandcoasts.vic.gov.au/marine/dredging>.

⁷⁸ Environment Agency , "Floods and Dredging: Explaining the Environment Agency's Approach - Creating a Better Place," *Environment Agency*, December 23, 2021, accessed June 20, 2022, <https://environmentagency.blog.gov.uk/2021/12/23/floods-and-dredging/>.

⁷⁹ The Economic Times , "China finds polymetallic sulphide deposits in Indian Ocean," *The Economic Times*, August 14, 2018, <https://economictimes.indiatimes.com/news/international/world-news/china-finds-polymetallic-sulphide-deposits-in-indian-ocean/articleshow/65400113.cms?from=mdr>.

nodule samples from the Indian Ocean. It got exploration rights of 150,000 square km in the central Indian Ocean Basin (CIOB) under UNLOC; however, it has been exploiting seabed minerals up to 75,000 square km.⁸⁰ ISA also confirmed that 22 states have been extracting seabed resources and it covers 1.3 million square km area of seabed.⁸¹

There are two kinds of minerals under sea bed, including polymetallic nodules and polymetallic massive sulphides.⁸² Machines are used for the extraction of minerals which affects directly on the marine environment and leads to food insecurity and economic implications.

Table 4: Kinds of Minerals in Ocean

Polymetallic Nodules Contains	Polymetallic Massive Sulphides Contains	Other Minirals in Sea Bed
Nickel Cobalt Copper Iron Manganese	Copper Iron Zinc Silver Gold	Tin Titanium Zirconium

Source: Researcher has developed the table.

⁸⁰ Mayank Aggarwal, "India's deep seabed mining plans gear up for a dive," *Mongabay*, July 2, 2021, <https://india.mongabay.com/2021/07/indias-deep-seabed-mining-plans-gear-up-for-a-dive/#:~:text=In%20March%202021%2C%20India's%20Minister,Indian%20Ocean%20Basin%20and%20polymetallic.>

⁸¹ International Seabed Authority, "Frequently Asked Questions (FAQs)," Home | International Seabed Authority, accessed July 20, 2022, <https://isa.org.jm/>.

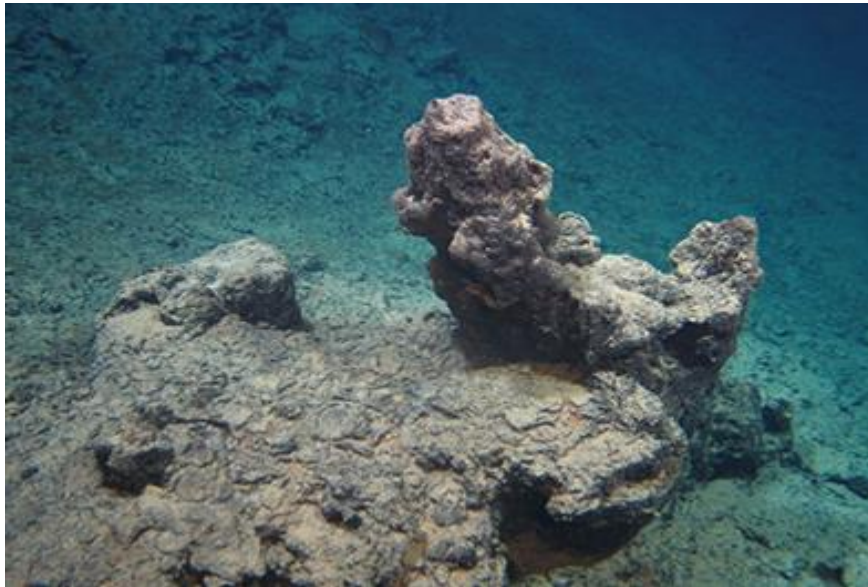
⁸² David Michel and Russel Sticklor, eds., *Indian Ocean Rising: Maritime Security and Policy Challenges* (Washington DC: Stimson, 2012) accessed June 23, 2022.

Figure 7 (a): Polymetallic Nodules



Source: Web Images

Figure 7 (b): Polymetallic Massive Sulphides



Source: Web Images

Figure 7 (c): Manganese Nodules



Source: Web Images

Mineral demand has been rising beyond expectations because of economic growth, green and developing technologies, and globalization. Although quantifying the value of possible marine mineral resources is challenging, the deep sea definitely has significant potential as a mineral supply, and demand is increasing rapidly for minerals. Nickel and tin prices reached historic highs in 2007 and 2008, while copper and manganese prices have also increased in value over the last two decades.⁸³ There has been an enormous rise in copper demand, which has doubled since 1960. Furthermore, rare earth metals like tellurium, neodymium, and niobium were hardly known and used until the 1950s. Their demand rises because of new technologies like solar cells, batteries, smartphones, and tablets, as well as super alloys and superconductors. High-grade marine mineral discoveries are becoming increasingly appealing to investors as rock ranks from traditional mineral deposits on landfall.⁸⁴

⁸³ Ibid. 109

⁸⁴ The New Climate Economy (NCE) , The Global Commission on the Economy and Climate, (Mexico: The New Climate Economy (NCE), 2014), accessed June 10, 2022, <https://www.worldbank.org/content/dam/Worldbank/document/WEurope/2014/IMF-global-commission-economy-climate.pdf>.

Deep sea mining lobby promotes the belief in people that it is less harmful in comparison to land exploitation and exploration because it helps people all across the world to become advanced and modern by using the latest technologies like smartphones and laptops.⁸⁵ However, sulphides have been extracted by machinery, which affects the top layer of the ocean and destroys the ecological community. Furthermore, all sea mining activities without the permission of International Seabed Authority (ISA) are illegal. States only extract mineral resources from allotted areas.⁸⁶ The process of exploration of minerals is quite technical; it covers 65% area of seabed and retrieves 200 m deep into the seabed. It extracts metals which are used in machinery or technology, such as cobalt, zinc, lithium, e.t.c.

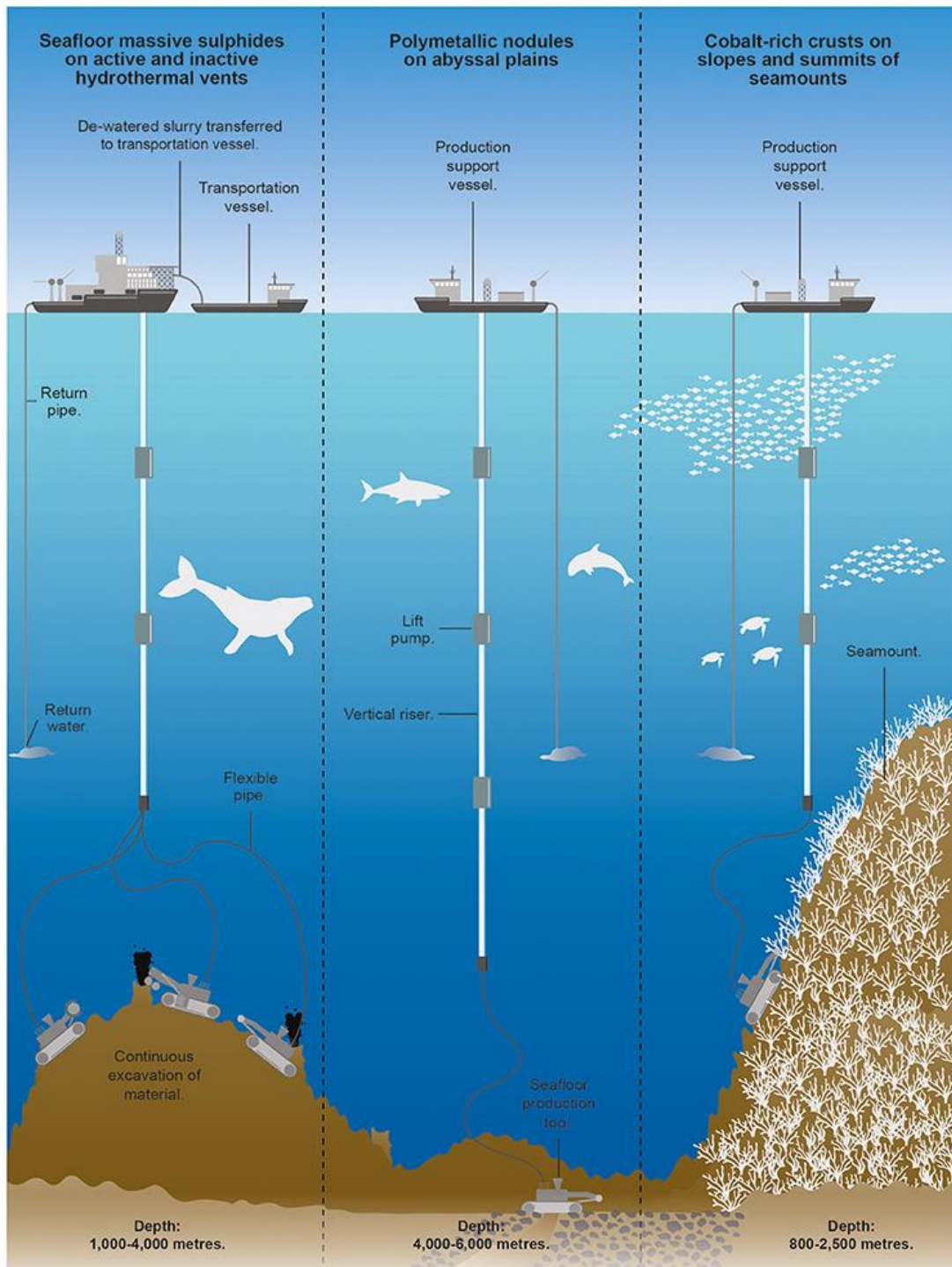
WWF also confirmed that deep sea mining is harmful and disturbs the aquatic ecosystem. It is fatal for marine life and living beings, including fish. It also leads towards poverty and malnutrition because fish is the major source of protein for 1 billion people, and over 200 million people of coastal communities' livelihood depend on fisheries.⁸⁷ Furthermore, seabed mining is harmful to biodiversity and the marine ecosystem. It adds to marine pollution and leads to the loss of species. This is a dire threat because the rapid mineral exploitation from seabed affects the ozone layers and threat to human life. The change in Ocean results in climate change, and this becomes the cause of the rise of sea level and migration. These cause serious threats to the small islands of Indian Ocean because there is a chance of islands drowning like Maldives in IOR.

⁸⁵ Mayank Aggarwal, "India's deep seabed mining plans gear up for a dive," *mongabay*, July 2, 2021, accessed June 12, 2022, <https://india.mongabay.com/2021/07/indias-deep-seabed-mining-plans-gear-up-for-a-dive/#:~:text=In%20March%202021%2C%20India's%20Minister,Indian%20Ocean%20Basin%20and%20polymetallic>.

⁸⁶ Pankhuri Gaur, *Prospects of Blue Economy in the Indian Ocean*, (New Dehli: Research and Information System for Developing Countries (RIS), 2015), accessed June 13, 2022, https://www.academia.edu/40380404/Prospects_of_Blue_Economy_in_the_Indian_Ocean.

⁸⁷ WWF, *WWF Report: Deep Seabed Mining is an Avoidable Environmental Disaster*, (WWF, 2021), accessed June 15, 2022, <https://www.wwf.eu/?2111841/WWF-report-deep-seabed-mining-is-an-avoidable-environmental-disaster>.

Fig 7 (d): Minerals Extraction



Source: Web Image

2.2.4 Illegal Extraction of Sand and Gravel

Sand is the most important and highly consumed natural resource after water. The excessive exploitation of sand and gravel can lead towards wars.⁸⁸ The world's sand deposits are under jeopardy due to increased demand. Three-quarters of the world's beaches are deteriorating and could soon vanish due to erosion or sand smuggling. Sand is the source of silicon dioxide, a mineral that may be found in our wines, cleaning goods and detergents, paper, dried meals, toothpaste, cosmetics, and a plethora of other products. Sand is used in the construction of houses, skyscrapers, bridges, airports, and sidewalks. It's a fundamental particle that's at the heart of our modern progress. Smuggling bands, or "sand mafias," raid beaches and rivers for this highly desired commodity, this is triggered by building activity.

Unsustainable sand mining alters the river's structure. Sand mining carves a deeper, narrower bed by removing more than the river can naturally restore with the silt it transports downstream. This reduces the watershed's capacity to absorb surplus water during floods by lowering the water level, speeding up flow, and eroding banks. It also has an influence on biodiversity by deteriorating habitats that are vital to fish and other animals. Sand mining has a negative influence on rivers, which is compounded by hydropower dams. The Asian Rivers are destroyed by the illegal mining of sand and gravel. Due to China's BRI project, the demand for sand and gravel has increased.⁸⁹ The illegal mining is on peak in India, Pakistan, Nepal and Bangladesh.⁹⁰ In 20th century, China has used even more sand than USA.

The illegal extraction of sand and gravel through rivers of Indian Ocean does not just cause a shortage of sand and gravel and a rise in the prices of houses and construction; however, it affects the aquatic environment and leads to the engendering of flora and fauna. Ultimately, it leads to food crises in the areas near the rivers.

⁸⁸ Denis Delestrac, "Sand Wars," *IMDb*, October 19, 2013, accessed June 20, 2022 <https://www.imdb.com/title/tt2713680/>.

⁸⁹ Marc Goichot, "Sand Mining is Stealing the Minerals from Chinese Rivers," *The Third Pole*, last modified February 11, 2021, accessed June 8, 2022 <https://www.thethirdpole.net/en/nature/sandmining-chinese-rivers/>.

⁹⁰ The Third Pole, "Sandmining is destroying Asia's rivers," *The Express Tribune*, May 8, 2017, accessed June 9, 2022, <https://tribune.com.pk/story/1404434/sandmining-destroying-asias-rivers>.

2.2.5 Coastal Industries and Constructions

Coastal Industries and Constructions affect the coral reefs and coastal habitat, and the chances of flood, storm waves, cyclones, and erosion increase. The livelihood and lives in coastal areas are at stake. Moreover, this impacts the state's economic sectors and links with the environmental sector. Environmental degradation, climate change, and destruction of the marine ecosystem cause severe threats not only to human life, but all the living beings residing at coastal areas. The main coastal industries in Indian Ocean are shipbuilding and shipbreaking, fishing, oil and refinery, and minerals. For example, Karachi Coastal Comprehensive Development Zone (KCCDZ) is included under the CPEC⁹¹ and Coastal Road project Mumbai, e.t.c.

Furthermore, the waste of these industries goes directly into the oceans and rivers and disturbs the marine ecosystem. It is a threat to all the fauna and flora in ocean. Hence, it leads towards fish industry crisis, which ultimately leads to food crisis and malnutrition because seafood is a source of protein for millions of people residing in coastal areas.⁹² Therefore, due to lack of food, shortage, endangerment of sea species, and infectious diseases because of climate change, people start migrating, whether legal or illegal.

Apparently, the above-mentioned issues are not only significant in societal and economic terms, but these have drastic effects on the other three sectors as well, including the military sector, political sector, and environmental sector. On the other hand, military, political, and environmental sectors also impact the societal and economic sectors; therefore, a number of complex and multilayered non-traditional socio-economic challenges emerge in Indian Ocean Region.

2.3 Transnational Crimes

Transnational security issues or transnational crimes have been sponsored by both state and non-state actors. Ambitions behind such crimes are not ascertainable because of

⁹¹ Muhammad A. Noor, "KCCDZ: A crown of Coastal Pakistan," Gwadar Pro, October 24, 2021, accessed June 12, 2022, <https://www.gwadarpro.pk/1452245983476248578/kccdz-a-crown-of-coastal-pakistan>.

⁹² Ibid.

their multilayered nature. The non-military issues which go beyond the borders and boundaries of the defined state's territory and have become a challenge to the security of the political system and the nation's societal integrity and health are a brief explanation of transnational security issues. Moreover, the illicit trafficking of arms and drugs is a new phenomenon, but it has changed its dimension after the Cold War.

2.3.1 Trafficking

Human trafficking, drug trafficking, and arms trafficking are now an open secret in the region of Indian Ocean. Human trafficking is a worldwide crime in which people are traded and exploited for profit. This happens all across the world, including the Middle East, South Asia, Africa, and Latin America, and it can affect all genders, ages, and backgrounds. The purpose is to coerce and deceive their victims; moreover, they have made fake promises of providing good education and work possibilities. People who are vulnerable, desperate, or simply seeking a better life are exploited by organised networks. According to the 2020 Global Report on Trafficking in Persons, in 2018, there were 148 countries that have found a victim of trafficking and reported 50,000 human trafficking victims all across the world.⁹³

There are several purposes behind human trafficking

- Forced labour
- Sex slavery
- Organs removal

Illicit drug markets have had a significant impact on the islands of the western Indian Ocean. These island republics, which are sandwiched between Africa and Asia, have been impacted by changes in drug production and trafficking on both continents, generating a distinct and unique inter-island drug trafficking environment. This

⁹³ United Nations : Office on Drugs and Crime , "Human Trafficking FAQs," United Nations : Office on Drugs and Crime, accessed July 24, 2022, <https://www.unodc.org/unodc/en/human-trafficking/faqs.html>.

ecosystem is undergoing significant changes, with an increase in the number and diversity of illegal narcotics being trafficked to and between the islands.

Drug trafficking is a worldwide illegal trade that involves the cultivation, production, distribution, and sale of controlled narcotics. The United Nations Office on Drugs and Crime (UNODC) is constantly monitoring and researching illicit drug markets in order to get a better knowledge of their dynamics worldwide. Furthermore, World Drug Report 2021 provides an overview of global drug demand and supply. The scope of drug use is increasing with time, and it also has health consequences among people who inject drugs, such as risks associated with NPS use and HIV and hepatitis.

All of the islands (Mauritius, the Seychelles, Madagascar, Comoros, and the French Overseas Territories of Mayotte and Réunion) are vulnerable due to their proximity to a significant heroin trafficking route and burgeoning regional methamphetamine and cocaine networks. The southern route,' in which heroin cultivated in Afghanistan is smuggled via East and Southern Africa to end markets in Europe and the United States, has resulted in an increase in heroin trafficking through the western Indian Ocean.⁹⁴

2.3.2 Smuggling

Smuggling is the illicit transit of commodities or people in contravention of applicable laws or regulations. Such as out of a building, into a prison, or across an international border. Smuggling is motivated by a variety of factors. Participation in unlawful trade, such as the drug trade, illegal immigration or emigration, tax avoidance, providing contraband to a prison inmate, or stealing the commodities being transported is all examples. Bringing prohibited items past a security checkpoint or removing secret documents from a government or corporate workplace are examples of non-financial objectives.

In the Western Indian Ocean and Central Africa, smuggling of migrants and trafficking is the biggest challenge. Because smuggling and trafficking are hurdles in ways of

⁹⁴ Lucia Bird et al., *Changing Tides: The evolving illicit drug trade in the western Indian Ocean*, (Geneva, Switzerland: Global Initiative against Transnational Organized Crime, 2021), <https://globalinitiative.net/wp-content/uploads/2021/05/GITOC-Changing-Tides-The-evolving-illicit-drug-trade-in-the-western-Indian-Ocean.pdf>.

development and the rule of law; moreover, it has been evolving as a direct threat to human security.⁹⁵ There are a variety of sub-regional patterns of human trafficking and smuggling, and the crimes are constantly evolving as traffickers and smugglers, and use the variables that make countries and individuals vulnerable to the crimes. Sexual exploitation, forced labor in mining, agricultural and domestic work, forced begging, and organ trafficking all come under trafficking.

Irregular migration in Southeast Asia is fueled chiefly by economic differences. Despite the fact that borders are open, the UNODC estimates that smugglers are used by over 80% of irregular migrants. Every year, it is estimated that half a million migrants are smuggled into Thailand, mainly from Myanmar (but also from Cambodia and Lao PDR).

Smuggling services have low fees, ranging from a few dollars to a few hundred dollars, making them often less expensive than traditional labour migration schemes.⁹⁶ Furthermore, migration and human activities such as over-exploitation of resources and dumping of waste in the ocean pose multi-dimensional challenges to the marine environment and affects economic productivity in the region and lead towards food insecurity and human insecurity.

2.3.3 Illegal Migration

There are different reasons behind migration, including wage rates, employment opportunities, violent conflicts, natural disasters, educational prospects, and levels of amenity. The factors that promote illegal migration are societal and economic conditions, infrastructure, government policies, prevailing technologies, and lack of basic necessities of life. For example, Africans migrate to Europe, Gulf, the Middle East, and North America due to a lack of opportunities, income gaps, poverty, starvation, malnutrition, violent conflicts, and environmental degradation. Therefore,

⁹⁵ Helene Giraud, "Human Trafficking and Smuggling of Migrants," United Nations Office on Drugs and Crime, last modified 2022, accessed June 2, 2022, <https://www.unodc.org/westandcentralafrica/en/newrosenwebsite/TIPSOM/Human-trafficking-and-smuggling-of-migrants.html>.

⁹⁶ UNODC Regional Office for Southeast Asia and the Pacific, "Smuggling of Migrants," United Nations : UNODC Regional Office for Southeast Asia and the Pacific, last modified 2022, accessed June 12, 2022, <https://www.unodc.org/roseap/en/what-we-do/toc/smuggling-of-migrants.html>.

due to the massive immigration of Africans, Europe has imposed restrictions on visas and immigration policies. So, the massive illegal migration of Africans has been witnessed in Europe.⁹⁷ This mass migration enhances the security issues in the Indian Ocean because smuggling, killing poor people, and trafficking have become common practices of criminals. Moreover, the illegal migrants are not only settling in the Europe but also the Gulf region and the American continent. Furthermore, the people of Asia also migrate all across the world. Almost 40% of migrants are from Asia.⁹⁸

During 2012-2014, the maritime migration was at its peak at the Bay of Bengal to reach South-East Asia. The majority of them are Rohingya Muslims who are suffering from poverty, discrimination, and hunger. Therefore, smugglers' groups have camps on Malaysia and Thailand coasts to lout the migrants. According to the reports thousands of people had died while voyage due to starvation and violence, and hundreds were rescued by the local fisherman; therefore, Malaysia and Indonesia agreed to open their borders to reduce the humanitarian crisis.⁹⁹

The migration not only results in an economic burden to the host state but also affects its traditions, culture, language, and practices. The variation in practices, ideologies, religions, or beliefs may result in chaos, political and societal disruptions, and deprivations in society.

2.3.4 Piracy

According to International Law, Piracy poses a threat to maritime security by jeopardizing the safety of sailors and the security of navigation and commerce. These illegal acts have resulted in the death of seafarers. Moreover, it causes physical harm or hostage-taking and substantial interruptions in commerce and navigation, which leads

⁹⁷ Marie-Laurence Flahaux and Hein De Haas, "African migration: trends, patterns, drivers," *Comparative Migration Studies* 4, no. 1 (2016), accessed June 9, 2022, doi:10.1186/s40878-015-0015-6.

⁹⁸ INTERNATIONAL ORGANIZATION FOR MIGRATION , "Asia and the Pacific," International Organization for Migration, last modified 2022, accessed June 4, 2022, <https://www.iom.int/asia-and-pacific>.

⁹⁹ Kathleen Newland, "Irregular Maritime Migration in the Bay of Bengal: The Challenges of Protection, Management, and Cooperation," Migration Policy Institute | Migrationpolicy.org, last modified July 2005, accessed June 9, 2022, <https://www.migrationpolicy.org/sites/default/files/publications/MPI-IOM%20Brief%20No%20%2013-FINAL.pdf>.

to financial losses. Therefore, the states have increased insurance premiums and security costs which increases costs to consumers and producers and sometimes leads to environmental damage. Attacks by pirates cannot have short-term consequences. It has drastic, long-term ramifications, including a hindrance in providing humanitarian aid and raising the expense of future supplies to the impacted communities.

The UNLOCS articles 100-107 and 110 describe the piracy and framework not only for the subjugation of the piracy but all activities related to robbery and crimes in the oceans.¹⁰⁰ The piracy in Indian Ocean has been reduced in the high-risk area as per BIMCO, INTERTANKO, INTERCARGO, ICS, and OCIMF.¹⁰¹ However, still there are activities of pirates.

Pirates may employ small arms fire and RPGs to intimidate masters of ships into slowing down or stopping to allow them to board. The bridge and lodgings are usually the primary targets for these weapons. To climb up the side of the ship, pirates utilise long, lightweight ladders, knotted climbing ropes, or long hooked poles. They make their way to the bridge once they've boarded to try to take command of the ship. When they get to the bridge, they'll demand that the ship slows down or stops so that more pirates can board.¹⁰²

According to Lydelle Joubert, there is an increase in armed robbery at seas. On the other hand, there is a huge decline in piracy.¹⁰³ However, the attacks have not only economic consequences, but it impacts the human psychology as well.

¹⁰⁰ Oceans and Law of the Sea: The United Nations , "Piracy Under International Law," Oceans and Law of the Sea: The United Nations, last modified May 24, 2012, accessed June 3, 2022 <https://www.un.org/depts/los/piracy/piracy.htm>.

¹⁰¹ Gard , "Indian Ocean Piracy 'High Risk Area' Reduced," Gard, last modified August 30, 2021, accessed June 4, 2022, <https://www.gard.no/web/updates/content/32251424/indian-ocean-piracy-high-risk-area-reduced>.

¹⁰² BIMCO et al., BMP5, (Scotland, UK: Witherby Publishing Group Ltd, 2018), accessed June 3, 2022, https://www.maritimeglobalsecurity.org/media/1038/bmp5-high_res.pdf.

¹⁰³ Lydelle Joubert, State of Maritime Piracy: 2018, (USA: Stable Seas, 2019), accessed June 5, 2022, <https://www.stableseas.org/post/state-of-maritime-piracy-2018>.

According to IMB PRC, the piracy by Somali pirates was on peak in 2011 to 2014 and there is a huge decline in their attacks 2015-2020.¹⁰⁴

Table 5: Piracy

Area	Attacks 2011-2014	Attacks 2015 to 2020
Somali Pirates	358	08
Indian Ocean Region	557	14

Source: Indian Ocean Piracy 'High Risk Area' Reduced.

The entire global supply of petroleum and other liquids reached 99.92 million barrels per day in 2018. More than 60% of it is transported by sea.¹⁰⁵ Therefore, any kind of attack by pirates, terrorists, and smugglers causes economic loss to the states. Furthermore, the coastal states cannot bear that loss, and it could result in a severe financial crisis within the state, which can affect the employment and living standards of people directly.

2.3.4.1 Indian Ocean Routes of Illicit trafficking and Smuggling

Golden Crescent and Golden Triangle are two main regions in Indian Ocean Region for the production and supply of drugs like opium.¹⁰⁶ Pakistan and Afghanistan have been seeking the world's attention because of illicit weaponization, terrorism and extremism, insurgent groups, narco-terrorists, and arms dealers.¹⁰⁷ Narcotics and arms have been

¹⁰⁴ Gard , "Indian Ocean Piracy 'High Risk Area' Reduced," Gard, last modified August 30, 2021, accessed June 18, 2022<https://www.gard.no/web/updates/content/32251424/indian-ocean-piracy-high-risk-area-reduced>.

¹⁰⁵ Vinita Ramani, "Troubled Waters," Kontinentalist, last modified August 22, 2019, accessed June 17, 2022<https://kontinentalist.com/stories/troubled-waters-piracy-and-maritime-security-in-southeast-asia>.

¹⁰⁶ United Nations : Office on Drugs and Crime, "Indian Ocean East," United Nations : Office on Drugs and Crime, accessed July 24, 2022, <https://www.unodc.org/unodc/en/piracy/indian-ocean-east.html>.

¹⁰⁷ See Map 4

enhanced by the geographical association with the Arabian Sea and the Bay of Bengal.¹⁰⁸ It provides perfect waterways for arms and drug supply in different regions through Indian Ocean. Moreover, the insurgents and multiple actors facilitate the narco-terrorists activities in Indian Ocean.¹⁰⁹ Before imposing sanctions on heroine by Iran, the Balkan corridor (Iran-Turkey) route was used for heroine supply.¹¹⁰ After that, the Fergana Valley has become the most popular trafficking route from South West Asia to Russia and the Baltic States.¹¹¹

In recent decades, the number of people living on the shore has risen dramatically, resulting in the major development of coastal districts. Coastal development can have a negative impact on the ocean by destroying coastal marine habitats and causing sediment and pollution run-off. Coastal development includes operations like harbor construction, coastal stabilisation, and aquaculture, all of which result in the degradation of vulnerable marine habitats, including mangroves, coral reefs, and seagrass beds. Coastal development may result in sediment run-off into coastal habitats, suffocating corals, seaweeds, and reducing the amount of light available for photosynthesis. The loss of primary producers and habitat-forming species like corals can have a severe influence on entire food webs. Food and human security can be ensured through investment in the blue economy.¹¹²

2.3.5 Maritime Terrorism

There is no specific definition of maritime terrorism; however, it is a transnational crime. Terrorist organizations, including IS, have been executing terrorist attacks in Indian Ocean for the last decade. In 2019, the IS and the affiliated groups, including Abu Sayyaf group (involved in several million kidnappings, targeting foreigners, and bombing), attacked the two pump boats and kidnapped the fishermen in the Sulu Sea surrounded by Indonesia, Malaysia, and the Philippines. Furthermore, they have been

¹⁰⁸ See Map 2

¹⁰⁹ Aparajita Biswas, "Small Arms and Drug Trafficking In the Indian Ocean Region," *Centre for African Studies*, no. 4 (2008), accessed June 19, 2022, https://archive.mu.ac.in/arts/social_science/african_studies/biswaswp.pdf.

¹¹⁰ See Map 3

¹¹¹ Aparajita Biswas, "Small Arms and Drug Trafficking In the Indian Ocean Region," *Centre for African Studies*, no. 4 (2008), accessed June 20, 2022, https://archive.mu.ac.in/arts/social_science/african_studies/biswaswp.pdf.

¹¹² *Ibid.* 4

causing havoc in Southeast Asia since 2017. They are active in activities like piracy and robbery; however, no one claims responsibility for the terror attacks.¹¹³

History is a witness to armed robbery and other terrorists' attacks on the strait of Malacca and Singapore. This result in fluctuations in the prices of crude oil and affects economic growth. The armed robberies spiked high in 2014 at the strait of Singapore; subsequently, it strengthened the black market for oil. Oil trafficking is a burning issue in South East Asia. Utilizers have taken 3% of oil from the black market.¹¹⁴

In 2004, Malacca Straits Sea Patrol launched by Indonesia, Malaysia and Singapore as well as they have done various exercises to combat marine attacks.¹¹⁵ However, the new kinds of attacks emerge in the maritime domain, including marine cyber criminals and attacks.

The ASG enlisted the help of Indonesian and Malaysian fighters, causing Malaysia to form the Eastern Sabah Security Command (ESSCOM) in 2013. The ASG has used a variety of tactics, including creating scary movies that have been widely published in order to extract ransom payments. Since 2014, six hostages have been beheaded. In 2017, the Philippines, Indonesia, and Malaysia created a Trilateral Cooperative Agreement to cooperate in maritime and aerial patrols in response to increase occurrences and the trauma that seafarers endure during violent hijackings.¹¹⁶

Furthermore, the bilateral agreement between India and Phillipines to secure maritime domain from terror attacks.¹¹⁷ Four Saudi oil tankers were targeted in May 2019, one of which was intended for the United States, following warnings that Iran or its proxies

¹¹³ Kenneth Yeo, "Kidnapping in the Sulu Sea: Implications on Terrorism in the Philippines," *The Diplomat*, October 4, 2019, accessed June 21, 2022, <https://thediplomat.com/2019/10/kidnapping-in-the-sulu-sea-implications-on-terrorism-in-the-philippines/>.

¹¹⁴ Vinita Ramani, "Troubled Waters," *Kontinentalist*, last modified August 22, 2019, accessed June 20, 2022, <https://kontinentalist.com/stories/troubled-waters-piracy-and-maritime-security-in-southeast-asia>.

¹¹⁵ MINDEF Singapore, "Fact Sheet: The Malacca Straits Patrol," MINDEF Singapore, last modified April 21, 2015, accessed June 23, 2022, <https://www.mindef.gov.sg/web/portal/mindef/news-and-events/latest-releases/article-detail/2016/april/2016apr21-news-releases-00134/>.

¹¹⁶ Vinita Ramani, "Troubled Waters," *Kontinentalist*, last modified August 22, 2019, accessed June 25, 2022, <https://kontinentalist.com/stories/troubled-waters-piracy-and-maritime-security-in-southeast-asia>.

¹¹⁷ Krissy Aguilar, "Philippines, India to strengthen ties on maritime security, fight vs terrorism," *Inquirer.net*, October 18, 2019, accessed June 26, 2022, <https://globalnation.inquirer.net/181212/philippines-india-to-strengthen-ties-on-maritime-security-fight-vs-terrorism>.

could target commerce; however, the Security Council (SC) refrained from condemning Iran. These cases demonstrate the current significance of international law assessments of maritime terrorism.¹¹⁸

2.3.5.1 High Profile Maritime Terrorists Attacks

- **Hijacking of Santa Maria (1961)**

On January 23, 1961, a group of twenty-four hijackers had taken control of the 600 passengers, Portuguese ocean liner Santa Maria in the Caribbean. Henrique Galvo, a rival of Antonio de Oliveira Salazar, the dictator of Portugal, was the mastermind of the "Dulcinea" scheme.¹¹⁹

- **Provisional Irish Republican Army (PIRA)**

When Claudia tried to land a shipment of weaponry meant for the PIRA, the Irish Navy intercepted her. There were five tonnes of weapons on board, including 250 assault rifles, handguns, mines, grenades, and explosives developed in the Soviet Union. The ship was owned by West German armaments dealer Gunther Leinhauser, who claimed that PIRA had provided him with a "shopping list" with the necessary supplies and that Libya had fulfilled the "order."¹²⁰

- **Hijacking of Achille Lauro (1985)**

A cruise ship was kidnapped in an effort to force Israel to free 50 detained Palestinians. The criminals were ultimately apprehended in Sicily. Leon Kling-hoffer, a wheelchair-

¹¹⁸ Dr. Juan P. Pérez-León Acevedo, "International Law and Maritime Terrorism," EJIL: Talk!, November 18, 2019, accessed June 26, 2022, <https://www.ejiltalk.org/international-law-and-maritime-terrorism/>.

¹¹⁹ Malvina Halberstam, "Terrorism on the High Seas: The Achille Lauro, Piracy and the IMO Convention on Maritime Safety," *American Journal of International Law* 82, no. 2 (April 1988), accessed June 27, 2022, doi:10.2307/2203189.

¹²⁰ The New York Times, "Ireland's Navy Seizes Vessel With Arms for I.R.A.," *The New York Times*, March 30, 1973, accessed June 28, 2022, <https://www.nytimes.com/1973/03/30/archives/irelands-navy-seizes-vessel-with-arms-for-ir-a-soldier-slain-in.html>.

bound German tourist who was killed, was photographed by international media as he was being tossed overboard.¹²¹

- **Targeting of cruise ships on the Nile River (1992–1994)**

In its general campaign to weaken Egypt's tourism industry, which is a major driver of the nation's economy, the group targeted at least four cruise ships over the course of these two years.¹²²

- **Bombing of the Philippine Super Ferry 14 (2004)**

20 sticks of dynamite were used in the attack, and they were hidden within a TV that had been hollowed out. Due to the lack of an efficient interior sprinkler system, the bomb sparked a fire that swiftly spread across the whole ship. At the time of writing, 63 of the 116 dead have been identified, while 53 are still missing. The incident is ranked as the fourth most serious international incident after September 11, 2001 and the most devastating act of terrorism in maritime history.¹²³

2.3.6 Artificial Islands

Artificial islands are being built for a variety of causes in the current scenario, ranging from residential, industrial, commercial, and strategic goals. On the islands, residential purposes include the construction of housing colonies and other living amenities. The extraction of natural gas, coal, oil, and minerals from the seabed, as well as the construction of processing and manufacturing businesses on the islands, are all examples of industrial purposes. Controlling commercial sea trade routes and straits, tourism and recreational activities, and the construction of commercial infrastructures such as retail malls, seaports, and airports in the midst of the sea are all examples of commercial purposes. Finally, the strategic goal is to establish potential defense

¹²¹ History.com Editors , "US Navy Fighter Jets Intercept Italian Cruise Ship Hijackers," HISTORY, October 9, 2019, accessed June 28, 2022, <https://www.history.com/this-day-in-history/achille-lauro-hijacking-ends>.

¹²² Tarek M. Abdel-Aziz, "Safe Visual Navigation on the Nile River," Research Gate, October 2004, accessed June 29, 2022, doi:10.13140/2.1.2107.6803.

¹²³ Michael D. Greenberg et al., *Maritime Terrorism: Risk and Liability* (Santa Monica: Rand Corporation, 2006) accessed July 4, 2022.

infrastructure and regulate activity on the man-made island in order to keep an eye on the neighbors and maintain control over a specific region; however, artificial islands impact the demography of the region. It is a highly expensive process, it is built for the extraction of more minerals from the seabed, and hence it affects the marine environment. Pakistan at Gwadar, India constructing islands at Willingdon, UAE at Palm Jabel Ali and forest city project at Malaysia have been building artificial islands in the Indian Ocean.¹²⁴

2.3.7 Oil and Chemical Spills

Maritime accidents are intricate and international. With the range of items that container ships currently transport, they sail with a great deal of risk. Moreover, oil and chemical spills are very serious non-traditional security threats in Indian Ocean Region.

The oil spill is a type of pollution that occurs when a liquid petroleum hydrocarbon is released into the environment, particularly the marine ecosystem, as a result of human activities. Typically, the word refers to oil spills that occur in the ocean or coastal seas; however, spills can also occur on land. For example, oil spill at Mauritius, it could take decades to repair and rehabilitate Mauritius, which is located in the Indian Ocean and began leaking heavy fuel oil in a biodiversity hotspot. Mauritius is the home of 1700 species, including fishes, tortoises, and marine mammals, which are used as the source of food for the people residing in coastal areas.¹²⁵ Coral reefs has bleached and finally die as a result of the poisonous hydrocarbons produced by spilt oil.

Chemical spills happen when a dangerous chemical is unintentionally released as a solid, liquid, or gas. In May 2021, the Press Pearl container ship caught fire and sank in the Indian Ocean and released a number of nurdles or plastic pellets from its cargo. These contaminants were less well-known but affected the ecosystem and wash ashore in millions throughout Sri Lanka's coastline. According to Ng Wai Mun, around 80 of 1,486 containers were carried through the ships, which were labeled as "hazardous

¹²⁴ Kavya Sreekumar and Gazi Hassan, "A Study of Artificial Islands," Centre for Public Policy Research, last modified November 2020, accessed July 4, 2022, <https://www.vliz.be/imisdocs/publications/356482.pdf>.

¹²⁵ Soumya Sarkar, "Oil Spill in the Indian Ocean Damages Rich Marine Ecosystems," The Third Pole, last modified August 25, 2020, accessed July 4, 2022, <https://www.thethirdpole.net/en/climate/indian-ocean-oil-spill/>.

commodities" and included nitric acid and caustic soda. Epoxy resins, which are used in paints and primers, ethanol, and lead ingots, which are used to produce car batteries, were also on board the ship.¹²⁶

2.3.8 Marine Cyber-Security

Various cybersecurity concerns have evolved throughout time as a result of information technology, computer networking, and software system improvements in the maritime industry. Cybercriminals and other organisations that could seriously endanger the security of the marine industry have access to the information and data that power maritime operations and infrastructure. Human error and incompetence are the driving forces behind these significant cyber security breaches, whether we look at the Stuxnet attack in Iran in 2011 or the Saudi Aramco cyberattack in 2012. This scenario is especially common in underdeveloped nations or LDCs where the highest level of cyber commitment is still inadequate, making them vulnerable to numerous dangerous viruses that result in cyberattacks.

Cybersecurity may be interpreted as the protection of electronic networks, communication systems, software, control algorithms, users, unauthorised access, damage, manipulation, and underlying data within the maritime infrastructure from various cyberattacks in the context of the maritime industry and maritime infrastructure.¹²⁷

¹²⁶ Ng W. Mun, "Oil, plastic, acid: Sri Lanka's cargo spill under a microscope," *Eco-Business*, February 16, 2022, accessed July 5, 2022, <https://www.eco-business.com/news/oil-plastic-acid-sri-lankas-cargo-spill-under-a-microscope/?sw-signup=true>.

¹²⁷ Zaheema Iqbal and Khurram Khan, "MARITIME CYBERSECURITY: VULNERABILITIES AND COUNTER MEASURES," *Journal of Contemporary Studies* 9, no. 2 (Winter 2020), accessed July 5, 2022, <https://jcs.ndu.edu.pk/site/article/view/13/5>.

Table 6: Cyber-Attacks on Marine Infrastructure in IOR

Marine Attacks	Cyber	Nature of Attack	Country	Year
The Islamic Republic of Iran Shipping Lines (IRISL) became the victim of cyber-attack		Iranian stevedores could not count containers, stored pier-side or placed on ships without manually verifying all twenty-foot equivalent units (TEUs).	Iran	2011
Saudi Aramco Oil and Gas Operator		An employee mistakenly opened a phishing email which had an infected link.	Saudia Arabia	2012

Source: “Maritime Cybersecurity: Vulnerabilities and Measures.”

2.4 Counter Strategy to Overcome NTMS in IOR

The non-traditional security challenges in Indian Ocean Region can be overcome with the proper execution of regionalism and neo-liberal institutionalism.

The non-traditional security challenges in Indian Ocean Region are over-exploitation of resources, illegal economies and transnational crimes, including smuggling, trafficking, illegal fishing, piracy, smuggling of sand and gravel, excessive coastal industries and constructions, dredging and dumping at sea, oil spills, which does not

only affects the lifestyle of people, including their income, education, health, facilities, housing, and employment and poverty; however, it also cause endangerment of species, chaos, and depression. No nation or state can alone combat the non-traditional security threats in Indian Ocean Region.

Therefore, to counter non-traditional security threats there is a need of regional institutions which work under proper mechanism and confront the threats through collective means. Under this regionalism and neo-liberal institutionalism, states share technologies, information, and techniques and this leads to peace and prosperity of the region with proper framework (set of rules and regulations).

Conclusion

Non-traditional security threats in Indian Ocean impact the socio-economic sector badly. The people residing in coastal areas are suffering because of industrial pollution, sea acidification, damage of coral reefs, activities of smugglers and illegal migrants, and several diseases which comes as a result of climate change and disturbance of the marine ecosystem. Not only this, people are in fear because depleting of food resources including fish from oceans due to the IUUF, and they have a fear of food insecurity, smugglers, and pirates. Therefore, people residing in coastal areas are not only facing socio-economic challenges but also facing environmental challenges.

According to Buzan, five security sectors are interconnected with each other and impact each other. Accordingly, societal insecurity frequently results in an economic crisis or mismanagement, creating difficulties in the economic sector. An economic sector crisis becomes problematic for societal sector. Eventually, it leads to political instability; in addition, to control the political instability, there is a need for the military, which also impacts the environmental sector.¹²⁸

The Indian Ocean's resources are under strain due to pollution, over-exploitation, and habitat destruction. Migration and other reason which results in an increase of population have a more significant impact on food security, marine resources, and the

¹²⁸ Yunling Zhang, "Non-Traditional Security and Socio-Economic Development of East Asia," *Rising China and World Order*, accessed July 6, 2022, July 2010, doi:10.1142/9789814304221_0010.

economy. Non-traditional security challenges result in a socio-economic crisis for the states and islands in coastal areas. Such non-traditional security challenges can be overcome through regionalism approach and neo-liberal institutionalism.

Chapter Three

Dealing With NTMS in IOR: Role of Regionalism

Non-traditional security threats in the Indian Ocean vary in nature and impact on coastal areas, and their intensity changes over time and space. Regionalism seems a very effective tool to address economic issues since its inception. Firstly, regionalism was introduced to promote trade and control or reduce tariffs. Complex interdependence and globalization further added to its effectiveness for cooperation and collaboration. European Union is a living example of neo-liberal institutionalism and regionalism.

Non-traditional security threats are transnational in nature. All states agree that a single nation cannot overcome NTMS challenges; therefore, there is a need of combine efforts to counter such threats in Indian Ocean. The nature of transnational crimes has become more intense with the empowerment of non-state actors, technological advancements, and means of communication.

Indian Ocean connects three continents; Africa, Asia, and Australia; however, the region of Indian Ocean has been categorized further into regions, including Persian Gulf, South Asia, Horn of Africa, and South East Asia. The region is governed by four main regional organizations: GCC, SAARC, ASEAN, and SADC. Additionally, the organizations are representative of twenty regional states and five regional islands.¹²⁹

Furthermore, several other national, regional, and international organizations with different agendas and objectives are playing their part in the Indian Ocean. Few of them are working on specific threats like piracy, IUUF, and trafficking, including IORA, IOTC, CTF-150, CTF-151, CTF152, GCC, IORC, IOC, SBA, UNODC, ReCAAP, and BIMCO, etc.¹³⁰

¹²⁹ Manoj Gupta, *Indian Ocean Region: Maritime Regimes for Regional Cooperation* (Berlin: Springer Science & Business Media, 2010) accessed July 4, 2022.

¹³⁰ See Abbreviation

The organizations are performing their duties, but still, there are non-traditional security challenges in IOR. The chapter explains how to make the regionalism approach more effective to counter non-traditional maritime security in IOR.

The chapter revolves around i) regionalism and its evolution, neo-regionalism, ii) regional development with regionalism, iii) analysis of existing regional organizations in IOR to counter non-traditional security challenges, iv) challenges facing by regional organizations in IOR, v) the comprehensive security framework, multilateral approach, and SDG goals as effective tools to counter non-traditional security threats in IOR.¹³¹

3.1 Regional Organizations in IOR Countering NTMS

Key factors influencing the new regional and world order include the creation of trilateral, minilateral, and multilateral organizations, as well as increased bilateral cooperation among like-minded governments. Indian Ocean is still marked by strategic decisions made in accordance with state goals and interests. The many non-traditional security challenges that the region faces should be addressed through regional policies and action plans, which has been designed by the countries in the region. State and non-state actors could reshape already-existing regional initiatives and frameworks to develop more specialised action plans.

As a part of the post-9/11, Operation Enduring Freedom, the US launched series of initiatives to curb smuggling of weapons of mass destruction through the sea, one of such mechanism was Coalition Maritime Campaign Plan (CMCP), others being Container Security Initiative (CSI) and Port Security Initiative (PSI), etc. Therefore, the CMCP actually laid the foundation of a sea-based architecture to handle NTMS. Pakistan also joined the initiative in 2004 and then actually commanded the multi-national maritime task forces several times after that. CMCP gave way to a more structured Combined Maritime Forces (CMF) construct, allowing various nations to operate together under one operational authority to fight NTMS, which didn't exist before in the region. CMF has three Task Forces, viz, Combined Task Force (CTF)-150, for combating NTMS in the Arabian Sea, CTF-151 for combating principally

¹³¹ See Regionalism and its Evolution in Chapter 1

piracy off Horn of Africa and CTF-152 for Persian Gulf security. The initiatives taken to counter challenges vary challenge to challenge 'rules of engagement', which often conflict with those of the US, and there's also lack of sharing information among the partner nations for various reasons.¹³²

Mayilvaganan argued, major challenges that regional organizations face in countering NTMS in IOR are perpetrated by non-actors who operate clandestinely and navigate one region to another swiftly. The lack of capability of maritime forces of the country, lack of coordination among the littorals and sometimes overlapping claims like South China Sea (surrounded states) are one of the major challenges.¹³³

Conventional pattern of partnerships based on economic or security imperatives. In addition, function-based cooperation focuses on the accomplishment of concrete and measurable goals which swiftly evolving into a preferred method of cooperation. Minilateral platforms that have developed in the Indian Ocean Region over the past few years are building their collaborations on a functional structure. This can be a helpful counter strategy for advanced non-traditional maritime security challenges.

3.1.1 Indian Ocean Rim Association (IORA)

The IORA is an intergovernmental organization which has established in 1997. Thirty-three states are interconnected with each other through IORA, in which twenty-three are member states and ten are dialogue partners. The main purpose of the establishment of the organization is to strengthen regional cooperation and enhance sustainable development in IOR. It also focuses on a blue economy to reduce poverty, elevate employment, and ensure food security and economic growth in IOR.¹³⁴ IORA has taken initiatives like Blue Carbon Hub to protect and restore the eco-system based on blue carbon.¹³⁵ Blue carbon also sustains environment and social inclusiveness and economic growth.

¹³² Cmdre Sohail ahmed Azmi, comdt Naval Acadmey, Personal communication with author.

¹³³ Mayilvaganan, Associate Professor, NIAS, Personal communication with author.

¹³⁴ IORA Blue Carbon Hub , "About the Hub," IORA Blue Carbon Hub, last modified April 15, 2021, accessed July 6, 2022, <https://research.csiro.au/iora-blue-carbon-hub/about-the-hub/>.

¹³⁵ IORA Blue Carbon Hub , "About the Hub," IORA Blue Carbon Hub, last modified April 15, 2021, accessed July 6, 2022, <https://research.csiro.au/iora-blue-carbon-hub/about-the-hub/>.

the organisation seeks to address the numerous conventional and nonconventional safety and security issues that the countries in the region face, including piracy, armed robberies at sea, terrorism, human trafficking, undocumented migration, and trafficking in wildlife, drugs, and weapons. In the fisheries industry, there are additional crimes such as IUU, harm to the ecosystem of the oceans, and illegal exploitation of marine resources. These problems are made more complicated by the effects of global warming.¹³⁶

Its existence from eighteen years with regular meetings is the key indication towards IORA success. It facilitates the meetings of numerous nations along the Indian Ocean Rim and serves as a venue for governmental, commercial, and intellectual exchanges. During the IORA Ministerial, foreign ministers had the opportunity to speak with one another privately. IORAG and IORBF sectoral cooperation projects raised awareness of the IOR. It has built centers of excellence in a number of fields, including technology, research, ocean sciences, and environment. In Indian Ocean Region, informal networking between business and academia has increased as a result of IORA. For making business connections and marketing, IORA Business Trade Fairs and IORNET have provided essential information. Every September, along with the UN Summit in New York, IORA Ministers convene.

IORA has been failed to accomplish its goal of fostering cooperation in the Indian Ocean Region. IORA is the composition of extreme variety and that's the main flaw preventing it from being used. Finding any political, economic, social, religious, or cultural linkages as nations from Oceania, South Asia, Southeast Asia, the Middle East, and Africa is quite difficult. Finding a shared goal that matters has proven to be too difficult along the Indian Ocean Rim. As Indonesia, India, and Australia has been taken turns rotating as chairman of the IORA for a total of six cumulative years between 2011

¹³⁶ Sreeparna Banerjee and Pratinashree Basu, *Strengthening Partnerships to Counter Non-Traditional Security Threats in the Indo-Pacific*, (Kolkata: Observer Research Foundation., 2022), accessed July 7, 2022, <https://www.orfonline.org/research/strengthening-partnerships-to-counter-non-traditional-security-threats-in-the-indo-pacific/>.

and 2017, there was a chance to give IORA some form of solid and meaningful shape. However, even during that critical time, no progress was done.¹³⁷

There are several challenges in the way of IORA. First of all, the inability to reach an agreement or consensus on the definition of the Indian Ocean area concept and its geographic scope is one of the challenges encountered when forming a partnership in IORA.

India includes the western part of the ocean in its definition of the notion, in contrast to nations like the USA, which recognize the region as ending with the Indian subcontinent. The unified Indian Ocean, according to some experts, might not take into account the varied regional interests and concerns in terms of the policy.

The nations to India's west have less tools to accomplish this objective than the countries to India's east, despite the fact that there is a guiding principle to ensure that the region remains open and free exchanges among the members in the region. India and a number of other nations are concerned about China's invasive influence in the region.

The western half of the ocean is considerably underdeveloped in terms of geopolitical networking as compared to the activities and networks developed by ASEAN grouping members in eastern part of the ocean. This is made worse by protracted battles along African coast, including those in Somalia, Yemen, and other places. Delhi Dialogue in 2019 has not included QUAD, demonstrating the segregation of international forums. In IOR, there is a lack of an appropriate common governance framework.¹³⁸

¹³⁷ Akshay Narang, "The Indian Ocean Rim Association has finally found its purpose, and it's bad news for China," *tfipost.com*, September 6, 2020, accessed July 7, 2022, <https://tfipost.com/2020/09/the-indian-ocean-rim-association-has-finally-found-its-purpose-and-its-bad-news-for-china/#:~:text=The%20primary%20defect%20holding%20back,economic%2C%20social%20or%20cultural%20commonalities>.

¹³⁸ Karishma , "Indian Ocean Rim Association - Focuses, Challenges, Opportunities | UPSC - IAS EXPRESS," *IAS EXPRESS*, last modified June 24, 2021, accessed July 8, 2022, <https://www.iasexpress.net/indian-ocean-rim-association/>.

3.1.2 Indian Ocean Tuna Commission (IOTC)

Tuna management-related matters are handled by the commission in IOR. One of the most significant species in IOR is tuna. It is very expensive, and its demand is rising day by day on the global market. There are 24 countries in IOTC. Commission operates within FAO's guidelines. This commission is noteworthy because, while having the authority to enact binding conservation and management measures under article XI of its rules, it has yet to do so. It consists of 30 states and majority of them are from IOR. Pakistan, India, Indonesia, Tanzania, Iran, Yemen, Malaysia, Madagascar, Kenya, Comoros, Bangladesh, and Australia are among the nations from IOR that are represented on the Tuna commission.

IOCT commission claims that it serves four primary purposes.¹³⁹

1. It monitors the state of the tuna stock and collects data about it, shares crucial scientific knowledge, and other pertinent statistics that aid in management and conservation of tuna stock.
2. Facilitating research relating to tuna stocks in IOR and other species that fall under the horizon of Tuna Commission is the second most duty of Tuna Commission. In an effort to accomplish its goals, it also engages in other activities, such as enhancing the ability of other countries through the transfer of technology, training, and other measures that guarantee the participation of all members equally.
3. It utilises fundamental scientific data to guarantee the preservation of tuna and other fish stocks covered by the agreement in order to make good use of the resources at hand.
4. It also places conservation activities in context by remembering that the nations where its domains are located are developing nations, therefore it is crucial to understand their social and political climate.¹⁴⁰

¹³⁹ Indian Ocean Tuna Commission, —IOTC | Indian Ocean Tuna Commission / Commission Des Thons de l'Océan Indien, Indian Ocean Tuna Commission, 2021, accessed July 8, 2022, <https://www.iotc.org/>.

¹⁴⁰ Commission.

3.1.3 South Indian Ocean Fisheries Agreement

Another organisation established in IOR to control fisheries and seafood resources is called South Indian Fisheries Agreement. In reality, this body is operating outside of FAO's legal framework because it has not established in accordance with Article XIV of FAO constitution. This organisation does not cover territorial waterways; it primarily focuses on high seas. It concentrates on a variety of species, including migratory species like tuna, in contrast to the tuna commission. This group concentrates on using a preventative strategy to safeguard biodiversity.¹⁴¹

3.1.4 South West Indian Ocean Fisheries Commission

Article VI of the FAO Constitution applied to this fisheries panel. The SIOFA has a connection to this commission. Their formation was intended to allow them to encounter one after the other. Because this commission can only make recommendations, SWIOFC's goal is to provide states with a venue for cooperation. Furthermore, it lacks any managerial authority.

3.1.5 Western Indian Ocean Tuna Organization

The commission was established to serve nations in the Western Indian Ocean. Despite being founded in 1992, it was unable to function due to budgetary limitations. It functioned similarly to the forum fisheries agency, but it also lacked any regulatory authority in accordance with the agreement. The major objective of this commission has to create a coordination structure for IOR's island republics.¹⁴²

¹⁴¹ Southern Indian Ocean Fisheries Agreement, —Southern Indian Ocean Fisheries Agreement (SIOFA) | SIOFA, Southern Indian Ocean Fisheries Agreement website, 2021, accessed July 9, 2022, <https://www.apsoi.org/>.

¹⁴² Dennis Rumley, Sanjay Chaturvedi, and Vijay Sakhuja, Fisheries Exploitation in the Indian Ocean Region, ed. Dennis Rumley, Sanjay. Chaturvedi, and Vijay. Sakhuja, Fisheries Exploitation in the Indian Ocean: Threats and Opportunities, 1st ed. (Singapore: Institute of South Asian Studies, 2009), accessed July 9, 2022, <https://doi.org/10.1355/9789814279406-004>.

3.1.6 The Regional Commissioner for Fisheries

This Gulf-focused fisheries organisation has established in accordance with FAO Article XIV. The Gulf Region is covered by article XIV of the FAO, which put into effect in 2001. It covers the following topics:

1. Fisheries and seafood resource preservation
2. Resource management
3. Supporting the growth of sustainable aquaculture
4. Ensuring proper utilization of living marine resources

This commission's primary responsibility is to make recommendations to the government regarding the aforementioned issues. If no state opposes after a certain amount of time and a two-thirds majority is reached, the recommendations become binding. Issues pertaining to biodiversity are not addressed by this organisation.¹⁴³

3.1.7 Commission for Conservation of Blue Fin Tuna

This commission aims to oversee the resources of the migratory Bluefin Tuna. This commission covers a wide range of migration issues. Moreover, it covers their travel across Southern Ocean, Indian Ocean, and Java breed. When it was first established, it had a small number of members and today, it has eight, including the EU.¹⁴⁴

3.1.8 Combined Task Force CTF-150

It's a naval partnership among 32 nations and comes under Combined Maritime Forces. It is responsible for areas outside Arabian Gulf to keep the region secure from non-state actors. Moreover, it covers Red Sea, Gulf of Aden, Indian Ocean, and Gulf of Oman.

¹⁴³ United Nations Food and Agriculture Organization, —Regional Commission for Fisheries (RECOFI) | FAO Regional Office for Near East and North Africa | Food and Agriculture Organization of the United Nations, | United Nations Food and Agriculture Organization, 2021, accessed July 10, 2022, <http://www.fao.org/neareast/recofi/en/>.

¹⁴⁴ Commission for the Conservation of Southern Bluefin Tuna, —Commission for the Conservation of Southern Bluefin Tuna - Department of Agriculture, | Australian Government Website, 2021, accessed July 10, 2022, <https://www.agriculture.gov.au/fisheries/international/ccsbt>.

Furthermore, CTF-152 is responsible for securing the areas inside the Arabian Gulf.¹⁴⁵ In the realm of maritime, the main agenda of CTF is to counter and restrict the activities of criminal organizations, this includes

- Prevent operations and activities of criminal and terrorist organizations
- Restrict illegal weapons and narcotics used to generate income
- Check and balance on moving personnel

a) CTF-50

It ensures that legitimate commercial vessels can pass through the area without being threatened by non-state actors. However, it is specified for maritime security tasks.

b) CTF-51

Its main objective is to discourage, disrupt, and suppress piracy and armed robbery at sea. Moreover, it secures international maritime trade and ensures freedom of navigation. It also involves in enhancement of capabilities of region and their partners to counter piracy and facilitates trade and navigation.¹⁴⁶

c) CTF-52

It is responsible to protect Gulf region and international waters including oil platforms from terrorists and illicit non-state actors.¹⁴⁷

¹⁴⁵ Combined Maritime Forces , "CTF 150: Maritime Security," Combined Maritime Forces (CMF), last modified June 29, 2022, accessed July 10, 2022, <https://combinedmaritimeforces.com/ctf-150-maritime-security/>.

¹⁴⁶ Combined Maritime Forces (CMF) , "CTF 151: Counter-piracy," Combined Maritime Forces (CMF), last modified April 14, 2022, accessed July 10, 2022, <https://combinedmaritimeforces.com/ctf-151-counter-piracy/>.

¹⁴⁷ Combined Maritime Forces (CMF) , "CTF 152: Gulf Maritime Security," Combined Maritime Forces (CMF), last modified April 12, 2022, accessed July 10, 2022, <https://combinedmaritimeforces.com/ctf-152-gulf-security-cooperation/>.

3.1.9 Gulf Cooperation Council (GCC)

The GCC's goal is to bring its members together based on their shared goals and comparable political and cultural identities, which are derived from Arab and Islamic traditions. One of the major goals of GCC is to counter emerging non-traditional security threats in the Gulf region, including international terrorism, illicit trafficking in drugs and weapons, organised crime, and unauthorised immigration.¹⁴⁸

3.1.10 Indian Ocean Research Group (IORC)

One of the seven principles of IORC is to counter non-traditional security threats of the region.¹⁴⁹

3.1.11 Indian Ocean Commission (IOC)

It is an intergovernmental organization based on five African states. Their agenda is to promote peace and stability, maritime security, food security, environmental conservation, fisheries, an adaptation of climate change and the interests of developing island states, public health, and cultural expression.¹⁵⁰

3.1.12 International Seabed Authority (ISA)

The International Seabed Authority, an independent agency operating under the United Nations common system with headquarters in Kingston, Jamaica, and it has established after the General Assembly's proposal (after a span of 24 years). The Authority has 168 members including European Union and are states parties to the 1982 United Nations Convention on the Law of the Sea (UNCLOS). The Commission follows the

¹⁴⁸ Andrey Kortunov, "RIAC: Meeting Security Challenges in the Gulf: Ideal Solutions and Practical Steps," Russian International Affairs Council (RIAC), last modified May 14, 2021, accessed July 10, 2022, <https://russiancouncil.ru/en/analytics-and-comments/analytics/meeting-security-challenges-in-the-gulf-ideal-solutions-and-practical-steps/>.

¹⁴⁹ Australian Researcher Cooperation Hub, "Indian Ocean Research Group (IORG)," ARCH-India (Australian Researcher Cooperation Hub), last modified August 30, 2021, accessed July 10, 2022, <https://arch-india.org/institution/indian-ocean-research-group-iorg>.

¹⁵⁰ Insights Editor, "Indian Ocean Commission," INSIGHTSIAS, last modified March 7, 2020, accessed July 11, 2022, <https://www.insightsonindia.com/2020/03/07/indian-ocean-commission/#:~:text=Objectives%3A,conservation%20of%20resources%20and%20ecosystems>.

limits of continental shelf and international tribunal according to the law of the sea which are the other two UNCLOS-established international entities.

The Convention defines "the Area" as the seabed and subsoil that lies outside the borders of sovereign jurisdiction or beyond the outer limits of the continental shelf. Its main purpose is to control the exploration, and exploitation of deep-bottom minerals found there. Just over 50% of the Earth's seabed is made up of minerals.

According to UNCLOS, the only way to explore for and use seabed minerals in the area is through a contract with the International Seabed Authority by following its rules, regulations, and procedures. Both public and private mining companies award contracts as long as they are supported by state party to UNCLOS and have the necessary financial and technological resources. Deep seabed mining economic benefits are shared for the "good of mankind as a whole," with a focus on developing nations who lack the resources and ability to conduct seabed mining for themselves. These benefits are most likely taking the form of royalties paid to the Authority and to regulate the exploration. The Authority has created rules that include clauses addressing environmental preservation.¹⁵¹

The Authority's main regulatory concern is how to achieve a delicate balance between the need to preserve marine environment and societal benefits of deep seabed mining, including access to essential minerals, avoidance of community displacement, extensive deep-sea research, and technological development. Naturally, the fact that no portion of the area may be used without the authority's consent and it assures the effects of deep seabed mining on the ocean's ecosystem.

3.1.13 Indian Ocean Forum on Marine Crime

The Global Maritime Crime Programme (GMCP) is run by the United Nations Office on Drugs and Crime (UNODC). It has been assisting its member states to combat crimes related to maritime. It also initiates the program for the Horn of Africa to strengthen

¹⁵¹ United Nations, "The International Seabed Authority and Deep Seabed Mining," United Nations, accessed August 13, 2022, <https://www.un.org/en/chronicle/article/international-seabed-authority-and-deep-seabed-mining>.

maritime law in the Somali regions, with the long-term goal to combat maritime criminal activity before it reaches the high seas. Piracy prosecutions have been conducted throughout Indian Ocean. Mentors are placed within the pertinent maritime entities to provide daily help as part of support.

It has founded as a result of GMCP's initiative, brings together the nations of Indian Ocean in order to combat transnational maritime crime, share intelligence, build prosecution networks, and work together to combat a variety of crimes that now use the ocean as a means of trafficking and transportation. The IOFMC has so far focused on combating wildlife crime, drug trafficking, human trafficking, illicit fishing, and Somalia sanctions violations (particularly the charcoal trade). However, it is hoped that the IOFMC focuses on other maritime crimes, such as white collar maritime crime, arms smuggling, illegal dumping, and piracy and armed robbery at sea in South East Asia.¹⁵²

3.1.14 Indian Ocean East

Bay of Bengal occupies 2,172 million km of maritime zones in the Northeastern Indian Ocean. It has tremendous impact on both worldwide trade and the ways of living for many South Asians. However, it is known that illicit activity, such as unlawful, unreported, and unregulated (IUUF) fishing, human trafficking, and the smuggling of migrants (SoM), occurs in these seas. Similar to this, opioids made in Central Asian countries are put aboard dhows and shipped west and east over the Arabian Sea. they pass through South Asian states including India, Sri Lanka, and the Maldives to get to other places in the East. The Southern Route is a well-known maritime route for smuggling opioids in the Indian Ocean Region. With a primary focus on Bangladesh, Maldives, Myanmar, and Sri Lanka, the Global Marine Crime Programme (GMCP), Indian Ocean East (IOE), and Team of UNODC is tasked with assisting member states in strengthening their capacity to address and combat maritime crimes in the region.¹⁵³

¹⁵²UNODC, UNODC input on activities, including adoption of measures and development of programmes undertaken in the implementation of specific provisions of General Assembly Resolution 69/245 entitled "Oceans and the law of the sea", (Austria: UNODC, n.d), accessed July 11, 2022, https://www.un.org/Depts/los/general_assembly/contributions_2015_2/UNODC_Contribution.pdf.

¹⁵³ United Nations : Office on Drugs and Crime, "Indian Ocean East," United Nations : Office on Drugs and Crime, accessed August 13, 2022, <https://www.unodc.org/unodc/en/piracy/indian-ocean-east.html>.

3.1.15 Global Maritime Crime Program by UNODC

The Regional Office for East Africa in Nairobi is home to the Indian Ocean West (IOW) team of the Global Maritime Crime Program. The programme is active in the following East African nations: Angola, Comoros, Kenya, Madagascar, Mauritius, Namibia, Pakistan, Seychelles, and Tanzania. It has vast experience and knowledge aiding states in the region in their battle against marine crime.

In order to combat serious organised crime in the marine sector, the IOW team is committed to helping member states as part of its mandate to increase collaboration at the regional and international levels as well as member states' capacities to implement the legislation. Regarding areas of expertise, GMCP historically offered assistance in terms of technical, material, and infrastructure for incarceration, prosecution, and law enforcement to nations fighting transnational marine crime all the way through the criminal justice system.¹⁵⁴

In accordance with the mandate of the Indian Ocean Forum on Maritime Crime (IOFMC), all interventions place a strong emphasis on regional cooperation, and offers a strong mechanism for coordination and enforcement, and covering thematic areas of intervention that are primarily but not exclusively focused on maritime drug trafficking, crime related to fishing, and smuggling of coal from Somalia. The fact that 22 states participate in IOFMC operations and shows that the forum significantly fills a need in regional response to these kinds of maritime crimes.

3.1.16 Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP)

This is the first regional government-to-government agreement to encourage and facilitate collaboration against piracy and armed robbery against ships in Asia. Due to widespread concern over incidents of piracy and armed robbery, ReCAAP ISC was first suggested in 1999. After additional member state approval, it entered into force in

¹⁵⁴ United Nations : Office on Drugs and Crime, "Indian Ocean West," United Nations : Office on Drugs and Crime, accessed August 13, 2022, <https://www.unodc.org/unodc/piracy/Indian-Ocean.html>.

November 2006. 21 states have signed it as contracting parties, including 14 Asian countries, 5 European countries, Australia, and the USA.¹⁵⁵

- Working Mechanism
- Information Sharing
- Capacity Building
- Cooperative Arrangements

3.1.17 Indian Ocean Data Rescue Initiative

World Meteorological Organization and Hydrological services have made efforts to collect data from Indian Ocean to check on climate change and climate vulnerabilities, such as droughts, floods, and changes in patterns of monsoon. The IODCI provides details of the environmental changes and marine ecosystem earlier to the nations residing in Indian Ocean. The key vision of INDARE is the recovery of data regarding climate change because no one is seeking its attention to this matter. The plan also includes data collection on rescue operations in Indian Ocean. The activities of INDARE revolve around four key areas, including a collection of data regarding climate change, modernize and arrange the data, capacity development, and ensures implementation of GFCS.¹⁵⁶

3.1.18 The Baltic and International Maritime Council BIMCO

It has initially formulated for Baltic, but extend its interests in other Oceans. It is a private, non-political, independent, and diverse shipping organization. The main goal of the organization is to secure the interest of ships in the challenging and changing environment in Indian Ocean.¹⁵⁷ The organization has high standards for ship operation; moreover, it provides security to the ships and cargo against all kind of attacks and

¹⁵⁵ RECAAP, "Recaap Information Sharing Center for the Ninth Meeting for UN Open Ended Consultative Process on Oceans and Law of the Sea," RECAAP, n.d. accessed July 11, 2022, https://www.un.org/depts/los/consultative_process/mar_sec_submissions/recaap.pdf.

¹⁵⁶ World Meteorological Organization, "The Indian Ocean Data Rescue Initiative," World Meteorological Organization, last modified April 5, 2016, accessed July 12, 2022, <https://public.wmo.int/en/resources/meteoworld/indian-ocean-data-rescue-initiative>.

¹⁵⁷ Christian Tietje and Alan Brouder, *Handbook of Transnational Economic Governance Regimes* (Leiden: BRILL, 2009).

challenges. It also facilitates free trade and ensures open access to the international markets. The guiding principles of BIMCO are;

- Raising awareness of the business, safety, and security dangers associated with a lack of cyber security measures
- Safeguarding shipboard IT systems and associated hardware
- System for user identification and authorization, ensuring appropriate access to information that is required
- Ensuring that the data is adequately protected based on how sensitive it is and how it is used in the ship environment
- Control IT users to ensure they have access to and rights to only the information for which they have been authorised
- Overseeing communication between shoreside and the ship
- Create and implement a cyber event response plan based on a risk assessment

3.1.19 International Maritime Organizations

It is the specialized agency of United Nations responsible for maritime affairs. It is designed to serve as a venue for government cooperation on policies and procedures governing all forms of shipping involved in international trade, facilitating the adoption of comprehensive multilateral treaties for a variety of technical measures and, in particular, the adoption of the highest standards that can be reasonably expected to improve safety, security, and efficiency in shipping involved in international trade.¹⁵⁸

It does not only cover the technical and operational duties to provide maritime safety and security; however, it is responsible for safe navigation, search and rescue, counter-piracy and armed robbery against ships, fire protection, long-range identification, and trafficking, smuggling of migrants, flag state implementation, facilitate the international maritime traffic and combat maritime terrorism.

¹⁵⁸ International Maritime Organization, FUNCTIONS AND CURRENT ACTIVITIES OF IMO AND ITS ACHIEVEMENTS COVERING TECHNICAL FIELDS OF SHIPPING ENGAGED IN INTERNATIONAL TRADE, (International Maritime Organization, 2008), accessed July 12, 2022, https://www.un.org/Depts/los/consultative_process/mar_sec_submissions/imo.pdf.

Counter Terrorism Implementation Taskforce (CTITF), UN Counter-Terrorism Executive Directorate (CTED), the United Nations Office on Drugs and Crime (UNODC), Food and Agriculture Organization (FAO), International Labour Organization (ILO), and United Nations High Commission of Refugees (UNHCR) are in cooperation with IMO.

3.1.20 International Maritime Bureau Piracy (IMB)

The International Chamber of Commerce (ICC) has a specialised component known as the International Maritime Bureau (IMB) (ICC). The International Maritime Bureau (IMB) is a non-profit organisation that was founded in 1981 to serve as a focal point in the struggle against all forms of maritime crime and negligence.

The IMB can legitimately stake claim to being the world's top independent crime-fighting watchdog for global trade because of its multilingual and multidisciplinary staff, experience, distinctive structure, industry support, and well-placed relationships.

Suppression of piracy is one of the IMB's main areas of expertise. In response to concerns over the phenomenon's rapid rise, the IMB Piracy Reporting Centre was established in 1992. The center headquarter is located in Kuala Lumpur, Malaysia. It keeps a constant eye on the world maritime waterways, alerting authorities to pirate attacks and sending warnings to shipping about piracy hotspots.¹⁵⁹

3.2 Challenges for Regional Organizations in IOR

3.2.1 Environmental Crimes

Environmental crimes is the component of maritime which deviates from the factual and legal realities of crimes committed on land. Environmental crimes committed on land have more abundant and accessible evidence. Legal systems that address environmental crimes committed on land are far more developed and offer a more

¹⁵⁹ International Chamber of Commerce Commercial Crime Services, "International Maritime Bureau," International Chamber of Commerce Commercial Crime Services, last modified July 7, 2017, accessed July 12, 2022, <https://www.icc-ccs.org/icc/imb>.

effective response, particularly regarding accountability and responsibility. It is not always simple to find damage at sea. Ships frequently hesitate to disclose incidents of pollution, even when they happen accidentally, out of concern for their financial and legal futures. In order to establish causation, states must cooperate through exchanging intelligence and information, working operationally with international law enforcement organisations, sharing information and intelligence. The level of evidence acceptable under various national jurisdictions is not standardised.

On the cost of maritime environmental offences, there are no precise statistics. There are many different types of crimes that are committed around the ocean. The perpetrators' method of operation includes dishonesty and concealment. Crimes happen at night when visibility is poor and while ships are on route, taking advantage of the rising maritime activity and avoiding detection. The majority of crimes are associated with ship-source pollution, particularly unintentional and deliberate oil releases, which are mostly responsible for the ocean's oil pollution. All aspects of the shipping industry are subject to crime, including oil tankers and opulent cruise lines as well as unseaworthy boats that engage in illicit, unreported, and unregulated (IUU) fishing.¹⁶⁰

Massive amounts of oil that can be discharged in a single occurrence, human-produced incidents have a much greater impact than natural processes, notwithstanding a recent drop in accidental and intentional discharges. 53 percent of all petroleum that enters the ocean is produced by humans and happens close to the coast. The majority of the 2.1 million tonnes of oil dumped into the water each year is undiscovered.

3.2.2 Crimes Related to Economy

Crimes have an impact on the economic activities that depend on the water and the way of life in coastal areas. Despite advancements in the response, cleanup, and restoration techniques for oil spills, restitution of impacted regions is typically very challenging, very expensive, and time-consuming. Sometimes the harm is simply beyond repair.

¹⁶⁰ IPS TV , "BLUE TALKS | Enhancing the Conservation and Sustainable Use of Oceans," YouTube, June 7, 2022, accessed July 13, 2022, https://www.youtube.com/watch?v=wNpG_gG-Qqo.

These crimes are being committed at sea by organised groups of people who operate coercively and covertly while taking advantage of international legal loopholes and overlaps. There is a financial incentive to avoid using the port's facilities and going through time-consuming, expensive legal processes under national and international law. The benefits of maritime environmental crimes are evident, for instance, in the fact that illegal disposal can save a ship owner anywhere between \$80,000 and \$220,000 annually, which can represent 5 percent to 12 percent of a ship's operating costs, depending on the size and age of the ship, the number of days at sea, and how well it is maintained.

There is a lack of understanding to strengthen the international legal response to maritime environmental crimes and direction is not clear to governments regarding how to handle these crimes collectively. The root causes and effects of maritime environmental crimes cannot be addressed by a single state due to the complicated multijurisdictional issues created by the current legal framework for handling geographical and functional jurisdiction at sea. International law is generally unsuccessful in deterring and fighting maritime environmental crimes.

The 2018 Interpol-led multinational operation includes 276 law enforcement and environmental agencies spread across 58 states as well as a global network of 122 national coordinators and have succeeded in two major operations.¹⁶¹ 5,200 inspections have conducted during course of this operation which lasted one month. These inspections led to about 185 investigations and the discovery of more than 500 infractions, including shipbreaking, illegal oil and garbage discharges from vessels, violations of ship emission regulations, and pollution of rivers and land-based runoff into the ocean. In a global operation which is organised by Interpol in 2019, 61 states and local law enforcement partners discovered hundreds of illegal operations responsible for serious marine contamination.¹⁶² Preliminary findings from this coordinated effort lasted for one month and involved more than 200 enforcement agencies throughout the world and the reports showed that during 17,000 inspections,

¹⁶¹ IPS TV , "BLUE TALKS | Enhancing the Conservation and Sustainable Use of Oceans," YouTube, June 7, 2022, accessed July 13, 2022, https://www.youtube.com/watch?v=wNpG_gG-Qqo.

¹⁶² IPS TV , "BLUE TALKS | Enhancing the Conservation and Sustainable Use of Oceans," YouTube, June 7, 2022, accessed July 13, 2022, https://www.youtube.com/watch?v=wNpG_gG-Qqo.

more than 3,000 crimes had been discovered. These crimes were done primarily to avoid paying the costs complying with environmental laws.¹⁶³

3.2.3 Law and International Crimes

International law does not define maritime environmental crimes and neither make activities or conducts that are regarded as illegal. Roughly speaks, it can be described as "acts conducted at sea that violate national and international law, harming or destroying the environment." This broad term includes crimes committed both inside and outside of national borders as well as pollution from many causes. These include pollution caused by ships, such as illicit oil and oil-bunkering dumping and contamination from offshore installations, structures, cables, and pipelines. The idea must be built on the understanding that environmental rights are an extension of human rights whether taken individually or collectively. These rights strengthen the link between the human and environment by ensuring access to a healthy environment, information, public participation in decision-making, and access to justice in environmental concerns.

The multijurisdictional difficulty is a worldwide issue, not just one that falls under national law. No flag state has complete authority over all ships flying its flag. Identification of address loopholes and overlapping regulations that result in a clash of authorities and, as a result, the incapacity of international law to deter and punish maritime environmental crimes, arises.

Jurisdictions overlap and are in conflict with one another. If the flag state exercises its right to jurisdictional pre-emption, a coastal state with evidence that a vessel is damaging its territorial sea or EEZ may not be able to use its enforcement authorities. If the coastal state permits pollution in the territorial sea or EEZ, the flag state of the vessel cannot step in since doing so would violate the law of the sea. Any enforcement action in the territorial sea or EEZ without the coastal state's approval would be illegal. In both situations, one of the states (either knowingly or unknowingly) fosters an environment where maritime environmental crimes are acceptable. As a result, even if

¹⁶³ Ibid.

current legal norms permit the use of jurisdiction and enforcement authorities, international law becomes ineffectual. Even though crimes were discovered and reported in these situations, they would go unpunished.¹⁶⁴

3.2.4 Legislation

The oceans are not mentioned in any international human rights legislation. The rights of each state to intervene on behalf of the marine environment in regions under the sovereignty of other nations have not been established by international law, despite the fact, there is a shared interest in safeguarding and conserving the marine environment. A state may file a lawsuit against another state only if the latter is accountable for the harm. There is no international legal framework that specifically imposes obligations on governments to criminalize behavior that endangers the maritime environment. Only national laws, which are subject to governmental discretion, can criminalize behavior.

There are few factors that support organised crime, including corruption, bribery, and obstruction of justice. Furthermore, States frequently support a culture that allows crimes to happen. Few states have maritime environmental crime laws, and even fewer actually enforce them. The USA has used its legal authority to prescribe and enforce laws. In addition to admitting and recognising whistleblowers, it is also enforcing the 1980 Act to Prevent Pollution from Ships and the 1990 Oil Pollution Act. There is no international organisation that keeps track of maritime environmental crimes, assesses performance and advancement, and finds ways to improve state collaboration.

Despite the obvious overlap between their responsibilities to protect and preserve the marine environment and combat transnational organised crime, or to provide maritime law-enforcement capacity building, existing agencies like the IMO or the UNODC lack the expertise to address these crimes.

International law does not safeguard the maritime environment from illicit activities are profoundly at odds. The current international regulations do not adequately reflect the

¹⁶⁴ IPS TV , "BLUE TALKS | Enhancing the Conservation and Sustainable Use of Oceans," YouTube, June 7, 2022, accessed July 13, 2022, https://www.youtube.com/watch?v=wNpG_gG-Qqo.

general interest in defending and conserving the environment or the demands of those wishing to put into place and enforce stricter and more effective regulations.

No international legally binding regulation, set of rules, or concept makes maritime environmental offences a crime or places a duty on governments to do so. Even though it would be challenging to get around the restrictions brought on by the current legal framework applicable to prescriptive and particularly enforcement jurisdiction at sea, the recognition and adherence to the concept of international maritime environmental crimes would have the effect that criminalization would no longer be solely dependent on domestic law.

Proposals for a new international crime, such as "ecocide," may pave the way for future development of international law and the legal instruments required to provide a coordinated and successful legal response to maritime environmental crimes.

National and international legislation are not sufficiently harmonised. Considering the problem's worldwide scope, law enforcement collaboration is lacking. It is crucial to share intelligence, evidence, and investigation tools, especially for law enforcement and criminal prosecution. There is a need to encourage the simplification and better coordination of national authorities since there is a lack of efficient access to information and sharing of technology. The flaws in international law benefit criminals as non-state actors. The cornerstone of the duty to safeguard resides in the commitments made by the idea of sovereignty, which includes the duties to foresee and respond. Considering sovereignty in this context of global accountability requires viewing it as both control and responsibility.¹⁶⁵

Regional organizations especially in developing region of Indian Ocean are not established to tackle security challenges in the first place. They are designed to become forger of economic cooperation in maritime domain between countries in the region. The most effective way forward, therefore, is to first analyze the extent in which NTMS threats are endangering economic activities in the region. Countries such as China seems to have dodged these threats by themselves through unilateral actions, such as

¹⁶⁵ IPS TV , "BLUE TALKS | Enhancing the Conservation and Sustainable Use of Oceans," YouTube, June 7, 2022, accessed July 13, 2022, https://www.youtube.com/watch?v=wNpG_gG-Qqo.

through deploying their navy in escort missions. So, regional organizations could play a role in coordinating among states in the region and aid in establishing an ocean governance that is effective and beneficial for all.

It is very unlikely for any regional organization to act unilaterally in handling such challenges. Simply, it is impossible for organizations such as IORA to have its own navy. An emerging idea was to create a joint naval force in the region to combat NTMS challenges in the IOR. However, as underlined by Gofur,¹⁶⁶ the issue of maritime security is late to be included in discussions such as that in IORA. Furthermore, the establishment of joint military forces usually are based on intensive threat that become common concern for many countries with close military ties. For instance, the CTF-150 was a multilateral alliance in the Horn of Africa region by western countries. Meanwhile, the IOR consisted of countries with different affiliations, ideologies, or even competing countries. Regional organizations could play a role in bridging these differences, for instance by starting a maritime security dialogue or forum in the region, which can be continued through a joint naval exercise and joint patrol. Countries could contribute by deploying forces in their respective sub-regions (African countries in western Indian Ocean, South Asian countries in northern Indian Ocean, Southeast Asian countries in eastern Indian Ocean).¹⁶⁷

3.3 Options to Handle the Challenges to Efficacy of Regional Organizations

Comprehensive security framework and region centric multilateral approach can add in to the effectiveness of regionalism. As Azmi explained, it can be made more effective through a ‘region-owned and region-led’ approach like the EU and NATO. It’s because the extra-regional nations come to the region with the burden of safeguarding their national interests, while not really working to empower the regional countries so that they stand on their own. Indian Ocean region lacks ‘regionness’ and that has been one of the reasons that no workable security, safety and economic infrastructure came to

¹⁶⁶ Gofur, Abdul (2021) ‘The Absence of IORA Joint Naval Forces in Providing Indian Ocean Maritime Security and Safety during the Somali Pirate Attacks of 2007-2015’, *Jurnal Maritim Indonesia*, 9 (2): 188-197. accessed July 14, 2022, <https://jurnalmaritim.tnial.mil.id/index.php/IMJ/article/download/80/59>.

¹⁶⁷ Nauvarian

realization among IOR nations.¹⁶⁸ Furthermore, working on SDGs can also help to overcome socio-economic challenges in IOR because not only goal 14, but all the other SDGs are also related to Oceans.

3.3.1 Comprehensive Security: A Regional Framework

During 2010s, the notion of comprehensive security has been rose to prominence in Finnish security discourse. It serves as the cornerstone for national preparedness initiatives as well as for taking the appropriate steps in the case of disruptions. It is basically a cross-sectoral cooperation model that seeks to protect the essential functions of society by bringing the government, the business community, organisations, and citizens together to work together. Comprehensive security has multiple dimensions, including military, political, cultural, and socio-economic dimensions.

Furthermore, the essential functions are; leadership, global and EU activities, defence capability, internal security, economy, infrastructure, and supply security, functional capacity of the populace and services, and psychological resilience.¹⁶⁹

There are some principles of comprehensive Security in accordance with “security strategy for society” are;¹⁷⁰

- The foundations of comprehensive security are representative democracy and the rule of law.
- Lines of authority are based on the duties of competent authorities and statutory obligations.
- The efficient and comprehensive use of society's resources, which is based on extensive cooperation between the government, businessmen, organizations, and citizens, ensures the performance of vital functions. Broad-based cooperation forums at various administrative levels help the contingency and preparedness planning of the competent authorities.

¹⁶⁸ Azmi

¹⁶⁹ Helmi Räisänen et al., "Comprehensive Security: The Opportunities and Challenges of Incorporating Environmental Threats in Security Policy," *Politics and Governance* 9, no. 4 (2021), accessed July 14, 2022, doi:10.17645/pag.v9i4.4389.

¹⁷⁰ Ibid. 92

- Comprehensive preparedness plans enable resources to be deployed in a flexible manner and improve risk anticipation. Better resilience and readiness are ensured by the planning of the recovery process.
- There are European and global aspects to being prepared. With the aid of research data, preparedness is systematically monitored and improved. Information about security is freely shared.

Regionalism enhances the efficiency and effectiveness of local governments and organizations in performing tasks either for security purposes or socio-economic development. Through comprehensive security and regionalism states can easily combat non-traditional security threats. However, Region-Centric Multilateral Approach is an effective approach for maritime security.

3.3.2 Region-Centric Multilateral Approach to Maritime Security

In the contemporary scenario, there is a shift in the paradigm from confrontational to cooperative in the region to regulate the affairs of maritime in a more appropriate way and restrict the interference of extra-regional powers in regional settings.¹⁷¹ Therefore, this new strategy is known as regional-centric multilateral approach. This approach is very helpful in resolving the regional issues.

Mullen's theory encourages the formation of partnerships at sea so that threats can be addressed multilaterally rather than unilaterally. It is evident that "doing it alone" is absurd, if not impossible. Consistency and ambiguity challenge a state's ability to address unilaterally maritime security threats.

The unsettling reality is that multilateral cooperation has fallen short of the significance that it should have received despite the fact that Indian Ocean governments almost all have similar maritime security concerns.¹⁷²

¹⁷¹ Sohail A. Azmie, "Maritime Security in the Indian Ocean: The Region-Centric Multilateral Approach," *CISS Insight Quarterly Journal* 5, no. 3 (September 2017), accessed July 14, 2022, <http://journal.ciss.org.pk/index.php/ciss-insight/article/view/45>.

¹⁷² Probal Ghosh, "Security Challenges from Non-State actors in the Indian Ocean," *Observer Research Foundation* 1, no. 3 (December 2011), accessed July 14, 2022, https://www.orfonline.org/wp-content/uploads/2012/01/st_issue3.pdf.

A single nation's maritime troops cannot combat the threat of piracy. It is difficult for one person to combat drug and people trafficking through ungoverned sea areas. Natural calamities quickly overwhelm even the most powerful capacity of economies for recovery.

Former US Chief of Naval Operations Admiral Mike Mullen acknowledged that there were certain maritime difficulties that even the US navy was unable to resolve on its own.¹⁷³ In order to safeguard the maritime commons by utilising the benefits of the sea that only maritime forces can take advantage of it, he advocated the concept of a "global maritime partnership."

According to Liu Cigui of the China Institute of International Studies, "the globe is currently in an era that values maritime collaboration and growth," emphasising the importance of partnerships in place of going it alone to overcome maritime issues.¹⁷⁴

According to a recent analysis titled "Global Trends 2030," there may be more "a consolidated regional order" (regional arrangements) in the future than there are currently. The standard line of thought in international relations holds that multilateralism is the solution to the issues facing our modern world, and it also emphasises the importance of forming these cooperative alliances, particularly within a region where states are confronting a similar set of threats and difficulties. It would be a historical fallacy not to choose the cumulative good above rivalry, i.e., not to establish or join collective efforts to solve common problems, while still being conscious of the "wave of change" that was noticed just after World War II.

Conflicts between Indian Ocean nations and some recent developments, which are included under the regional security situation, have a significant impact on the direction that a cooperative regime at sea takes.

¹⁷³ George Galdorisi and Stephanie Hszieh, "Architecture for Coalition Operation: Networking the Global Maritime Partnership," United States Navy Space and Naval Warfare Systems Center Pacific, 2013, accessed July 14, 2022, <https://ideea.com/comdefwest11/speeches/Hszieh.pdf>.

¹⁷⁴ Liu Cigui, "Reflections on Maritime Partnership: Building the 21st Century Maritime Silk Road," China Institute of International Studies, September 2014, accessed July 14, 2022, https://www.ciis.org.cn/english/COMMENTARIES/202007/t20200715_2800.html.

The USA Cooperative Strategy for 21st century sea power is mentioned by Geoffrey Till in his book "Asia's Naval Expansion," who claims that "trust and cooperation cannot be 'surged' but must be built and sustained over time, through development of increased understanding among maritime forces and forging of international partnerships." Till's rational reasoning urges, as a response to the current calls in the maritime milieu, "choosing reconciliation above rivalry."¹⁷⁵

Shicun Wu and Keyuan Zou, two Chinese scholars, advocate a similar framework for multilateral maritime security in which the nations must "leave aside dispute for collaborative maintenance of maritime security."¹⁷⁶

In order to protect and preserve national or regional interests, freedom of action, and the freedom to make any political or military decisions in one's own maritime domains, Andrew T. H. Tan delves into the issue of establishing one's own cooperative initiatives without the "dictations" of extra-regional players.

According to Lee Cordner, out of all potential multilateral interaction areas, the maritime sector provides the clearest opportunities for avoiding conflicts and "getting along to operate in a cooperative atmosphere." This viewpoint results from the fact that the nations of the Indian Ocean share concerns about maritime security and must cooperate to create mechanisms for regional maritime security in Indian Ocean. In the same vein, Robert D. Kaplan highlighted the necessity for a multilateral system to operate cooperatively in Indian Ocean in his essay, written for Foreign Affairs in 2009, by stating:

A "NATO of the seas" for the Indian Ocean may be imagined, with South Africa, Oman, Pakistan, India, Singapore, and Australia as members. Pakistan and India could argue

¹⁷⁵ Geoffrey Till, *Asia's Naval Expansion: An Arms Race in the Making?* (London: Routledge, 2012), accessed July 17, 2022,

¹⁷⁶ Sohail A. Azmie, "Maritime Security in the Indian Ocean: The Region-Centric Multilateral Approach," *CISS Insight* 5, no. 3 (2017), accessed July 15, 2022, https://www.academia.edu/35373750/Maritime_Security_in_the_Indian_Ocean_The_Region_Centric_Multilateral_Approach.

inside the alliance in a similar way to how Greece and Turkey have done within NATO.¹⁷⁷

3.3.3 Sustainable Development Goals (SDGs) with Regionalism: An Effective Approach

Our planet primarily consists of oceans, that's why the climate is greatly influenced by the oceans and the resources in it. The oceans are essential for the reduction of poverty, health, reduction of hunger, and sustainable development, albeit developing states are sea blind.

There are 17 sustainable development goals. The fourteenth sustainable development goal, "life below water," is a particular goal based on the sustainable use of seas and oceans. However, all the SGDs are related to the maritime domain directly or indirectly.

Furthermore, oceans are the source of food not only for the 40% population residing in coastal areas; however, all across the world. Seafood contains immense proteins and vitamins, which help in reduction of malnutrition and diseases. The oceanic activities are largely socio-economic in nature. It cannot provide employment and food but also helps to improve the living standards and health of people. Better economies help in maintaining and developing infrastructure in the state. Therefore, people can get proper education with the proper implementation of SDGs. The education also facilitates the elimination of water and land pollution. Hence, all the goals are interlinked and related to the oceans.

Conclusion

There are a number of organizations working in Indian Ocean region to combat non-traditional security threats; however, only IORA deals with all the non-traditional security threats to some extent and other organizations are dealing with threats separately. But still, there are challenges, and people residing in coastal areas and

¹⁷⁷ Sohail A. Azmie, "Maritime Security in the Indian Ocean: The Region-Centric Multilateral Approach," *CISS Insight Quarterly Journal* 5, no. 3 (September 2017), accessed July 17, 2022, <http://journal.ciss.org.pk/index.php/ciss-insight/article/view/45>.

islands are suffering from non-traditional threats. Furthermore, the organizations are also facing challenges in achieving their aims and goals.

Regionalism can be made more effective through the implantation of SDGs in true meaning, the enablement of a blue economy, a multilateral approach, cooperation, collaboration, and joint efforts. There is a lack of regional order Indian Ocean Region after the Cold War because the non-state actors got empowerment and extra-regional players entered the region and influenced regional affairs. Albeit, there are other regional complexities as well, which can be addressed through neo-liberal institutionalism and strengthening of regionalism. Therefore, a body needs to take responsibility to counter all the socio-economic non-traditional maritime security challenges in IOR.

Chapter Four

Pakistan's Response to NTMS in IOR and Regional Cooperation

Pakistan is located at the head of the Arabian Sea adjacent to the trade routes of the Arabian Gulf, along with its goals to become a trade route to China and Central Asia via the China-Pakistan Economic Corridor, demand it play an increasingly important role in ensuring regional maritime security. More than 90% of its trade is carried out by sea. As a member of the American-led Combined Maritime Forces, namely its anti-piracy Combined Task Force 151 and Combined Task Force 150, the Pakistan Navy has long contributed to global security missions. Additionally, Pakistan has established a Regional Maritime Security Patrol.¹⁷⁸

Additionally, Pakistan Navy is taking part in all regional and global initiatives and endeavors to ensure cooperation and lawfulness on the high seas. In the same vein, Pakistan has been taking part in a number of international forums, including the Western Pacific Naval Symposium, the Indian Ocean Naval Symposium, multinational exercises, disaster relief efforts, non-combatant evacuation of Pakistanis, and foreign nationals stuck in conflict zones.

The absence of a consistent Indian Ocean policy may be seen in Pakistan's isolation from its energy-rich neighbours in Central Asia and other Indian Ocean littoral states. Nearly 95% of Pakistan's traffic passes via Arabian Sea ports of Karachi and Port Qasim. Pakistan is a key littoral state in the IOR; however, it is not a member of either Bay of Bengal Multi-Sectoral Technical and Economic Cooperation or Indian Ocean Rim Association (IORA) (BIMSTEC). Numerous regional symposiums and forums are held without Pakistan's participation.¹⁷⁹

¹⁷⁸ Faiza Farid, "Pakistan's Indian Ocean Policy," Daily Times, October 18, 2019, accessed July 18, 2022, <https://dailytimes.com.pk/485010/pakistans-indian-ocean-policy/>.

¹⁷⁹ Faiza Farid, "Why Pakistan Needs a Comprehensive Indian Ocean Policy — THE FLETCHER FORUM OF WORLD AFFAIRS," THE FLETCHER FORUM OF WORLD AFFAIRS, n.d, accessed July 18, 2022, [.https://www.fletcherforum.org/home/2020/2/7/why-pakistan-needs-a-comprehensive-indian-ocean-policy](https://www.fletcherforum.org/home/2020/2/7/why-pakistan-needs-a-comprehensive-indian-ocean-policy).

The purpose of the chapter is to illustrate Pakistan's involvement in fending off non-traditional security concerns in Indian Ocean region. It first clarifies the functions of MOMA Pakistan, PMSA, Pakistan Navy, and Coast Guards. The second part outlines Pakistan's activities with regional organisations and its intelligence agencies. The efforts Pakistan has made to secure the region at various levels are discussed in the fourth part. It concludes by explaining Pakistan's collaboration with Regional States.

Table 7: Bodies of Pakistan Working in Maritime Domain

Ministry of Maritime Affairs	Ministry of Defense	Navy	Ministry of Interior (Peace Time) / Army (War Time)	Others
<ul style="list-style-type: none"> • Pakistan Marine Academy • Pakistan National Shipping Corporation (PNSC) • Port Qasim Authority • Karachi Port Trust • Gwadar Port Authority • DG Port and Shipping Wing • Merchant Marine Department 	<ul style="list-style-type: none"> • Pakistan Maritime Security Agency (PMSA) 	<ul style="list-style-type: none"> • Pakistan Marines 	<ul style="list-style-type: none"> • Pakistan Coast Guard • Marine Wing • Role of Coast Guards <ul style="list-style-type: none"> ➤ Anti-smuggling ➤ Illegal Migration • Human Trafficking 	<ul style="list-style-type: none"> • Pakistan and Regional Organizations • Intelligence Agencies of Pakistan • IMO Regulations • UNLOSC 1982 <ul style="list-style-type: none"> • Marpol 1973/1978 • Custom Act 1969\Exclusive Fishery Zone Act 1997 • The control of Narcotics Substances Act 1997 • Prevention of Trafficking in Persons Act 2018 • National Marine Disaster Contingency Plan 2019

<ul style="list-style-type: none"> • Korangi Fishries Harbour Authority • Marine Fisheries Department 				<ul style="list-style-type: none"> • Pakistan's Cooperation with Regional States
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Source: Researcher has developed the table.

As a part of the post-9/11, Operation Enduring Freedom, the US launched series of initiatives to curb smuggling of weapons of mass destruction through the sea, one of such mechanism was Coalition Maritime Campaign Plan (CMCP), others being Container Security Initiative (CSI), and Port Security Initiative (PSI), etc. So, the CMCP actually laid the foundation of a sea-based architecture to handle NTMS. Pakistan also joined the initiative in 2004 and then actually commanded the multi-national maritime task forces several times after that. CMCP gave way to a more structured Combined Maritime Forces (CMF) construct, allowing various nations to operate together under one operational authority to fight NTMS, which didn't exist before in the region. CMF has three Task Forces, viz, CTF-150, for combating NTMS in the Arabian Sea, CTF-151 for combating principally piracy off Horn of Africa, and CTF-152 for Persian Gulf security. Major initiatives face challenges have different 'rules of engagement', which often conflict with those of the US, and there's also lack of sharing information among the partner nations for various reasons.¹⁸⁰

4.1 Ministry of Maritime Affairs

In October 2017, the Ministry of Ports and Shipping has been reconstructed and renamed as Ministry of Maritime Affairs. Key objective of MOMA Pakistan is to protect marine environment, improve socio-economic condition of the country, and ensure safe navigation through sustainable development of the ports, maritime business, and competitive shipping.¹⁸¹ Moreover, one of the goals of MOMA is to safeguard the sustainable utilization of fisheries, to maximize the quantity of protein, and to get maximum through export. Promotion of deep sea fishing, improve harbor environment by fish export, maintain quality of seafarers (Standard for Training Certification and Watch Keeping STCW 1987 Convention), control marine pollution, ensure safety and security as per convention with IMO, improve the conditions and regulations of ports through governance, raise spirits for private ships under Pakistani flag, and formulation and implementation of policies to update ports and ship industry as per contemporary and modern standards are also included in the duties of MOMA Pakistan.

¹⁸⁰ Ibid.

¹⁸¹Dr. Ali Qasim, Ahmed Jamshaid, and Alluidin Ahmad, Year Book 2016-2017, ed. Ajaz A. Memon and Muhammad S. Nomani (Islamabad: Ministry of Maritime Affairs, Pakistan, 2002), accessed July 19, 2022, https://moma.gov.pk/SiteImage/Misc/files/YB_2016-17.pdf.

4.1.1 Pakistan Marine Academy (PMA)

It is the only public institution in the nation that offers pre and post sea professional training to seafarers. PMA is a part of the Federal Ministry of Maritime Affairs and is regarded as one of the top maritime institutes in the world for offering top-notch instruction and training in a variety of maritime subjects. In the domains of "Nautical Sciences" and "Maritime Engineering," PMA annually trains about 150 professionally qualified young seafarers for the domestic and global maritime industry.

4.1.2 Pakistan National Shipping Corporation (PNSC)

PMSA has overall jurisdiction over the autonomous company PNSC. It oversees property properties, a repair facility, and a fleet of 11 ships. The goal of PNSC is to retain diversified and effective marine assets in order to be a significant participant and important stakeholder in the global shipping business. To deliver dependable and effective shipping services to seaborne trade of Pakistan while upholding relationships of integrity and trust with our clients, partners, and employees, protecting the interests of our stakeholders, and making a positive impact on the environment, society, and the economy as a whole.¹⁸²

4.1.3 Port Qasim Authority

PQA is a company that prioritises providing services. International shipping lines and other interested parties can use the port's shore-based infrastructure and services, which include berths, terminals, cargo handling machinery, good owns, storage spaces, and facilities for the safe transit of ships during the day and at night.

¹⁸² Pakistan National Shipping Corporation, "Pakistan National Shipping Corporation," Pakistan National Shipping Corporation > Home, accessed August 19, 2022, <https://www.pnsc.com.pk/>.

4.1.4 Karachi Port Trust

KPT aspires to provide cutting-edge to port customers as well as convenient facilities for the import and export of all varieties of goods. Plans for port development have always been centred on requirements for domestic trade.

4.1.5 Gwadar Port Authority

Following the Karakoram Highway which connects Pakistan and China, the Gwadar deep sea port is the second major symbol of friendship between the two countries. Wu Bangguo, the vice-premier of China, laid the port's cornerstone in March 2002. Gwadar, a small fishing village, has grown into one of the most significant towns in the area with the opening of the port's first phase, and it is on track to become one of the most significant and cutting-edge cities in the Middle East, West Asia, and South Asia. Gwadar port develops into a premier maritime hub and a gateway port for Pakistan and the surrounding area.

Gwadar Port is intended to complement Karachi Port and Port Qasim in order to promote economic development in Pakistan, particularly in Balochistan, by making use of the nation's resources and by giving landlocked Central Asian nations like western China and Afghanistan a port of entry through transit trade and the provision of transshipment services.

As a result, the development of Gwadar City and Gwadar Port have significantly advanced the socioeconomic progress of the district of Gwadar and the Balochistan province to serve ships carrying general cargo, bulk cargo, containers, and RORO, promotes regional, local, and national trade as well as industrial and economic growth, and continues to be in line with the demands of clients and stakeholders both locally and internationally.¹⁸³

¹⁸³ Gwadar Port Authority, "Vision and Mission," Gwadar Port Authority, accessed August 19, 2022, <https://www.gwadarport.gov.pk/vision.aspx>.

4.1.6 DG Port and Shipping Wing

The main functions of the wing are;¹⁸⁴

- Administration of the 2001 Merchant Shipping Ordinance with regard to all aspects of shipping
- The creation of shipping policies and policies regarding tonnage expansion
- Creating a policy to support marine training and education
- Organising surveyor training
- Control and supervision of merchant navy examinations and certifications
- Regulation of seafarers' employment and wellbeing
- Policy development for the growth of coastal shipping and sailing vessels
- Monitoring the application of IMO and ILO conventions that Pakistan's government has ratified

4.1.7 Merchant Marine Department

The directorate general, ports and shipping, MOMA Pakistan Directorate General Subordinate Office oversees the Mercantile Marine Department. The department was created in 1930 and is an essential element of Pakistan's Maritime Safety Administration. It is led by a principal officer who doubles as a superintendent of lighthouses and ships registrar. Through the application of the merchant shipping ordinance, national regulations, and international maritime conventions, the department's key goals are to guarantee the safety of life and property at sea and in inland waters, safety of navigation, and conservation of the marine environment.¹⁸⁵

¹⁸⁴Ministry of Maritime Affairs Pakistan, "FUNCTIONS OF DIRECTORATE GENERAL PORTS & SHIPPING," Director General Ports & Shipping, Ministry of Maritime Affairs, Pakistan, n.d. accessed July 20, 2022, <https://dgps.gov.pk/Detail/MzU0ZDAwNGItOTg5MC00NTcxLTk1MmYtOGIwYjQ0ZmIxZDZl>.

¹⁸⁵ Ministry of Maritime Affairs, "Mercantile Marine Department, Government of Pakistan, Ministry of Maritime Affairs," Mercantile Marine Department, accessed August 19, 2022, <https://mercantilemarine.gov.pk/>.

4.1.8 Korangi Fishries Harbour Authority

The Korangi Fisheries Harbour Authority (KoFHA) was established by ordinance number XVI of 1982 to make all arrangements for the planning, construction, operation, management, and maintenance of Korangi Fisheries Harbour for exploiting fisheries resources outside of territorial waters (TTW); moreover, MOMA Pakistan assumed administrative authority of the Authority in May 2011.¹⁸⁶

The objectives of KoFHA are;

- Issuing permits for deep-sea fishing
- Putting the Deep-Sea Fishing Policy into Practice
- Creation of a 25-acre business park as an addition to an area that is currently constructed
- Improvement of the Auction Hall
- Building cold storage facilities and a freezing tunnel
- Enhance facilities and services for the port infrastructure

4.1.9 Marine Fisheries Department

It is part of the Ministry of Maritime Affairs Pakistan. The main objectives of MFD are to¹⁸⁷

- Introduce or expand mariculture in Sindh's coastal region through the culture of finfish in pens and cages and shrimp in ponds.
- The management, conservation, and oversight of the province's marine and coastal fishing resources.
- Issuing or renewing licences for steel-hulled or fiber-glass boats under 100 GRT that are used in provincial territorial waters.
- Promote related aquaculture and marine/coastal fisheries.

¹⁸⁶Korangi Fisheries Harbour Authority, "Goals – Korangi Fisheries Harbour Authority," Korangi Fisheries Harbour Authority – Government of Pakistan, accessed August 20, 2022, <https://korangifisheries.gov.pk/goals/>.

¹⁸⁷Livestock and Fisheries Department, "Sindh Government," Livestock and Fisheries Department, accessed August 20, 2022, <https://livestock.sindh.gov.pk/directorate-of-fisheries-sindh-research-and-development>.

- Gathering and analysing statistical information about territorial maritime fisheries.
- Enforcement of the Marine/Coastal Sector Fisheries Ordinance and Rules.
- The modernization of marine capture and culture fisheries.
- Build post-harvest facilities, including landing plate forms, jetties, chilling plants, cold storages, processing facilities, auction halls/markets, and distribution methods, such as transportation.
- Define the province's marine fisheries policy.
- The management, conservation, and surveillance (MCS) of the province's marine and coastal fisheries resources.
- Issuing or renewing permits to trawlers, fishing boats, fishermen, fish dealers, and fish processing facilities in designated areas as well as quality control certifications to such facilities.
- The expansion of the province's marine and coastal waters' fishing resources.
- Enforcement of the fisheries act, the ordinance, and the rules in coastal and marine waters.
- Suggest changes to the current inland, marine, and coastal seas fisheries ordinance and rules.
- Surveys of the territorial marine and coastal areas using hydroacoustics, oceanography, and stock assessment methods.
- Offering extension assistance in the province to support linked aquaculture and marine/coastal fisheries.
- Through the administrative department, management, conservation, surveillance (MCS), and development of marine and coastal waters are coordinated with other national and international agencies, organisations, and departments.
- Develop, prepare, and put into action coastal development plans.
- Compilation and analysis of territorial maritime fisheries' statistical data.
- Organize workshops, seminars, symposia, and other events to encourage stakeholder participation in the development of marine fisheries.
- The modernization of coastal and marine capture and culture fisheries.
- Maintain quality control over the export and import of fish and shellfish and issue appropriate certificates.

- Create post-harvest facilities, such as landing pads, jetties, processing and chilling facilities, cold storage facilities, auction houses and markets, and transportation-related marketing channels.
- Registration of fishermen, fish trawlers, boats, and factories that process fish in territorial waters.
- Educate, train, and raise awareness among fishermen about MCS of fisheries resources
- To grant licences to fishing trawlers and fish meal factories in order to boost provincial revenue.
- Offer the community of marine/coastal fishermen contemporary facilities.
- Resolve the complaints of the local fisherman.
- Controlling provincial maritime officers and initiatives.
- Management of the marine and brackish water ecosystem.
- Undertake actions to manage and develop human resources in the appropriate field.

4.2 Pakistan Navy

Pakistan is a legitimate maritime nation with one of the most significant littorals, developments in Indian Ocean and have a direct bearing on maritime strategy. It goes without saying that the transportation of over 95% of the country's trade, including essential POL (petroleum, oil and lubricants) supplies, and industrial commodities, are good enough cause for Pakistan to place even more emphasis on the sea. The size and complexity of a strategic evaluation to find possible causes of instability in IOR pose significant obstacles. But let's look at the area through the lens of four main regions. First of all, geographically speaking, it borders three continents and makes up around 20% of the world's water surface. It is the smallest but most strategically important waterway, connecting 1,284 islands to 11 landlocked states and 30 littorals.¹⁸⁸ An important feature of Indian Ocean is that, unlike the Atlantic and Pacific, which are "Open Oceans," it may primarily be entered through a number of choke spots.

¹⁸⁸ Khan Hasham Saddique, "Pakistan Navy As a Stabilizing Force in Indian Ocean," Hilal English, January 1, 2015, accessed August 24, 2022, <https://www.hilal.gov.pk/eng-article/detail/MTMyMw==.html>.

Therefore, the security—or lack thereof—of these choke points may have far-reaching effects.

4.2.1 Characteristics of Indian Ocean Security Environment

IOR's present security environment is distinguished by a few distinctive characteristics. First, there is no security system in place for Indian Ocean Region. Second, sub-regional security frameworks are generally underdeveloped. Third, security measures are mostly western-focused and are mainly overseen by the United States. Fourth, IOR places more of an emphasis on better bilateral security connections than multilateral ones. Despite the overwhelming need to handle security holistically, nothing happens anytime soon. Pakistan Navy must develop its strategy against uncertain geostrategic backdrop while also contending with difficult internal security and economic conditions.

4.2.2 Development of Maritime Sector and Pakistan Navy

Indigenization serves as the cornerstone of Pakistan Navy's growth plan to attain self-reliance. Currently, it displays submarines, frigates, fleet tankers, and missile ships that were built in Pakistan with assistance from our friends. The current CNS promotes the local marine industry and leading the charge for the sector's overall growth a top priority. In this respect, the Pakistan Navy is pursuing a number of programmes, including the promotion of marine-related education and research, the creation of a national maritime policy framework, the early operationalization of Gwadar Port, and coastal development, etc. Without a doubt, Pakistan's economic security depends on a thriving marine industry flourishing in a safe maritime environment. The main barrier to taking use of the benefits that the oceans provide to humanity is the sea blindness that plagues countries with continental mentality.

4.2.3 Pakistan Navy Participation in Regional Forums

The Pakistan Navy thinks a cooperative regional strategy that encourages cooperation rather than conflict, preventive rather than retaliation, and interdependence rather than

unilateralism. As a result, PN has become a full member of IONS. Additionally, it has also been granted observer status by the WPNS.

4.3 Pakistan Maritime Security Agency (PMSA)

One of the pillars of Pakistan Maritime Security Agency is the preservation and upkeep of maritime order along its coastline. In contrast to aerial or continental modes of action, the PMSA's domain comprises fighting conventional and non-conventional threats in the face of marine operating difficulties. In order to implement the traditional paradigm of security in the face of traditional maritime military threats, PMSA deploys its resources and personnel alongside the Pakistan Navy while remaining under its overall command. PMSA is tasked with addressing non-conventional threats, which are providing more complex and severe difficulties in the maritime environment. Pakistan has been doing search and rescue operation with the authorization of IMO around 840nm in Indian Ocean.

The range of unconventional threats is significantly broader and connected with traditional methods, including piracy, marine terrorism, illicit, unreported, and IUU fishing, illegal immigration, and smuggling of weapons and narcotics. In order to protect Pakistan's marine interests, the PMSA is particularly concentrated on countering non-traditional threats. Responsibility of upholding national sovereignty and defending Pakistan's maritime interests is one of the main responsibilities of PMSA.

Another duty of the PMSA is to save the lives of fishermen who are trapped at sea. The EEZ is home to more than 35,000 vessels of all sizes that are used for fishing. Fishermen are exposed to natural disasters like sea storms in addition to being terrified and apprehended by law enforcement officials of neighbouring nations. The PMSA is essential in saving fishermen who have been trapped at sea for weeks. It also assists local fishermen in staying out of their neighbours' territorial seas. The PMSA also takes the required steps to guarantee that the Deep-Sea Fishing Policy is implemented by closely watching and inspecting domestic and international fishing trawlers using surface and aerial surveillance.

Since its formation, the PMSA has carried out its responsibilities efficiently while upholding professional standards. The marine industry is so large that the problems and difficulties it faces are global in scope and have many different facets. The infrastructure and resources at the disposal of those in command must be enormous to meet such problems. Despite having limited resources, the PMSA works tirelessly to meet every need for assistance in accordance with Pakistan's maritime strategy. In order to carry out their responsibilities and successfully stop criminal activity by enforcing maritime regulations in Pakistani seas, PMSA officials never give up. Additionally, its active presence at sea in the form of maritime patrol and other multifaceted projects guarantees a tranquil atmosphere in Pakistan's maritime zones.

Table 8: Search and Rescue (SAR) 1993-2022

Year	Boats	Ship	Crew	No of Operations	Live Lost
1993	5	0	39	5	0
1997	1	0	9	1	0
1999	3	0	77	5	0
2001	2	0	30	2	0
2003	2	0	20	2	0
2004	7	0	248	13	0
2005	5	2	163	10	0
2006	7	0	96	12	0
2007	6	1	80	9	0
2008	18	1	232	18	0
2009	9	0	173	14	0
2010	5	0	54	8	0
2011	5	0	52	2	0
2012	11	0	165	11	0
2013	4	0	38	4	0
2014	13	0	38	13	5
2015	7	0	57	7	0
2016	5	0	62	6	0
2017	4	0	35	4	0
2018	17	1	168	18	2
2019	39	0	446	19	2
2020	21	1	231	29	6
2021	37	4	464	45	7
2022	23	2	102	25	19
Total	251	11	3072	276	39

Source: Declassified Data by PMSA

The aforementioned data indicates the efforts of PMSA to counter security threats within and outside the country. Pakistan bought 251 boats, 11 ships, and 3072 crew members. PMSA conducted 276 operations from 1993 to 2022 and only 39 people lost life.

Table 9: Data of Anti-Narcotics 1990-2022

Year	Boats	Crew	Total Narcotics	Price (Approximately)
1990	2	-	55 Tons	500 Million
1992	1	-	12.9 Tons	2.5 Billions
2003	1	-	2.4 Tons	400 Millions
2004	1	-	1.7 Tons	250 Millions
2005	2	-	4.5 Tons	736 Millions
2008	5	-	11.2 Tons	685.6 Millions
2009	1	-	962 kg	135 Millions
2010	1	-	4 kg	4 Millions
2013	2	-	53.3 kg	12 Millions
2014	1	-	44 kg	10 Millions
2016	3	-	3 Tons & 115kg	7600 Millions
2017	1	-	1.65 Tons	1200 Millions
2018	4	24	10.5 Tons	7500 Millions
2019	4	12	1.3 Tons	7 Billion + 7.66 Millions
2020	7	58	9.1 Tons	15.21 Billion + 766.4 Million
2021	5	28	2733 kg & 1700 cotton Alcohol	6 Billion & 832 Million
2022	3	22	3700 kg	1328 Crore 123.8 Million

Source: Declassified Data by PMSA

The most important mission of PMSA is to counter narcotics. Total 44 boats were used during 1990 till 2022 and 144 crew members were involved. Tons of data having worth of billion rupees was recovered during these operations.

Table 10: Smuggling Operations 2020-2022

Year	Boats	Crew	Total Operations	Drugs/ Diesel/ Liquor/ Cooking Oil/ Rice/ Car Tyres/ Flour
2020	29	202	21	3,98,640 Liters Diesel 30kg Rice and 25kg Flour
2021	27	180	20	416080 Liters Diesel, 256 Car Tyres, Cooking Oil 34,800 Liters
2022, Feb	2	17	1	64000 Liters

Source: Declassified Data by PMSA

Anti-Smuggling operations are another success story; in 2020 total 21 operations were conducted. In 2021 20 operations were carried out and 1 operation in February, 2022 as per the available data.

Table 11: IUUF 1987-2022 (Indian Fishing Boats)

Years	Boats	Crews
1987	28	316
1988	10	133
1989	12	134
1990	22	159
1991	5	41
1992	6	38
1993	16	103
1994	32	195
1995	5	47
1996	5	34

1997	8	40
1998	32	187
1999	21	137
2000	5	28
2001	48	289
2002	64	399
2003	71	353
2004	128	753
2005	91	527
2006	59	365
2007	29	134
2008	44	228
2009	51	276
2010	21	105
2011	113	477
2012	121	355
2013	86	378
2014	78	429
2015	61	368
2016	70	383
2017	93	546
2018	43	260
2019	18	100
2020	27	169
2021	38	224
2022	17	104
Total	2580	14765

Source: Declassified Data by PMSA

Indian fishing boat operations are crucial and important to conduct. PMSA has conducted several operations from 1987 to 2022. Total 2580 boats were used during these operations and 14765 crew members had participated in it.

4.4 Pakistan Coast Guards (PCG)

A force, typically naval, that upholds a nation's maritime rules and aids ships that are capsized or in need of assistance off its coastlines. This organization was established in early 19th century to prevent smuggling. PCG is a distinctive fusion of land-based and maritime military forces that operates under a single command. Along with land-based control technology, it has a fleet of ships and maritime equipment. The force is able to undertake operations both on land and in the water because to the combination of these qualities. Due to the combination of serving along the coast on land or at sea, PCG is a unique law enforcement organisation when compared to other security forces and agencies. The mandate of this force is stated in the PCG Act of 1973 as follows:

"Whereas it is expedient to provide for the constitution and regulation of PCG and for special measures to effectively check smuggling of any kind across the frontiers of Pakistan in coastal area of Arabian Sea and to also deal with persons acting in a manner prejudicial to the defence and security of Pakistan in that area."

4.4.1 Marine Wing (MW)

Pakistan's 1050 km of coastline and its 12nm territorial seas are both protected by the PCG which is present across the nation. The administration of PCG Marine Wing is in charge of operating inside 12nm of territorial seas. The operating branch commander of the Pakistani Navy oversaw. The Pakistan Navy operation branch commander is in charge of the MW, which is situated in Karachi. Fast patrol boats, deadly assault boats, and various Boat Utility Craft with the most recent technology are available in Marine Wing.¹⁸⁹

The Marine Wing has all the necessary resources to prepare its employees for ongoing training in the appropriate sectors. Additionally, they are competent to lead general and technical cadets and Marine Wing built the Search and Rescue Center.

¹⁸⁹ Pakistan Forces, "Pakistan Coast Guards | Paramilitary Force of Pakistan," PAKISTAN FORCES - Faith, Unity & Discipline, last modified 2021, accessed August 17, 2022, <https://pakistanforces.com/pakistan-coast-guards/amp/>.

- **Functions**

According to the 1973 Act, the PCG's primary duties are:¹⁹⁰

- Prevention of migration and immigration into and out of the country illegally
- Preventing enemy spies or agents from entering the country through coastal areas
- Enhancing defence during a conflict

- **Legal Authority**

PCG has been given specific legal authority to carry out the specified activities in a proper way by numerous Acts.¹⁹¹

- Roles of Pakistan Coast Guards

4.4.2 Anti-Smuggling

Main role is to stop smuggling at sea and smugglers' activities (both inbound as well as outbound). PCG battalions have specific checkpoints all along the coastal strip, and they also randomly monitor the endangered areas. It also has control over a sizable network of agents and informants that are utilised to set up pickets when smuggling operations are reported, in collaboration with the commandants of the PCG battalions. Modern communication and surveillance tools, such as radars, are used to do this duty.

Over the years, the PCG's response to illegal trafficking and international organised crime has been improved via training programmes and capacity-building activities. As a transit and destination nation, Pakistan faces a serious threat from Afghan opiates. PCG has the unique responsibility of leading operations against smuggling on both land and water. It has captured 52,000 kg of hashish, 100 kilogramme of heroin, 500 kg of

¹⁹⁰ Pakistan Coast Guard, "» Roles - Pakistan Coast Guard," - Pakistan Coast Guard, last modified 2021, accessed August 17, 2022, <https://www.pakistancoastguards.gov.pk/roles/>.

¹⁹¹ Pakistan Coast Guard, "» Roles - Pakistan Coast Guard," - Pakistan Coast Guard, last modified 2021, accessed August 17, 2022, <https://www.pakistancoastguards.gov.pk/roles/>.

crystal, and 640 kg of opium during the past five years.¹⁹² Increasing PCG's operating capabilities aids in achieving shared goals.

Afghanistan's production and refinement of narcotics has a significant influence on Pakistan, which lies next door. According to the UNODC Opium Survey, Kandahar, Nirmoz, Nangarhar, Badakhshan, and Helmand are the five provinces near the border with Pakistan where the majority of Afghanistan's opium is farmed. The porous border between Pakistan and Afghanistan makes it easier to transport Afghan narcotics across Pakistan to other areas of the world.¹⁹³ The open and sparsely populated parts of Baluchistan and the Makran coast permit drug trafficking by motorised convoys and animal transport from Southern Afghanistan. These locations also serve as dumping grounds for narcotics before they are transported outside of Pakistan.¹⁹⁴ Pakistan's coastal districts, particularly minor fishing ports along the Makran coast, are exposed to drug smuggling activities to the Gulf States and beyond. The consequences of drug manufacturing and trafficking are felt all across the world. According to UNODC, Pakistan is the destination and transit country for almost 40% of the opiates generated in Afghanistan.¹⁹⁵ The majority of processing occurs in tiny, mobile laboratories along the Afghan-Pakistan border, while there has been an increase in processing towards the Afghan border with the Central Asian Republics.

The Pakistan Coast Guard maintains particular checkpoints to monitor smugglers and their operations. It also monitors the coast's most vulnerable locations. The latest communication technologies and the network of secret agents allow the department to be informed of upcoming actions. Any smuggling action that is about to occur is notified ahead of time. As a result, it prevents any smuggling from taking place on the

¹⁹² Rizwana Asad, UNODC Country Office Pakistan Conducts Preliminary Needs Assessment of Pakistan Law Enforcement Agencies Operating in the Maritime Domain, (Karachi: UNODC Country Office Pakistan, 2020), accessed August 19, 2022, <https://www.unodc.org/pakistan/en/unodc-country-office-pakistan-conducts-preliminary-needs-assessment-of-pakistan-law-enforcement-agencies-operating-in-the-maritime-domain.html>.

¹⁹³ Pakistan Coast Guard, "» Miscellaneous - Pakistan Coast Guard," - Pakistan Coast Guard, last modified 2021, accessed August 19, 2022, <https://www.pakistancoastguards.gov.pk/achievements/miscellaneous/>.

¹⁹⁴ Pakistan Coast Guard, "» Miscellaneous - Pakistan Coast Guard," - Pakistan Coast Guard, last modified 2021, accessed August 19, 2022, <https://www.pakistancoastguards.gov.pk/achievements/miscellaneous/>.

¹⁹⁵ Pakistan Coast Guard, "» Miscellaneous - Pakistan Coast Guard," - Pakistan Coast Guard, last modified 2021, accessed August 20, 2022, <https://www.pakistancoastguards.gov.pk/achievements/miscellaneous/>.

coast. It has fought drug, weapon, and human trafficking on the coast in recent years. The Pakistan Coast Guard intercepted many networks. The following are the results of smuggling prevention efforts:¹⁹⁶

- Hashish: 22104.156 KG
- Heroin: 218.75 KG
- Opium: 3225 KG
- Beer: 82955 Bottles

4.4.3 Prevention of Illegal Immigration

The Pakistan Coast Guard is heavily engaged in the fight against illegal immigration. These are the individuals who enter a country without authorization or legal documentation. Because Pakistan is a security state, there is always the risk of foreign-led insurgencies in the nation. These rebels illegally infiltrate the nation. On the other hand, people from Pakistan travel illegally to other countries. In recent years, the Pakistan Coast Guard has apprehended thousands of illegal immigrants. These are some examples:¹⁹⁷

- 2451 Pakistanis
- 1259 Afghanis
- 10 Bengalis
- 50 Iranians
- 2 Yamani
- 3 Uzbeks

Not only illegal immigrants but recently it seized 26000 litres of Iranian diesel. It was intended to be smuggled to Pakistan illegally. It also seized 1000 KG of Hashish from Pashni that was 1.1287 million dollars.

¹⁹⁶ Amna Ellahi, "Pakistan Coast Guards," Pakpedia, last modified September 26, 2017, accessed August 20, 2022, <https://www.pakpedia.pk/pakistan-coast-guards/>.

¹⁹⁷ Amna Ellahi, "Pakistan Coast Guards," Pakpedia, last modified September 26, 2017, accessed August 20, 2022, <https://www.pakpedia.pk/pakistan-coast-guards/>.

4.4.4 Human Trafficking

The Pakistan Coast Guard has increased its operations against drug and people smuggling networks along the country's maritime borders in recent years.

The maritime route begins at Gwadar's port, and the Coastal Highway connects Karachi and Gwadar. Human cargo is loaded into boats departing from Pasni, Jiwani, Pishukan, or Surbandan.¹⁹⁸ The boats transport the migrants via the Gulf of Oman to Iran. From there, the voyage continues overland through Turkey and then to Europe. In recent years, the Pakistan Coast Guard has conducted more operations against drug, weapon, and human trafficking, and smuggler networks operating in coastal waterways. The Coast Guard has recently had some success in tackling this issue.

Both a transit route and a final destination for human trafficking is South Asia. Numerous problems the area encounters contribute to its dismal socioeconomic situation as a whole. These hardships drive immigration and may lead to potential human trafficking gang exploitation. 941 migrant deaths were recorded by the Missing Migrants Project as of June 4, 2020.¹⁹⁹ Moreover, human trafficking has an impact on Pakistan and India as well. Smugglers in the area employ a variety of strategies to draw in their victims. The desire to work abroad, particularly in the Gulf and Europe, makes people voyage from this region which is more vulnerable to fraudulent frauds. Most illegal immigration from Pakistan is headed towards the United Arab Emirates, the Gulf area, and until Australia. Most Indian immigrants go to North America, Western Europe, and Australia as their final destinations.

4.5 Pakistan Marines

Force protection in the littorals is the responsibility of the Pakistan Marines, who use the Pakistan Navy's mobility to provide creek defence, ground-based air defence, and

¹⁹⁸ Kashif Noon, *Human Smuggling and Trafficking in Pakistan*, (Pakistan: National Initiative Against Organized Crimes, 2020), accessed August 20, 2022, <https://globalinitiative.net/wp-content/uploads/2020/07/Human-Smuggling-and-Trafficking.pdf>.

¹⁹⁹ Shazia Habib, "Combating non-conventional threats at Sea: Need for a Dynamic Response by Pakistan," *Maritime Security Forum*, January 24, 2020, accessed August 20, 2022, <https://www.maritimestudyforum.org/combating-non-conventional-threats-at-sea-need-for-a-dynamic-response-by-pakistan/>.

force protection. The Pakistan Marines were established on July 1, 1971, to begin riverine operations in East Pakistan, at the recommendation of the Navy and modelled after the Royal Marines. During the Bangladesh Liberation War, Pakistan Marines participated in their first military operations as marines while against the Indian Army. By 1974, the Marines were no longer in service. due to the war's poor fighting performance, massive losses and deaths, and failure to oppose Indian Army.²⁰⁰ However, Marines remained in existence in their original form until 1988 in order to satisfy basic security needs of Pakistan Navy.

Under the command of Commander M. Obaidullah, the Marines were recommissioned in 1990. The Marines are the uniformed service branch of Pakistan Navy exclusively under Pakistan Navy command. Although conducted in the Pakistan Military Academy Kakul and School of Infantry in Quetta, it is in accordance with the rank code of Navy. At the Manora Fort at Karachi's Qasim Marine Base is where the Marines' lone command structure is located. By law, the Commander Coast (COMCOAST), a Two-Star rear admiral, is in charge of the Marines. According to the ISPR, Marines are stationed in Pakistan's southeast to prevent infiltration and covert operations by the Indian Army.

Understanding the nature of any potential maritime danger is crucial for Pakistan. The approach must be more methodical and forceful in the widespread Covid-19 epidemic. Despite its lack of preparation, Pakistan has to move more proactively. Threats coming from the water do not have a single answer. To combat maritime terrorism, Pakistani institutions needs to use a measured reaction spectrum.

The fishermen's community, which may serve as their eyes and ears, may also be able to assist. Even though Pakistan lacks the necessary capabilities, know-how, and technology, it is now necessary to give this area long-term priority.

²⁰⁰ Pakistan Marine Force, "Pakistan Navy | Pakistan Marine Force," PAKISTAN FORCES - Faith, Unity & Discipline, accessed August 20, 2022, <https://pakistanforces.com/pakistan-navy-marine/amp/>.

4.6 Pakistan and Regional Organizations

South Asia Cooperative Environment Programme (SACEP) is an intergovernmental organisation that promotes and supports protection, management and enhancement of the environment in the region. Member countries are Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka. South Asia Seas Programme (SASP) for cooperation on the response to oil and chemical pollution in the South Asia Seas (with Sri Lanka, Bangladesh & Maldives and India).²⁰¹

4.7 Intelligence Agencies of Pakistan

The intelligence agencies of the country are following the strategies to counter non-traditional security threats:

4.7.1 Indirect Response Technique

The targets of indirect response techniques are not the terrorists themselves, but rather the terrorists' relatives, peers, facilitators, leaders, and sympathisers. All terrorist network operators and their families' homes should be destroyed, and their bank accounts should be frozen to effectively combat terrorism in Pakistan.

4.7.2 Tactical Denial Technique

This tactic combats terrorism by intimidating terrorists into abstaining from an action. Terrorists' motivation declines if they fear they won't be able to reach their goal. It aids in their deterioration and demoralisation. This strategy is also being used by Pakistan to combat terrorism.

4.7.3 Strategic Denial Techniques

Pakistan has managed media coverage of terrorists using this method. By refusing to allow terrorists to incite panic within its borders, Pakistan may discourage terrorism.

²⁰¹ Promoting Effective Spill Response (ITOPF), "Pakistan," Promoting Effective Spill Response (ITOPF), last modified 2018, accessed August 21, 2022, <https://www.itopf.org/knowledge-resources/countries-territories-regions/pakistan/>.

However, Pakistan has not yet been able to resolve this problem. Terrorists use social media and websites to reach out to citizens and elected authorities with their messaging. The Pakistani telecommunication agencies should outlaw it.

4.8 Pakistan Efforts to Secure the Region

Pakistan efforts to secure the Indian Ocean Region are;

4.8.1 IMO Regulations

In National Institute of Maritime Affairs, Pakistan has hosted the 9th International Maritime Conference on February 13–15, 2021, with the theme "Development of Blue Economy under Secure and Sustainable Environment: A Shared Future for Western Indian Ocean Region."²⁰²

In order to guarantee that operations may continue securely, IMO has made no efforts to spare cooperation with member states, UN organisations, and the maritime sector. All economies are boosted and supported by shipping that is secure, efficient, safe, and environmentally beneficial. The IMO's Global Maritime Security Programme is constantly evolving to address these issues.

4.8.2 UNLOSC 1982

A subject of public international law known as the law of the sea regulates the territorial claims of coastal states as well as the rights and obligations of states with regard to the use and preserve ocean environment and its natural resources. Due to its crucial sea lines of communications, Indian Ocean Region is strategically positioned in the centre of world power dynamics. Indian Ocean serves as a strategic backwater for both coastal and foreign governments who attempt to exploit this area to retain their strategic game.

²⁰² International Maritime Organizations, "9th International Maritime Conference - Development of Blue Economy under a Secure and Sustainable Environment" (Paper presented at International Maritime Organizations (IMO), Pakistan, February 15, 2021) accessed August 21, 2022.

However, in the course of geopolitical conflict, several significant maritime security issues that go beyond conventional military threats are ignored.²⁰³

4.8.3 Marpol 1973/1978

The IMO adopted the MARPOL Convention on November 2, 1973. In response to a string of tanker incidents in 1976–1977, the Protocol of 1978 was enacted. The 1978 MARPOL Protocol included the 1973 MARPOL Convention because it had not yet been effective.²⁰⁴ The principal international treaty addressing the prevention of maritime environment contamination by ships from operational or accidental causes is the International Convention for the Prevention of Pollution from Ships (MARPOL).

4.8.4 Custom Act 1969 / Exclusive Fishery Zone Act 1997

An Act to make provision for the management, development, protection and conservation of the fisheries and living marine resources:²⁰⁵

In accordance with the applicable rules of international law, the republic shall (a) exercise its sovereign rights to explore, exploit, conserve, and manage those resources within Nauru's fisheries waters; and (b) utilise, manage, develop, protect, and conserve those resources so as to preserve and replenish them as a sustainable asset for future generations and to promote economic growth, improved social standards, improved nutritional standards, and human resiliency.

²⁰³ Science Direct, "Law of the Sea," Science Direct, last modified 2001, accessed August 21, 2022, <https://www.sciencedirect.com/topics/earth-and-planetary-sciences/law-of-the-sea>.

²⁰⁴ International Maritime Organization, "International Convention for the Prevention of Pollution from Ships (MARPOL)," International Maritime Organization, last modified 2019, accessed August 21, 2022, [https://www.imo.org/en/About/Conventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-\(MARPOL\).aspx](https://www.imo.org/en/About/Conventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-(MARPOL).aspx).

²⁰⁵ Pacific Islands Forum Fisheries Agency, "Fisheries Act 1997," Pacific Islands Forum Fisheries Agency (FFA) | Strengthening National Capacity and Regional Solidarity for Sustainable Tuna Fisheries, last modified April 15, 2011, accessed August 21, 2022, https://www.ffa.int/system/files/Fisheries_Act_1997.pdf.

4.8.5 The Control of Narcotics Substances Act 1997

The Control of Narcotics Substance Act of 1997 codifies, amends, and specifies the laws pertaining to the manufacture, processing, and trafficking of narcotics, drugs, and psychotropic substances. It encompasses the entirety of Pakistan.

4.8.6 Prevention of Trafficking in Persons Act 2018

To coordinate the implementation, application, and administration of this Act; to set forth measures to protect and assist victims of trafficking in persons; to set forth measures to prevent and combat trafficking in persons within or across the borders of the Republic; and to set forth matters connected therewith, these initiatives have adopted a new five-year national action plan to combat migrant smuggling crimes and trafficking in persons, finalising implementation rules for the 2018 Prevention of Trafficking in Persons Act (PTPA), and referring more potential trafficking victims for care than during the previous reporting period.

4.8.7 National Marine Disaster Contingency Plan 2019

the port authorities are in charge of spill response within the port boundaries. However, given the relative scarcity of response resources, they are likely to request help from the PMSA. Cleaning up after an oil spill on the coast is the responsibility of the appropriate province government, however it's probable that they would also seek help from the PMSA. The spiller would be required to supply resources and equipment in the event of a big catastrophe.

4.9 Pakistan Cooperation with Regional States

As it links the Red Sea, the Gulf of Aden, and the Persian Gulf, the Arabian Sea region have become one of the most significant worldwide commerce routes. 23% of all global trade is carried by this important canal. As the traditional transatlantic global centre of economic activity shifted to Asia-Pacific, where it is an essential maritime route, this

Sea has grown in importance.²⁰⁶ The Arabian Marine is also crucial strategically for Pakistan since significant sea routes pass near to its borders. Pakistan must thus guarantee that an efficient marine security system is in place in this critical sector.

Pakistan Navy, the world's ninth most powerful and versatile sea force, has a stellar track record. It works well with regional navies and has been assisting major powers in fostering maritime cooperation. Participating in these exercises represent a serious attempt to protect and project national interests in a changing geopolitical environment.

The International Maritime Exercise 2022 (IMX 22) is a daring and necessary step forward in maritime cooperation. It is an extension of its stated policy of collaborating with neighbouring navies, particularly those in the Middle East, to contribute to regional security. Pakistan Navy has been an active participant in multilateral exercises since 2005, such as CTF-150 and 151, as well as hosting the AMAN series. Thus, the world's largest sea drills are rewriting history by joining the US-led IMX 22, which includes approximately 60 countries, 50 vessels, 9,000 personnel, and more than 80 drones.

Such extensive amalgamations have significant security implications, particularly at a time when many Arab states are reorienting themselves by forging new alliances and rethinking their security trade-offs. The promotion of steps to boost confidence has gotten a boost from these international maritime exercises.

IMX-22 is an additional chance for the Pakistan Navy to improve interoperability with regional fleets because it is a part of the massive exercises being conducted from the focal base of Bahrain, which is home to both CENTCOM operations and the US Navy's 5th Fleet headquarters. It is recognised that Pakistan has been given the responsibility of Deputy Commander for the Arabian Sea and the Gulf of Oman.²⁰⁷

²⁰⁶ Shazia Habib, "Combating Non-conventional Threats at Sea: Need for a Dynamic Response by Pakistan," Maritime Study Forum, June 24, 2020, accessed August 21, 2022 <https://www.maritimestudyforum.org/combating-non-conventional-threats-at-sea-need-for-a-dynamic-response-by-pakistan/>.

²⁰⁷ Ishtiaq A. Mehkri, "IMX-22 will reinforce Pakistan's sea prowess," The Express Tribune, February 14, 2022, accessed August 22, 2022, <https://tribune.com.pk/story/2343319/imx-22-will-reinforce-pakistans-sea-prowess>.

PN has kept up its crucial contribution to the region's overall maritime security. The 7th iteration of the "AMAN" exercise was held in February 2021 and was conducted by the Pakistan Navy with the goals of transferring knowledge, developing standard procedures, and fostering cooperation. Maintaining regional maritime discipline through dialogue with other navies was one of AMAN-21's principal goals.²⁰⁸ A flotilla of Pakistani naval ships from the TARIQ and HIMMAT classes visited Abu Dhabi in February to take part in the International Defense Exhibition.

Pakistan have concerted efforts to boost its sea prowess. With a coastline of approximately 990 kilometres, it faces a deadly foe to the east. Furthermore, as new challenges of trade and commerce, as well as anti-piracy activity, Pakistan Navy is gaining an increasingly important role in the Horn of Africa, Hormuz and Suez, as well as the Persian straits.

PN has consistently been dedicated to upholding regional stability and peace in Indian Ocean Region. Continuous ship deployments and involvement in bilateral drills are tangible manifestations of the PN's commitment to upholding peace and order in the maritime realm.²⁰⁹

Pakistan Navy believes that a cooperative regional approach that promotes consultation rather than confrontation, prevention rather than correction, and interdependence rather than unilateralism can be beneficial. As a result, PN has become a full member of IONS and an observer in WPNS.

4.9.1 Inhibitors of Cooperative Mechanisms

Given that continuous economic growth depends on marine commerce, there has to be an agreement on how to handle actions endangering trade routes in the Indian Ocean. However, one must first examine a few of this special region's distinctive features before adopting a regional cooperative roadmap. Many people believe that Indian

²⁰⁸ Sohail A. Azmie, "Regional Maritime Security Patrols: Pakistan Navy's Initiative for Preserving Freedom of the Seas," Hilal Publications, accessed August 20, 2022, <https://www.hilal.gov.pk/eng-article/detail/Mjc2OQ==.html>.

²⁰⁹ Khan Hasham Saddique, "Pakistan Navy As a Stabilizing Force in Indian Ocean," Hilal English, January 1, 2015, accessed August 22, 2022 <https://www.hilal.gov.pk/eng-article/detail/MTMyMw==.html>.

Ocean to be divided into four distinct sub-regions: East Africa, the Middle East, South Asia, and Australasia. Second, this concentration of third-world nations is plagued by a variety of governance structures, internal political instability, sectarianism, and regional power dynamics, all of which are major roadblocks to regional cooperation. Thirdly, pan-regional security initiatives have been overshadowed by conventional inter-state security issues, which have fostered an atmosphere of mistrust. Finally, non-traditional marine concerns result in issues involving state and non-state players in politics, business, and humanitarian sectors. Contrary to conventional security, it is challenging to imagine solutions for transnational non-traditional and human security challenges. These, together with the variety of IOR at every level, undermine regional unity.

4.9.2 Reviving Cooperative Security

Notwithstanding regional diversity, governments and citizens have come together due to economic cooperation, resulting in a variety of economic groups that benefit from each other's economic growth.²¹⁰ In consequence, having a secure economy frequently results in better comprehension of political and security issues. Geostrategic concerns have been driven by economic interests and globalisation, and bringing sub-regional groups together. Sub-regional organisations like the ADC, EAC, GCC, SAARC, ASEAN, ARF, etc. have effectively translated economic interdependencies and similarities at sub-regional levels. However, the majorities of vessels have a restricted marine security charter and are regionally or culturally focused. Two pan-IOR organisations, IORA and IONS, which have member nations from various parts of the area geographically and who also participate in one or more sub-regional economic groups, serve as notable outliers.

Six conversation partners, two observers, and 20 member nations make up the IORA to improve maritime cooperation among regional fleets through information exchange and solve maritime security concerns affecting the IOR, IN launched the IONS project in 2008. moreover, this construct includes 35 member nations. For commerce, investments, technology, and education, IORA brought developed, developing, and

²¹⁰ Paul Collier, "Culture, Politics, and Economic Development," *Annual Review of Political Science* 20, no. 1 (2017), accessed August 22, 2022, doi:10.1146/annurev-polisci-051215-024720.

rising nations from Asia, Africa, and Australia together. The organisation is reviving itself after a decade of slumber through the adoption of a collective Indian Ocean security paradigm based on marine regionalism. The association reiterated its common interest in the peace, security, and prosperity of all IOR nations at the Perth Communiqué in November 2013, and it acknowledged the significance of IONS's complementarity.²¹¹

According to the Dr. Mayilvaganan, the efficacy of regional organizations regarding NTMS in IOR has been limited progress as there are few regional organizations that are mandated with maritime affairs while other regional organizations like SAARC are caught in complex geopolitical developments with less focus on NTMS. Its only bilateral or multilateral mechanism can work in Indian Ocean given its geographical vastness.²¹²

Furthermore, the regional organizations focus less on NTMS perhaps as one of the agenda of their discussion or based on some eventuality that takes places during that period. The major challenges that regional organizations face in countering NTMS in IOR is that NTMS is perpetrated by non-actors who operate clandestinely and navigate one region to another swiftly. The lack of capability of maritime forces of the country, lack of coordination among the littorals, and sometimes overlapping claims like in South China Sea.²¹³

Counter-NTMS efforts cannot work if those are piecemeal, disjointed or confused. This suggests that Pakistan needs to evolve a mechanism whereby resources of PMSA, PCG, ANF, Customs, NI, ISI and PN may put under a joint operational commander who is able to plan and execute the counter-NTMS operations in a distributed ops manner. Azmi thinks only that way the speed, accuracy and effectiveness of maritime operations would be enhanced.²¹⁴

²¹¹ Deepak Singhal, "Cooperative Mechanisms to address Non-Traditional Maritime Security Threats in the Indian Ocean Region (IOR)," *Naval War College Journal* (n.d.), accessed August 23, 2022 https://www.indiannavy.nic.in/sites/default/themes/indiannavy/images/pdf/resources/article_15.pdf.

²¹² Dr. Mayilvaganan, personal communication, 10-10-2022.

²¹³ Ibid.

²¹⁴ Azmi, personal communication with author.

4.9.3 National Security Policy of Pakistan

At the outset, the NSP is clear about present and future threats that Pakistan faces in its neighborhood. This is the first time that five domains of war where Pakistan is prepared to fight are mentioned in the NSP: land, air, sea, cyber, and space. It is about time that Pakistan addresses the challenges of cross-domain coercion which can be achieved by adversaries through the use of digital soldiers on information-based cyber-attacks to achieve strategic effects.

The NSP also makes a mention of focusing on the indigenization of Pakistan's defense production and modernization of its armed forces to deal with the evolving threat spectrum from the region. There is a focus in this NSP on recognizing Indian Ocean Region as a contested space, as well as its impact on regional security in general and Pakistan's national security in particular. The NSP aims to protect Pakistan's Exclusive Economic Zone, ensuring freedom of navigation and strengthening Pakistan's sea lines of communication and surveillance to thwart multi-directional challenges to its maritime security, including cyber intrusion.²¹⁵

4.10 India and Pakistan in the Region

The United States has been enacting an offshore balancing strategy against China through India. India has also increased its footprint in Indian Ocean as a result of its self-declared position as leading provider of internet security. Now, it seeks to increase the size of its fleet through capacity-building, military aid, and diplomatic efforts. The ratio of interests that might outweigh the requirement of establishing a common foundation for regional prosperity is further demonstrated by India's goals of developing a blue economy, building a 200-ship fleet, and completing its nuclear triad²¹⁶. Regional programmes like IORA, BIMSTEC, and SAGAR are mostly focused on India. Pakistan is a significant Indian Ocean littoral state, making its participation in

²¹⁵ Rabia Akhtar, "Pakistan's New National Security Policy: A Step in the Right Direction," Atlantic Council, January 20, 2022, accessed August 23, 2022, <https://www.atlanticcouncil.org/blogs/southasiasource/pakistans-new-national-security-policy/>.

²¹⁶ Faiza Farid, "Why Pakistan Needs a Comprehensive Indian Ocean Policy — THE FLETCHER FORUM OF WORLD AFFAIRS," THE FLETCHER FORUM OF WORLD AFFAIRS, n.d. accessed August 23, 2022, <https://www.fletcherforum.org/home/2020/2/7/why-pakistan-needs-a-comprehensive-indian-ocean-policy>.

conferences like these even more crucial for a South Asia peace and cooperation. States can find methods to coexist with rivalry and commerce in countries like Pakistan, India, and China despite their political differences. Pakistan is just attempting to form an alliance with one nation in the area. China and India, on the other hand, argue with each other while still maintaining trading ties. In terms of its "Act East, Think West" strategy, India's attitude to the Indian Ocean is wholly Panikkarian and a saffron iteration of the Monroe Doctrine. While everything is going on, Pakistan lacks any strategy that would support its relations with East African, Mauritius, and Southeast Asian governments, let alone any strategy that looks south toward creating a coherent, unified Indian Ocean strategy. Pakistan must remind itself of the lessons Panikkar has imparted in his articles on Indian Ocean and acknowledge the crucial significance of the ocean for both India and Pakistan.

4.10.1 Non-Traditional Threats

The geopolitics of Indian Ocean has been increasingly influenced by nontraditional security concerns including global warming, illicit fishing, drug trafficking, and human trafficking. The island states and the African littoral takes on a key role if the competition is about maintaining presence and missions in strategically significant maritime regions, such as the choke points and the unconventional problems are the smaller countries' main security difficulties.

In order to handle national security interests in the area, the region's traditional actors like France, India, and the United States, as well as its allies like Australia, Japan, and the UK, needs to consider their smaller partners' unconventional security issues.

In essence, the great countries seeking for influence in Indian Ocean must take into account the security concerns of the little island states if they hope to gain their support. Although these concerns can be viewed as minor or soft, they are extremely important to the island countries. Additionally, these problems have strategic ramifications for fishing boats and research missions employed for observation and reconnaissance. As a result, they have a big effect on the continuing geopolitical conflict in the area.

Jouni Lari said that first successful maritime security requires regional approach, regional cooperation, trust among the participants, and regional ownership. The Seychelles, Mauritius and Madagascar have moved on their maritime security cooperation, but the focus still is on traditional threats. Same within DCoC cooperation.²¹⁷

4.10.2 Development in Pakistan Maritime Strategy

Following the events of 9/11, Pakistan's maritime plan was put into action and made Interdiction Operation (OEF-MIO) which is led by Japan and aims to combat terrorism in Indian Ocean, between 2001 and 2010.²¹⁸ Ten years of successful operation were followed by a stop in January 2010 because of domestic problems in Japan. Pakistan contributed positively to this operation at all times. In order to maintain maritime security and rein in pirate operations in Indian Ocean, notably in Somalia, Pakistan joined joint task force-151 in January 2009.²¹⁹ In the history of the sea, CTF-151 has been under the command of the Pakistan Navy eight times. Pakistan left CTF-151 as a result of the deteriorating US-Pakistan relations.²²⁰ On December 20, 2018, the Pakistani president unveiled the nation's first-ever marine philosophy. The maritime doctrine is divided into ten chapters, and Chief of Naval Staff Admiral Zafar Mehmood Abbasi's words about its goals are particularly striking: "MDP aims to act as a catalyst for the synergizing efforts and resources of various stakeholders in the development of the country's maritime sector, which has lacked vitality despite vast potential."

Gaspard said that the main infrastructural orientation could be to assign Pakistan Foreign Minister as the project manager. A Pakistan Navy detachment would be under the command of the Foreign Minister in order to participate the fight against NTMS.²²¹

²¹⁷ Jouni Lari, Personal communication with author,

²¹⁸ APSNet Policy Forum, "The MSDF Indian Ocean Deployment – Blue Water Militarization in a “normal Country”," Nautilus Institute for Security and Sustainability | We Hold That It is Possible to Build Peace, Create Security, and Restore Sustainability for All People in Our Time, last modified May 21, 2013, accessed August 23, 2022, <https://nautilus.org/apsnet/0610a-tanter-html/>.

²¹⁹ Radio Pakistan, "Pakistan Navy Assumes Command of Combined Task Force-151," RADIO PAKISTAN, last modified December 10, 2020, accessed August 23, 2022, <https://www.radio.gov.pk/10-12-2020/pakistan-navy-assumes-command-of-combined-task-force-151>.

²²⁰ Osama B. Javaid, "Pakistan navy quits anti-piracy task force amid worsening US ties," Aljazeera, October 9, 2018, accessed August 23, 2022, <https://www.aljazeera.com/news/2018/10/9/pakistan-navy-quits-anti-piracy-task-force-amid-worsening-us-ties>.

²²¹ GASPARD, Personal communication with author.

Furthermore, the 3S idea lies at the heart of Pakistan's maritime philosophy. Maintaining its naval strategic autonomy, promoting peace and security in the Afro-Asian area, and fortifying its maritime domain are all necessary to safeguard its principal naval interest.²²²

In order to counter both conventional and novel threats in the Afro-Asian Pacific, Pakistan also established autonomous regional marine security patrols (RMSP) in 2018.²²³ On March 4, 2019, Pakistan's navy discovered an Indian submarine attempting to enter Pakistani waters. Pakistan however continues to exercise its maritime sovereignty while doing so admirably. Such an incident demonstrates Pakistan's navy's dedication to the defence of its maritime territory. Through maritime diplomacy, the Pakistani navy also contributes significantly to the maritime sphere.²²⁴ Pakistan's navy was able to join international maritime organisations like AMAN in 2007 because to maritime diplomacy. 45 nations from around the world have joined this global naval exercise. It is intended to advance shared interests including economic and marine security. From February 9 to February 12, 2019, Karachi, Pakistan, hosted the 6th AMAN international drill.²²⁵

Conclusion

Pakistan has been playing a significant role in countering NTMS challenges in IOR. Pakistan Marine Academy, PNSC, Port Qasim authority, Karachi Port Trust, Gwadar Port Authority, Merchant Marine Department, and Marine Fisheries Department works under ministry of maritime affairs. Moreover, it coordinates with Pakistan Navy and other maritime related departments to keep navigation, trade, and shipping secure. The other departments, including PMSA, marine wing,

²²² The Diplomat, "Assessing US-India Relations: The Strategic Handshake," The Diplomat – The Diplomat is a Current-affairs Magazine for the Asia-Pacific, with News and Analysis on Politics, Security, Business, Technology and Life Across the Region, September 16, 2016, accessed August 23, 2022, <https://thediplomat.com/2016/09/assessing-us-india-relations-the-strategic-handshake/>.

²²³ Usman Ansari, "Pakistan's naval chief talks regional security and tech wish list," Defense News, June 11, 2020, accessed August 23, 2022, <https://www.defensenews.com/interviews/2020/06/03/pakistans-naval-chief-talks-regional-security-and-tech-wish-list/>.

²²⁴ Naveed Siddiqui, "Pakistan Navy foils attempt by Indian submarine to enter Pakistani waters," DAWN, March 5, 2019, accessed August 23, 2022, <https://www.dawn.com/news/1467778>.

²²⁵ Navy, MULTINATIONAL NAVAL EXERCISE AMAN 2019 – MEDIA BRIEF, (Pakistan Navy Fleet Headquarters: Navy, 2019), accessed August 23, 2022, <https://www.paknavy.gov.pk/Handout%20Aman.pdf>.

coast guards, and Pakistan Marines, etc. endeavor for anti-smuggling, anti-trafficking, IUUF, and prevent illicit migration and immigration; moreover, search and rescue operations up to 840nm with authorization of IMO. Pakistan is not only cooperating with regional organizations such as South Asia Seas Programme (SASP) to control over oil spills and chemical spills, but cooperating with regional states to secure the IOR.

Conclusion, Findings, and Recommendations

Non-traditional maritime security issues have taken firm grounds at all three levels of national, regional, and international security paradigms within oceanic spaces. Since IOR has emerged as a geo-political, geo-strategic, and geo-economic hub of activities by state and non-state actors, it requires reconfiguration of maritime security regime to deal with increasing number of NTMS threats. Therefore, being a significant regional actor and located at strategic coordinates, Pakistan finds itself in a dire need to ensure maritime security not only in its maritime zones and area of responsibility assigned by International Maritime Organization (IMO). Hence, it can play a pertinent role to promote IOR peace, safety and security, and good order through an effective regionalism approach.

It is explanatory research and both quantitative and qualitative research method is used to gather data and information about NTMS. Securitization theory has used to explain NTS issues in maritime domain and Neo-Liberalism institutionalism theory to resolve them through cooperation and regionalism approach. There are number of socio-economic challenges in Pakistan that not only impacts social and economic sector of Pakistan, but it impacts the military, political, and environmental sector because all sectors are interrelated with each other and cannot be fully separated from each other. Furthermore, the dependent variables are regional response and Pakistan, independent variable includes non-traditional security challenges, and intervening variables are international law, regional environment, and non-state actors in Indian Ocean.

With the vast evolution of technology and globalization, there is a shift in the paradigm of security. Therefore, traditional ways to maintain security are not enough. Non-traditional maritime security threats are evolving day by day and cannot be handled by one nation or state in Indian Ocean Region. There are multiple organizations working in IOR to control NTMS, but challenges are still there; moreover, no organization is specifically aims to combat NTMS threats in IOR, and international law is also quiet about it.

Pakistan Navy, Pakistan Maritime Security Agency, Coast Guards, and the Ministry of Maritime Affairs (PMSA) are playing their role in countering NTMS. Pakistan is not

only cooperating with Western neighbours, but also providing assistance to Eastern neighbors including India. Additionally, the Pakistan is taking part in all regional and global initiatives and endeavors to ensure cooperation and lawfulness on the high seas. In the same vein, Pakistan has been taking part in a number of international forums, including the Western Pacific Naval Symposium, the Indian Ocean Naval Symposium, multinational exercises, disaster relief efforts, and the noncombatant evacuation of Pakistanis and foreign nationals stuck in conflict zones to play its part combating NTMS.

Findings

The main finding of the thesis is that overexploitation of resources, illegal economies, and transnational crimes, including smuggling, trafficking, illegal fishing, piracy, smuggling of sand and gravel, excessive coastal industries and constructions, dredging and dumping at sea, oil spills, changing lifestyle of people, including income, education, health, facilities, housing, and employment and poverty, endangerment of species, chaos and depression seems pervasive socio-economic non-traditional maritime security challenges at coastal areas of Indian Ocean Region. Chapter wise findings are given below;

- NTMS challenges impact all sectors of life including military, political, economic, societal, and environmental. In addition, it impacts all small and large business communities, public and private firms, their infrastructure, affects trade and commerce, and cause economic insecurity which further impacts the lifestyle of masses residing at coastal areas. Not only this, NTMS threats affects the marine ecosystem and results in endangerment of species and depletion of food resources.
- NTMS challenges such as smuggling, trafficking, illegal fishing, piracy, smuggling of sand and gravel, excessive coastal industries and constructions, dredging and dumping at sea, oil spills, and chemical spills, etc. that impacts socio-economic conditions in IOR such as lifestyle of people, including income, education, health, facilities, housing, employment, poverty, endangerment of species, chaos and depression, etc. have been increasing with time due to the absence of regional order in IOR.

- Non-traditional maritime security challenges are more intense than traditional security threats in IOR. Furthermore, security meanings and definitions become broader with the empowerment of non-state actors and economic interdependence; however, there aren't any special legal guidelines addressing these offences.
- Regionalism could be the effective approach to counter NTMS in IOR, but it all depends upon the efficacy of regional organizations.
- There are multiple organizations working in IOR, but the organizations have their own infrastructure, objectives, goals, and challenges to counter maritime security challenges.
- There is no international organisation that keeps track of all maritime environmental crimes, assesses performance and advancement, and finds ways to improve states collaboration.
- Comprehensive security framework and region centric multilateral approach can add in to the effectiveness of regionalism. Furthermore, SDGs can also help to overcome socio-economic challenges in IOR because not only goal 14, but all the other SDGs are also related to sea and oceans.
- NTMS is a threat to the national security of Pakistan. Pakistan has been facing number of non-traditional maritime security challenges which affect Pakistan's development and socio-economic progress more than traditional security issues. Moreover, it has been creating problems in way of socio-economic stability of Pakistan since inception.
- Pakistan is taking part in all regional and global initiatives to cope with NTMS challenges, uphold regional stability and peace; furthermore, it endeavors to ensure cooperation and lawfulness on the high seas including the Western Pacific Naval Symposium, Indian Ocean Naval Symposium, multinational exercises, disaster relief efforts, and the noncombatant evacuation of Pakistanis and foreign nationals stuck in conflict zones.
- Pakistan is playing efficient role in search and rescue up to 840nm, marine pollution control, anti-poaching, anti-smuggling and drug trafficking operations with regular patrolling and surveillance.

Recommendations

There are multiple organizations working in IOR and Pakistan related departments to maritime affairs have been putting efforts to combat NTMS challenges but challenges are still there. Furthermore, Recommendations are classified into two levels, national and regional regarding NTMS challenges and threats.

National Level

- Policymakers, civil society, think tanks, and academics must spotlight this field routinely. Furthermore, rigorous regulations like the "zero tolerance" and "polluter pays" principles must be implemented in order to reduce environmental hazards and socio-economic non-traditional security threats.
- The media needs to pay greater attention to this issue and bear the primary duty in this respect.
- Pakistan cannot deal with the existing and evolving non-traditional socio-economic challenges in Indian Ocean alone; therefore, there is a need for extensive cooperation in the maritime domain, which is possible by adopting and strengthening regionalism.
- Pakistan should focus on improved assessment and operational planning as well. Understanding and concentrating on surveillance of existing and future endeavours in the region are urgently needed.
- States should enhance cooperation under legal framework to overcome socio-economic challenges in the region. Pakistan also needs such regional or intra-regional bodies in the IOR to mitigate and counter NTMS.
- The trainings should be conducted by the regional states; moreover, formulate and strengthen a specific task force in the IOR to counter NTS threats.
- A coordinated, multi-layered security regime that strengthens the connections between the agencies is needed in states including Pakistan.
- States should understand the shift in security, nature of NTMS threats, and advance their coordination and cooperation systems (means of communication) to deal with NTMS threats.

Regional Level

- The aspects of non-traditional security threats in Indian Ocean Region needed to be addressed, such as smuggling, trafficking, and sea pollution. There is a need for the cooperation of regional states to counter and mitigate such threats in Indian Ocean Region rather than focusing on the differences. There is also a need for cooperation of civilians and military to counter NTMS in Indian Ocean Region.
- There is a need of comprehensive Indian Ocean policy to combat socio-economic NTS.
- States should create a regional research organization which focuses on the NTMS threats in IOR and also formulates a comprehensive framework to counter NTMS challenges.
- NTMS threats are embedded with each other and they cannot be resolved separately. The organization dealing with its single components cannot reach up to its root causes. That's why there is a need of separate body in IOR to understand the nature of threats, causes of threats and counter NTMS threats under proper mechanism.
- Pakistani institutions require a measured reaction spectrum. It also requires a coordinated and multi-layered security system that strengthens the inter-agency links. Pakistan must also focus on improved evaluation and operational planning. The requirement of the hour is to comprehend and concentrate on monitoring existing and future endeavors in the region.
- Regional organizations play a significant role in mitigating piracy and smuggling, but there is also a need for intra-regional cooperation in the Indian Ocean. There is a need for an entity or body that facilitates law enforcement legitimatization and ensures good governance.

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Primary Resources

Internship at PMSA

Internship includes field visits, presentations, discussions, and assignments related to NTMS, sea crimes and criminal analysis, and nature of non-traditional maritime affairs, duties and responsibilities of PMSA. Furthermore, data collection and data analysis are one of the key responsibilities of researcher at PMSA. Certificate has attached in the Annex 1.

List of Interviewees

Cdre Sohail Ahmed Azmi, comdt Naval Academy, Personal communication with author.

Dawn kauli, Commandant National Defence College, Personal communication with author.

Demas Nauvarian, Research Staff at Center for Strategic and Global Studies (CSGS), Personal communication with author.

Docras Etang, International Advisory Board Member, Personal communication with author.

Dr. Mayilvaganan, Associate Professor, NIAS, Personal communication with author.

Gaspard, Security consultant, Personal communication with author.

Jouni LAARI, Security Advisor Indian Ocean Region at EEAS Personal communication with author.

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Annex 1

Certificate of PMSA



Scanned with CamScanner

Annex 2

Name: Commodore Sohail Ahmed Azmi

Designation: Commodore (Navy)

Email: sohailazmie@gmail.com

Question 1: How do you see the efficacy of regional organizations regarding NTMS in IOR?

Regional organizations, which deal with NTMS in IOR, are predominantly led or governed by the extra-regional forces, like Combined Maritime Force (CMF) by the US, UK Maritime Trade Operations (UKMTO), and several other independent deployers. There are very few organizations led by regional states. Such as Regional Maritime Security Patrols (RMSP) by Pakistan and India Ocean Rim Association (IORA), etc., which are attempting to combat NTMS; the efficacy does not seem very efficient, though. Recently, the US Coast Guard has also come to the area, as part of the US Naval Forces Central Command, based in Bahrain, to handle NTMS. Their activities against the drug traffickers have been noticed in the Gulf of Oman.

Question 2: To what extent regional organizations are focusing on NTMS and what challenges are faced by regional organizations in countering NTMS in IOR?

As a part of the post-9/11, Operation Enduring Freedom, the US launched series of initiatives to curb smuggling of weapons of mass destruction through the sea, one of such mechanism was Coalition Maritime Campaign Plan (CMCP), others being Container Security Initiative (CSI) and Port Security Initiative (PSI), etc. We can say that the CMCP actually laid the foundation of a sea-based architecture to handle NTMS. Pakistan also joined the initiative in 2004 and then actually commanded the multi-national maritime task forces several times after that. CMCP gave way to a more structured Combined Maritime Forces (CMF) construct, allowing various nations to operate together under one operational authority to fight NTMS, which didn't exist before in the region. CMF has three Task Forces, viz, Combined Task Force (CTF)-

150, for combating NTMS in the Arabian Sea, CTF-151 for combating principally piracy off Horn of Africa and CTF-152 for Persian Gulf security. Major challenges the initiatives face are different ‘rules of engagement’, which often conflict with those of the US, and there’s also lack of sharing information among the partner nations for various reasons.

Question 3: How can the approach of regionalism be made more effective for non-traditional maritime security in IOR?

It can be made more effective through a ‘region-owned and region-led’ approach like the EU and NATO. It’s because the extra-regional nations come to the region with the burden of safeguarding their national interests, while not really working to empower the regional countries so that they stand on their own. Indian Ocean region lacks ‘region-ness’ and that has been one of the reasons that no workable security, safety and economic infrastructure came to realization among the IOR nations.

Question 4: How can ocean governance in IOR be strengthened to address NTMS challenges?

There are so many challenges in the way of ocean governance, including mistrust, ambiguity, and unsettled disputes among regional states. But one cannot ignore the reality that IOR nations will have to come closer, operate together while having significant trust among each other. Since trust cannot be surged, therefore, the inter-states rifts will have to be either resolved or set aside by the IOR nations themselves, as no one from the extra-region would be willing, interested or prepared to resolve the bilateral bickering. Just as Robert Kaplan says that there needs to be a ‘NATO of the Seas’ in IOR where India and Pakistan would continue to operate as do Greece and Turkey in NATO.

Question 5: Is there a need of any organization specifically dealing with NTMS in IOR?

Yes, there should be a well-structured region-centric organization dealing with NTMS – India, South Africa, Indonesia and Pakistan may take it up in the lead role. But as I

said, unless the trust is built among IOR nations, the probability of such an organization coming into existence does not seem possible.

Question 6: What would be the possible role for Pakistan to play in this regard? And what would be the infrastructural orientations of organization?

As a role, Pakistan has had nearly a 2 decades experience in leading and being part of the combined task forces, which can be used in the formulation process of the region-centric organization combating NTMS. The initiative of Pakistan's RMSP can be further expanded by including 'willing' partners to become part of the patrols. Pakistan has Joint Maritime Information & Coordination Centre (JMICC), the maritime law enforcement agency the PMSA and these can be 'put under' a joint operational authority having intelligence and maritime assets under his control. These commanders may then be rotated among the partner nations. However, the major issues are the GCC countries do not incline to operate long time at seas, neither do they like sharing information on key issues. This aspect needs to 'evolve' into a better shape than we may see RMSP expanding its operational footprint. Moreover, India and Pakistan's unwillingness to be 'partner at seas' for NTMS would continue to inhibit emergence of any meaningful counter-NTMS construct at sea for a long time to come.

Question 7: What is the role of Pakistan (Navy, Coast Guard, and PMSA) in regional engagements, and how can Pakistan enhance its role in mitigating NTMS?

Well, counter-NTMS efforts cannot work if those are piecemeal, disjointed or confused. This suggests that Pakistan needs to, again I'd say, 'evolve' a mechanism whereby elements/ resources of PMSA, PCG, ANF, Customs, NI, ISI and PN may be 'put under' a joint operational commander who is able to plan and execute the counter-NTMS operations in a 'distributed ops' manner. I think only then would be the speed, accuracy and effectiveness of maritime operations would be enhanced.

Annex 3

Name: Dawn Kauli

Designation: Commandant National Defence College

Email: kuwali.d@outlook.com

Question 1: How do you see the efficacy of regional organizations regarding NTMS in IOR?

The African Union is committed to work with states and subregional organisations to maritime security and law enforcement on the oceans surrounding the continent.

Question 2: To what extent regional organizations are focusing on NTMS and what challenges are faced by regional organizations in countering NTMS in IOR?

Working with like-minded partners, promoting confidence building measures between states and their navies as well as training exercises and symposia on matters of mutual interests.

Question 3: How can the approach of regionalism be made more effective for non-traditional maritime security in IOR?

Through awareness, conferences, symposia and training exercises as well as building partnerships and community of practice for stakeholders.

Question 4: How can ocean governance in IOR be strengthened to address NTMS challenges?

Increasing capacity to patrol, law enforcements and deterrence capabilities.

Question 5: Is there a need of any organisation specifically dealing with NTMS in IOR?

Affirmative, But that organisation cannot work in isolation. It should start with states to implement and enforce the treaties entered into at regional levels.

Question 6: What would be the possible role for Pakistan to play in this regard. And what would be the infrastructural orientations of organization?

Pakistan should assist in capacity building for law enforcement, patrol, and deterrence activities.

Question 7: What is the role of Pakistan (Navy, Coast Guard, and PMSA) in regional engagements, and how can Pakistan enhance its role in mitigating NTMS?

See response to question 6 above.

Annex 4

Name: Dr. Mayilvaganan

Designation: Associate Professor, NIAS

Email address: mayil@nias.res.in

Question 1: How do you see the efficacy of regional organizations regarding NTMS in IOR?

In terms of the efficacy of regional organizations regarding NTMS in IOR, I believe there has been either a limited or slow progress as there are few regional organizations that are mandated with maritime affairs while other regional organizations like SAARC are caught in complex geopolitical developments with less focus on NTMS. Its only bilateral or multilateral mechanism can work in the Indian Ocean given its geographical vastness.

Question 2: To what extent regional organizations are focusing on NTMS and what challenges are faced by regional organizations in countering NTMS in IOR?

The regional organizations focus less on NTMS perhaps as one of the agenda of their discussion or based on some eventuality that takes places during that period. The major challenges that regional organizations face in countering NTMS in IOR is that NTMS is perpetrated by non-actors who operate clandestinely and navigate one region to another swiftly. The lack of capability of maritime forces of the country, lack of coordination among the littorals and sometimes overlapping claims like in South China Sea are the major challenges.

Question 3: How can the approach of regionalism be made more effective for non-traditional maritime security in IOR?

Based on the severity and frequency of the NTMS, the countries and the regional organizations are forced to act. Major maritime powers cooperate in countering the

NTMS from time to time. Otherwise, regionalism would going to be similar in the approach.

Question 4: How can ocean governance in IOR be strengthened to address NTMS challenges?

Oceans governance in the IOR could be strengthened by enhancing cooperation and coordination among all the countries in the region and secondly, respecting rule-based order in IOR. NMTS needs data sharing, capacity building of maritime security forces and efficient coordination among the regional powers.

Question 5: Is there a need of any organisation specifically dealing with NTMS in IOR?

IORA and IOC can be strengthened to deal with NTMS by the IOR countries.

Question 6: What would be the possible role for Pakistan to play in this regard. And what would be the infrastructural orientations of organization?

Pakistan being one of the important naval powers in the Arabian Sea, could play a possible role in countering NTMS that occurs in the western Indian Ocean apart from amplification its coordination and cooperation with other countries in the region.

Question 7: What is the role of Pakistan (Navy, Coast Guard, and PMSA) in regional engagements, and how can Pakistan enhance its role in mitigating NTMS?

Pakistan needs to ensure an effective maritime security apparatus in the crucial area of western Indian Ocean to counter non-traditional security. Also, Pakistan Navy and Coast Guard can increase their security patrols to combat non-traditional threats in the Afro-Arabian waters.

Annex 5

Name: Dr. Docras Etang

Designation: NRF-rated researcher, International Advisory Board Member

Email: Ettang@ukzn.ac.za

Question 1: How do you see the efficacy of regional organizations regarding NTMS in IOR?

The challenges are quite a lot because we see oceans has been more source of threat to civilians, population, traditional route. This issue acquires tensions, like trafficking of various human source, illicit to trafficking. So, we need to see key role to play to the threat. No country work alone to counter NTMS. For example, African Union, RECs (Regional and Economic Development), in these specific number of states work together. Perhaps the starting point of multiple states, different capacities and resources comes to strong regional response. There are different resources, interests, and agendas of different member states of organizations are challenges in coalition of organizations. Few countries have higher GDP and some have lower. Therefore, the responses governments to such issues depends on the capacities of governments.

Question 2: To what extent regional organizations are focusing on NTMS and what challenges are faced by regional organizations in countering NTMS in IOR?

It is a key ideology that different organizations have different benefits in the region. Regionalism is the starting point. The happening in one country impacts the other country. Such as Australia has impact on New ze land. Therefore, there is a need of awareness of regional organizations by organizations and government. Economic livelihoods are affected by the floods, etc.

One country belonging to multiple organizations but state see multiple interest. Countries signing regional frameworks. The states agree only on the what they want to do and don't agree on what they don't want to commit resources and capacity.

Question 3: How can the approach of regionalism be made more effective for non-traditional maritime security in IOR?

Regionalism is absolutely the chief ideology that I think might shed light on the benefits of regional cooperation which shed light on regional collaboration, communication and so on. Taking regionalism as a starting point, the one country benefits the other. So, it is not a question of individual agenda, if piracy affects India, it also impacts on Pakistan. Similarly, if piracy happens on Australia, it also impacts New Zealand. So, we need regional response to the threats that affect us. And we have more power as a regional block. Perhaps we achieve more as a regional block. Here are some of the ideas which can draw from regionalism as a concept and we need to look beyond boundaries, there are issues of sovereignty, especially with oceans, water and all of that. There are laws, why, where sort of where country owns ocean water in comparison to their neighbors. So, if there is some common threat which affects us, we should take the common approach that benefits every member of these regional organizations. So, regionalism is absolutely and key in that regard.

Question 4: How can ocean governance in IOR be strengthened to address NTMS challenges?

I think communication should be more organized information and communication between countries. There is more coordination between a body dealing with maritime issues. How do the departments work together if they have lack of information. Continuous engagements, regular information sharing and it can be through bi-annual meetings, bi-annual engagements and more coordination involve. For example, illicit drug trafficking, there are different countries working together, they share information and arrest the culprits. Regionalism becomes effective as a tool to build regional responses and improves the response to the threats. So, regionalism is good conceptually. But now practical side, how do we do that? Countries must see the benefits of regional approach.

Question 5: Is there a need of any organisation specifically dealing with NTMS in IOR?

Yes, there are organizations IORA (Indian Ocean Rim Association) and ASEAN which is dealing with the political and economic objectives in IOR. so, there is no need to formulate organizations over and over again. The existing organizations need to commit and strengthen to address this non-traditional maritime security challenges. Because one country is in multiple organizations and achieving nothing.

The issue in the existing organizations are commitment, awareness, and relevant agencies should inform governments of member states of ASEANS and IORA about these issues. If we create another one what would be of ASEAN in year or two? So, the existing organizations have the potential to contribute significantly.

Question 6: What would be the possible role for Pakistan to play in this regard. And what would be the infrastructural orientations of organization?

Every state cannot work in isolation, Pakistan has maritime security agency so it is a key organization that perhaps can shape Pakistan's response to maritime threats like smuggling, etc. Pakistan has a key play a key role because of its geographical location. So, Pakistan should be calling for front because of its regional approach and regional response.

Secondly, it needs to be a clarity on the availability of resources and expertise of individuals developing innovation in maritime responses and new response.

Pakistan can convince the other states through diplomacy to engage maritime security responses. I think there is a place where diplomacy come into play through bilateral engagements, discussions with neighboring countries and key actors. Pakistan has the resources to protect Indian Ocean, Navy is also a key resource to protect the region. The regionalism can thrive through continuous engagements, information sharing and partners of prosperous countries. Communities has to be involved to the process. The communities have played their role in policies and Pakistan response towards NTMS.

Question 7: What is the role of Pakistan (Navy, Coast Guard, and PMSA) in regional engagements, and how can Pakistan enhance its role in mitigating NTMS?

There is a need of political commitment at the highest level of government. There is a lot of challenges in implementation. There is no political will and political commitment. Navy, Coast Guard, and PMSA are doing excellent work but there is a problem at the higher governmental level. Political will is absolutely key. There are capacity gaps in these organizations which are limiting their effectiveness. Bilateral engagements, information sharing can help in building capacity by the PMSA to counter such threats. PMSA can enhance its capacities by focusing on joint capacity building initiatives, joint attacks researches, innovative ways to deal with such issues, community responses how communities deal with such non-traditional issues.

Annex 6

Name: Gaspard

Designation: Security Consultant

Question 1: How do you see the efficacy of regional organizations regarding NTMS in IOR?

I will consider the following organizations:

- EU CRIMARIO
- COMMISSION DE L'OCEAN INDIEN (COI) / INDIAN OCEAN COMMISSION (IOC)

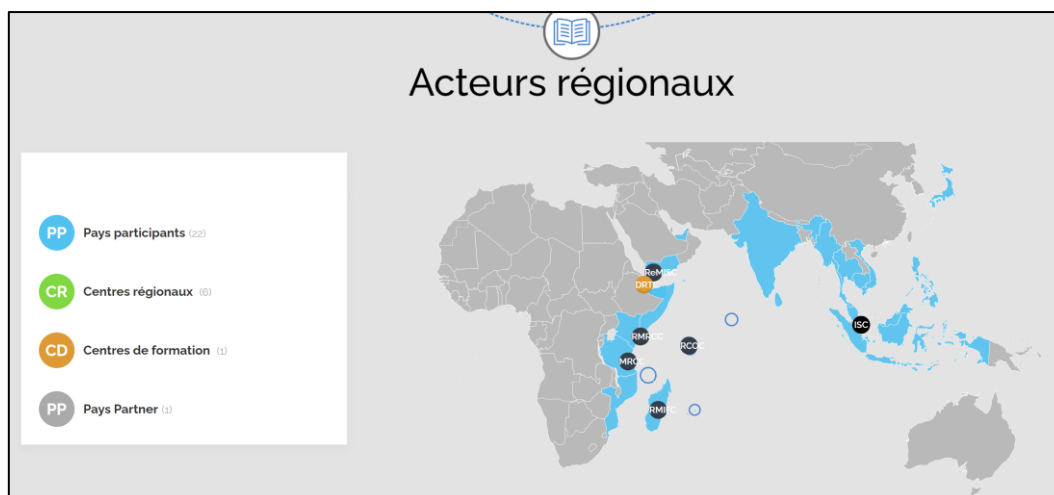
You can note that Pakistan is not linked to these organisations.

And the following programme

- MASE

Indeed, I used to read information about maritime security through these stakeholders which So, we can identify that all countries do not participate. For example, OMAN, IRAN, PAKISTAN.

On EU CRIMARIO website, you can find this map which represents “allies” states concerning the NTMS in IOR.



Stakeholders in IOR (Source: CRIMARIO - Critical Maritime Routes)

Through the article of Charles Telfair Institute (which has been sent to you), we can note that organizations allow to get some KPI's about illegal Boats/ships but the efficacy question is not really evaluated. There is some sometimes an important communication when a drug ship is arrested but we cannot say that these exceptional events are relevant to confirm efficacy of regional organization.

Question 2: To what extent regional organizations are focusing on NTMS and what challenges are faced by regional organizations in countering NTMS in IOR?

Maritime Space deals with the sovereignty question for each state which have coasts. Moreover, due to the importance of the Indian Ocean Maritime Road, the security subject is important to allow the business development and the merchandises delivery.



Indian Ocean Maritime Road (Source : Verrouillage stratégique de l'Océan Indien, par Philippe Rekacewicz (Le Monde diplomatique, novembre 2008) (monde-diplomatique.fr))

The challenges are multiple:

- Conflicts located in SOMALIA and ETHIOPIE
- Melicias/ insurgents in MOZABIQUE: it could lead to a destabilization of the “Mozambique Canal” because of the possibility for these armed persons to join COMOROS and even MADAGASCAR and MAYOTTE.
- Immigration: Form SRI LANKA to REUNION ISLAND
- Drugs delivery
- Ecologic crisis when a ship has an accident (2 examples: REUNION Island - Tresta Star- MAURITIUS island -Wakashan- in less than 2 years)
- Illegal phishing

Question 3: How can the approach of regionalism be made more effective for non-traditional maritime security in IOR?

The Keys factors are:

- 1) A common desire to fight against NTMS: For each country is not necessary the most important subject (Because of internal conflicts some countries are focused on territory problems: For government it is easier to show what you are doing on the ground compared to the maritime area)
- 2) The wish and the ability to -rapidly- share information
- 3) Financial aspect: who will pay for training? for buying materials? Etc

The approach of regionalism has begun through the MASE project. Indeed, a common security centre has been tested (In MADAGASCAR) and this centre collects all information from military ships during their patrols. But it appears a lack of resources because of the area size.

Question 4: How can ocean governance in IOR be strengthened to address NTMS challenges?

This question is related to the following. The Indian Ocean COMMISSION could play a major role as the institution in charge of NTMS questions in IOR. It is interesting to underline that the presidency changes every year which allows to create a global adherence. Each country has a real part to address NTMS challenges. The financial contribution could be linked to the maritime space of each country with a coefficient due to the GDP.

Question 5: Is there a need of any organisation specifically dealing with NTMS in IOR?

Yes, there is a need: Globalization and the rise of earth population mean that the Indian Ocean Maritime Road will remain a critical itinerary for the subsistence of many populations and the business development.

Question 6: What would be the possible role for Pakistan to play in this regard. And what would be the infrastructural orientations of organization?

Due to its geographical position, Pakistan could be a major stakeholder in sharing, for example, information of coasts monitoring.

The main infrastructural orientation could be to assign Pakistan Foreign Minister as the project manager. A Pakistan Navy detachment would be under the command of the Foreign Minister in order to participate the fight against NTMS.

Question 7: What is the role of Pakistan (Navy, Coast Guard, and PMSA) in regional engagements, and how can Pakistan enhance its role in mitigating NTMS?

I do not have a clear vision of Pakistan and my analysis is not enough relevant for evaluating Pakistan the performance of different country institutions or security forces regarding the question of NTMS. However, it is clear that the improvement of the NTMS mitigation is linked to the regional cooperation

Annex 7

Name: Demas Nauvarian

Designation: Research Staff at Center for Strategic and Global Studies (CSGS),
Airlangga University, Indonesia

Email address demasnauvarian@gmail.com

Question 1: How do you see the efficacy of regional organizations regarding NTMS in IOR?

The IOR mostly consists of high seas where no national jurisdiction of any states lies. This reason has become the root for the rise of many NTMS challenges in the region, such as piracy. While such issue seems could, at first, seems to cultivate the work of regional organizations such as IORA, this does not seem to be the case. Regional maritime organizations seem to limitedly act as a basin for cooperation regarding economic development. They only covered issues such as international maritime trade. Evidently, maritime security challenges are mostly responded by either great powers in the region or informal multilateral alliances, such as the maritime joint task force in the Western Indian Ocean.

Question 2: To what extent regional organizations are focusing on NTMS and what challenges are faced by regional organizations in countering NTMS in IOR?

Regional organizations have yet to put much emphasize in tacking NTMS in the region because there has not been any large-scale or systematic threat in the region. Most of the threats such as piracy and terrorism are sporadic, and countries seem to be more effective and hold more power in solving these issues. The challenges, therefore, for these organizations, is to come up with a breakthrough and innovative solution to incorporate the agenda of NTMS in their discussion, and how they can relate it to their mandates.

Question 3: How can the approach of regionalism be made more effective for non-traditional maritime security in IOR?

The thing is, regional organizations, especially one developing in the IOR region, are not established to tackle security challenges in the first place. Rather, they are designed to become forger of economic cooperation in maritime domain between countries in the region. The most effective way forward, therefore, is to first analyze the extent in which NTMS threats are endangering economic activities in the region. Countries such as China seems to have dodged these threats by themselves through unilateral actions, such as through deploying their navy in escort missions. Regional organizations, therefore, could play a role in coordinating states in the region in establishing an ocean governance that is effective and beneficial for all.

It is very unlikely for any regional organization to act unilaterally in handling these challenges. Simply, it is impossible for organizations such as IORA to have its own navy. An emerging idea was to create a joint naval force in the region to combat NTMS challenges in the IOR. However, as underlined by Gofur²²⁶, the issue of maritime security is late to be included in discussions such as that in IORA. Furthermore, the establishment of joint military forces usually are based on intensive threat that become common concern for many countries with close military ties. For instance, the CTF-150 was a multilateral alliance in the Horn of Africa region by western countries. Meanwhile, the IOR consisted of countries with different affiliations, ideologies, or even competing countries. Regional organizations, then, could perhaps play a role in bridging these differences, for instance by starting a maritime security dialogue or forum in the region, which can be continued through a joint naval exercise and joint patrol. Countries could contribute by deploying forces in their respective sub-regions (African countries in western Indian Ocean, South Asian countries in northern Indian Ocean, Southeast Asian countries in eastern Indian Ocean).

²²⁶ Gofur, Abdul (2021) 'The Absence of IORA Joint Naval Forces in Providing Indian Ocean Maritime Security and Safety during the Somali Pirate Attacks of 2007-2015', *Jurnal Maritim Indonesia*, 9 (2): 188-197. <https://jurnalmaritim.tnial.mil.id/index.php/IMJ/article/download/80/59>.

Question 4: How can ocean governance in IOR be strengthened to address NTMS challenges?

The first question that has to be answered first is regarding the existence of ocean governance in IOR in the first place, especially concerning NTMS challenges. It would be hard to actually define an ocean governance in the region, as most of IOR are high seas, which mean they are governed under UNCLOS 1982. A regional governance should instead focus on enforcing UNCLOS' principles through various arrangements, such as I have mentioned in the previous question.

Question 5: Is there a need of any organization specifically dealing with NTMS in IOR?

Not that I am aware of.

Question 6: What would be the possible role for Pakistan to play in this regard. And what would be the infrastructural orientations of organization?

I am no expert in Pakistan foreign policy, but Pakistan is surely behind many countries in term of its relative power and regional leadership in the region. Pakistan's foreign policy, to my understanding, is still strained from its strategic rivalry with India, and most of its resources are allocated to facing other more urgent security challenges in the region (remember that beside India, Pakistan is also bordering with Afghanistan, Iran, and China). Unless there is a significant shift in its fundamental foreign policy principle, I do not see how Pakistan could lead any major effort in the matter, unfortunately.

Question 7: What is the role of Pakistan (Navy, Coast Guard, and PMSA) in regional engagements, and how can Pakistan enhance its role in mitigating NTMS?

One thing that perhaps Pakistan can do is raising awareness regarding NTMS challenges in the region. Pakistan could conduct researches and collect evidences that

NTMS challenges are urgent to be solved and that its solution should go beyond pre-existing tension in the region.

Annex 8

Name: Jouni LAARI

Designation: Security Advisor Indian Ocean Region at EEAS

Email address: jouni.laari@hotmail.com

Question 1: How do you see the efficacy of regional organizations regarding NTMS in IOR?

To my understanding, there are not per se regional organizations focusing on NTMS. As an example, the International Maritime Organization supported Djibouti Code of Conduct (DCoC) focuses on countering piracy and armed robbery, so not on NTMS nor illicit trafficking.

Question 2: To what extent regional organizations are focusing on NTMS and what challenges are faced by regional organizations in countering NTMS in IOR?

Look my answer to Q1, DCoC part.

The Indian Ocean Committee (IOC) has its own regional developmental agenda and has demonstrated leadership in the maritime security domain. However, additional support and buy-in from regional actors remain critical to the IOC's maritime security activities, due to its members' capacity and financial constraints. To my understanding IOC focus still is on more traditional maritime security, like with DCoC.

The Indian Ocean Rim Association (IORA) fosters regional economic cooperation and sustainable economic development. The IORA has past decade identified six priority and two focus areas, out of which Maritime Safety & Security (MSS) and Blue Economy have received critical attention! I am not sure whether the NTMS has some or any focus in IORA MSS.

The Indian Ocean Naval Symposium's (IONS) main aim is to attain mutually beneficial maritime security outcomes in the Indian Ocean, mainly from naval point of view. IONS has promoted shared understanding of maritime issues and the formulation of a common set of strategies designed to enhance capacity-building, improve regional maritime security. Normally navies are first to identify NTMS, but I have not followed at this point IONS discussions.

Question 3: How can the approach of regionalism be made more effective for non-traditional maritime security in IOR?

First, successful maritime security requires regional approach, regional cooperation, and trust among the participants. and regional ownership. The Seychelles, Mauritius and Madagascar have moved on their maritime security cooperation, but the focus still is on traditional threats. Same within DCoC cooperation.

The EU, and to my understanding the US are promoting including NTMS in the evolving regional maritime security cooperation.

Question 5: Is there a need of any organisation specifically dealing with NTMS in IOR?

To my understanding no, at least not at regional level, except the US Navies operating in the region, especially the US 5th Fleet, and its Combined Task Forces 150-153.

Question 6: What would be the possible role for Pakistan to play in this regard. And what would be the infrastructural orientations of organization?

I leave question to the Pakistan to answer.

Question 7: What is the role of Pakistan (Navy, Coast Guard, and PMSA) in regional engagements, and how can Pakistan enhance its role in mitigating NTMS?

You need to ask the Pakistan Navy.

Annex 9

List of Organizations

- 3.3.1 Indian Ocean Rim Association (IORA)
- 3.3.2 Indian Ocean Tuna Commission (IOTC)
- 3.3.3 South Indian Ocean Fisheries Agreement
- 3.3.4 South West Indian Ocean Fisheries Commission
- 3.3.5 Western Indian Ocean Tuna Organization
- 3.3.6 The Regional Commissioner for Fisheries
- 3.3.7 Commission for Conservation of Blue Fin Tuna
- 3.3.8 Combined Task Force CTF-150
- 3.3.9 Gulf Cooperation Council (GCC)
- 3.3.10 Indian Ocean Research Group (IORC)
- 3.3.11 Indian Ocean Commission (IOC)
- 3.3.12 Sea Bed Authority
- 3.3.13 Indian Ocean Forum on Marine Crime
- 3.3.14 Indian Ocean East
- 3.3.15 Maritime Crime Program by UNODC
- 3.3.16 Regional Cooperation Agreement on Combating Piracy and Armed Robbery
against Ships in Asia (ReCAAP)
- 3.3.17 Indian Ocean Data Rescue Initiative
- 3.3.18 The Baltic and International Maritime Council BIMCO
- 3.3.19 International Maritime Organizations
- 3.3.20 International Maritime Bureau Piracy

Glossary

Key terms (Operational Definitions)

- **Maritime security:** Maritime security is a general term for the protection of vessels both internally and externally.
- **Maritime Terrorism:** Maritime terrorism is often defined as “the undertaking of terrorist acts and activities within the maritime environment, using or against vessels or fixed platforms at sea, or in port; or against any one of their passengers or personnel, against coastal facilities or settlements, including tourist resorts, port areas.
- **Non-Traditional Security Threats:** Challenges to the survival and well-being of peoples and states that arise primarily out of non-military sources, such as climate change, cross-border environmental degradation and resource depletion, infectious diseases
- **Region:** An area, especially part of a country or the world having definable characteristics but not always fixed boundaries
- **Indian Ocean:** The Indian Ocean is the third-largest of the world's five oceanic divisions. It is bounded by Asia to the north, Africa to the west and Australia to the east.