10-31-2022

A policy impact evaluation of the regional cooperation agreement on combating piracy and armed robbery against ships in Asia

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A POLICY IMPACT EVALUATION OF THE REGIONAL COOPERATION AGREEMENT ON COMBATING PIRACY AND ARMED ROBBERY AGAINST SHIPS IN ASIA

By

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India

A dissertation submitted to the World Maritime University in partial fulfilment of the requirements for the award of the degree of

MASTER OF SCIENCE

in

(MARITIME LAW AND POLICY)
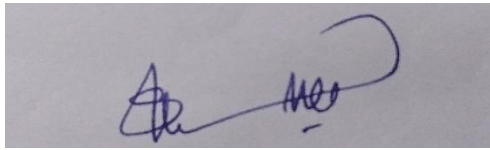
2022

Declaration

I certify that all the material in this dissertation that is not my own work has been identified, and that no material is included for which a degree has previously been conferred on me.

The contents of this dissertation reflect my own personal views, and are not necessarily endorsed by the University.

(Signature):

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Acknowledgements

Abstract

Title of Dissertation: **A Policy Impact Evaluation of the Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia**

Degree: **Master of Science**

The dissertation is a study of the information sharing, capacity building and cooperative measures of ReCAAP, for conducting a policy impact evaluation.

The historical perspective and complexity of piracy in Asia including its legal context for defining piracy and armed robbery is discussed in brief. The deliberation on events leading to cooperation among Asian countries and the design of ReCAAP is presented. Policy evaluation, its type and the purpose are explained along with the evaluation process. Evaluation scoping is undertaken and theory based impact evaluation is chosen based on suitability for undertaking ex-ante evaluation of ReCAAP. Theory of change is formulated, for testing the findings against it, to verifying the designed/expected outcomes. Limitations of the study and constraints for conducting impact evaluation are discussed.

Statistics of International Maritime Organisation (IMO), Piracy Reporting Centre (PRC) and ReCAAP are analysed to assess the trend and situation of piracy and armed robbery in Asia. In-depth examination of inputs by ReCAAP ISC for capacity building, information sharing and enhancing cooperation among contracting parties is undertaken, by analysing the reports published and interview of a senior officer of ReCAAP ISC. Findings of the examination are then laid out. This is followed by an analysis of the inputs to establish outputs, outcomes and impact, which is compared with a theory of change to deliver impact evaluation of ReCAAP for achieving its objectives.

Finally, the concluding chapter presents summary and recommendations for future scope of study on this subject.

KEYWORDS: Impact Evaluation, ReCAAP**,** Piracy, Armed Robbery

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List of Abbreviations

ADB	Asian Development Bank
AMF	ASEAN Maritime Forum
ARF	ASEAN Regional Forum
ARF-ISM	ASEAN Regional Forum Inter-sessional Meeting
ASA	Asian Ship owners' Association
ASEAN	Association of Southeast Asian Nations
CBEP	Capacity Building Executive Programme
CBSOM	Capacity Building Senior Officers Meeting
CBW	Capacity Building Workshop
CP	Contracting Party
DCoC	Djibouti Code of Conduct
DFID	Department for International Development
FP	Focal Point
FPTP	Focal Point Training Programme
GISIS	Global Integrated Shipping Information System
HACGAM	Heads of Asian Coast Guard Agencies Meeting
IA	Incident Alert
ICC	International Chamber of Commerce
ICG	Indian Coast Guard
IE	Impact Evaluation
IFN	Information Network System
IMB	International Maritime Bureau

IMO	International Maritime Organisation
IR	Incident Report
ISC	Information Sharing Centre
MMEA	Malaysia Maritime Enforcement Agency
MoU	Memorandum of Understanding
MPA	Maritime and Port Authority of Singapore
MRCC	Maritime Rescue Coordination Centre
MSEWG	Maritime Security Expert Working Group
MSP	Malacca Strait Patrol
PRC	Piracy Reporting Centre
ReCAAP	Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia
RSIS	Rajaratnam School of International Studies
UNCLOS	United Nations Convention on the Law of the Sea
UNODC	United Nations Office on Drugs and Crime

Chapter 1: Introduction

1.1 Background and Context

Threat of piracy and armed robbery in Asia has prevailed for long and remains "a constant criminal challenge to efficient maritime trade" (Mejia, 2013). Piracy and Armed Robbery against ships was prevalent in the Far East from the middle of the 1990s to the early 2000s, particularly concentrated to the South China Sea, the Strait of Malacca and the littoral states (Amri, 2013). Even in that period, cooperation between littoral and other affected states was widely regarded as one of the pillars of any comprehensive strategy to combat such crimes (Mejia, 2010). Though nowadays, most of the incidents against ships are of opportunistic robbery, yet ships suffer piracy attacks, resulting in serious crime and enormous economic loss, along with threat to the safety of seafarers. Most of these attacks go unreported to local authorities, ReCAAP (Regional Cooperation Agreement for Combating Piracy and Armed Robbery against ships in Asia) Information Sharing Centre (ISC) or the International Maritime Bureau-Piracy Reporting Centre (IMB-PRC), due to ignorance, fear of retaliation from the pirates, or the conviction that it is not beneficial to them (Amri, 2014).

Lack of cooperation among the littoral states posed a serious hurdle in controlling the spiralling situation. Patrol vessel of a state would not be able to take any action against the perpetrators due to sovereignty issues and the pirates would escape after entering the territorial waters of another country. This presented an escape route to the pirates and want of cooperation among states further neglected sharing of information for timely action by the other state. As attacks increased, organizations and cooperative anti-piracy initiatives took shape, which have since helped the war against piracy (Liss, 2014). These include the Regional Cooperation Agreement for Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP) and the Malacca Strait Patrol (MSP). ReCAAP is the first inter-governmental agreement to encourage and strengthen cooperation against piracy and

armed robbery in Asia. However, according to Mejia (2013), regional agreements must be a part of any complete strategy to combat maritime crime, but they only function when combined with a variety of other policies and processes.

As on 30 Jun 2022, according to half-yearly report of the ReCAAP ISC, there are no piracy incidents in the year 2022, but there are 42 instances of armed robbery against ships. This is an indication of the persisting problem despite concerted efforts by the states and the regional cooperation initiatives. In addition to ReCAAP, International Maritime Organisation (IMO) and International Chamber of Commerce - International Maritime Bureau (ICC-IMB) have also been very active to minimize the risk of piracy in the region. Therefore, it needs to be assessed, what impact ReCAAP had on the predominant scenario in the late 2000's to supress the piracy and armed robbery cases and what more can be done to achieve the aim in full by further reducing the cases to nil.

1.2   Purpose

Information sharing, capacity building and regional cooperation among the contracting parties are the three main pillars of ReCAAP. Purpose of this study is to assess how and what difference ReCAAP intervention has made to the piracy situation in Asia by conducting a policy impact evaluation. Intervention is "any course of action, programme or activity taken or mandated by national or international authorities and non-state actors" (The International Institute for Industrial Environmental Economics [IIIEE], 2022). It is my endeavour to assess the linkages of ReCAAP initiatives, attributable to preventing and suppressing piracy in Asia. Learning is also an important aspect of this study as it will be useful in many ways as described below.

   (a) Even when we are certain that an intervention is effective, we still need to monitor the outcomes to ensure they are in line with our predetermined expectations.
   (b) Learning from ReCAAP intervention is very important as we can apply that learning to similar policy or the interventions designed on the lines of ReCAAP.

Since 2021 until June 2022, there has been no case of piracy in Asia (ReCAAP-ISC, 2022) but the cases of armed robbery still persists with no appreciable change since inception of ReCAAP. The study will analyse the capacity building, information sharing and cooperative measures to establish link between these initiatives and the change in piracy and armed robbery incidents in Asia. Statistics from IMO and PRC will be utilised for corroborating the incidents reported by ReCAAP-ISC and to understand distinctiveness of the data reporting by these organisations.

1.2.1 Objectives

This study aims to analyse the anti-piracy intervention by ReCAAP, for evaluating its impact since inception. The Organisation for Economic Cooperation and Development – Development Assistance Committee (OECD-DAC) defines impact as "positive and negative, primary and secondary long-term effects produced by an intervention, directly or indirectly, intended or unintended" (Department for International Development [DFID], 2012). The objectives of the study are as listed below:

(a) Analyse trends and changes in acts of piracy and armed robbery against ships in Asia since 2007.
(b) Determine the causes for the changes that have been observed.
(c) Assess potential links between ReCAAP actions and the observed trends and changes.

1.2.2 Research Questions

To achieve the objectives, following research questions will be answered:

(a) What changes and trends can be observed in situation of piracy and armed robbery against ships in Asia after formation of ReCAAP?
(b) How has ReCAAP contributed to these changes/outcomes?
(c) How much of these outcomes can be attributed to ReCAAP or to any other external factors?

1.3   Scope of Evaluation

1.3.1   Time Frame

The study shall cover the period from 2007 to December 2021, when ReCAAP ISC first commenced publishing its reports as per the agreement and started to share information of attacks with contracting parties in 2007.

1.3.2   Geographical Coverage

The geographical coverage of the evaluation is limited to the area covered by ReCAAP for its initiatives and reporting of the piracy incidents. The coverage as shown in Figure 1 includes the Far East, Southeast Asia and the Indian subcontinent.

Figure 1. Geographical Coverage of ReCAAP
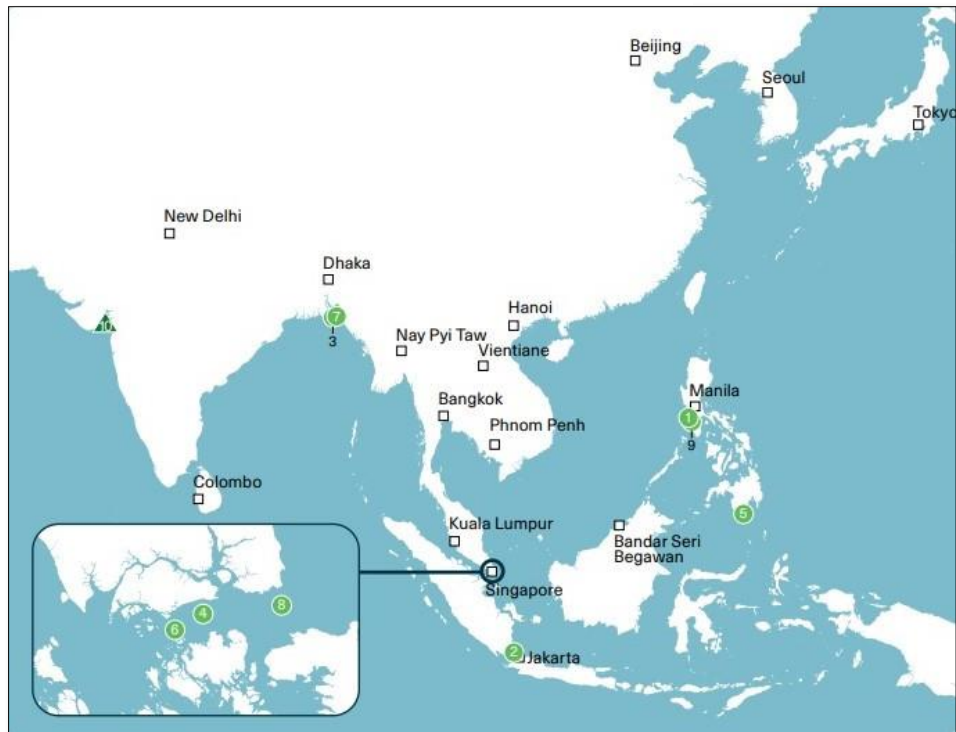
Note: From "Piracy and Armed Robbery against ships in Asia, Annual Report 2021" by ReCAAP-ISC, 2021. https://www.recaap.org/reports

1.3.3   Intended Use

The evaluation is largely intended for academic purposes and the research may serve as an independent study highlighting the impact of ReCAAP initiatives, which can be utilised for further strengthening its cooperative, capacity building and information sharing mechanism for making it a more effective organisation.

1.3.4   Resources Analysed

The author conducts the evaluation by assessing the data on piracy and armed robbery incidents in Asia as reported by ReCAAP-ISC, IMO and PRC. The scope of evaluation is limited to assessment of data from the above organisations and interview of a senior officer of ReCAAP-ISC. A note on the limitations of the study is included in the chapter 2 of the dissertation.

1.4   Concept and Design of ReCAAP

The maritime industry faced a severe threat from Southeast Asian piracy in the late 1990s (Collins & Hassan, 2009). The incidents of *MV Tenyu* and *MV Alondra Rainbow*, both Japanese ships, significantly influenced the need for cooperation. *MV Tenyu*, when it disappeared in September 1998, had 14 crew on-board and *MV Alondra Rainbow* was taken hostage in the Strait of Malacca in October 1999. The PRC, Indian Coast Guard (ICG) and Indian Navy worked together to locate the missing ship that was repainted and given a new name. This demonstrated the potential for collaboration between the maritime industry and law enforcement agencies. Japan, a major user of the Strait, hosted a series of conferences on global counter-piracy with participation from law enforcement, the IMO and ship owners. Mejia (2010) conducted research on the events leading to formation of ReCAAP and concluded following:

Some of the relevant documents and statements include, a joint communiqué adopted at the 30th Association of Southeast Asian Nations (ASEAN) Ministerial Meeting (Subang Jaya, Malaysia, July 24 to 25, 1997), the ASEAN Declaration on Transnational Crime (Manila, Philippines, December 20, 2000) and the statement of former Japanese Prime Minister Keizo Obuchi at the ASEAN+I Summit Meeting (Manila, November 1999). Additionally, two documents were adopted at the Asia Anti-Piracy Challenge 2000 Conference (Tokyo, April 2000), namely the Tokyo Appeal and the Model Action Plan. In its preamble paragraphs, the Tokyo Appeal refers to a set of recommendations developed by the International Maritime Organization (IMO) that contains, among others, a call for further development of regional co-operation and a regional agreement to facilitate co-ordinated response at the tactical as well as the operational level to be concluded between the countries concerned.

These developments led to the creation of ReCAAP, ratified by 14 regional nations, including Japan, South Korea, China, India, Bangladesh, Sri Lanka and the Association of Southeast Asian Nations (ASEAN) member states, except Malaysia and Indonesia in 2004 and became the first intergovernmental anti-piracy agreement. Mejia (2010) states that ReCAAP is an international treaty that advocates for a multilateral strategy to combat piracy.

With 14 Asian Contracting Parties (CPs), ReCAAP was launched in November 2006. In 2009, Norway became the 15th contracting party and the first non-Asian country to join ReCAAP. The Netherlands, Denmark and the United Kingdom then followed.

Currently, it has 21 CPs, including Australia, the United States of America, the United Kingdom, Norway, the Netherlands, Denmark and Germany.

The ReCAAP, which was first put forth by Japanese Prime Minister Junichiro Koizumi, was billed as the "first regional government-to-government pact for cooperation against piracy and armed robbery at sea in Asia" (Liss, 2014). ReCAAP was drafted by representatives from ASEAN+6 countries (Mejia, 2010). This included the ten members of ASEAN, three members from South Asia (Bangladesh, India and Sri Lanka) and three from East Asia (China, Japan and South Korea). The Agreement was adopted on 11 November 2004. It has 22 articles covering an introduction (Articles 1-3), the creation of an information sharing centre (Articles 4-8), cooperation through this centre (Articles 9-11), cooperation generally (Articles 12-16) and final provisions (Articles 17–22). Other than exchanging information they deem relevant, the agreement places no obligations on parties. It entered into force on September 4, 2006.

Information-sharing, capacity-building and operational collaboration are the three primary categories of activities that make-up the framework for cooperation among contracting parties. ReCAAP suggested creating an ISC, with an objective of promoting member interaction, information sharing, and operational coordination. On 29 November 2006, ISC was created which works under a headquarters arrangement with its host nation, the Republic of Singapore. Currently, Singaporean officers staff the Secretariat as well as officers seconded from China, India, Japan, the Philippines and South Korea. ReCAAP-ISC is recognized as an international organization with both domestic and foreign personnel. The contracting parties voluntarily make contributions, which serve as the ISC's funding source. The Governing Council, which oversees its activities, is composed of one representative from each contracting party. Every member state of ReCAAP have a focal point (FP), which is a conduit for communication with the ISC. These FPs encourage interagency cooperation within each member state and coordinates with nearby focal points.

The preamble to the Agreement reiterates a firm belief that information sharing and capacity building will significantly aid in suppression of piracy and armed robbery against ships in Asia. The ISC, which acts as the ReCAAP platform for information exchange and regional collaboration, operationalizes this sentiment. ISC compiles, examines and synthesizes data on armed robberies and piracy against ships throughout Asia. Regular reports are accessible for interested parties on ReCAAP-ISC website.

According to ReCAAP-ISC (2021a), for collective effort, shared responsibility and better cooperation, it has signed Memorandum of Understanding (MoU) with three international organisations and four shipping associations. The international organisations are International Maritime Organisation (IMO), World Maritime University (WMU) and the International Criminal Police Organization (INTERPOL). Shipping associations are the Oil Companies International Marine Forum (OCIMF), the Asian ship owners' Association (ASA). International Association of Independent Tanker Owners (INTERTANKO), Baltic and International Maritime Council (BIMCO). Additionally, it has also signed a Standard Operating Procedure (SOP) with the Information Fusion Centre (IFC) in Singapore and three Information Sharing Centres of Djibouti Code of Conduct (DCoC).

ISC classifies incidents into four categories, which allows the organization "to provide some perspective of the piracy and armed robbery situation in Asia" (ReCAAP-ISC, 2022). These ranges from CAT 1 to CAT 4 and the evaluation is according to the significance of each incident according to the level of violence and the economic loss. The severity of the crime is highest in CAT 1 and CAT 4 depicts the least serious. The categorization of incidents is enumerated below.

(a) **CAT 1 - Very Significant**. When large number of perpetrators are involved, more than nine men and mostly armed with guns and knives. Crew of the ship suffers physical injury / violence such as assault, threat or tied up. In terms of economic loss, ship hijacked or cargo was siphoned.

(b) **CAT 2** – **Moderately Significant**. When 4-9 men are involved armed with knives / machetes or guns. Crew is threatened or held hostage temporarily and suffers less severe physical violence as compared to CAT 1. In terms of economic loss, crew cash and ship's property like engine spares were stolen.

(c) **CAT 3** – **Less Significant**. When 1-6 men are involved armed with knives, sticks, rods, bats etc. Crew were not harmed physically but could be subjected to duress. In terms of economic loss, perpetrators are not able to steal anything or steal stores or spares from the ship.

(d) **CAT 4 – Least Significant**. When 1-3 unarmed men are involved. Crew were not harmed. Perpetrators escape empty handed on being sighted.

1.5   Piracy – Complexity of Perpetuation and Anti-Piracy Approaches

Prior to the rise in attacks in other regions beginning in 2000s, Southeast Asia was the world's primary hotspot for piracy, though not receiving as much media attention (Liss, 2014). Following the 1997 Asian financial crisis, there was a rapid increase in maritime piracy and robberies throughout Asia and it soon became clear that a multi-lateral strategy was needed to confront this problem effectively.

According to Liss (2007), there are two types of pirates operating in the area: opportunistic sea robbers who engage in small-scale attacks and highly organized pirate gangs who carry out hijackings and other significant attacks. Both types of pirates take advantage of gaps in maritime security and profit from social, political and economic tendencies that support such attacks.

Mejia (2013) notes that the main goal of attacks against ships in Southeast Asia has been to take supplies and equipment, pillage the cargo and steal people's personal belongings, whether on a small or large scale. When required, Southeast Asian pirates resorted to violence without hesitation.

Young (2005) argues that uneven economic development, loose political control over expanding economies led to poverty, which in turn stimulated a rise in piracy as it offers quick gains for low risk. According to Baird (2012), in such volatile situation where income from fishing is never certain, the temptation of making quick money by acts of piracy can be strong. Attacks against the boat people of Vietnam in the 1970s establishes the linkages between poor economic conditions and an increase in piracy.

Piracy in Asia has been a complex mix of many factors instead of any isolated reason (Mejia, 2013). Poverty, economic hardship and socio-political instability are some of the common features clarifying the presence of piracy in the region. However, Hastings (2020) argues that alternative structural theories for the rise in piracy attacks are only partially satisfactory, in large part because the overall political, economic and social environment has not improved in recent years to make Asian piracy more advantageous.

Piracy has a huge financial impact on the sea borne trade but the human cost of piracy is a compelling issue. Pirates torture, physically and psychologically abuse, shoot at, kill, beat, imprison, starve, rape and use seafarers as human shields (Mejia, 2013).

In view of the complexity of the crime, it is very much evident that a simple approach of military response for suppressing piracy cannot bear the desired results. The efforts made by international organizations including ReCCAP are one additional step in combating piracy but not the ultimate solution to intrinsic and complex problem. According to World Bank report (2011), long-term development initiatives aimed at weak or failed states must involve the leaders of the nation to create reputable institutions for security of citizens, justice and employment while giving groups a stake in society who might otherwise gain more respect and recognition through armed conflict. Due to the nature of piracy in Asia, Liss (2014) rightly argues that Southeast Asia does not require the use of armed private security guards on ships, as is done in the wider Gulf of Aden region or the deployment of warships from around the world to prevent piracy. Both

targeted countermeasures to particular types of attacks and broad strategies to address the underlying causes of piracy are required in this region.

1.6   Legal Context

1.6.1   UNCLOS

UNCLOS (2022) defines piracy as:

(a) Any illegal acts of violence or detention, or any act of depredation, committed for private ends by the crew or the passengers of a private ship or a private aircraft, and directed: (i) on the high seas, against another ship or aircraft, or against persons or property on board such ship or aircraft; (ii) against a ship, aircraft, persons or property in a place outside the jurisdiction of any State;

(b) Any act of voluntary participation in the operation of a ship or of an aircraft with knowledge of facts making it a pirate ship or aircraft;

(c) Any act of inciting or of intentionally facilitating an act described in subparagraph (a) or (b).

1.6.2   IMO

In accordance with the geographical and legal divisions of maritime zones, IMO (2022) categorises acts of piracy into two groups. Piracy on the high seas is classified as such in accordance with UNCLOS, whereas piracy in ports or national waters (internal waters and territorial sea) is classified as armed robbery. IMO has been very active in combating piracy and has issued a number of circulars and resolutions.

1.6.3   ICC-IMB

The ICC (2022) defines piracy as "an act of boarding any vessel with the intent to commit theft or any other crime and with the intent or capability to use force in the furtherance of the act". Although the shipping industry appears to accept this definition, neither domestic

nor international legislation has acknowledged it. According to Amri (2014), the IMB's definition is broader than the IMO's and encompasses nearly all attacks on ships in all maritime jurisdictions.

1.6.4 ReCAAP

ReCAAP-ISC (2022) defines piracy under Article 1 of the agreement (which is same as per the UNCLOS) but also includes armed robbery as defined by IMO. It is defined in the agreement as follows:

For the purposes of this Agreement, "piracy" means any of the following acts:

(a) Any illegal act of violence or detention, or any act of depredation, committed for private ends by the crew or the passengers of a private ship or a private aircraft, and directed: (i) on the high seas, against another ship, or against persons or property on board such ship; (ii) against a ship, persons or property in a place outside the jurisdiction of any State;

(b) Any act of voluntary participation in the operation of a ship or of an aircraft with knowledge of facts making it a pirate ship or aircraft;

(c) Any act of inciting or of intentionally facilitating an act described in subparagraph (a) or (b).

For the purposes of this Agreement, "armed robbery against ships" means any of the following acts:

(a) any illegal act of violence or detention, or any act of depredation, committed for private ends and directed against a ship, or against persons or property on board such ship, in a place within a Contracting Party's jurisdiction over such offences;

(b) any act of voluntary participation in the operation of a ship with knowledge of facts making it a ship for armed robbery against ships;

(c) Any act of inciting or of intentionally facilitating an act described in subparagraph (a) or (b).

1.7   Organisation of Research

The research work is divided in five chapters:

Chapter One: Introduction. This chapter begins with background and context of the research and discusses the purpose, objective and scope of the study. It also highlights the design of ReCAAP and some of the legal and historical complexities of piracy in Asia.

Chapter Two: Evaluation and Methods. This chapter focuses on the concepts of policy evaluation, narrowing down to the Impact Evaluation and the design of theory based impact evaluation used for this research. The research methodology is discussed in detail and the chapter culminates with highlighting the limitation of the research.

Chapter Three: Findings. This chapter focuses on the results obtained from the data analysis and interview of a senior officer of ReCAAP-ISC. Data published by ReCAAP-ISC, IMO and IMB-PRC was researched for extracting the relevant information about the trend in piracy and specific research was conducted on the data of ReCAAP-ISC for assessing the three pillars of information sharing, capacity building and cooperation.

Chapter Four: Analysis.   The findings obtained in chapter three are analysed in this chapter. The analysis is focused on testing the findings against the theory of change as developed by the author in chapter Two. By doing so, author is able to establish the presence of noteworthy linkages between ReCAAP intervention and situation of piracy in Asia.

Chapter Five: Discussion. This contains summaries of the important results based on the findings with conclusion on the discussions from the previous chapters and includes recommendations for the future scope of study.

1.8   Conclusion

Chapter 1 begins with presenting the background for the research, its purpose, objectives and the research questions which clearly highlights the intention of author about the

progress of the research. The problem of piracy in Asia, its emergence and growth affecting the maritime trade was then discussed to emphasize the need and importance of regional cooperation. The events, which led to the formation of ReCAAP, are then discussed for better understanding of the efforts and intent of various stakeholders using sea lanes of communication in Asia. The design of ReCAAP, its vision and mission were then presented to indicate the expectation from the organisation in counter-piracy efforts. The persisting problem of piracy in Asia and the legal context of piracy was discussed subsequently. The organisation of the research is presented at the end of the chapter to lay bare the structure of the research. Briefly, chapter one lays down the foundation of the research work to be done as well as presenting the important information about ReCAAP and the mechanism to counter piracy.

Chapter 2: Evaluation and Research Methods

2.1   Introduction – Understanding Policy Evaluation

According to Cairney (2012) "policy can refer to an aim, a decision or an outcome; it may refer to issues that policymakers do not address; and, it is made and influenced by many actors who may or may not have formal authority". HM Treasury (2022) describes policy as "a statement of intent that is implemented through a procedure or a protocol and a deliberate system of principles to guide decisions and achieve rational outcomes". Policy cycle has four phases i.e. agenda setting, policy formulation, implementation and evaluation. Figure 2 below describes the stages of a policy cycle.

Figure 2. Stages of Policy Cycle
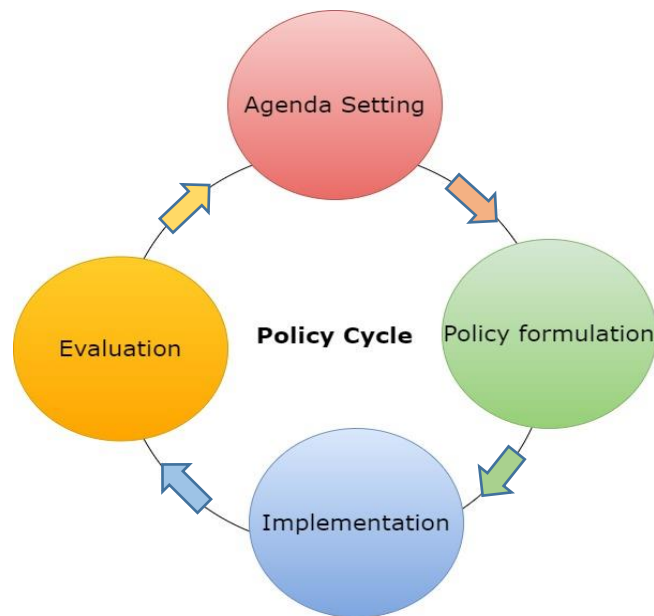
Note: Adapted from "Understanding Public policy" by Paul Cairney 2012

As ReCAAP is a policy programme designed to achieve specific outcomes and has been through initial three phases, the author is undertaking this study to evaluate the

policy. "Evaluation is assessing the extent to which the policy was successful or the policy decision was the correct one; if it was implemented correctly and, if so, had the desired effect" (Cairney, 2012). According to HM Treasury (2022), conducting evaluation post implementation of policy provides an assessment of the outcomes and a comprehensive appraisal of the lessons learned throughout design and delivery. However, evaluation is complicated because it is difficult to measure success. At the very least, it entails choosing a diverse range of measurements that are difficult to compare, or a small number of handpicked measurements that serve as nothing more than rudimentary proxies for success (Cairney, 2009).

HM Treasury (2020) explains evaluation as

A systematic assessment of the design, implementation and outcomes of an intervention. It involves understanding how an intervention is being, or has been, implemented and what effects it has, for whom and why and it identifies what can be improved and estimates its overall impacts and cost-effectiveness (p. 5).

Learning and accountability are the two main purpose of evaluation and following are the three types of evaluation, which can be performed:

(a) Process Evaluation: It is assessment of how the intervention was delivered. It analyses whether implementation of intervention was undertaken as intended and identifies what is working and why.

(b) Impact Evaluation: It is assessment of what change an intervention has brought. It tests what changes have occurred and how much is the change. It establishes the causal link between changes and the intervention to identify which changes are attributable to the intervention.

(c) Economic Evaluation: It is to assess if the intervention is good use of the resources committed for it. It compares the benefits and costs of the intervention.

Impact evaluations are required to provide information to policy makers on a variety of options, including eliminating ineffective programmes, scaling up effective initiatives, changing programme benefits and choosing between several programme alternatives (DFID, 2012). Evaluations are conducted at specific intervals of time and frequently involve consulting with technical specialists from outside the field (HM Treasury, 2020). This research aims at conducting an impact evaluation to determine the impact of ReCAAP intervention in suppressing piracy and armed robbery in Asia.

Impact evaluation is divided in two categories - Prospective or ex ante evaluations which are developed along with the program design and are built into program implementation. Retrospective or ex-post evaluations assess program impact after the program has been implemented, looking for treatment and comparison groups.

The evaluation process is represented diagrammatically below in Figure 3 for ease of comprehension:

Figure 3. Evaluation Process
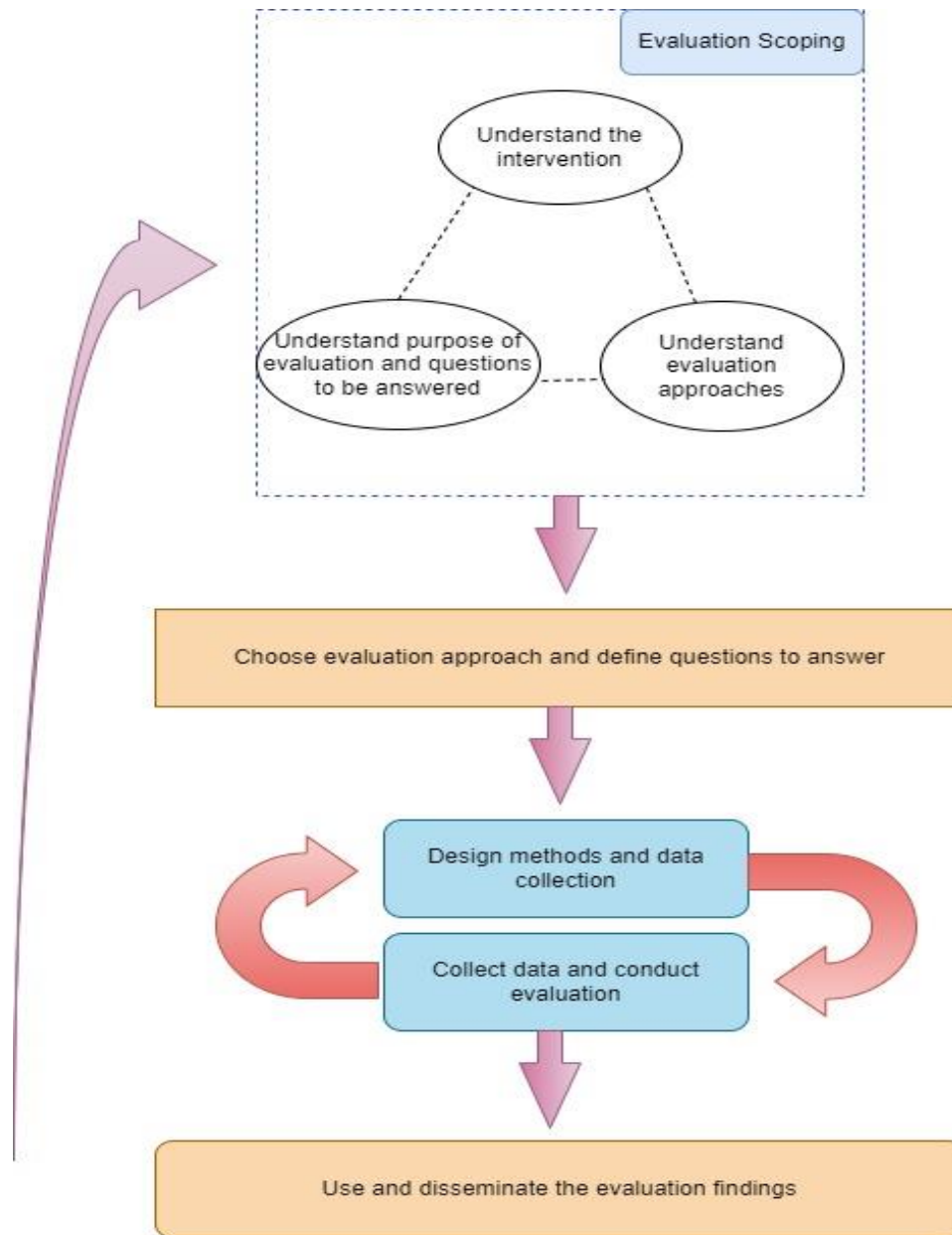
Note: Adapted from "Central government guidance on Evaluation" HM Treasury 2020, (p. 19) Crown copyright 2020

2.2   Impact Evaluation

Impact evaluation (IE) is the process of determining how an intervention affects outcomes, whether these effects are intentional or not. The Asian Development Bank (ADB) 2017, guidelines state that IE establishes if the project had any welfare effects and if the effect can be attributed to the intervention.

For a better understanding, objectives of IE is to answer the following questions (HM Treasury, 2022):

(a) Are expected outcomes achieved and to what level?

(b) Did the intervention make a difference?

- How much of the results are attributable to the intervention?

- How certain can we be, that the intervention was the reason for the improvements we saw?

- What causes led to the impacts that were seen?

- How much of the change can be attributed to external factors?

(c) How has the context influenced outcomes?

- Does it produce any unintended outcomes?

- Are the outcomes been influenced by any external factors?

(d) Can the intervention be reproduced?

(e) What generalizable lessons have we learned about impact?

Impact evaluations are required to provide information to policy makers on a variety of actions, including the elimination of ineffective programmes, the expansion of effective interventions, the modification of programme benefits and the choice between several programme alternatives. In impact evaluation, the changes directly related to a programme, programme modality, or design innovation are the only thing that are

considered. The focus on causality and attribution is the hallmark of IE. Causation is the simultaneous existence of cause and effect: the coexistence of two distinct, independent entities at the same time and location (DFID, 2012). IE uses rigorous techniques to identify the changes that can be linked to a particular intervention using cause-and-effect analysis (American University, 2022).

The World Bank (2022) has developed the following guidelines for determining when an IE may be useful:

(a) If the intervention plan is an innovative one, like a pilot programme.

(b) If the intervention is to be enlarged or repeated in another environment.

(c) If the intervention will use a lot of resources and is strategically important.

(d) If the intervention is not tested and results will influence key policy decisions.

2.2.1 Theory Based Impact Evaluation

It is important to design IE as per the purpose of evaluation. There are three designs (HM Treasury, 2020) for Impact Evaluation (IE). By examining the causal networks considered responsible for the change brought about by an intervention, theory-based design investigates net impacts. Evaluation that is based on theory, specifically addresses both the size of the change and its cause. Theory-based methods can confirm if an intervention had an effect in the desired direction in complex scenarios, where calculating the effect size can sometimes be challenging. Many of these techniques are not intended to show conclusively that an intervention caused all of the measurable change. Rather, these aim to explore whether the intervention definitively contributed to the measured change. It can also provide insight into why an intervention succeeded or failed and help with adaptation to different populations, locations or times.

Experimental and quasi-experimental designs are based on the core principle that there is a counterfactual. In counterfactual, the observed outcomes from a control group that did not receive the intervention, is compared to outcomes from the intervention group.

As the purpose of this IE is to determine "how and why did the impact occur", theory based IE will be conducted by the author.

2.2.3 Understanding Theory of Change

A good grasp of the intervention and how it will produce the desired results, is essential for good policymaking. The same is also valid for evaluation. A thorough examination of the intervention ensures following (HM Treasury, 2020):

(a) Insight of how the intervention is expected to function in practice e.g. the problem it will address, the change it will bring and the causal chain of events which will bring the change; the groups expected to be impacted.

(b) Understanding the assumptions upon which the intervention is based, its strengths and weaknesses.

(c) Examination of the wider context e.g. other policy change or changes in economic, environmental and social factors.

Usually, the best way to comprehend an intervention is to synthesize the available data and develop a Theory of Change. All of the information listed above can be captured in a theory of change, the strength, quality of the evidence supporting them and broader contextual factors.

An example of a theory of change is depicted in Figure 4:

Figure 4. Linear Theory of Change
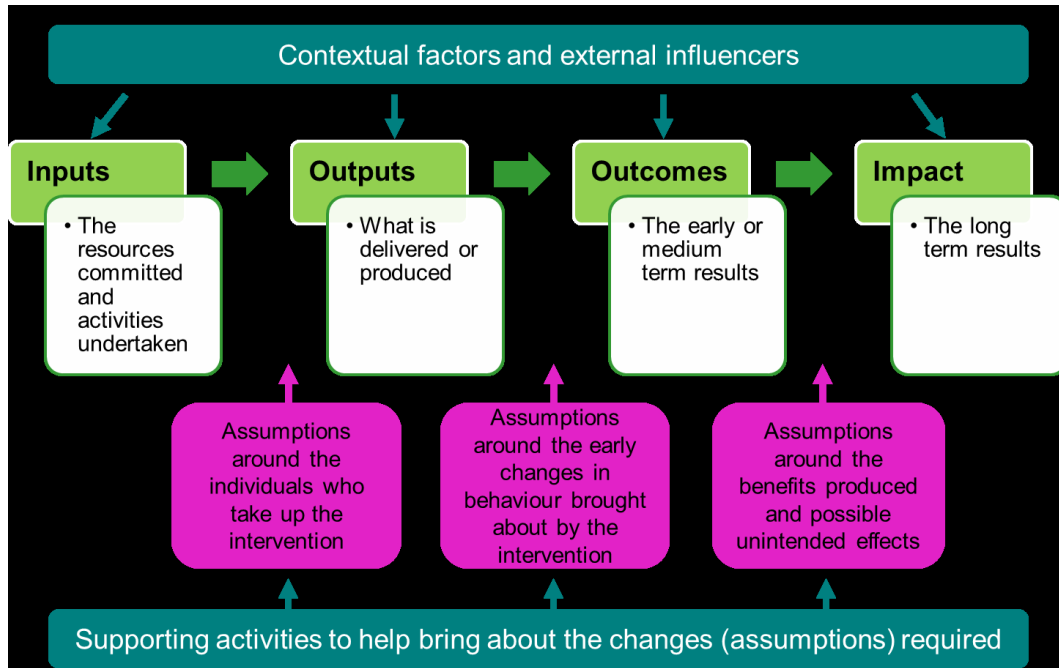
Note: From "Central government guidance on Evaluation" HM Treasury 2020

Theory-based impact evaluations make inferences about effectiveness of an intervention by carefully examining whether the causal chains anticipated to cause change are sufficiently strongly supported by the available data and whether other possible explanations can be ruled out (HM Treasury, 2020). Theory-based evaluation makes an effort to glance inside the "black box" of what happens between inputs and results and how it is influenced by broader settings. It expressly addresses both the magnitude of the shift and the causes of change. A clearly stated theory of change, which also incorporates theories about potential reasons for the results, serves as the focal point of theory-based evaluations (Befani et al., 2015). A theory is tested after it has been established through a variety of evidence sources.

About the evidence which can be used for theory based IE, it has a very wide scope. Research with a variety of stakeholders using mixed methods, external literature, expert opinions, public declarations, and modelling private cost/benefit trade-offs are all options. (United Nations Evaluation Group [UNEG], 2016).

2.2.4 Establishing Theory of Change for ReCAAP

(a) **Problem Statement** – In the early 21st century, cases of maritime piracy witnessed a sharp rise in Asia so much so, that in 2005, the Malacca Strait was designated a war zone by Lloyd's of London for the purposes of calculating insurance premiums resulting from piracy (Hastings, 2020). Ship hijacking and cargo seizures characterized sophisticated pirate attacks during this time. Attacks peaked at about 350 to 450 each year over the years 2000 to 2004, then decreased by almost half in 2005 before increasing once more in 2009. (UNODC, 2010). Countering this unprecedented rise in the number of attacks required a regional cooperation as the geographical coverage of the attacks involved jurisdiction of many states.

(b) **Intervention** – ReCAAP came into effect on 04 September 2006 and the ReCAAP Information Sharing Centre (ReCAAP-ISC) was established in Singapore on 29 November 2006 with a vision to be the information hub for combating piracy and armed robbery. The mission of ReCAAP is to enhance regional cooperation through information sharing, capacity building and cooperative arrangements in combating piracy and armed robbery against ships.

(c) **Inputs** – There are three main inputs provided by the intervention:

- Information Sharing – Article 7 of the ReCAAP lays down the broad scope of information sharing. Intervention is designed to manage and maintain expeditious flow of information; analyse the information transmitted by the contracting parties; prepare statistics and to provide appropriate alert.

- Cooperative Arrangements - Part III (Article 9 – 13) of the ReCAAP details the cooperative arrangements under the intervention. Designation of a focal

point in every contracting Party (CP) for smooth and effective communication; timely dissemination of alerts in area of imminent threat; detection and apprehension / seizure of pirates and their assets; rescue of victims ship and crew and intra-state provision for extradition of perpetuators is also provided for in the cooperation design.

- Capacity Building – Article 14 of the ReCAAP agreement specifies the role of intervention in capacity building. In addition, the CPs, such capacity building cooperation may include technical assistance such as educational and training programs to share experiences and best practices.

(d) **Outputs** - The initiatives undertaken by the intervention leads to establishment of a communication network between CPs for sharing timely information and alerts, which are critical for averting any pirate attack both by alerting the crew and timely action by the security agencies. A mechanism of interaction among the CPs is established for sharing the best practices and enhancing the cooperation for effective operations against pirates.

(e) **Outcomes** – The designed mechanism under the intervention is further improved after encountering initial issues / hurdles. The existing mechanism are strengthened for achieving the desired results. There is a measurable change in the piracy scenario and cooperation among the CPs is further enhanced looking at the improved situation.

(f) **Impact** - Due to effective cooperation, capacity building and information sharing, the criminal gangs perpetuating piracy are harassed and discouraged by unsuccessful attempts or due to the quick action initiated by the security agencies. The cases of piracy are eliminated or reduced to negligible due to effective implementation of the intervention.

The translation of above stated theory of change is represented in the Figure 5 below:

Figure 5. Theory of Change for ReCAAP
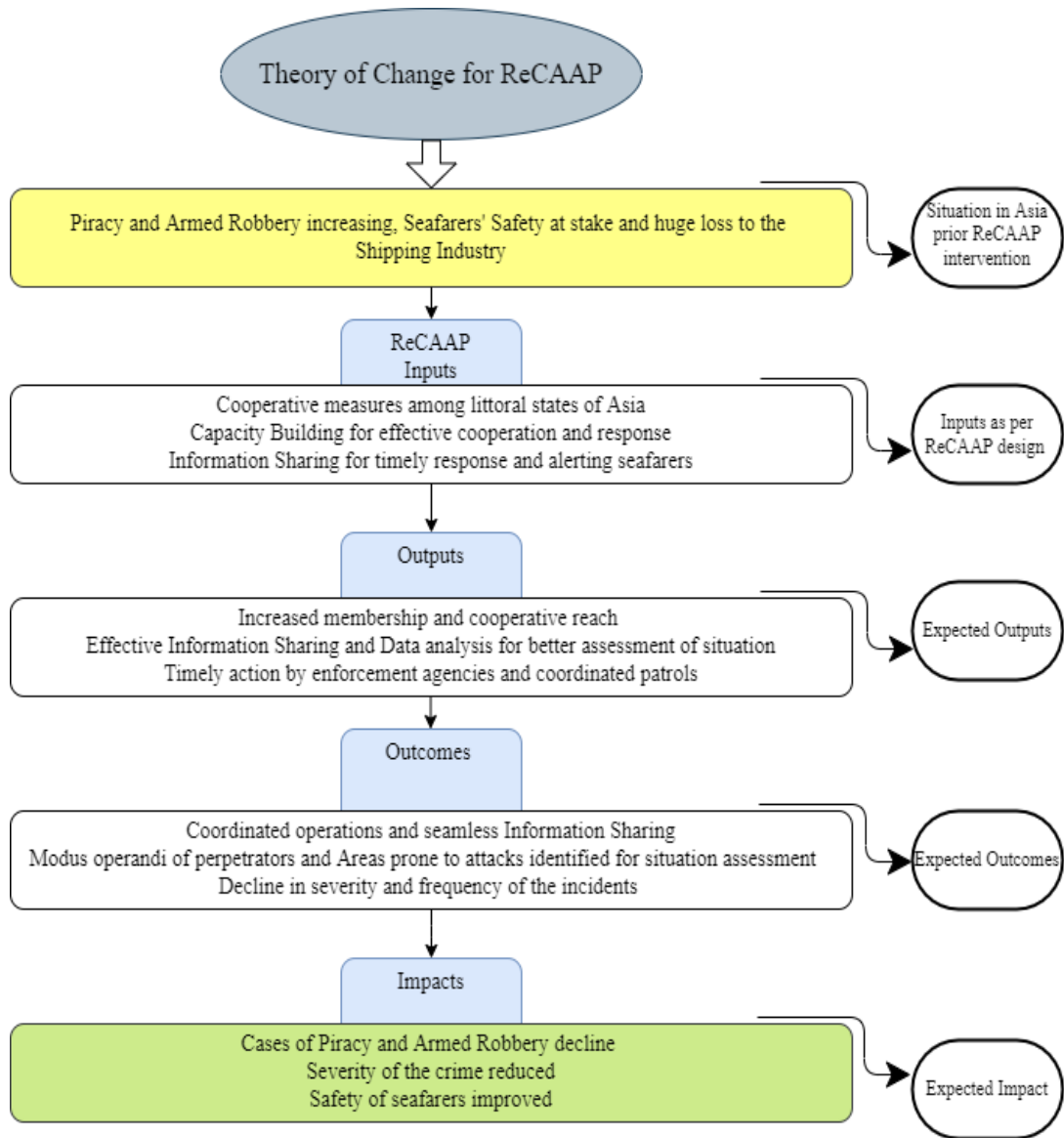
Note: Theory of change for ReCAAP (Prepared by author)

2.3 Research Method and Materials

The purpose of this research is to gain insights into how and what impact ReCAAP has brought to the piracy situation in Asia. This is done by assessment of the data related to piracy attacks since 2007 and analysing the role played by initiatives and policy decisions like information sharing, cooperation and capacity building. The causal effect of the policy decision is traced to ascertain how they are attributable to the intervention. Generative causation inference that depends on identifying the mechanisms that explain effects (HM Treasury, 2022) is the basis for theory-based evaluation.

For the purpose of this research, a mixed method approach has been adopted. A process understanding, which is crucial in explaining how impacts arise, is supported by qualitative methodologies in indicator outputs. In a theory-based approach, qualitative data provide vital context (DFID, 2012). In addition, quantitative method is utilised for examining the statistics from IMO, IMB-PRC and ReCAAP ISC on piracy and armed robbery incidents against ships in Asia. The use of qualitative data helps to contextualise and explain quantitative findings, analyse outlier situations of success and failure, and create systematic justifications for the program's effectiveness as revealed by the quantitative findings. In this approach, qualitative research can be used to unlock the "black box" of how programmes work and explain why particular outcomes are shown in quantitative analysis (Bamberger et al., 2010). The evaluation was conducted using desk review of appropriate documents and by interviewing a senior officer of ReCAAP-ISC.

2.3.1 Research Design

This study makes use of both qualitative and quantitative data for carrying out a policy impact evaluation. Therefore, mixed method approach is adopted for the study. Tashakkori and Creswell (2007) broadly define mixed methods research as research that uses both qualitative and quantitative methods for data collection and analysis, integration of the results and drawing inference. Being able to respond to confirmatory and

exploratory inquiries at the same time is a benefit of mixed methods research because it may be able to benefit from the corresponding advantages of quantitative and qualitative approaches. Combining qualitative and quantitative technique can enhance the benefits of each approach while counteracting their respective weaknesses.

Any study that employs information without ordinal values is classified as qualitative research (Nkwi et al., 2001). Like other approaches, this also seeks to reduce the amount of data (Guest et al., 2013). This enables the researcher to focus on specific issues of importance particularly relevant to the research questions. The approach is effective as it analyses every single aspect and also counteracts the possibility of looking at the content only through the lens of one's expectations and beliefs (Schreier, 2012).

For the reasons discussed above and the nature of material to be analysed by the author, this research necessitates use of mixed method for carrying out the research.

2.3.2 Data Collection and Analysis

For the purpose of carrying out qualitative analysis and establish a causal link between the ReCAAP initiatives and its effect, the following data was collected:

(a) Quarterly, half yearly and yearly reports of the ReCAAP-ISC since establishment and downloaded from the ReCAAP-ISC website.

(b) Activity reports, guidebooks and reports published to commemorate the 10th and 15th anniversary of ReCAAP.

(c) ICC-IMB data on piracy published in quarterly, half yearly and yearly reports since 2007. The data pertaining to Asia will be utilised for analysis.

(d) IMO data on piracy and armed robbery in Asia accessed from GISIS.

A Computer-Aided Qualitative Data Analysis Software (CAQDAS), Atlas.ti, was utilised for coding, sorting, synthesizing and finally bringing out a meaningful explanation of the data. This is useful as it reduces the amount of data and segregates the important data from the raw data. In qualitative data analysis (QDA), processes and techniques are

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used to analyze data in a way that significantly improves the understanding, description, and interpretation of textual data (Mayer, 2015).

2.3.3 Researcher's Background, Belief and Biases

According to Merriam (2002), in qualitative research, the researcher has limitations and biases that could affect the findings of the study. It is necessary to recognize and examine these biases in order to help influence data collection and interpretation instead of eliminating them. The author is an Officer of the Indian Coast Guard (ICG). Although, ICG has a long and effective cooperation with ReCAAP-ISC and Maritime Rescue Coordination Centre (MRCC) Mumbai, operated by ICG is the designated Focal Point (FP). However, the author had no opportunity to work and coordinate events directly with ReCAAP. Author had the opportunity to visit ReCAAP-ISC during an overseas deployment of the ICG Ship in January 2019, which was suitably utilised for getting a first-hand insight into the working of the ISC. Hence, there is little or no potential bias in the findings of the research by the author.

2.3.4 Credibility and Transparency

Credibility involves the collection of evidence where the steps, interpretations and discussions of the findings provide reasonably reliable response to the research questions presented in the dissertation (Trochim, 2006), thus excluding other possible explanations for the findings. Author has tried to ensure a degree of objectivity for the evaluation to be credible by independently conducting the evaluation.

Transparency involves the evidence that, the researcher is adequately aware of and sensitive to potential biases that may positively or negatively influence the results of the dissertation (Sampson, 2012). In ensuring transparency of this study, the researcher was reasonably aware of his experience, which he fully monitored and controlled in order not to influence the findings.

2.4 Limitations of the Research

No study is flawless and can encompasses all possible aspects. Research could have its limitations because of shortcomings due to lack of data sources, inadequate sample size or flawed methodology. The limitations of the research are discussed below:

2.4.1 Reliability and Accuracy of Reported Data

There are various reasons why reported incidents of piracy only make up a small part of all attacks. Firstly, there are occasions when maritime operators and ship crews are unwilling to inform national and local authorities about acts of piracy. This hesitation has been attributed to a number of factors, including the difficulty of reporting processes and mistrust of local officials (Amri, 2014). Secondly, data evaluation is difficult because of the definitional issues of piracy and armed robbery. Due to the fact that various authorities classify certain events differently, relying exclusively on published numbers does not provide an accurate picture of the level of maritime piracy in the area (Baird, 2012). Lombardo (2018) states that the interests of the state or the company, primarily due to potential litigation issues or concerns about its reputation, are the main justifications for not reporting a piracy attack. Money is a significant deterrent to reporting because idle ships incur operational costs of $25,000 each day (Young & Valencia 2003). For private firms with a track record of poor safety, reporting occurrences could result in consequences; hence, the company would decide that it would be better to not report (Lombardo 2018). Under reporting is highlighted by Murphy (2007) by stating that there may have been ten times as many attacks on Japanese ships in the Strait of Malacca as have been reported.

The issue is also evident during analyse of reports by IMO, IMB-PRC and ReCAAP-ISC, as all three of these sources had differing statistics on piracy.

2.4.2 Constraints for Evaluation

Designs and techniques used for interventions with a narrow focus can support robust causal claims, but as an intervention's scope and scale expands, the validity of those claims weakens (DFID, 2012). The ReCAAP intervention is not narrowly specified, it is broad in scope and ambitious. Therefore, accepting a trade-off between robust causal inference and relevance is desirable. Establishing a strong causal inference in such intervention may not be practically plausible.

For instance, 'real world' restrictions in evaluation differ from those in research. These include limitations related to time, money, data accessibility and skills (Bamberger et al., 2007). Further, retrospective evaluations for assessing interventions that were established in the past, uses data available today and there are high chance that it may not be of good quality. In those cases, the options to generate a reliable estimate of the counterfactual are significantly more limited and therefore present a very limited scope of assessment for the evaluator. The results thus produce evidence, which is more debatable.

Chapter 3: Findings

3.1   Introduction

In this chapter, findings of the research are presented and explained. These findings are based on analysis of the various reports published by ReCAAP-ISC, IMO and PRC. Other literary work of scholars was also researched, to identify various other factors at play to combat piracy and armed robbery in Asia. The research has been designed to aptly address the research questions and achieve the research objectives. This chapter only covers the findings from the research. The analysis of these findings is deliberated on in chapter 4.

3.2   Piracy and Armed Robbery – Patterns and Trend Since 2007

The statistics from ReCAAP-ISC, IMO and IMB-PRC in the following paragraphs pertain to the reported incidents of piracy from 2007 to 2021. This is essential for establishing the pattern and trends of piracy in these years. Trend of piracy is an important indication of the current situation in comparison to the beginning of ReCAAP intervention. These findings show the changes in the cases of piracy in these 15 years.

3.2.1   ReCAAP-ISC Data

According to ReCAAP-ISC (2021c), an effective information sharing mechanism for reporting of piracy and armed robbery incidents or attempts has been established which offers simple and efficient incident reporting procedures for ships crossing Asian waters and is based on the IMO/Maritime Safety Committee (MSC) Circulars 1333/Rev.1 and 1334.

The Focal Points (FPs) of 21 Contracting Parties (CPs), who transmit Incident Reports (IRs) via the Information Network System (IFN), serve as the primary source of information. The IFN runs on a round-the-clock web-based network infrastructure that connects ReCAAP-ISC to all the Focal Points. The FP confirms the details in the incident

report with the shipping company and/or shipmaster (ReCAAP-ISC, 2021a). Each incident is assessed, based on the level of violence used against the crew and the kind of financial losses the ship sustained. These elements allow for the classification of each incident into one of the four categories. Since 2017, ISC has been using a data analytics tool to perform a deeper analysis of the situation by determining connections between different incident-related parameters and comparing them to patterns from prior occurrences (ReCAAP-ISC, 2021b).

Total number of cases reported during the period 2007-21 are depicted by Figure 6 below.

Figure 6. Total Number of Piracy Incidents in Asia (ReCAAP – 2007 - 2021)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
No of Incidents	100	96	102	167	157	133	150	187	203	87	102	76	83	97	82
Actual	77	83	82	134	135	124	141	171	190	78	90	62	72	95	77
Attempted	23	13	20	33	22	9	9	16	13	9	12	14	11	2	5
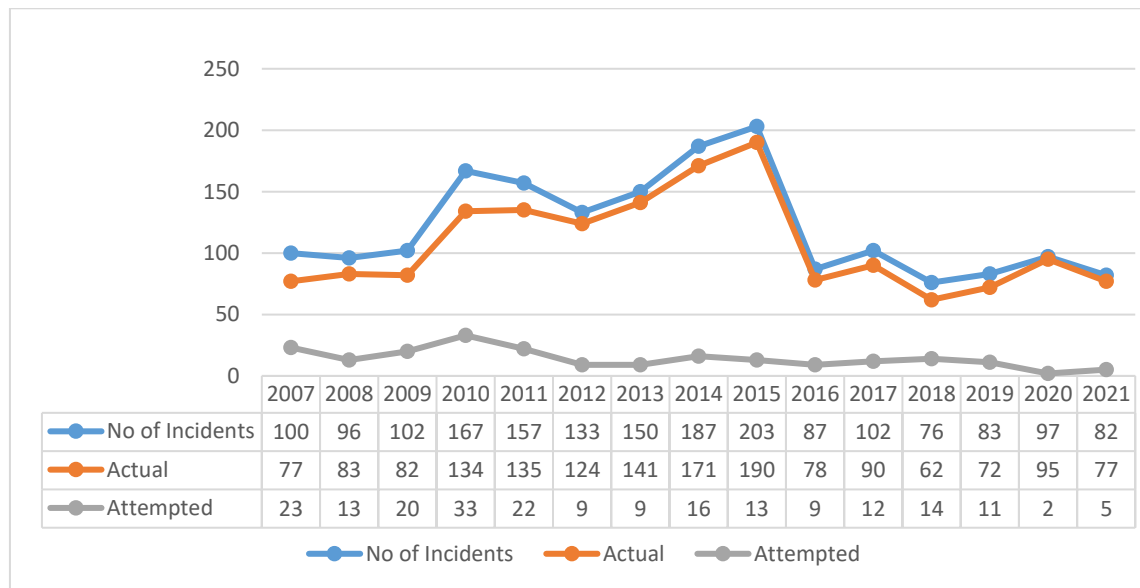
Note: Adapted from "Piracy and Armed Robbery against ships in Asia, Annual Report 2021" by ReCAAP ISC, 2021a. https://www.recaap.org/reports

Total 1,822 incidents, of which 1,611 actual and 211 attempted, were reported between 2007 and 2021. The number of incidents within this period changed across the years, peaking in 2015 (203) and diminishing in 2018 (76). The year with the most actual incidences was 2015 (190), and the year with the lowest was 2018 (62).

As ReCAAP defines piracy and armed robbery separately, it is pertinent to look the data of both the crimes separately in a comparative manner to get a clear picture of the trend in perpetuation of both the crimes. Figure 7 presents the data for Piracy and Armed Robbery along with indicating the percentage of piracy cases reported in each year.

Figure 7. Piracy versus Armed Robbery in Asia
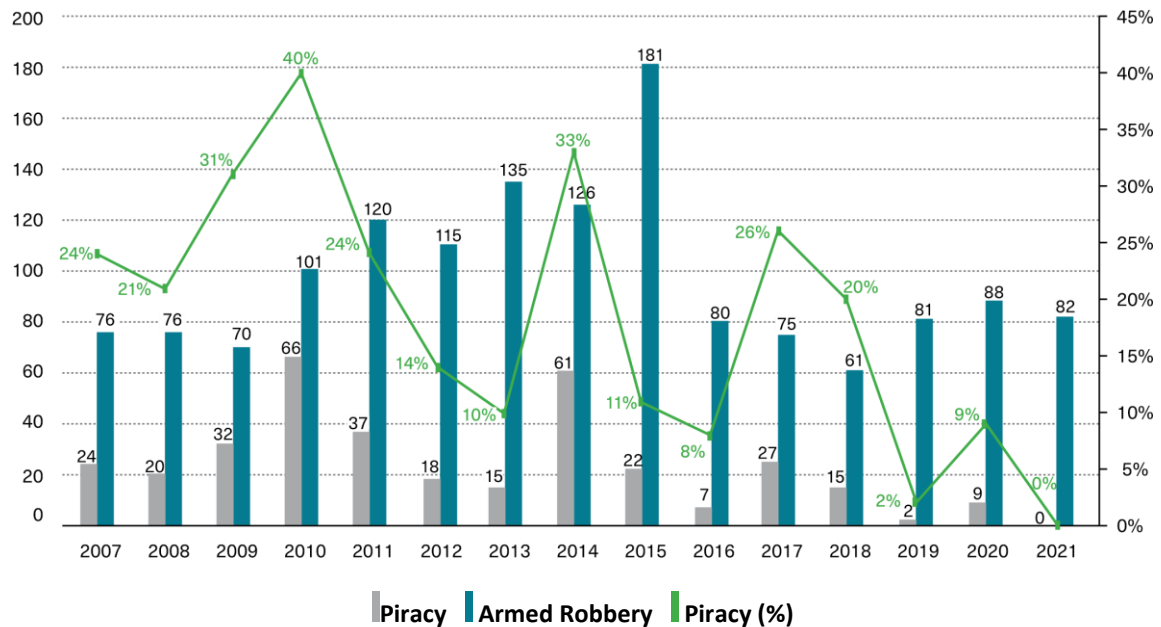
Note: From "Piracy and Armed Robbery against ships in Asia, Annual Report 2021" by ReCAAP ISC, 2021a, p 7. https://www.recaap.org/reports

Armed robbery against ships made up the majority of the cases reported in Asia between 2007 and 2021. Out of all incidents, 19% constituted piracy, while 81% were armed robbery against ships. Cases of armed robbery witnessed the peak in 2015 with 181 cases and lowest number was recorded in 2018. Piracy cases were highest in 2010 (66) and the year 2021 witnessed nil cases of piracy.

3.2.2   IMO Data on Piracy in Asia

IMO publishes incident reports on piracy and armed robbery against ships using information provided by member governments and pertinent international organizations. The first reports were published in 1982 and since July 2002, any documented acts or attempted acts of piracy (in international seas) and armed robbery (territorial sea) against ships are classified individually in the IMO's monthly and annual piracy and armed robbery reports (IMO, 2022). According to ReCAAP-ISC (2013), weekly updates on events reported by ReCAAP Focal Points have been shared with the IMO since 2009. The IMO is using information provided, citing the ReCAAP ISC as the information source, and extracting it for inclusion in its monthly reports. The reports are publicly accessible (subject to registration) from the IMO's piracy and armed robbery module of the Organization's Global Integrated Shipping Information System (GISIS). The author has extracted reports from this module as the access is provided by WMU to all students for the academic purpose.

The data on total number of incidents reported in Asia from 2007 to 2021 was extracted by applying the following search parameters for yearly data shown in Figure 8.

Figure 8. Search Parameters for GISIS

Note: Screenshot of GISIS by author

By applying the above search criteria, yearly data was extracted. Figure 9 depicts IMO statistics on piracy in Asia in graphical format below:-

Figure 9. IMO Statistics on Piracy in Asia

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
No of Incidents	116	102	106	203	208	158	197	218	236	99	106	91	89	97	90
Actual	91	87	79	127	121	124	172	201	215	85	88	23	40	49	47
Attempted	25	15	27	76	97	34	25	17	21	14	18	68	49	48	43
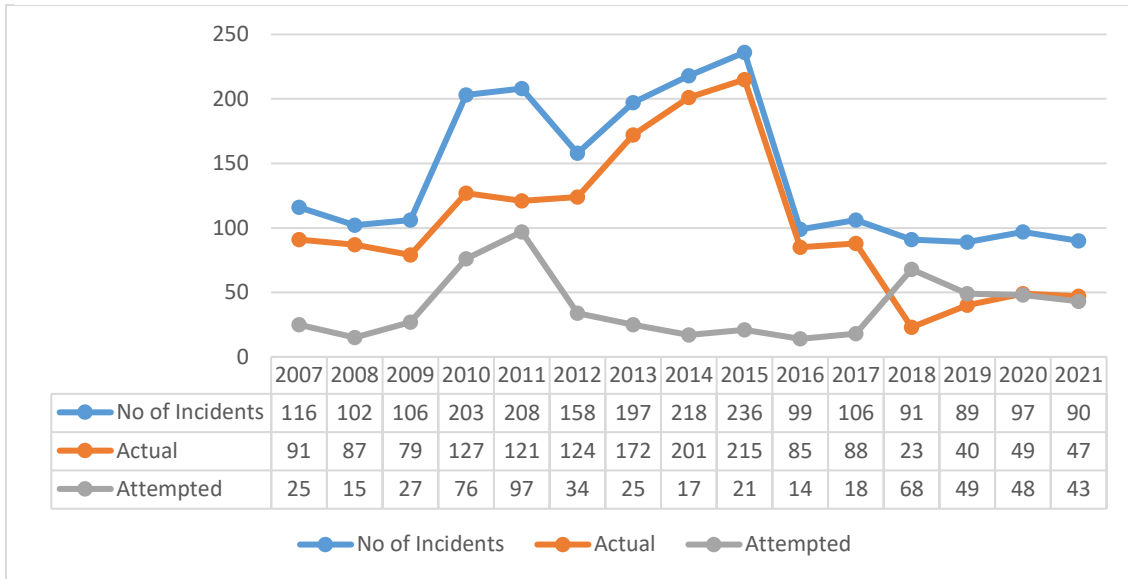
Note: Made by Author

A total of 2116 incidents were reported in this period, of which 1549 were actual and 577 were attempted piracy attacks. No of incidents fluctuated during this period reaching its peak in 2015 (236) and lowest were reported in 2019 (89). The year with most number of actual cases is 2015 (215) and 2018 witnessed the lowest number of actual cases being 23 cases.

3.2.3 IMB-PRC Data on Piracy in Asia

Established in 1992, IMB-PRC provides shipmasters with a free, 24-hour reporting service for any occurrences involving piracy, armed robbery or stowaways. PRC serves as a single point of contact for shipmasters all around the world who suffer any type of piracy or robbery attacks. According to ICC (2022), PRC exchange information with the IMO, governmental, intergovernmental and law enforcement authorities, as well as

industry bodies to better understand the nature of piracy and lessen its consequences on crew, vessel and cargo.

PRC publishes annual reports containing analysis of incidents. The incidences are reported incidents under four categories (ICC, 2021).

The boarded and hijacked incidents are counted as actual attempts whereas fired upon and attempted incidents are classified as attempted. This classification is consistent with the US Court of Appeals for the Fourth Circuit's May 2012 decision that any armed attempt to kidnap a ship, whether successful or not, constitutes maritime piracy (Forster, 2016). The classification of incidents is represented diagrammatically in Figure 10.

Figure 10. Classification of Piracy Incidents by IMB-PRC
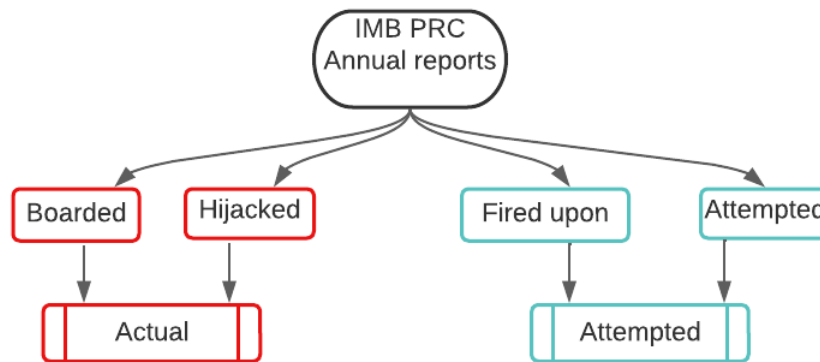
Note: By Author

Data on incidents in Asian waters was extracted from the IMB-PRC annual reports by selecting the location data on Southeast Asia, East Asia, Far East and Indian subcontinent. The data is presented below in the graphical format in Figure 11.

Figure 11. IMB-PRC Statistics on Piracy in Asia

Chart Title

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
No of Incidents	110	88	97	142	119	130	167	183	202	101	95	85	62	76	59
Actual	88	77	80	114	109	120	155	169	183	93	84	66	52	73	56
Attempted	22	11	17	28	10	10	12	14	19	8	11	19	10	3	3
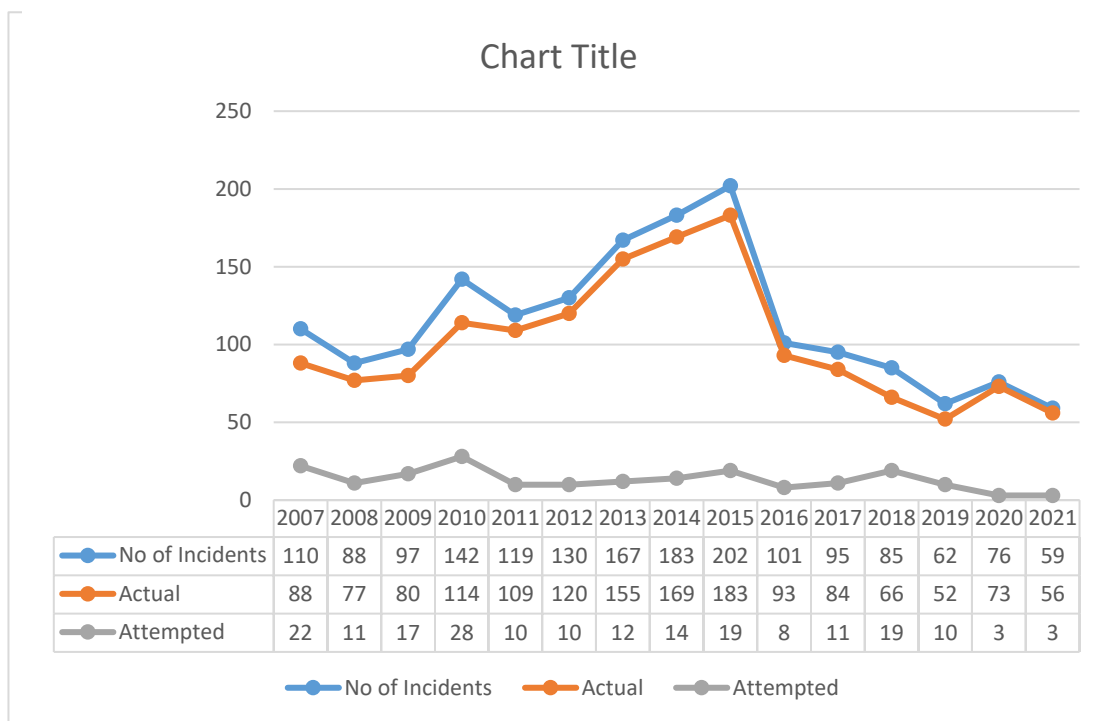
Note: Made by Author

Figure 11 shows that 1716 incidents reported, of which 1519 were actual attacks and 197 were attempted attacks. The number of incidents peaked in 2015 (202) and the lowest were recorded in the year 2021 (59). Actual incidents were highest in 2015 (183) and 2019 (25) witnessed the least number of actual attacks.

3.2.4 Comparative Data from IMO, ReCAAP-ISC and IMB-PRC

The data on total incidents of piracy and armed robbery from all three sources is presented in comparative form in Figure 12. This is to understanding the amount of variations that

exist in the reports by all three organizations and to compare the trends each report presents.

Figure 12. Comparative Statistics of IMO, ReCAAP and PRC

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
IMO Data	116	102	106	203	208	158	197	218	236	99	106	91	89	97	90
ReCAAP Data	100	96	102	167	157	133	150	187	203	87	102	76	83	97	82
IMB PRC data	110	88	97	142	119	130	167	183	202	101	95	85	62	76	59
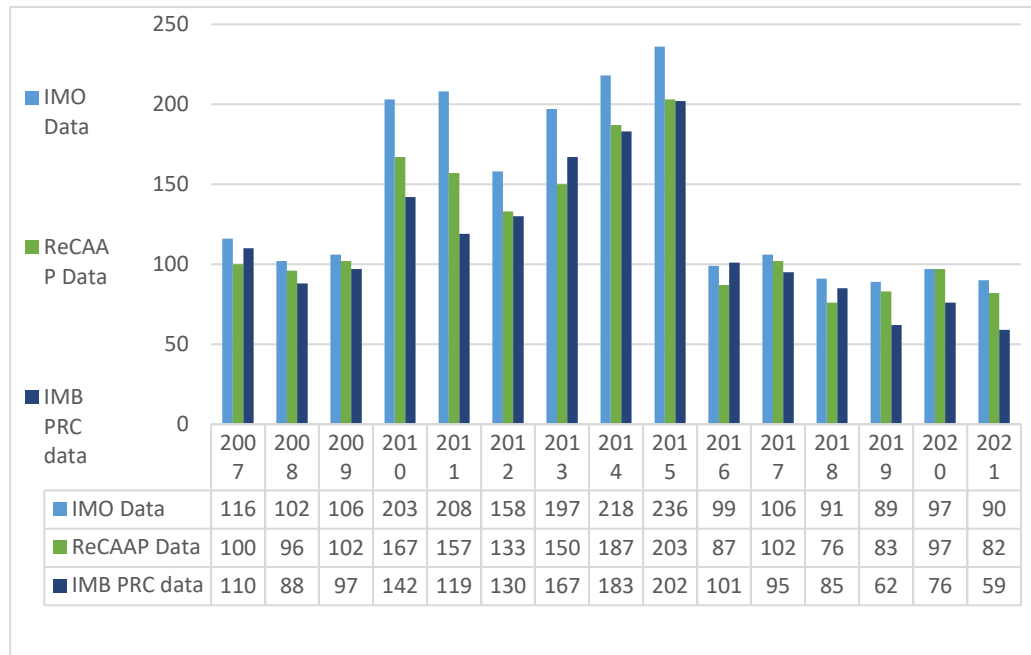
Note: Made by Author

Incidents reported by IMO has always been more than ReCAAP-ISC and IMB-PRC, except in 2020 where ReCAAP-ISC and IMO has the same number of incidents reported. IMB-PRC has the lowest number of incidents reported except in the years 2007, 2016 and 2018 where ReCAAP-ISC has the lowest no of incidents reported among three organisations.

Although, there is a difference in the number of cases reported by all three organisation, the trend of incidents is similar for all the statistics. From 2009 onwards, the cases increased and remained high until 2015 and then declined in 2016. This is common

in the data of all the three organisations and shows the trend of increasing number of incidents during this period.

3.3   ReCAAP Inputs

Information sharing, capacity building and cooperation are the key inputs by ReCAAP for suppressing the incidents of piracy and armed robbery in Asia. These three activities form the core of inputs, which are aimed at enhancing situation awareness, increasing capacity of focal points to function effectively in accordance with ReCAAP framework and establishing a cooperative mechanism of contracting parties to act in unison to tackle the maritime crime of piracy and armed robbery. In the following paragraphs, findings of these three key inputs by ReCAAP are presented.

3.3.1   Information Sharing

3.3.1.1 Basic Arrangement for Information Collection

The Incident Reports (IRs) sent by the 21 ReCAAP Focal Points (FPs) via IFN (Information Network System) are the main source of information. The details of incidents are verified by the FP and then IR is forwarded to maintain the accuracy of information (ReCAAP-ISC, 2021a). Other than this, IMO and other regional organisations are also the source of information for ReCAAP-ISC. Figure 13 represents the status of information received from FP versus other sources.

Figure 13. Incident Information from FPs versus Other Sources
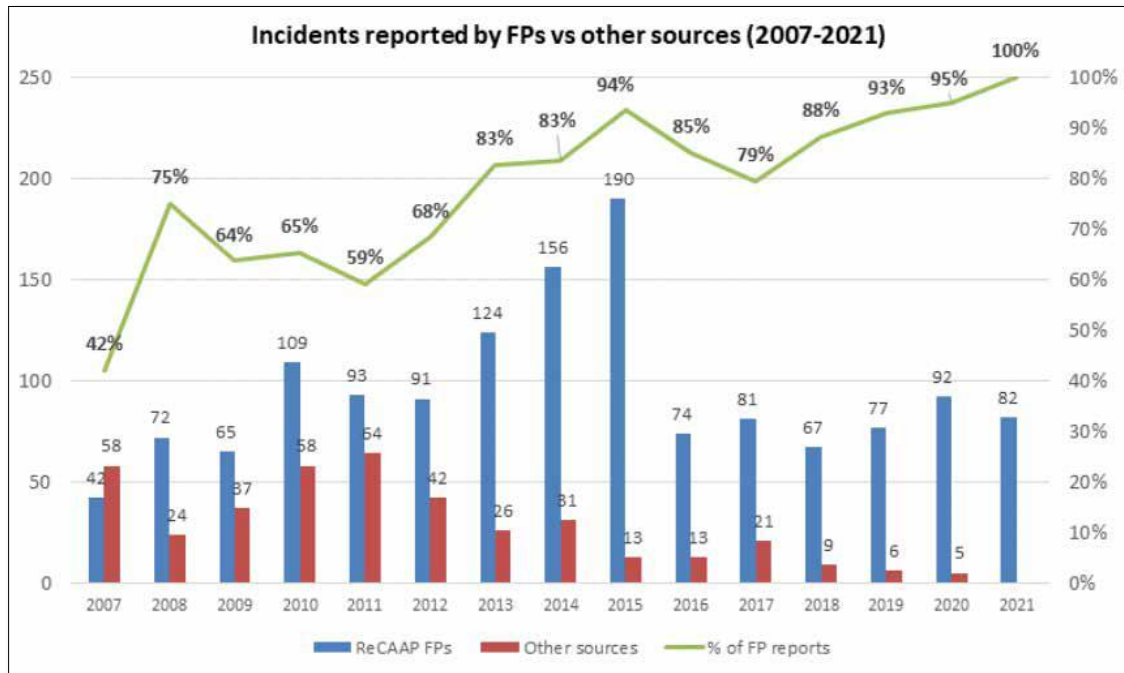
Note: From Executive Director Report 2021, ReCAAP-ISC 2021c

The share of incidents reported by FPs have witnessed variations but since 2017, it has increased consistently and in the year 2021, 100 percent of the reporting is by the FPs.

Figure 14, presents the data on timeliness of the IRs reported by the FPs. The timeliness of reporting is calculated by the interval between the time of the incident and the time when the IR is submitted by the FP

Figure 14. Timeliness of Incident Reports
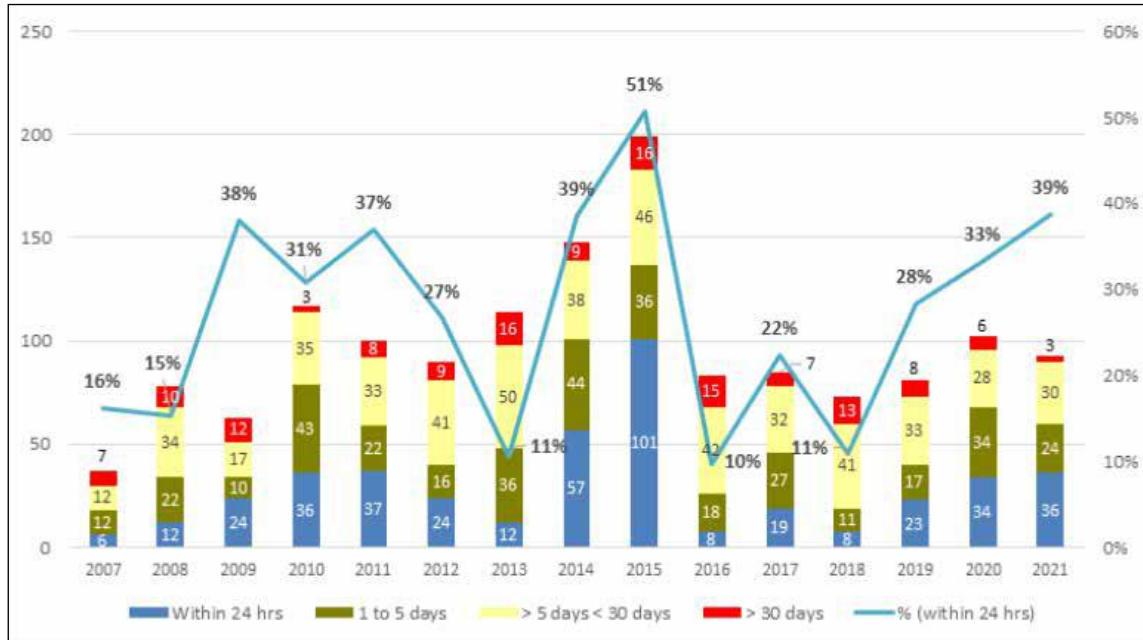
Note: From Executive Director Report 2021, ReCAAP-ISC 2021c

Figure 14 shows the timeliness of IRs reported by FPs from 2007 to 2021. The highest percentage of IRs submitted within 24 hours were in the year 2015 (51 %) and lowest was recorded in 2016 (11 %). Beginning with 2019, there is an upward trend in reporting of cases within 24 hrs and 39 % of the IRs were reported within 24 hours in 2021.

3.3.1.2 Data Analysis

ReCAAP-ISC gathers, compiles and examines data on all reported incidents. The severity of each incident is assessed based on the type of economic losses the ship sustained and the level of violence inflicted on the crew. These elements allow for the classification of each incident into one of the four categories. Since 2017, ReCAAP-ISC has been utilizing a data analytics tool to conduct a more thorough examination of the situation by determining the relationships between different incident-related parameters and benchmarking them against historical patterns (ReCAAP-ISC, 2021a). Data analytics

shows observable patterns and pinpoint incident trends using accumulated data from the past records of incidents. Renewal of the IFN was completed in February 2020 and incorporated new features such as self-learning training mode for FPs on incident reporting and security of the system has been upgraded (ReCAAP-ISC, 2020). According to ReCAAP-ISC (2021c), phase 2 of the Data Analytics project was started in the December 2021 for a more in-depth analysis of the external factors, which might have linkages with piracy and armed robbery incidents. Factors such as weather conditions, moon phases, price of items generally targeted by the pirates/robbers, economic condition of the Coastal State, etc. will be analysed under this project.

3.3.1.3 Information Dissemination

ReCAAP ISC undertakes dissemination of analysed information through various means. It publishes periodic weekly, monthly, quarterly, annual, special reports and guidelines for timely dissemination of information. Other than this, it issues warning and incident alerts for disseminating critical information on the serious incidents and for successive incidents at the same place. By these means, it encourages all ships to take preventive measures by emphasising the location of concern and modus operandi of the perpetrators. Weekly report is also shared with IMO for inclusion in the piracy and sea robbery database of Global Integrated Shipping Information System (GISIS).

ReCAAP-ISC has expanded the tools of information dissemination in line with the modern day technological advancement. The information is now also available through mobile app, website and email to all stakeholders and the interested parties as well as through social media. Various modes of information dissemination are discussed in the following paragraphs.

(a) Warning – It is issued when timely information of a serious incident is to be disseminated to the seafarers so that they can respond appropriately when transiting through such areas.

(b) Incident Alerts - An incident alert (IA) is issued for a serious incident or when there are several incidents that happen at the same place (ReCAAP-ISC, 2021a).

Figure 15 shows the correlation of warning and IAs issued with the CAT 1 and CAT 2 incidents reported in the corresponding years.

Figure 15. Incident Alert / Warning versus CAT 1 & CAT 2 Incidents

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Warnings	0	0	0	0	0	0	0	0	0	0	0	2	2	2	1
Incident Alert / update	11	15	20	34	21	11	4	14	14	4	6	2	9	7	10
CAT 1 Incidents	5	4	5	4	8	4	2	13	12	15	6	2	2	1	0
CAT 2 Incidents	15	23	30	59	40	41	32	42	24	10	9	8	6	6	8
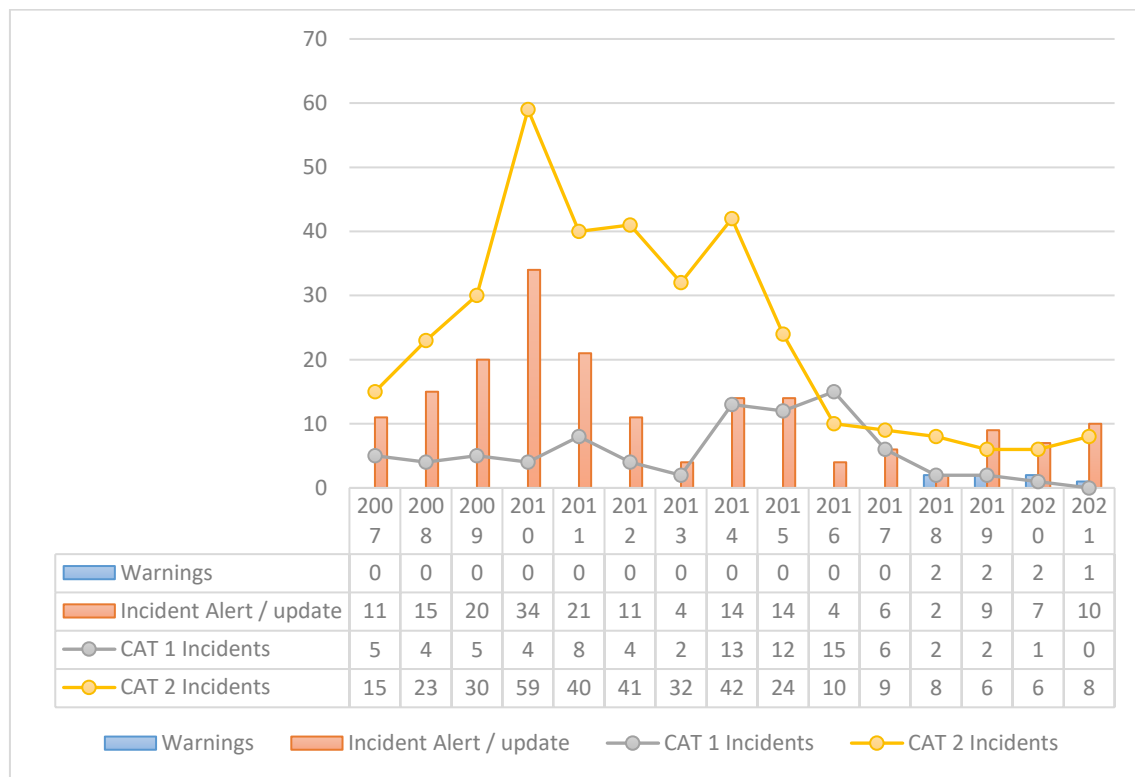
Note: Made by Author (Data taken from ReCAAP-ISC website, 2022)

Warnings are issued starting from 2018. Year 2010 witnessed the most number of IAs issued and there were highest number of CAT 2 incidents reported in the same year. Highest number of CAT 1 incidents were reported in 2016 and there were only four IAs issued during this year. From 2019 to 2021, incident alerts were issued more than the number of CAT 1 and CAT 2 incidents reported in these years.

(c) Periodic Reports - Weekly, monthly, quarterly, half-yearly and annual reports are published on a regular basis which provides updates on the situation, including statistics, the methods used by the offenders, trends in incident frequency, best practices, and suggestions. Special reports on the incidents of piracy and armed robbery in Singapore Straits is also published for highlighting the location, category, modus operandi of perpetrators, observations and recommendations for the littoral states.

(d) Single Sheet Summary – It shows the key highlights of the situation by infographics in a single sheet including graphs, charts and maps for a quick overview of the situation.

(e) Other publications – Guidelines for tugboat and barges against piracy and sea robbery, single sheet contact details for reporting of incidents, Admiralty maritime security chart and anti-piracy poster were published for raising awareness among the seafarers, wider dissemination of information and safe passage through Asian waters.

3.3.2 Capacity Building

ReCAAP FPs forms the backbone of information sharing mechanism, which is evident from the fact that most of the incidents are reported by FPs as shown in the Figure 13. For overall strengthening of the FP network and enhancing the capabilities, ReCAAP-ISC undertakes various activities every year and puts a considerable amount of resources for achieving this. According to ReCAAP-ISC (2020), the objectives of the capacity building activities are:

(a) To share current information about the situation of piracy and armed robbery and areas of concern so that FP is focused on the particular areas for timely coordination with maritime security agencies to act swiftly.

(b) To develop the role of FP in incident reporting, engagement with shipping industry and inter-agency coordination for timely reporting of incidents, developing a

trusted network with the shipping industry and smooth coordination with the agencies involved in acting on the reported incidents immediately.

(c)   To deepen knowledge on subjects such as UNCLOS, emerging maritime threats, etc. which is essential for carrying out the duties efficiently.

For capacity building, ReCAAP-ISC undertakes the following major activities:

(a) Capacity Building Senior Officer's Meeting. These meeting comprise of a variety of activities, which includes presentations on piracy cases by Contracting Parties, discussions on ways to increase the efficiency of organisation and lecture on international maritime law and its applications by experts / professors of renowned universities.

(b) Capacity Building Workshop. It is aimed at enhancing capability of FPs for timely and accurate information sharing. Tabletop exercises are conducted to enhance the role of FPs in timely incident reporting through IFN.

(c) Capacity Building Executive Programme. It was started in 2017. Senior Officers of all FPs as well as Indonesia and Malaysia are invited. This programme covers broad subjects, sharing of case studies, lessons learnt and efforts made by various countries in combating maritime crime including cyber security, best practices on information sharing and emerging maritime threat including terrorism (ReCAAP-ISC, 2019).

(d) Focal Point Training Programme (FPTP). The purpose of the training is to provide the new Focal Point staff a greater understanding of their function, the significance of timely and correct incident reporting and the processes for incident report submission on the Information Network System.

(e) Cluster Meeting. The Cluster Meeting is organised to conduct discussions on specific concerns in a sub-region to increase the capability and collaboration of the FPs concerned (ReCAAP-ISC, 20201a). In 2013, the Cluster Meeting was held for the first time in conjunction with Singapore's National Maritime Week.

Other than the above-mentioned activities, ReCAAP-ISC undertakes Table Top exercise through IFN with FPs to familiarize the staff with the process of incident reporting and lectures for capacity building delivered by experts from renowned educational institutions. Bilateral visits, bilateral meetings, multilateral combined exercises and teleconferencing with the FPs staff is undertaken to boost the capacity of FPs in executing the role efficiently. Figure 15 shows the data on conduct of various activities by ReCAAP-ISC for capacity building during the period 2007-21.

Figure 16. Capacity Building Activities by ReCAAP ISC
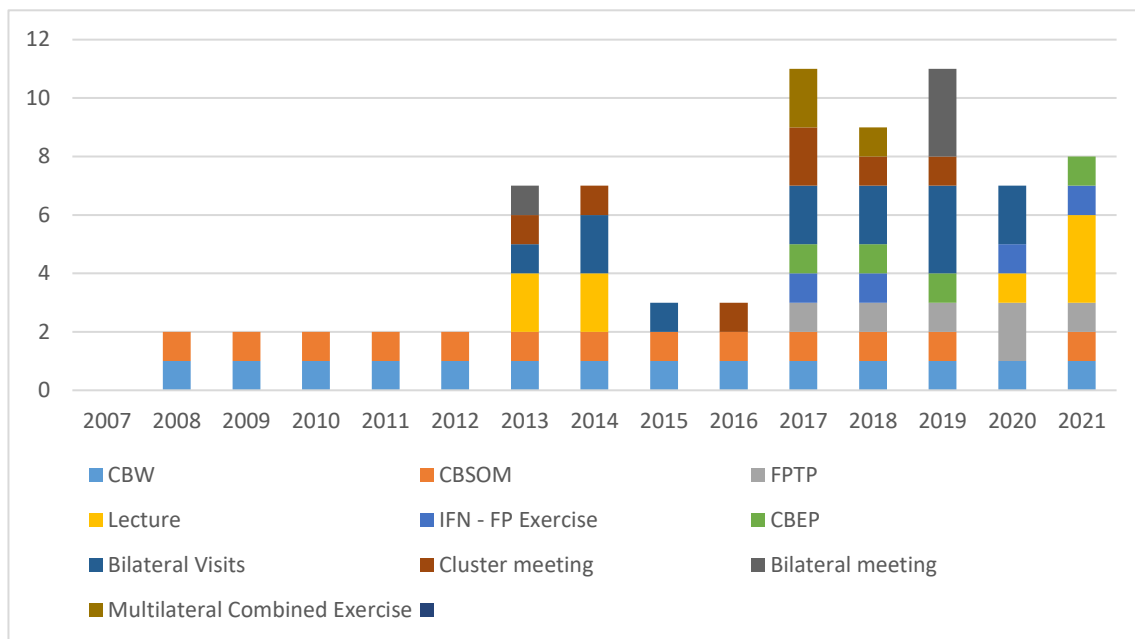
Note: Made by Author

Figure 15 shows the continued impetus on capacity building activities by ReCAAP-ISC. The number of activities have gradually increased over the years. Highest number of activities were conducted in the year 2017 and 2019.

3.3.3 Cooperative Arrangements

ReCAAP has persistently put out resources and efforts in trying to engage government authorities, the shipping sector and the maritime community in its objective of combating piracy and armed robbery. Cooperative agreements helps to disseminate information and advisories to a large audience and extend information-sharing network (ReCAAP-ISC, 2021b). The main activities undertaken to enhance the cooperation are discussed in the following paragraphs.

3.3.3.1 Joint Conferences

Nautical forum as well as piracy and sea robbery conference are the two events, which are organised annually as part of the cooperative arrangements. Nautical forum is organised every year in January with Maritime Port Authority of Singapore (MPA) and Singapore Shipping Association (SSA). The piracy and sea robbery conference is organised jointly with BIMCO, INTERTANKO and S. Rajaratnam School of International Studies (RSIS) during the Singapore Maritime Week (ReCAAP-ISC, 2021a).

3.3.3.2 Regional and Thematic Guides

ReCAAP has worked with the stakeholders to produce special guidebooks for the shipping community to prepare themselves against the serious incidents for safe traverse through the Asian waters. The important publications produced are as shown below:

(a) The 'Tug boats and barges guide against piracy and sea robbery' was produced in 2013 as the incidents of tug and barge hijacking were reported since 2009.

(b) The 'Guide for tankers operating in Asia against piracy and armed robbery involving oil cargo theft' in the wake of large number of incidents of hijacking of tankers loaded with oil cargo.

(c) 'Regional guide to counter piracy and armed robbery against ships in Asia' was produced in 2016 to address all type of incidents against the ships. The regional guide 2 has also been published in 2022 incorporating the changing pattern of piracy and armed robbery.

(d) 'Guidance on abduction of crew in the Sulu-Celebes seas and waters off eastern Sabah' was produced in 2019 as the cases of kidnapping for ransom were reported since 2015 in this area.

3.3.3.3   Engagement with Indonesia and Malaysia

Indonesia and Malaysia are the two countries, which play a key role in enduring safety and security of the Malacca and Singapore straits, however, both the countries are not signatory to ReCAAP. According to ReCAAP-ISC (2018), it recognizes both as very important strategic partners in the region and continues its engagement with key senior officials and industry representatives to encourage the two countries' accession to ReCAAP. To maintain warm relations, ReCAAP ISC invites representatives from both countries for its capacity building activities, workshops as well as conferences and seminars.

With an objective to maintain regular contacts with Malaysia's Ministry of Foreign Affairs (MFA) and Malaysia's National Security Council (NSC) and other stakeholders, ReCAAP-ISC has been undertaking the following activities consistently:

(a) Meeting with Director General of Maritime Affairs, Ministry of Foreign Affairs

(b) Bi-lateral meeting with Malaysia Maritime Enforcement Agency (MMEA)

(c) Meeting with Malaysia Ship-owners Association (MASA)

On the same lines, ReCAAP-ISC has been undertaking the following activities with Indonesia:

(a) Meeting with Director for Legal Affairs and Territorial Treaties, Ministry of Foreign Affairs.

(b) Meeting with the Executive Secretary of Indonesia Coast Guard (BAKAMLA)

(c) Meeting with Indonesia Ship-owners Association

(d) Discussions and engagement with Indonesia Marine Police

3.3.3.4   Engagement with Shipping Industry

Nautical Forum - Engagement with shipping industry is undertaken during the Nautical Forum, which is organised every year in collaboration with Maritime and Port Authority of Singapore (MPA) and the Singapore Shipping Association. According to ReCAAP-ISC (2019), it witnesses participation in large numbers from the shipping industry, international and regional shipping associations, diplomatic community (ReCAAP Contracting Parties and other countries), regional authorities and academia.

Piracy and Sea Robbery Conference – The conference is organised jointly with BIMCO, INTERTANKO and Rajaratnam School of International Studies (RSIS) during Singapore maritime week. According to ReCAAP-ISC (2017), it provides a venue for academic experts, enforcement agencies, international and regional shipping associations and shipping companies to exchange ideas and best practices for combating piracy and armed robbery against ships in Asia and beyond.

Other than the two engagements listed above, ReCAAP-ISC is invited to Asia-Pacific Heads of Maritime Safety Agencies (APHoMSA) Forum, Asian Ship owners' Association (ASA) Annual General Meeting, Sarawak and Sabah Ship-owners Association (SSSA), Anti-Piracy and Sea Robbery Forum and the Safety4Sea (Greek maritime media) Forum.

Maritime Roundtable 2018 – It was organised for the first time on 25 April 2018 by ReCAAP ISC and RSIS. The topic of discussion was "Is a single reporting centre the answer to timely reporting and prompt response against piracy and sea robbery?" It witnessed a huge participation from ship owners' associations and maritime regulatory and enforcement agencies (ReCAAP-ISC, 2018).

3.3.3.5   Engagement with Multilateral Regimes and International Organisations

ReCAAP-ISC attends the following meetings and presents the updated situation of piracy and armed robbery on a regular basis:

(a) IMO Council meeting and Maritime Safety Committee (MSC) meetings

(b) Heads of Asian Coast Guard Agencies Meeting (HACGAM)

(c) United Nations Office on Drugs and Crime (UNODC) contact group meetings

(d) ASEAN Maritime Forum (AMF)

(e) International Maritime Safety Conference

(f) Coast Guard Global Summit

(g) Galle Dialogue

(h) INTERPOL Annual General meeting

ReCAAP-ISC delivers lectures at the renowned maritime institutions such as World Maritime University, Korean Maritime and Oceans University, Japan International Cooperation Agency (JICA) Training Course, National Graduate Institute for Policy Studies (GRIPS), Japan and International Maritime Academy Dhaka.

According to ReCAAP-ISC (2020), it also conducts Centre-to-Centre dialogue with Djibouti ISC and ReCAAP-ISC for strengthening its engagements with Djibouti Code of Conduct (DCoC).

3.4   Interview of a Senior Officer of ReCAAP-ISC

To get more insight of how ReCAAP efforts are helping to achieve the objective of supressing piracy and armed robbery, author conducted interview of a senior officer of ReCAAP-ISC. He answered some important questions for which there is limited information available in the ReCAAP-ISC website or reports.

Question 1.   How is expansion of membership beyond Asia contributing to the objective of ReCAAP and is it useful?

Each country brings its own wealth of experience, something that is not familiar to us. These countries share their expertise and good practices during the capacity building activities. Shared information is always useful; it may be new to us but has been proven somewhere else. It helps us to learn from their experiences and cut short the learning curve. Further, if the flag state of a ship transiting Asian waters is notified of an attack, we get an incident report from this country (CP of ReCAAP), which makes the communication faster and more transparent. This also enhances the accuracy and timeliness of the incident reports.

Question 2.   What is the way forward for resolving the issue of underreporting of incidents?

Yes, we still have under reporting, but I will say this has been minimised from the time we started. One of the key things, for a commercial entity is that, we have to make ourselves useful. Why do people report a crime? So that the perpetrators are apprehended. Therefore, we have made it a point to share information so that our information is useful to them. Correlating information and doing analysis would actually be able to zoom in on certain areas. Like for example, in a particular sector most of the crimes happen between 12am to 6am. This is the time when seafarers need to pay more attention. It also helps the law enforcement to zoom in on this area of concern by may be putting more patrols in that

particular area. Of course, the incident reporting is very effective and depends on the timeliness and accuracy of the reported incident.

Question 3 How does Interpol contribute towards suppressing piracy and armed robbery?

Interpol is our partner organisation and have a broad scope of dealing with various crimes including maritime crime of piracy and armed robbery. Therefore, we share information regarding the incident, data we have and our analysis of the incident. In some cases, it is insider job and a well-established network behind the incidents of attacks and oil siphoning. During the period from 2011 to 2014, when cases of oil siphoning were on peak, we worked with Interpol. This resulted in apprehension of the perpetrators and the mastermind was apprehended. However, we do not publish this information because it has a bearing on the working of law enforcement agencies. Our collaboration with Interpol is effective and continues to grow.

Question 4   Do you get a closing report with conclusion of the incident reported?

Yes, we do. We do get updates from or what we call amplifying reports that comes from our focal points, especially for incidents that were raised earlier and the follow up action results in the apprehension of the perpetrators. What we do not publish is the details of the of those arrests. So, we publish that in a particular incident so many perpetrators arrested, prosecuted and the items recovered; but we do not go into the details of the operation because this one definitely hampers the operational part of the individual agencies of the countries concerned. Also, we do not get follow-up report on all the cases reported, as many cases are not closed as the investigation takes its course that may require time. In many cases, there are arrests and the agencies are not able to reach a conclusion.

Question 5   Has ReCAAP-ISC been able to issue incident alert and warnings in the critical time window?

We issue warnings based on the advisory issued by a particular state. Like in the case of the Philippines, the Philippine Coast Guard issued advisory regarding the planned attacks by the Abu Sayyaf Group. Based on their advisory, we issue warning for the seafarers transiting through that area. Similarly, we issue incident alert based on the incident pattern. Alerts are issued when the incidents numbers go too high or too frequent. These alerts are issued on time but depends on the accuracy and timeliness of information received by ReCAAP-ISC. However, we have been issuing alerts, which are useful to the seafarers in planning their route to avoid any incident.

3.5   External Factors – Regional and Sub-Regional Cooperation

IMO has played a key role in ensuring cooperation among littoral states to ensure safety of the seafarers traversing through Asian waters. The Secretary-General presented a paper to the IMO Council's 93rd session in October 2004 on the key difficulties involved in securing crucial shipping lanes against terrorist attacks, which included a profile of Singapore and the Straits of Malacca (Guilfoyle, 2013). In March 2005, with an aim to advance regional cooperation on marine security, the IMO Secretary-General provided the keynote lecture at the ASEAN Regional Forum (ARF) on confidence-building measures. In August 2005, the foreign ministers of Indonesia, Malaysia and Singapore met in Batam, to discuss the issue of cooperation for ensuring the safety of straits. In the resulting 2005 Batam statement, the foreign ministers of Indonesia, Malaysia and Singapore set out the principles for cooperation with user states and other stakeholders with respect to the Straits of Malacca and Singapore.

As a direct measure to ensure the safety of ships, from 2004, the IMO required all ships above a certain size to be registered (with embossed names on their hulls), and the shipping industry implemented Automatic Identification System (AIS) trackers for

essentially all ships likely to move in international waters (Hastings, 2020). This led to easy tracking of ships, any deviation from the planned route was a sign of something unusual for the ship owner / company and the ship could be pursued for ascertaining safety thereby reducing the time for pirates to conclude their operation.

Beginning in 2004, Indonesia, Malaysia and Singapore took steps to combat piracy and armed robbery against ships and made significant efforts to enhance their ability to secure their waters. Malaysia established a new Malaysia Maritime Enforcement Agency (MMEA) with functions similar to a Coast Guard in 2005. MMEA quickly adopted new patrol strategies and enhanced its human intelligence network as well as its Maritime Criminal Investigation Department for effectively dealing with the menace of maritime piracy and armed robbery (Hoesslin, 2016). According to Hribernik (2017), in September 2016 Malaysia, Indonesia and the Philippines signed an agreement, which preserves the right to 'hot pursuit' across maritime boundaries and announces trilateral patrols in the Sulu Sea, with a focus on addressing piracy, human trafficking, terrorism and drug smuggling.

3.5.1 Malacca Strait Patrol

In the year 2004, regional initiative MALSINDO was started which composed of navies from Malaysia, Singapore and Indonesia. It was mandated to conduct coordinated patrol within their respective territorial sea around the Strait of Malacca. In the year 2006, Malacca Strait Patrol (MSP) was formed by Malaysia, Indonesia and Singapore. MSP started three new operational measures to cooperate for suppressing pirate and armed robbery attacks on ships plying through Malacca strait.

(a) First, enhanced patrols with information sharing and each state patrols within its own waters but in a coordinated manner.

(b) Second, started 'Eyes in the Sky' aerial patrols to provide coordinated aerial surveillance over the strait using aircraft from Indonesia, Malaysia and Singapore. This strategy permits the patrolling aircraft to fly over the territorial seas of other nations (up to three nautical miles). The purpose of this law was to strengthen the

water patrol, which had previously only extended twelve nautical miles from the respective states (Amri, 2014). In addition, in 2006, the Malacca Strait Patrol Intelligence Group was established to support the sea and air patrols and develop an information-sharing platform.

(c) Third, formalized written Malacca Strait Patrols Standard Operating Procedures (SOPs). The sea patrols had a hand-off mechanism to deal with cross-boundary enforcement but allowed hot pursuit across territorial maritime boundaries (Ba, 2018).

The MSP has been undertaking coordinated patrols and surveillance equipped with the Malacca Strait Sea Patrols (MSSP), the Eyes-in-the-Sky (EiS) air patrols, the Joint Coordinating Committee, the Intelligence Exchange Group (IEG) and a joint Standard Operating Procedure. Since 2005, Indonesia and Singapore have worked together to exchange information in order to improve security and surveillance along their shared border in the Singapore Strait (Bradford, 2005).

3.5.2 The Association of Southeast Asian Nations (ASEAN) Measures

ASEAN has been concerned for the situation of piracy and armed robbery in the region. According to Amri (2014), three important forums, which address Maritime security, are namely: ASEAN Maritime Forum (AMF), Maritime Security Expert Working Group (MSEWG) and ASEAN Regional Forum Inter-sessional Meeting (ARF-ISM).

The ARF-ISM was established in 2008 with an aim to facilitate the dialogue of maritime security consisting of piracy and armed robbery, smuggling of goods as well as capacity building and cooperation (Christoffersen, 2009). Capacity building of maritime law enforcement agencies in the region is one of the main objectives of this framework.

The AMF was established in 2010 to address issues such as maritime security including piracy and people smuggling and other issues of marine environment and illegal fishing.

ASEAN Defence Minister Meeting Plus (ADMM Plus) started the MSEWG in 2010. It is aimed to discuss issues, including but not limited to piracy, search and rescue and illegal trafficking.

Other than the above discussed forums, ASEAN has produced several initiatives to address the threats of maritime security including piracy. These include ASEAN Declaration on the Prevention and Control of Transnational Crime, The Hanoi Declaration of 1998, The Bali Concord II 2003, The ASEAN Security Community Plan of Action and Vientiane Action Programme 2004–2010 and ASEAN Political-Security Community Blueprint.

Chapter 4: Analysis

4.1   Introduction

In this chapter, analysis of the findings is presented. First, the cases of piracy and armed robbery reported since 2007 are analysed for assessment of the change. Secondly, the key inputs from ReCAAP are analysed for their effectiveness in delivering the outcomes for which they were designed and their contribution in supressing acts of piracy and armed robbery in Asia. The scope of improvement and recommendations from author on further improving the mechanism are also included. Thirdly, the other regional initiatives and efforts are analysed for their role in suppressing the maritime crime.

4.2   Analysis of Piracy and Armed Robbery Cases

The total no. of incidents reported to ReCAAP-ISC varies over the years and there is no consistency in decline or rising of cases. The incidents continues to soar until 2015, which saw the highest number of cases reported since 2007. Year 2016 witnessed a steep decline in number of cases registering an all-time low reporting of 87 incidents. As stated by Amri (2014), piracy in Southeast Asia is affected by a number of factors such as economic, political and social forces. These factors affect the interest of opportunistic groups as well as the organised criminal gangs indulging in the acts of piracy and armed robbery. However, period post 2016 has witnessed a decline of total number of incidents reported in the Asian waters except 2017, when 102 incidents were reported. Hribernik (2017) observed that slow economic growth, unemployment and economically vulnerable coastal communities led to escalation in number of attacks after 2010, only to see a minor dip in 2012, incidents continued to rise till 2015, before once again decreasing in 2016.

As petty thefts are also included in the number of incidents reported, looking at the number of incidents alone does not give a clear picture of the seriousness of the offences committed against the ships. On analyzing the piracy versus armed robbery cases

as presented in the Figure 7, it is evident that the maximum cases of piracy were reported in 2010 with a count of 66 incidents. The cases declined thereafter until 2013 and again saw a steep rise in 2014 when 61 cases of piracy took place. Post 2014, there has been a decline in the number of piracy incidents and there were no cases of piracy in the year 2021. However, the cases of armed robbery remained high wherein 82 cases were reported in the year 2021.

The cases of piracy has no set pattern and trend, one reason for this may the anti-piracy efforts of the littoral states. As the efforts of states increase against a particular type of incident or modus operandi, the pirates find it difficult to operate and they change the tactics or the area to escape the authorities. Hastings (2020) observed that in response to the counter piracy measures, those engaged in ship seizures have shifted to tactics of quickly taking difficult to trace cargo off the ship while at sea and they no longer attempt to dispose of the ship itself. This may be one of the explanations behind rise in oil siphoning from tankers in the Asian waters, which witnessed spurt in such cases from 2011 onwards until 2014. Noting the rise in oil siphoning cases, ReCAAP-ISC published two special reports on "Incidents of siphoning of fuel/oil at sea in Asia" in the year 2014 highlighting the modus operandi and recommended action by the seafarers to avoid such incidents. Majority of these cases occurred in the South China Sea (SCS) as this area is outside the jurisdiction of regional authorities and pirates had enough time to carry out the oil siphoning and escape before arrival of authorities (ReCAAP-ISC, 2014).

Overall, there is decline in the incidents of more severity, most of the cases reported in recent years are petty thefts and no cases of piracy reported in 2021, which is the first time in ReCAAP history.

Data by IMO and IMB-PRC on piracy and armed robbery in Asia (presented in the Figure 9 and Figure 11 respectively) also indicate the similar trends over the years as reported by ReCAAP-ISC. However, there is difference in the number of incidents reported by all three organizations.

4.2.1 Comparative Analysis of IMO, IMB-PRC and ReCAAP-ISC Data

Even though, there is a similar trend presented by the data of all the three organisations on incidents as shown in Figure 12, the number of cases reported have always differed except in year 2020 where IMO and ReCAAP-ISC has reported the same number of incidents. IMO has always reported more incidents than other two, although not a very significant difference. The reason is the fact that IMO receives data from both these organisations and compiles the data for its monthly report and GISIS.

On some occasions, ships miss reporting the incident to IMB-PRC but reports only to the coastal state which in-turn is reported to ReCAAP-ISC through its FP. In addition, there are occasions when ships report the incidents to IMB-PRC but do not report to coastal state. This happens mainly due to the cases, which are reported very late when the ship has already reached its destination and reports an incident of attempted boarding or the case of attackers escaping empty handed on sighting by the ship's crew. Heribernik (2013) also noted that the causes for the differences in reported incidents are difficult to define, but are most likely because of the fact that not every ship reports the incident to both the ReCAAP-ISC and the IMB-PRC.

4.2.2 Conclusion

The menace of piracy and armed robbery persists in Asia and it is difficult to assess whether situation has improved from the sheer numbers representing total incidents. Baird (2012) noted that ReCAAP through its initiatives has been able to curb incidents in recent years but maritime piracy will never stop completely as it has a long history and will remain attractive due to apparent easy and hasty gains for low risk. ReCAAP has been instrumental in bridging information sharing gaps between countries and supporting coordination between various marine safety and security organisations (Prakash, 2016). Seta (2019) asserts that ReCAAP should be deemed successful due to two reasons, first

all CPs are satisfied and secondly it attracts non-Asian states which serves as a good model for other regions also.

It is evident from the decline in severity of the cases that situation has improved and in the recent years, the cases of piracy are on the decline but the incidents of petty thefts are considerably high. There is no surety that the cases of petty thefts, which are still a considerable number even today, will not translate into serious incidents in future as the people involved in these crimes may develop confidence over time and may organize into groups of more serious offenders. As of now, it suffices to state that the severity of the incidents have reduced in Asian waters over the past years. Maritime piracy is a complex phenomenon due to interplay of various factors like socio-economic developments and law enforcement capability of littoral states, fish stock depletion, presence of organised crime groups and it is difficult to predict these changes (Hribernik, 2017). However, it is clear from the statistics that the serious incidents of piracy and armed robbery have declined considerably since 2007 and most of the cases are of least significance.

4.3   Analysis of ReCAAP Inputs

In the following paragraphs, findings from the information sharing, capacity building and cooperative mechanism of ReCAAP are analysed for effectiveness in suppressing incidents of piracy and armed robbery against ships.

4.3.1   Information Sharing

The mechanism of incident reporting to ReCAAP ensures accuracy of information as the incidents are verified by the FPs. This is important to ensure correct data is collected. Bateman (2010) noted that IMB-PRC data may be inflated by ships reporting any close approach by a small craft as an 'attempted attack' and due to the lack of any follow-up mechanism to conclude whether the attack was genuine. This mechanism adopted by ReCAAP also ensures an update on the action initiated by the regulatory authorities to

deal with the offenders. However, interview with senior officer of ReCAAP-ISC revealed that amplifying reports are received but not for all the cases and there are many incidents which have still not reached a conclusive end (Senior Officer, personal communication, September 14, 2022). The strength of the mechanism is evident from the fact that most the cases since 2007 were reported to ReCAAP-ISC by the FPs and in the year 2021, it achieved a 100% reporting of incidents from FPs as shown in the Figure 13. This is also a proof of the confidence and seamless coordination between ReCAAP-ISC and FPs. As information sharing is very crucial for taking action by the enforcement agencies, it serves as the first step towards fight against the maritime crime.

Dissemination of information is also equally important as timely sharing of information leads to activation of enforcement mechanism and swift coordination of operations among the regional agencies. ReCAAP-ISC is making it useful for the maritime community by sharing accurate and useful information by analysing data, which has been very effective for seafarers as well as for enforcement agencies to focus on particular time or area (Senior Officer, personal communication, September 14, 2022). According to Hribernik (2017), ReCAAP has restricted the ability of offenders to escape by fleeing across maritime boundaries by notifying the local authorities, which then take over pursuit once attackers cross the maritime boundary. ReCAAP-ISC has been expanding the tools for information sharing and utilizes all mediums including social media, mobile app, website, international and regional forums and sharing data with IMO. Utilizing contemporary technologies for information dissemination has expanded the base for easy access and utilization of the information by interested parties and the maritime community as a whole.

Use of data analytics to examine the incidents and generate a pattern with relation to the past incidents, is the peculiarity of ReCAAP and has varied advantages for the stakeholders. Categorisation of incidents by ReCAAP presents a clear picture of the risk as noted by Bateman (2015) that the PRC's reports can paint a misleading picture of the

true threat of piracy and may lead to incorrect policy recommendations for governments. It also serves as an effective input for the enforcement agencies to pay particular attention to the specific areas, divert resources in the affected area and use them judiciously for an effective operation. Mejia (2010) underscores the vitality of data analytics in campaign against criminality and states that the accuracy and applicability of the analysis depend on how complete and trustworthy the data are. Menefee (2010) highlights the widely acknowledged phenomena of under reporting of incidents but credits ReCAAP-ISC for keeping the doors open for accepting the information from international and regional organisations including private parties, which will lead to a more authoritative and comprehensive coverage of ReCAAP. Under reporting is still there but has reduced significantly from the time ReCAAP started functioning and with useful information shared by ReCAAP-ISC and cooperation with maritime community it will further boost reporting of incidents (Senior Officer, personal communication, September 14, 2022). Looking at the current data and coverage of ReCAAP, it is evident that Professor Menefee's assessment has turned out accurate, as ReCAAP has come a long way since 2010 in achieving the seamless reporting and dissemination of information.

Issuing of warnings is a recent activity when first warning was issued on 01 May 2018 on receiving information from the Philippines FP regarding planned kidnappings by Abu Sayyaf Group. Out of total 7 warnings issued till 2021, the source of information is Philippines FP for 5 warnings and media reports were sighted as the source for remaining two warnings. Issue of warnings can be a very effective tool in alerting the seafarers for prevention of any untoward incidents.

Figure 15 shows the relation between CAT 1 and CAT 2 incidents reported and the number of Incident Alerts (IAs) / warnings issued. It is evident that ReCAAP has been prompt and active in issuing incident alerts for the serious incidents and the rise in such incidents witnessed rise in number of incident alert during that year. However, on analysing the IAs, it is found that there is a considerable time gap between the time of

incident and issuance of IA. On some occasions the IA were issued after significant delay of many days. Issuing of IAs with such time gap reduces the importance of alert, as these are time critical information, which could prevent an incident if shared on time. Therefore, there is a need to improve the mechanism to collect such time critical information and disseminate the same in a swift manner to serve its purpose in a better way. However, there are some practical issues as highlighted during the interview. Alerts are issued when the incidents numbers go too high or too frequent and warnings are issued on the advisory of state but it depends on the accuracy and timeliness of information received (Senior Officer, personal communication, September 14, 2022).

Periodic reports present the incidents and the situation of piracy to the seafarers in easy to understand pattern. The data on modus operandi, areas of concern, trend of recent incidents, status of ships when incidents occurred and the case studies are very comprehensive. The details presented in the periodic reports are accurate evaluations that aid in efficient resource allocation by authorities as well as the planning and adoption of best management practices by ship owners and Captains when transiting high-risk areas. According to Menefee (2010), ReCAAP has taken information reporting to whole new level by presenting the data that is more comprehensible and provides a better understanding of the incidents.

The information collection and sharing mechanism of ReCAAP has more relevance and reliability as highlighted above. Bateman (2011) observed that ReCAAP adopts a more useful approach in collecting its data and evaluating for significance of incidents reported.

4.3.2 Capacity Building

The consistency of efforts in organizing activities such as CBW, Focal Point Training Program, cluster meetings and SBSOM as presented in the Figure 16 is testimony to the focus of ReCAAP in building a strong bond with FPs and developing their capacities for

smooth discharge of functions. Capacity building measures by ReCAAP has ensured greater operational ties between the FPs and there is a more prompt information sharing as a result. Continued efforts have resulted in 100 % reporting of cases by the FPs in 2021, which is a testimony of the competence and effectives of FPs in collecting, verifying and reporting of incidents. This also highlights the building of trust and cooperation between shipping industry and the FPs. According to Mejia (2010), ReCAAP continues to serve as a forum for sharing information and best practices and it provides a useful facility for strengthening Capacity Building of the member states.

However, on analysing the timeliness of the IRs presented in the Figure 7, it is found that more than half of the IRs are still reported after a considerable delay. Therefore, need is to further develop the capacities of FPs in timely reporting of IRs. Time is of immense essence in information sharing and improving the timeliness of IRs will go a long way in ensuring swift information exchange, alerting seafarers transiting through that area and reflect upon strengthened network between FPs and ReCAAP.

One way of further improving the working of FPs in timely reporting of incidents may be to include the issues that are hampering early reporting during the FPTP and cluster meetings. However, the issues may be peculiar to different countries and their administrative setup, this does not bar the sharing of best practices and mechanism adopted by certain FPs, which have a good record of timeliness. This will further boost the communication among FPs and there are high chances of adoption of effective means in improving timeliness of IRs.

Overall, the initiatives by ReCAAP have yielded results and have been instrumental in achieving the aim of strengthening the FPs for playing their role effectively. Introduction of new initiative over the years by ReCAAP to further boost the capability of FPs is indicative of the focus and importance accorded to capacity building for achieving the designed outcome. It is also indicative of capacity building mechanism evolving over the years and it is likely to witness other new initiatives in the coming years.

The decision by ReCAAP-ISC to continue virtual lectures as an efficient way of sharing knowledge even after resumption of physical gatherings is also a proof of further evolving mechanism. Use of more technological advanced tools for imparting training and building capacity of FPs will prove to be more productive.

4.3.3   Cooperative Arrangements

Commensurate to its objectives, ReCAAP-ISC has engaged all stakeholders who share its interest in combating piracy and armed robbery against ships in Asia. According to Forster (2016), engaging a broad spectrum of players raises international awareness and promotes a collective effort among stakeholders. Numerous cooperative arrangements and activities, as discussed in the chapter 3, have enhanced ReCAAP's research capability by sharing expertise and exchange of ideas. An early accomplishment of ReCCAP has been signing of Agreement of Cooperation with IMO on 04 December 2007, which has granted it consultative status at IMO.

Building links with these stakeholders have helped ReCAAP-ISC disseminate information and situation of piracy in Asia to a wider audience who are inclined to work along ReCAAP to suppress this maritime crime. This has also resulted in close cooperation for capacity building by way of imparting lectures to FPs and conduct of workshops and dialogues on the persisting issues faced by the maritime fraternity at large while traversing through Asian waters. Hribernik (2017) lauds the ReCAAP's crucial role in promoting cooperation and strengthening trust in a region punctured with territorial disputes and overlapping exclusive economic zones.

Although Malaysia and Indonesia are not contracting parties to the agreement, cooperative initiatives and a special focus on these two countries have witnessed positive results in terms of enhanced operational cooperation. Also, representatives from Malaysia and Singapore have regularly been attending capacity building activities as well as seminar and conferences organised by ReCAAP-ISC. These efforts are also aimed at

pursuing both the countries to become party to agreement but as it is a political issue and both the states have their own concerns, a positive outcome is not guaranteed (ReCAAP-ISC, 2021a). However, ReCAAP has succeeded in developing trust and a good relation with both countries, which has furthered their operational level coordination. According to Amri (2014), cooperation and coordination improves mutual trust and confidence building, which may lead to comprehensive cooperation in the future.

ReCAAP's persisted cooperative push has also helped increase its membership to 21 Contracting parties and the latest was Germany acceding to the agreement on 01 August 21. Mejia (2010) highlighted the inclusive nature of ReCAAP, which welcomes membership applications from any country, even from outside of Asia. Albeit, it remains a point to ponder, how countries outside Asia can effectively contribute and amalgamate into the area specific functions of ReCAAP. Nonetheless, expansion of membership underscores the growing importance, trust and relevance of ReCAAP in the international maritime community. Interview with senior officer of ReCAAP-ISC revealed that countries outside Asia bring a lot of experience and wealth of knowledge, which can be utilised by all other CPs for further improving the situation. In addition, these CPs help to make the communication faster and more transparent thereby enhances the accuracy and timeliness of the incident reports (Senior Officer, personal communication, September 14, 2022). According to Seta (2019), cooperation with non-Asian CPs would lead to more effective action against piracy due to their power and they would also provide basis of evidence for establishing customary international law.

Cooperation with multilateral and international organisations as discussed in chapter three have broadened the scope of coordination and shared responsibility to act against piracy and armed robbery. It has also helped ReCAAP strengthen its capacity building program by utilizing the expertise of these institutions and mainly the academia for imparting lectures to ReCAAP-ISC officials as well as FPs. Cooperation with Interpol is also very significant for arrest of international criminal involved in piracy in the region.

According to Forster (2016), Interpol formed a Global Piracy Monitoring Database in 2011, to support identifying and arresting "High-Value" targets such as pirate leaders and financiers. During the period from 2011 to 2014, when cases of oil siphoning were on peak, ReCAAP worked with Interpol and resulted in apprehension of the perpetrators (Senior Officer, personal communication, September 14, 2022).

4.4   Analysing External Factors – Regional and Sub-regional Cooperation

The problem of piracy is complex and it is very difficult to address this with single approach or a single entity. The regional and sub-regional cooperation as discussed in chapter 3 have also played a role in terms of mutual coordination, deployment of assets for patrol, sharing of information and collaboration for effective mechanism to ensure safe passage of ships through Asian waters. It is difficult to measure or quantify the contribution of these factors in addressing the issues of piracy and armed robbery. However, this cooperation have also not yielded very positive results as Bateman (2011) describes ARF as disappointing in its ability to tackle the critical regional security issues, including circumventing the South China Sea problem and maritime sovereignty issues in the region. Further, all organisations working towards reducing the incidents, credit themselves for the outcome and would undermine the efforts of any other organisation dedicated for the same cause.

Baird (2012) highlights this issue by presenting a statement submitted by Malaysia in the United Nations General Assembly on 14 May 2010 and the statement reads –

It was not ReCAAP's activities, which resulted in the decline of piracy and armed robbery in the Straits of Malacca but the excellent cooperation and political will of the straits' littoral states, which managed to, ensure that armed robbery against ships practically became a thing of the past.

Hribernik (2017) analysis the case of Malacca Strait Patrol (MSP) and concludes that despite incidents declined in the Malacca Strait, the limitation of patrols to a fairly narrow and well-defined geographic area had no enduring effect on overall piracy in Southeast Asia, which continued to rise in the following decade. ARF primarily continues to serve as a platform for regional security conversations including confidence building and it also turns to restricted desktop exercises that focus mostly on disaster assistance for practical security cooperation (Haacke, 2009). Despite numerous initiatives by ASEAN, there is a minimal effort in terms of use of naval force for coordinated patrol or joint action against the attacks. According to Wang & Tao (2018), the key to preventing pirate attacks is to remain vigilant and take appropriate precautions as early detection of pirates reduces the chances of a successful attack.

4.5   Testing Findings with Theory of Change

Findings of the research are tested against the Theory of Change to check the expected outcomes and results and presented in Figure 17.

Figure 17. Theory of Change versus Findings
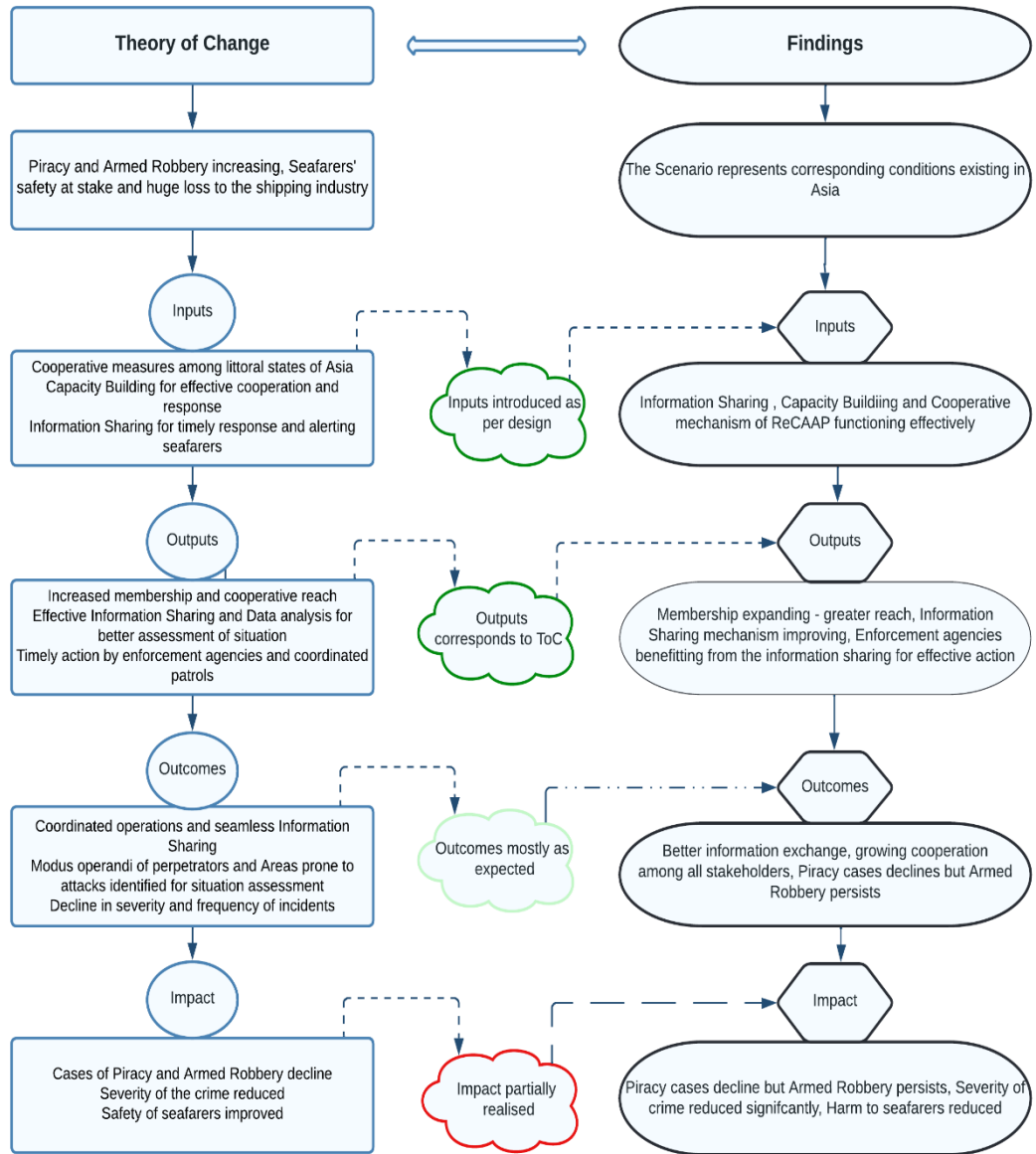
Note: Made by Author

Comparison of the findings with the formulated theory of change brings out the difference between the designed parameters and what ReCAAP has achieved during these years. It is found that the inputs and outputs meets the expectations as per their design. ReCAAP has successfully introduced the designed inputs like capacity building, cooperation and information sharing. The immediate outputs are also visible by the increase in the membership of ReCAAP, accurate and timely information sharing which has been very useful for the seafarers and the enforcement agencies. Outcomes of the findings also almost match the desired results, as there is less severe cases, better coordination and expanding network for information sharing. However, the impact of the intervention has fallen short in achieving its designed objectives. Severity of the crime has reduced and there were no cases of piracy reported since 2021. The cases of armed robbery are still prevalent but are of least significance. Review of the efforts and initiatives is required to effectively supress armed robbery cases to achieve the desired impact.

4.6   Conclusion

In this chapter, author analysed the total number of incidents reported and correlated the data from IMO, IMB-PRC and ReCAAP-ISC to assess the present situation of piracy and armed robbery in Asia and to find out how the situation has changed over the years. Further, the three key inputs by ReCAAP namely information sharing, capacity building and cooperation were analysed for their role in addressing piracy and armed robbery. Other regional and sub-regional efforts were analysed for ascertaining the role played by these initiatives to curb the incidents of piracy and armed robbery in Asia. Lastly, the findings were tested against the Theory of Change.

Chapter 5: Discussion and Conclusion

5.1   Introduction

This chapter provides a review of the study by highlighting its main elements and provide recommendations for future study on this research topic.

5.2   Summary

The main purpose of this study was to assess the impact of ReCAAP initiatives and activities on the persisting acts of piracy and armed robbery in Asia, which have long been a threat to the seafarers. The endeavour was to carry out an impact evaluation in confines of public policy studies and find out whether the policy designed to suppress piracy and armed robbery has actually made a noticeable impact on ground. Actual real-world evaluation involves far more complex and in-depth assessment of the policy elements, which is not feasible in an academic setting of limited duration. To progress with the aim of impact evaluation, objectives of the study were identified and the research questions formulated in accordance with the typical policy evaluation demands.

As this is an academic study to evaluate the policy, evaluation technique and type of evaluation was selected which would suit the assessment and bring out the desired results. Theory based impact evaluation was selected on the merits of case and a Theory of Change was formulated accordingly to undertake impact evaluation. The mixed method approach was selected to undertake research, by analysing the data available on activities undertaken by ReCAAP and the chain of change initiated by these activities to achieve the designed objectives of the policy.

To measure impact, it is necessary to study the conditions and situation at the time when policy was introduced and then compare with the contemporary situation and conditions to witness the change brought in by the effectiveness of policy. Therefore,

situation of piracy and armed robbery existing at the time of ReCAAP coming into force and the trend until 2021 was analysed. To corroborate the statistics of ReCAAP-ISC reports, data of IMO and IMB-PRC was also compared and a comparative analysis of the three statistics was undertaken. ReCAAP introduced three main inputs i.e. information sharing, capacity building and cooperation. The activities and initiatives progressed by ReCAAP to promote these vital inputs were analysed from the records available in the reports published by ReCAAP-ISC. The effect of these activities was studied in terms of policy analysis by looking at the immediate outputs, outcomes generated after a significant period of activities and finally, the conclusive affect in terms of impact it created.

The findings from the activities initiated by ReCAAP were analysed for their impact and tested against the theory of change to compare the results, according to the steps of theory. Other initiatives and regional cooperation efforts were also analysed to assess the contribution of other factors at play to counter piracy in Asia.

5.3 Recommendations

This study is undertaken by content analysis of the existing data from the ReCAAP-ISC reports on piracy and armed robbery in Asia. The results of this study are more debatable as finding strong evidence to link the cause and effect of intervention are limited without assessing counterfactuals. As this is an ex-post evaluation, the options to find counterfactuals was limited. The impact evaluation can be further effective with assertive results, if undertaken considering the counterfactuals i.e. by testing the effects between a scenario where the policy is applied and other context where this policy is not applied. For example, if we choose a similar scenario, as prevailing in other regions of the world (such as the Caribbean and Latin America), where such intervention is not applied and compare it to the results we have post implementation of ReCAAP. This generates appreciable difference between the two scenarios, which can be linked to the causal chain to establish the effectiveness and impact of the policy. Therefore, a further study on the subject considering the counterfactual may be undertaken for better results of the impact

evaluation exercise. Further, a study might also be conducted comparing ReCAAP with other organised regional efforts such as the Djibouti Code of Conduct and the Yaoundé Code of Conduct.

Policy analysis yields positive results if the organisation implementing the concerned policy is involved in the design of evaluation, provides its expectations and supports analysis by providing resources and information needed to undertake assessment. Involvement of all stakeholders is also important. In the present case, view of the ReCAAP contracting parties, seafarers, shipping industry and other organisations supportive of the objective of policy needs to be taken into consideration. In further research, focus group on all stakeholders may be formed for their opinion and experience with the policy, which may be undertaken by interviews or a suitable alternative for incorporating in the evaluation findings.

5.4   Conclusion

Piracy and armed robbery in Asia is not only a threat to shipping in mere economic sense; it is a grave threat to the safety of the seafarers. Over the years, numerous seafarers have suffered physical and mental abuse by this maritime crime, which is also percolated down to the families of these seafarers increasing the trauma and misery manifold. It is a transnational crime and involves very complex mix of many factors like weak political structure, poor economic conditions and depletion of fishery resources among other, which provides time and space for the pirates to prosper and unleash their evil designs. A multi-sectoral approach aimed at addressing the complex factors needs to be undertaken to reduce and eliminate the problem. Regional cooperation is one of the many important step, which could make a difference in the fight against piracy.

On the same lines, ReCAAP was designed to enhance cooperation, information sharing and capacity building of the littorals in Asia to act against this menace. ReCAAP has completed 16 years in existence on 04 September 2022 and has been growing

influence and an authoritative voice against the long prevailing threat of piracy and armed robbery in the region. Efforts of ReCAAP are widely acknowledged and recognized by all shipping industry, international and regional forums and the academia. Even so, the model has also been applied in Africa for counter piracy efforts and ReCAAP-ISC has been contributing for training and capacity building of the three ISCs established under DCoC.

However, the question, whether the desired objective of suppressing piracy has been achieved or not needs to be answered. For this purpose, impact evaluation of the ReCAAP was carried out by author to assess the impact it has made to counter piracy in Asia. Analysis of the contemporary situation and level of cooperation, information exchange and capacity building of the contracting parties was undertaken during the research. It is assessed that the designed model for strengthening cooperation, capacity building and information sharing is working successfully and have achieved laudable milestones. This is possible with the evolving nature of ISC's efforts and embracing of technology to analyse data and timely dissemination of information.

Cases of Piracy in Asia have drastically reduced after 2016 reaching zero in 2021 but the incidents of armed robbery are still alarmingly high. Further, there is no surety if the cases of piracy will not rise again on change of certain factors as the period 2007 to 2021 has witnessed ups and downs in piracy cases, which are attributed to many factors by scholars. However, now the severity of the cases is very low and most of the cases are of petty thefts and of least significance as per ReCAAP categorisation.

Efforts by ISC continues to grow which is evident from many new activities initiated including the starting of phase 2 of data analysis project. It is the right occasion to assess the impact of all the efforts and resources put in for suppressing piracy and armed robbery in Asia so that the organisation may be further strengthened to achieve its objective.

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