UNOSAT Global Report
on Maritime Piracy

a geospatial analysis 1995-2013

Disclaimer

Contents

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Preface

Following a five year engagement by the United Nations Institute for Training and Research (UNITAR) to conduct applied research and geospatial analysis on piracy activities, this report constitutes the first global geospatial analysis. What started with identifying captured ships delivering humanitarian assistance and other goods using satellite imagery later expanded to regional geospatial analyses for the western Indian Ocean. The current report assesses piracy at the global level. This research includes detailed geo-spatial analyses, while relating findings to complementary factors, including references to specific examples illustrating the complexity of the piracy issue. The report also covers the financial aspects of global piracy, as well as anti-piracy activities and future outlooks in a changing meteorological climate.

The work takes into account studies from different sources, such as UN sister agencies, academia, insurance industry, shipping companies, European Commission and the World Bank. This report should be seen as a contribution to the important and ongoing debate on maritime piracy taking place in numerous fora, including the Contact Group on Piracy off the Coast of Somalia and others.
This research and current report have been made possible due to financial contribution from the Government of Sweden.

Executive Summary

This global report on maritime piracy has identified several important trends related to maritime security. Based on a refined and detailed analysis of primarily data from International Maritime Organization (IMO) Global Integrated Shipping Information System (GISIS) «Piracy and Armed Robbery» module UNITAR has been able to explore how trends in geospatial patterns and severity of reported piracy incidents are developing, from 1995 to 2013. Some detailed geospatial analyses focus on the period 2006-2013 due to improved records for geo-locating incidents. Our analysis includes the added cost of piracy for the maritime industry at a global level and how these are linked to anti-piracy initiatives. Furthermore, costs related to paid ransoms and effects on the local economy in piracy land-bases are explored. There are two areas where significant trends in piracy activities are observed: the Western Indian Ocean, including the Gulf of Aden, and the Gulf of Guinea. In other areas, notably eastern Indian Ocean, including the Malacca Strait, and in South America, no major trends are observed. While activities in South America are relatively minor, piracy in the Malacca Strait continues to be a major disruptor for safe routes in the eastern Indian Ocean.

As for the Western Indian Ocean, several main observations are made:
▶ There has been a significant reduction in the number of pirate attacks during 2013 – to the extent one can claim they have almost stopped (28 incidents in 2013, of which only 8 since 15th August). Not a single vessel was hijacked;
▶ The median distance from where an attack is reported to the nearest coast has dropped from close to 400 km in 2010 to under 50 km in 2013, thus indicating a considerable reduction in the radius of successful pirate activities;
▶ Incidents involving the use of rocket propelled grenades, relatively heavy armour for pirates, has decreased from 43 in 2011 to 3 in 2013;
▶ Ransom amounts paid to pirates have decreased from US$150M in 2011 to about US$60M in 2012;

▶ In addition to the well-known feature of piracy "mother ships" from which fast-going skiffs can radiate, a new trend of floating armoury vessels supplying anti-piracy entities with weapons out in international waters is observed.

In the Gulf of Guinea, the trend is to some degree different of that in western Indian Ocean, although at a smaller scale in terms of number of attacks carried out:
▶ The number of attacks show no sign of decreasing;
▶ Attacks in the high seas have increased, while attacks in ports are on the decrease;
▶ The types of attacks have gone from low-intensity towards more violent acts;
▶ The Financial losses to the national economies for countries with ports in the Gulf of Guinea are considerable. This has forced certain countries to take military action that has proven successful.

In southeast Asia/Malacca, we observe a slight decrease although no significant trend in the number of attacks, or in their severity.

Following the detailed review of IMO's database structure and in-depth data analysis, a "severity index" to better differentiate the gravity of reported incidents is proposed for future data collection and analysis. It is important to know that close to half of all piracy incidents reported globally are not what can be considered severe, i.e. no threat of violence has been reported.

With studies indicating a significant shift of the centre of gravity for marine activities to Asia, finding solutions to reduce or end piracy is not only a major security issue, but an important economic factor. With changing climatic conditions at high latitudes and medium- to low-income countries in Asia experiencing the largest growth per capita, additional transport routes may be explored, including combined pipe-lines and secure area marine shipping routes.

Introduction and methodology

Although acts of piracy and armed robbery that took place in recent years are much better monitored and reported than previously, there remain a number of incidents, which for various reasons are never declared. However, if not comprehensive, the incidents collected by the International Maritime Organization (IMO) together give a good image of the piracy phenomenon, especially since 2011, as the reporting system has significantly improved.

Database elaboration, use and analysis: advantages and limits

IMO has been collecting and promulgating reports of incidents of piracy and armed robbery against ships since the early 1980s. IMO Assembly resolution A.545(13) on Measures to prevent acts of piracy and armed robbery against ships, which was adopted in November 1983, instigated the collection and promulgation of reports. The information required and the reporting formats have gradually evolved over the last thirty years, and detailed information, including latitude and longitude, descriptions of offenders and action taken, is now requested.

Before December 2008, piracy incidents were globally reported to the International Maritime Bureau Piracy Reporting Centre (IMB-PRC), to the Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP) for the Asian region, to flag states, coastal states, and other entities. IMO received and continues to receive all reports from these sources.

In December 2008, EUNAVFOR Operation Atalanta and the affiliated Maritime Security Centre Horn of Africa (MSCHOA) were established. At the same time the "Best Management Practices for Protection against Somalia Based Piracy" were developped and published and the United Kingdom Marine Trade Operations (UKMTO) deployed in 2001 in Dubai became the primary point of contact for all

vessels in case of a pirate attack. EUNAVFOR, NATO and other maritime forces in the Western Indian Ocean, as well as IMB-PRC and ReCAAP are using the Mercury communication system to coordinate actions.

The "Code of conduct concerning the repression of piracy and armed robbery against ships in the Western Indian Ocean and the Gulf of Aden" (Djibouti Code of Conduct), was adopted in January 2009. Two years later, in 2011, the "Djibouti Code of Conduct Information Sharing Centers" were established in Yemen, Kenya and Tanzania (Dar es Salaam). These three centers have access to Mercury and may receive reports from local shipping which are not yet incorporated in the IMO Geographic Information System (GIS) database.

Since April 2011, the NATO Shipping Centre's website also offers a database that possibly lists complementary incidents.

IMO receives most of the incident reports, and even if it is assumed that there is an under-reporting in some regions, the database offers a fairly good overview of the extent of the phenomenon. However, IMO does not receive data on pirate action group (PAG) disruptions that EUNAVFOR, NATO or other maritime forces undertake if the PAG has not been involved in an attack. These data are collected by EUNAVFOR and assimilated initiatives but are not publicly released (only a few of them are

South America

West Africa

Figure 1: Yearly evolution in number of incidents 1995-2013

Number of incidents

■ Properly georeferenced incidents
■ Incidents for which there is an indication of location, but no georeferences
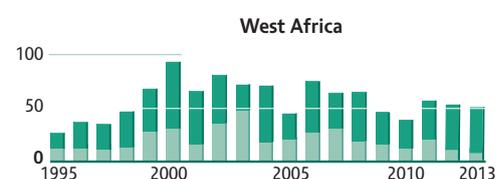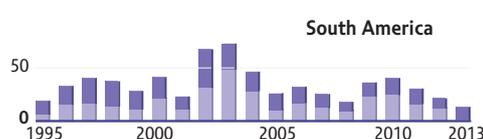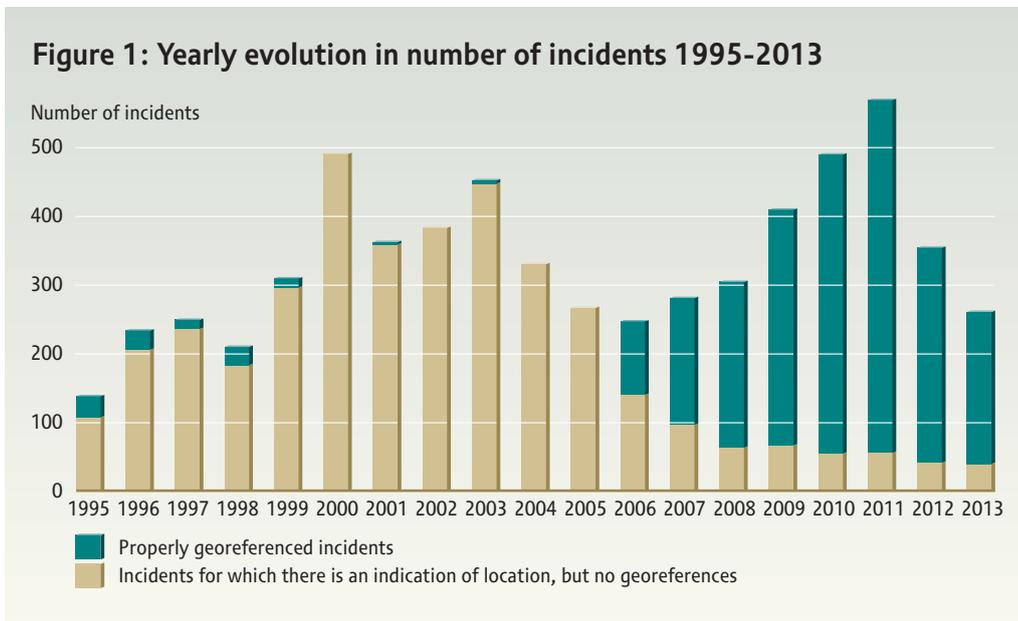
made publicly available). They may however be used in future historic review and analysis.

Links: - IMO/GISIS http://gisis.imo.org/Public/Default.aspx - ICC Piracy Reporting Centre http://www.icc-ccs.org/piracy-reporting-centre - EUNAVFOR http://eunavfor.eu/ and http://eunavfor.eu/key-facts-and-figures - Djibouti Code of Conduct http://oceansbeyondpiracy.org/matrix/activity/djibouti-code-conduct and http://www.imo.org/OurWork/Security/PIU/Documents/DCoC%20English.pdf - NATO Shipping Centre http://www.shipping.nato.int/Pages/LargeAlertMap.aspx

Between 1995 and August 15th 2013 (the period of our analysis), the GISIS-IMO database references 6,249 incidents. Until 2005, only a few of them were precisely georeferenced; the only indication on the report was the approximate location of the incident. From 2006 onward, most reports include geographical coordinates (see fig. 1). In the framework of this report, the analyses on long term trends cover the whole period as the geographical location is almost always specified, but the geospatial analyses as such cover only the period 2006-2013.
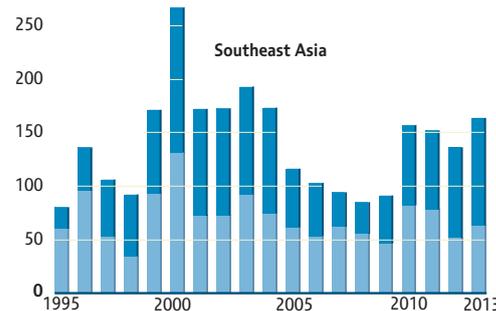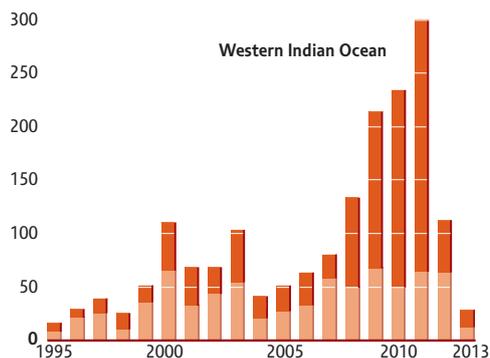
Figure 1: Acts of piracy and armed robbery, 1995-2013

Number of attacks

■ Severity 2, 3 and 4[1]
■ Severity 1[1]

1. See severity levels page 11

Figure 2: Main maritime circulation and acts of piracy and armed robbery, 2006-2013

Very frequent in Southeast Asia, and existing at various intensity in all tropical harbors, piracy affects areas where maritime traffic crosses very weak and destabilized countries, like Somalia, where traditional fishery has collapsed. While the country plunged into a devastating

High density of maritime traffic

Secondary shipping routes

High level of piracy acts over a large area

High level of piracy acts in isolated locations

Incidents with no threats or violence reported

Incidents with threats, injuries or fatalities reported

0   1,000   2,000 km   Scale at the Equator
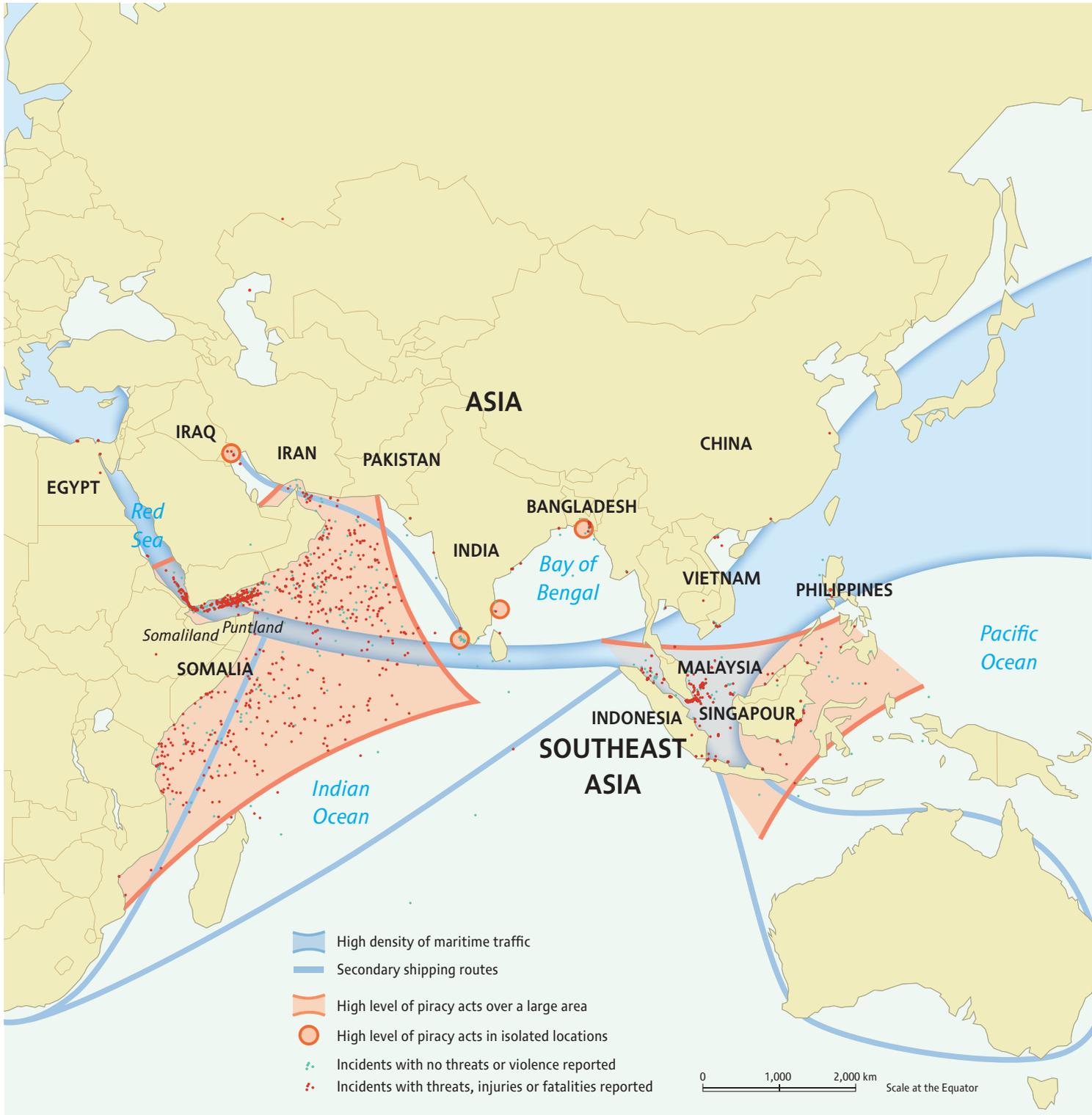
war, acts of piracy culminated in 2011 with pirates having more and more sophisticated armaments and venturing hundreds of miles from the coast. Piracy in the Gulf of Guinea in West Africa remains stable.

Enriching piracy data

The geographical analysis in this report is based on the Piracy and Armed Robbery database maintained by the International Maritime Organization's Global Integrated Shipping Information System (GISIS) project. This database (as of August 15th 2013) describes 6,276 incidents, each representing a reported piracy or robbery event, from 1995 to mid-2013.

After an assessment of the data's consistency, we proceeded to add several derivative fields, for statistical and GIS analysis. Most of these fields are just for convenience (coordinates in decimal representation, year, numerical representation of the text "number of pirates" field, and so on). Three of these added fields call for attention:
▶ New geographic areas meant to improve consistency
▶ A tentative severity index, based on existing fields, allows for more precise analysis
▶ A distance to coast criterion was created in order to evaluate the pirates' capabilities

Defining new geographic area

First, as the IMO records directly what is reported by its sources, the geographic areas mentioned in the GISIS database are not always spelled the same way. When we mapped geopositioned incidents for each area, quite a lot of overlap was shown between them. Second, when a high concentration of incidents is identified, it can be worth splitting the data within a given region. A set of 8 regional boundaries, with a few subregions have been defined (see fig. 3).

2,421 incidents were geopositioned and 3,844 had no geographical references, however they were classified in a designated area. For example, a non-geopositioned event designed as having happened in the "Malacca Strait" was classified in the sub-region "Malacca" within the region "Eastern Indian Ocean". This two-tier method allowed us to take some aggregate measures on the whole database. A consistency problem might have arisen, but this was carefully monitored; most incidents before 2006 were not geopositioned, while most events after 2006 were geopositioned (see figure 2). Thus, any statistical analysis using precise coordinates should only take into account incidents after 2006.

Defining a severity index

Even if ReCAAP-ISC already uses a three tier system for classifying the severity of attacks that are happening in Asia, there is no standard method for classifying the severity of acts of piracy and armed robbery. In accordance with the definition given in Article 101 of UNCLOS, which includes the concept of "depredation", the GISIS database covers piracy and armed robbery, which also includes theft. With a statistical assessment of the severity of attacks, it was possible to make a distinction between very serious aggressions (e.g. resulting in the death of crew members), and a minor situation in which, according to the description given in the database, some rope got stolen on a ship at berth.

There were various ways to approach this issue, and we settled on the following proposal, which is to be considered as a "tentative severity index". It is by no means a definitive way of classifying each individual incident, but a measure that can be useful for statistical aggregates.

Figure 3: Proposal for a new regional and sub-regional breakdown
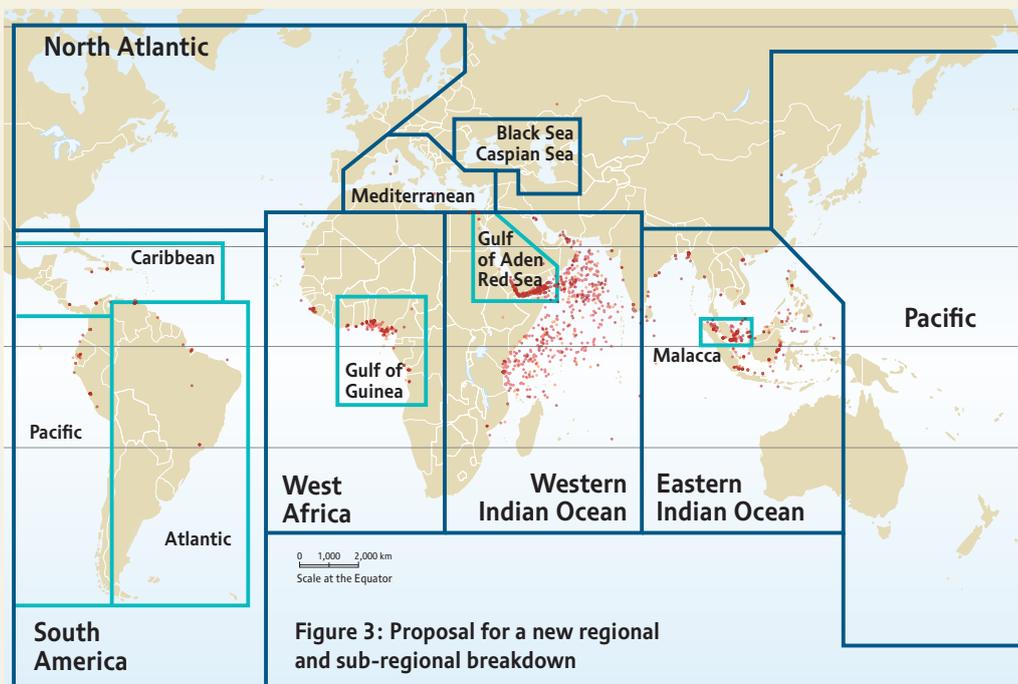
The following fields of the GISIS dataset have been used: "violence", "assault", "wounded crew", "date of ship capture and release", "loss of life" and "missing crew".

The four levels of the "tentative severity index" were defined as:

▶ Severity 4: one person (or more) dead or missing

▶ Severity 3: actual violence reported, one person (or more) wounded or taken hostage, ship taken

▶ Severity 2: threat of violence or mutiny ("crew involved")

▶ Severity 1: no threat of violence reported

Creating a "Distance to coast" criterion

This criterion is used to track the capability of pirates. As the database does not offer data on who these pirates are, how they are organized and what material they possess, proxy measures have been used to evaluate the distance from the place of the attacks to the coast.

This "distance to coast" criterion is not the distance to safe harbors for pirates, but an evaluation of the distance to the nearest shore. On some occasions, this measure might only reflect a change in the travel route taken by the targeted ships. However, we believe the increase of the median of this value is an invaluable measurement on the increased pirate capacities and action-radius.

In order to compute this, we created a "distance to coast" field, which was populated by data provided by NASA's Ocean Biology Processing Group at http://oceancolor.gsfc.nasa.gov/DOCS/DistFromCoast/

This field is described in kilometers, and has a negative sign when the incident happens "inland". This might cover a mistake in an entry (an error in the geographical coordinates logged for the incident), as well as a few reported incidents that took place on rivers or closed sea, which are considered inland (e.g. Congo River and Caspian Sea).

The context of global piracy

The western romantic imagination disinclines people to take pirates seriously (they have been portrayed in over 260 films since 1904). But the modern piracy, which made a comeback at the end of the 1990s, has become a scourge of maritime transport, with a significant human and economic cost.

A brief history: 2000-2013

Half pirate, half fisherman, the modern "sea bandit" is a player in a nameless war, that some observers describe as an asymmetric conflict or a clash between the "first and the fourth world", as the lawer Larry Woodward defending a group of imprisoned pirates awaiting trial put it (Los Angeles Time, 13 June 2013). However, this does not oppose the fact that piracy and armed robbery against ships are criminal activities.

Maritime piracy is an age-old practice. While it intensified at the end of the 1990s, reaching a peak in the western Indian Ocean in 2011, it has been in sharp decline globally since the beginning of 2013. There were 353 attacks on ships worldwide in 2012 (compared to 569 in 2011) but only 264 attacks in 2013.

Data from the headquarters of the European operation Atalanta etablished that only 15 attacks were registered in the Somali zone for 2013 (compared to 34 in 2012), and not one ship was captured by pirates.

The first targets of Somali pirates were World Food Programme (WFP) ships. It was the UN that asked the international community for the means to protect these vessels. The pirates then moved on to other targets. No longer limiting themselves to steal cargo to sell, the pirates began hijacking ships and their crews for months, or even years, and demanding increasingly higher ransoms (from $150,000 in 2005 to the highest ransom, $5m, in 2012).

According to a World Bank report published in March 2013 ("The Pirates of Somalia: Ending the Threat, Rebuilding a Nation"), the hijacking of 149 ships worldwide between April 2005 and the end of 2012 earned the perpetrators between $315m and $385m.

Having first rapidly increased in the Gulf of Aden from 2006-2011, Somali piracy then spread as far as the Seychelles and the Mozambique Channel. Currently, Somali piracy is in retreat. Piracy is also receding in the Bay of Bengal and along the coast of Latin Ame-

Figure 4: Maritime piracy and armed robbery: 6,249 reported incidents between 1995 and 15st August 2013[1]

NB: Circles are proportional to the number of incidents.
1. The International Maritime Organization (IMO) has reported 78 incidents worldwide between 15th August 2013 and 31st December 2013.
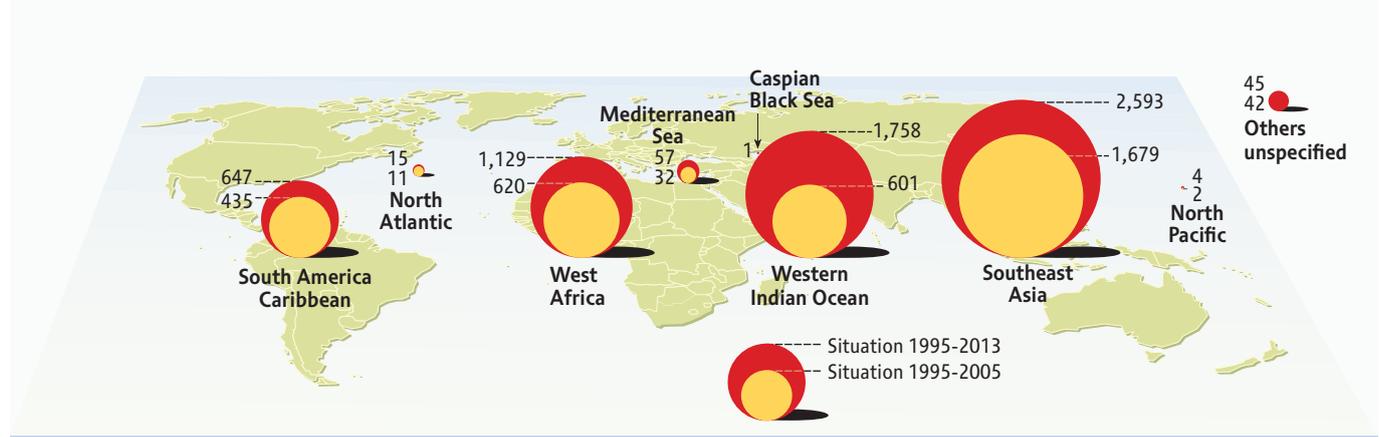
Figure 5: West-east, north-south: maritime routes and disruption
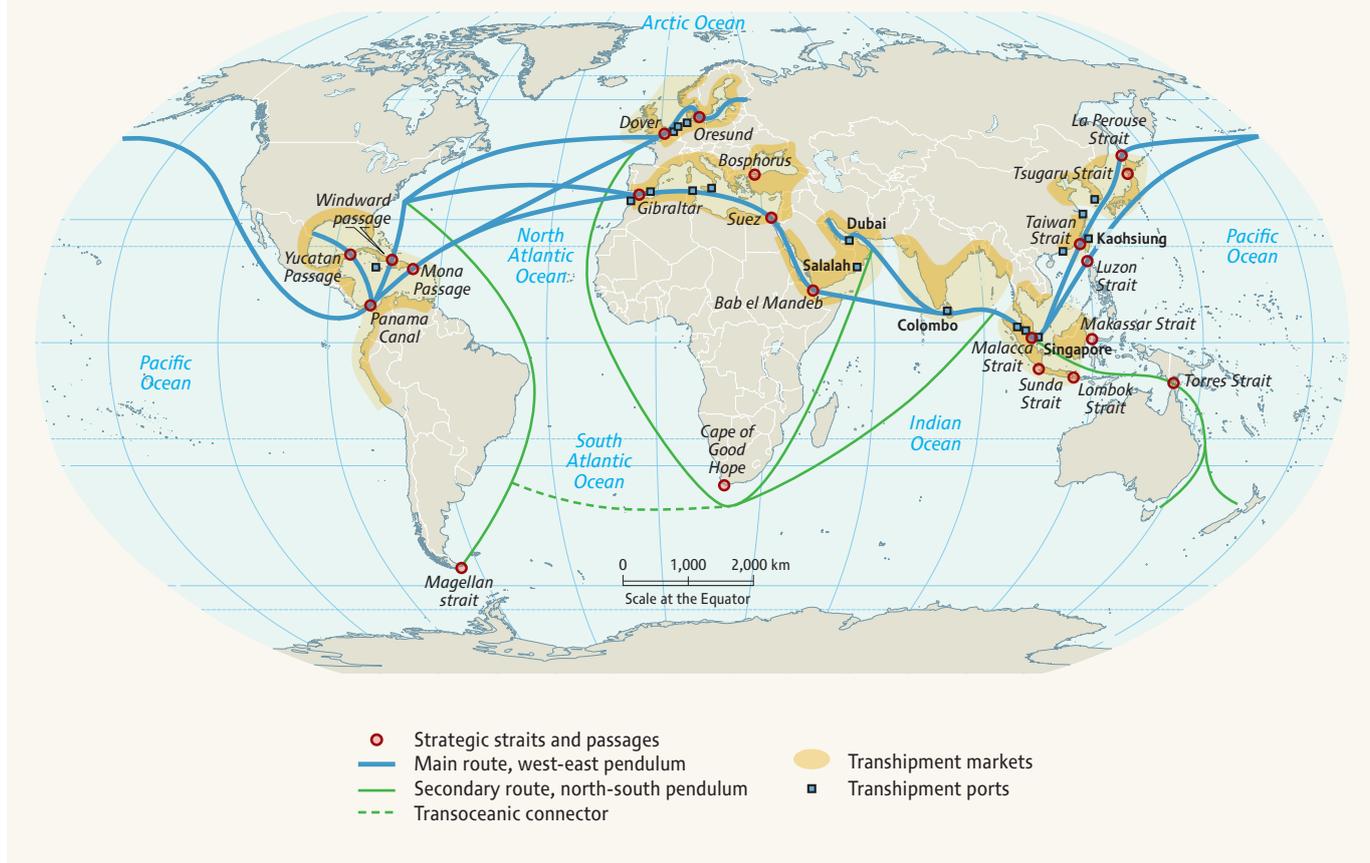
rica, but not in the Gulf of Guinea and in the Caribbean Basin as well as South East Asia.

Piracy principally affects the inter-tropical zone close to strategic passages (Gulf of Aden, Malacca Strait, Singapore Strait) and zones with "high added value" such as the Gulf of Guinea.

It remains difficult to characterise, but rather than adding up the number of attacks or hostage takings, it is important to be able to distinguish between the types of threat, the modus operandi, attempted attacks and the number of ships actually hijacked, cargo stolen, and crews taken hostage.

Modern day piracy is an example of the "asymmetric threat": attackers with few means, valuable targets, wide economic and media impact and – in the case of the Gulf of Aden – spectacular international mobilisation around a relative consensus.

Although the methods used by pirates in the Somali Basin have been very basic, they have proved effective against freighters, oil tankers, trawlers, cable ships and yachts, thanks to the use of light, fast boats linked to "mother ships", VHS radio and GPS for navigation, Kalachnikovs and RPG-7 rocket launchers to fire shots to intimidate, and ladders and grabs for climbing on board. Once on

Figure 6: Main container shipping routes
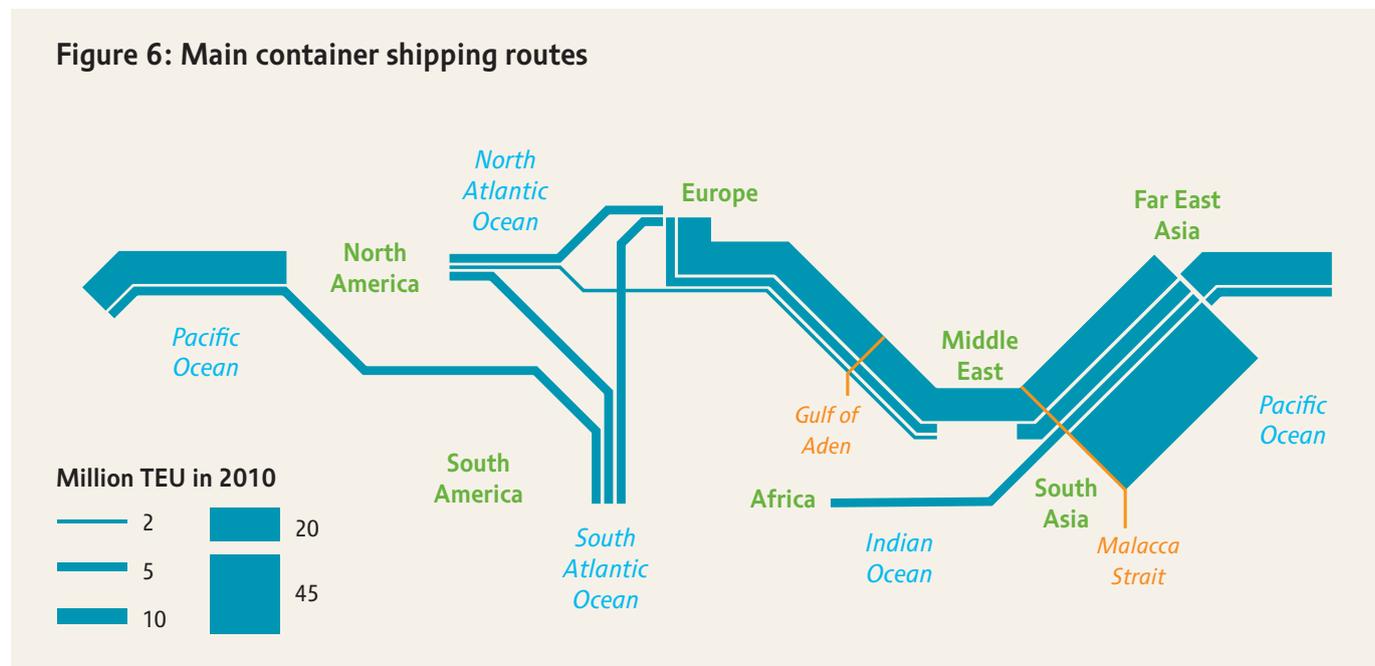
board, the pirates can take the crew hostage, bring the ship to shore and demand ransoms.

The direct and indirect global cost
"Kidnap and ransom (K&R)"

Threats against one of the world's principal shipping routes provoked a level of international mobilisation never before seen. The Indian Ocean is a key transit route between Europe, Asia and Oceania. Although the flow of oil from the Gulf to the US may be decreasing, it is increasing to Asia, as are exports – in the other direction – to Europe. That is why the bottleneck in the Strait of Malacca, between Singapore and Indonesia, remains of major strategic importance. This passage is often preferred over others which are less insecure but shallower, requiring a more winding route.

Piracy is particularly costly for international shipowners in terms of security equipment, protection fees, danger money paid to crews, additional insurance premiums, the cost of being diverted off course, and additional fuel costs (to feed engines running at top speed).

But it is also expensive for the countries who intervene in these dangerous zones, who must bear the cost of deploying and maintaining military fleets, detection and intelligence, and the detention and trial of suspects. And some coastal countries which are victims of port or maritime crime suffer a fall in trade and tourism, and a reduction in subsidies and international aid.

The threat to tuna fishing and cruise ship tourism in the Seychelles' exclusive economic zone led this small archipelago to get heavily involved in combating piracy. Money from piracy "laundered" by some Somali families buying property in the outskirts of Nairobi, in Kenya, has increased the cost of land there two or threefold.

This increased risk, which has risen in tandem with the average ransoms demanded, has created an incentive for insurers to propose specific anti-piracy cover. A new "Kidnap and Ransom" contract from Lloyd's has been taken up by several insurers, particularly from

the UK and the US. Its cost can vary from $1,500 to $100,000 per crossing, depending on the riskiness of the zone, the cargo, type of vessel, speed, protective equipment etc. This additional premium, which can amount to 0.5% of a ship's value for a crossing on the Indian Ocean, includes cover for reimbursement of ransoms, fees for negotiators and intermediaries, the cost of repatriation, and the resulting loss of business. But while around half of the ships passing through the Gulf of Aden have anti-piracy cover, only 5% of ships crossing the Gulf of Guinea are insured against piracy attacks. But it has to be recalled that only a few dozen ships are victims of piracy out of roughly 20 000 merchant vessels yearly crossing the Indian Ocean. This means that 99 % of maritime traffick in this area did not suffer from piracy attacks.

Unprecedented international mobilisation

The Western Indian Ocean zone is secured by three international forces: the EU naval forces of Operation Atalanta, plus two US and NATO task forces, along with ships from other countries (China, Japan, South Korea,

India, Russia). It includes patrol boats and maritime patrol aircraft. Since this part of the Indian Ocean has been "secured", there have been obvious results (a spectacular drop in piracy attack), even though fishing and yachting has completely disappeared.

The navies of the big powers...

The Gulf of Aden –where the maritime traffic is among the most dense in the world– has, in recent years, seen an unprecedented mobilisation of heavy military power. With the number of attacks and acts of piracy doubling in 2008, three military operations to monitor the zone were put in place, operating simultaneously from the hub of Djibouti (which serves as a base for observation aircraft) and from several multinational fleets.

These are Operation Atalanta of the EU's naval force (EUNAVFOR), launched in 2008, in which 12 EU countries participate (of which the UK, France, Germany, Spain, Sweden, Greece, Netherlands, Belgium and Italy). Participation in EUNAVOR however goes beyond EU member states (e.g. Norway, Serbia, Montenegro and Ukraine); the Task Force (TF)

Figure 7: Estimated cost of Piracy...

Billion

... in the Western Indian Ocean[1]
Total: 4.9- 5.3 billion dollars
for 413 incidents

... in Gulf of Guinea[2]
Total: 0.65 - 0.95 billion dollars
for 83 incidents

Increased speed
Security equipments
Military operations
Insurance
Re-routing
Labor: Killed crew hostages
Ransoms
Prosecutions
Anti-piracy organizations

Military operations
Stolen goods
Insurance
Armed guards
Labor cost
Capacity building Organizations

Billion

1. Yearly average for the period 2011-2012.
2. Figures for 2012.

Figure 8: The costs of piracy

Percentage (average 2011-2012)

- Guards and security equipment
- Insurance
- Other
- Military operations
- Increased speed
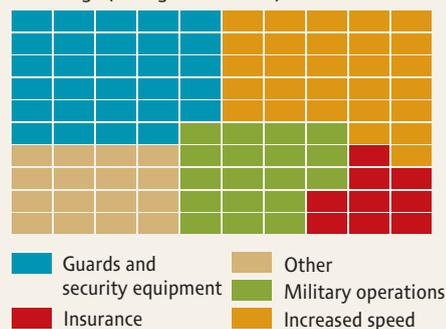
508 "Ocean Shield" (sailing under NATO colours) which began in 2009 with 13 contributing countries (of which Canada, Denmark, Greece, Italy, Netherlands, Norway, Portugal, Spain, Turkey, the UK and US) and the Combined Task Force (CTF) 150/151 (dominated by the US, which originally had an "anti-terrorist" function but became "multi-mission") with 14 participants, including Australia, Bahrain, Pakistan, South Korea, Singapore, Turkey, the UK and US.

Each of these forces has, on average, 3-6 warships (accompanied by support vessels), relieved every two to three months, with a revolving command. In addition, forces under the authority of the Indian, Pakistani, Iranian, Japanese, Russian, Chinese or South Korean navies carry out specific missions in this sector of the Horn of Africa where an average of 20-30 warships sailed in 2012 – a presence not seen before, except perhaps during the 1970-1980 wars in the Gulf, the Horn, and southern Africa.

This is the first time in history that such a large maritime coalition has existed, and with such extensive (if informal) means of information exchange and communication. Fleet commanders meet monthly at Shared Awareness and Deconfliction (Shade) meetings,

an initiative set up by CTF 151 in the first quarter of 2009. Following on from Operation Atalanta, the Maritime Security Centre-Horn of Africa was set up to centralize information on civil maritime activity. Ships are invited to use the International Recommended Transit Corridor (IRTC), 500 nautical miles long and 12 wide, closely guarded by naval forces who escort certain ships or surround convoys.

... facing the poor on the coast

These military fleets – experienced in patrolling the high seas, but not claiming to exert complete control over these vast areas, have forced pirate gangs to change modus operandi. The size and quality of the naval forces involved have increased the probability of being caught and punished. "We have before us a tactical success but a reversible one" said Rear Admiral Gualtiero Mattesi, Deputy Commander of Atalanta in September 2012 in an interview published on the information website B2 (www.bruxelles2.eu). "It is essential that pressure be maintained, or even increased, on the pirates and their 'business model'. The strategic context, such as the situation in Somalia that allows these pirates to act, has not yet fundamentally changed."

"The motivations of piracy are still very much alive", said Rear Admiral Bob Tarrant, Atalanta operation commander in July 2013 (interview with Bruxelles2, 28 July 2013). "Their communities apparently have no alternative on how they live. We have a large enough control, but not all of the sea. [...] If we give them the easy life at sea, I'm sure they will return to piracy."

Atalanta's mandate ends in December 2014, but discussions have started within the European Union to possibly extend it. The European parliament has supported Atalanta up to now, but has drawn two red lines: intervention on land, and the use of private military contractors. The EU has pursued two

Figure 9: Piracy areas and anti-piracy national forces

Piracy areas (high level of piracy acts)

Countries involved in the international
military fight against piracy (ship and plane)

Countries where prosecutions have been engaged

0   500   1,000 km

Pacific
Ocean

Pacific
Ocean

Atlantic
Ocean

Indian
Ocean
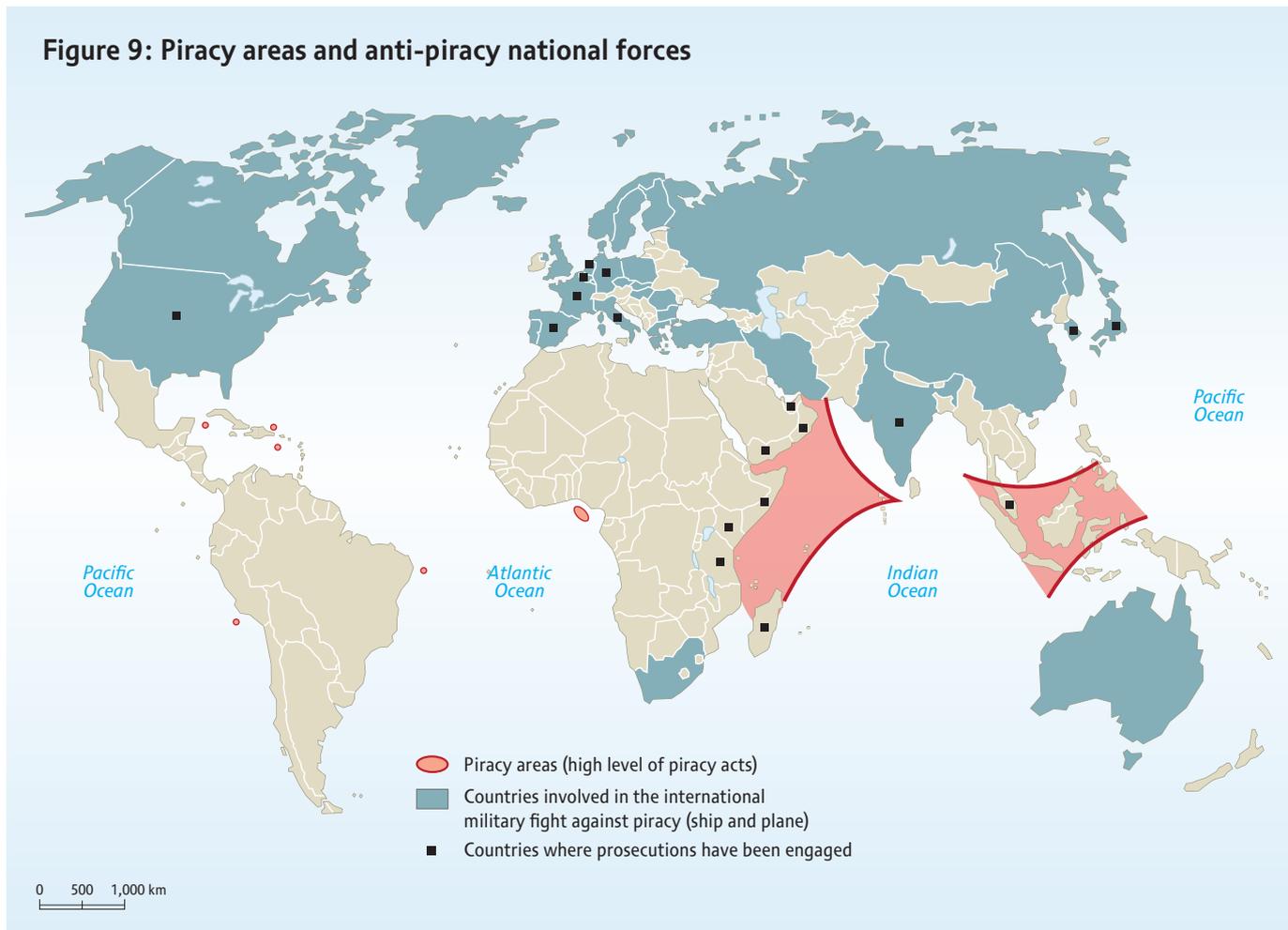
other missions in the region: the EU Training Mission (EUTM) in Somalia, training Somali forces (based mostly in Uganda but partly in Mogadishu) and Eucap Nestor, strengthening maritime capacity in the Horn of Africa (based in Djibouti).

France has played a key role in the composition and operation of this East African anti-piracy force, because of its intimate knowledge of the Indian Ocean, where it has had a permanent fleet for around 40 years, its military land bases in Djibouti and Abu Dhabi, and its overseas territories in the region, notably Reunion and Mayotte. To the west, it has also increased its watch in the Gulf of Guinea in recent years, adding warships with

heliports and amphibian capabilities to its navy's longstanding Corymbe mission (a permanent naval presence, such as a dock landing ship or projection and command ship, sailing the coast of West Africa, from Senegal to Gabon).

Opportunities for new business

Private companies are blooming all over the Indian Ocean, in response to the important demand of what is called "Privately Contracted Armed Security Personnel" (PCASP). No one knows whether there is under-reporting from ships that have thwarted an attack through use of PCASP.

Some European ships that frequent the zones at risk of piracy have resorted to bringing on

board private armed guards, regarded as more reassuring and effective. This practice is only officially authorized by some flags (the UK, Spain) and brings its own risks, such as legal uncertainty, the possibility of escalating violence or of "blunders", and the negative image of "mercenaries.

Several dozen private military contractors (PMCs), mostly British or American, have entered the maritime security market where the international legislation, in some cases, is still under debate. In the absence of international legislation, these businesses comply with an International Code of Conduct for Private Security Service Providers (ICOC), a private initiative.

Some companies have ships that serve as floating armouries, for their own crews or those of other companies, as explained by the NGO geopolcrim. info in a special issue published in July-August 2013.

In a national capacity, the French army offers (for a fee) the services of its commandos to travel on board the most vulnerable vessels, such as trawler-purse seiners, cable ships or WFP cargo ships. Discussion over the last 10 years on the status of these private military contractors (renamed "security and defense businesses") resulted in december 2013 with the adoption of a legislation allowing armed guards on board vessels.

The Lowy Institute for International Policy, an independant think tank in Australia, estimates the "private counter piracy forces" in the Indian Ocean at 2,700 armed guards, 18 floating armouries, 40 private armed patrol boats, over 160 private security companies, with 7 main ports of embarcation-disembarcation: Al Hudaydah and Aden (Yemen), Salalah (Oman), Djibouti, Mombasa (Kenya), Galle (Sri Lanka), Singapore (see fig. 10).

On land or sea? A political or military solution?

Many Somali pirates are former coastguards looking for new opportunities. Some claim they were fishermen who had seen their resources dwindle as industrial fisheries plundered their waters (or polluted it by dumping waste from industrialised or emerging countries), although these claims are still disputed.

Some coastal countries, on the other hand, profit by making their infrastructure available in the fight against piracy, becoming military or judicial "hubs". This is the case with Djibouti, Yemen, Mauritius and the Seychelles, which accommodate an air base with observation aircraft and drones, special forces on board protection teams, private guards for Spanish trawler-purse seiners, a court room and a prison reserved for Somali suspects and prisoners, prefiguring a Regional Antipirate Prosecution Intelligence Centre (RAPIC) within the framework of the Indian Ocean Commission.

In Somalia, where pirate gangs had seven ships and 113 crew in March 2013, and 51 crew in September 2013, the new president, Hassan Sheikh Mohammed, has extended the hand of friendship. Through the intermediary of clan elders, he has offered an amnesty and professional retraining for young people who renounce piracy, setting up a kind of "employment centre" for pirates. He has asked the international community to help him offer these poor young peasants and fishermen, attracted by the lucrative but dangerous prospects of piracy, "a different way to earn a living."

Although the president in Mogadishu may not be in control of the whole country, and the initiative is controversial, it does reveal a growing desire to tackle problems at its root, for example living conditions in Somalia. The

EU strongly supports this idea of solving problems internally, and other initiatives from coastal countries, through the Regional Maritime Security Programme (MASE), aimed at combating maritime piracy and its effects on the economies of eastern and southern Africa and the Indian Ocean (AfOA-OI).

In this context, UNODC's Counter Piracy Programme has been actively assisting States in the region to enhance their legal capacity to prosecute pirates, training law enforcement and judicial personnel, and refurbishing and upgrading courts and prisons.

In the report decided by the UN Security Council in August 2010, produced while piracy was at the highest in the western Indian Ocean, the former French minister Jack Lang, UN special envoy on maritime piracy off the coast of Somalia, was demanding coercive solutions to most of the 25 proposals:

▶ Strengthening self-protection measures on vessels and military naval operations;
▶ Removing legal and political obstacles that make it difficult to sue pirates;
▶ Better control of the coast, and neutralization of the pirate's sponsor capabilities;
▶ More vigorous repression of pirates

The former president of the self-proclaimed autonomous state of Puntland wanted to see "a unique combined approach to tackle the piracy problem, with strengthening of security forces including the Maritime Police Force, and vote by the Puntland parliament of the first Anti-piracy law, passed in 2011 to deal specifically with piracy related crimes" (Charles H. Norchi and Gwenaelle Proutière-Maulion, *Piracy - In Comparative Perspective: Problems, Strategies, Law*, Ed. A. Pedone & Hart, 2012). He claims to have put in place a second round with "community engagement programmes to rehabilitate pirates and prevent piracy recruit-

Figure 10: Piracy and private market for security
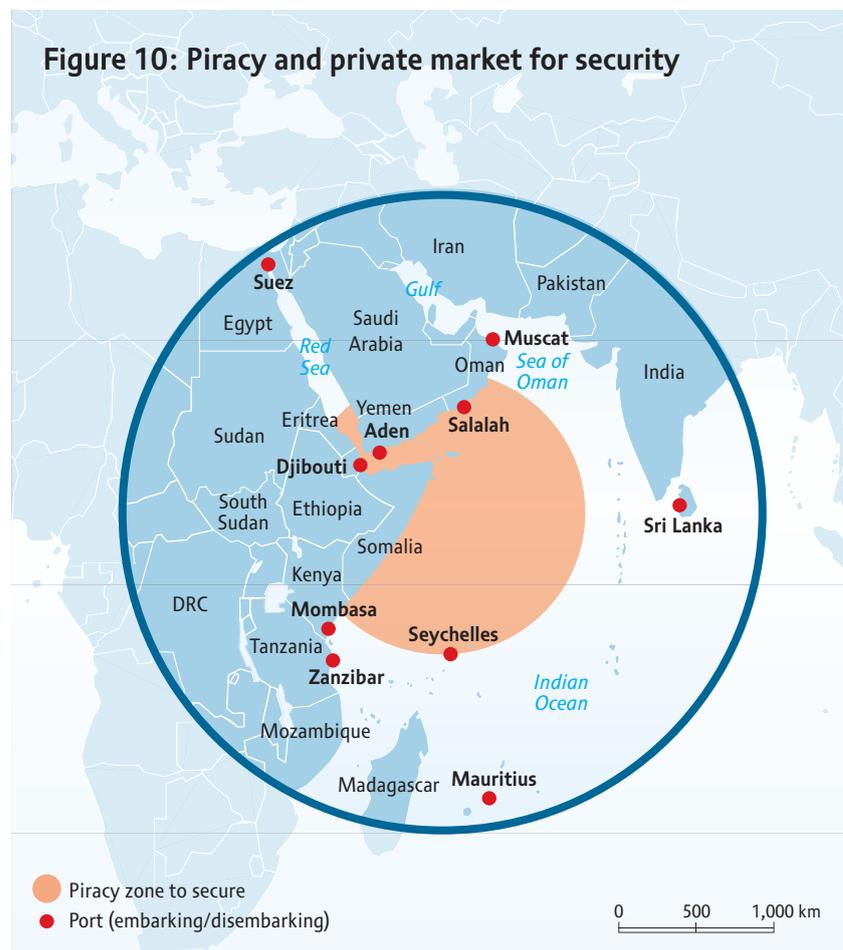
ment". He says this combined approach has eradicated piracy in the coastal sector of Eyl, which had been a hub and had been working with the international maritime force since March 2012 to attack gangs holding the town of Gara'ad.

Officially, everyone is convinced that the lasting solution to the problem is political and lies on land, "where the authority of the coastal states is lacking, or where misery drives the poorest to try to attack the stream of ships that sail thousands of miles from their shores", as the French deputy Christian Ménard said (presentation of the French National Assembly's Information Report on Maritime Piracy, September 10th 2009 in the framework of the summer university on defense).

However, for researcher Marc-Antoine Pe-rouse de Montclos of the Development Research Institute, an expert on both Nigeria and East Africa, the idea that poverty reduction will necessarily lead to piracy becoming less attractive is not proven. He points out that the Niger Delta is far from being the poorest region in Nigeria, which itself is not the worst off country on the African coast; meanwhile there has been practically no piracy off the coasts of Angola or Mozambique. And the attacks on boats off Somalia have not necessarily been the work of poor sailors, since these operations require a certain investment of capital, and the support of intermediaries to negotiate ransoms, and of international businessmen to receive the payments.

"Maritime piracy off the coast of East Africa cannot be defeated solely through military means", was the view of the European Parliament on 10 May 2012. But, according to Jean Guisnel and Viviane Mahler, authors of *Pirates of Somalia*, Grasset 2012: "All the players in this affair are aware that military action may have been useful in an emergency, notably in reducing the number of successful attacks, but that that is treating the symptoms, not the disease itself". The UN Monitoring group on Somalia and Eritrea "has mapped how piracy grew out of a kind of protection racket in response to illegal fishing and toxic waste dumping, and evolved into a money-driven, clan-based, transnational organized crime, constituting a threat to global ship-

The rise of floating armouries

In the High-Risk Area, "some of civilian ships transiting the Gulf of Aden officially declare the use of armed private military security companies (PMSCs) onboard", notes defense analyst James Brown in his "Pirates and Privateers" report (September 2012, Lowy Institute for International Policy).

This profitable business is estimated to be served by "140 freshly formed companies, involving at least 2700 armed guards". These operations navigate a legal gray area, having to comply with the shipping flags' laws and the local laws in ports where the guards board ships. "PMSCs embark from ports near the Gulf of Aden, including Port Djibouti, Salalah, Muscat, and Dar-Es-Salaam. A common port for disembarkation is Galle in southern Sri Lanka, an average 13 days passage from the Suez Canal and close to international shipping routes." To avoid the maze of local regulations, some PMSCs have started to procure their weapons literally offshore, from floating armouries that navigate in international waters. By some accounts, 18 such vessels operate in the Western Indian Ocean. "This allows their contractors to embark on client ships in port, and pick up their weapons and equipment during a rendezvous outside of territorial waters. Some companies and contractors acquire weapons illegally and simply dispose of them overboard at the end of a transit." Now that piracy is declining, what clients will this unregulated weapons market turn to?

ping" (letter to the Security Council, 12 July 2013). Fishermen and local villagers claim they acted as "coastguards" to try to dissuade foreign ships from fishing in Somali waters. The spokesman for the men who attacked the Ukrainian ship the Faina in 2008 claimed that piracy was fair compensation for foreign trawlers exploiting their fishing grounds. In fact, the illegal fishing of Somalia's exclusive economic zone (EEZ, 200 nautical miles off its coast), which has not been policed since the fall of Siad Barre's government in 1991 and the start of the civil war, has deprived Somalia of an estimated annual income of at least €100m.

In 2005, the Food and Agriculture Organisation estimated that there were 700 ships operating illegally off the Horn of Africa. The UN Monitoring Group on Somalia and Eritrea letter refers to estimates by officials in the northern Somali region of Puntland: up to 180 illegal Iranian and 300 illegal Yemeni vessels are fishing Puntland waters, as well as a small number of Chinese, Korean and European-owned vessels (Jason Straziuso, AP, 25 July, 2013).

According to this report, the pirates' "business model" has evolved: "The Somali pirate gangs in search of new revenue are now providing armed protection for ships illegally fishing Somali waters. Erstwhile pirates should also be trafficking in arms, drugs and humans." "To save their business," says Karsten von Hoesslin, analyst with the Danish consultancy Risk Intelligence, "the pirate leaders must continue to vary their tactics, to adapt to the countermeasures of the international naval forces and private security companies, as well as diversifying their investments into kat, smuggling cattle and human trafficking." ("La nebuleuse pirate en Somalie", *Diplomatie* N°56, May 2012). Risk Intelligence says it has identified more than 150 leaders, investors and negotia-

tors involved in Somali piracy in 2012. To illustrate the phenomenon of redeployment, it gives the example of Nigerians who had been responsible for attacks against private or government interests in the Niger Delta becoming advisers or security guards protecting merchant vessels.

Because of the absence of the state, Somalia's 3,700km coastline has also become a dumping ground for chemical – even radioactive – waste, mostly from Europe, reports "Toxic Somalia: l'autre piraterie", an investigation by Paul Moreira broadcast on Franco-German channel Arte, November 25th 2009. Some container ships carrying this waste were hit by the tsunami in 2004 and smashed against the shore, spilling their contents, risking contamination of the population as described in the "UNEP Post-Tsunami Recovery Activities 2004-2007" and the "After the Tsunami Rapid Environmental Assessment" reports. But according to UN reports, there is no evidence of systematic dumping of waste off the Somali coast. ◾

Thematic approach

Analysis of the database has revealed some original trends which allowed a better understanding of various developments in the three regions, where piracy is an important issue. It shows – between the lines and among others things – the changes and evolution in pirates' capability, as well as strategy.
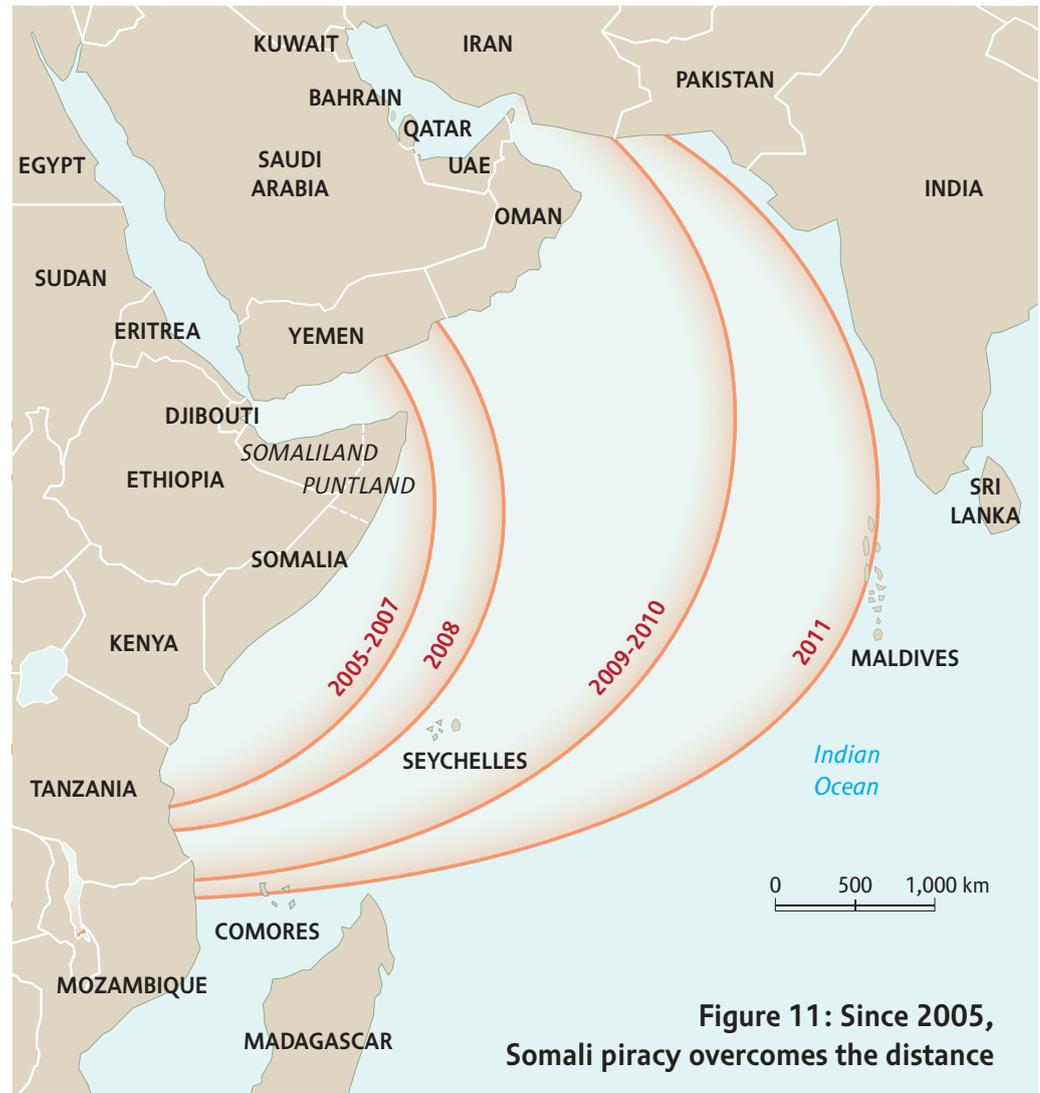
Figure 11: Since 2005, Somali piracy overcomes the distance

Distance to coast

This measurement (distance to coast) in the Gulf of Guinea, which was slowly increasing between 2006 and 2012, suddenly doubled in the first half of 2013. At this stage, it might still be a statistical glitch, but it certainly needs more attention. When considering the top quartile of incidents, it appears to be growing from 2011. It would be worth gathering precise geolocation data for past and present events in this region, in order to refine this proxy measurement of the pirates' increased capacity, and monitor it on an ongoing basis, and see if there is any correlation and, if so, the

strength of the correlation. Law enforcement patrols are sparser as one moves further from the coast so it is not surprising that as coastal states clamp down on illegal activity in territorial waters, the pirates move further away.

The database could possibly help track the pirates capabilities. But it does not offer data on who they are, how they are organized and what material they operate with; the distance between the attacks' locations and the nearest land — in other words "distance to coast" — offers a proxy measurement. This does not represent the travel distance to pirates' safe

harbors and on some occasions, this measurement might only reflect a change in the travel route taken by the targeted ships. However, an increase of the median of this value is an invaluable measurement of the pirates' capabilities – at least in the areas in which a large part of incidents happen at sea.

In the western Indian Ocean, it clearly shows that the 2011 crisis, in the number of attacks, was correlated to the technical and operational capability of pirates to project themselves further away from the shores, and reach ships in the high seas. The distance to which they would go to hijack ships started growing in 2007, doubling again in 2008, then exploded in 2009, reaching a peak of between 350 and 400km. Between 2009 and 2011, 50% of all attacks happened at more that 350km from the shores. It is only in 2012 that pirates started to pull back.

This measure starts rising in 2006, two or three years before all other measures of the phenomenon (e.g the number of incidents) start climbing. It was thus an early predictor of the crisis in western Indian Ocean. Can one transpose this insight to Western Africa? If so,

one would have cause to worry, as this indicator, which was slowly increasing between 2006 and 2012, in the Gulf of Guinea, suddenly doubled in the first half of 2013.

Types of weapons

In September 2007, the diversion of the Faina, carrying tanks, rocket launchers and ammunition, may have initiated a radical change in Somali piracy. Since 2010, some pirates have started to use heavy weapons in their attacks on ships, often very far away off the coast of Somalia. Allegedly responsible for most of these attacks are the Hobyo-Harardhere network, led by Mohamed Abdi Hassan, aka Afweyne ("Big Mouth" in Somali) and Mr. Mohammed Aden ("Tiiceey"), a former governor of the Somali province of Himan and Heeb. The paradox is that Afweyne announced in January 2013 that he wanted to retire. By promising to shoot a film on their life, Belgian investigators succeeded in arresting these two men on October 12th 2013. Their trial should highlight the nature of this "arms race".

A proposed severity index

The database contains reported incidents of very different nature: some are unquali-

Figure 12:
Median distance from the location of attacks to the coast

Gulf of Guinea

Western Indian Ocean

Southeast Asia – Malacca

Figure 13: RPG[1] in the Western Indian Ocean

Number of incidents

1. Rocket Propelled Grenade
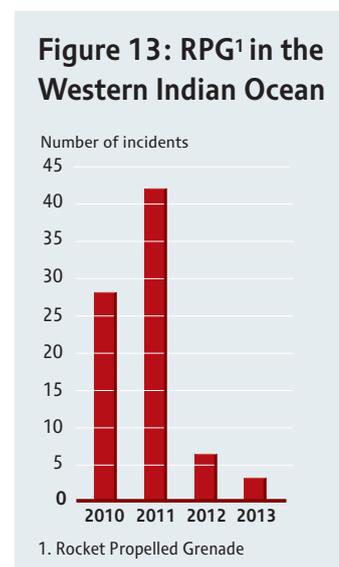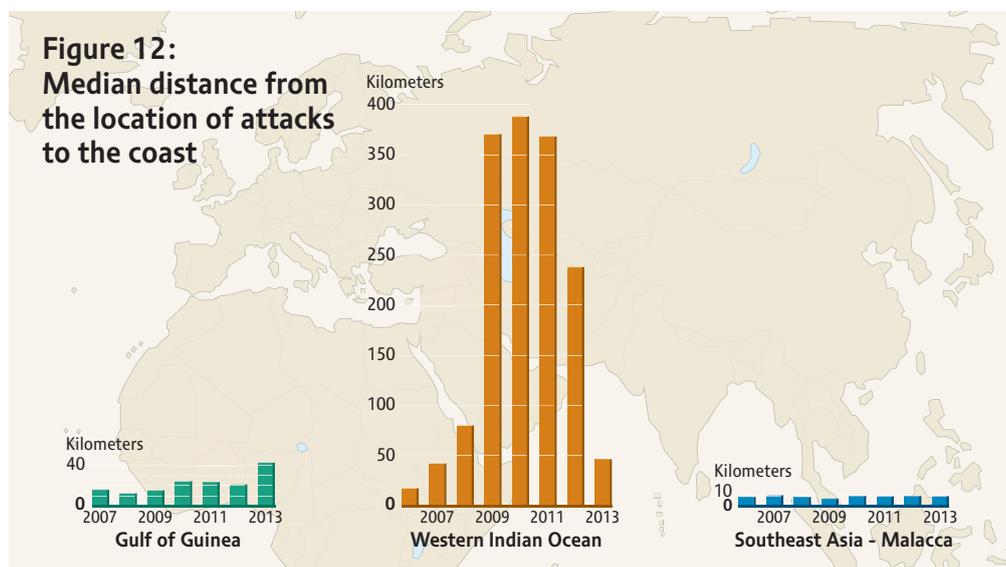
fied events or simple acts of robbery ("Radar showed a craft acting suspiciously" or "Two men were found on poop deck and then went away; after inspection, six mooring ropes found stolen"); others include missing crew or RPG attacks.

The typology is built on available data distributed in various fields of the database: "violence", "assaulted crew", "wounded crew", "date of the ship release", "loss of lives", "missing crew".

Levels of severity:
- level 4: At least 1 dead or missing
- level 3: Actual violence reported, 1 or more

wounded or taken hostage, ship hijacked
- level 2: Threat of violence, or mutiny ("crew involved")
- level 1: No threat of violence reported

Note: we did not include the type of weapon reported in this tentative scale of severity — one could argue that carrying rocket-propelled grenades is in itself a threat of violence, but this would have to be reflected in the field "violence" instead of the descriptive "weapon" field.

Type of ships attacked

One might assume that pirates attack "low and slow" vessels, but this trend does not appear clearly on the analyses. However, it
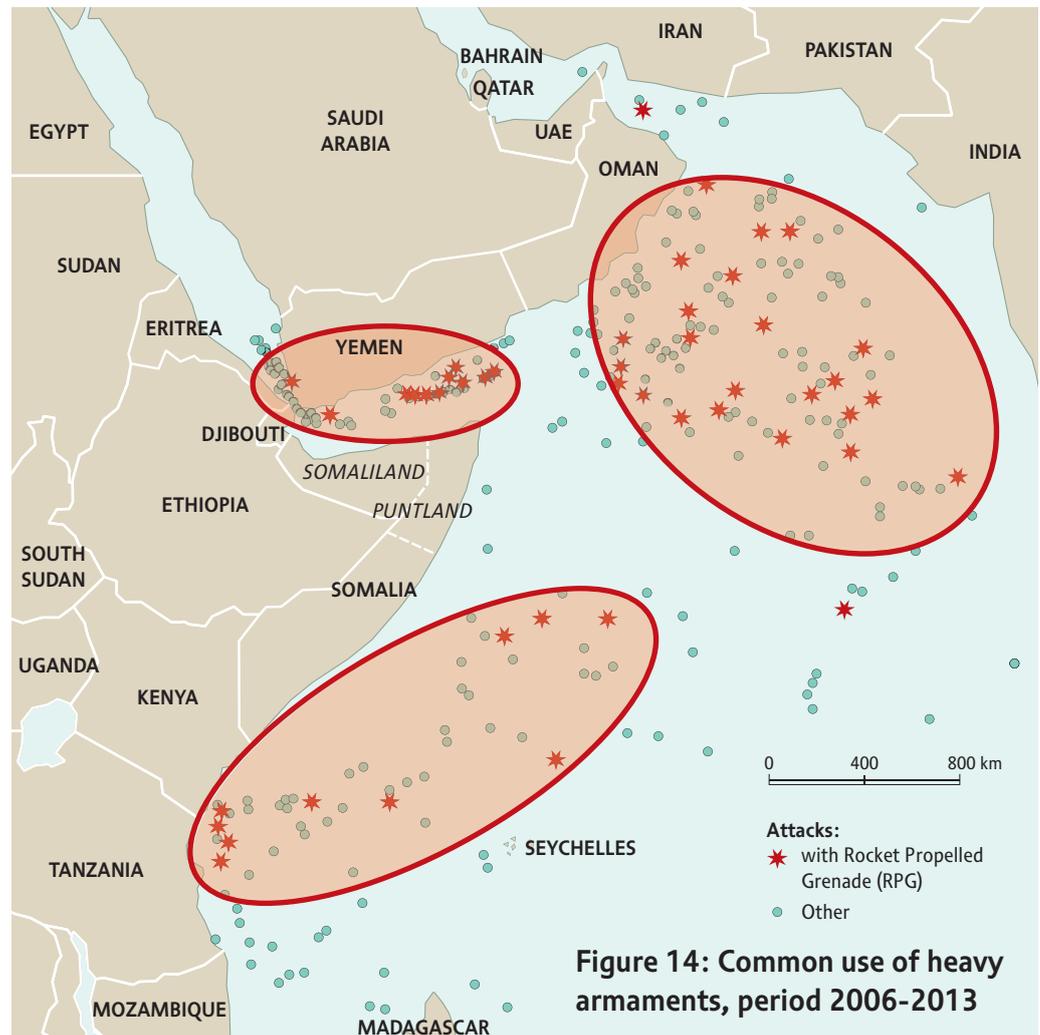

Figure 14: Common use of heavy armaments, period 2006-2013

Attacks:
✳ with Rocket Propelled Grenade (RPG)
○ Other

Period 1995-2013
Number of incidents

Period 2006-2013
Number of incidents

Period 2010-2013
Number of incidents

**Figure 15:
Incidents by severity**

■ 4 - At least 1 dead or missing

■ 3 - Actual violence reported, 1 or more wounded or taken hostage, ship hijacked

■ 2 - Threat of violence, or mutiny (crew involved)

■ 1 - No threat of violence reported

seems that during the last 15 years, pirates had a strong preference for bulk carriers, container and cargo ships which are commonly targeted. It is a remarkable sight to see just a handful of pirates on small craft taking enormous risks to board such gigantic vessels. The oversized nature of such vessels has been their main weakness; sometimes they sail slower than other vessels and offer numerous points of access not far above the waterline. But for a couple of years most of them have been equipped with safety devices (read the "best management practice on Page 29) and possibly protected by armed guards on board. This has contributed to dramatically reducing the number of successful attacks.

Jurisdiction

The locations of the attacks are of the greatest importance in order to implement [determine] the whole legal machinery [actions] that will be triggered. The terminology used is very specific and differs according to the scene of the attack. There is a crucial need to identify whether an incident happens in international waters, territorial waters or a port area, since the current ongoing international debate is to discuss where and how pirates and their patrons should be tried.

Given that UNCLOS restricts piracy to offences committed outside of States' jurisdiction, the Member States of the Organization

Figure 16:
Attacks by "jurisdiction" in the Western Indian Ocean

Number
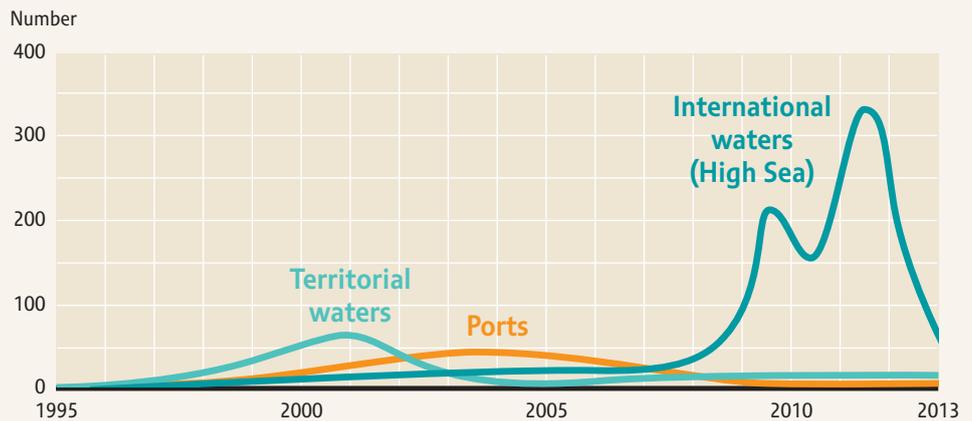
developed a separate term to address similar crimes occurring within States' jurisdiction, which is "armed robbery against ships". The term was initially left to individual States to define (MSC Circ.622/Rev.1 of June 1999) but it was defined in the IMO Assembly resolution A.922(22) on Code of practice for the investigation of the crimes of piracy and armed robbery against ships, adopted in November 2001, updated in December 2009 by IMO Assembly resolution A.1025(26) on Code of practice for

the investigation of the crimes of piracy and armed robbery against ships.

According to this document, are considered «armed robbery against ships" 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 shipor against persons or property on board such a ship, within a State's internal waters, archipelagic waters and territorial sea.

Figure 17:
Attacks per Median gross tonnage

Tonnage
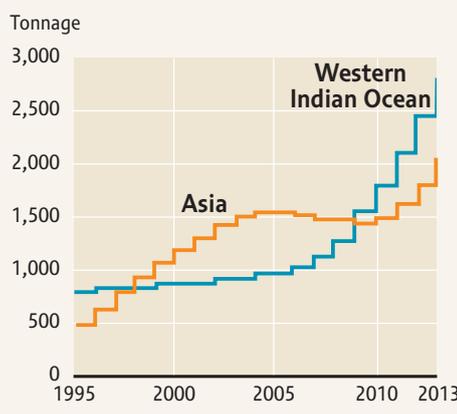
Figure 18: Main types of ship attacked, 1995-2013
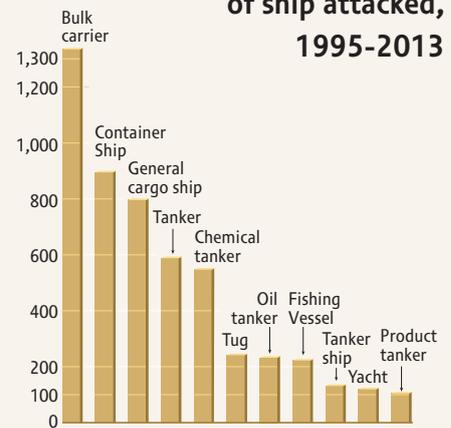
Figure 19: Exclusive economic zones

0   500   1,000 km

Incidents happening on the high sea (international waters) are called "piracy". These acts consist of "violence, depredation or detention" in a place outside the jurisdiction of any state.

Since the Law of the Sea, as enacted by the International Convention of Montego Bay, is applicable only on the high seas and does not directly refer to the issues raised by piracy, the UN began in 2008 to clarify conditions of entry into territorial waters, prisoners' handling, etc., and recommended that the states make piracy a criminal offense under their own domestic law (which has been enacted by some countries).

The distinction between "acts of piracy" and "armed robbery" does not presuppose the approximative level of severity, in the proposed index.

In March 2012, the European Union decided to "harden" the Atalanta mission, granting it the ability to "neutralize" the pirates' bases and stocks on shore — removing their boats and reserves, including fuel. Ships and helicopters got permission to shoot at these bases under "very controlled conditions," wary of "collateral damage" and forbidden to "touch the ground," according to a European official quoted by AFP, on May 15th 2012. The stated goal was to "break the business model of pirates"

**Figure 20: Attack distribution during the week
Western Indian Ocean**

Number of attacks, 2006-2013
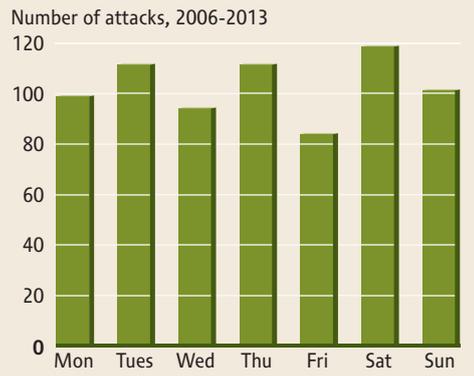
Figure 21: Ransom amount, Western Indian Ocean

Millions dollars
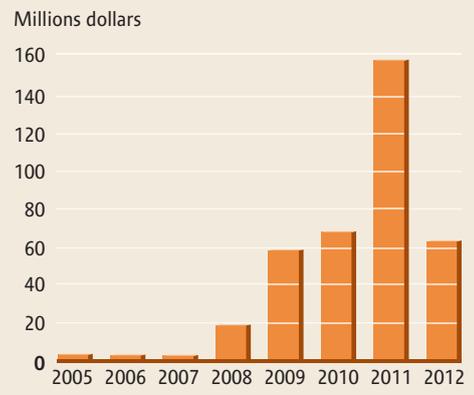
Figure 22: Attacks distribution hour by hour during a day Western Indian Ocean

Number of attacks, 2006-2013
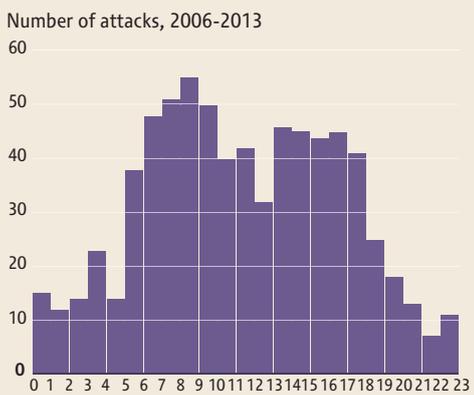
at all levels, from preparations for attacks to the laundering of profits. Several pirate bases on the coast of Puntland had already been destroyed in May 2008, forcing the pirate leaders to operate from inland or abandon, at least temporarily, this type of activity.

Besides protecting merchant ships, Atalanta has led to the arrest of 117 suspected pirates and the dismantling of 27 groups of pirates in 2011. It was estimated (in May 2012) that, overall, 2,500 suspects had been arrested since the resurgence of piracy in the Indian Ocean in 2008, 850 brought to justice, and 350 convicted.

In March 2012 the EU refined the terms of arrest and detention of suspects, providing a legal basis for transfers to Puntland, Somaliland, Mauritius or the Seychelles (Kenya showed itself to be reluctant). In mid-2012, a thousand Somalis were jailed worldwide – including in the United States and France – mostly for acts of piracy.

Seasonality

During the week, there is no specific day on which attacks are more numerous than others; but we note that the least active day is Friday. But over a period of 24 hours, analysis shows that pirates act mostly during daytime, preferably early in the morning at first light. However attacks can occur at night, but only when weather conditions are good and a full moon gives sufficient visibility.

The yearly variation of meteorology has a dramatic effect on piracy; analysis over a period of 15 years shows that the number of attacks significantly reduce during the monsoon season. It is difficult to operate the small skiffs usually used by pirates in rough sea conditions.

Best management practices

The decline in the number of attacks and the increase in their failure rate since 2012, parti-

Figure 23: Attack distribution during a year, Western Indian Ocean

Number of attacks,
2006-2013
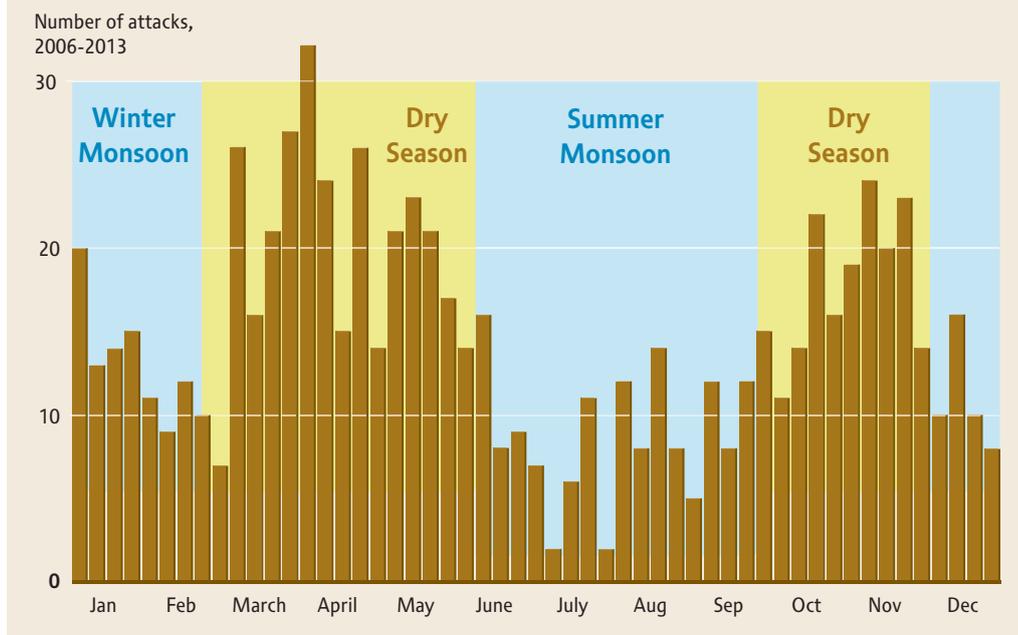
culary in the Somali Basin, is primarily a result of the almost universal implementation, by owners and crews, of the "Best Management Practices for Protection against Somalia Based Piracy" (BMP). The BMP1 were developed by a group of maritime industry organizations in February 2009 and endorsed by IMO Maritime Safety Committee and promulgated by IMO as MSC.1/Circ.1332 in June 2009. The BMP 4 was developed by the industry group in August 2011 and promulgated by IMO as MSC.1/ Circ.1339 in September 2011.

The BMP 4 includes for example: Increasing the speed of the ship, learning escape and avoidance maneuvers; elevation of freeboard; use of barbed and electric wire over hanging on the outboard of the ships, water cannons or projected nets ; use of debilitating loudspeakers and flares; development of "strongholds" (safe areas for the crew), use of radars and cameras, keeping sailors constantly alert, Reporting entries in risk areas and sending daily reports to authorities.

Money matters

The direct and indirect costs can be compared to development aid and remittances. Jean Bernard Véron, from the French Development Agency, said in an interview to the magazine *Humanitaire* that the volume of financial aid to Somalia was around $150m per year. This represents a bit more than the ransoms paid by insurance companies on average per year between 2010 and 2012, just one third of remittances sent by Somalis living in foreign countries. In comparison, this is 20 times less than what Afghanistan is receiving ($3bn yearly on average). Maritime piracy has moved from small-scale to an organized business, yielding benefits to families and clans, with rear bases on Somali soil.   ▣

Regional specifics

Figure 24: Western Indian Ocean, period 2006-2013

Severity level of incidents

- Minor
- Threat of violence
- Violence, wounded crew
- Violence and fatalities (at least one person dead or missing)
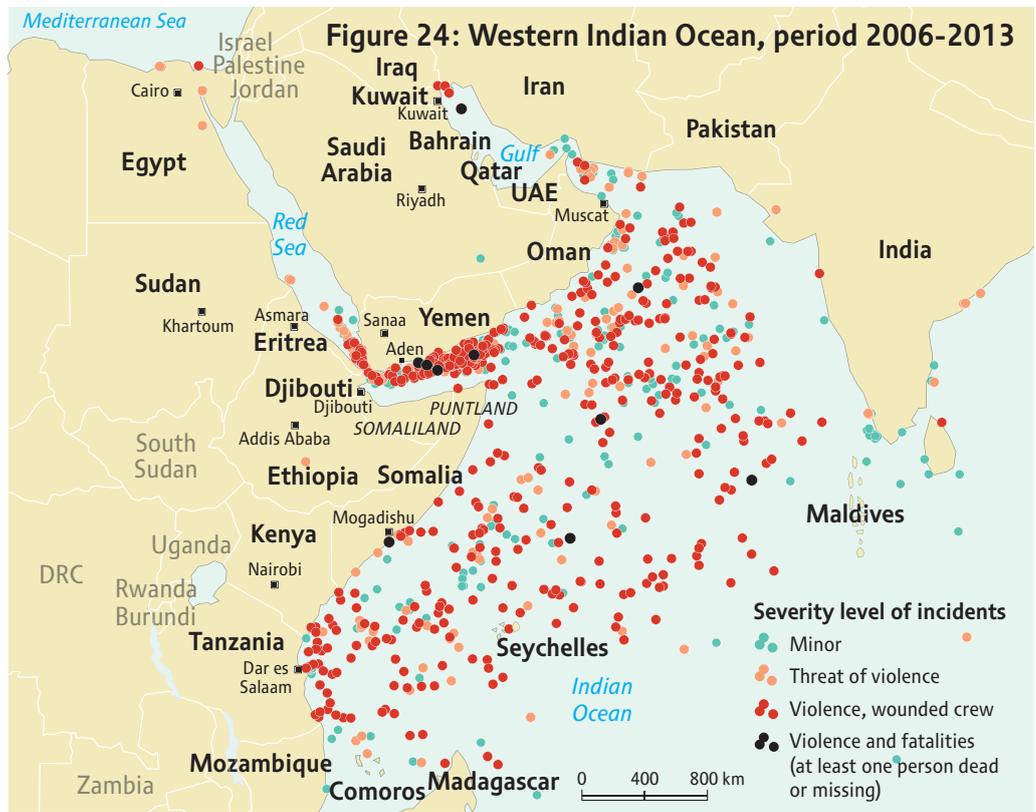
Western Indian Ocean

Africa continues to be the region that is the worst affected by piracy, notably the Somalian coast. According to data from the combined maritime force, wrote the Associated Press on March 26th 2013 "nearly 50 ships were taken by pirates in 2010 in the Gulf of Aden and Somali Basin, and there were close to 200 other unsuccessful attempts. In 2012, just seven ships were hijacked along with 36 failed attacks". In the eastern part of the Indian Ocean (with on average 23,000 ships per year, 8 per cent of the world's freight traffic, and 40 to 50 per cent of oil tankers, along with 26 per cent of container traffic), the number of attacks has significantly declined (301 attacks in 2001, 112 in 2012, and only 20 in the first seven months of 2013). Using information from EUNAV-FOR's Maritime Security Center in the Horn of Africa (MSC HOA), which registers all ships transiting its area, and taking into account the currently accepted fact that a fifth of ships do not declare themselves, the third annual assessment of the Economic Cost of Somali Piracy 2012 estimates the total number of vessels transiting the area to be approximately 42,450 per year.

Figure 25: Gulf of Aden/Red Sea, period 2006-2013
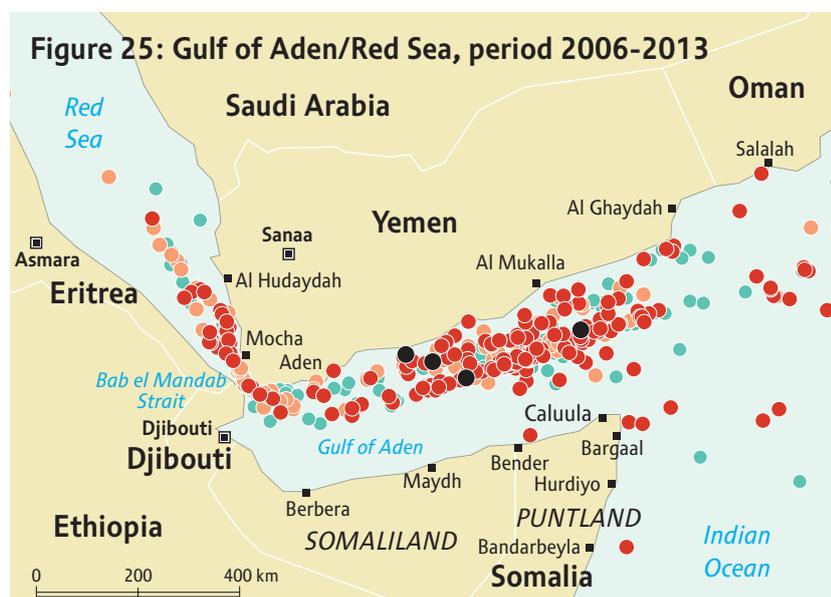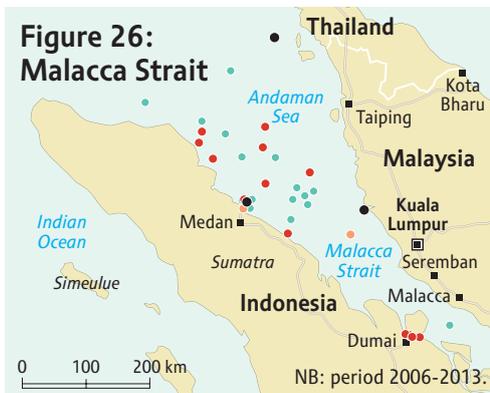
Figure 26:
Malacca Strait

NB: period 2006-2013.

Southeast Asia/Malacca

"Incidents are proportionally less serious in South East Asia (4), or the reporting system is more efficient, leading to greater accuracy on 'petty theft' than in other areas." There are indeed fewer serious incidents in SE Asia. The reporting system there is also long-established so it is possible that "petty theft" is better reported. It is probably safer to compare statistics for serious or very serious incidents between areas as reliable.

Recently, there has been an increase in the number of incidents at ports and anchorages in Indonesia: a total of 38 incidents from January to June 2013, the highest number in a five-year period. The Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP) information sharing centre urges authorities to increase their surveillance and presence, particularly at ports and anchorages in Balikpapan, Samarinda and Taboneo, and East Kalimantan. In particular, ReCAAP urges the owners and crews of tug boats and barges to exercise enhanced vigilance and to follow best management practices during hours of darkness.

The Indonesian archipelago — where the phenomenon was partially circumvented in recent years (See Catherine Zara Raymond, "Piracy and armed robbery in the Malacca Strait - A Problem Solved?", DTIC Document, 2009) —

has once again become a sensitive area, with 81 attacks (twice as many as in 2011). The strategic passage of the Malacca Strait between Singapore and Indonesia is the avenue for 70 to 80 per cent of the oil imported by Japan and China. Whereas the amount of oil extracted in the Persian Gulf on its way to the US is in decline, traffic is continually increasing towards Asia, as are exports — in the opposite direction — towards Europe: that is why the bottleneck of the Malacca Strait continues to be of significant strategic interest.

But, according to ReCAAP half-yearly report for 2013, "the overall level of piracy and armed robbery against ships in Asia during the first half of 2013 has improved." A total of 57 incidents were reported during the period in Bangladesh, India and the Straits of Malacca and Singapore, compared to 64 incidents reported during the same period in 2012. "The overall severity of incidents reported during January-June 2013 has also decreased." Of the 57 incidents, 13 were Category 2 (moderately significant) incidents, 20 were Category 3 (less significant) incidents, 21 were petty theft
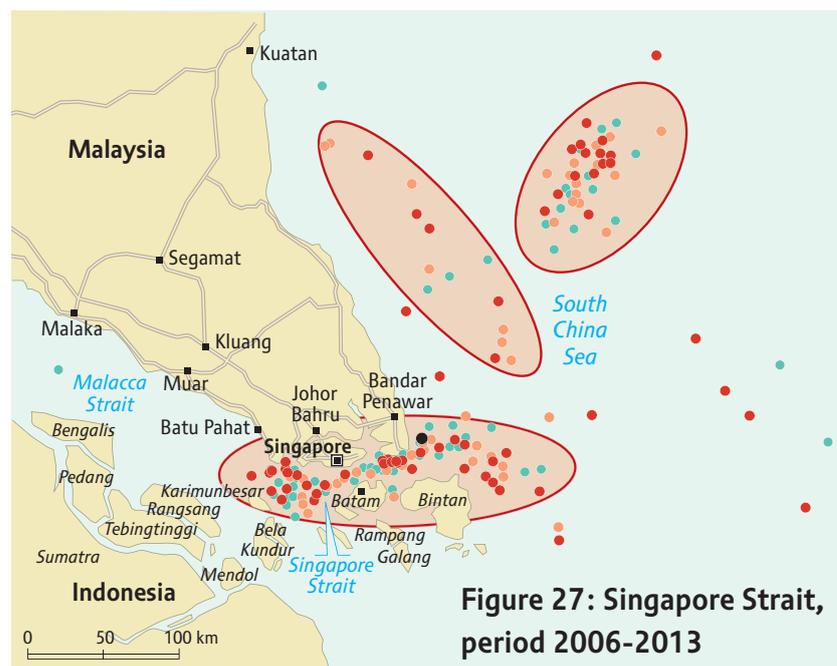

Figure 27: Singapore Strait, period 2006-2013

incidents and three were attempted incidents; there was no Category 1 very significant incident reported during January-June 2013.

Gulf of Guinea

However, on the West Coast of Africa, in the Gulf of Guinea, the International Maritime Bureau has reported 73 incidents in 2012, with a dozen that included the taking of hostages (207 crew members captured): since 2012, the London-based Lloyd's Market Association — an umbrella group of insurers — has listed oil-rich Nigeria, neighboring Benin and nearby waters in the same risk category as Somalia (Associated Press, 15 April, 2013).

For the first time, since 2012, there has been a swing from east to west in incidents of African piracy: more seafarers were subjected to attacks and boardings by West African piracy than by Somalia-based piracy, writes "Human cost of maritime piracy, 2012", a report released in 2013 by the One Earth Future

Foundation (OEF), the International Maritime Bureau (IMB), and the Maritime Piracy Humanitarian Response Program (MPHRP).

According to their figures, ships that were crewed by a total of 966 seafarers were attacked by West African pirates in 2012 (206 were held on board for an average of four days, 5 of them were kidnapped and held on shore for ransom, and 5 were killed). In contrast, though, 851 seafarers were attacked during 2012 by Somali pirates with firearms (down by 78 per cent from 2011), of whom 349 were taken hostage (down by 37 per cent from 2011), and 240 hostages remaining from 2010 and 2011, were held for an average of 11 months (5 of them were killed in 2012).

Although it has long been difficult to track whether there are terrorist ties to piracy in the waters off Africa, in September 2013, the US government was considering plans to increase anti-piracy operations along Africa's west coast. It

Figure 28: West coast of Africa, period 2006-2013
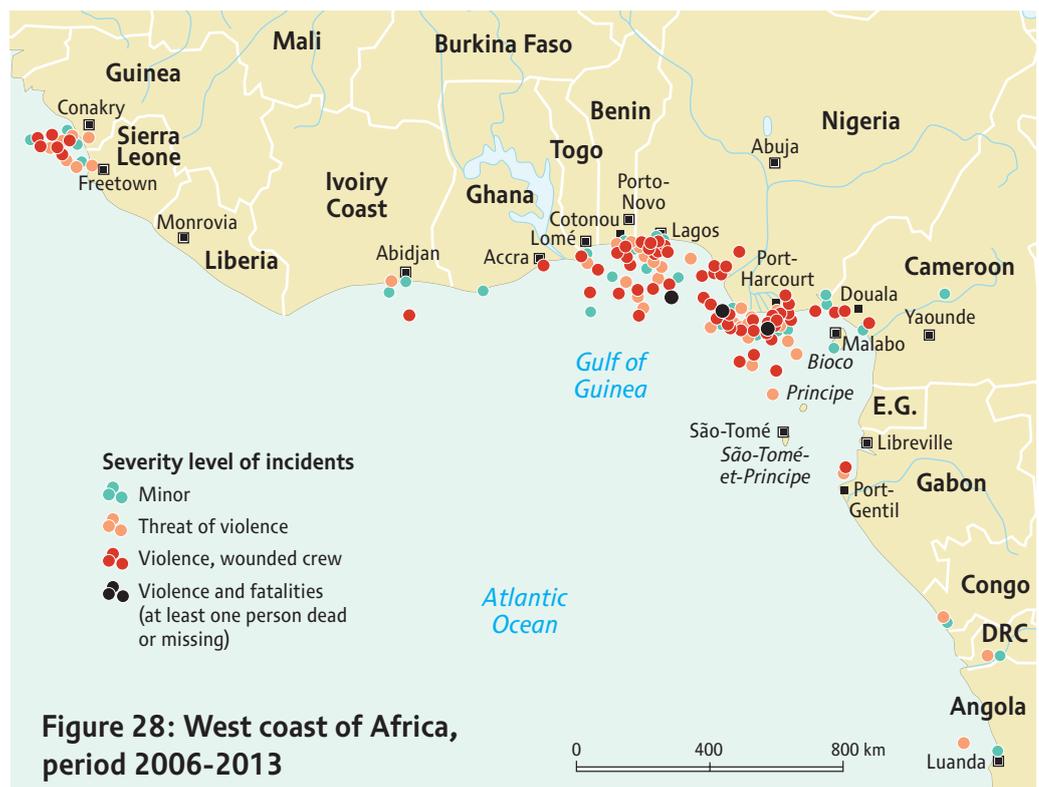
fears that some of the profits of the attacks off the coast of Nigeria and Cameroon could be used for ongoing terrorist training or weapons. Washington underlines the growing coordination between Nigeria-based Boko Haram and Al-Qaida in the Islamic Maghreb (AQIM).

### The rise of "petro-piracy"

"Piracy in the Gulf of Guinea has escalated from low-level armed robberies to hijackings, cargo thefts and kidnappings," remarks an AP file (15 April 2013). One of the main motives of the attackers in this region is fuel theft. The pirates' area of activity, which has long been centered on the Nigerian coast and the Cameroonian Bakassi peninsula, now extends to Ivory Coast in the west, and Gabon in the east. In the first six months of 2013, the IMB reported some 30 attacks — including theft of oil cargoes, ship hijackings and crew kidnappings, of which two thirds were off the coast of Nigeria — but acknowledges that this is only an estimate. A naval officer from the subregion, quoted by the weekly Jeune Afrique on July 7th 2013, believes the real count for the region is more likely one attack per day.

In some of the more notable incidents in 2012, pirates took control of a Panamanian registered Nigerian oil tanker off the port of Abidjan, when it was preparing to unload 5,000 tonnes of fuel. In early 2013, a special federal anti-theft unit arrested a senior member of a pirate gang responsible for a series of open-sea tanker hijackings and the "siphoning" of their cargoes at Adeniji Adele, Lagos Island, Southwestern Nigeria. In February, a French tanker was boarded off Abidjan. In March, pirates attacked a Malaysian registered oil company supply ship. A Nigerian chemical tanker suffered the same fate in May. Two French ships were seized in June. In July 2013, a Maltese tanker and its Indian crew was attacked off Gabon's Port-Gentil terminal where it had loaded its cargo, and then taken to Nigeria.

Figure 29: Gulf of Guinea

NB: period 2006-2013.
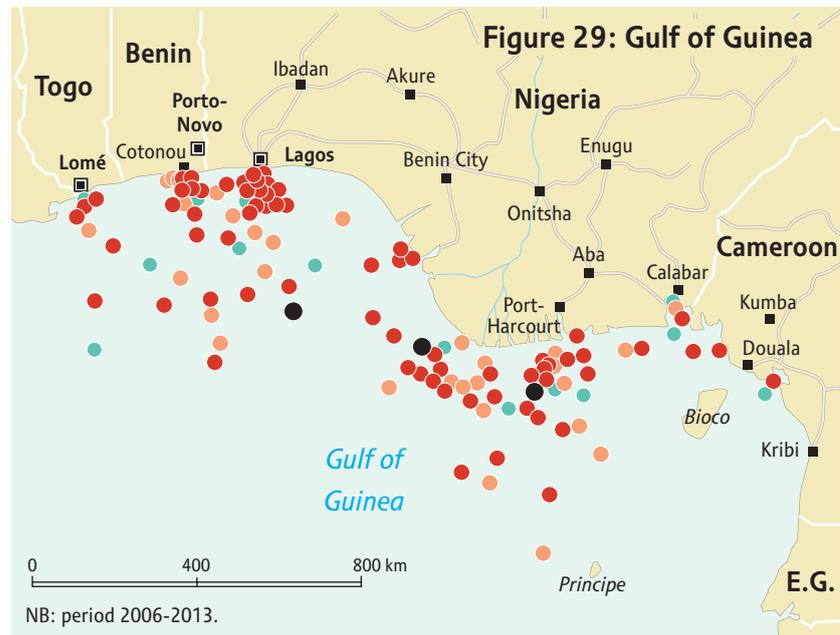
Historically, piracy has, since the beginning of the 19th century, been centered on the Niger Delta. With the Biafran war (1967-1970), and the 1970s oil boom that brought about the saturation of the Port of Lagos, insecurity and the demands of local populations led companies to look for oil offshore. Thereafter, their drilling platforms, and their numerous tankers and supply ships in turn became targets for rebels and pirates, who became "professionalized", as they did off the coast of Somalia, extending their range of operation to the West and to the South, while Nigeria, notably with help from the United States, reinforced its control over the Delta area. Pirate bosses with connections in the worlds of business and oil smuggling benefitted from complicity in the ports and a number of political circles, and took advantage of the disorder prompted by the regional conflicts of recent years in Guinea, Liberia, Sierra-Leone, Guinea-Bissau, Ivory Coast and Mali.

"Whereas the situation in the Gulf of Aden has stabilized, a new front has opened up to the west of the continent," reveals the International Crisis Group (ICG): "The Gulf of Guinea

Figure 30: Evolution of the attacks in West Africa

Number by juridiction

Number by level of severity
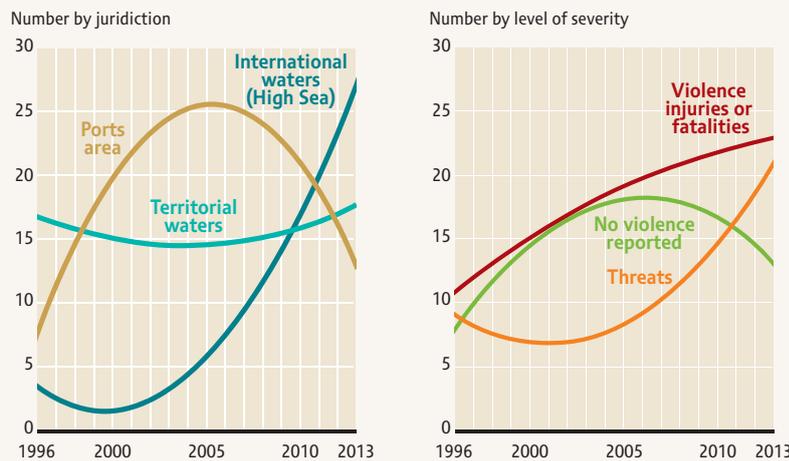
Note: the figures represent polynomial trendlines.

is the new high risk zone," wrote the ICG in its "Africa Report N° 195", December 12th 2012, which notes that the phenomenon, which has existed for decades, has intensified over the last few years and spread to other countries on the Gulf of Guinea.

Growing maritime insecurity in the Gulf of Guinea is a concern for the European Union: 13 per cent of its oil imports and 6 per cent of its gas are currently transported via the Gulf of Guinea. The United States, which is already heavily dependent on the region (16 per cent, of which 8 per cent is from Nigeria), planned to use it as a source for a quarter of its oil within the next ten years — before the tables were turned by the onset of the shale gas boom.

But it is also a problem for neighboring countries, notably for Nigeria, Africa's leading oil producer, which, according to the federal presidency, lost $1.2bn (€900m) in revenue per month to oil theft in the course of the first quarter of 2013 (AFP, August 14th 2013). In the Niger Delta in the south of the country, thieves have repeatedly attacked pipelines from which they pump fuel which they later supply to ships via the black market. The same, or

other, gangs attack tankers or even simple cargo vessels to steal oil in the Gulf of Guinea. As a result, sales of Nigeria's black gold declined by 20 per cent in the first quarter of 2013, the equivalent of 400,000 barrels per day (from a production of 2 million barrels).

Obstacle to trade

On the occasion of the 15th Nigerian Honorary International Investors Council (HIIC), held in Abuja in June 2013, Baroness Chalker Lynder "advised the government to take pro-active action to address the problem of oil theft", which she said "was diminishing income to the public treasury" (Voice of Nigeria, 22 June 2013). Aside from the losses incurred by oil companies and the state, economists are concerned about the impact of the recruitment of crisis management teams and armed guards, as well as higher insurance costs and the occasional payment of ransoms on the maritime transport sector. For their part, former environmental activists in the Niger Delta aim to launch a massive campaign to counter kidnapping, the theft of crude oil and maritime piracy in the region.

A maritime information website has also complained that the daily updates on the movement and cargoes of ships provided by the Nigerian Ports Authority (NPA) are not only useful for journalists, but also for pirates. For the 93 ships that were scheduled to arrive in the Port of Lagos from March 1st to 27th 2013, the "shopping list" published on the NPA website provided extensive details on their expected cargoes of rice, fresh fish, vehicles, mobile cranes, semi-trailers, general goods, wheat in bulk, containers, fertilizer in bulk, and, of course, oil products.

At a maritime security seminar held in Abidjan in February 2013, Ivory Coast's defense minister Paul Koffi Koffi argued that for countries on the Gulf of Guinea, piracy represented "a

danger to public security and an obstacle to international trade," and described the current situation as "worrying, even if it is not yet alarming — that is why action must be taken quickly." At the same meeting, the US ambassador to Ivory Coast, Phillip Carter, pointed out that — according to the World Bank — the region is losing $2bn to piracy and armed robbery every year.

Income generated by Benin's ports — which accounts for half of the revenue collected by the state — fell by 70 per cent following 15 attacks in 2011 and an insurance industry decision to include the country in a list of high-risk areas. The response was commensurate with the scale of the catastrophe. All of the resources of the country's small navy were deployed, and the number of patrols was significantly increased.

As a result, there was only one incident in 2012 and no incidents occurred during the first six months of 2013. "For many years, we did not believe any threat could come from the sea," acknowledges Maxime Ferdinand Ahoyo, a former naval chief of staff, who led the battle against the pirates and currently advises Benin's president on maritime affairs (*Jeune Afrique*, 7 July[th] 2013).

In the absence of coordination, sufficient equipment, and common standards for trai-

ning and rules of engagement, and without any sharing of information between the countries concerned, regional action to combat piracy in the Gulf of Guinea is virtually non-existent. The Critical Maritime Routes in the Gulf of Guinea (CRIMGO) project launched by the European Union in 2009, which remains on-going, is attempting to make up for this lack. The project aims to reinforce security on maritime routes between seven African countries with coastline on the Gulf of Guinea, by facilitating the training of coastguard officers and the exchange of information on acts of piracy.

At the same time, countries in the region are attempting to build up their forces: Benin has ordered equipment from France (three patrol boats and two maritime surveillance aircraft), as have Togo (two patrol boats) and Cameroon (one patrol boat). Ghana is awaiting delivery of four patrol boats and several aircraft from China. For its part, Nigeria has bought two corvettes from China, as well as an ocean-going warship and several small patrol boats (from France, Israel and Malaysia). Equatorial Guinea is buying a dozen craft of various types from Bulgaria, Israel, Ukraine, etc.

Regional coordination

At a meeting held in March 2013 in Cotonou, Benin, the defense, foreign and security ministers of Central and West African states outlined a plan for concerted action in the Gulf of Guinea, which notably includes the establishment of a regional base to combat piracy. At a subsequent summit held under the auspices of the United Nations in Yaoundé, Cameroon, in late July 2013, government leaders from the Economic Community of West African States (ECOWAS) and the Economic Community of Central African States (ECCAS), along with the Commission for the Gulf of Guinea (CGG) approved a plan for the creation of an inter-regional center to coordinate the fight against maritime insecurity.

Figure 31: Conakry

Guinea
Dubreka
Conakry
Forecariah
Atlantic Ocean
Sierra Leone
Lungi
Freetown
0   50   100 km
NB: period 2006-2013.
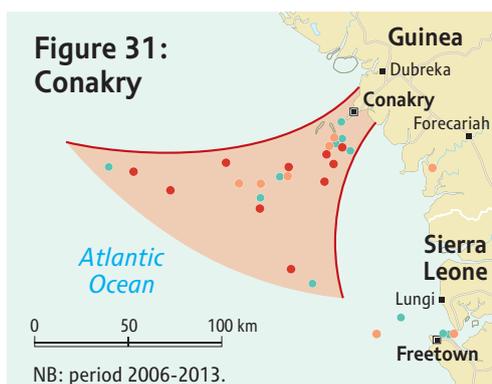
The Heads of State or their representatives from 25 West and Central African countries, including 13 Presidents, endorsed a memorandum of understanding on maritime safety and security, as well as a code of conduct on the prevention and repression of piracy and armed robbery (similar to the code adopted in Djibouti in 2008 for East Africa). They also called for the establishment of a "regional rapid intervention force" and the deployment of an international naval force, similar to the one off Somalia.

The Cameroonian government, which hosted the summit, had launched a 2009 offensive against pirates based in the Bakassi peninsula, close to the Niger Delta (which was the subject of a long-drawn-out dispute with Nigeria until the International Court of Justice recognized Cameroon's sovereignty). Members of the elite Rapid Intervention Battalion (RIB) were appointed to five military posts (Cameroon took full possession of its sovereignty over Bakassi on August 14th 2013, in the wake of five years of transition administration).

Organized criminality

The theft of fuel by pirates off the coast of Nigeria, Benin and Ivory Coast should be viewed in the framework of a wider criminal context that includes:

▸ extortion: oil companies are forced to buy protection from communities or security companies to prevent the sabotage of their equipment and facilities;

▸ the misappropriation of funds on a national level: the Nigerian parliament recently brought to light a multi-billion dollar fuel subsidy fraud;

▸ smuggling: subsidized fuel is illicitly sold on markets where it can fetch three times its official price;

▸ the kidnapping of sailors and oil company employees (207 sailors and crew members were taken hostage in the Gulf of Guinea in 2012, Their release was negotiated at a cost of €200,000-300,000 per person).

"Fishermen by day and pirates by night": as elsewhere, fishermen are often involved in smuggling or even piracy. And in some cases their involvement is political. "It has long been difficult to track whether there are terrorist ties to piracy in the waters off Africa, AP reported in Washington (March 24th 2013). According to the same source, officials are worried that even if Boko Haram insurgents are not directly involved in the attacks off Nigeria and Cameroon, they may be reaping some of the profits and using the money for ongoing terrorist training or weapons."

The stolen petrol ends up on parallel markets in a dozen countries in region. In Benin, for example, two thirds of the petrol consumed is sourced from fuel that has been smuggled into the country from neighboring Nigeria. Pirates have also been known to barter fuel in exchange for drugs, arms, and contraband liquor. On occasion, points out the United Nations Office on Drugs and Crime (UNODC)[1], coastal trading vessels and small tankers arrive in the Gulf to collect cargoes of stolen fuel, which they deliver to countries as far away as Congo or transfer to larger tankers further off the coast.

"It follows that the different types of trafficking feed into each other," explains UNODC, which outlines activities in the region:

▸ drugs from Latin America arrive in West Africa (where the regional market is controlled by Nigerian gangs, before being routed to Europe);

▸ the local drugs market (cannabis plantations, imports of LSD, methamphetamine production in laboratories in the region);

▸ trafficking of children sold by their parents (for forced labour in agriculture, or to provide servants to rich families in Gabon, Cameroon and Equatorial Guinea);

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1   See http://geopolcrim.info/?p=8217

Figure 32: South America, period 2006-2013

Havana
Cuba
Mexico
Belize
Jamaica
Haiti
Dominican Republic
Kingston
Port-au -Prince
Guatemala
Honduras
El Salvador
Nicaragua
Caribbean Sea
Cumaná
Costa Rica
Limon
Caracas
Panamá
Venezuela
Georgetown
Colombia
Guyana
Paramaribo
Bogota
Surinam
Guyane (France)
Quito
São Luis
Ecuador
Belem
Machala
Fortaleza
Peru
Brazil
Salvador
Lima
Brasilia
La Paz
Bolivia
Chile
Paraguay
Rio de Janeiro
Argentina

Pacific Ocean

South Atlantic Ocean

Severity level of the events

- Minor
- Threat of violence
- Violence, wounded crew
- Violence and fatalities (at least one person dead or missing)

0   1,000 km

▶ prostitution (with the trafficking of thousands of young women to Europe and the Middle East every year);

▶ trafficking of migrants (organized networks take charge of migration flows from the West to richer countries in the East);

▶ trafficking of small arms (mainly sourced from Chad and Libya, but also from more longstanding conflicts in the subregion, which is often routed via Nigeria)[2];

▶ illegal fishing (by local fleets and boats that are not from the region, factory ships and whaling vessels during the season, or the presence of unauthorized craft in areas that are exclusively reserved for coastal fishing);

▶ intentional pollution (hold cleaning, toxic waste disposal);

▶ smuggling (of ivory, illicit trade in captured animals with Asia, endangered species destined for Europe, precious wood, medicines).

South America

Between 2006 and 2013, piracy and armed robbery activities in South America and the Caribbean have been negligible in comparison with the western Indian Ocean and South East Asia situations. Only 216 incidents have been reported, of which 102 could be considered severe (threat of violence and violence, with fatalities in 3 of these incidents). For the first 8 months of 2013, only 16 attacks occurred, which represents the lowest figure since 2003. The phenomenon is an armed robbery problem rather than piracy, as incidents occur mainly in ports, coastal waters or rivers. Attacks on the high sea remain rare, and most of the targets were yachts, particularly vulnerable, attacked in Venezuelan and lesser Antilles waters. Unlike in the Indian Ocean, the threat of attacks doesn't represent a serious disruption to traffic, pirates prefer to steal crews' valuables or engines and cargo on board rather than hijacking vessels.   ◾

_____
2   See report 2012 by the Global Risk Identification Program (GRIP).

Conclusions

Being appropriately informed on piracy...

The best way to understand the trends and geography of piracy is to build a reliable database gathering events of piracy or armed robbery. So far, several organizations are collecting data and reports of attacks or incidents coming from maritime companies, vessels, or focal points. IMO is currently managing the most comprehensive database, offering a global and precise overview of incidents that have taken place since 1995, which means almost two decades of information.

This database is undoubtedly the best existing tool helping to keep track of all declared incidents (there is a chance that not all incidents are reported). IMO is permanently reviewing the database and how it can be further improved. This study has identified the following potential areas for improvement:
► Georeferencing should be systematically provided in decimal coordinates together with, if or when possible, GPS data.
► The descriptions of incidents are comprehensive and useful, but can be challenging to exploit from a statistical point of view. A consolidated "severity index" such as the one proposed in this report should be defined on the basis of factual criteria and presented as quantitative data: number of fatalities, injured crew, threat to persons, materiel stolen or crew robbed (yes or no), etc.
► Integrate a new indicator such as "distance to coast" which gives an idea of pirate's capacities; a discussion will be necessary to chose the best measure, so it can be accurate as well as practical
► Quantifying what is given as qualitative data whenever possible, so that it can be treated as a statistical series, easier to handle in order to identify main historical and geographical trends, e.g. when there is a sentence like "more than 5 attackers", use a number (5).
► The analysis of the database has shown a particular geographical distribution of incidents which does not necessarily fit well with the currently used regional breakdown. A revised geographical breakdown could be discussed and agreed upon.
► In conclusion, action could be taken to simultaneously standardize existing data and improve the modus operandi to collect information on future incidents. In addition, a routine could be established so that people working on consolidating the database could directly reach and interview maritime companies in order to get missing information or details of an unclear incident declaration.

... and acting in the field

In its recommendations issued at the end of November 2013, the UN Security Council called upon the member states involved in international maritime transport and trade to strengthen their military presence in order to pursue their deterrent and possibly repressive effect helping coastal states to strengthen their ability to arrest and prosecute pirates. It is also understood that it is a necessity to bring to court not only the perpetrators but also the sponsors and financiers, who are never at sea but are working behind the scenes with international criminal networks. Surveillance and repression, seen as a temporary response to an emergency, will need to be gradually replaced in the long term by a focus on local development, which seems to be the only way to dry up the sources of piracy.

In regard to Somalia, the real urgency is to give major technical and financial support to the state as it goes through the process of reconstruction, to provide the basis of viable governance, but without imposing an inapplicable model, rather taking into consideration the regional and clan structures that underpin Somali society. This support should also be extended to the entities of Puntland and Somaliland, often the source of the piracy. With the observed cessation of piracy off the coast of Somalia, a major opportunity has now surfaced to halt further recruitment for piracy, but that would require urgent implementation of the above support.

For young Somalis not to be tempted to return to piracy or get enrolled into militias, but rather to find on site jobs allowing them to support their families, a particular effort has to be made for extended support for the creation of jobs and business projects. But to complete such a project, there must be an emphasis on building capacities such as schools, vocational training centers, health centers and electrical power grids, as well as support for local NGOs and women's associations, to help civil society become a reliable social actor.

The international community should help strengthen the law of the sea and its implementation, in order to fight against piracy, but also to prevent plundering of fisheries by industrial vessels and illegal dumping of hazardous waste, and assist the Somali authorities to restore coastguard forces and give support to the development of a modern judicial system, with rule of law, courts and police forces. ◾

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