



ANNUAL REPORT 2020

**INFORMATION FUSION CENTRE
INDIAN OCEAN REGION**



DISCLAIMER

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OUR VISION

To be a Nodal Centre of excellence for promoting collaborative Maritime Safety and Security towards a peaceful, stable and prosperous Indian Ocean Region.



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OUR MISSION



TO ADVANCE MARITIME SAFETY AND SECURITY IN THE INDIAN OCEAN REGION BY ENHANCING MARITIME DOMAIN AWARENESS AND COORDINATING ACTIVITIES, THROUGH INFORMATION SHARING, COOPERATION AND EXPERTISE DEVELOPMENT; ALONG WITH PARTNER NATIONS AND AGENCIES.

MESSAGE FROM DIRECTOR

"THE IOR IS SO VAST AND THE CHALLENGES IN THE REGION SO MULTIFARIOUS, THAT OUR MANTRA, 'COLLABORATION FOR SAFETY AND SECURITY' IS NOT JUST DESIRABLE, BUT AN IMPERATIVE."

CAPT SOUMYAJIT MOHANTY

INFORMATION SHARING FOR SECURE SEAS

The seas know no boundaries. Since millennia, oceans have brought people from afar, together. The element that covers 70% of the earth's surface has been a stoic spectator through centuries of civilisational changes. But it is only in recent times that the pattern of life at sea has seen substantial as well as fundamental changes, leading inevitably to maritime safety and security challenges. Since the seas know no boundaries, it is imperative that countries come together and address these challenges in a joint, coherent and comprehensive manner. Our nascent Fusion Centre aims to be a significant partner for these efforts in the Indian Ocean Region.

The IFC-IOR stems from the importance of the Indian Ocean to world trade

and security, and the need for various maritime nations and organisations to collaborate towards enhancing maritime safety and security on the seas of this region. In addition to utilising the collective wisdom and resources towards addressing myriad challenges in the region, IFC-IOR helps interface and integrate, wherein all partners and stakeholders can benefit from each other's best practices and expertise. The setting up of IFC-IOR underscores the governmental approach and effort in line with the vision of Security and Growth for All in the Region (SAGAR).

New endeavours are always challenging and exciting in equal measures. Over its existence of just over two years, IFC-IOR has made tangible progress by collaborating

with like-minded partners. In the process, we have remained humble and always maintained that there is much left to learn. Therefore, IFC-IOR is a platform where not just countries, but also multi-national constructs – who share common definitions of the various maritime security challenges – can combine their efforts and strive to make the IOR a peaceful region.

As maritime security or safety incident affects multiple nations and agencies, it can also be effectively addressed only by collaborative participation of multiple nations and agencies. The IOR is so vast and the challenges in the region so multifarious, that our mantra, 'Collaboration for Safety and Security' is not just desirable, but an imperative. We already have ILOs from Australia, France, Japan and USA at the Centre and many more are scheduled to join this year.

The Centre has been publishing a Monthly Maritime Security Update (MMSU) that provides an overview of the maritime security situation in the IOR with focus on certain overarching issues from even beyond these waters. After only two years since its establishment, it gives me immense pride to present IFC-IOR's 'coming of age' product. As a maiden undertaking, the Annual Report of 2020 is an endeavour by our small yet dedicated team (including the International Liaison Officers) to give a comprehensive maritime security scan of the Indian Ocean Region for the past year.

FROM THE EDITOR'S DESK

Cdr Deepak Lavaniya

Deputy Director

MARE LIBERUM

Freedom of the Seas, as propounded by Hugo Grotius in 1609 is the timeless doctrine according to which the high seas are global commons and all nations are free to use it for seafaring trade. This doctrine is also codified in Article 87 of the UNCLOS. Although oceans cover more than two-thirds of the earth's surface, they never needed the scale of law enforcement and monitoring mechanism required on land, being the territory chartered only by a few. However, as the exploitation of oceans has increased with the growing demands of mankind, the free seas have become a preferred option for nefarious elements to undertake illegal activities. High seas crimes are becoming increasingly sophisticated and challenging to detect, as the vastness and ubiquitousness of the sea limit comprehensive monitoring of activities by law enforcement agencies. Further, nefarious elements utilise the veil of legitimate identities for illegitimate activities with the availability of low-cost technologies and continuously evolve their modus operandi to exploit monitoring gaps at sea. In the year 2020, MARSEC incidents have seen a rise as compared to previous years as a normal year-on-year trend. This was further exacerbated due to the COVID-19 pandemic effects viz. closure of air travel, land routes and increased economic hardships.

Team IFC-IOR since its inception in December 2018, has been working relentlessly towards promoting collaborative Maritime Safety and Security for a peaceful, stable and prosperous Indian Ocean Region. The Centre utilises cutting-edge technologies powered by motivated men and women behind the machine and brings out the sense in apparently random incidents. In addition to capturing and validating the maritime safety and

security incidents, the Centre undertakes a comprehensive analysis to understand trends and emerging threats towards ensuring the safety of mariners and seafarers. Towards this earnest attempt, this maiden annual report of IFC-IOR brings out the patterns and trends of MARSEC incidents in 2020.

To undertake a focused in-depth study of various MARSEC incidents, the Centre formed small teams or 'clusters' with a mix of International Liaison Officers, Analysts, Operations Officers and Sailors. In addition to sections on Piracy & Armed Robbery, Contraband Smuggling, IUU Fishing, Irregular Human Migration and Maritime Incidents, the report also briefly introduces emerging MARSEC threats such as Hybrid Threats, Cyber Threats and Marine Environment Pollution.

Each section of the report elucidates a detailed analysis of particular MARSEC incidents and brings out the month-wise breakdown, regional distribution, seasonal variations and examines MARSEC incidents from different perspectives to present a comprehensive understanding of the incidents in the maritime domain in the last year. We have also collated the proactive measures initiated or planned at the global, regional and national levels to combat various MARSEC threats. Further, the listing of incidents has been purposefully avoided to keep the report concise. The complete list of incidents is available to our readers in the Monthly Maritime Security Updates (MMSUs), published by the Centre.

This report has been made without technical jargon, for ease of understanding sans any prerequisite knowledge of the maritime domain. I am sure you will enjoy reading it, as much as we enjoyed creating it.

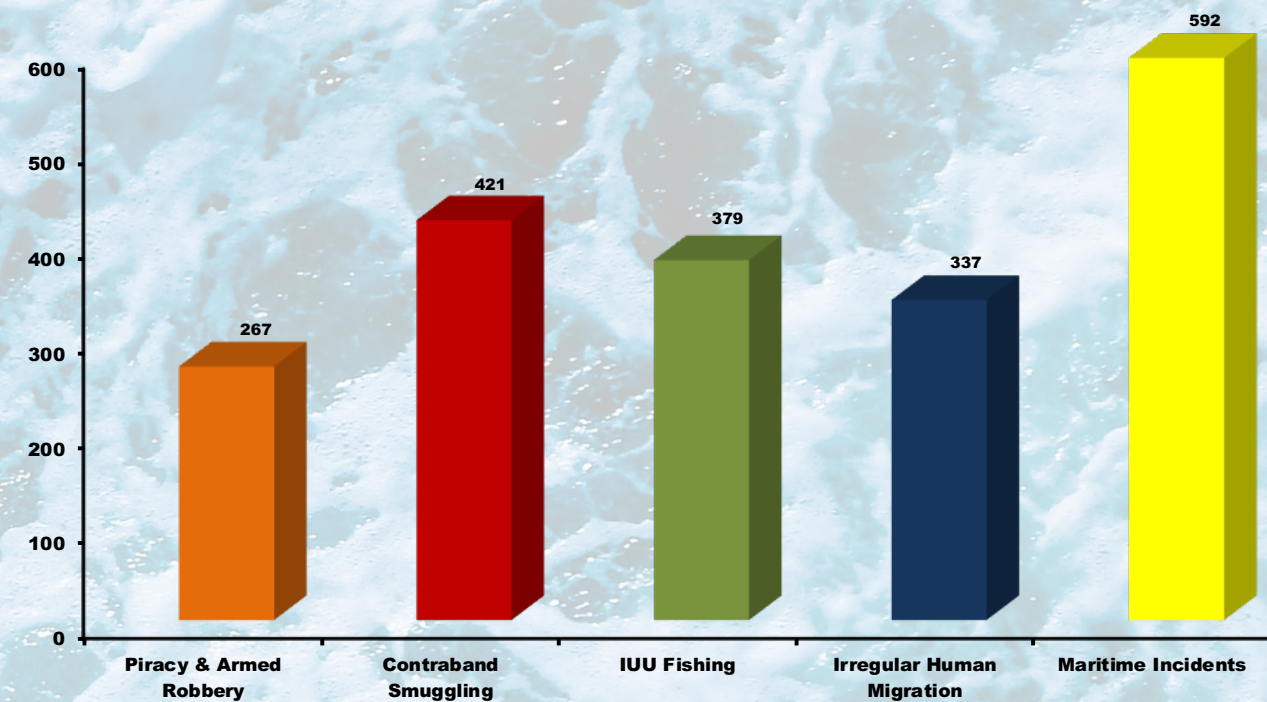
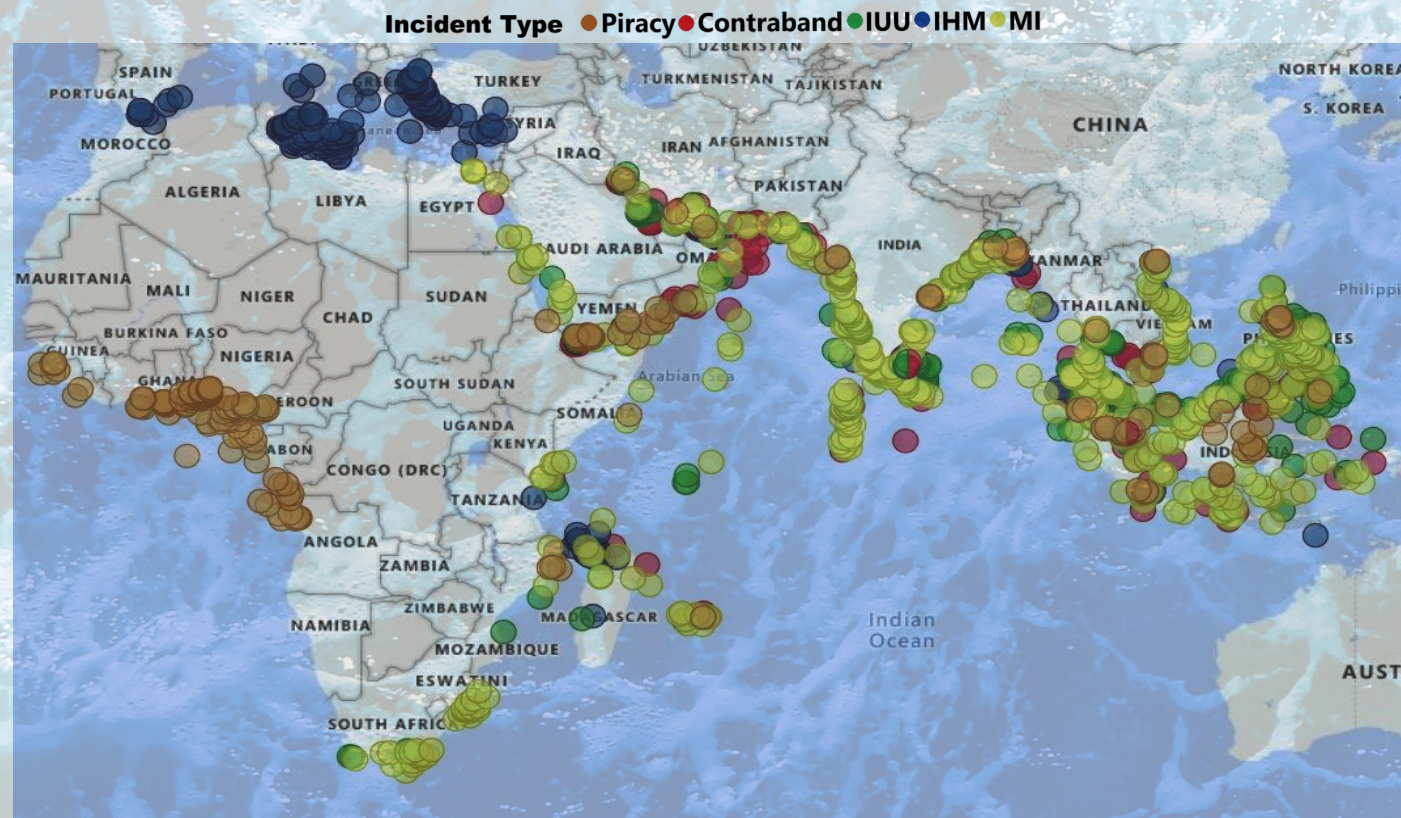
Happy Reading...

"TEAM IFC-IOR, SINCE ITS INCEPTION HAS BEEN WORKING RELENTLESSLY TOWARDS PROMOTING COLLABORATIVE MARITIME SAFETY AND SECURITY FOR A PEACEFUL, STABLE AND PROSPEROUS INDIAN OCEAN REGION."



EXECUTIVE SUMMARY

EXECUTIVE SUMMARY



In the year 2020, the Centre monitored 1998 incidents pertaining to various maritime security challenges. These incidents have been assigned under various categories viz. Piracy & Armed Robbery, Contraband Smuggling, Illegal Unreported Unregulated (IUU) Fishing, Irregular Human Migration (IHM) and Maritime Incidents. These categories form the various sections of this annual report.

After an overview, the incidents in each section are broken down under various sub-categories, such as 'by month', 'by region' etc. This data is also presented graphically. It was observed that,

as the year progressed, there was an increase in the monthly count of incidents. While this may be attributed to resumption of normal pattern of life after a nearly global lockdown because of COVID-19, other factors may well have played a part, such as proactive reporting by authorities and gradual and continuous improvement of this (young) Centre's data monitoring ability.

A brief summary of various maritime security challenges has been elucidated in the succeeding paragraphs, with detailed analysis being included in the respective sections of the report.

PIRACY & ARMED ROBBERY

In the year 2020, the Centre monitored 267 incidents of Piracy and Armed Robbery (including attempted incidents). This included 188 successful boarding onboard vessels and 79 failed attempts by perpetrators.

Almost half of these incidents (about 49%) were recorded in and around the waters of Gulf of Guinea, leading to the region being assessed as the global piracy hotspot for 2020. The Straits of Malacca and Singapore (SOMS) were assessed as the hotspot in Asia.

GULF OF GUINEA WAS 2020'S GLOBAL PIRACY HOTSPOT AND ACCOUNTED FOR ABOUT HALF THE INCIDENTS WORLDWIDE

40% of the reported incidents involved carriage of weapons by the perpetrators, with firearms being widely used in Gulf of Guinea, and knives in South East Asia.

All the three incidents of hijackings recorded by the Centre were reported in Gulf of Guinea. A major concern was the kidnapping of 140 seafarers, in 26 separate incidents, in the Gulf of Guinea. Fortunately, as per data available, 126 of these seafarers have been safely released from captivity (at the time of publishing). Further, the three fishermen from Fishing Vessel Siraj held hostage by Somali pirates since March 2015, returned home after being held in captivity for more than half a decade.

As the year progressed, the attacks in the Gulf of Guinea were observed to shift further away from coast. While this may indicate better near-coast surveillance by coastal states, it also alludes to better training, sustenance, and organisation among the Pirate Action Groups (PAGs). This, in itself, is dangerous, considering the limited capabilities of several coastal states.

The publication of Best Management Practices West Africa (BMP WA) by the industry, first trial under Suppression of Piracy and Other Maritime Offences (SPOMO) Act in Nigeria, proactive efforts of Nigerian Maritime Administration and Safety Agency (NIMASA) and the expansion of Gulf of Guinea listed area by the Joint War Committee (JWC) are the major positive initiatives in the region.

2020 was also a year without any hijacking or major incident in Gulf of Aden, the primary piracy hotspot in the first decade of the century. By and large, incidents in Asia over the last year may be categorised as petty thefts.

In addition to the threat of piracy & armed robbery, the Centre monitored the emergence of certain hybrid threats which have the potential to have a (negative) disruptive impact on the safety of seafarers. The use of traditional means like mines and newer ones like Water Borne IEDs (WBIEDs) and Remote Controlled Water Borne IEDs (RC-WBIEDs) are broadly a fallout of regional conflicts in parts of IOR. These pose a challenge to the safety of seafarers as the IOR is a region of intense mercantile traffic and maritime activities.

CONTRABAND SMUGGLING

The Centre monitored 421 incidents that could be classified under contraband smuggling. The monthly average of reported incidents was observed to be higher in the second half of the year. 222 of the reported incidents involved seizure of various types of drugs, as 2020 witnessed some of the largest seizures of methamphetamine and ketamine in recent years. COVID-19 pandemic is assessed to have had a major impact on the flow of drugs, and in some cases led to changes in the modus operandi of the traffickers. The governing factors in this regard were reduced air travel, shift in maritime transportation routes and methods, increased unemployment across multiple sectors, impact on personal consumption habits and enhanced enforcement by authorities in the region. Major drug seizures included large shipments of cannabinoids, Amphetamine Type Substances (ATS) such as methamphetamine, and opioids such as heroin. The Centre observed that small vessels (including fishing vessels) and shipping containers were the most preferred modes of shipment of contraband by traffickers. An increase in seizure of methamphetamine, possibly due to increased production in the region (likely due to accidental discovery of ephedra plant) remains a major concern and

requires close monitoring in the coming months. In addition to drugs, seizures of banned fauna, tobacco products, natural resources and some domestic products, alongwith illegal fuel transfers were also observed.

IUU FISHING

The Centre monitored 379 reported incidents of Illegal, Unreported and Unregulated (IUU) Fishing with majority of the incidents monitored between June to November. About 65% of the reported incidents were local IUU fishing, with a majority of these reported in South Asia. 70% of the poaching incidents were recorded in South East Asia and majority of the reported incidents were monitored in the waters of Indonesia and Malaysia. The rise in incidents from June could be because of fishermen venturing out to sea even during rough weather conditions, to compensate for the loss of income incurred during the lock-down in the first half of the year. The interdiction of foreign fishing trawlers by authorities across the region was possibly due to robust surveillance, timely information sharing, coordinated patrols and dedicated focus on the issue of poaching.

IRREGULAR HUMAN MIGRATION

The Centre monitored 337 attempted/ successful irregular migrant crossings during the year, which involved 19217 migrants – amounting to an average of about 1600 migrants per month. The incidents reported in the first seven months (Jan – Jul) were lower than the monthly average for 2020 and markedly low numbers were observed in March, May and June 2020. This drop is attributed to closure of land and sea borders across the region and enhanced enforcement at the known crossing points to prevent spread of COVID-19 pandemic. Majority of the overall incidents were recorded across the waters of Mediterranean. Crossings off Mayotte accounted for a large share of IHM in South West Indian Ocean Region. The continued presence and movement of small and overcrowded boats, even in

unfavourable sea conditions, highlight the economic difficulties and the willingness of the migrants to risk their lives in search of better livelihood. It also highlights the prevalence of organised smuggling/ trafficking gangs, who may not be concerned about the safety of human life.

MARITIME INCIDENTS

The Centre monitored 592 incidents that could be classified as maritime incidents. The monthly average of reported incidents was observed to be higher in the second half of the year. More than 37% of the incidents involved Search and Rescue (SAR) operations and medical evacuations (MEDEVAC) of affected seafarers. About 22% of the incidents involved vessels capsizing or sinking at sea and another 20% involved collisions at sea. While there was no discernible seasonal pattern/ variation for the overall incidents, certain categories of incidents (grounding/ capsizing/ sinking) were predominantly observed during the monsoon season. The year also witnessed some major incidents of fire/ explosion and, notably, the grounding of MV Wakashio which subsequently led to an oil spill and caught global attention.

**COVID-19
PANDEMIC HAD A
MAJOR IMPACT
ON THE MODUS
OPERANDI OF DRUG
TRAFFICKERS**

IOR TRAFFIC ANALYSIS

The Indian Ocean Region remained the hub of global trade traffic in 2020. At the beginning of the year, the news of COVID-19 broke. However, it started manifesting itself in the maritime environment only a couple of months later. While the traffic in the major shipping lanes itself did not seem to have any appreciable effect, port operations and turnaround times were affected due to local rules such as quarantine anchorage etc. A paper on this effect, titled 'Effect of COVID on Shipping in IOR' was also published by the Centre and is hosted on the IFC-IOR website. Presently, while there is no discernible or any residual effect of COVID on either shipping or port operations in the region, the welfare of seafarers continues to remain a larger concern. There are several seafarers who have been stranded on vessels at anchorages/ports, there are also many who have been at sea for several months (some without valid contracts) without a clear timeline for change around.

As an annual summary, on an average 36830 vessels were observed transmitting on AIS in IOR per month in 2020. The Centre monitored nearly 145,000 vessels operating in the IOR during the year with many vessels undertaking multiple trips across the waters of Indian Ocean. These vessels also include large number of fishing vessels that traversed through the waters of IOR. The average

number of vessels observed in IOR per day was about 13000 – 15000 in 2020. On an average 5300 vessels transited through Malacca, 1800 through Gulf of Aden and 2100 through Strait of Hormuz per month in 2020.

The numbers only serve to depict the importance of free seas and the key role played by seafarers in maintaining smooth and uninterrupted flow of global trade. It is incumbent upon Maritime Centres and agencies to ensure the seas remain safe; hence, IFC-IOR is constantly engaged with partners to ensure safety and security of the seafaring community.

**145,000 VESSELS
OPERATED IN
INDIAN OCEAN
REGION IN 2020
WITH A DAILY
AVERAGE OF
13,000 TO 15,000**



PIRACY AND ARMED ROBBERY

PIRACY AND ARMED ROBBERY

GLOSSARY OF TERMS USED

Piracy. Article 101 of the UNCLOS defines piracy as 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 onboard 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).

Armed Robbery. In accordance with the Code of Practice for the Investigation of Crimes of Piracy and Armed Robbery against Ships of the International Maritime Organisation (IMO) Assembly Resolution A.1025(26), armed robbery is defined as:-

- (a) Any illegal act of violence or detention, or any act of depredation, or threat thereof, other than an act of "Piracy", committed for private ends and directed against a ship, or against persons or property onboard such ship, within a State's internal waters, archipelagic waters and territorial sea.
- (b) Any act of inciting or of intentionally facilitating an act described above.

Hijack. An illegal act of violence where attackers have illegally boarded and taken control of a ship against the crew's will with an objective which could include armed robbery, cargo theft or kidnapping.

Kidnap. An illegal act of violence involving unauthorised forcible removal of persons belonging to the vessel.

Attack. An act of violence, where a ship has been subjected to an aggressive approach by an unidentified craft AND weapons have been discharged.

Illegal Boarding. An act of violence, where attackers have boarded a ship but HAVE NOT taken control. Command remains with the Master.

Sea Theft. Any illegal act of stealing property from a vessel without any violence against the crew or passengers, other than an act of piracy and directed against a ship or property onboard a ship.

Sea Robbery. Any illegal act of stealing property from a vessel committed with arms or with violence against the crew or passengers, other than an act of piracy and directed against a ship or property onboard a ship.

Suspicious Approach. An action involving definite alteration towards the ship, rapid increase in speed which cannot be accounted for in the prevailing conditions, sudden changes in course towards ship and aggressive behavior by the craft.

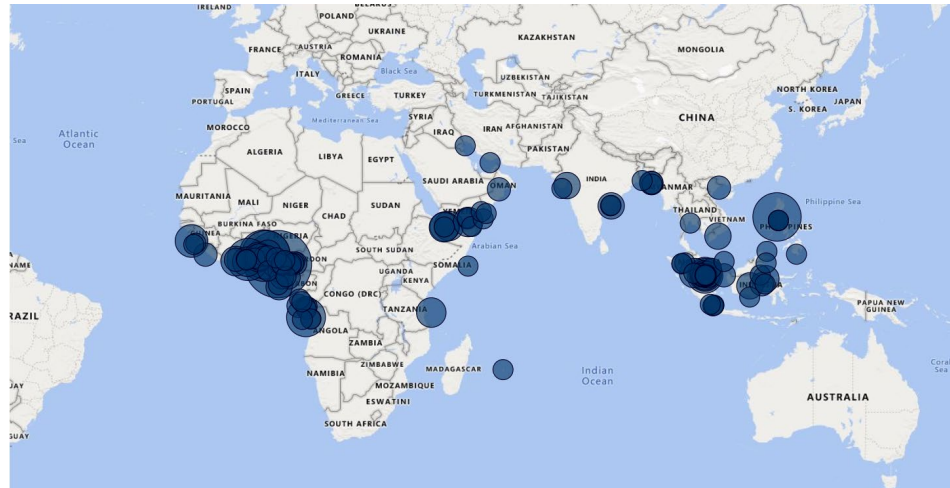
Attempted Sea Theft. Any attempt to steal property from a vessel without any violence against the crew or passengers, other than an act of piracy and directed against a ship or property onboard a ship. Nothing reported to be stolen from the vessel.

Attempted Sea Robbery. Any attempt to steal property from a vessel committed with arms or with violence against the crew or passengers, other than an act of piracy and directed against a ship or property onboard a ship. Nothing reported to be stolen from the vessel.

Attempted Boarding. An action involving close approach or hull-to-hull contact with report that boarding paraphernalia were employed or visible in the approaching boat, but are thwarted by BMP measures, PAST, weather conditions, lack of appropriate equipment, etc.



OVERVIEW



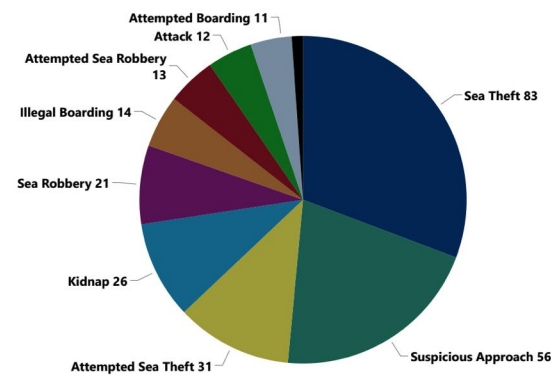
In the year 2020, the Centre monitored 267 incidents of Piracy and Armed Robbery (including attempted incidents).

The incidents have been categorised as Hijacking, Kidnapping, Illegal Boarding, Attack, Sea Robbery, Sea Theft, Attempted Incidents (Robbery, Theft, and Boarding) and Suspicious Approach based on their nature and as per the definitions being followed at the Centre.

The incidents have also being grouped under five regions towards undertaking analysis viz., South Asia, Middle East, East Africa, Gulf of Guinea and South East Asia.

The detailed analysis along with some key events during the year has been elucidated in the succeeding paragraphs.

TYPES OF INCIDENTS



Type ● Sea Theft ● Suspicious Approach ● Attempted Sea Theft ● Kidnap ● Sea Robbery ● Illegal Boarding ● Attempted Sea Robbery ● Attack ● Attempted Boarding ● Hijack

The Centre recorded 188 incidents across the regions which involved perpetrators boarding the vessels (underway, anchored or alongside) for kidnap, robbery, theft or attempted actions.

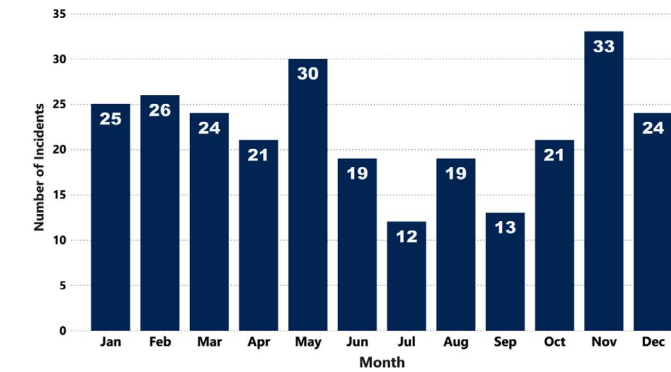
The year witnessed 79 incidents of unsuccessful attempts to attack or board a vessel. These include suspicious approaches, attempted boarding and attack on vessels. Majority of the attempts were thwarted due to proactive actions by the vessels in accordance with BMP 5 and BMP WA viz., evasive manoeuvres, and presence of armed security teams.

Nearly 40% of the incidents involved successful

theft/ robbery by the perpetrators. About 66% of the successful robberies/ thefts were recorded onboard vessels in South Asia and South East Asia.

About 16.5% of the overall incidents and 24% of the boardings included failed attempts of theft/ robbery by the perpetrators. This is attributable to crew raising alarm in a timely manner. The possibility of the perpetrators willing to leave the vessel empty handed to avoid apprehension/ arrests cannot be ruled out. Majority of these were recorded off anchorages in South East Asia and onboard vessels underway in the Straits of Malacca and Singapore.

MONTH WISE BREAKDOWN



A month wise distribution of actual and attempted incidents across the five regions is shown in the graph.

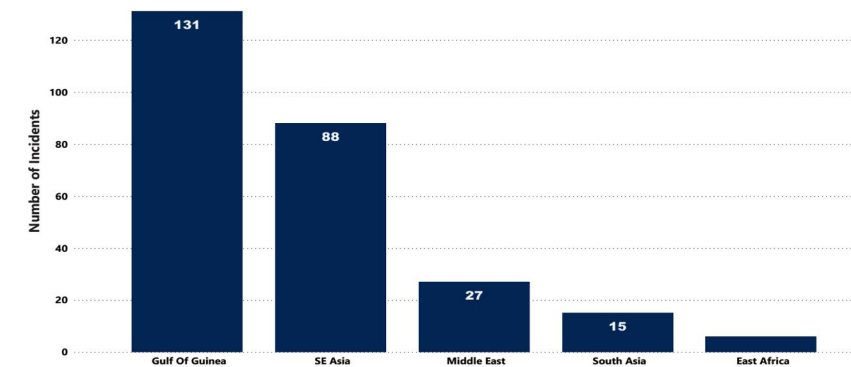
The Centre recorded an average of over 22 incidents per month during 2020. The incidents reported in six months (Jan to Mar, May, Nov, Dec) were observed to be higher than the average for 2020, which could be attributable to the favourable sea conditions during this period for small boat operations.

With just 12 incidents, the month of Jul 20 witnessed the lowest reported incidents.

The low number of incidents during Jun to Sep is primarily due to difficulty in undertaking small boat operations during the rainy season (monsoon) in Gulf of Guinea and Gulf of Aden.

The month of Nov 20 witnessed 33 reported incidents, the highest in a single month for 2020. This sharp rise is possibly due to economic hardships during the lean period (rainy season) which could have been further exacerbated by COVID-19 pandemic.

REGIONAL DISTRIBUTION



A breakdown of actual and attempted incidents across the five regions is shown in the graph. About 49% (131) of the overall incidents were recorded across the ports, anchorages and EEZ of 14 countries of Gulf of Guinea.

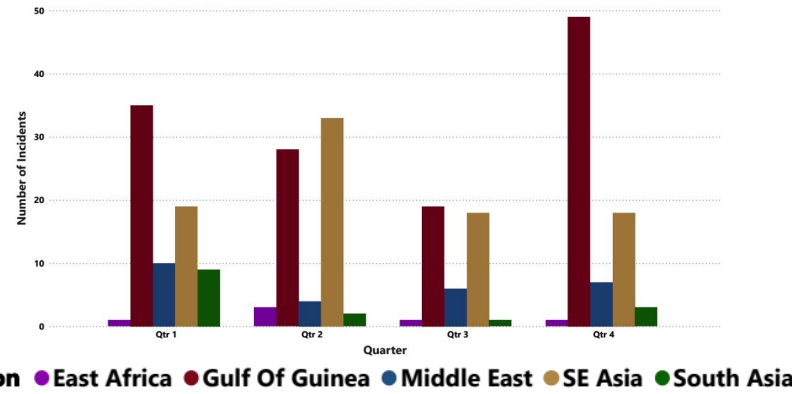
The incidents in South East Asia were reported at anchorages/ ports off Indonesia, Malaysia, Philippines, Thailand, Vietnam and vessels underway in the Straits of Malacca and Singapore. Incidents of suspicious approach and attack were recorded in Gulf of Aden. Additionally, one

each incident of sea theft and suspicious approach were reported off Iraq and Iran respectively.

The waters of Arabian Sea and Bay Bengal witnessed 15 incidents of actual and attempted sea robbery/ theft. These were reported at ports/ anchorages in Bangladesh and India.

The reported incidents along East Africa included theft/ robbery off Mauritius and Mozambique and a suspicious approach on the East coast of Somalia.

SEASONAL VARIATION



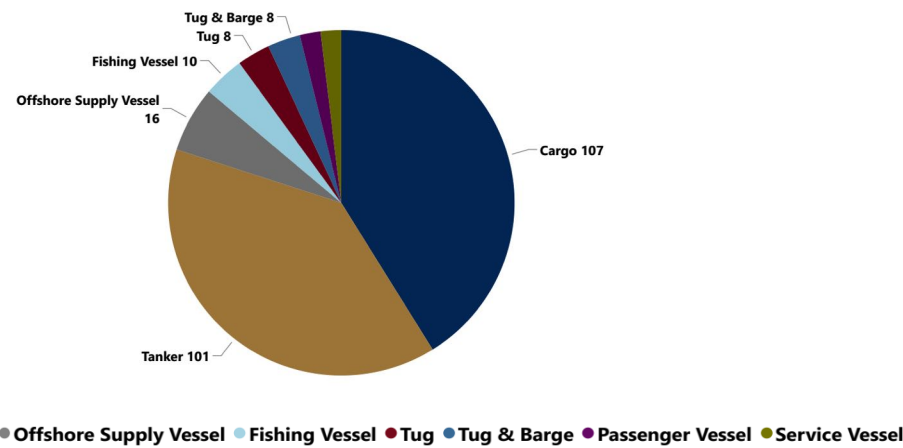
A quarterly comparison of actual and attempted incidents across the five regions was undertaken to study the variation of the incidents based on the seasonal patterns.

A distinct difference was observed between the 3rd quarter (Q3) and 4th quarter (Q4) in the Gulf of Guinea (GoG). The Centre monitored a 157% increase from Q3 to Q4. This corroborates the predictions published by this Centre and several other maritime agencies which highlighted the traditional drop in piracy and armed robbery incidents in GoG during the rainy season (monsoon during Q3). Similarly, South Asian region which covers the waters of Arabian Sea

and Bay of Bengal witnessed a drop in incidents in Q3 which coincides with the rough weather associated with South West monsoon.

The Centre observed a sharp rise in incidents in SE Asia in Q2 which is the dry period (post withdrawal of North East monsoon and prior onset of South West monsoon) in the region. Similarly, a drop was observed in the region including onboard vessels underway in Straits of Malacca and Singapore in the last month of Q4, which is attributable to the difficulty in undertaking small boat operations during the peak period of NE monsoon.

TYPE OF VESSELS



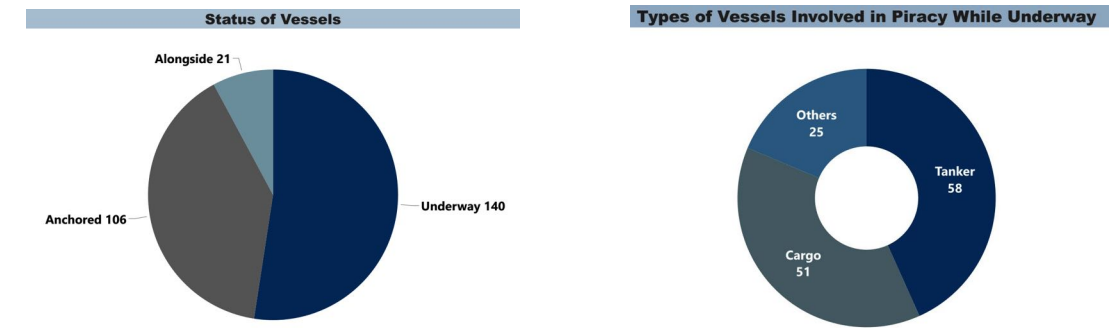
80% of the incidents were reported onboard tankers and cargo (bulk carrier, general cargo and container vessels).

52 incidents were reported onboard vessels with low freeboard and/ or those that transit at slow speed. The incidents were reported onboard fishing vessels, service vessels, tugs, barge under tow by tug, supply vessels and passenger vessels. While the vessels with low freeboard were

identified to be easy targets, perpetrators have successfully boarded container vessels with high freeboard also.

Majority of the incidents involving cargo vessels were reported in South East Asia, while those onboard tankers were reported in Gulf of Guinea. This may not be due to any preference of the perpetrators but availability of opportune targets.

NAVIGATIONAL STATUS OF VESSELS



About 52% of the overall incidents in 2020 were reported onboard vessels underway including those transiting at speeds in excess of 12 kn.

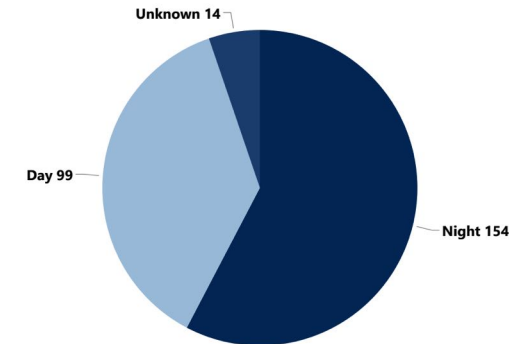
Nearly 40% and 8% of the overall incidents were reported onboard anchored vessels and those secured alongside respectively.

52% of the incidents onboard tankers and cargo vessels/ bulk carriers were

reported onboard vessels underway, which highlights the actions by well-organised Pirate Action Groups.

The incidents of theft/ robbery onboard tugs/ barges were appreciated to be opportune attacks aimed at stealing small ship's stores and scrap metal for making some quick money.

TIME OF INCIDENT

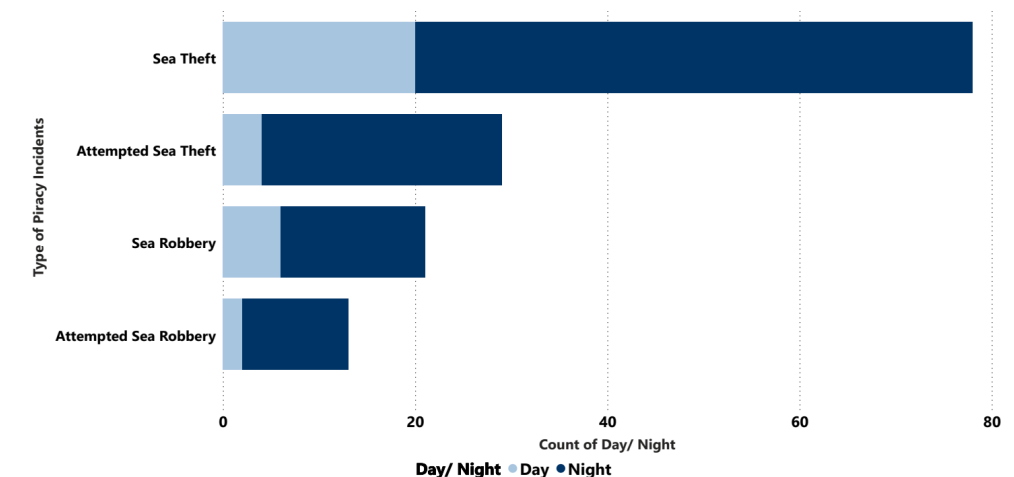


details were not available for about 5% of reported incidents.

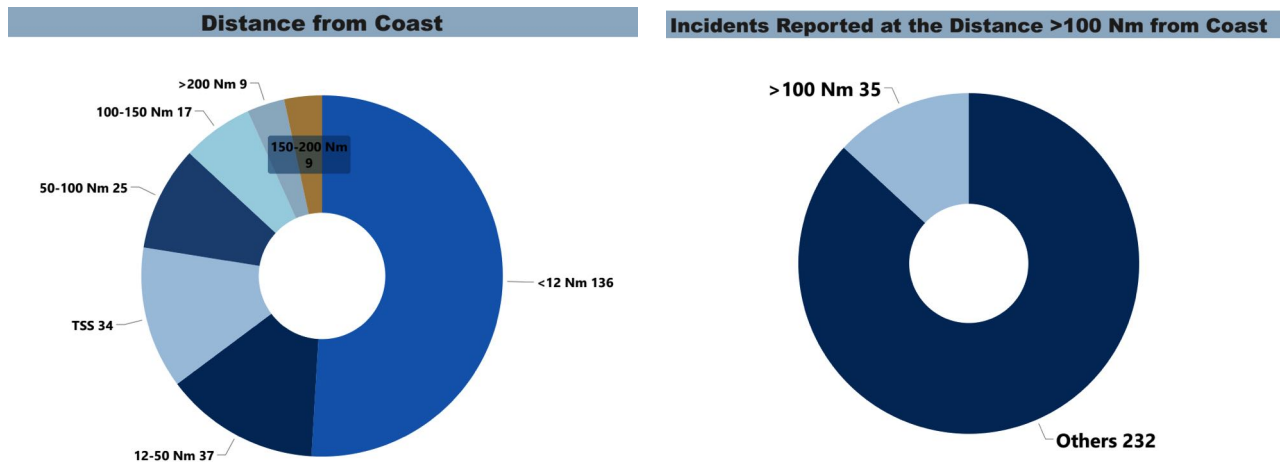
The Centre monitored that only 22% of the theft/ robbery (both successful and failed) occurred during the daylight hours. This highlights that the perpetrators generally attempt to seek advantage of the dark period and avoid getting noticed.

About 72% of the suspicious approaches were recorded during the period of day. Majority of these were reported in the Gulf of Aden.

It was observed that about 58% of the overall incidents occurred during the dark hours. 37% of the incidents were reported during the period of daylight hours and



DISTANCE FROM COAST



About 51% of the incidents in the year 2020 were reported at less than 12 nm from the nearest coast. 93% of these incidents were monitored onboard stationary vessels at anchorage or alongside at the berth, amounting to 49% of total incidents.

Nearly 7% of the incidents recorded at less than 12 nm from the coast were reported on vessels underway in Gulf of Guinea, Middle East and South Asia. Majority of these incidents were reported onboard vessels with low freeboard and transiting at slow speed viz., tugs, barges/ vessels under tow.

13% of the overall incidents were reported at distances in excess of 100 nm from the nearest coast. Nearly 92% of these incidents were recorded in Gulf of Guinea. The Centre monitored an incident of attack on a MV at 225 nm from Brass, Nigeria.

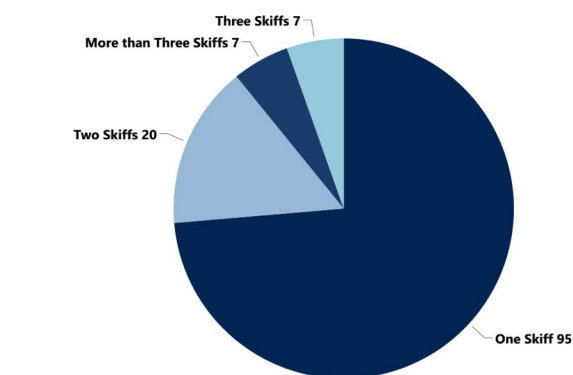
Considering the close geographical proximity of the countries in the region around Straits of Singapore and Malacca, the incidents reported in the TSS of the SOMS were recorded as TSS (for distance of location) and distance from the nearest coast was not assigned.

USE OF SKIFFS

In the year 2020, the Centre monitored 128 incidents which involved usage of skiffs or small speed boats by the perpetrators for acts of piracy and armed robbery.

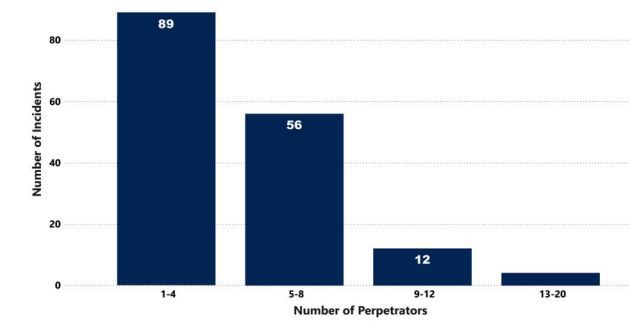
74% of these reports involved presence of one skiff during the incident. Nearly 66% of the single skiff incidents were reported in Gulf of Guinea. Further, 78% of the incidents involving small boats in South East Asia were single boat incidents.

The incidents involving more than three skiffs/ boats were reported in Middle East, South East Asia and East Africa. The highest number of skiffs used in a single incident was six during a case of coal theft in South East Asia.



There were some reports from vessels transiting in vicinity of Bab El Mandeb and Gulf of Aden, which indicated presence of more than 10 boats. It is appreciated that these incidents are non-piratical in nature and the boats are likely to be involved in fishing activity or trade movement between African coast and Yemen.

NUMBER OF PERPETRATORS



Based on the available data, the Centre carried out an analysis of the number of perpetrators involved in an incident. It is pertinent to mention that only 60% of the reported incidents had inputs about the number of perpetrators.

55% of the incidents in the year 2020 involved 1-4 perpetrators. About 50% of these incidents were reported in South East Asia and 38% in Gulf of Guinea.

Over 60% of the incidents with 5-8 perpetrators were reported in Gulf of Guinea.

75% of the incidents with 9-12 perpetrators and 66% of the incidents with 13-20

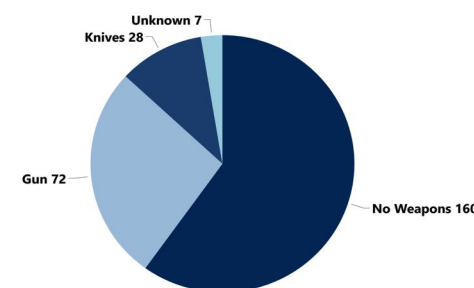
perpetrators were also monitored in Gulf of Guinea.

The incidents involving more than five perpetrators in Gulf of Guinea were generally reported well offshore and are an indicator of attacks being undertaken by well-trained Pirate Action Groups (PAGs).

20 perpetrators boarded a barge during an incident of sea theft off Bangladesh. This was the most severe in terms of the number of perpetrators in South/ South East Asia.

A MV reported sighting of 28 perpetrators (four each in seven skiffs) during a suspicious approach in Gulf of Aden. It is appreciated that this incident was non-piratical in nature.

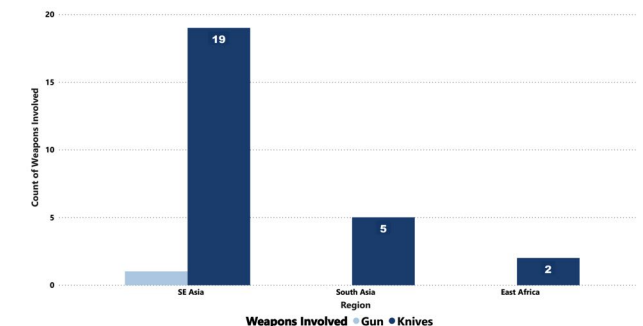
USE OF WEAPONS AND VIOLENCE AGAINST CREW



In 2020, it was observed that over 40% of the reported incidents involved carriage of weapons by the perpetrators. 67.5% of the incidents with weapons involved different types of guns, 26% of incidents involved knives while the type of weapons were not reported in 6.5% of the incidents involving armed perpetrators.

Knives were the primary weapons used by armed perpetrators in East Africa, South Asia and South East Asia.

Only one incident in South East Asia involved carriage of a gun. However, all armed

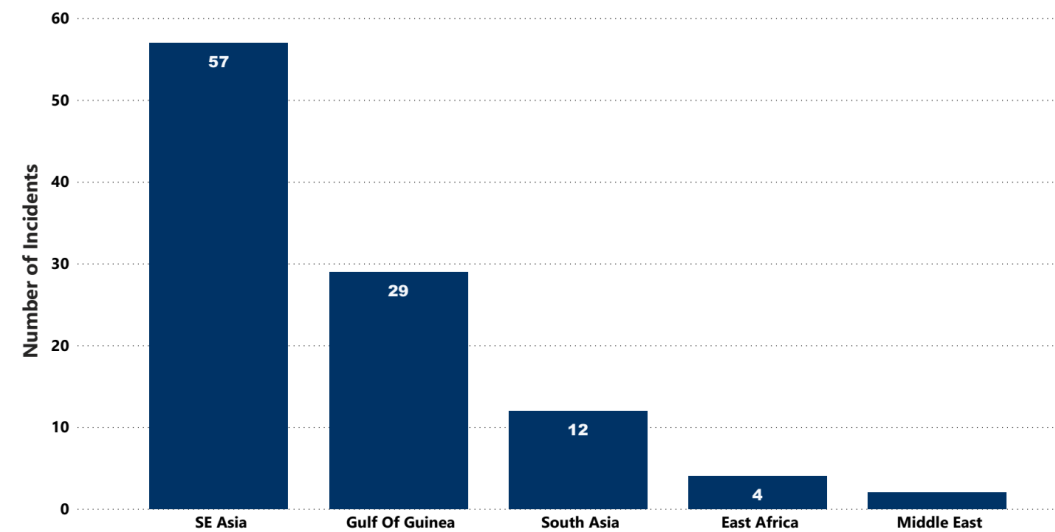


incidents in Middle East involved carriage of guns.

93% of the incidents involving guns in 2020 were reported in Gulf of Guinea. Perpetrators were found carrying knives in two incidents, while the types of weapons were not reported in five incidents.

A major cause for concern is the injuries to crew members in some of the incidents. The loss of life of four naval ratings in an exchange of gun fire between security team and perpetrators off Ramos, Nigeria in Jan 20 was the most severe in terms of violence.

SEA THEFTS/ SEA ROBBERIES



About 59% of the incidents (actual and attempted) of theft/ robbery in 2020 were reported in South East Asia. 30 out of 87 incidents were those without any loss of stores. This indicates that the perpetrators may not be willing to risk the possibility of getting caught and leave the vessel empty handed immediately after being noticed by the crew. Further, the perpetrators were observed to be non-confrontational during the incidents.

75% of the incidents of theft/ robbery in Gulf of Guinea involved loss of stores. The perpetrators left empty handed only in 25% of the incidents. This could be attributable to the crew retreating into the citadel i.a.w. BMP-WA recommendations, which allowed perpetrators to escape with stolen items.

About 16.5% of the overall incidents and 24% of the boardings included failed attempts of theft/ robbery by the perpetrators. This is attributable to crew raising alarm in a timely manner. The possibility of the perpetrators willing to leave the vessel empty handed to avoid apprehension/ arrests cannot be ruled out. Majority of these were recorded off anchorages in South East Asia and onboard vessels underway in the Straits of Malacca and Singapore.

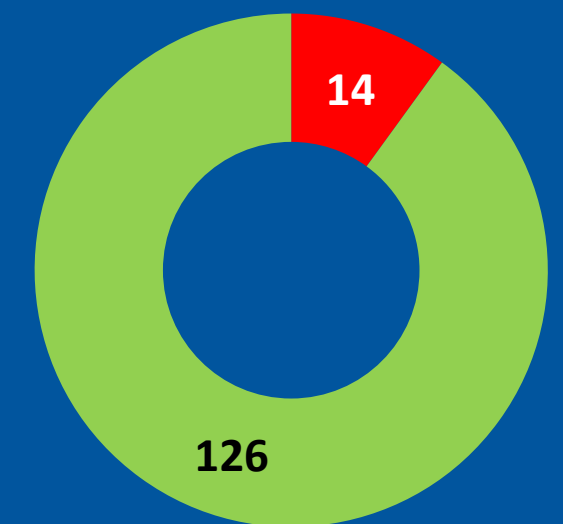


KIDNAPPINGS/ RELEASE OF CREW

The Centre recorded 26 kidnapping incidents in the year 2020, which involved kidnapping of 140 crew members. All kidnapping incidents were reported in Gulf of Guinea.

As per database maintained at the Centre, 126 of the 140 kidnapped crew members have been released from captivity. Details of 14 seafarers kidnapped from Liberia flagged heavy load carrier ZHEN HUA 7 on 13 Nov 20 are not yet available.

Based on open-source reports and reports received from various partners including ISWAN, the Centre monitored that the three fishermen held hostage by Somali pirates returned home after being released in Aug 20. They were kidnapped from the Iran flagged fishing vessel SIRAJ on 22 Mar 15 and were held in captivity for more than five years.



■ Not Known ■ Released

ANALYSIS OF INCIDENTS



HIJACKINGS

Three hijackings were recorded by the Centre, all in the Gulf of Guinea. While the element of vessels being hijacked is the common relation, the three incidents varied in their nature and end state.

Two of these incidents commenced as a hijack scenario and ended as incidents of hijack & kidnap. There was no kidnapping or cargo theft in the third incident.

The first incident was reported onboard an Equatorial Guinea flagged ferry boat ELOBEY 6 approximately 20 nm west of Port Gentil on 21 Mar 20. The perpetrators took control of the vessel and hijacked her to sail towards Nigerian waters. The perpetrators released the vessel after two days and kidnapped three personnel. The boat was subsequently escorted by the Equatorial Guinea Frigate WELE NZAS to Malabo port.

The second incident was reported onboard a China flagged fishing vessel HAILUFENG 11 on 15 May 20. The fishing vessel with 18 crew members (Chinese, Ghanaian and Ivorian nationals) was attacked off the coast of Cote D'Ivoire and was taken towards Nigerian waters. The Nigerian Navy was alerted about the incident and naval ship NGURU was dispatched for assistance. The FV was intercepted about 140 nm South of Lagos Fairway Buoy and the Nigerian naval personnel undertook an opposed boarding after the perpetrators refused to comply with the orders. The crew members were safely rescued and ten perpetrators were taken into custody.

The third incident was reported onboard a Togo flagged tanker STELIOS K, 115 nm South-South West of Lome, Togo on 16 Nov 20. The vessel was boarded by the perpetrators while it was enroute to Lagos. Initial reports highlighted the possibility of attempted negotiations by the perpetrators for a suitable ransom/ options for the transfer of cargo from the vessel. During the period of negotiations, the perpetrators maintained the vessel underway within

the region and based on positional updates received, the vessel was navigated upto 202 nm from Lagos, Nigeria. The perpetrators released the vessel on 23 Nov 20 and escaped after kidnapping three crew members. It was appreciated that the negotiations between the company and the perpetrators failed and subsequently the crew members were kidnapped for ransom.

There were no incidents of hijack for cargo theft and the high ransoms being demanded for kidnappings would probably make cargo theft less lucrative and a high-risk option (more contact time on the vessel gives greater response time for enforcement agencies).

KIDNAPPINGS

The Centre recorded 26 kidnapping incidents in the year 2020 which involved kidnapping of 140 crew members. All kidnapping incidents monitored by the Centre were recorded in Gulf of Guinea. While there was an incident of kidnapping reported in Sulu Celebes Sea, it was monitored to be non-piratical in nature and has been covered in the subsequent sections of this report. A brief analysis of the kidnapping incidents is enumerated in the succeeding paragraphs.

Based on the reported data, it was observed that 80% of the kidnapped sea farers were non-African nationals and only 20% were African nationals. It is possible that the perpetrators targeted foreign seafarers towards demanding higher ransoms.

17 out of the 26 incidents were reported onboard vessels with low freeboard (fishing trawler, ferry, tanker, dredger and coastal cargo vessels). The remaining were reported onboard container, cargo vessels and a FPSO.

21 incidents were reported onboard vessels underway. Five incidents were reported onboard vessels at anchorage off Benin (01), Equatorial Guinea (03) and Nigeria (anchored FPSO).

Incidents were reported in the waters of Nigeria and the neighbouring countries. The highest number of incidents were reported off Nigeria (08) followed by Benin (06). Availability of suitable facilities in the Niger Delta region, to hold the kidnapped crew is appreciated to be the possible reason behind this.

The attacks in 2020 were observed further offshore as compared to the previous years. Five incidents were reported at distances exceeding 100 nm from the shore. The incident onboard MT CURACAO TRADER reported at around 210 nm

off Bayelsa, Nigeria is the furthest from coast in 2020. As per an analysis by Stable Seas, this also represents the furthest an attack was recorded off the coast in the Gulf of Guinea in the last ten years. This further reiterates possibility of involvement of well-organised groups supported by mother ships.

14 incidents saw kidnapping of five or more crew members in a single incident. Kidnapping of 14 crew members onboard MV ZHEN HUA 7 is the highest in a single incident in 2020. The month of Nov witnessed five incidents which involved kidnapping of 36 crew members, the highest for a single month in 2020.

The kidnapped crew were held in captivity between 30-40 days (average figure). However, six crew members kidnapped in two different incidents (both on 09 May 20) off Equatorial Guinea were released after 148 days. The fastest release of crew was reported in Jan 20 (first incident of the year), wherein, the crew were released in three days. This was possibly due to interdiction and enforcement action by Nigerian forces. No loss of life of kidnapped seafarers whilst in captivity is the sole positive in these incidents.

Unlike 2019, the year 2020 witnessed incidents even during the rainy season which could be an indication of possible involvement of well-trained and organised Pirate Action Groups. Further, majority of these incidents were reported well offshore. As per the assessment of DNK-IOC in their periodic reports, small boat operations close to shore is difficult during the rainy season. This could have been a major contributing factor for the perpetrators to track the vessels sailing from the ports or those predominantly operating in Gulf of Guinea and attack only further offshore using small boats.

As seen in the previous years, the last quarter of the year has witnessed an increase in attacks onboard vessels which may be attributable to improved sea conditions during the dry season being favourable for small boat operations.

Some of the incidents reported indicate the possibility that the position of the vessels was well-known to the perpetrators. This may only be possible if the perpetrators tracked (using AIS or alternate systems) the movement of vessels to/ from the ports in GoG and subsequently targeted vulnerable vessels. It may also indicate co-ordination by some elements of PAG based ashore.

ILLEGAL BOARDING/ATTACKS



The Centre monitored 14 incidents of illegal boarding during the year. All incidents were reported in Gulf of Guinea. 57% of the incidents were reported in the waters of Nigeria followed by Sao Tome & Principe, Togo, Benin and Sierra Leone.

Nearly 72% of these incidents were observed beyond 100 nm from the nearest coast. This goes on to highlight the increased capability of the armed perpetrators in the region.

A major positive is the increase in the number of failed boardings and attacks (which did not result in kidnapping/ hijacking) in the last quarter of the year. Nearly 65% of incidents of illegal boarding were reported in the last three months of 2020.

The Centre observed that adherence to BMP WA and a robust citadel mechanism onboard the vessels turned-out to be the key factors in these incidents. The armed perpetrators failed to breach the citadel and several incidents were monitored wherein the perpetrators damaged the bridge equipment out of frustration and escaped with some stores.

REGIONAL ANALYSIS

MIDDLE EAST

The Centre monitored 27 incidents of piracy and armed robbery in the region. Majority (22) of these were reported in the Gulf of Aden. These were followed by incidents off the Arabian coast of Oman, Gulf of Oman, Iran and Iraq.

A month wise distribution of the reported incidents is shown in the graph. While the monthly average in this region was observed to be 2.2, Feb 20 witnessed five incidents. This could be attributable to calm weather conditions in the region and prevalence of fishing boats or small boats involved in licit/ illicit trade, which could be misidentified as pirate skiffs. A minor drop was observed in May and Jun 20, which is possibly attributable to rough weather conditions associated with South West monsoon.

23 out of 27 reported incidents were suspicious approaches in Gulf of Aden, off Oman and Iran.

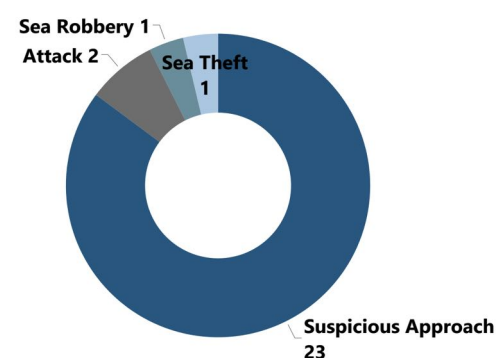
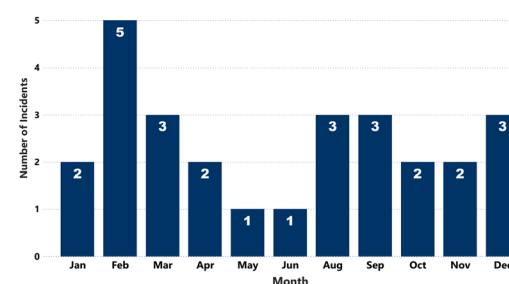
Two attacks were reported against vessels in the Gulf of Aden. In the first incident, a small boat later identified as Water Borne Improvised Explosive Device (WBIED) exploded during exchange of fire with armed guards onboard the vessel. In the second incident, a cargo vessel was fired upon whilst transiting south of Yemen.

One each sea robbery and sea theft were reported in the region during the year. The sea robbery was reported onboard a vessel anchored/ adrift off Somalia and sea theft was reported onboard a container vessel at Umm Qasr port, Iraq.

Guns were sighted in about 14% of the reported incidents in the region. These include two attacks and one each suspicious approach and sea robbery.

While there was no targeted violence against the crew, one crew member sustained minor injuries during the incident of attack onboard a cargo vessel in Dec 20. Further, a speed boat exploded during the exchange of fire with armed guards in May 20 and it is likely that the perpetrators lost their lives.

More than 50% of the incidents were reported onboard tankers and about 30% were reported onboard cargo vessels.



Sea Robbery off Somalia An incident of sea robbery was reported onboard a Panama flagged chemical tanker AEGEAN II, along the Horn of Africa off the coast of Somalia on 19 Aug 20.

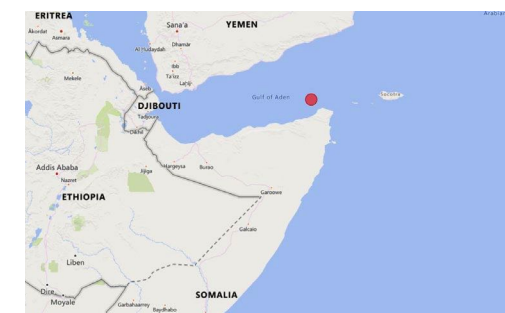
The vessel was approached by two small boats with six uniformed personnel who reportedly claimed to be from Somali Enforcement Agencies. The uniformed personnel embarked the ship, mustered the crew and later departed the vessel with the mobile phones & laptops of the crew as well as the weapons of the Private Armed Guards.

The uniformed personnel reportedly did not carry any identity documents and were suspected to be robbers in the guise of enforcement agencies. Subsequently, at 1000LT and again at 1300 LT the vessel was approached by small boats each with five armed perpetrators in plain clothes. Reportedly, there was an exchange of fire between the two boats. A coalition warship arrived in vicinity of the vessel on 21 Aug 20 and escorted her to Bosaso, Somalia.

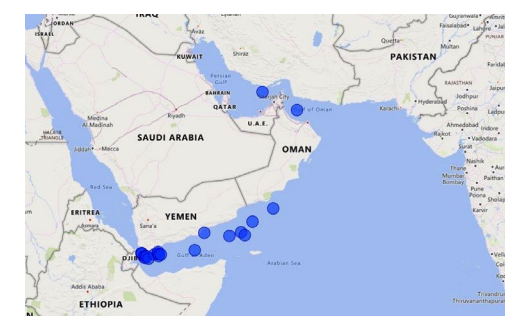
Suspicious Approaches

22 out of the 23 suspicious approaches in the region for 2020 were reported in the Gulf of Aden and off the coast of Oman. In several incidents, the vessels reported sighting of large concentration of boats, especially in vicinity of Bab-el-Mandeb. The possibility of the presence of small boats as a normal pattern of life and routine movement of fishing vessels in the area cannot be ruled out and needs to be monitored. Adherence to BMP5 is strongly recommended.

In one of the incidents in Sep 20, a tanker was approached by a high-speed craft, with ten armed personnel onboard. The speed craft closed the vessel to 4 cables from the port side, hailed the vessel on VHF radio (MMB) and ordered the vessel to slow her speed. As per updates released by UKMTO and MSCHOA, the vessel was approached by Yemeni Coast Guard patrol vessels. Yemeni Coast Guard has indicated an increase in patrolling in waters beyond the territorial waters throughout 2020 to counter the increase in illicit traffic. As per the assessment of DNK-IOC in their periodic reports, the



This robbery appears to be an isolated and opportunistic incident on a vessel in a vulnerable situation, which had transited close to Somali territorial waters. There remains a threat of hijack and/ or boarding off the coast of Somalia and can manifest as it did in this instance. However, contextually the threat is vastly reduced as compared to peak levels of piracy related incidents observed in 2011. This reaffirms the appreciation that the threat of piracy/ armed robbery off the coast of Somalia is suppressed at the time and not eradicated.



Yemeni Coast Guard makes use of irregular forces and the personnel might not always be in uniform. Moreover, the vessels employed by the Coast Guard personnel may not be easily identifiable.

Another unique incident for the year, is the suspicious approach in Mar 20, wherein, a SLC tanker was approached by three small crafts, of which one craft was possibly unmanned. It is appreciated that this was likely a targeted attack and a fall-out of the prevailing maritime security situation and has been covered in a later section on emerging MARSEC threats.

REGIONAL ANALYSIS

SOUTH ASIA

The Centre monitored 15 incidents of piracy and armed robbery at various port, anchorages or waters of Bangladesh and India.

A month wise distribution of the reported incidents is shown in the graph. The monthly average in this region was observed to be 1.25.

Six incidents were reported in Feb 20, the highest in a single month.

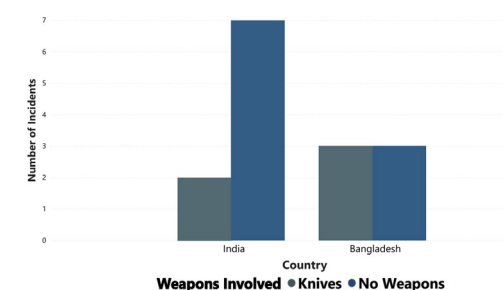
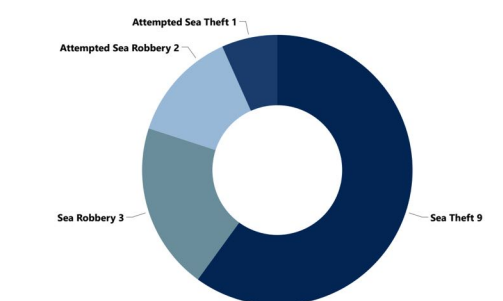
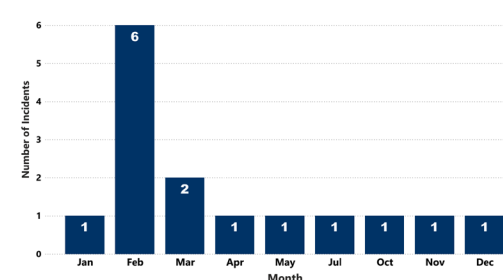
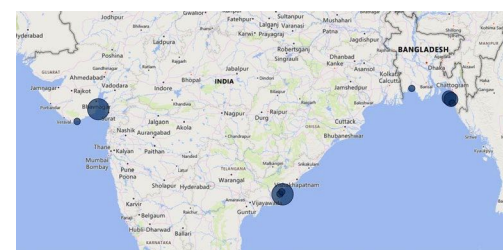
No incidents were reported in Jun, Aug and Sep 20, which could be attributable to difficulty in undertaking small boat operations during rough weather conditions associated with South West monsoon in the region.

80% of the incidents in the region were successful sea thefts/ robberies and the other 20% were unsuccessful.

67% of the overall incidents involved successful and attempted sea theft and 33% were successful and attempted sea robbery.

50% of the incidents reported off Bangladesh involved sighting of weapons. Knives/ sharp objects were used by the perpetrators. The perpetrators were non-confrontational and no violence was reported against the crew.

22% of the incidents reported off India involved sighting of weapons and knives. The perpetrators escaped immediately upon being noticed and there was no violence against the crew. Incidents of robbery were reported in Bay of Bengal while there was no sighting of weapons in the incidents off Arabian Sea.



Based on type and status of vessels, 67% of the incidents were reported onboard vessels with low freeboard viz., supply vessels, tugs, barges under tow.

The remaining 33% incidents (five) were reported onboard tankers. However, two of these incidents were reported onboard tankers under tow to ship breaking yards.

67% of the overall incidents in the region were reported onboard vessels at anchorage or alongside at the port. Majority of these were reported onboard anchored vessels.

33% of the overall incidents were reported onboard vessels underway and it is interesting to note that all were reported onboard tugs/ vessels engaged in towing operations.

Arrest of Perpetrators/ Enforcement Measures

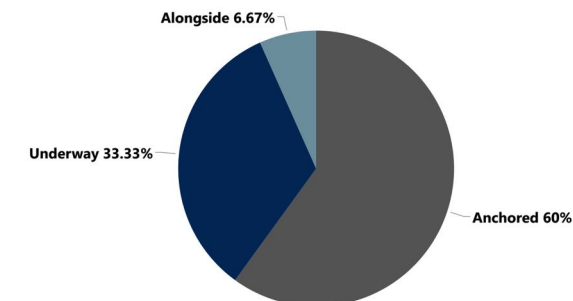
The first four months of the year witnessed one each incident off Alang and Navabandar on the West coast of India. However, no incidents were reported in the later months. It is appreciated that the following successful enforcement measures and apprehension of perpetrators led to the decline of incidents: -

Five perpetrators who stole 200 pieces of scrap on 07 Jan 20 were arrested by the State Marine Police on 11 Jan 20. Arrested personnel had committed the theft by going in a boat to the ship near Alang ship-breaking yard.

Nine perpetrators involved in the failed sea theft off Navabandar were apprehended during the incident by the Coast Guard.

On 30 Apr 20 the State Marine Police apprehended five perpetrators who were involved in a theft off Alang on 18 Apr 20.

Alang Port Authority issued an advisory to ships operating and transiting the Alang Anchorage to exercise enhanced vigilance and maintain vigil at all times, especially during hours of darkness. For entry, anchor or transit through the area,



ships are required to contact the port authorities via VHF radio and refer to NAVTEX for any update on the prevailing situation, broadcast on warnings issued and the precautionary measures to be adopted.

In the waters of Bay of Bengal, the Bangladesh Coast Guard apprehended the perpetrators involved in a theft onboard a barge off Chittagong anchorage on 06 Mar 20.

Nature of Incidents

The stolen items in the incidents included mooring ropes, small metallic items, electric spares and oil. None of the incidents involved any confrontation/ violence.

Low freeboard, slower speed, absence of comprehensive security measures and the relatively lesser number of crew onboard were observed to be the primary reasons behind high number of attacks on tugs/ barges.

Analysis of incidents indicate that the attacks are generally opportunistic in nature and of low intensity, wherein, ships at anchorage are targeted to undertake petty thefts.

REGIONAL ANALYSIS

EAST AFRICA

The Centre monitored six incidents of piracy and armed robbery in the region. Four incidents were off Nacala anchorage, Mozambique and the remaining two included a suspicious approach along East Coast of Somalia and a sea theft off Mauritius.

No specific pattern or any significant seasonal variation was observed in this region. The incidents were sporadic in nature and mostly opportunistic attacks by perpetrators.

The region witnessed two each sea theft and sea robbery in the year and one each attempted sea theft and suspicious approach.

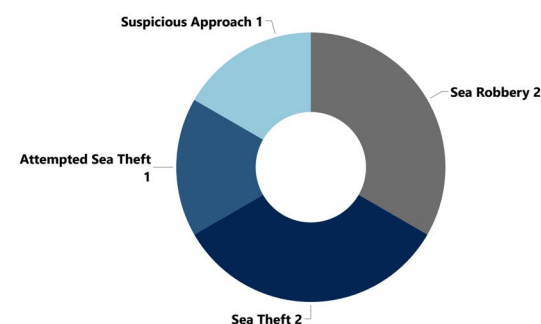
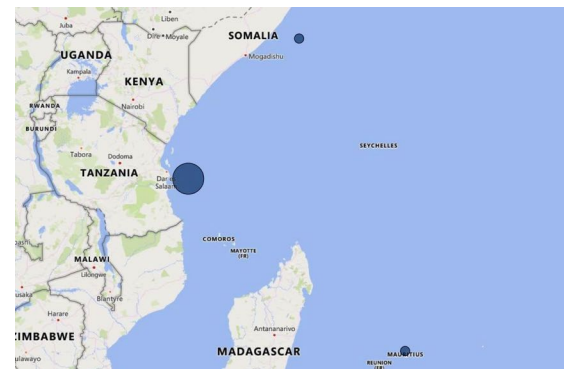
Items were reported to be stolen in four incidents in the region and generally varied from mooring lines and ship's stores. The theft off Mauritius onboard a fishing catamaran involved loss of fishing gear and snorkeling equipment.

Use of Weapons/ Violence. The perpetrators were sighted carrying knives in two (out of four) incidents at Nacala anchorage. Neither of the incidents involved violence, however, duty crew in one incident reported that the perpetrators approached him with weapons.

Based on type and status of vessels, 75% of the incidents were reported onboard cargo vessels and remaining two were reported onboard a tanker and a fishing vessel. The incidents off Nacala anchorage were reported onboard bulk carriers (02), container vessel and a tanker. Nearly 84% of the incidents in the region were reported onboard anchored vessels and only the suspicious approach was reported onboard a vessel underway.

Nature of Incidents

Even while two out of four incidents at Nacala anchorage involved weapons, the perpetrators were non-confrontational and there was no violence against the crew. The items stolen from the vessels indicate that the perpetrators look for readily/ easily accessible stores which can be sold for quick money. Further, all incidents of theft/ robbery (actual and attempted) were observed onboard anchored vessels during the night. Analysis of incidents indicates that the perpetrators seek to take advantage of the dark conditions and board the vessels unnoticed by the crew. These may be termed opportunistic attacks and of low intensity, wherein, anchored ships were targeted to undertake petty thefts. There were no reports which indicated any existence of organised crime groups.



GULF OF GUINEA



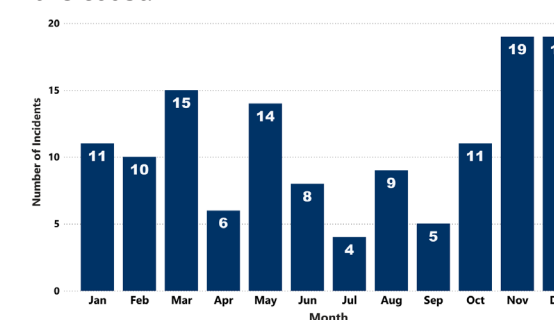
The Centre monitored 131 actual and attempted incidents of piracy and armed robbery across various anchorages, ports and waters of 14 countries in Gulf of Guinea.

The maximum share of the incidents was reported in the waters of Nigeria and the country recorded about 34% of these overall incidents in the region. These were followed by incidents in the waters of Gabon and Benin.

Liberia and Sierra Leone had two each incidents, the lowest amongst the 14 countries with reported incidents.

A month wise distribution of the reported incidents is shown in the graph. The monthly average of reported incidents in this region was observed to be 10.9. Six months in 2020 witnessed reporting higher than the annual average with peaks in Nov and Dec 20.

A lower number of incidents were reported during the rainy season in the region which generally extends from Jun to Sep. The sea conditions during the rainy season are unfavourable for undertaking small boat operations, especially close to the coast.

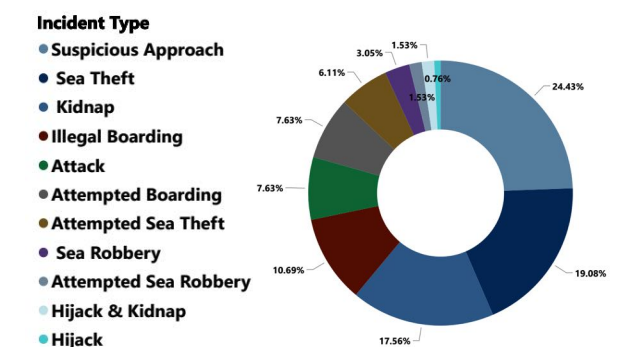


The months of Nov and Dec 20 witnessed a sharp rise as compared to the other months of the year. This is possibly due to a combination of multiple factors viz., favourable conditions during dry season, economic hardships exacerbated by COVID-19 pandemic, presence of well-trained pirate action groups (PAG).

In over 39% of the reported incidents the perpetrators failed to board the vessels. Nearly 62% of the failed attempts were suspicious approaches reported by vessels. In about 19% of the failed incidents, while the perpetrators managed to make contact with the vessel, they could not board the vessel. Majority of these incidents were thwarted due to timely sighting of speed boats/ skiffs and proactive measures by the crew.

20% of the reported incidents involved kidnapping of seafarers. This remains a concern for the entire region.

About 30% of the reported incidents involved boarding of vessels by perpetrators for theft/ robbery. The perpetrators succeeded to steal some stores in 75% of these incidents



REGIONAL ANALYSIS

Use of Weapons/ Violence

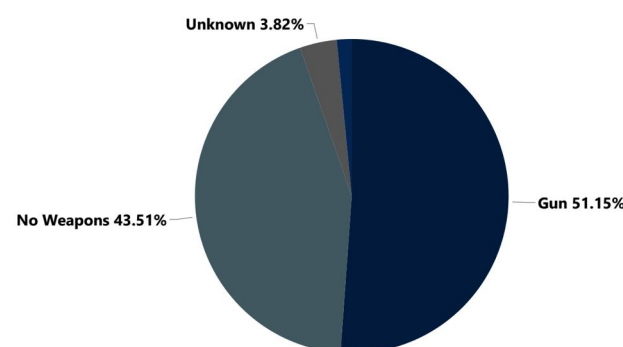
The perpetrators were armed in nearly 57% of the overall incidents. Unlike other four regions, Gulf of Guinea witnessed higher percentage of incidents which involved sighting of weapons.

91% of the armed incidents involved usage/ carriage of guns by the perpetrators. Knives were sighted in about 3% of incidents, while the type of weapons was not reported in 6% of the incidents.

In addition to high rate of carriage of weapons, the issue of perpetrators firing at the vessels is considered a major challenge as it directly affects safety of seafarers.

Several violent attacks were reported in the year and some of the key incidents are as follows:-

- During an illegal boarding (Mar 20) onboard a cargo vessel off Lagos, Nigeria, the perpetrators broke the glass panes of the bridge and stole cash from the vessel.
- In a kidnapping incident (May 20) onboard a cargo vessel at Malabo Inner anchorage, Equatorial Guinea, the perpetrators opened fire which caused injuries to a few crew members.
- During an illegal boarding (Aug 20) onboard a fishing vessel off Freetown, Sierra Leone, several crew members were injured during a violent confrontation with the perpetrators armed with machetes and shot guns.
- During an illegal boarding (Nov 20) onboard a tanker off Bonny, Nigeria, the perpetrators damaged the bridge equipment and escaped with ship's stores.

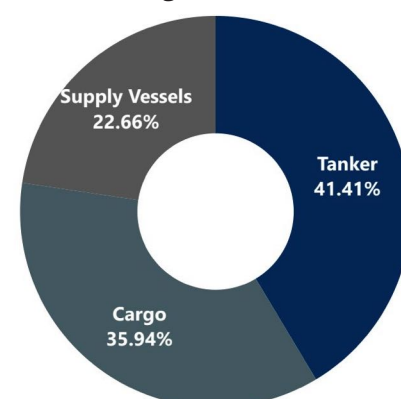


- During a kidnapping incident (Nov 20) onboard a cargo vessel off Sao Tome and Principe, the perpetrators opened fire in which a crew member was injured.
- During an illegal boarding (Dec 20) onboard a container vessel off Brass, Nigeria, the perpetrators damaged the bridge equipment.

Type and Status of Vessels

Nearly 77% of the overall incidents in the region were reported onboard various types of cargo vessels and tankers.

About 22% of the incidents were reported onboard service/ supply vessels with low freeboard and slow transit speed viz., tugs, barges under tow, supply vessels, fishing vessels.



One of the major concerns for this region is the high percentage of reporting of incidents onboard vessels underway. The Centre recorded that 54% of the overall incidents for this region were reported on vessels underway.

37% of the overall incidents were reported onboard anchored vessels and 9% were onboard vessels secured alongside at ports. While majority of these incidents were aimed at theft/ robbery, some included boarding for kidnapping of crew.

Distance from Coast

Nearly 50% of the overall incidents in the region were reported at distances less than 12 nm from the nearest coast. 96% of these incidents were monitored onboard stationary vessels at anchorage or alongside at the berth.

All incidents reported off Cameroon, Congo, Equatorial Guinea, Liberia and Sierra Leone were reported within 12 nm from the coast. None of the reported incidents off Gabon and Guinea were monitored within 12 nm from the coast.

About 40% of the incidents reported in Gulf of Guinea were monitored beyond 50 nm from the coast. This accounts for nearly 87% of the global share (within

the five regions) of such incidents.

Further, 25% of the incidents were reported beyond 100 nm from the coast and the Centre monitored that towards the latter half of the year, the incidents extended further away from the shore. Nearly 92% of the global share of incidents beyond 100 nm were recorded in Gulf of Guinea.

During the year, the Centre monitored an incident of attack onboard a MV at 225 nm from Brass, Nigeria and a kidnapping at 210 nm.

The reporting of attacks/ kidnappings at extended ranges and the occurrence of incidents during the rainy season (monsoon) highlights the strong possibility of the presence of well-trained pirate action groups (PAGs) in the region. Based on nature of attacks viz., extended ranges from the coast, multiple incidents in close time intervals it is likely that the PAGs are being supported by mother ships and even elements ashore.

As per a recent assessment by DNK-IOC, there appears to be two/ three different Pirate Action Groups (PAGs) in the region and in the recent attacks the perpetrators were observed to be using sophisticated boats which give them high speeds during approaches and withdrawal.

One of the major concerns for this region is the high percentage of reporting of incidents onboard vessels underway. The Centre recorded that 54% of the overall incidents for this region were reported on vessels underway. The reporting of attacks/ kidnappings at extended ranges and the occurrence of incidents during the rainy season (monsoon) highlights the strong possibility of the presence of well-trained Pirate Action Groups (PAGs) in the region. Based on nature of attacks viz. extended ranges from the coast and multiple incidents in close time intervals, it is likely that the PAGs are being supported by mother ships and even elements ashore.

REGIONAL ANALYSIS

SOUTH EAST ASIA

The Centre monitored 88 actual and attempted incidents of piracy and armed robbery across various anchorages, ports and waters of South East Asia. Majority (34) of these incidents were reported onboard vessels underway in the Traffic Separation Scheme (TSS) of the Straits of Malacca and Singapore (SOMS). Towards achieving meaningful analysis, the incidents in SOMS were categorised as a separate group and were not assigned to any particular country.

A month wise distribution of the reported incidents is shown in the graph. The monthly average of reported incidents in this region was observed to be 7.3 and five months in 2020 witnessed incidents higher than the annual average.

The higher reporting during these months is possibly due to the dry weather conditions in the region which makes it feasible to undertake small boat operations.

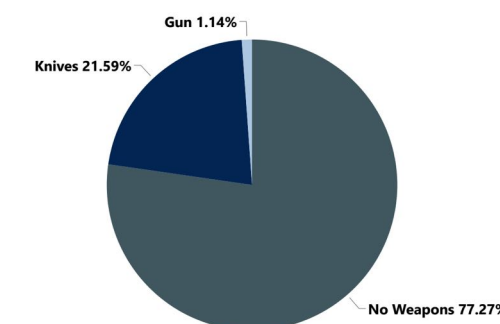
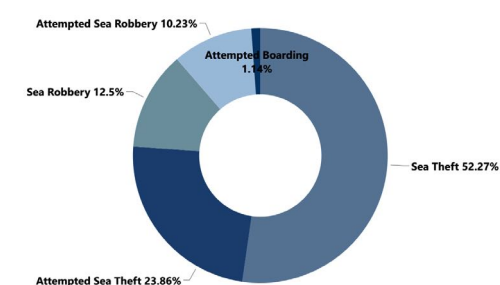
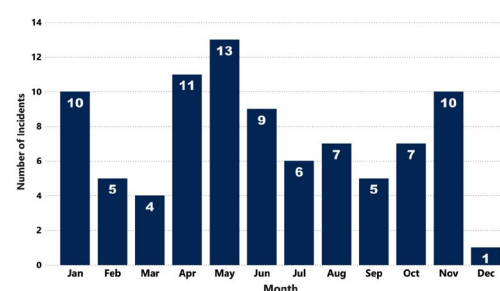
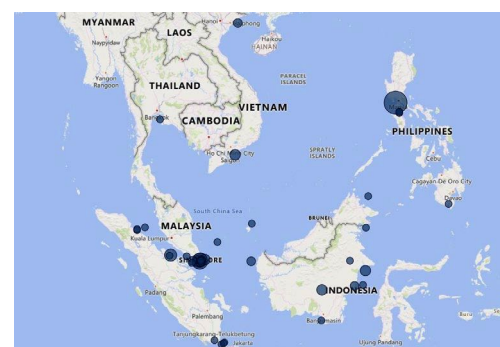
A sharp decline was observed in Dec 20, which could be associated with the rough weather during the peak period of North East Monsoon and also enhanced enforcement measures by several countries in their ports and anchorages.

About 76% of the reported incidents in this region involved actual and attempted sea thefts (53% actual and 23% attempted).

Actual and attempted sea robberies accounted for about 23% of the overall reported incidents in this region. The successful robberies were marginally higher than the failed incidents.

Use of Weapons/ Violence. The incidents reported in this region were generally of low intensity and 77% of the overall incidents did not involve usage/ sighting of weapons.

In about 23% of the overall incidents, the perpetrators were found to be armed. Knives and machetes were widely carried weapons in the armed incidents. Sighting of gun (resembling to be a gun as per the report) was observed during a robbery onboard a fishing vessel off Tawau, Malaysia in Sulu Celebes Sea.



Majority of the incidents (about 96.5%) were free of violence or any form of confrontation between the crew and perpetrators. Minor confrontation or injuries were reported in the following five incidents:-

- During an attempted sea robbery (Jan 20) onboard a tanker off Port Kabil, Indonesia, the crew confronted the perpetrators armed with knives. One of the crew members suffered facial injury during the incident.
- During an attempted sea robbery (Aug 20) onboard a bulk carrier at Batangas Bay anchorage, Philippines, duty crew was attacked by a perpetrator armed with a *bolo* (knife).
- In another incident of sea robbery (Aug 20) onboard a tanker at Bauan Port, Batangas Philippines, the perpetrator armed with a knife entered the cabin of General Steward, threatened the crew member and stole the steward's personal belongings.
- In an incident of sea robbery (Nov 20) onboard a tanker at Dumai anchorage, Indonesia, four perpetrators armed with knives threatened the duty crew and escaped with engine spares.
- During an incident of sea robbery (Dec 20) onboard a bulk carrier at Lubuk Gaung Port, Dumai, Indonesia, four perpetrators armed with knives boarded the vessel and tied up the duty officer. The perpetrators released the duty officer before escaping with ship's stores and spare parts.

Type and Status of Vessels

Nearly 57% of the overall incidents in the region were reported onboard various types of cargo vessels viz., bulk carrier, general cargo, container, reefer.

About 32% of the incidents were reported onboard tankers and the other 11% were reported onboard service/ supply vessels with low freeboard and slow transit speed viz., tugs, barges under tow, supply vessels, fishing vessels.

An issue of concern for this region is the high percentage of reporting of incidents onboard vessels underway. The Centre

recorded that 44% of the overall incidents for this region were reported on vessels underway. About 87% of these incidents were monitored in the TSS of SOMS.

50% of the overall incidents were reported onboard anchored vessels and 6% were onboard vessels secured alongside at ports. The Centre monitored that the relevant agencies of the countries in the region enhanced patrolling and other enforcement measures at ports/ anchorages to thwart these incidents.

Arrest of Perpetrators/ Enforcement Measures

The Centre monitored the following successful enforcement measures and apprehension of perpetrators which possibly contributed to decline of incidents in the later months of the year:-

Four perpetrators armed with knives boarded an anchored tanker off Port Kabil, Indonesia on 21 Jan 20. The crew confronted the perpetrators and managed to capture one of them. Subsequently, Batam Police boarded the tanker and took custody of the captured perpetrator.

On 22 May 20, Fleet 1 Quick Response (F1QR) team of the Indonesian Navy arrested four perpetrators at different locations in Pulau Batam. During the interrogation, the perpetrators confessed that they had attempted a robbery onboard a tanker on 17 May 20 and other ships in the waters off Batu Ampar, Pulau Batam. The four perpetrators were detained at the Batam Naval Base cell for further investigation.

Three suspects who were believed to be involved in sea robbery onboard a fishing vessel off Tawau, Malaysia on 20 Nov 20, were arrested by the Task Force of the Eastern Sabah Security Command (ESSCom) on 04 and 05 Dec 20 and a pistol, ammunition and boat were recovered. Additionally, an out-board motor (OBM) believed to be stolen during the robberies was also recovered.

Subsequent to a spike of incidents in the first three quarters of 2020, the Philippines Coast Guard initiated additional measures including enhanced patrols especially by night and monitoring of small vessel movement.

REGIONAL ANALYSIS

SUMMARY OF INCIDENTS IN SOMS

The Centre recorded 34 actual and attempted incidents of piracy and armed robbery in the Straits of Malacca and Singapore (SOMS). A month-wise and quarterly record of reported incidents is shown in the graph.

December was the only month without any reported incidents. However, the 4th quarter of the year had the highest reported incidents for 2020. Six each incidents were reported in Oct and Nov, which were the highest number of incidents reported in a single month in 2020. The sudden drop in incidents in Dec 20 may be attributable to the on-set of North East monsoon in the region.

There were four occasions in 2020, where two or more incidents were reported in close proximity in terms of time and distance. It is highly likely that the same group of perpetrators undertook boardings on multiple vessels that transited through the TSS.

30 out of 34 incidents in 2020 were observed in the East bound lane. Only one incident was reported in the west bound lane of the TSS. Two incidents were observed in the precautionary area and one incident was reported just south of the TSS.

A new trend was observed in 2020 as compared to 2019, wherein majority of incidents were reported onboard bulk carriers/ tankers. Only six incidents were reported onboard tugs and barges, while 28

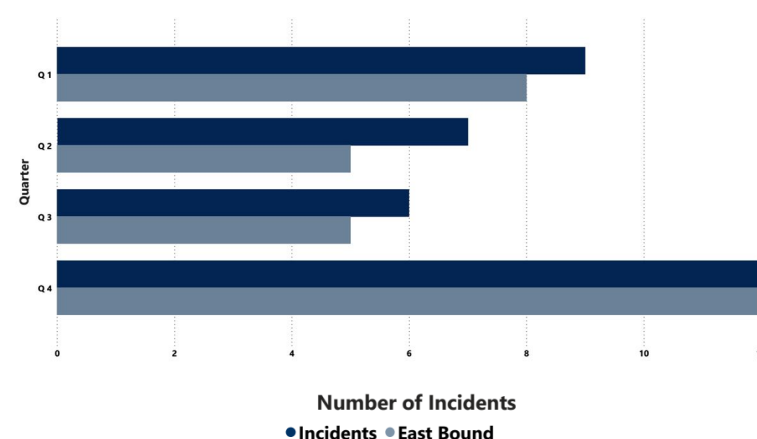
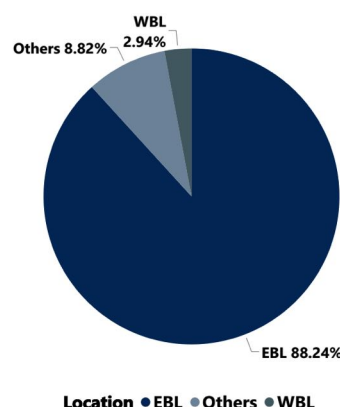
were reported onboard bulk carriers and tankers (22 and 06 respectively).

It is interesting to note that all six incidents involving tugs and barges were reported during the period of day light and all incidents onboard other type of vessels were reported during the dark hours.

This is in line with the assessment by DNK-IOC that opportunistic perpetrators focused on petty thefts may be continuing to target tugs and barges as they remain a lucrative target due to low freeboard, slow speed and limited security/ watch mechanism onboard. Well organised criminal groups operating in small gangs with capability of boarding vessels which are underway may continue to target bulk carriers and tankers.

There was a decrease in general trend pertaining to violence and use of weapons. The sighting of weapons was reported only in five incidents in 2020. However, there was no reported violence against the crew.

While the decrease in incidents as observed in Dec 20 is a positive change, the possibility of threat to ships transiting in the straits still exist and the Centre recommends adherence to best practices promulgated by the industry and timely reporting of incidents to concerned reporting centers.



AREAS OF CONCERN

The Centre has observed the following issues which are of concern for the safety and security of seafaring community.

Gulf of Guinea

The high number of kidnapping incidents alongwith the capability of the perpetrators to kidnap large number of seafarers in a single incident.

Occurrence of incidents at extended ranges from the coast. The distance only extended further away from the coast as the year progressed. This complicates the ability of the coastal states to provide appropriate assistance.

The reporting of kidnapping incidents even during the rainy season (three in Jul 20 alone) and that too at extended ranges highlight the ability of the perpetrators to employ innovative methods and overcome the difficulties imposed by rough weather conditions.

It was observed that ships drifting at sea become easy targets. The kidnapping incidents onboard a MV that was drifting 150 nm from Cotonou, Benin (Jul 20) and a FV that was drifting 110 nm from Tema, Ghana (Aug 20) stand out amongst other such incidents.

Some of the incidents indicate that the perpetrators tend to track vessels that operate predominantly in the local waters and thereafter carry out attacks on an opportune occasion.

An analysis of the modus operandi of attacks on ships operating in Gulf of

Guinea highlight a strong possibility of presence of well-trained Pirate Action Groups (PAGs) supported by mother ships.

Middle East

The high number of suspicious approaches alongwith sighting of weapons onboard speed boats in the Gulf of Aden is a cause of concern.

The difficulty to distinguish speed boats used for piratical activity from the boats plying for trade/ fishing and armed boats deployed by certain enforcement agencies complicates the security situation.

East Africa and South Asia

The reporting of incidents of theft/ robbery at ports/ anchorages, although considered to be petty thefts, still pose a challenge to the seafarers.

South East Asia

The higher reporting of incidents onboard vessels underway in the TSS of SOMS is a concern for the region.

The new trend of attacks onboard bulk carriers/ tankers during dark hours coupled with multiple attacks in close proximity in terms of time and distance indicate the possible presence of well-organized criminal groups.

The high reporting of incidents of theft/ robbery at certain ports/ anchorages, is also a cause of concern.

While the year witnessed changing modus operandi by the perpetrators across the regions, the Centre monitored several positive developments which are likely to be steps in the right direction. Some of the key initiatives observed during the year and a few that are likely to take a definitive shape in the coming months towards enhancing the safety of seafarers have been briefly elucidated in the following paragraphs.

The biggest positive for the year remains the safe release of seafarers from captivity including the release of three remaining crew of FV SIRAJ after being held in captivity for over five years and release of kidnapped seafarers in Gulf of Guinea.

The shipping industry, supported by government and military organisations, have worked together to produce Best Management Practices to Enhance Maritime Security for Vessels & Mariners operating off the coast of West Africa including the Gulf of Guinea (BMP WA) which was launched on 31 Mar 20. This document is aimed to help mariners detect, deter and delay external threats to their safety and further consolidates and enhances existing guidance for specific threats in Gulf of Guinea.

A Nigerian court issued the first judgment under the new anti-piracy law or the Suppression of Piracy and Other Maritime Offences (SPOMO) Act in Nigeria on 12 Aug 20. The court has fined three men USD 26,300 each for hijacking a tanker and securing a ransom of USD 200,000 for the release of its crew.

It was reported that the concerted efforts of Nigerian Maritime Administration and Safety Agency (NIMASA) along with the Nigerian Navy under the Deep Blue Project which aims to comprehensively tackle maritime security challenges in Nigeria's waters have been impactful in reducing the incidents at ports and anchorages off Nigeria. The project is expected to be operationalised by the end of first quarter of 2021.

The Joint War Committee (JWC) expanded its Gulf of Guinea listed area further South and East following an uptick in piracy attacks. The JWC's listed area was last changed in 2013 and previously covered only the exclusive economic zones of Togo, Benin and Nigeria North. It has updated the listed areas and now extends between Lome, Togo to a point about 340 nm West of Cape Lopez, Gabon in the South.

In Jul 20, as part of actions against attacks on vessels at anchorage/ ports, the Director General of the Port Authority of Cotonou, Benin made it compulsory for vessels to have armed security onboard. For a ship to enter Benin ports without armed security team onboard, elements of the Beninese armed forces would be placed at their disposal against payment of a fixed fee.

Except for the robbery onboard a vessel anchored off Somalia, the year did not witness any alarming trends related to Piracy in the Gulf of Aden/ Horn of Africa. There were no incidents of hijacking during the year.

The following positive developments were monitored in Gulf of Guinea:-

- Several suspicious approaches were thwarted by Armed Guards onboard the vessels and firing of warning shots forced the perpetrators to abort the approach. The presence of Warships and the Security Escort Vessels were also appreciated to be deterrents towards preventing attacks.
- Effective uses of evasive maneuvers were observed to be a deterrent against boarding or attack against ships.
- In the incidents of illegal boarding, the crew managed to retreat and secure themselves in the citadel before the perpetrators boarded the vessel. This was made possible as the duty crew carried out evasive maneuvers, which delayed the boarding by the armed perpetrators. This extra time window was utilised and the entire crew secured themselves inside the citadel.
- Another positive factor identified is the compliance of vessel hardening measures and reporting procedures promulgated through BMP WA.

IFC - IOR RECOMMENDATIONS

The Centre strongly recommends the seafarers to comply with the safety measures promulgated in BMP5 and BMP WA.

It was observed that proactive and timely reporting to relevant agencies as per the established procedure would be key in ensuring appropriate assistance is made available to the vessels under attack.

The Centre advises the seafarers to avoid confrontation with the perpetrators especially when armed. It is likely that the perpetrators may cause harm in an attempt to escape from the vessel or may turn violent upon being provoked.

Vessels operating in Gulf of Guinea are strongly advised not to drift at distances less than 200 nm from the coast.



CONTRABAND SMUGGLING

CONTRABAND SMUGGLING

GLOSSARY OF TERMS USED

Contraband

Smuggling is most prominently a form of customs violation, avoidance of duties and tax fraud. Contraband is any property that is illegal to produce or possess. Contraband smuggling involves movement of goods that are against the law to be imported or exported.

Drugs

The broad understanding of drug smuggling has been derived from the Commentary of the United Nations Convention against Illicit Traffic in Narcotics Drugs and Psychotropic Substances 1988. For the purpose of this report, it also covers what UNODC refers to “Drugs” as any of the substance defined in Schedules I and II, whether natural or synthetic, under the Controlled Substances Act, and “illicit traffic” under the International Drug Control Convention. This report categorises drugs by type and effect under the following:-

Opioids – Category covers substances that bind to μ -opioid receptors. Opium and derivative substances, such as heroin and morphine, as well as semi-synthetic opioids of varying strength such as codeine, fentanyl, carfentanyl, methadone, hydrocodone, hydromorphone, meperidine, tramadol, and oxycodone.

Cannabinoids – Refers to all substances derived from or synthesized to emulate, that bind to cannabinoid receptors in the brain. This category includes hashish, cannabis, ganja, charas, marijuana, bango and synthetic cannabinoids.

Amphetamine Type Substances (ATS) – Amphetamine and derivatives, predominantly methamphetamine, captagon, syabu, yaba and mephedrone. This category also includes ephedra as a precursor for synthetic drugs.

Ecstasy – Although this category can technically fall under ATS, it has been placed separately for this report.

Other Drugs – There are several drugs that do not fall easily into these categories like Khat, Cocaine, LSD, magic mushrooms and Ketum, to name a few. Except for khat, there was generally not many reports of seizures of these substances in the region.

Domestic Products

Smuggling of goods that are either common household products or manufactured items. E.g., Rice, Flour, Salt, Turmeric, Gas Cylinders, Cars.

Natural Resources

Smuggling of goods or resources that are harvested from nature. E.g., Gold, Sandalwood, Wood, Sand, Metals.

Fuel

It is a form of arbitrage aimed at bringing lower priced fuel from one jurisdiction into a higher priced jurisdiction in order to obtain a profit through the price differential. E.g. Petroleum, Crude Oil, Gas.

Tobacco

Smuggling of goods that are a product of the tobacco plant. E.g., Cigarettes, Cigars, Chewing Tobacco.

Alcohol

Smuggling of alcoholic beverages that are against the law to be imported or exported.

Weapons

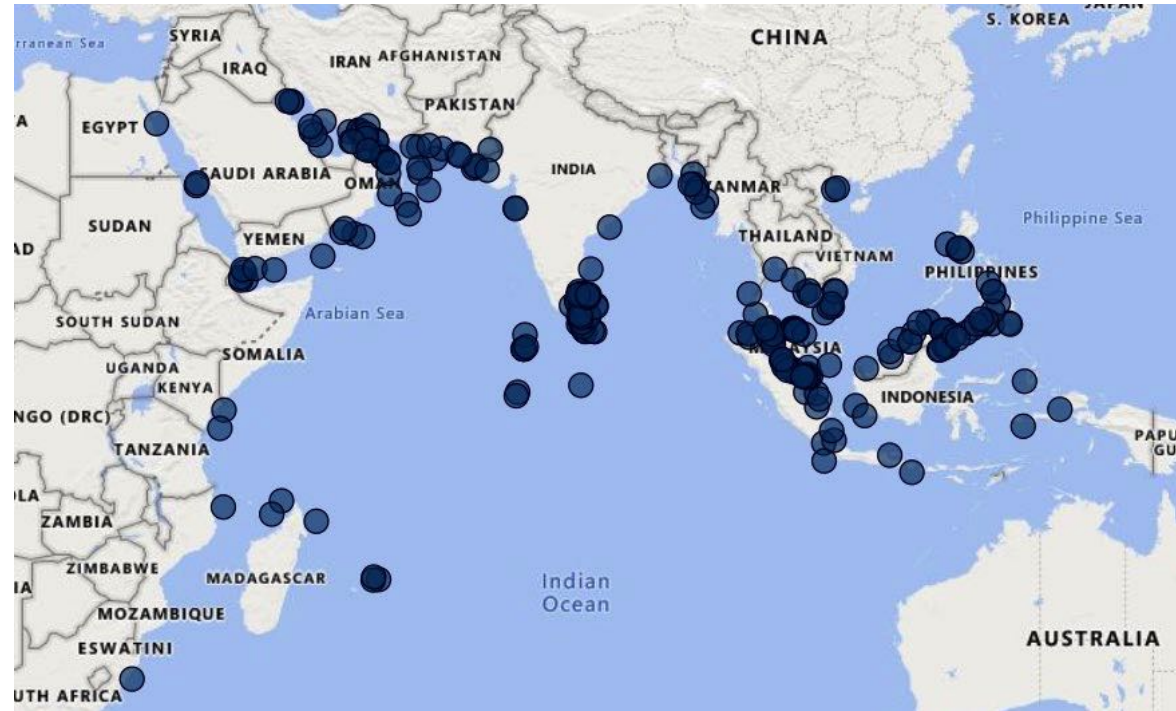
Smuggling of goods designed for inflicting bodily harm or any form of damage. E.g., Guns, Knives, Explosives, Fire Works.

Wildlife

Smuggling of live animals, birds or animal parts listed under the Convention on International Trade in Endangered Species (CITES) of Wild Fauna and Flora. E.g., Elephant Tusk, Pangolin Scales, Tortoises, Turtle Eggs.



OVERVIEW



In the year 2020, the Centre monitored 421 incidents broadly classified under contraband smuggling.

The incidents have been categorised as Drugs, Domestic Products, Natural Resources, Fuel, Tobacco, Alcohol, Weapons and Wildlife based on their nature and as per the definitions being followed at the Centre.

The incidents have also been grouped under four regions towards undertaking analysis viz. South Asia, Middle East, East Africa and South East Asia.

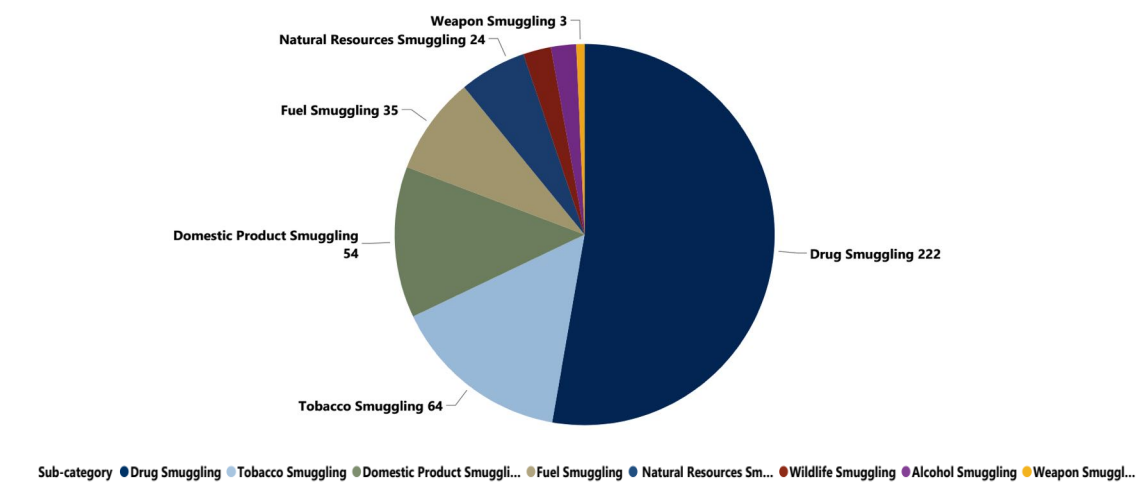
Contraband Smuggling covers all incidents of illicit transfer of commodities, to include illegal substances such as drugs and weapons, regulated natural resources and wildlife, fuel, tobacco and undeclared domestic goods. The movement of illicit goods not only perpetuates criminal activity, spreads harmful substances and has negative

effect on the population, but can also impact the local economy, detract from lawful government excise taxes, destabilise legitimate authority by contributing to corruption. More importantly, reports on drug smuggling indicate, profit being routed to fund transnational criminal, separatist, and terrorist organisations.

The scope of the Centre's recording and analysis focuses on reported incidents that occurred in and around the maritime domain. The incidents have been monitored from the ports, coastal landing sites and river-ways to the littoral regions near shore and out to the high seas of the region. This report does not focus on landward seizures outside of aforementioned areas.

The detailed analysis along with some key events during the year have been elucidated in the succeeding paragraphs.

TYPES OF INCIDENTS



A breakdown of reported incidents as per various categories followed at the Centre is shown in the graph.

Drug smuggling with about 53% share of the overall incidents is the highest reported category followed by smuggling of tobacco and domestic products.

These incidents follow supply and demand trends similar to legal market economics, with smuggling routes and resultant seizures occurring along sea lines of communication and key shipping hubs. However, there are also indications of shifting methods for moving contraband designed to foil efforts of maritime enforcement agencies. The following sections will detail each of the

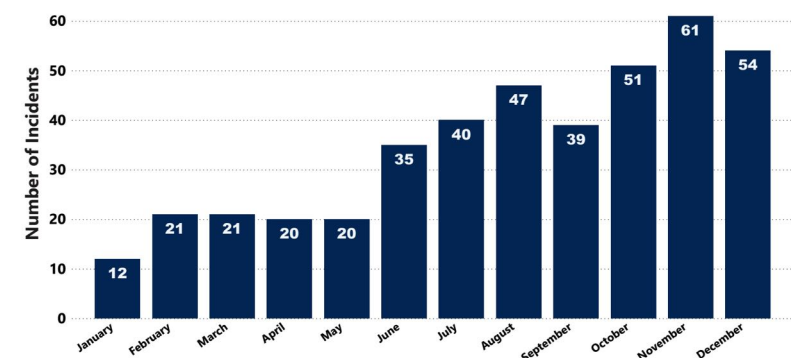
key contraband commodities based on reported incidents and provide analysis on observed trends and potential future developments.

The effect of COVID-19 pandemic on the movement of illicit trade cannot be overstated enough, as it drastically affected global economics, transportation and societal behavioural patterns. Reduced air travel, shifting maritime transportation routes and methods, increased unemployment across multiple sectors of society, as well as the impact on personal consumption habits, all made 2020 a unique year and require further examination over time to measure the full impact of the pandemic.

MONTH WISE BREAKDOWN

A month wise distribution of the reported contraband incidents across the four regions is shown in the graph.

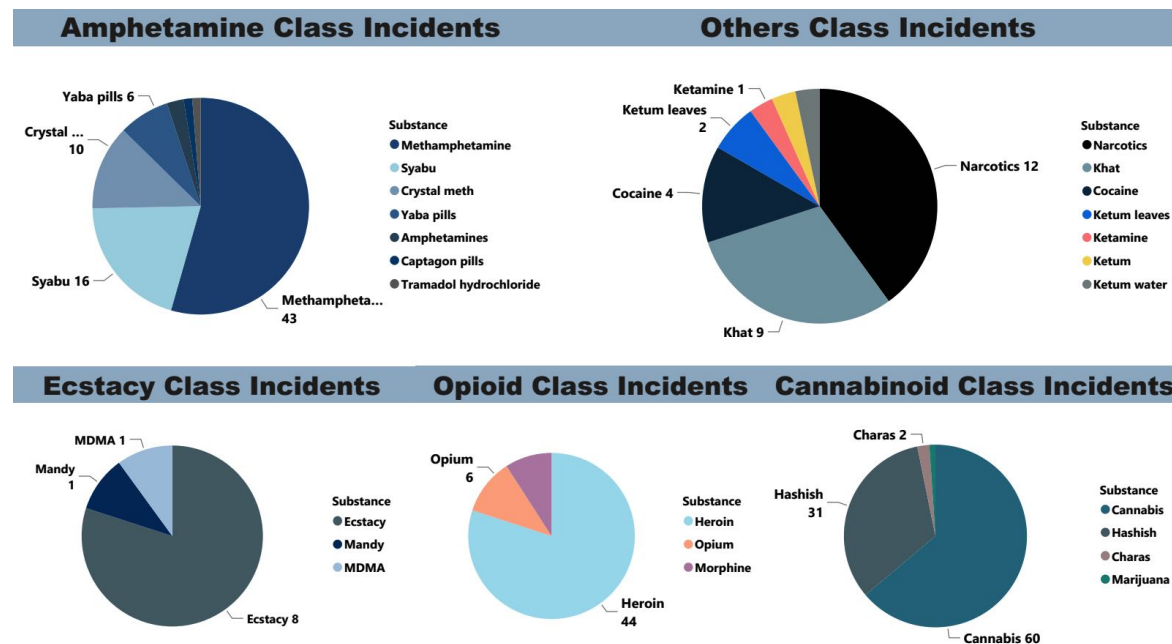
The Centre recorded an average of over 35 incidents per month during 2020. It was observed that the incidents in the second half of the year were higher than the annual average. This may be attributable to proactive reporting in the region, increased trafficking as well as seizures post easing of COVID restrictions and gradual improvement of the Centre's data monitoring ability.



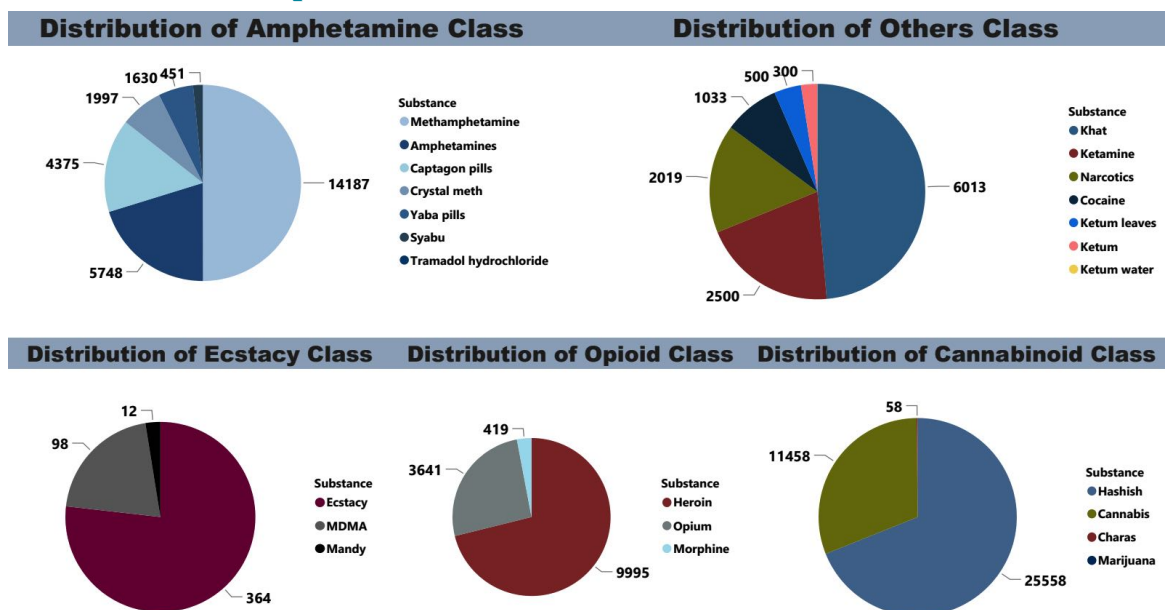
DRUG SMUGGLING

Major drug seizures in the IOR centered mainly around large shipments of Cannabinoids, Amphetamine Type Substances (ATS) such as Methamphetamine, and Opioids, such as Heroin. The monitored seizures follow a smuggling lifecycle that highlight regional manufacturing hubs and seaborne transportation smuggling routes.

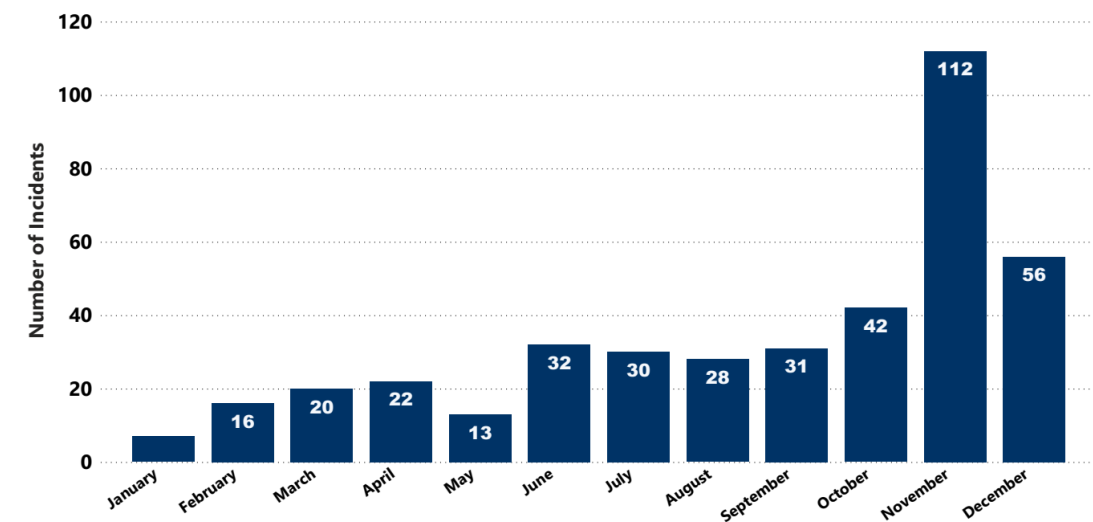
DRUG SEIZURE INCIDENTS



DRUG SEIZURE QUANTITY



MONTH WISE BREAKDOWN



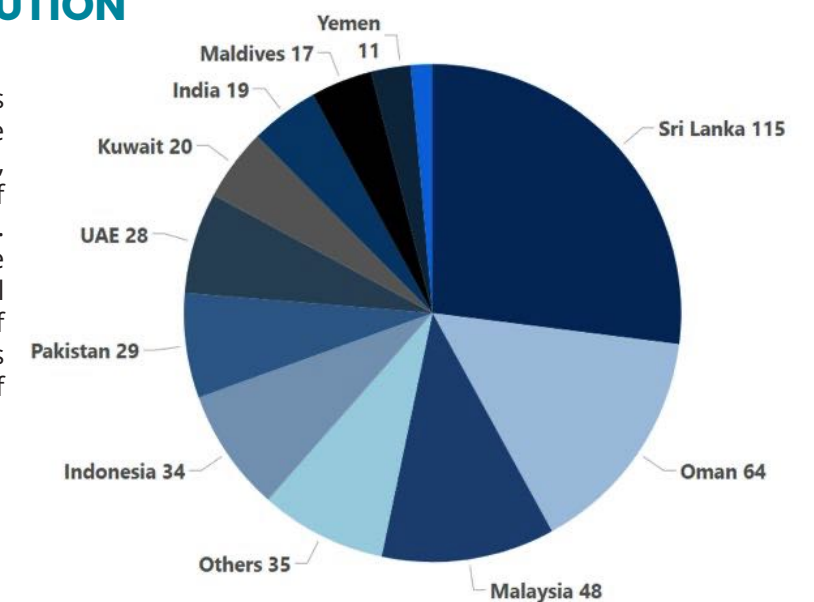
A steady increase was observed in the monthly recorded incidents of drug smuggling. However, this should not be interpreted as an increase in total drug smuggling as there are a variety of factors at play. As the Centre increases its capabilities in tracking incidents it may be this expanding awareness that lead to discovering more recorded incidents. The recorded incidents themselves are based on media reports and government press statements, and therefore may not be fully representative of all incidents of interdiction, as agencies sometimes choose not to report incidents as part of ongoing operations. The Centre presently does not monitor all incidents reported only in vernacular media and it is possible

that certain reported incidents could not be captured in the database.

Further, the number of reported incidents are based on Law Enforcement interdiction, which may be considered as enhanced and proactive enforcement, but does not necessarily lead to the conclusion that total smuggling has increased. A litmus test for the amount of drugs being smuggled could be measured by the price of drugs in local markets. Greater price shows either lower supply or greater demand, but general demand could be taken as remaining steady. A comparison of local drug prices is beyond the scope of this report, and the following analysis will be based on reported seizures.

COUNTRY WISE DISTRIBUTION

The reported drug seizures by countries does not necessarily indicate presence of more drugs in the concerned country, and it may be taken as an indicator of the proactive reporting by that country. The high reporting off Sri Lanka may be attributable to proactive reporting of all seizures, many of which are seizures of small quantity. The quantity of drugs seized is a greater overall indicator of smuggling activity through the region.



REGIONAL ANALYSIS

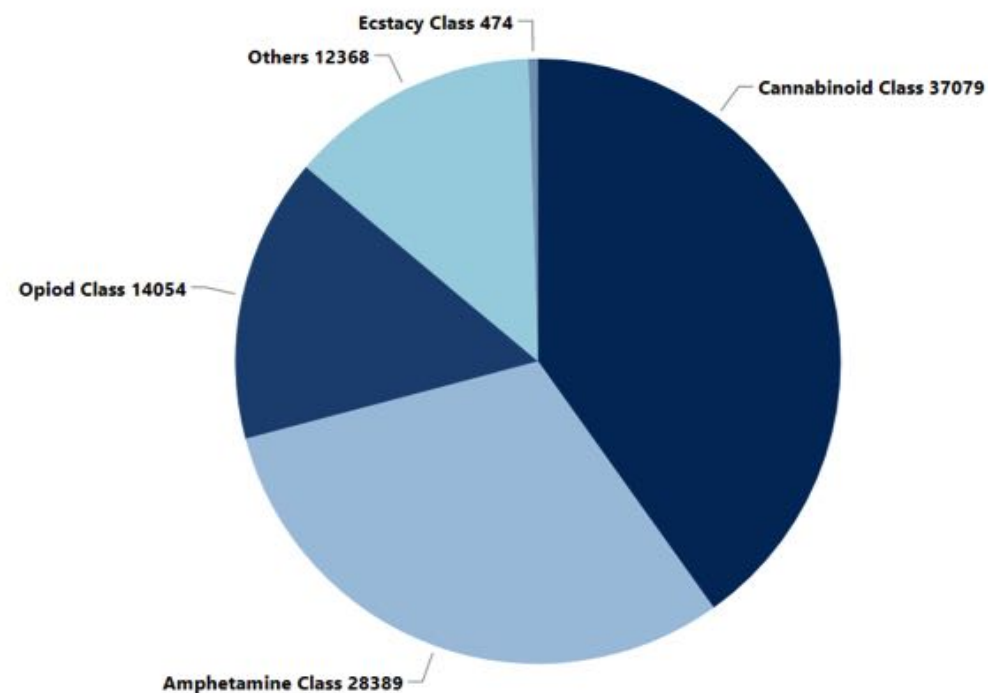
DRUG SMUGGLING

FOCUS BY REGION

Based on the reported incidents, the Centre monitored three main clusters in the region. As per open-source reports, The Golden Triangle and Golden Crescent are the two main manufacturing hubs in the Indian Ocean Region that flank the sub-continent on the Eastern and Western Reaches, respectively. The two predominant areas of reported drug seizures for these areas are near the littoral regions of the Persian Gulf and Arabian Sea, and the Andaman Sea, as well as conduits leading from these areas to international traffic

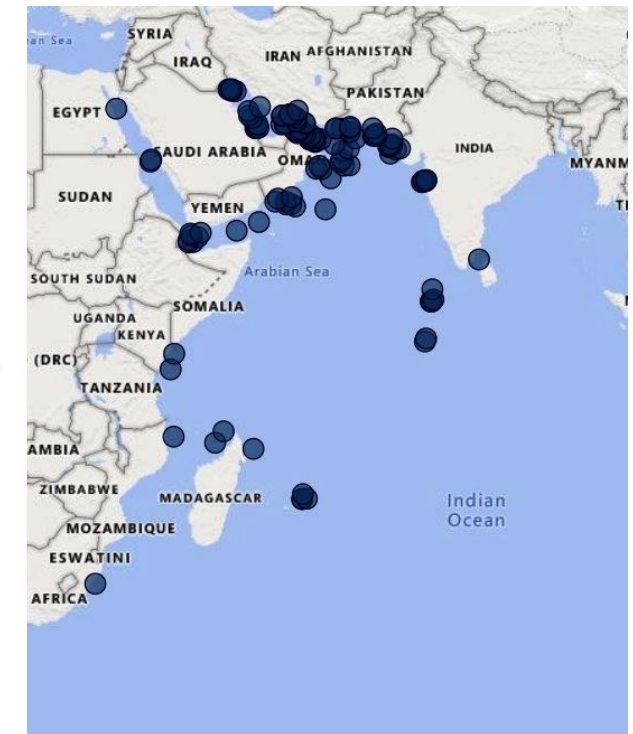
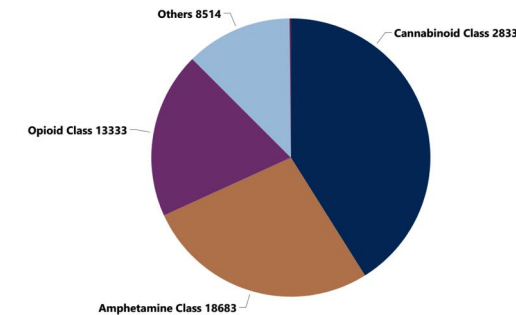
routes. Interdictions by warships have also been reported in the high seas, specially in Arabian Sea.

These regions are mainly responsible for the production of three drug categories – Opioids, Cannabinoids, and Amphetamine Type Substances. A fourth category labelled as “Other” encompasses less often seized drug types that are not known to be produced in the IOR. Significant seizures of the main categories show their general flow through the IOR.



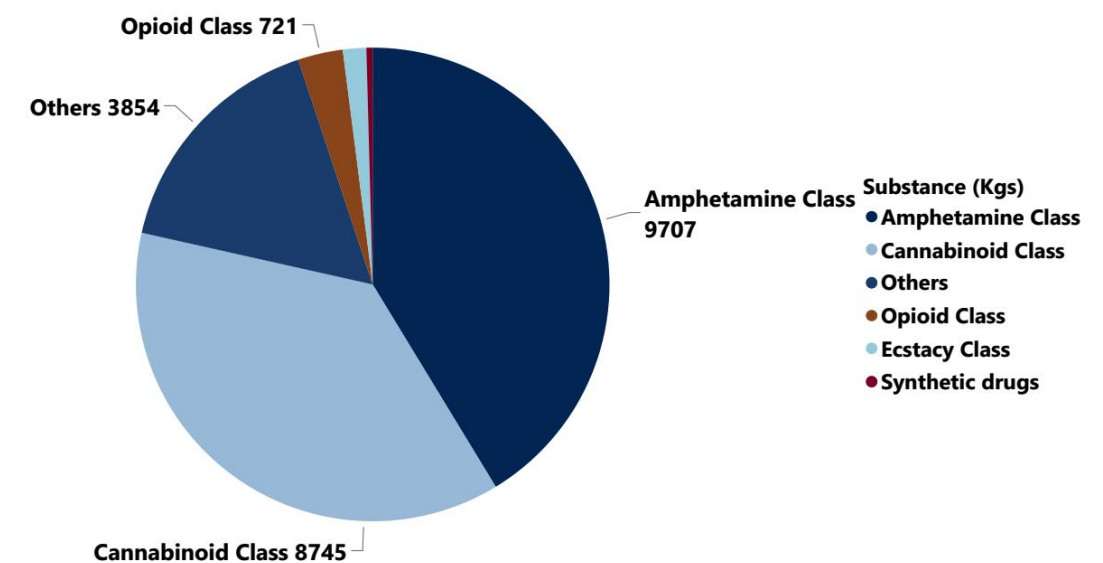
WEST INDIAN OCEAN

Analysis of seizures in the region highlight that large quantities of drugs are produced and then shipped through the maritime routes for transit to their destination.



EAST INDIAN OCEAN

The Centre monitored several drug seizures which are believed to have originated from manufacturing hubs in Eastern Indian Ocean. Correlation of certain reported incidents with open-source reports indicate the possibility that drugs originating from Western Indian Ocean are being smuggled into South East Asia, for local consumption and onward transshipment.



ANALYSIS OF DRUG SMUGGLING



DRUG SMUGGLING METHODOLOGY

The Centre utilised the 'Cluster Organisation' of the operations team and conducted an in-house analysis with focus on the drug smuggling ways, means, and methods. Some of the key observations have been elucidated in the succeeding paragraphs.

The smuggling of drugs generally starts via land routes and inland waterways from their point of production to the nearest/ preferred port of debarkation. The recorded incidents highlight two commonly utilised methods smuggling drugs via sea routes. The predominant method involves the drug shipment treated as the primary shipment of a small to medium sized ocean-going vessel, such as a dhow, fishing or sailing vessel/ yacht. The vessels can be loaded in port or on the beach, but are also commonly loaded at sea via secondary vessels used to transfer the drugs to/ from the coast. Transshipment at sea provides the benefit of vessels remaining further from the coastline, making them harder to detect, which helps avoid enforcement authorities and allows vessels involved to blend into local maritime traffic and remain more inconspicuous. Small craft also have greater flexibility in where they can land or dock to allow for more discreet points of ingress and egress along the coast. Delivery of drugs has been recorded through other various methods as well. Reports of drug "dead drops" in remote locations, moored to buoys with GPS fixed locations, and drugs dropped off at sea for pick up or to float ashore have all been monitored.

The second main method for shipping drugs is through cargo vessels utilising containerised units. This allows large quantities of drugs to ride on otherwise legally shipped commercial cargo. Drugs are concealed within the container through a variety of methods. Reports were monitored of instances of liquefied drugs presented as daily cleaning products. Drugs hidden beneath rotting plant or animal matter, concealed within common household appliances, furniture or within packaged products, false bottoms, void

spaces, etc. provide an example that there is no limit to the insidious ingenuity of trafficker's expertise to disguise or conceal drug shipments.

Another key topic for smuggling methods is the packaging itself. It has been observed that certain drugs are routinely packed in the same method. For large quantities of Hashish or Cannabis, large bales are normally utilised for the sake of efficiency. On the other hand, for synthetically produced drugs, it is much more common to find the drugs packaged in such a way as to identify the branding. A typically observed example would be the packaging of Syabu (methamphetamine pills) in Chinese Tea Packets. Synthetic pills are also routinely stamped with brand logos or letters to establish authenticity and brand loyalty. However, it should be noted there is no way for the end user to establish if the drugs were not counterfeit.

DRUG SMUGGLING ROUTES

Smack Track / Hash Highway refer to heroin and hashish smuggling routes that originate from the Makran Coast or North Arabian Sea and head to Eastern Africa and the Yellow Sea. Traditionally, large numbers of interdictions have been reported along these sea routes.

There have been recent indications of contraband traffic altering from traditional direct routes to more circuitous pathways that may head out to the middle of the Indian Ocean for transshipment (exchange of drugs at sea). Due to the vast expanse of the Indian Ocean Region and large amount of legal traffic at sea, detection and interdiction of drug smuggling is difficult in the high seas, and are more common near littoral regions.

The regional cluster of cannabis seizures off Sri Lanka and the Southern tip of India suggests a localised maritime trafficking route. However, the origin of these seizures are currently unattributed absent further forensic evidence.

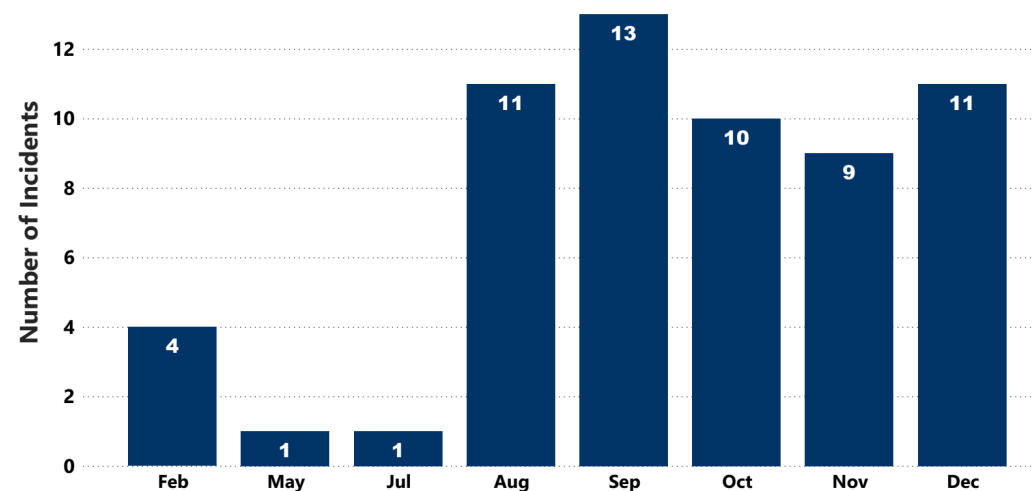
The large-scale seizures of methamphetamine over the year present a major concern and an indicator of emergence of a new trend. Evidence and reporting of increased synthetic contraband seizures suggest there is a trend of shifting production sites, since synthetics can be produced anywhere the precursors can be congregated. The increase is likely the result of a discovery by drug traffickers that a wild plant - ephedra commonly found growing in parts of Afghanistan mountains, can be used to create the key component of meth – ephedrine. Previously ephedrine was extracted from more expensive imported chemicals but traffickers are now able to use this cheaper alternative in modified laboratories.

ANALYSIS BY CONTRABAND

DOMESTIC PRODUCT SMUGGLING

The incidents of Domestic Product smuggling cover a vast assortment of items, that range from counterfeit materials to undeclared items for tax avoidance. There were no discernible pattern for reported incidents, with an exception for large seizures of turmeric off Sri Lanka. Sri Lanka's import ban on turmeric along with outsize

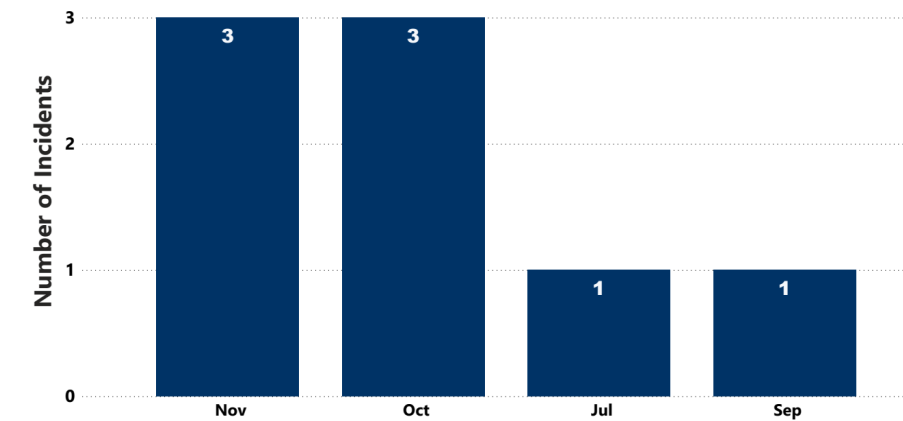
demand vs local production inculcates a profitable commodity for smuggling by illicit operators. The dip in Domestic Product Smuggling in the first half of the year may be directly associated with the initial impact of COVID-19 pandemic causing local and national lockdowns which decreased import/export operations.



ALCOHOL SMUGGLING

Alcohol Smuggling incidents in the region were mainly reported around countries that ban or restrict its consumption.

Countries where it may not be consumed legally or only under restricted conditions provide a lucrative market for smuggling.

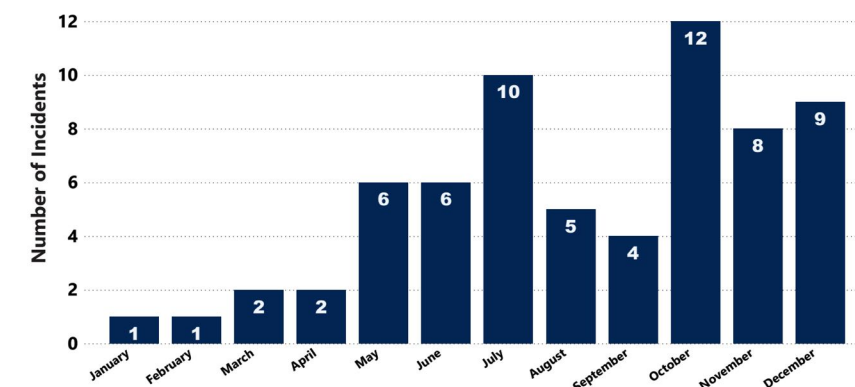


TOBACCO SMUGGLING

Tobacco smuggling has been predominately observed in the South East Asia region, with fewer and more sparse incidents occurring across the rest of the IOR. Most incidents recorded were around the Philippines and Malaysia.

illicit transfer of tobacco products to be smuggled with relatively greater ease by the sea route, compounded by taxation. As per reports, Cigarette excise taxes in the Philippines account for 24.1% of retail cigarette prices on average, while total taxes on cigarettes account for 36.1% of retail prices.

This is most likely due to the archipelagic nature of both countries, allowing the

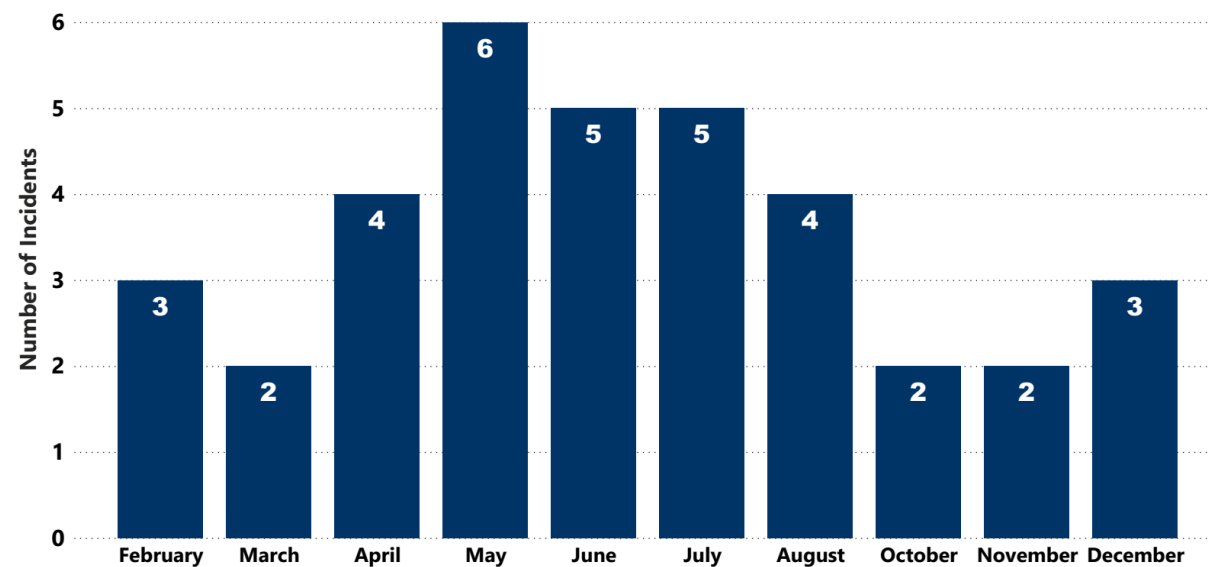
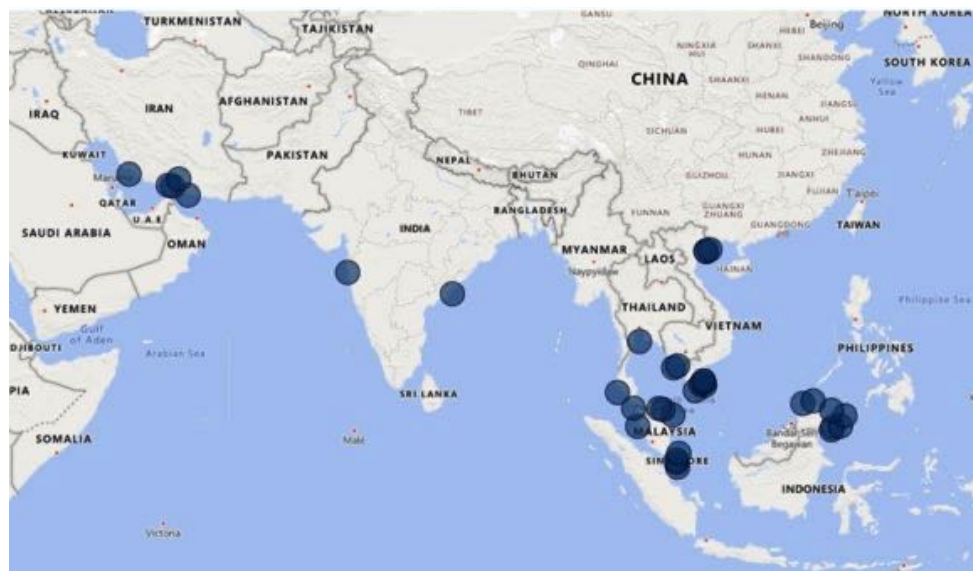


ANALYSIS BY CONTRABAND

FUEL SMUGGLING

Fuel smuggling was likely impacted by reduction in fuel costs due to drop in crude prices (impact of the COVID-19 pandemic). Incidents of smuggling peaked mid-year probably to take advantage of oversupply of available fuel due to the overall decrease in global demand as economies locked

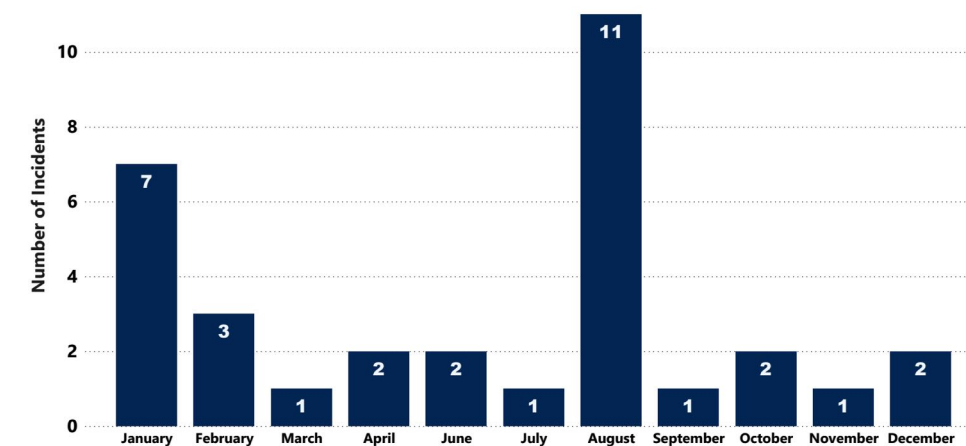
down due to the pandemic. High incidents of smuggling were recorded at sea likely due to the archipelagic nature of the region, which facilitates smuggling operations due to lengthy and porous coastlines that are difficult to police.



NATURAL RESOURCE SMUGGLING

The reported incidents of Natural Resources smuggling via sea routes covered large variety of materials, similar to Domestic Product smuggling. Gold, Quartz, and Precious Woods, such

as Sandalwood, were the most often smuggled resources. Major sources of smuggling in the region were along the South East Coast of India and the East Coast of Africa.



WEAPONS SMUGGLING

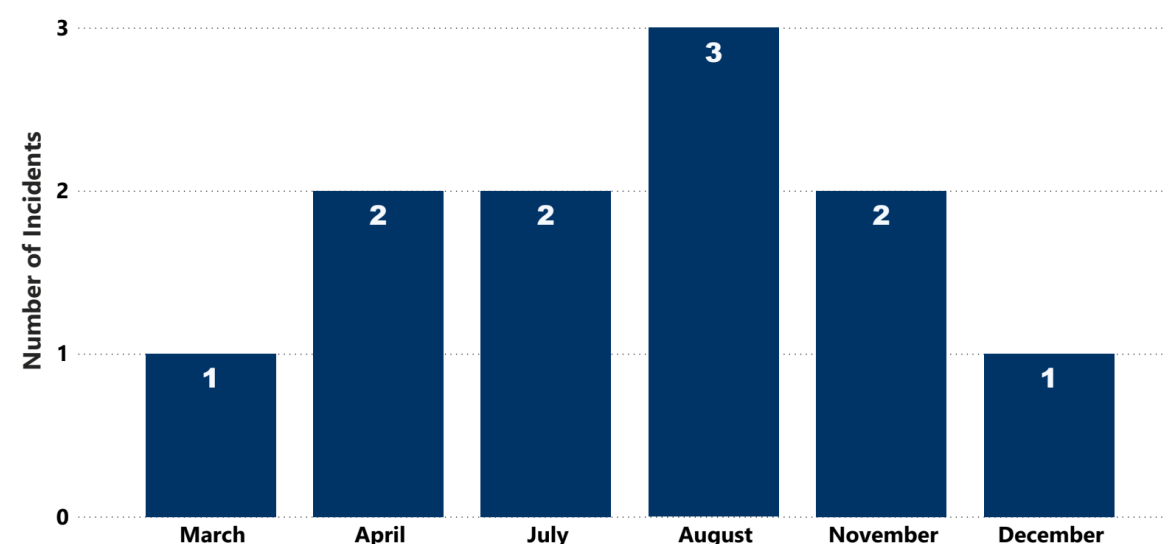
The Centre monitored three incidents of weapons smuggling during the year. It bears note that the number of reported incidents indicate successful seizures and may not truly reflect the scale of gun running being undertaken through the sea route. Based on the reported incidents, weapons smuggling has been observed to be destined to a few select countries. Small arms were also monitored, likely trafficked in conjunction with transnational criminal or terrorist organisations.

ANALYSIS BY CONTRABAND

WILDLIFE SMUGGLING

Wildlife smuggling throughout the region was monitored across a large range of species. Most smuggled wildlife were species valued for either desirability as pets, or as their claimed value for traditional medicinal practices in regional cultures.

Turtle and bird species were the most commonly reported wildlife types smuggled. Pangolin (and pangolin derived substances) also had notable seizures due to their popularity as a delicacy and claimed medicinal effects in Asian cultures.



'Conference on Combating Drug Trafficking' for BIMSTEC Partner Nations conducted at New Delhi, India

BIMSTEC 'Conference on Combating Drug Trafficking' was conducted on 13-14 Feb 20. Over two days of extensive deliberations, it provided an important platform for BIMSTEC Nations to share ideas and exchange best practices required to combat the drug menace in the region. The sessions conducted during the conference included Maritime Trafficking of drugs in the Region, Production & Trafficking of Methamphetamine in the Region, Drug Trafficking and Darknet - Courier & Postal Interdictions and Trafficking of Pharmaceutical Drugs containing Narcotic Drugs & Psychotropic Substances. The demand and harm reduction mechanisms used by the member Nations were also shared during the sessions.

<https://pib.gov.in/newsite/PrintRelease.aspx?relid=199348>

Tracking Sea Turtle Egg Traffickers with GPS-Enabled Decoy Eggs

By placing 3D-printed and GPS-enabled decoy sea turtle eggs into nests on the beach, it is possible to gather key evidence needed to expose rampant illegal trade of the eggs. 3D-printed decoy eggs with GPS trackers, called INVESTEGGATOR, can track eggs that have been illegally removed and could help identify the chain involved in their illegal trade. The decoy eggs, about the size of a ping-pong ball, were developed by conservation organisation Paso Pacifico in Nicaragua to fight wildlife poaching. Reportedly, placing a decoy into a turtle nest did not damage the incubating embryos and the decoys work.

<https://angari.org/tracking-sea-turtle-egg-traffickers-with-gps-enabled-decoy-eggs/>

Measuring and Mapping Maritime Security in the Bay of Bengal

A new policy brief from Stable Seas was released which helps to measure and map various maritime security issues across the Bay of Bengal region. Building off the in-depth report Stable Seas: Bay of Bengal and expanded Maritime Security Index, the brief looks at the maritime security challenges that face the region and what can be done to address them. The document dives deep into each of the nine maritime security issue areas covered in the index for all the states along the Bay of Bengal littoral. The brief pays particular attention to the role of the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC). The brief details the potential of BIMSTEC to play such a role and suggests a few areas of potential policy prioritisation for consideration as the region develops collaborations and solutions to its maritime security challenges.

<https://www.stableseas.org/mixed-migration/measuring-and-mapping-maritime-security-bay-bengal>



ILLEGAL UNREPORTED AND UNREGULATED FISHING

IUU FISHING

GLOSSARY OF TERMS USED

IUU Fishing

A range of offences covering fishing without permission or in violation of regulations of the flag state or host nation, misreporting or failure to report catches to relevant authorities where required to do so, fishing vessels without a flag or national registration, or fishing on stocks without management measures in place.

Local IUU

IUU fishing conducted by fishing vessels of a state, in the waters under the jurisdiction of the flag state, without valid license/ permit of that state, or in contravention of its laws and regulations.

Poaching

IUU fishing conducted by foreign flagged vessels, in waters under the jurisdiction of a state, without valid license/ permit of that state, or in contravention of its laws and regulations.

the high seas and in areas within national jurisdiction. It concerns all aspects and stages of the capture and utilisation of fish. The categorisation of unauthorised fishing under specific categories of Illegal/ Unreported/ Unregulated fishing has been facilitated through definitions or guidelines promulgated by organisations like UNFAO (Food and Agriculture Organisation of the United Nations). However, the Centre whilst undertaking analysis of the reported incidents observed that it is difficult to categorise the incidents into Illegal or Unreported or Unregulated fishing due

to lack of adequate on-ground reporting/ data. Therefore, to obviate inaccurate representation of data, the reported incidents have been categorised as Local IUU and Poaching.

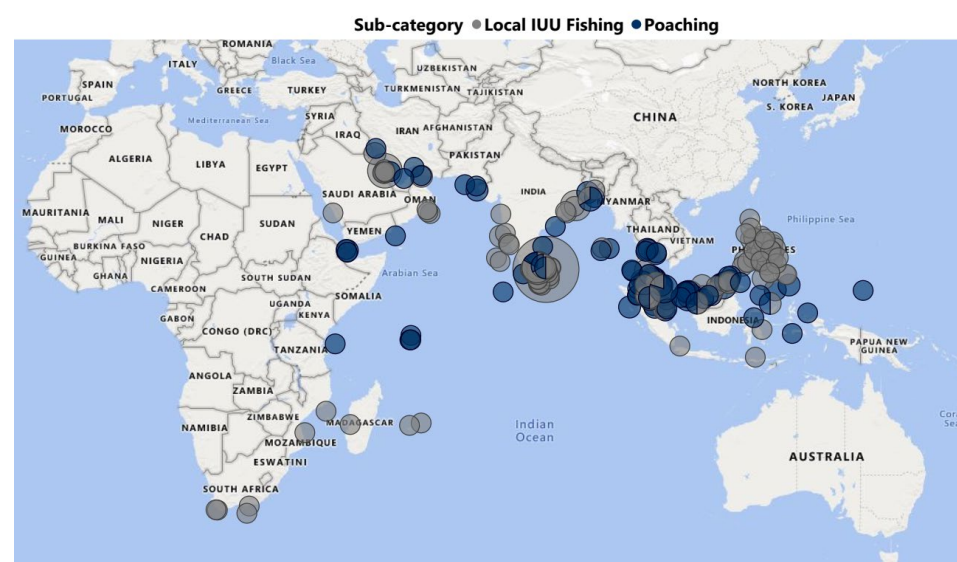
The incidents have also been grouped under four regions towards undertaking analysis viz., South Asia, Middle East, East Africa and South East Asia.

The detailed analysis undertaken by the 'Cluster Organisation', alongwith some key events during the year have been elucidated in the succeeding paragraphs.



'One in every five fish is caught illegally' - UN FAO

OVERVIEW

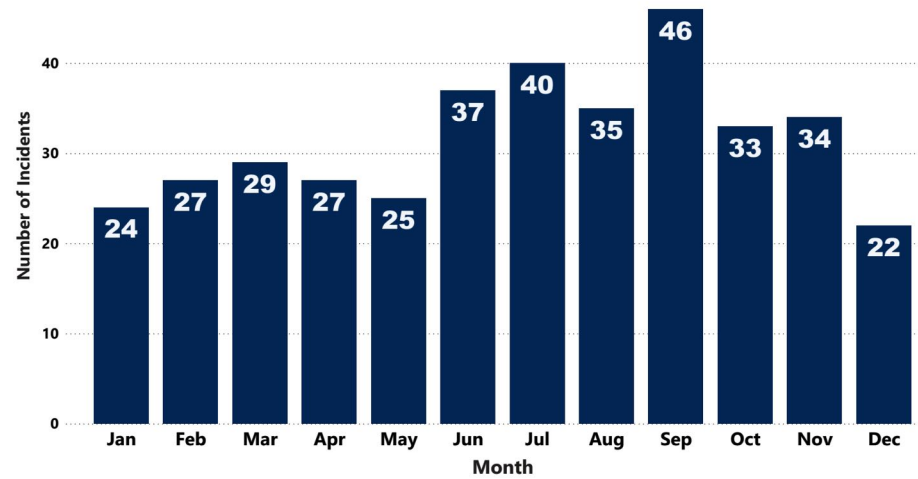


In the year 2020, the Centre monitored 379 reported incidents of Illegal Unreported Unregulated (IUU) Fishing.

IUU fishing is a broad term that captures a wide variety of fishing activity and is found in all types and dimensions of fisheries and occurs both on



MONTH WISE BREAKDOWN



A month wise distribution of actual and attempted IUU fishing incidents across the four regions is shown in the graph.

The Centre recorded an average of over 31 incidents per month during 2020. The incidents reported in six months, from Jun to Nov 20 were observed to be higher than the average. On the other hand, the months of Jan to May along with Dec 20 witnessed reported incidents lower than the average.

Considering that June to September is peak period of South West Monsoon and fishing activity is generally sparse as compared to other months, the trend of monthly incidents observed in 2020

is appreciated to be an anomaly and a variance from seasonal trends.

It is highly likely that the drop in incidents during the first half of the year is attributable to COVID-19 pandemic and the associated restrictions on fishermen putting-out to sea and interdiction operations by enforcement agencies across the regions.

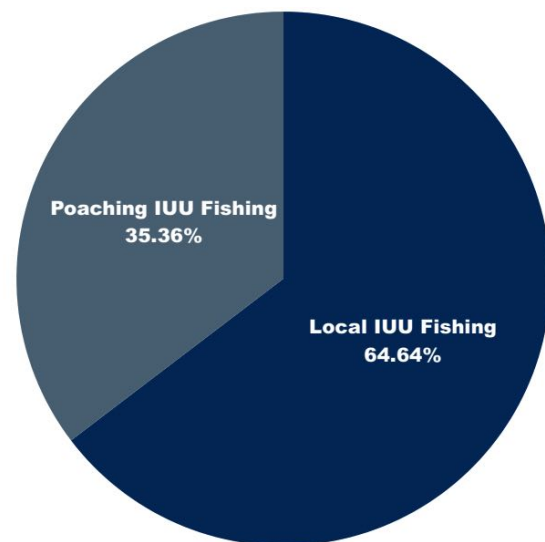
The sharp drop observed in Dec 20 is appreciated to be due to a combination of drop in fishing activity in South East Asia owing to North East Monsoon and a gradual decline in reporting of local IUU fishing in certain regions.

TYPES OF INCIDENTS

The Centre observed that 65% of the reported incidents were local IUU fishing. Majority of these incidents were related to violation of license by local (in some cases foreign) fishermen, illegal fishing techniques and fishing of banned species.

Nearly 50% of the local IUU incidents were reported in South Asia and 80% of the incidents in South Asia were monitored off Sri Lanka alone. This is attributable to proactive enforcement and subsequent prompt reporting of the incidents by concerned authorities in Sri Lanka.

About 66% of the local IUU incidents in South East Asia were reported off Philippines, which was appreciated to be due to stringent enforcement and proactive reporting of the counter-IUU

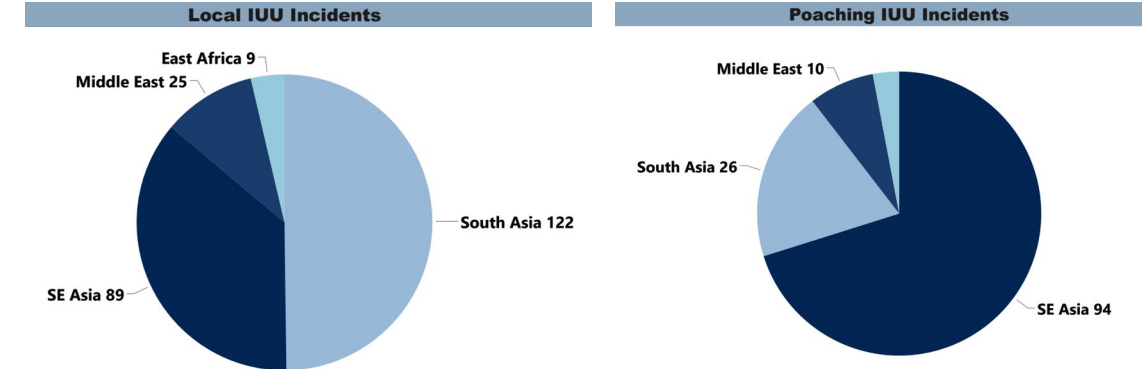


interdictions by local authorities.

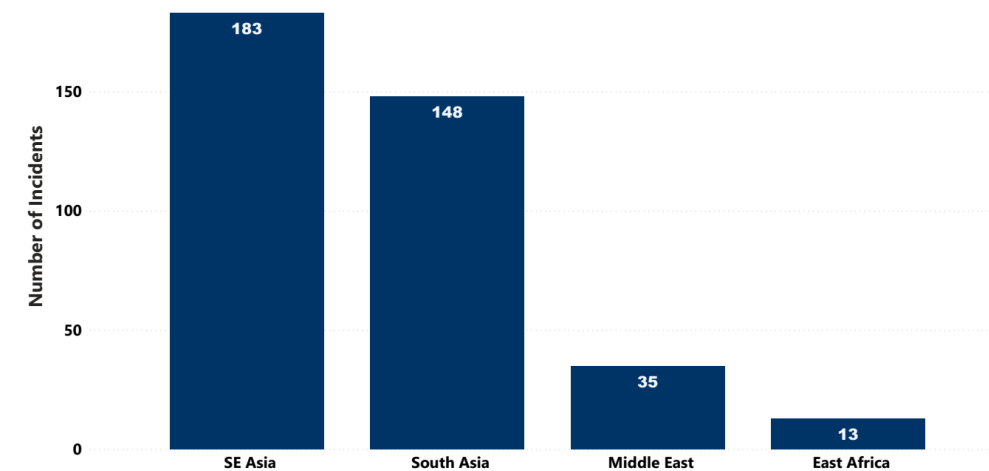
The Centre observed that 70% of the poaching incidents were recorded in South East Asia and majority of the incidents were monitored in the waters of Indonesia and Malaysia.

The interdiction of foreign fishing trawlers

by authorities across the regions was possibly due to robust surveillance, timely information sharing, coordinated patrols and adequate focus on the pertinent issue of poaching.



REGIONAL DISTRIBUTION



A breakdown of reported incidents of IUU fishing across the four regions is shown in the graph.

Over 48% (183) of the overall incidents were recorded across the waters of South East Asian countries.

The incidents in South East Asia were primarily reported off Malaysia and Philippines followed by Indonesia and Thailand. One poaching incident was reported off Brunei.

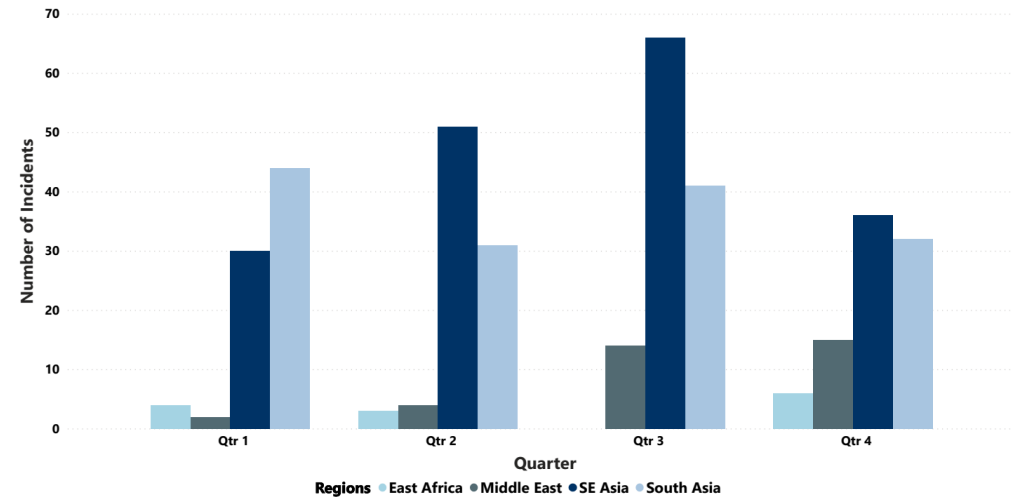
Nearly 40% of the reported (overall) IUU incidents were monitored across countries in South Asia. 83% of these incidents were local IUU and 17% were

incidents of poaching. The Centre appreciates that the drop in poaching incidents was due to COVID-19 as authorities may have been constrained in handing over foreign fishermen to local authorities.

About 72% of the IUU incidents monitored in Middle East were local IUU and the remaining 28% were poaching incidents.

The reported incidents along East Africa accounted for 3.4% of the overall incidents and all incidents off South Africa involved illegal harvesting of abalones.

SEASONAL VARIATIONS



The regions monitored by the Centre for IUU fishing broadly experience two major monsoon seasons. South Asia, Middle East and parts of South East Asia are impacted by South West Monsoon from end May to early October. The North East Monsoon is active from November to early February (generally peaks in December) and impacts South East Asia and some parts of South Asia.

A common phenomenon to both monsoons is the rough weather accompanied with strong winds and heavy swell. The sea conditions on many occasions are observed to be dangerous for navigational safety of small vessels viz., artisanal fishing vessels and coastal trawlers. Hence, traditionally a drop is observed in the fishing activity in certain coastal states. Concurrently, enforcement activity is also affected, as small patrol vessels experience difficulty in the heavy weather conditions to remain at sea for prolonged durations and undertake counter-IUU deployments.

The expected trend owing to above mentioned factors, is a drop in fishing activity and also the reported IUU incidents (local and poaching) during the peak periods of the two monsoons.

However, in 2020 a rise in incidents was observed between Jun to Sep, which is likely due to two factors. Firstly, the fishermen ventured out to sea even during the rough weather conditions, to compensate for the loss of income incurred during the lockdown in the first half of the year. Secondly, it may be that the difference observed is a normal yearly trend with lesser IUU activities in first half of the year.

The sharp drop in Dec 20 owing to drop in activity during peak period of North East Monsoon, only reinforced the appreciation that the rise in incidents (between Jun to Sep) is an anomaly.

The Centre would monitor this trend in 2021 and attempt to establish if this indeed is an anomaly or a normal seasonal trend.

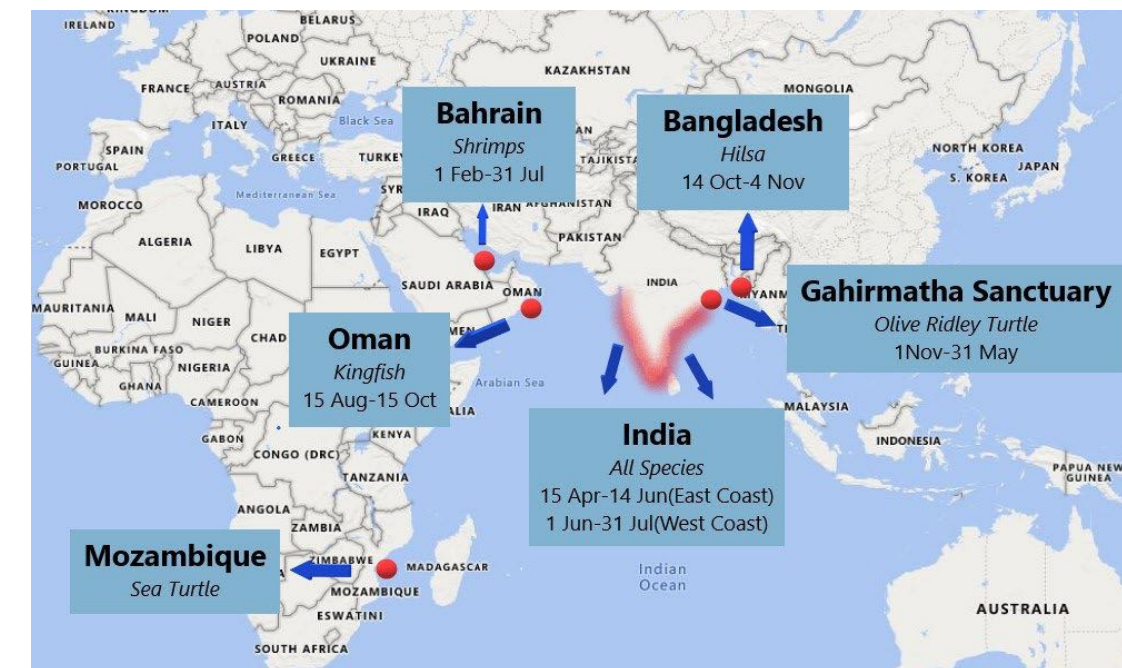
FISHING BAN

The Centre monitored various periods of ban on fishing activity imposed by coastal states during the year. The ban on fishing activity was broadly aimed at protecting marine species from uncontrolled exploitation during the breeding season. These bans are generally seasonal and specific dates for the year are announced by the concerned coastal state for the awareness of fishing community.

Some of the seasonal bans were targeted against specific type of species while a few were promulgated for all species in a specified geographical area.

Ban against specific species for a certain period of the year were monitored off Bahrain (Shrimp), Bangladesh (Hilsa), Mozambique (Crabs and Turtles) and Oman (Al-Sharka and Kingfish).

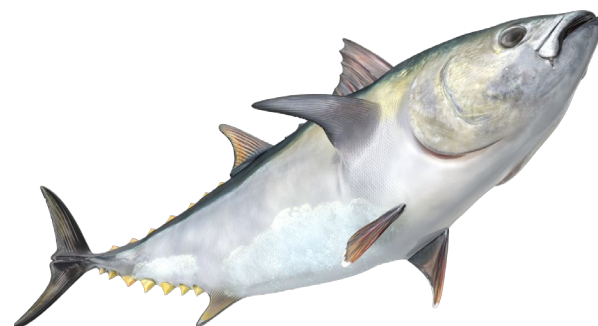
Ban in a geographical area for a certain period of the year was observed along the East and West Coasts of India. Further, a ban on fishing is imposed off Gahirmatha Sanctuary in India during the breeding season of Olive Ridley Turtles. Few of these fishing bans are depicted below:-



ILLEGAL FISHING

ILLEGAL FISHING – BANNED SPECIES

| Banned Species | Country | Description |
|-----------------------------|--------------------|--|
| Sea Cucumbers | India Sri Lanka | The high market value of the species make it a lucrative option for illicit operators. They are protected under the Convention on International Trade in Endangered Species (CITES) |
| Conches (<i>shankhas</i>) | Sri Lanka | Commercial value and significance in the religious practices of the region. Pure white right conches are considered very sacred and are highly sought. Endangered species protected by law in Sri Lanka. |
| Sharks/ Sawfish/ Guitarfish | India | Banned under Wildlife Protection Act (WPA), 1972. |
| Abalone | South Africa | During the early 2000s demand for abalone in Hong Kong exploded and in 2007 the South African government, predicting decline due to over-harvesting, reduced the allowable catch, from 800 tonnes a year to 80 tonnes. |



ILLEGAL FISHING METHODS

| Illegal Fishing Method | Reported Prevalence | Description |
|------------------------|---------------------|---|
| Overfishing | Across regions | Occurs when more fish are caught than can be naturally reproduced by the remaining population. |
| Bottom Trawling | Across regions | A non-selective fishing method, catches everything it contacts, including juvenile fish, spawners, non-commercially valuable species, endangered, threatened and protected marine species. |
| Illegal nets & Bycatch | Across regions | This is a method of overfishing often seen in the commercial industry. When fishing with nets for a target species, numerous non-target species are incidentally captured and often returned to the water dead or injured. |
| Cyanide Fishing | Sri Lanka | Chemical is used by fishermen to stun the fish and make them easier to catch. It stuns and captures live reef fish, but kills the coral reefs |
| Explosive Fishing | Across regions | Blast fishing is an act of using explosives underwater to kill entire schools of fish with shock waves. It is used to kill the fish so that they float to the surface and can be scooped with a net. This is done using high explosive charges or homemade explosives, often at the risk of losing fingers and limbs. |

Illegal Fishing Nets

| | | |
|-------------------------------|-------------|---|
| Bubu Naga | Malaysia | Long segmented net is illegal as it is detrimental to the aquatic life. Banned by Malaysian Fisheries Act 1985 |
| Hulbot-hulbot Danish Seine | Philippines | Active gears consisting of a conical net with a pair of wings. These gears have been proven to destroy marine habitats. Banned by the Bureau of Fisheries and Aquatic Resources (BFAR) |
| Mesh nets as fish traps | Philippines | Use of fine mesh nets as fish traps is unauthorised especially when gathering of species which by their nature are small, viz., glass eels, elvers, and tabios. Banned by Republic Act 10654, 'The Philippine Fisheries Code of 1998' |

REGIONAL ANALYSIS

SOUTH ASIA

The Centre monitored 148 incidents of IUU fishing across five countries in the region viz., Bangladesh, India, Maldives, Pakistan and Sri Lanka.

Over 93% of these incidents were reported off India (21%) and Sri Lanka (72%).

A month wise distribution of IUU fishing incidents in the region is shown in the graph.

The Centre recorded an average of over 12.3 incidents per month during 2020. The incidents reported in Apr, May and Aug 20 were observed to be lower than the average, while the months of Feb, Jun, Jul and Sep 20 were higher than the average.

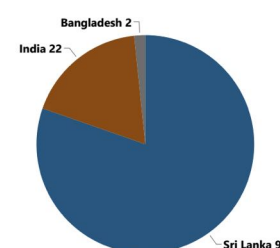
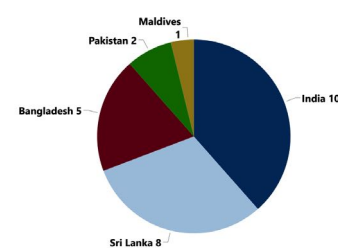
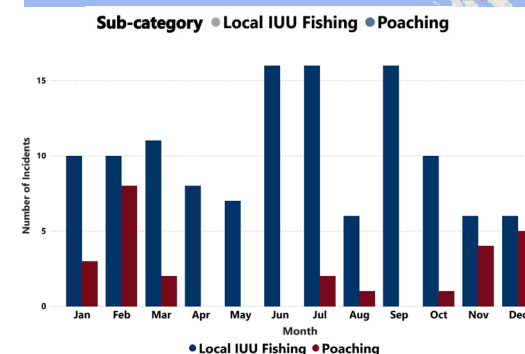
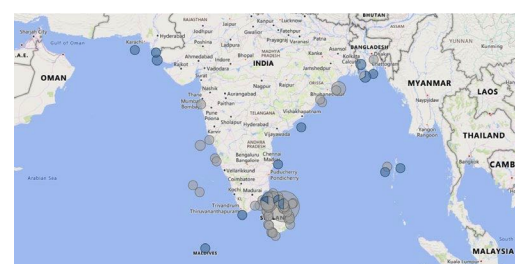
It is appreciated that this variance is a direct fall-out of COVID-19 and the associated lockdowns/ restrictions. The incidents observed in Feb is appreciated to be normal seasonal, prior COVID-19 restrictions and favourable weather conditions in the area, both for fishing activity and enforcement agencies.

The sharp rise from May to Jun is a combination of decreased activity in Apr & May due to COVID-19, partial lifting of restrictions in Jun and stringent monitoring and reporting of IUU by enforcement (probably deployed at the sea borders to control spread of pandemic) agencies.

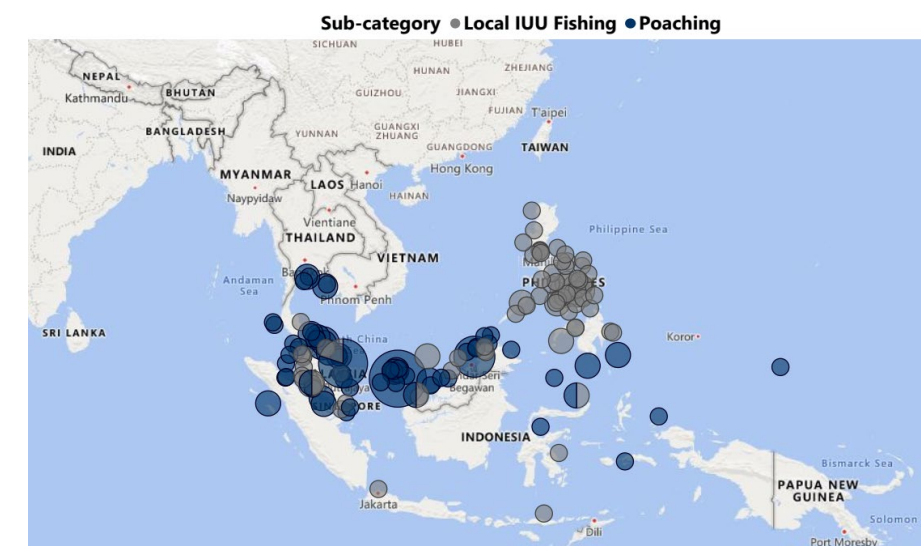
The decrease observed in the last quarter of 2020 is appreciated to be due to decline in reported local IUU incidents. Local IUU fishing accounted for nearly 82.5% of the overall IUU incidents in the region, while poaching accounted for about 17.5%.

Majority of the local IUU incidents were reported off Sri Lanka followed by India and Bangladesh. Nearly 40% of the reported poaching incidents in South Asia were reported off India followed by incidents off Sri Lanka and Bangladesh.

While the observed poaching activity being lower than the normal yearly pattern appears to be a positive development, the Centre appreciated this to be an anomaly due to restrictions imposed by COVID-19. The enforcement agencies were constrained in their ability to apprehend any foreign vessel in the local waters as the prevailing restrictions prevented them from handing over the fishermen to local authorities for legal proceedings.



SOUTH EAST ASIA



The Centre monitored 183 incidents of IUU fishing with a share of over 48% of the overall incidents in 2020. These incidents were reported across the waters of five countries in the region viz., Brunei, Indonesia, Malaysia, Philippines and Thailand.

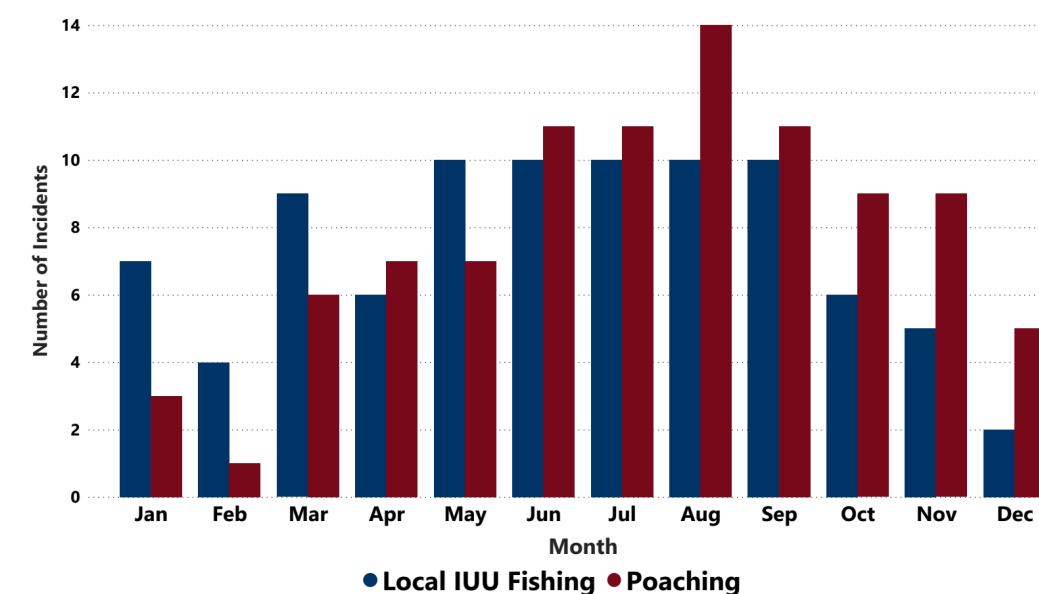
Nearly 87% of these incidents were reported off Philippines (32.8%), Malaysia (31.7%) and Indonesia (22.4%).

A month wise distribution of IUU fishing incidents in the region is shown in the graph below.

The Centre recorded an average of over 15.2 incidents per month during 2020. The incidents reported for five months (May to Sep) were observed to be higher than the average, while there was a sharp drop in Jan, Feb and Dec 20.

The contributing factors behind this drop varied from one month to another. Traditionally, South East Asia experiences North East Monsoon with peak observed in December and January. The drop observed in Jan 20 is likely to be a combination of monsoon and decreased activity during lunar new year (end Jan 20). It is likely that Feb 20 was the worst impacted month due to COVID-19 restrictions. The drop in incidents in Dec 20 is largely a factor of reduced activity during North East Monsoon.

The sharp rise from Jun to Sep is a combination of increased activity during the dry season (the impact of South West Monsoon is limited in this region) and relaxation of COVID-19 restrictions which allowed enhanced enforcement activity by several maritime agencies.



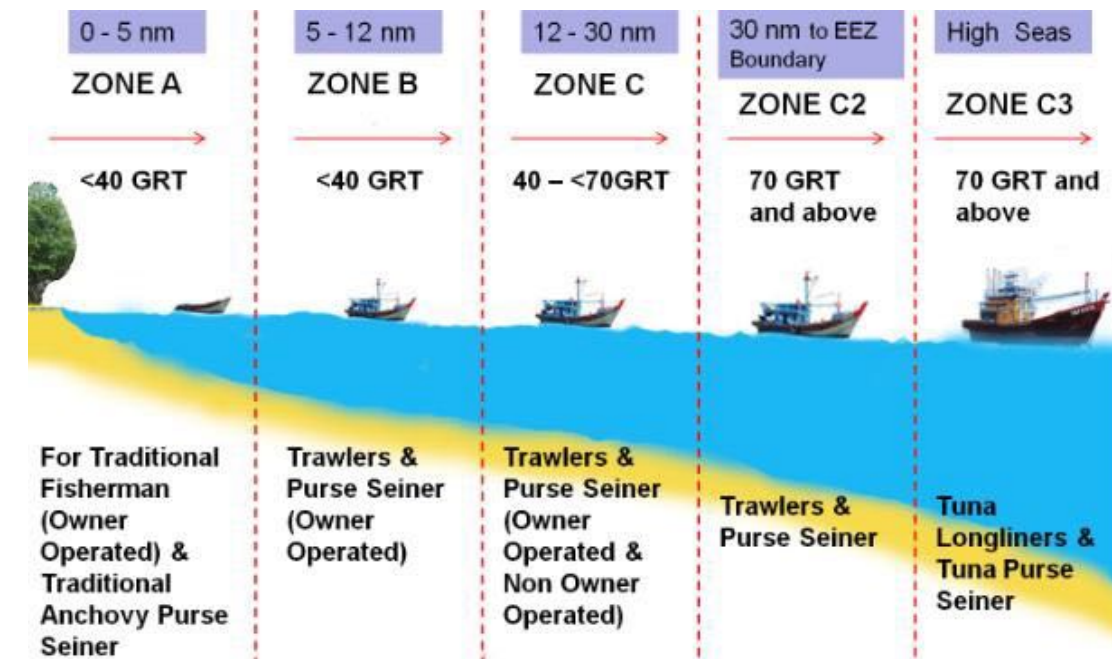
REGIONAL ANALYSIS

Amongst the regions monitored by the Centre, South East Asia is the only region which recorded higher number of poaching incidents as compared to local IUU. Poaching activity accounted for 51.5% as against 48.5% of local IUU fishing.

Philippines is the only country with higher percentage of local IUU than poaching. 98.3% of the incidents reported off Philippines were local IUU and these accounted for over 66% of the overall local IUU of the region.

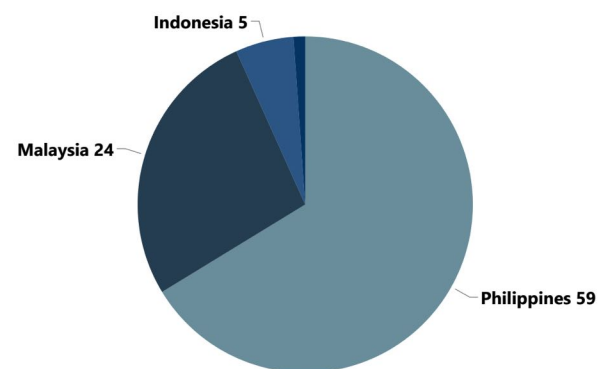
Indonesia recorded the highest number of poaching incidents reported amongst the five countries. The poaching incidents accounted for about 88% of the reported IUU incidents across the waters of Indonesia.

However, Thailand recorded the highest percentage share of poaching as against local IUU in the region. 95.5% of the reported IUU incidents off Thailand were observed to be poaching incidents while local IUU accounted for only 4.5%.



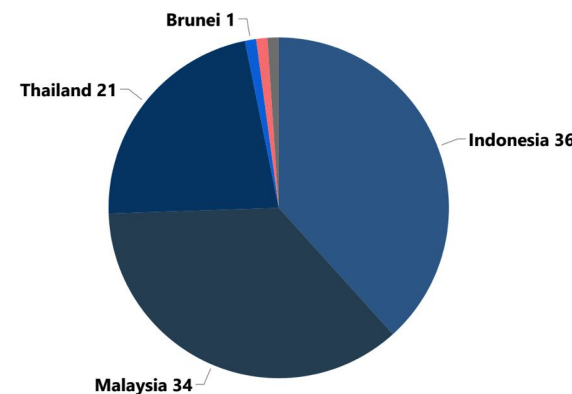
Designated areas of boat operations - Malaysia

Local IUU Incidents in South East Asia



South East Asia accounted for 70% of the poaching incidents monitored by the Centre across all regions in 2020. While the large-scale poaching activity by foreign fishermen is a concern, the positive take-aways from this region are the proactive efforts by coastal states to carry out surveillance, identify foreign trawlers and subsequent interdiction operations to apprehend the boats. These steps should be a good deterrent and the outcome of these measures would be

Poaching IUU Incidents in South East Asia



monitored and analysed by the Centre based on incidents in 2021.

The local IUU incidents recorded off Malaysia were largely attributable to violation of license conditions by local fishing trawlers. As per local fishing regulations, there is a distinct area earmarked for fishing activity based on the size of the trawler.

IMO's Global Action to Protect Marine Biodiversity

IMO guidelines on the management of ships' ballast water, bio-fouling and anti-fouling systems helps to prevent the transfer of aquatic organisms to new environments via shipping. This reduces the risk of invasion from non-indigenous species that can harm local ecosystems. IMO treaties also play a fundamental role in limiting the dumping of waste at sea, which helps minimise the marine pollution and limit impacts on biodiversity. The full article can be accessed on the following link: <https://www.imo.org/en/MediaCentre/Pages/WhatsNew-1538.aspx>

REGIONAL ANALYSIS

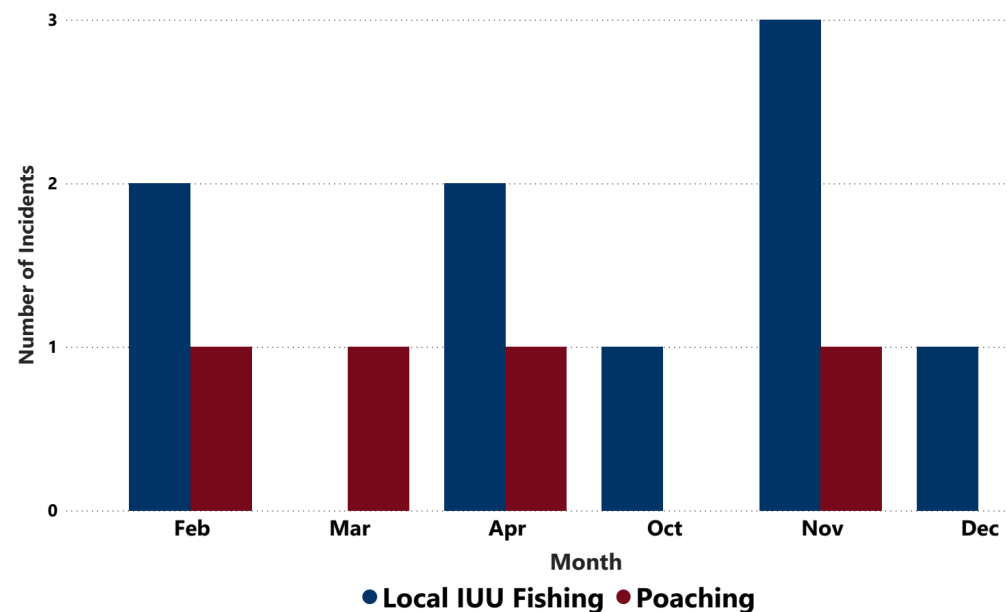
EAST AFRICA

The Centre monitored 13 incidents of IUU fishing across seven countries and the reported incidents account for about 3.4% of the overall IUU incidents.

The incidents in this region were monitored during six months of 2020 and there was no reported activity in the other six months. There exists a possibility that certain incidents reported only in vernacular media were not monitored by the Centre.

Majority (nine) of the incidents in this region were local IUU and four were reported as poaching incidents. The poaching incidents were reported off Seychelles (03) and Tanzania (01).

The incident monitored off Tanzania involved arrest of 600 foreign fishermen for engaging in IUU fishing by using banned techniques and gear. The monitoring and subsequent arrests were monitored as part of SWIOFish project (in force from 2015 to 2021).



MIDDLE EAST



The Centre monitored 35 incidents accounting for about 10% of the overall incidents of IUU fishing during the year. These incidents were monitored across nine countries in the region.

Nearly 49% of these incidents were reported off Bahrain alone and it is important to note that all incidents were related to catching of shrimps, either using banned trawl nets (referred locally as kufa nets) or caught during period of seasonal ban.

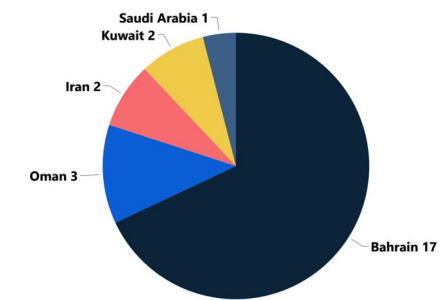
A month wise distribution of IUU fishing incidents in the region is shown in the graph.

The Centre recorded an average of about three incidents per month during 2020. in the region However, the reported incidents in three months (Sep to Nov) accounted for 60% of the incidents (in the region in 2020) with Sep 20 alone recording 25% of the annual incidents.

Based on an in-house analysis at the Centre towards understanding this large variance, it is largely appreciated to be an impact of COVID-19 pandemic.

The traditional seasonal ban on shrimp fishing off Bahrain was in force between 01 Feb – 31 Jul 20. However, there were only two reported incidents during this period. Interestingly, while on an average there were three incidents per month between Aug to Dec 20, seven incidents were reported off Bahrain in Sep 20.

This increase in incidents off Bahrain in the second half of 2020 and the sharp spike in Sep 20 was observed to be a major contributing factor to the high percentage of incidents recorded between Sep to Nov in this region.

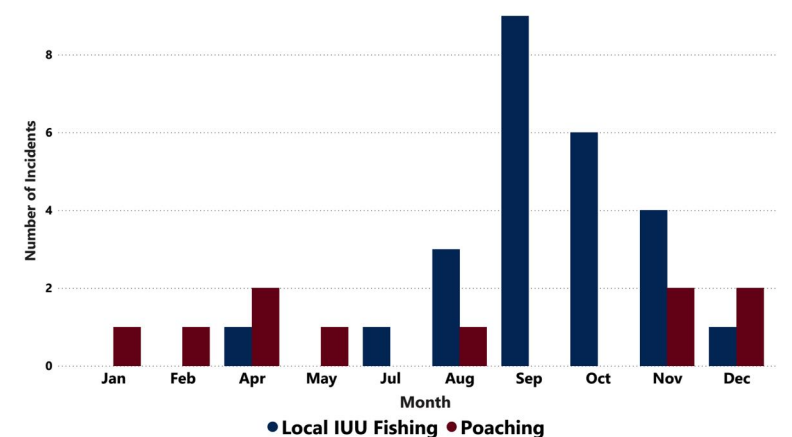


Similar to the trend observed in South Asia, the decrease in reported IUU incidents in Dec 20 was due to decline in reported local IUU incidents.

Local IUU fishing accounted for nearly 72% of the overall IUU incidents in the region, while poaching accounted for about 28%.

The local IUU incidents were reported off Bahrain, Iran, Kuwait, Oman and Saudi Arabia. All local IUU incidents either involved use of illegal fishing techniques (predominantly trawling which is banned in many areas in the region) or fishing during the seasonal ban. Poaching incidents in the region were reported in the waters of five countries.

The efforts by local authorities towards controlling fishing activity during the breeding season and stringent enforcement actions against large scale trawling activity would go a long way in maintaining the balance in population of the species. These efforts would also prevent large scale damage to marine environment.



IUU fishing has come into sharp focus in recent years as depleting or, worse, crashing fish stock directly affects the food security of consumer nations. Although higher number of fishing vessels have been observed based on data derived from platforms such as Global Fishing Watch, this could be a function of more vessels being fitted with AIS and VMS and not necessarily more vessels fishing at high seas. However, the Centre has observed reports at national, regional as well as global level, of nations and agencies taking proactive actions to address IUU fishing.

IMO. Key developments at the level of the International Maritime Organisation are as follows: -

- **New Fishing Vessel Safety Publication.** The publication provides an overview of the four main international binding fisheries conventions/ agreements that promote the safety of fishing vessels, safety of fishers, training of fishers alongwith responsible and safe fisheries operations.
- **Cape Town Agreement (CTA).** The IMO hosted a Ministerial Conference on Fishing Vessel Safety and IUU Fishing in Torremolinos, Spain, to highlight the CTA as a crucial tool for States to improve safety, working and living conditions of fishers and observers and through that help to tackle IUU fishing. At the Conference, the Cook Islands and São Tomé and Príncipe formally ratified the CTA and 48 States signed a declaration committing to take action to ensure the criteria for the agreement to enter into force by 2022.

Regional Initiatives

- SWIOFish is a six-year (Jun 15 - Sep 21) project implemented in Tanzania, Comoros and Mozambique for fighting IUU fishing. The program report names priority fish species as tuna and tuna-like species, prawns, reef fishes, small and medium pelagic species and octopus.
- Fisheries Transparency Initiative (FiTI) is a global partnership that seeks to increase transparency and participation for a more sustainable management of marine fisheries. It has been duly registered as a global members' association under Seychelles law (registration number A431648). Furthermore, the transition of its operations from Berlin/ Germany to Victoria/ Seychelles has also been completed.
- The Pew Charitable Trusts has launched a new interactive tool that can help

maritime and fisheries authorities and seafood buyers determine where in the world illegally caught seafood is most likely to enter the market.

- Global Fishing Watch (GFW) introduced a Public Interactive Portal to help increase Understanding and Transparency of Carrier Vessels.
- C-BOBBY (launched in Philippines) is an underwater explosion detecting robot to detect blast fishing activity and triangulate the location to inform the local authorities. This system works by analysing the audio spectrum and looks for transient changes from the ambient background noise levels. It analyses duration and the frequencies recorded to decide whether there was an explosion or not.

National Regulations. Multiple countries have also taken actions at national level to streamline their national fisheries sector. Some notable initiatives are as follows:-

- **India.** To prevent illegal fishing in India's EEZ, the government has drafted a new bill in 2020, that aims to regulate fishing beyond the country's territorial waters. The objective of the new bill is to issue license for fishing in the EEZ and curb illegal fishing by foreign countries.
- **Iran.** The Iranian Department of Environment (DOE) has developed the guidelines for trawling in the Persian Gulf. The instructions specify the vessels that have been permitted to trawl, the area cleared for trawling and designated time slots. If a vessel trawls outside the specified time and place, it would be apprehended by the local authorities and several online monitoring systems have been installed on the trawling vessels for continuous monitoring. Vessels have been warned about heavy penalties if these systems are turned off, such as revocation of licenses.
- **Philippines.** The Department of Agriculture issued Fisheries Administrative Order 260 which requires all Philippine catcher vessels to install vessel monitoring measures (VMM) and electronic reporting system (ERS). Based on the order, vessels displacing 3.1 to less than 30 gross tonnage (GT) must have a DA-Bureau of Fisheries and Aquatic Resources-approved VMS within one year from the effectivity of the FAO. For vessels weighing 30 GT or more, VMS must be installed immediately. An ERS will also be used to record and transmit catch data including species and volume of fish caught, position of the vessel where the fish was caught, vessel activity, port of origin and arrival in real time.



IRREGULAR HUMAN MIGRATION

IRREGULAR HUMAN MIGRATION

GLOSSARY OF TERMS USED

Human Smuggling

Human Smuggling involves facilitating of the illegal entry of a person into a State of which that person is not a national or permanent resident, for financial or other material benefit. Smuggled migrants pay smugglers to facilitate their movement.

Human Trafficking

Human Trafficking is where the person is coerced and moved/ migrated against his/ her will (forced or deceived into doing so) into a State of which that person is not a national or permanent resident.

arise out of data inaccuracies, the Centre recorded the incidents under a single broad category of irregular migration. It is likely that in majority of the incidents, the irregular migrants had attempted to cross over to a foreign country in search of better livelihood. The possibility of some of the reported incidents involving forced victims cannot be ruled out.

The incidents have also being grouped under five regions towards undertaking analysis viz., Middle East, East Africa, South Asia, South East Asia and the Mediterranean. The detailed analysis alongwith some key events during the year have been elucidated in the succeeding paragraphs.

337 IHM incidents have been recorded in 2020 and grouped under five regions viz., Middle East, East Africa, South Asia, South East Asia and the Mediterranean for analysis.

OVERVIEW

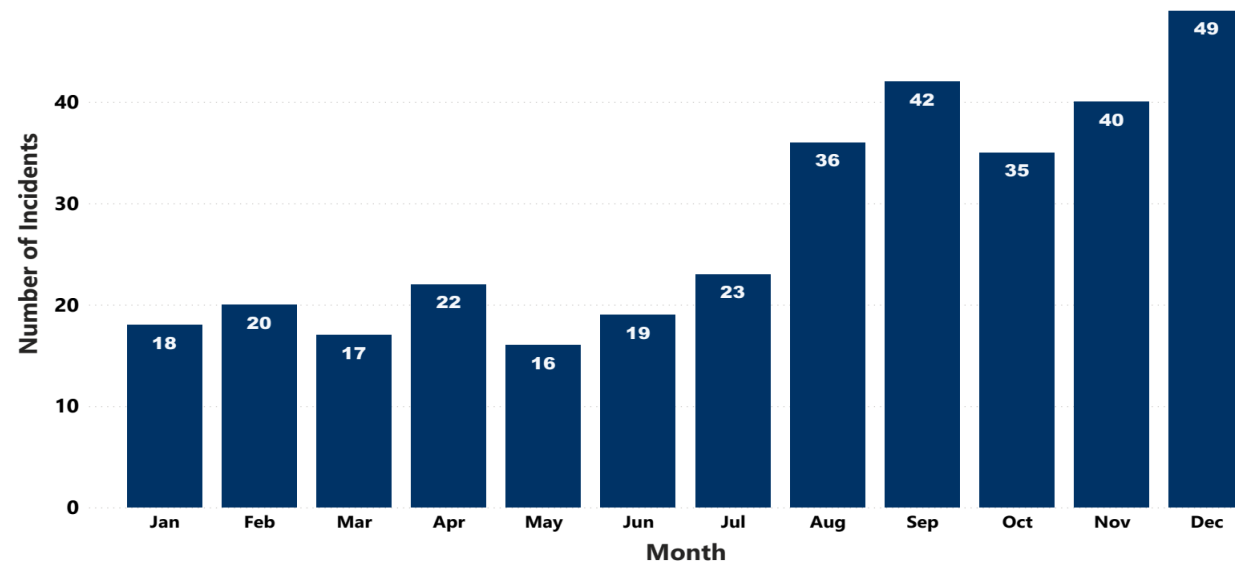


In the year 2020, the Centre monitored 337 attempted and/ or successful irregular migrant crossings. While the incidents were planned to be categorised as human smuggling and human

trafficking, it was observed that the distinction was not readily evident in the reported incidents.

To avoid any misleading conclusions that may

MONTH WISE BREAKDOWN



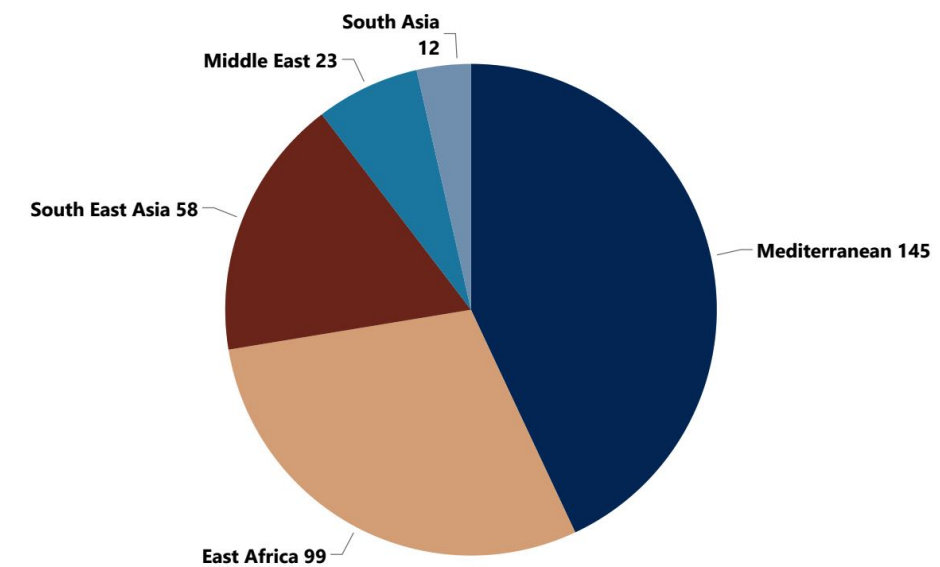
A month wise distribution of the reported irregular human migration incidents across the five regions is shown in the graph. The Centre recorded an average of over 28 incidents per month during 2020.

The incidents reported in the first seven months (Jan – Jul) were lower than the annual average. Further, a sharp drop was observed in the months of Mar, May and Jun 20, which may be attributable to closure of land and sea borders across the regions and enhanced enforcement at the known crossing points to prevent spread of COVID-19 pandemic.

A sharp and progressive increase was observed from Aug to Dec 20. This is likely due to combination of some or all of these possible factors: -

- Relaxation of lockdowns and opening up of international travel.
- Opening of land and sea borders across the regions.
- The economic hardships of the migrants further exacerbated due to COVID-19 pandemic.
- Favorable sea conditions in some regions for small boat operations.

REGIONAL DISTRIBUTION



A breakdown of attempted and/ or successful incidents across the five regions is shown in the graph.

About 43% (145) of the overall incidents were recorded across the waters of Mediterranean and Aegean Sea.

The Centre monitored that the incidents along East Africa were reported off Comoros, Madagascar, Mayotte and Tanzania.

Nearly 17% of the overall incidents were

monitored off five countries in South East Asia viz., Indonesia, Malaysia, Philippines, Singapore and Vietnam.

The incidents in the Middle East were recorded in the waters of Gulf of Aden off Djibouti, Oman, Yemen, Persian Gulf and in the Gulf of Oman, off Oman and UAE.

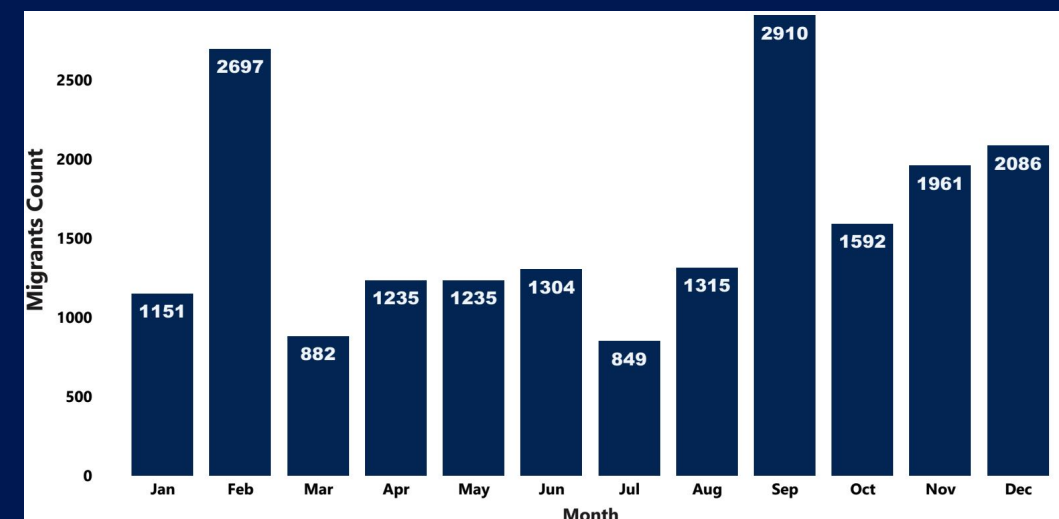
South Asia accounted for only 3.5% of the overall incidents which were recorded off Bangladesh, India, Myanmar and Sri Lanka.

Number of Migrants

A month wise distribution of the irregular migrants involved in the reported incidents across the five regions is shown in the graph. The Centre monitored crossings (both attempted and successful) which involved 19217 irregular migrants at an average of about 1600 migrants per month.

As with the observed trend of monthly incidents, a sharp drop was observed from March to August, which may be attributable to closure of land and sea borders across the globe and enhanced enforcement at the known crossing points to prevent spread of COVID-19 pandemic.

2910 irregular migrants were rescued/ apprehended in Sep 20 alone, the highest for a single month in 2020. The huge spike in the month is attributable to the coincidence of all possible factors listed above viz., opening of borders after a prolonged period, commencement of international travel, favourable weather conditions in Mediterranean (rough conditions set-in from October), economic hardships further impacted by COVID-19 pandemic and enhanced enforcement alongwith proactive reporting by various agencies.



SEASONAL VARIATION

The Centre carried out an in-house study of the seasonal weather patterns and the impact on small boat operations to analyse the seasonal variation of the reported incidents.

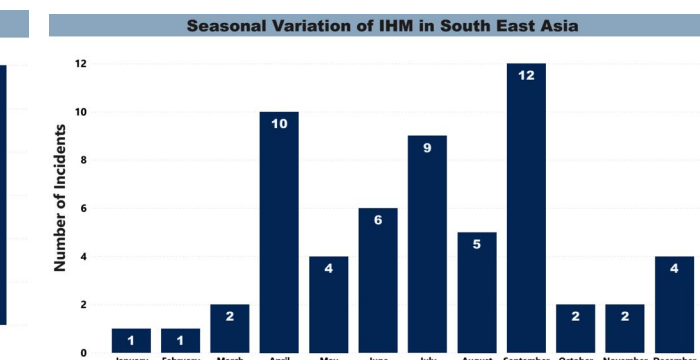
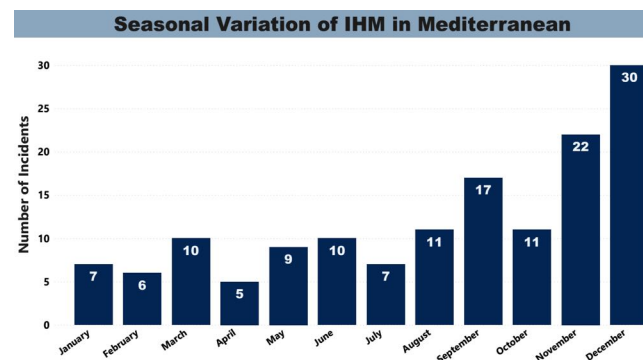
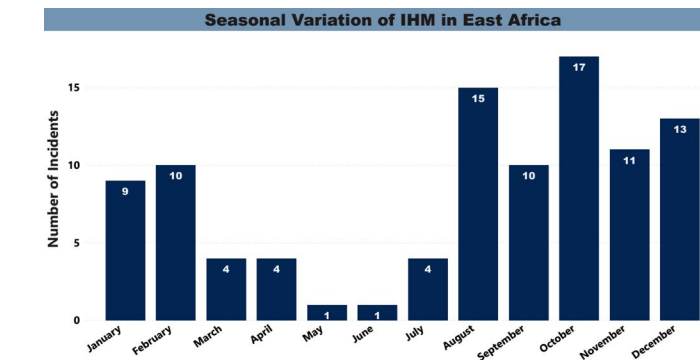
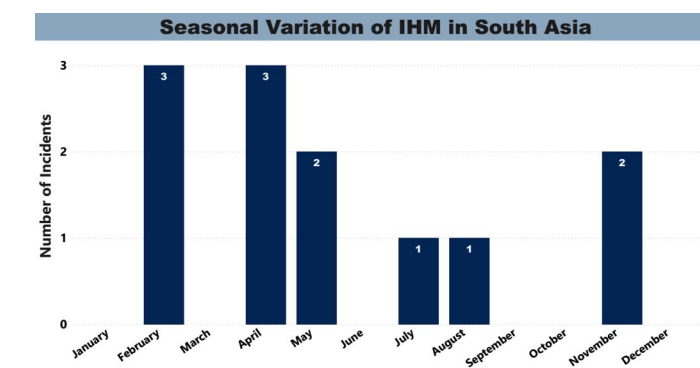
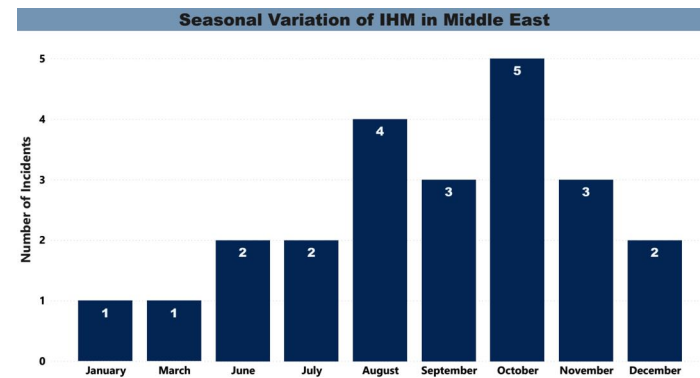
Based on the seasonal weather phenomenon, the period between June to September is considered to be favourable for small boat operations in Mediterranean and Aegean Sea and rough/ unfavourable conditions are expected between October to March.

In Middle East and South Asia the period between June to September is considered extremely difficult for small boat crossings due to the heavy weather conditions associated with the South West monsoon.

An analysis of the incidents in 2020 revealed trends which were not in accordance with the expected seasonal variation.

Migrant crossings in small boats were reported and several warnings were monitored even during the monsoon months in Bay of Bengal and Andaman Sea (South Asia).

In the Mediterranean and the Aegean, an increase in movements was observed in Aug and Sep 20 which is in-line with the expected trend. However, from October to December, while a drop was expected, the Centre monitored a sharp spike in crossings. As highlighted earlier, it is appreciated that the impact of COVID-19 has had a huge role to play in this rise.



TYPES OF BOATS

The Centre attempted to identify various types of boats that were used for migrant crossings across the regions. A region wise list of boats predominantly used by smugglers/ traffickers is placed below.

| Region | Type of Boats |
|-----------------|--|
| Middle East | Small speed boats |
| South Asia | Large fishing trawlers (long crossings) Small fishing boats/ dinghies (short crossings) |
| East Africa | Kwassa-kwassa (between Comoros and Mayotte) |
| South East Asia | Small fibre boats (speed boats), fishing boats/ trawlers, Jongkong (long boats), passenger RoRo |
| Mediterranean | Inflatable dinghies, life boats, sailing yachts, small speed boats, modified jet skis, fishing boats |



FIBRE BOAT



KWASSA-KWASSA



RUBBER BOAT



YACHT

An issue of concern is the poor conditions onboard boats used for these crossings. The boats were observed to be overcrowded with extremely poor hull and hygiene state onboard.

REGIONAL ANALYSIS

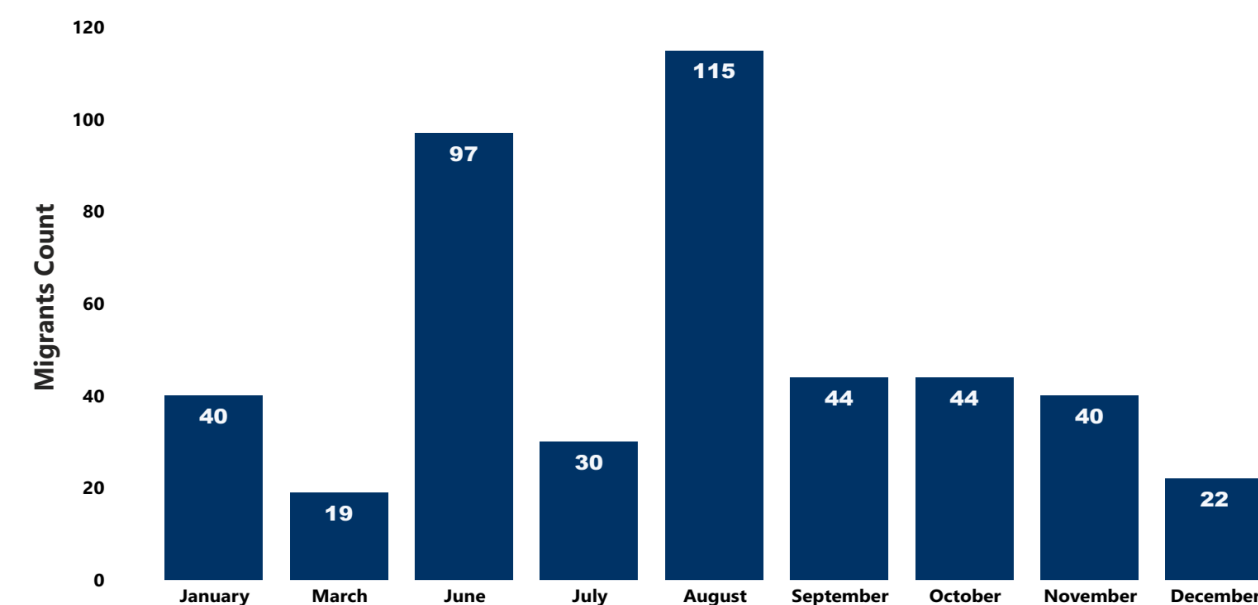
MIDDLE EAST

The Centre monitored 23 incidents of irregular human migration in the region. 78% of the incidents were reported off Oman followed by Djibouti, UAE and Yemen.

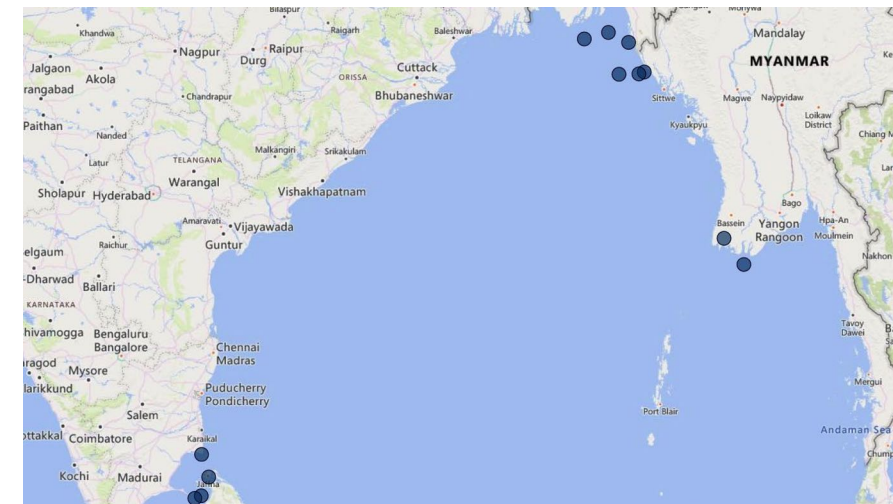
A month wise distribution of the reported incidents is shown in the graph. While the monthly average in this region was observed to be two incidents, Oct 20 witnessed five incidents. This could be attributable to calm weather conditions in the region post withdrawal of South West monsoon.

No incidents were reported in Apr and May 20 and this period coincides with stringent lockdowns in the region.

451 irregular migrants were rescued/apprehended by the authorities during the year with about 66% of them reported along the North/North East coast of Oman.



SOUTH ASIA



The Centre monitored 12 incidents of irregular human migration in the region with incidents monitored off Bangladesh, India, Myanmar and Sri Lanka.

A month wise distribution of the reported incidents is shown in the graph. Except for the incident off Myanmar reported in Aug 20, the remaining incidents were observed to be in accordance with seasonal variation and in-line with the weather conditions in the area.

940 irregular migrants were rescued/apprehended by the authorities during the year and over 100 are reported to be missing/ have lost lives in the region.

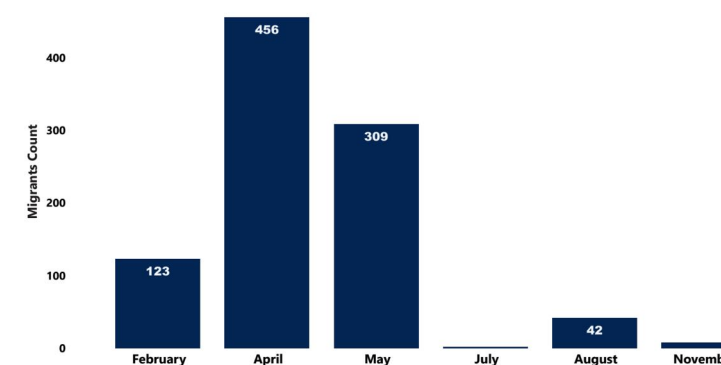
Rohingya Migration A concern for this region is the movement of boats with Rohingya migrants. It was observed that several of these boats were overcrowded and were adrift for many weeks at sea. Major incidents involving Rohingya migrants and some observations are as follows:-

- On 07 Apr 20, a boat with 132 Rohingyas destined to Malaysia capsized after running aground near St Martin Island, Bangladesh. 77 people were rescued by Bangladesh Coast Guard, while 15 dead bodies were recovered and 40 were reported missing.
- On 13 Apr 20, Bangladesh Coast Guard rescued at least 396 Rohingyas adrift in a large boat in the country's territorial waters after drifting nearly two months

at sea. It was indicated that they were afloat for almost 58 days and 60 refugees had died on board.

- On 07 May 20, Bangladesh Navy rescued about 280 Rohingyas, who were adrift in the Bay of Bengal for weeks.

Migration along the maritime route to South East Asia is frequent from November to May but drops significantly after this period because of the onset of the seasonal monsoons. However, in 2020, the pace of migration along this route did not decline in comparison with the previously observed seasonal patterns. Interactions of IFC-IOR with the team of Stable Seas brought out that the surge in the number of incidents may be driven by two factors – Conflict and COVID. A major contributing factor may also be the poor conditions in displacement camps due to COVID-19 pandemic.



REGIONAL ANALYSIS

EAST AFRICA

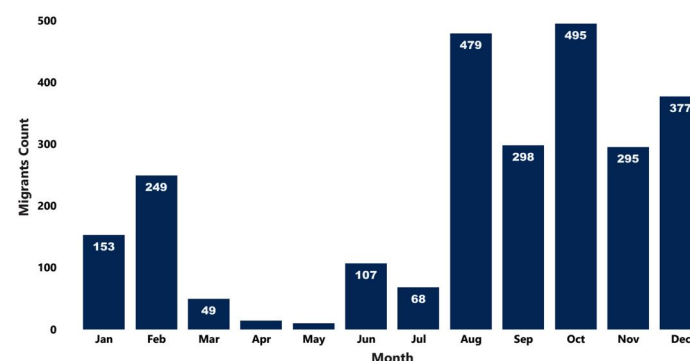
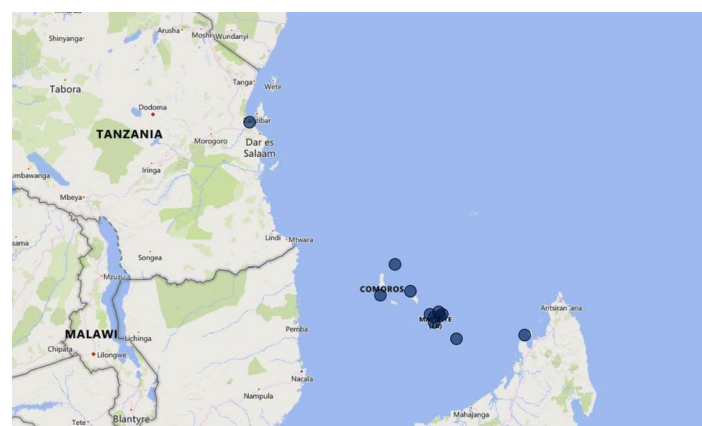
The Centre recorded 99 incidents of irregular human migration in the region with incidents monitored off Comoros, Madagascar, Mayotte and Tanzania. Nearly 92% of the incidents in this region were reported off Mayotte.

A month wise distribution of the reported incidents is shown in the graph. The monthly average in this region was observed to be 8.25 incidents. However, the reported incidents between Mar to Jul 20 were lower than the monthly average.

17 incidents were reported in Oct 20, the highest for a single month and this is attributable to easing of restrictions on air travel from mainland Africa, favourable weather conditions and opening of sea borders.

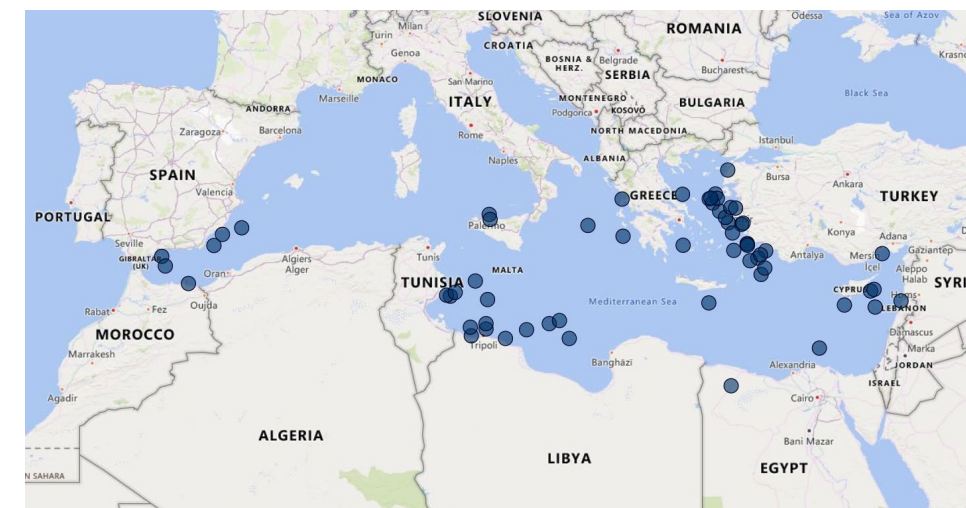
2143 irregular migrants were rescued/apprehended by the authorities during the year with about 96% of them reported off Mayotte alone.

It is interesting to note that 04 (out of 05) incidents reported off Comoros were monitored in Apr 20 and all incidents involved boats that arrived from Mayotte. In an incident reported in Oct 20, five migrants were found hidden in a cargo vessel at the bottom of the holds between the cargo.



As per a report published by Global Initiative Against Transnational Organised Crime (GI-TOC), since 1975, when the Union of Comoros gained independence, but Mayotte voted to remain part of France, many Comorians have used the services of human smugglers to reach Mayotte in search of a better quality of life. More recently, a far smaller number of Malagasy and Central African migrants have also been smuggled to Mayotte, with many hoping to claim asylum or obtain French visas. The COVID-19 pandemic initially caused a drastic reduction in the former and an almost complete stop in the latter. While the irregular movement of Comorians to Mayotte in the second half of 2020 has returned to/ or even exceeded, pre-pandemic levels, arrivals of continental Africans, who rely on air travel for part of their journey, remained low.

MEDITERRANEAN



The Centre monitored 145 incidents of irregular human migration in the region with incidents monitored off 11 countries in Mediterranean and Aegean Sea.

A month wise distribution of the reported incidents is shown in the graph. The reported incidents in this region were observed to be in variance from the seasonal patterns and were largely associated with the COVID-19 related trends.

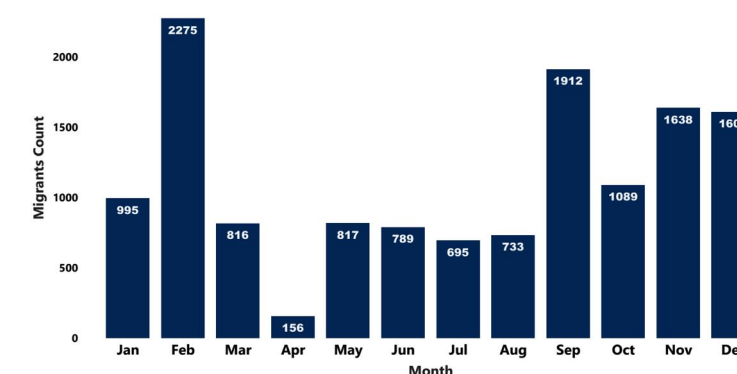
The reported incidents in Dec 20 (30 incidents) were observed to be 2.5 times the monthly average for the year. This is appreciated to be an alarming trend considering that the later months of the year are not preferred (cold and rough weather conditions) for migrant crossings. Impact of COVID-19 and proactive reporting by certain authorities may be the causes behind this sharp rise.

Towards undertaking meaningful analysis, the incidents in the region were distributed under the Eastern, Central and Western Mediterranean Routes. The trends observed by the Centre were appreciated to be largely in-line with reports published by UN agencies.

13524 irregular migrants were rescued/apprehended by the authorities during the year and nearly 50% were monitored along the Central Mediterranean Route.

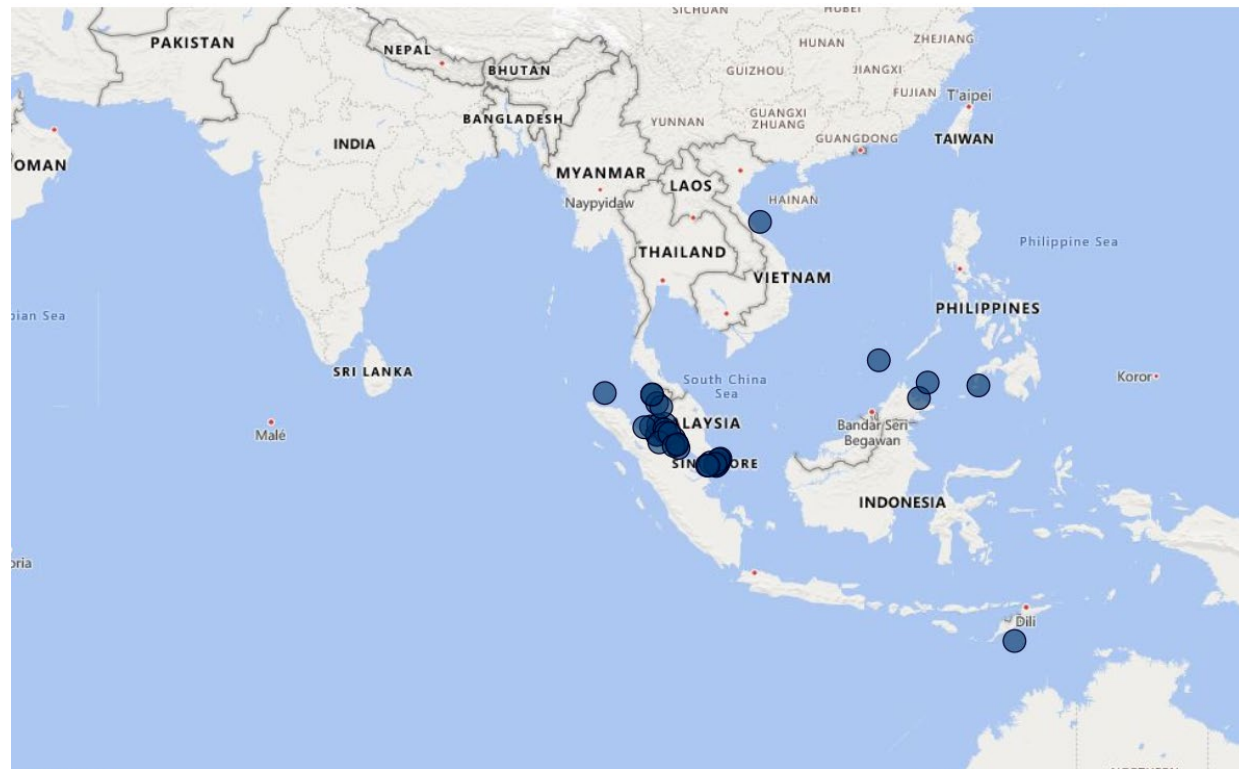
43% of the overall incidents in this region were monitored along the Eastern Route and 7% along the Western Mediterranean Route.

The Rescue Crisis On 04 Aug 20, it was reported that a group of 27 migrants were rescued by an oil tanker MAERSK ETIENNE, off Tunisia. The vessel along with the rescued migrants headed to Malta. However, the vessel was denied entry to port for disembarking the rescued migrants and remained at anchorage off Malta. On 06 Sep 20, three of the rescued migrants who were stranded onboard the tanker jumped overboard. The crew rescued them and provided them due care. Subsequently, the vessel sought urgent humanitarian assistance for the migrants stranded onboard. On 11 Sep 20 the tanker transferred the migrants (including one child and a pregnant woman) to a migrant rescue ship MARE JONIO. The transfer was conducted at Malta anchorage and thereafter, the NGO ship entered a port in Italy on 13 Sep 20 to disembark the migrants.



REGIONAL ANALYSIS

SOUTH EAST ASIA



The Centre monitored 58 incidents of irregular human migration in the region with incidents monitored off Indonesia, Malaysia, Philippines, Singapore and Vietnam. Nearly 74% of these incidents were reported by Malaysian authorities.

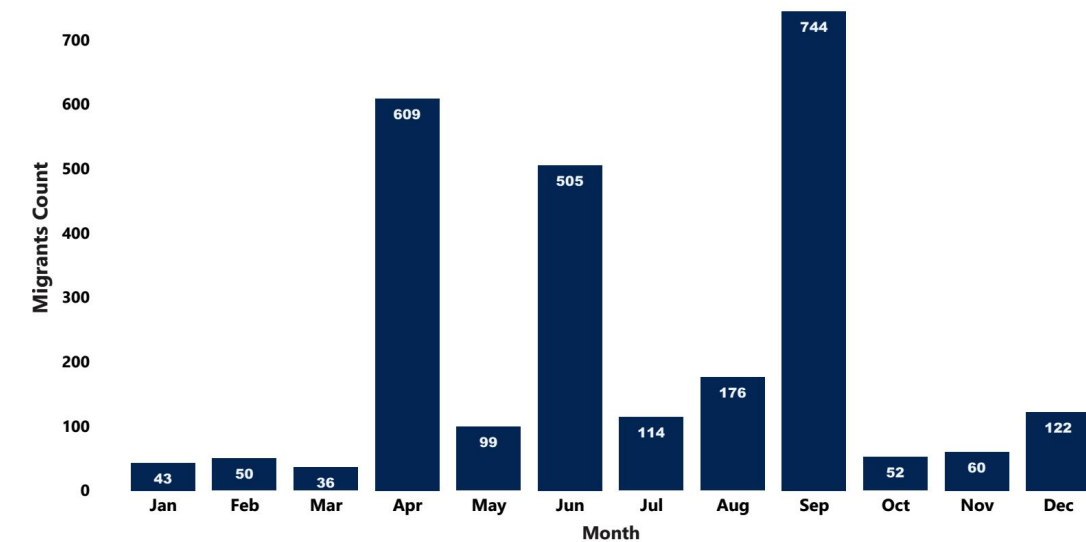
A month wise distribution of the reported incidents is shown in the graph. The Centre observed that the reported incidents during the first (Jan-Mar) and last (Oct-Dec) quarters of the year were generally in accordance with seasonal patterns.

An increase in the reported incidents was observed between Apr to Sep 20 which may be attributable to enhanced enforcement measures by Malaysia as part of 'OP BENTENG'. This was a multi-agency coordinated operation aimed to prevent illicit activities during the Movement Control Order (MCO) implemented as part of COVID-19 control measures.

2159 irregular migrants were rescued/apprehended by the authorities during the year and 75% of these were reported in the Malacca Strait.

As per an IOM (International Organisation for Migration) report, a group of migrants (landed in Indonesia in Sep 20) were believed to be a part of more than 500 Rohingya migrants that originally left Bangladesh on a larger boat. The large group reportedly departed Bangladesh on a mothership. Subsequently, the migrants were split into smaller groups and shifted to small boats for landing at the destination shores. It is believed that the two boats that arrived off the shores

of Langkawi, Malaysia (with 269 migrants) & Aceh, Indonesia (with 99 migrants), on 08 Jun 20 and 24 Jun 20 respectively were also part of the large group. This group that landed in Aceh on 07 Sep 20 had spent the longest time at sea because of movement/ entry restrictions due to COVID-19. Earlier, a group of Acehese fishermen rescued several migrants and the local officials thereafter agreed to the arrival of the refugees.



Joint Statement by UNHCR, IOM and UNODC on Protection at Sea

In a joint statement over IHM incidents in Apr 20, UNHCR, IOM and UNODC stated their concerns about boats full of vulnerable women, men and children are again adrift in the same waters, unable to come ashore, and without access to urgently needed food, water, and medical assistance. They also mentioned that there is no easy solution to the irregular maritime movements of refugees and migrants. Deterring movements of people by endangering life is not only ineffective; it violates basic human rights, the law of the sea and the principles of customary international law by which all States are equally bound. Through this statement, the agencies called on the States in the region to uphold the commitments of the 2016 Bali Declaration as well as ASEAN pledges to protect the most vulnerable and to leave no one behind. Not doing so may jeopardise thousands of lives of smuggled or trafficked persons.

<https://www.unhcr.org/news/press/2020/5/5eb15b804/joint-statement-unhcr-iom-unodc-protection-sea-bay-bengal-and-man-sea.html>

AREAS OF CONCERN

The Centre has observed the following issues which are of concern for the safety and security of sea faring community.

The increased crossings across the Mediterranean and the Aegean Sea especially during the period of rough weather may highlight the willingness of migrants to attempt a crossing even at the cost of risking their lives. However, it is also appreciated that individuals attempting to migrate via sea routes may have no experience or have even seen the sea, as such, they would be unfamiliar with the perils that seaborne travel entail. The human traffickers that offer to smuggle them via sea routes prioritise making money over ensuring the safety of their passengers. Affected countries should consider extremely harsh penalties for individuals convicted of human trafficking. Education about the dangers of seaborne migration could also potentially help diminish the flow of migration.

The continued presence and movement of small overcrowded boats in the Andaman Sea and Malacca Strait, even during the monsoons highlights the economic difficulties and the willingness of the migrants to risk their lives in search of better livelihood.

Incidents observed across all regions also indicate the prevalence of organised smuggling/ trafficking gangs who may not be concerned about the safety of human life.

As seen in the incident onboard MAERSK ETINNE, the issue of migrants being stranded onboard vessels engaged in rescue operations (in accordance with UNCLOS and SOLAS conventions) needs early addressal by the concerned agencies. A widely accepted solution to this issue would go a long way in encouraging seafarers to voluntarily participate in saving lives at sea.

The impact of COVID-19 pandemic, which appears to be a large contributing factor to the significant variation observed in some regions, needs careful monitoring as this may continue into the first half of 2021.



2910 irregular migrants were rescued/ apprehended in Sep 20 alone, the highest for a single month in 2020. The huge spike in the month is attributable to the coincidence of all possible factors listed earlier viz., opening of borders after a prolonged period, commencement of international travel, favourable weather conditions in Mediterranean (rough conditions set-in from October), economic hardships further impacted by COVID-19 pandemic and enhanced enforcement alongwith proactive reporting by various agencies.



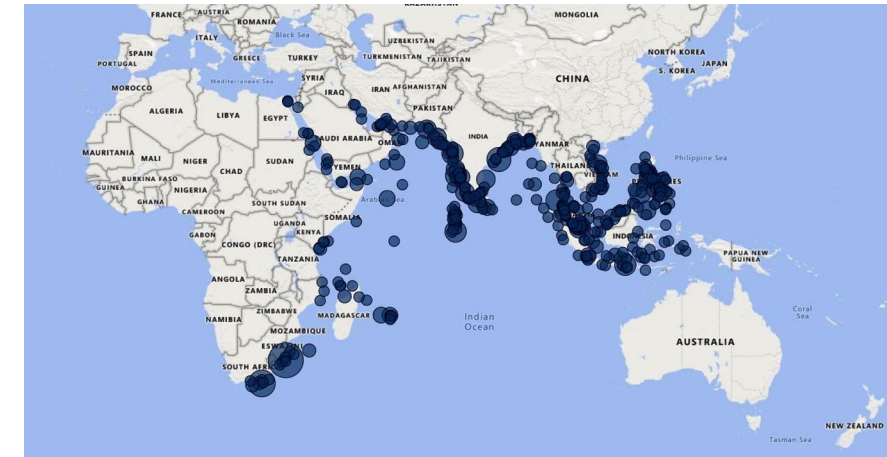
MARITIME INCIDENTS

MARITIME INCIDENTS

GLOSSARY OF TERMS USED

- **Fire.** Incidents involving fire and/or explosion in the maritime domain.
- **Grounding.** Incidents involving vessel running aground.
- **Collision.** Incident involving collision of vessels or collision of vessel with navigational hazards/ aids.
- **Mechanical Failure.** Incidents involving failure of mechanical shipboard systems such as engine, steering, switchboards etc.
- **MEDEVAC.** Incidents involving evacuation of crew from their vessel due to a medical emergency.
- **SAR.** Incidents involving conduct of search and rescue by authorities or maritime personnel to locate missing person or vessel.
- **Sunk.** Incident involving vessels sinking at sea due to maritime accidents attributable to collision, weather or other constraints.
- **Capsize.** Incident involving capsizing of vessels sinking at sea due to maritime accidents attributable to collision, weather or other constraints.
- **Man Overboard.** Incidents involving crew/ passengers falling overboard from a vessel.
- **Vessel Detained.** Incidents involving apprehension of vessels by maritime authorities of a state for engaging in unauthorised activities within the maritime jurisdiction of the state.
- **Violent Confrontation.** Incident involving acts of violence (such as use of force) in an encounter between two or more parties in the maritime domain.
- **Cargo Mishap.** Incidents involving cargo including containers falling overboard at sea.
- **Missing.** Incidents involving mariners reported missing due to accidents at sea.
- **Death.** Incidents involving loss of life at sea attributable to collision, weather or other constraints.

OVERVIEW



In the year 2020, the Centre monitored 592 incidents broadly classified as maritime incidents.

These incidents have been categorised as Aground, Capsize, Cargo Mishap, Collision, Death, Explosion, Fire, Man Over Board, Mechanical Failure, MEDEVAC, Missing, SAR, Sunk, Vessel Detained and Violent Confrontation based on their nature and as per the definitions being

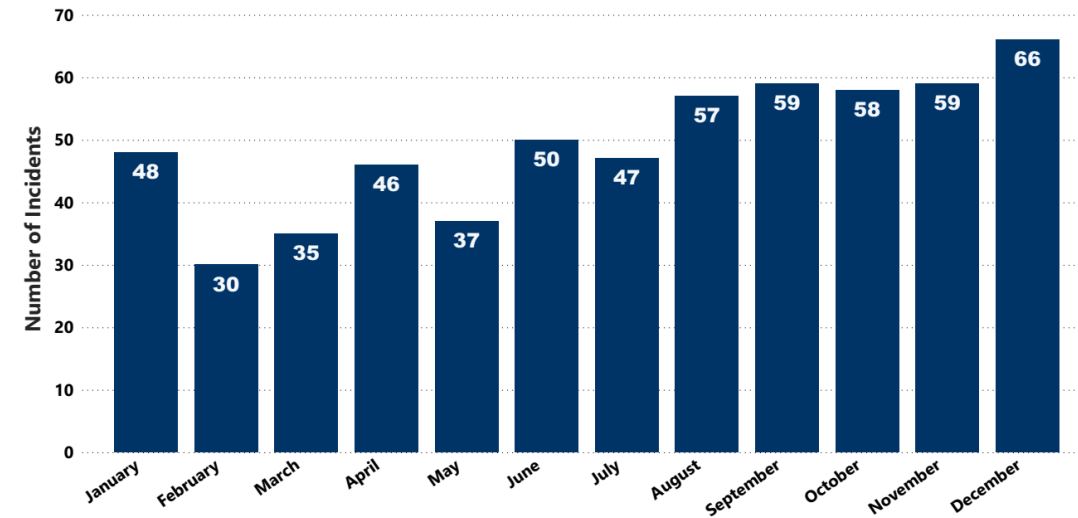
followed at the Centre.

The incidents have also been grouped under four regions towards undertaking analysis, viz. Middle East, East Africa, South Asia and South East Asia.

Analysis alongwith some key events during the year have been elucidated in the succeeding paragraphs.



MONTH WISE BREAKDOWN



A month wise distribution of various incidents monitored by the Centre across the four regions is shown in the graph.

The Centre recorded an average of about 50 incidents per month during 2020. It was observed that the incidents in the second half of the year were higher than the annual average. This may be attributable to proactive reporting in the region

and to gradual and continuous improvement of the Centre's data monitoring ability.

Further, owing to focus of authorities on controlling the spread of COVID-19 pandemic, there exists a possibility that certain incidents went unreported during the first six months of the year.

TYPES OF INCIDENTS

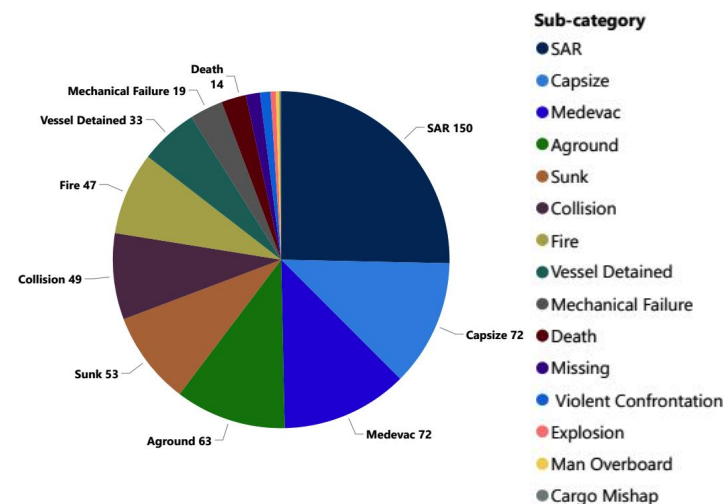
More than 37% of the reported incidents involved efforts by various authorities and maritime agencies across the four regions to render assistance and rescue seafarers in distress. Two-third of these were Search and Rescue (SAR) operations and one-third were medical evacuations (MEDEVAC) of seafarers.

About 22% of the overall incidents involved vessels capsizing or sinking at sea. While majority of the seafarers onboard these vessels were safely rescued, unfortunately some lost lives or went missing.

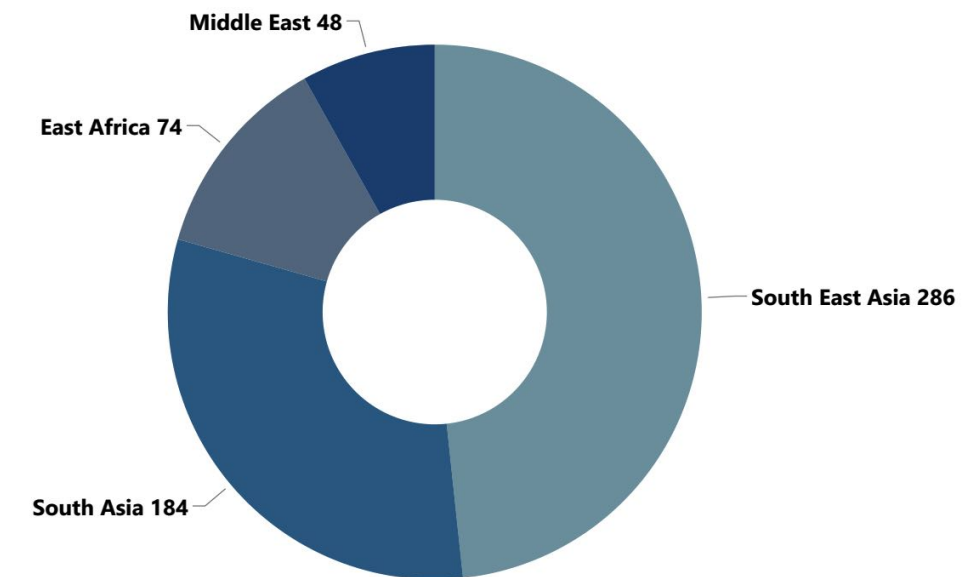
In nearly 20% of the overall incidents, the vessels were involved in collisions (single ship or multi-vessel collision) or ran aground. One such incident of vessel running aground resulted in a major oil spill and has been discussed in detail in the environment pollution section.

The region did not witness any major cargo mishaps during the year. However, in one incident off UAE a few containers fell overboard from a container vessel.

9% of the overall incidents involved explosion or fire onboard vessels. Majority of the incidents of fire were observed to be electrical fires and those onboard small vessels were mechanical fires in engine spaces.



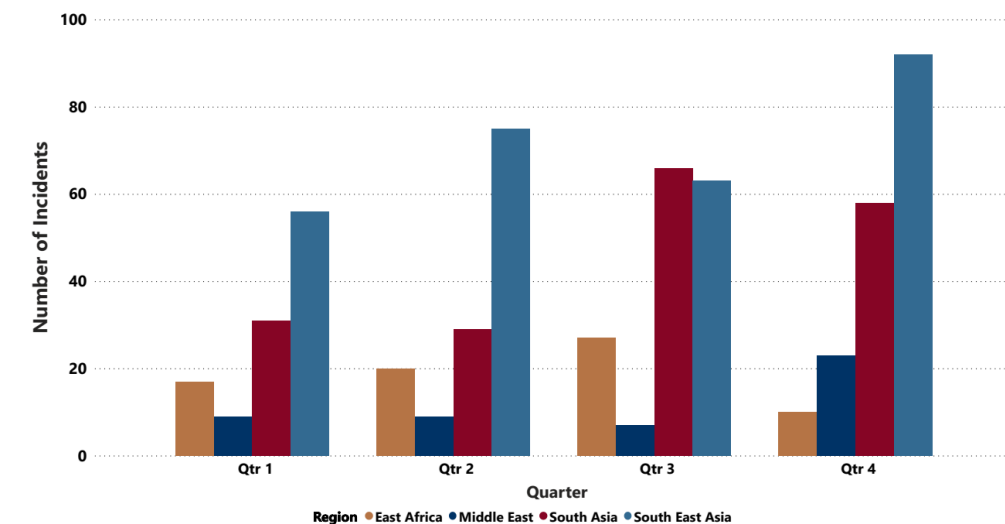
REGIONAL DISTRIBUTION



A breakdown of the reported incidents across the four regions is shown in the graph.

Over 48% (286) of the overall incidents were recorded across the waters of South East Asia. These were followed by those in South Asia and East Africa.

SEASONAL VARIATION



The Centre observed that there was no discernable seasonal pattern/ variation for the overall incidents. This is largely since South Asia, Middle East and parts of South East Asia experience rough weather during the South West Monsoon (May to September) and the whole of South East Asia alongwith parts of South Asia experience rough weather during the North East Monsoon (November to February).

However, it was observed that certain categories of incidents were predominantly observed during the monsoon seasons. Majority of the incidents involving vessel capsizing or sinking were monitored during the rough weather conditions associated with monsoons or tropical storms (Cyclones or Typhoons).

ANALYSIS OF INCIDENTS



COLLISIONS

The Centre monitored 49 incidents of collisions during the year. Majority of these were ship to ship collisions and some involved vessels colliding with fixed structures or navigational hazards.

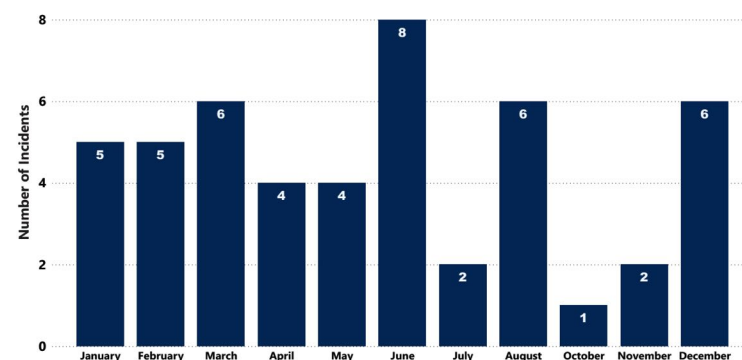
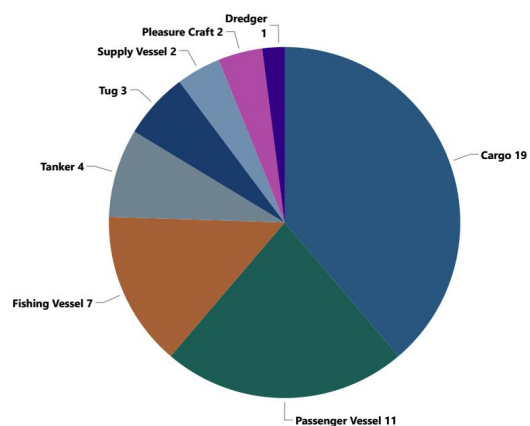
The month wise distribution of these incidents is shown in the graph. With eight reported incidents, Jun 20 recorded the highest incidents in a single month and no incident was reported in Sep 20.

Nearly 50% of the collisions were reported at ports/ anchorages or waters of South East Asia. The waters of Indonesia alone accounted for about 30% of the collisions. Only one incident was reported in East Africa in the year.

Majority (38%) of the incidents were reported onboard various types of cargo vessels. Another 22% of collisions were reported onboard various types of passenger vessels (small RoRo) in the region, especially in South East Asia.

It was observed that nearly 60% of the collisions involved small vessels viz., fishing vessels, passenger vessels, tugs and coastal cargo vessels. While some of these vessels reported major damages, there were reports of minor oil spill (partly owing to small quantity of fuel held onboard these small vessels).

The correlation of collisions to heavy weather during monsoons could not be discerned. However, some incidents were observed to be related to low visibility conditions during rain showers and strong coastal currents during monsoons in certain regions.



GROUNDINGS

The Centre monitored 63 incidents of vessels running aground during the year.

The month wise distribution of these incidents is shown in the graph. The monthly average for these incidents was observed to be 5.25. However, four months (May, Jul, Oct and Nov 20) recorded incidents higher than the average and accounted for 57% of the reported incidents.

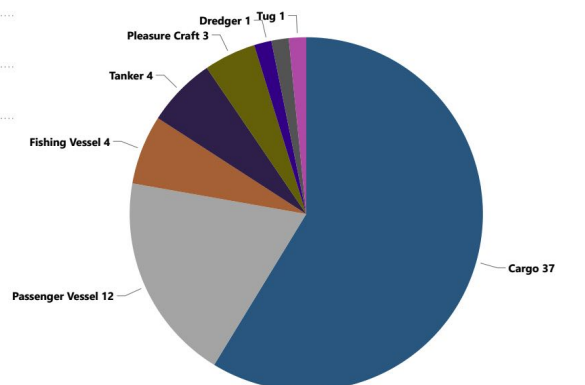
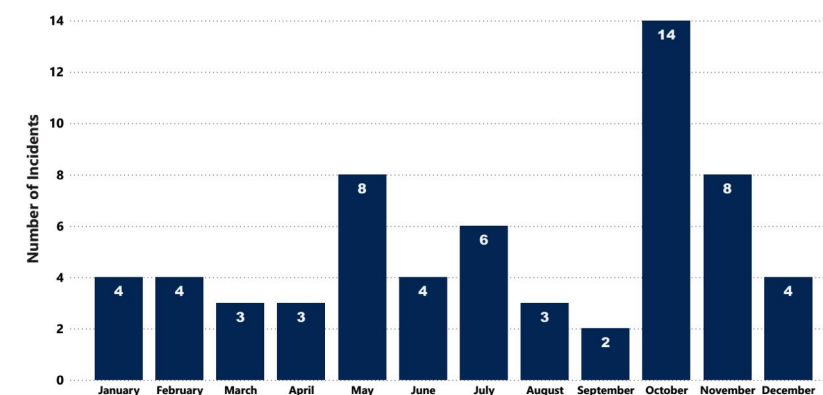
14 incidents were reported during Oct 20, the highest monitored in a single month and may be attributable to localised heavy weather observed in certain parts of South East Asia.

About 69% of the incidents were reported at ports/ anchorages or waters of South East Asia. Similar to pattern observed in collisions, the waters of Indonesia alone accounted for nearly 33% of the groundings. East Africa and Middle East with 6% each of the overall share had the lowest reported incidents across the regions.

Nearly 59% of the incidents were reported onboard various types of cargo vessels. However, majority of these vessels were observed to be coastal cargo vessels that operate between small ports in South East Asia.

It was observed that nearly 35% of the groundings involved small vessels, viz. fishing vessels, passenger vessels, tugs and pleasure craft. Majority of the vessels were refloated during high tide or with the assistance of tugs.

The Centre observed an increase in the incidents of vessels running aground during the monsoon season. Some of the vessels reported to have lost steerage or control due to strong winds and high swell during the monsoons.



CAPSIZE OR SUNK

The Centre monitored 125 incidents of vessels capsizing or sinking at sea during the year.

The month wise distribution of these incidents is shown in the graph. The monthly average for these incidents was observed to be 10.4. It is interesting to note that six months recorded incidents higher than the average, while the other six months witnessed incidents lower than the average.

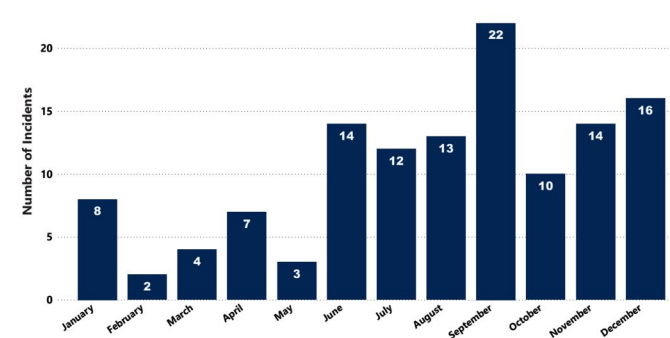
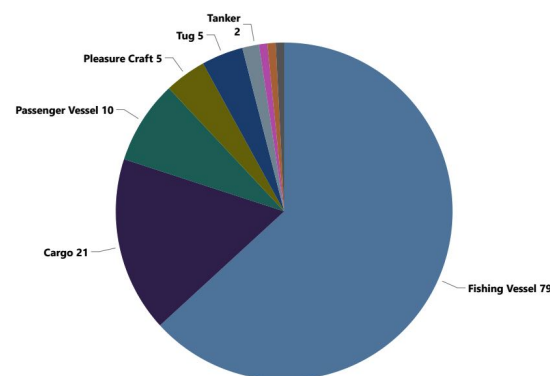
22 incidents were reported in Sep 20, the highest incidents in a single month and this was observed to be associated with heavy weather across South Asia and Middle East.

More than 53% of the incidents were reported at ports/ anchorages or waters of South East Asia followed by South Asia with 35% of the incidents. Nearly 24% of the incidents were reported in the waters off India, the highest for a single country with reported incidents during the year and may be attributable to proactive reporting by various agencies.

It was observed that nearly 90% of the incidents involved small vessels viz., fishing vessels, passenger vessels, tugs and coastal cargo vessels. This goes on to highlight the difficulties faced by mariners, specially those on small crafts, at sea during the monsoon period and tropical storms.

Over 63% of the vessels that capsized or sank at sea involved fishing vessels and 90% of the incidents reported off India were monitored onboard small fishing vessels.

The Centre monitored a distinct correlation between the reported incidents and the heavy weather conditions in the region. The months of January to May with relatively calm weather witnessed only 19% of the incidents. 71% of the incidents were reported during June to December, the period of South West Monsoon and the peak period of North East Monsoon. Further, the rough weather conditions complicate the efforts of coastal authorities to launch SAR operations to rescue distressed seafarers.



VESSELS DETAINED

The Centre monitored 33 incidents of vessels being detained by various maritime authorities during the year.

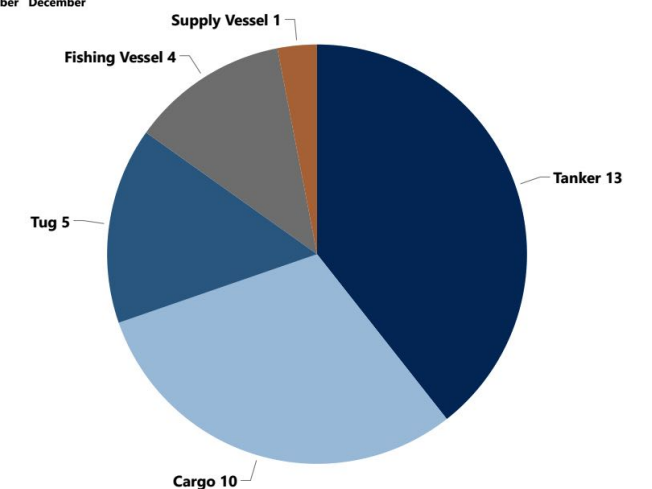
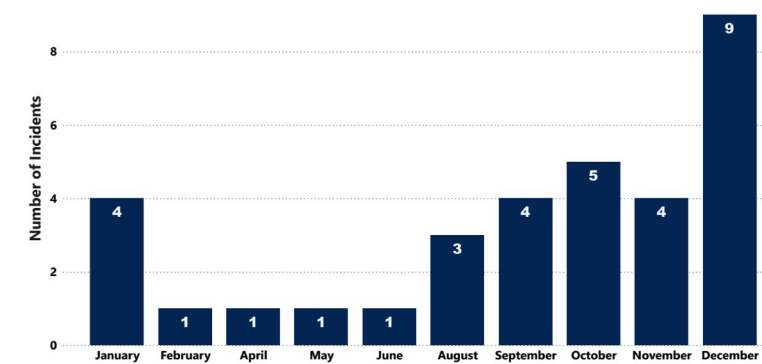
The month wise distribution of these incidents is shown in the graph. With nine reported incidents, Dec 20 recorded the highest incidents in a single month and no incidents were reported in Mar and Jul 20.

It was observed that between Feb to Jul, the reported incidents were distinctly low as compared to other months of the year. This is highly likely due to COVID-19 related restrictions on certain enforcement operations which prevented authorities from boarding vessels to undertake inspections/ verification of documents. Further, in certain countries of the region, the enforcement agencies were diverted to enforce closure of sea borders.

97% of the incidents were reported in South East Asia and only one incident was reported in South Asia (off India).

Malaysia alone accounted for 82% of the incidents of vessels being detained and this is attributable to proactive enforcement actions and reporting by Malaysia Maritime Enforcement Agency (MMEA). Nearly 65% of the incidents involved vessels being detained for anchoring in Malaysian waters without a valid permit.

The incidents reported off Indonesia, Thailand and Vietnam involved vessels which were detained by authorities for engaging in illegal fuel transfers or fuel smuggling.



MAJOR INCIDENTS

Some of the major events which involved search and rescue by various agencies have been elucidated in the succeeding paragraphs.

On 06 Jan 20, a traditional dhow AL-HAMID adrift in vicinity of Somali waters was rescued by an Indian Navy warship INS SUMEDHA. The dhow with 13 crew members developed a mechanical failure and drifted close to the coast of Somalia. The warship deployed in the area for anti-piracy patrol identified the vessel in distress during a surveillance sortie by the integral helicopter. Subsequently, a naval boarding team accompanied by technical team boarded the dhow for checks and assistance. The team assessed the failure was attributable to a broken engine shaft, which was not repairable at sea. The warship towed the dhow to safety away from the Somali coast. Later the dhow was handed over to another vessel arranged by the owner for towing her to port for repairs. The warship provided the crew with fresh water and medical supplies prior handing over the tow.

On 22 Jul 20, the tug ALAA was rescued by the Spanish frigate SANTA MARIA after the tug was adrift in Somalian waters. Reportedly, the tug was adrift for more than 10 days, with no water or food. As per reports, the helicopter of SANTA MARIA was launched to locate the tug. The helicopter found the tug with only one crewmember and supplied him with food and water. Subsequently, the frigate also arrived at the position of the tug and sent the boarding team to repair the engines. Further, the tug was towed for more than 130 nm to the Somalian city of Bosaso and was handed over to the national coast guard authorities.

On 03 Sep 20, an incident of fire was reported onboard a Panama flagged crude oil tanker NEW DIAMOND off Hambantota, 38 nm off East coast of Sri Lanka. The vessel was transiting from Kuwait to Paradip, India when it encountered a fire in its engine room. On 04 Sep 20, ships from Indian

Navy and Coast Guard alongwith Sri Lankan tugs reached the area to assist the tanker. 21 crew members were recovered from the vessel and one crew member who was working in the boiler room was reported to be missing (later declared dead). On 06 Sep 20, about 1000 kgs of Dry Chemical Powder (DCP) was dropped on to the distressed vessel by Sri Lankan Airforce to smother any re-ignited flames. The flames were brought under control on 08 Sep 20 and the Indian and Sri Lankan units in the area undertook boundary cooling to prevent any re-ignition of flames or smoke onboard the tanker. On 14 Sep 20, joint Indian Navy, Sri Lankan Navy and commercial salvage team completed an underwater diving for hull inspection. A Malta flagged tug BOKA EXPEDITION towed the tanker on 07 Oct 20 to an anchorage off Port Fujairah, UAE for repairs.

On 13 Sep 20, an Indian fishing vessel SRI JAI GANESH with nine crew members onboard was rescued by a Myanmar Naval ship off Myanmar. The fishing vessel that departed from Chennai harbour on 23 Jul 20, developed a mechanical failure on 26 Jul 20 and was adrift at sea for 49 days. Myanmar Navy rescued the vessel on 13 Sep 20 and towed her to Myanmar harbour. All crew members were reported to be safe.

On 27 Oct 20, a Malaysian flagged offshore support vessel DAYANG TOPAZ with 125 personnel onboard, sank off Sarawak, Malaysia. The vessel reportedly collided with an oil platform. Reportedly, 121 crew members were rescued by the Malaysian authorities and four were initially reported missing. One crew member reportedly lost his life and the four missing crew were safely rescued.

On 17 Nov 20, it was reported that a UAE flagged cargo vessel destined for the Yemeni island of Socotra sank off the coast of Oman. Reportedly, the vessel was carrying various goods including over 30 cars and capsized due to overloading. The crew was safely rescued.

IFC – IOR RECOMMENDATIONS

The Centre strongly recommends the seafarers to monitor weather warnings prior putting out to sea.

Vessels that can monitor relevant warnings/ broadcasts whilst at sea are advised to seek shelter (if feasible) or steer a safe course during periods of heavy weather.

Some of the incidents observed in 2020 involved capsizing or sinking of vessels due to poor cargo management onboard. Attention of mariners is drawn to relevant tenets of ship stability and the need for weight management onboard.

Proactive and timely reporting to relevant coastal agencies as per the established procedure would be key in mounting rescue missions towards saving lives at sea.

The Centre urges all seafarers to maintain a good lookout for any small vessels in distress and render timely assistance, which is also mandated by relevant SOLAS conventions.



MARITIME SECURITY THREATS (NON-PIRACY)

MARITIME SECURITY THREATS

OVERVIEW

In the year 2020, the Centre monitored several incidents which because of the nature or motive, differ from the traditional acts of Piracy and Armed Robbery. While the waters of Gulf of Aden and Red Sea did not witness any major incidents (except suspicious approaches) of piracy, the year witnessed emergence of hybrid threats which complicates the security situation in the region.

HYBRID THREATS

REMOTE CONTROLLED SKIFF



An incident of suspicious approach was reported onboard Saudi Arabia flagged crude oil tanker GLADIOLUS off Point B of IRTC in Gulf of Aden on 03 Mar 20. Reportedly, the vessel was approached by three small crafts, of which one craft was unmanned. The MV followed BMP 5 procedures following which all three crafts withdrew their approach. The vessel and crew were reported to be safe.

The incidents which had an impact on the maritime security of the seafarers but not piratical in nature have been included in this section. A brief description of these incidents alongwith the available analysis has been elucidated in the succeeding paragraphs.



The photographs which were reportedly taken from the deck of the tanker depict a small, unmanned speed craft approaching the vessel with high speed. The existence of unmanned skiffs has been confirmed by these pictures, and it is likely to be remote controlled.

WATER BORNE IMPROVISED EXPLOSIVE DEVICE (WBIED)

An incident of attack was reported onboard an underway UK flagged product tanker STOLT APAL off Al-Mukalla, Yemen on 17 May 20. Reportedly, the vessel's armed guards exchanged fire with two skiffs manned by six armed pirates, who approached the vessel at high speed. It was reported that one of the skiffs exploded possibly due to presence of explosives onboard. The vessel's Bridge area sustained minor damage from bullets.

Based on inputs from Industry Releasable Threat bulletin (IRTB) issued by Combined Maritime Forces (CMF) and European Union Naval Force (EU NAVFOR), the incident has not been classified as piracy as no boarding equipment was seen on the skiffs. Further, reportedly the kind of return fire experienced by the ship from the skiffs and explosion of the second skiff due to heavy explosives onboard are not suggestive of an approach by a Pirate Action Group.

ATTACK ON MT SYRA OFF YEMEN

The Centre monitored an explosion onboard a Malta flagged tanker SYRA at an oil terminal on the southern coast of Yemen on 03 Oct 20. The tanker experienced one or two explosions while loading crude at the Al-Nashima export terminal. The tanker departed the terminal subsequently and sailed towards Fujairah. Reportedly, no crew was injured but, some ballast-tanks were reportedly damaged and based on satellite imagery, an oil spill was reported in vicinity of the terminal.

Considering there were no reports that indicated presence of drifting sea mines in the area, it is believed that this was a targeted attack.

As per assessment of DNK-IOC, this attack is a fall-out of the ongoing conflict in the country. Considering the flag-state of the tanker has no role in the conflict, the attack was appreciated to be aimed at disrupting the oil exports from the region and the terminal.

ATTACK ON MT AGRARI OFF AL SHUQAIQ, RED SEA

An explosion was monitored onboard a Malta flagged tanker AGRARI off Al Shuqaiq in the Red Sea on 25 Nov 20. The tanker had experienced an explosion after discharging oil at the terminal. The tanker was reportedly hit by an unidentified object about one meter above the waterline, which resulted in a hull breach. The crew and the

vessel were reported to be safe.

Considering there were no reports that indicated presence of drifting sea mines in the area, it is believed that this was a targeted attack, probably using a WBIED.

ATTACK ON MT BW RHINE OFF JEDDAH, RED SEA

The Centre monitored reports of an explosion onboard MT BW RHINE at the port of Jeddah on 14 Dec 20. Subsequent to the attack, the port was closed for operations for a short duration.

It was reported that the Singapore flagged tanker was hit by an external source whilst discharging at Jeddah Oil terminal which caused an explosion and a subsequent fire onboard the vessel. The fire

was brought under control by the ship's crew and the port support teams. The crew was reported to be safe.

Considering there were no reports that indicated presence of drifting sea mines in the area, it is believed that this was a targeted attack, probably using a Remotely Controlled WBIED (RC-WBIED).

DESTRUCTION OF WBIEDS AND MINES BY COALITION FORCES

The Centre monitored several reports which indicated destruction of remotely controlled waterborne explosive devices (RC-WBIED) by the coalition forces in the Red Sea. It was reported that these boats were prepared by the threat actors to target Saudi Led Coalition (SLC) naval or merchant vessels transiting in the Red Sea.

Similarly, there were reports from the coalition forces which indicated recovery/ destruction of mines in the Red Sea. It was reported that these mines were deployed to target shipping of certain nationalities. **On 25 Dec 20, it was reported that a Saudi Arabia flagged landing craft was damaged due to a mine hit in the Southern Red Sea.**

MAJOR INCIDENTS

KIDNAPPING OFF SABAH, MALAYSIA

An incident of Kidnapping was reported onboard an underway fishing trawler with marking SSK 00543 approximately 4 Nm NW of Pulua Tambisan, Lahad Datu, Sabah, Malaysia on 17 Jan 20. Reportedly, six gunmen dressed in black suits with masks used a grey speedboat with twin engine (40 HP) and abducted eight Indonesian crew from the Malaysian registered fishing trawler.

On 28 Jan 20, two of the six men suspected of kidnapping Indonesian fishermen in Malaysian waters were shot dead by Philippine security forces in waters off Jolo Island, in the southern Philippines. Reportedly, the suspects had just dropped off the abductees at an unspecified island in the southern Philippines and were heading to another island when they ran into the authorities.

This was the first and only abduction of crew incident reported in 2020. There were two incidents of abduction of crew reported in 2019 (on 18 Jun and 23 Sep). All the abducted crew from the two incidents in 2019 were rescued and released. It is

pertinent to mention that general area of occurrence of all incidents remained the same and kidnappings were undertaken from fishing boats/ trawlers.

FIRE OFF MALDIVES

On 15 Apr 20, Maldives Police Service reported that six vessels were engulfed in flames in a fire that broke out in the harbour of Mahibadhoo, Alif Dhaalu Atoll at around 0522 hrs in the morning. According to Police, a Sea Ambulance, Police Launch 47, Alifu Dhaalu Atoll launch, two speedboats belonging to the travel company HMHI Pvt Ltd and a dinghy were among the vessels that caught fire. Although the authorities confirmed that no individuals were injured in the

incident, all the aforementioned vessels were burnt beyond use. Police were able to extinguish the flames by around 0745 hrs with the assistance of Maldives National Defence Force (MNDF) and locals of Mahibadhoo.

The Islamic State claimed it's first-ever attack in the island nation of Maldives. While the reported operation did little in terms of damage, the claim was reported in ISIS's weekly Al Naba newsletter.

ANALYSIS BY THE CENTRE

The increased monitoring of hybrid threats viz., WBIED, mines, remotely controlled unmanned skiffs (as observed in Mar 20) and the attacks on vessels in vicinity of ports/ terminals complicates the security situation in the area.

Based on the inputs of Industry Releasable Threat Assessment (IRTA) issued by Combined Maritime Forces (CMF) and European Union Naval Force (EU NAVFOR), the risk from hybrid threats is limited to Saudi Arabia and Saudi Led Coalition (SLC) flagged vessels. However, the possibility of misidentification and collateral damage does transfer risk to vessels transiting the area.

Mariners are strongly advised to continue to exercise caution, keep a sharp lookout and ensure strict adherence to BMP5 and other preventive measures.



CYBER THREATS IN MARITIME DOMAIN

CYBER THREATS

GLOSSARY OF TERMS USED

Cyber Security. Cyber Security is sometimes also referred to as Information Technology Security. As the maritime domain is increasingly becoming automated and digitised, for better efficiency and productivity, the significance of Cyber Security to prevent malicious attacks is also increasing. The increasing role of Information Technology (IT) and Operational Technology (OT) onboard ships brings an inherent risk of a malicious attack or unauthorised access which may directly impact navigational safety of seafarers.

Cyber Safety. Cyber safety covers the risks from the loss of availability or integrity of safety-critical data and OT.

Information Technology and Operational Technology. In shipping offices ashore and onboard ships, there are various kinds of sophisticated computerised systems designed to perform specific tasks and these systems are categorised as Information Technology (IT) and Operational Technology (OT) systems. IT deals with the information/ data and manages the flow of information and computation of the data. In contrast, OT deals with the machinery and manages the operation of the physical processes and machinery. Ships have several OT systems and IT systems as their subsets.

CHALLENGES IN CYBER SECURITY ONBOARD

The various challenges being faced while ensuring cybersecurity onboard are as follows: -

- **Human Errors/ Non-Compliance to Standard Operating Procedures (SOPs).** Lack of compliance with the SOPs remains a major cause of cyber security breach onboard.
- **Insecure Satellite Links and Communication Channels.** Communication satellites have ensured highspeed digital communication with vessels at high seas possible. However, many of these communication links lack proper security protocols and use weak security algorithms.
- **Lack of Response Mechanism.** Cyber Security in the maritime domain is relatively new and not fully established. Thus, lack of response and contingency plans is a major challenge in ensuring cyber security onboard vessels.
- **Insurance Gaps.** Most of the Maritime Insurance firms do not cover the losses caused by Cyber Attacks. Thus, companies/ organisations are themselves responsible for plugging the Cyber security gaps in their systems.

IMO REGULATIONS

In 2017, the International Maritime Organisation (IMO) adopted resolution MSC.428 (98) on Maritime Cyber Risk Management in Safety Management System (SMS).

The resolution encourages administrations

to ensure that cyber risks are appropriately addressed in existing safety management systems no later than the first annual verification of the company's Document of Compliance after 1 January 2021.

OVERVIEW

Cyber-attacks on the maritime industry's operational technology (OT) systems have increased by 900% over the last three years.

Cyber Attacks are "real and present" threats which are not only affecting the operations

and business at maritime organisations but could also be lethal to the safety of vessels.

Some of the major cyber attacks in the maritime domain reported in 2020 have been elucidated in succeeding paragraphs.

MEDITERRANEAN SHIPPING COMPANY (MSC)

Mediterranean Shipping Company (MSC) was hit by a Cyber Attack in Apr 20 and the attack left the online services of the company in-accessible.

The incident was confined to MSC's headquarters in Geneva only and affected the availability of some of MSC's digital

tools and website for a few days after the attack.

It has been reported to media that cargo details of several shipments were leaked during this breach. However, there were no official reports from the company regarding any data leak.



CARNIVAL CORPORATION

Carnival Corporation was reported to have suffered a cyber-attack on 15 Aug 20, after an unauthorised individual gained access to its networks.

The incident affected both the parent company, which has its headquarters in Florida, USA and its brands Carnival Cruise Line, Holland America Line, and Seaborn, as well as its casinos.

According to the details released by the company, the data breach has potentially exposed the personal information of customers and employees.

CMA CGM

It was reported that French shipping giant CMA CGM was hit by a Ransomware Cyber Attack in Sep 20.

Following the attack, the company interrupted all internal access to its network and computer applications to isolate the malware. The company suspected a data breach and launched an operation to assess the potential volume and nature of breach.

The systems and associated applications were fully restored about 12 days after the reported attack.

INTERNATIONAL MARITIME ORGANISATION (IMO)

Shipping's global regulatory body the International Maritime Organisation (IMO) was reportedly hit by a cyber-attack in Oct 20. The attack affected IMO's public website and internal intranet services.

IMO said on Twitter: "The interruption of service was caused by a cyber-attack against our IT systems. IMO is working with UN (United Nations) IT and security experts to restore systems as soon as possible, identify the source of the attack, and further enhance security systems to prevent recurrence".



IFC – IOR ANALYSIS/ RECOMMENDATIONS

The increase in Cyber Attacks in Maritime industry highlights the need for an institutionalised mechanism to address these issues. Most of these attacks were Ransomware attacks targeted for extorting money.

Cyber Security has opened a new verse in the maritime

domain where pirate groups are also trying to exploit the cyber vulnerabilities of the port or shore-based systems of the shipping companies to gain access to the ship manifests, container ID numbers, ship sea routes, etc. so they can better plan attacks.



MARINE ENVIRONMENT POLLUTION

MARINE ENVIRONMENT POLLUTION

OVERVIEW

In the year 2020, the Centre monitored several incidents of collision, vessels that ran aground and vessels which capsized or sank at sea. While these incidents resulted in loss of property and in some cases even loss of valuable lives of seafarers, majority of them did not involve any

major oil/ cargo spill hazardous to environmental safety. The year, however, has been a witness to a major oil spill, one of the largest in recent years. A brief description of the incident alongwith some associated follow-up rescue efforts has been elucidated in the succeeding paragraphs.

EVENTS PRIOR TO OIL SPILL

A Panama flagged bulk carrier WAKASHIO departed Lianyungang, China on 04 Jul 20 and was headed to Tubarao, Brazil. During the passage, the vessel bunkered off Singapore on 14 Jul 20, transited through the Straits and entered Indian Ocean for onward transit through Cape of Good Hope. However, the vessel ran aground near Pointe d'Esny, Mauritius on 25 Jul 20.

The vessel plowed into the pristine coral reefs of Mauritius in the midst of three internationally renowned nature reserves, containing some of the rarest and most endangered species, as well as Mauritius' largest coral barrier reef around Pointe d'Esny in the South East of the country.

THE SPILL

While there were no injuries to the crew members, the vessel due to the impact of grounding and the subsequent pounding close to shore, developed cracks in the hull. The hull breach led to oil spill close to the coast in the first week of Aug 20. The local authorities duly supported by regional partners mounted salvage efforts to control the spill and as per open-source reports about 1000 tonnes of fuel had leaked from the distressed vessel.

Unfortunately, an inclement weather condition developed in the area during the period, and fearing further damage to the vessel, the authorities and the shipping company undertook defueling operations. It was reported that by 13 Aug 20, more than 3,000 tonnes of oil from the ship's fuel tanks was pumped out.

The fuel was transferred ashore by helicopter and

by MT TRESTA STAR, a Mauritius flagged and Indian owned barge. France and India also sent military aircraft with pollution-control equipment from Réunion and India, respectively. The Mauritius Coast Guard and several police units were deployed at the site in the South-East of the island.

Subsequently, due to the impact of inclement weather in the area, the vessel developed a crack in the cargo hold 8 and broke into two sections. A towage plan was implemented by the relevant authorities and the forward part was sunk in deeper waters.

INS NIREEKSHAK, a diving support vessel of the Indian Navy was deployed to Mauritius on 24 Aug 20 to support the

oil spill containment. The divers onboard were available for seaward search & rescue, medical support and specialised salvage operations related to the incident. Further, India also sent an Air Force aircraft with a 10-member Technical Response Team from the Coast Guard to help Mauritius in its oil spill containment and salvage operations. In addition, 30 tonnes of specialised equipment was also sent to help authorities and volunteers in Mauritius with the salvage, clean-up and containment of the oil spill.

As per opens-source reports, a salvage company has been hired by the owners of WAKASHIO to remove the aft part of the vessel stranded on the reefs. The salvage operation is expected to be progressed in the early part of 2021.





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