

Maritime Piracy Event & Location Data Project



Trends in Piracy: Sub-Saharan Africa June 2014

This is the first report from the Maritime Piracy Event & Location data project. The purpose of these reports is to document trends in piracy in certain regions and or countries around the world. Each quarter a new report will be published and uploaded to the project website.

This first report briefly describes piracy in nine Sub-Saharan Africa

countries from 2005 to 2014. We compare piracy with other political and economic trends occurring in these countries. We also document the global drivers of maritime piracy and explore whether such forces are present in these Sub-Saharan African countries. We see significant changes over this time period as piracy increased substantially in

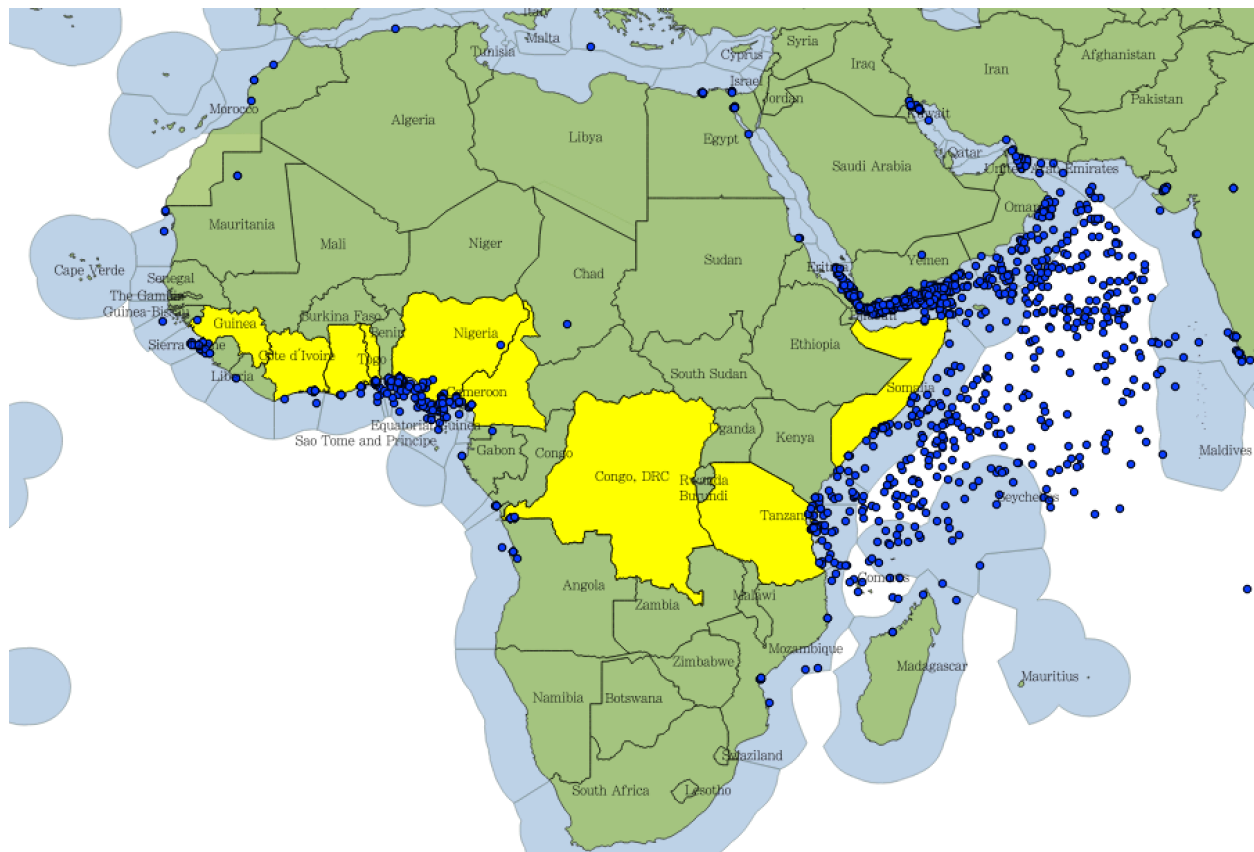


Figure 1: Piracy Incidents, 2005-2013 (IMB)

the greater Gulf of Aden but then rapidly decreased in 2013. At the same time, piracy decreased in the Gulf of Guinea from 2004-2006 and then decreased again from 2009 to 2011 only to flare up

again just as incidents were dropping off the coast of Somalia. Questions remain on the causes of the piracy decrease off Somalia and the increase off Nigeria. Importantly, conditions on the ground in

countries need to be assessed carefully to understand the temporal and cross-sectional variation in maritime piracy.

Aggregate Trends

If Southeast Asia once dominated the landscape of maritime piracy, Sub-Saharan Africa took over this position beginning in 2008 or 2009. Indeed, piracy and especially hijackings exploded in the Greater Gulf of Aden after 2008. Figure 2 includes data on the 9 most piracy-prone Sub-Saharan African countries during the 2005 to 2013 time period. One easily sees the tremendous increase in events from 2009 to 2011, the vast majority of which occurred off the coast of Somalia. In fact, Somali piracy

accounts for basically all of the increase at this time. Piracy in the Gulf of Guinea actually decreases during these three years only to tick up starting in 2012. So far in 2014 there are eight reported piracy incidents in Nigerian waters, which is slightly under the incidents reported in 2012 and 2013 for the same first four months of the year. Interestingly, and perhaps worryingly, the number of incidents reported off of Somalia and Yemen in 2014 now stands at 7 (through May 8, 2014). This remains considerably fewer than the incidents observed in 2012 off Somalia (and Yemen) but exactly matches the total number of incidents from all of 2013. So piracy may be increasing once again off Somalia.

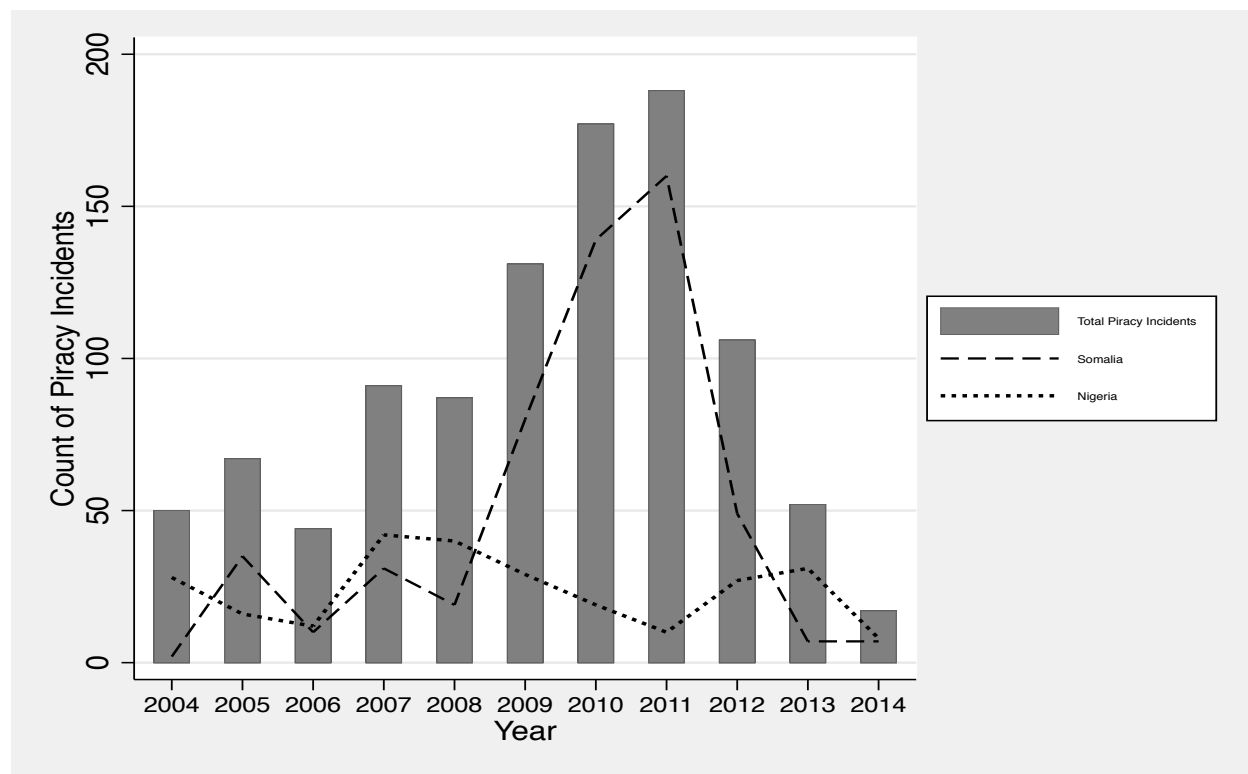


Figure 2: Sub-Saharan African Piracy, 2004-2013

Table 1 shows piracy incidents by year in each of the nine most piracy-prone countries in Sub-Saharan Africa. Clearly East Africa, specifically Somalia and Tanzania, and West Africa, including

Nigeria in particular but other countries in Gulf of Guinea as well, account for the vast majority of piracy observed. Table 1 also the dramatic decrease in piracy off Somalia beginning in 2013 and the sizable

increase in the Gulf of Guinea that began in 2012. Incidents ascribed to Togo may of course be Nigerian pirates attacking

transport ships as they steam towards the Oil fields and platforms located at the Niger Delta.

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Somalia	2	35	10	31	19	80	139	160	49	7
Nigeria	28	16	12	42	40	29	19	10	27	31
Ivory Coast	4	3	1	0	3	2	4	1	5	4
Guinea	5	1	4	2	0	5	6	5	3	1
Ghana	5	3	3	1	7	3	0	2	2	1
Togo	0	0	1	0	1	2	0	6	15	7
Cameroon	4	2	1	0	2	3	5	0	1	0
DRC	0	0	3	4	1	2	3	4	2	0
Tanzania	2	7	9	11	14	5	1	0	2	1

Table 1: Sub-Saharan African Maritime Piracy Counts by Year

As has been noted elsewhere, piracy off the coast of Somalia increased and moved geographically farther out into the Indian Ocean. This can be seen in the two maps below. Figure 3a shows the location of piracy incidents from 2005 to 2008 while

Figure 3b shows incidents from 2009 to 2013. The average distance from Mogadishu to piracy incidents increases from 550kms in the first temporal period to over 800kms in the second period. One sees this trend in the Gulf of Guinea

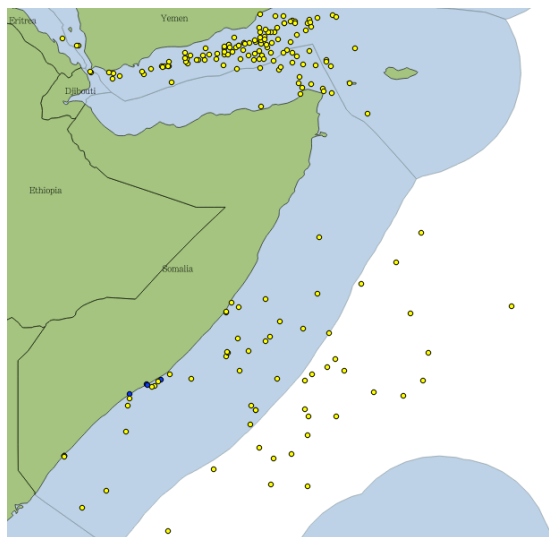


Figure 3a: Piracy off Somalia 2005-2008
(Yellow circles denote ships steaming when attacked)

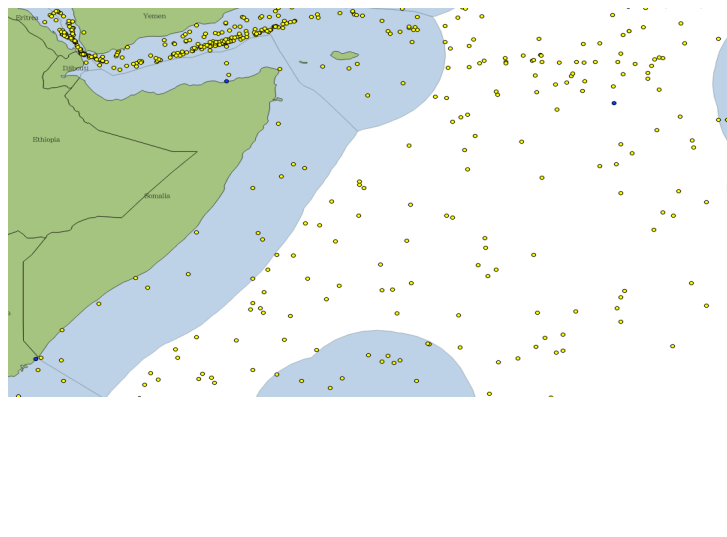


Figure 3b: Piracy of Somalia 2009-2013

as well (in fact the relationship relates more generally to the fragility of governments and their inability to project power over distance). Further, pirates have become increasingly sophisticated in their methods of seizing and or robbing ships. Not only do they attack ships

farther out to sea, but they also are increasingly capable of capturing ships as they steam through waters. Figures 4a and 4b display piracy incidents in the Gulf of Guinea, and the number of ships attacked while steaming increases in the 2009 to 2013 time period.

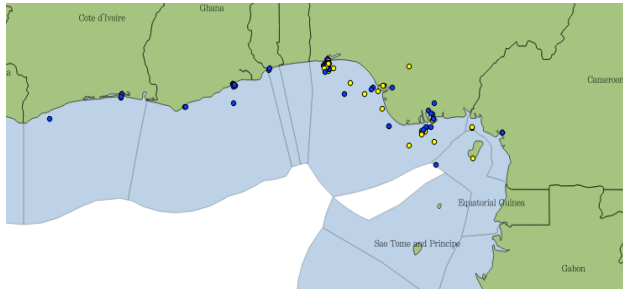


Figure 4a: Piracy in the Gulf of Guinea 2005-2008
(Yellow circles denote ships steaming when attacked)

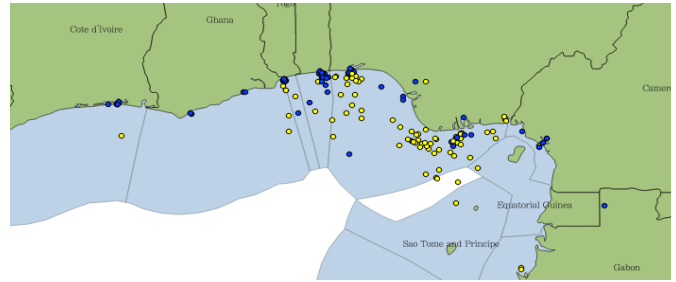


Figure 4b: Piracy in the Gulf of Guinea 2009-2013

The increase in attacks against ships while in transit is perhaps better visualized with the pie charts below (Figure 5). The graph compares the nine Sub-Saharan African countries selected for this research report to all other countries in the international system for both the 2005-2008 and 2009-2013 time periods. The percentage of ships attacked while steaming increases significantly in the latter time period but only for the

nine selected countries in Sub-Saharan Africa. Somalia and Nigeria are clearly the countries responsible for the increase in the 2009-2013 period.

Maritime piracy in Sub-Saharan Africa also appears to be more violent than in other parts of the world (see Figure 6). Over 40% of the incidents in Sub-Saharan Africa involve hijackings and or ships being fired upon (typically with AK-47s or rocket propelled grenades). This is 15

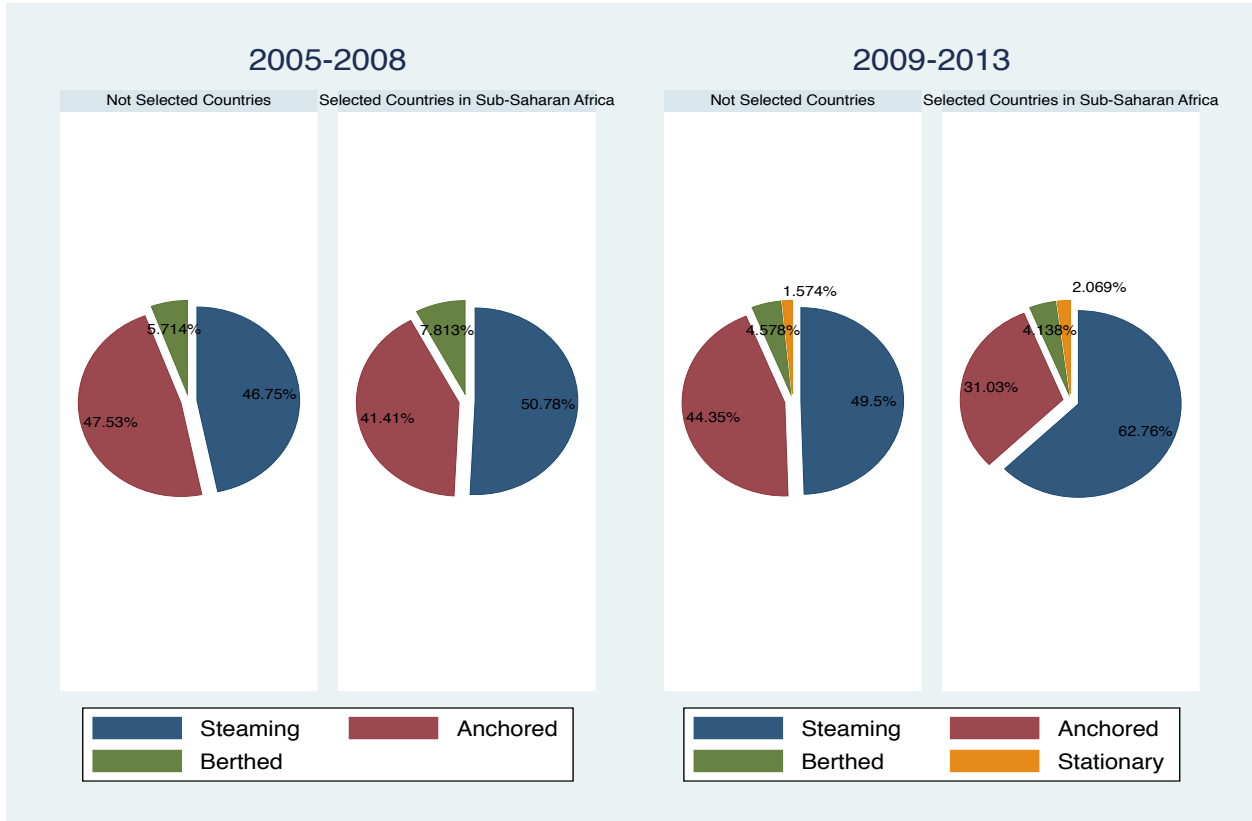


Figure 5: Pie Chart of Vessel Status when Attacked

percentage points higher than piracy in the rest of the world. Just looking at Somalia and Nigeria confirms the more violent nature of piracy in Sub-Saharan Africa (Figure 7). Somalia is an extreme outlier with few boardings and high numbers of both hijackings and ships being fired upon. Nigeria, in contrast to Somalia, shows fewer hijackings and

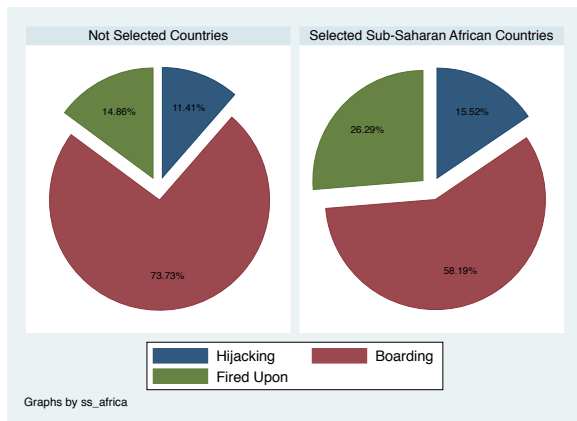


Figure 6: Violence Comparison

many more ship boardings. Compared to piracy in the rest of the world, Nigeria does show a higher number of ships being fired upon, which supports anecdotal reports on the armed nature of pirates in

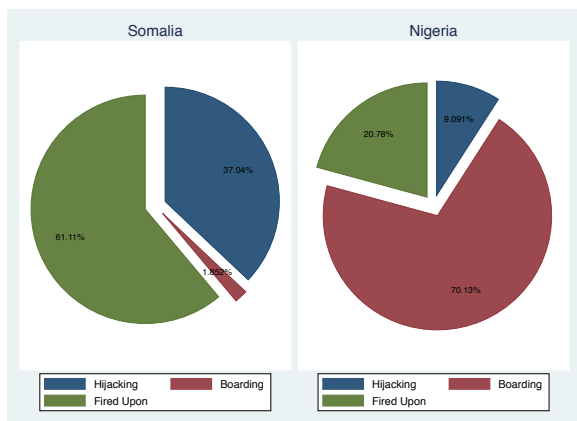


Figure 8: Violence in Somalia & Nigeria

the Gulf of Guinea, perhaps tied to insurgent groups such as the Movement

for the Emancipation of the Niger Delta (MEND) and or the Niger Delta Liberation Force (NDLF).

If Sub-Saharan piracy tends to be more violent in nature than other regions, it does appear that counter-measures put in place in the past four years have had some impact. The success rate of piracy attacks in the rest of the world did not change from the first period to the second (Figure 8). However, in the nine Sub-Saharan African countries with the most piracy the success rate dropped 12 percentage points from the early to the latter period. Military operations and armed guards may help explain the decreased success rate off the Horn of Africa. But in the Gulf of Guinea where neither of these counter-measures is widespread, increased speeds, ship maneuvering, and crew-awareness likely have helped drive down the pirate success rate.

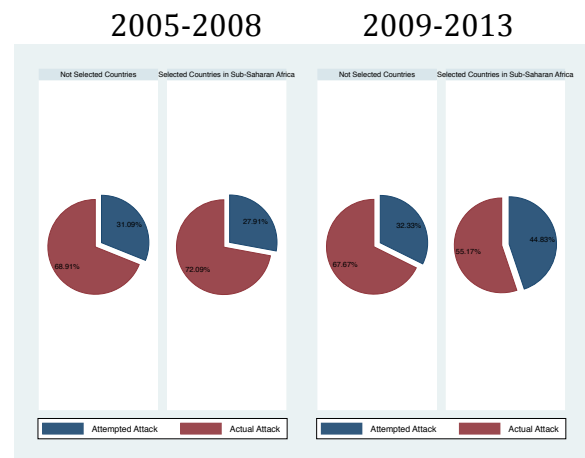


Figure 8: Actual vs. Attempted Attacks

Piracy attacks mostly occur after the sun has gone down as would be expected. As Figure 9 shows, over 40% of piracy attacks occur from mid-night to 6:00am and another 22% transpire in the late evening. Less than 15% of piracy incidents involve raids during the height

of the day between noon and 6:00pm. The timing of attacks does not appear to vary regionally.

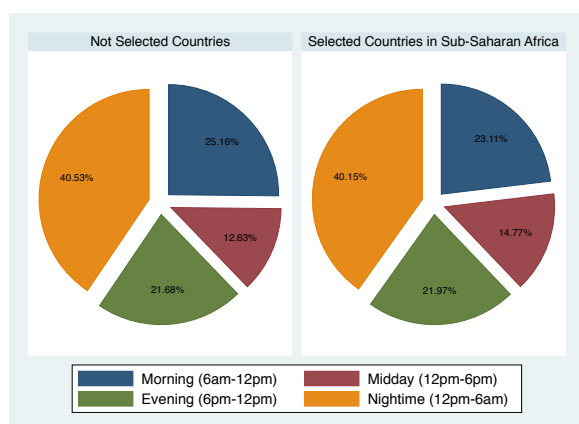


Figure 9: Time of Day when Piracy Occurs

Violence Comparisons

Figure 10 compares piracy in Sub-Saharan Africa to other forms of violent conflict observed at the same time. The Armed Conflict Location and Event dataset (ACLED) as well as the Social Conflict in Africa database (SCAD) both record instances of political and typically violent conflict occurring on the ground in Africa. The Global Terrorism database (GTD) collects information on transnational and domestic terror attacks occurring in all countries around the world. As Figure 10 clearly shows, piracy represents only a small fraction of this violent political conflict, but even these relatively small numbers have costly consequences on international trade. The *Oceans Beyond Piracy* Project estimated the costs of Somali piracy in 2012 alone to be around \$6 billion dollars. Of course, the illicit gains from piracy also drive trade in narcotics, weapons, and human slavery. Combatting these proscribed activities reduces the public coffers of already poor countries and consequently prevents investments in other areas that might spur development, reduce poverty, and improve public health (all of which

would likely help drive piracy lower). Counter-trafficking programs seemingly cost billions of US dollars each year since the modest counter-piracy military operations in the Greater Gulf of Aden cost over 1 billion US dollars in 2012 (*Oceans Beyond Piracy*).

The instability in the Sub-Saharan African region has led to an expanding US footprint as well, both in military assistance and in humanitarian aid. Mosquito nets have gone to Niger, African peacekeepers have been transported by American planes to the Central African Republic, and troops from the Army's First Infantry Division are engaged in missions across the continent. After Israel, Egypt, Iraq and Afghanistan, Nigeria is the largest recipient of US humanitarian aid at nearly \$700 million US dollars in 2013. Military assistance to Nigeria has also steadily increased since 2005.

The Drivers of Piracy

Many of the drivers of maritime piracy are strong in Sub-Saharan African countries. Extant research, in particular, shows state fragility, economic deprivation, population, and geographic opportunity all related to the incidence of piracy in territorial waters.

Similar to the growth of armed insurgencies, political and economic conditions help facilitate corruption and criminality, both of which enable piracy. Indeed, countries that suffer from piracy experience much higher levels of political fragility. The Center for Systemic Peace (CSP) measures political weakness using an ordinal scale ranging from one to twenty-five, with higher values signifying increasingly fragile states (see Table 2). The average fragility score for the nine Sub-Saharan countries examined in this

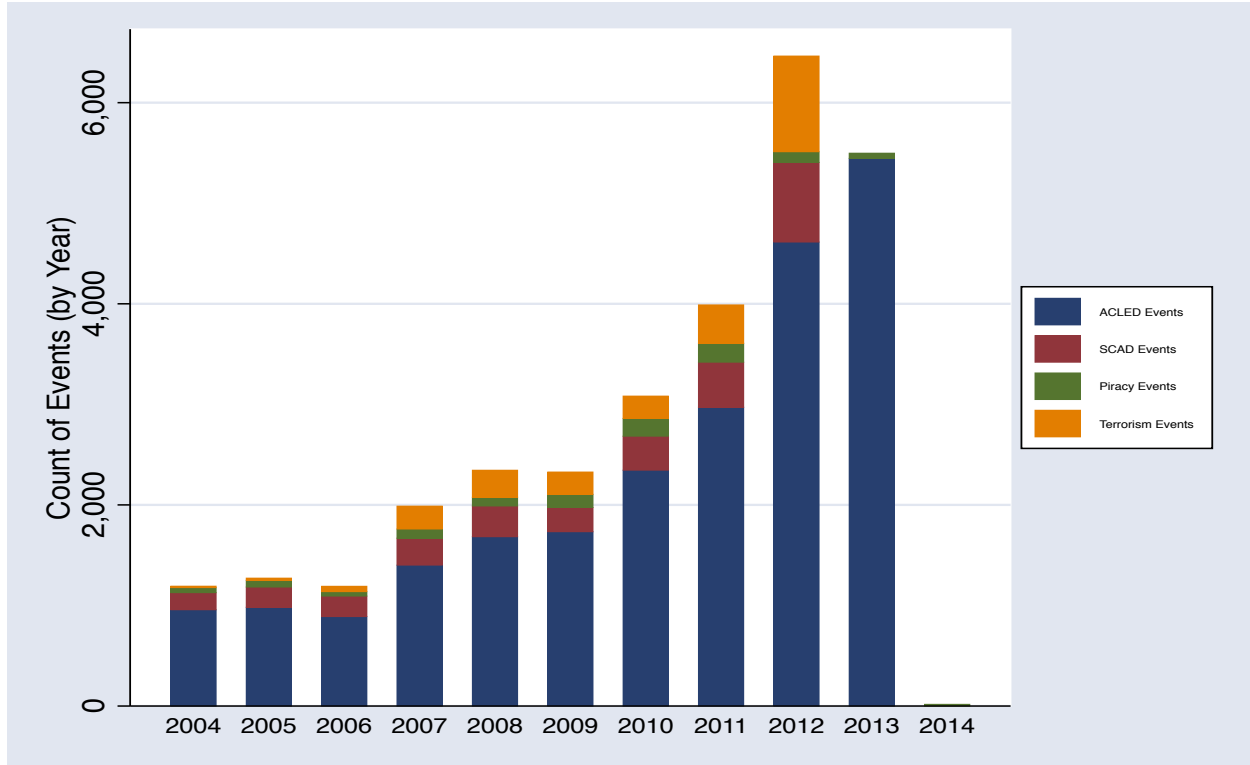


Figure 10: Comparison Piracy, Conflict, and Terrorism Events in 9 Sub-Saharan African Countries, 2004-2013

report (averaged across the 2009-2013 time period) is 16.8, which is 2.5 times higher than countries without piracy. The average fragility score for countries without piracy during the 2009-2013 time period is 6.6. Somalia, with an average score of 24, represents the closest thing to a failed state in the international system. The political improvement Somalia witnessed from 2011 to 2012 (and likely into 2013 although the data for 2013 are not yet available) appears to have helped counter-piracy efforts in the Greater Gulf of Aden.

Given that trade in the greater Gulf of Aden is valued at nearly one trillion US dollars a year, it is clear why would-be pirates gravitate toward these waters.

Further, Somalia despite having only five deep-sea ports, sits only five kilometers from where the Red Sea empties into the Gulf of Aden, and approximately twenty thousand ships transit through the Greater Gulf of Aden each year. These vessels represent in many cases easy targets for would-be pirates.

Economic deprivation within countries also helps to facilitate piracy and illegal markets more generally. Unemployed youth (especially males) provide the foot soldiers both for insurgencies and pirate gangs. The average per capita gross domestic product for our nine Sub-Saharan African countries (averaged across the 2009-2013 time period) is only about \$600 US dollars. The average value for countries

	SFI Score 2005-08	SFI Score 2009-13	GDP PC 2005-08	GDP PC 2009-13	Population 2005-08 Millions	Population 2009-13 Millions	Ports	Choke Distance kms	Coastline kms
Somalia	22.75	24	481	562	88	97.8	5	1,235	3,025
Nigeria	19.5	17	861	1,013	145	162	25	4,894	853
Ivory Coast	15.5	16.25	937	942	17.8	19.2	7	4,453	515
Guinea	18.5	19	308	304	9.9	11	4	3,734	320
Ghana	13.75	12.5	533	650	22.2	24.5	4	4,689	539
Togo	13.75	13	385	399	5.7	6.4	2	4,775	56
Cameroon	17	16.25	922	941	18.9	20.9	9	5,265	402
DRC	22.75	23	139	155	56.4	63.1	3	5,571	37
Tanzania	11.25	10.5	398	459	40.6	45.7	8	1,871	1,424

Table 2: Country-level Information

without piracy is more than 28 times higher, at \$17,753. As Table 2 demonstrates, some of the most piracy-prone countries remain some of the poorest places on Earth. Somalia had an average per capita GDP in 2009-2013 of only \$562. Nigeria was slightly higher at \$1,013. Such entrenched and deep poverty poses significant challenges for any counter-piracy efforts. Convincing individual fishers or farmers to forego the opportunity of a lucrative payoff (typically several thousand US dollars) remains difficult when there are few employment alternatives. And, monies from pirate operations tend to depress job growth in the legal economy. Prices rise with cash from piracy leading to the appreciation in the value of the local currency, which tends to decrease primary commodity exports. Efforts to increase wages and job growth in piracy-prone countries must be part of an effective counter-piracy strategy.

Focus: Nigeria

The increase in piracy off the Coast of Nigeria clearly worries West African leaders as they met last summer (2013) in Cameroon to address this re-emerging threat. Although pirates have targeted oil transport ships operating in and around the Niger Delta for many years (see

Figure 4a above), larger oil tankers now appear at risk even when steaming in and out of the Gulf (see Bridger 2013). The looting of these tankers costs countries in the region an estimated \$2 billion US dollars every year. West African leaders aim to establish a ReCAAP style counter-piracy operation in the Guinea Gulf with, as James Bridger (2013) reports, “information-sharing, capacity-building, and joint patrols” as the focal activities of the organization. But with an extremely weak state, high levels of public corruption, large numbers of unemployed youth, and frequent port visits by oil tankers, Nigeria presents a difficult counter-piracy challenge. Further, the international community has not yet found the will or resources to reprise its naval operations in the Greater Gulf of Aden in West African waters.

If tanker seizures have increased over the past few years off Nigeria, so too have the number of sailors kidnapped by pirates (Bridger 2013). As violence has spiked in the Niger Delta as evidenced by substantial increases in armed conflict and terrorism, insurgent and terrorist groups may be using piracy and kidnapping as a means to raise revenue. Figure 11 maps terrorist incidents (2009-2012), armed conflict (2009-2013), and piracy (2009-2013) in Nigeria and

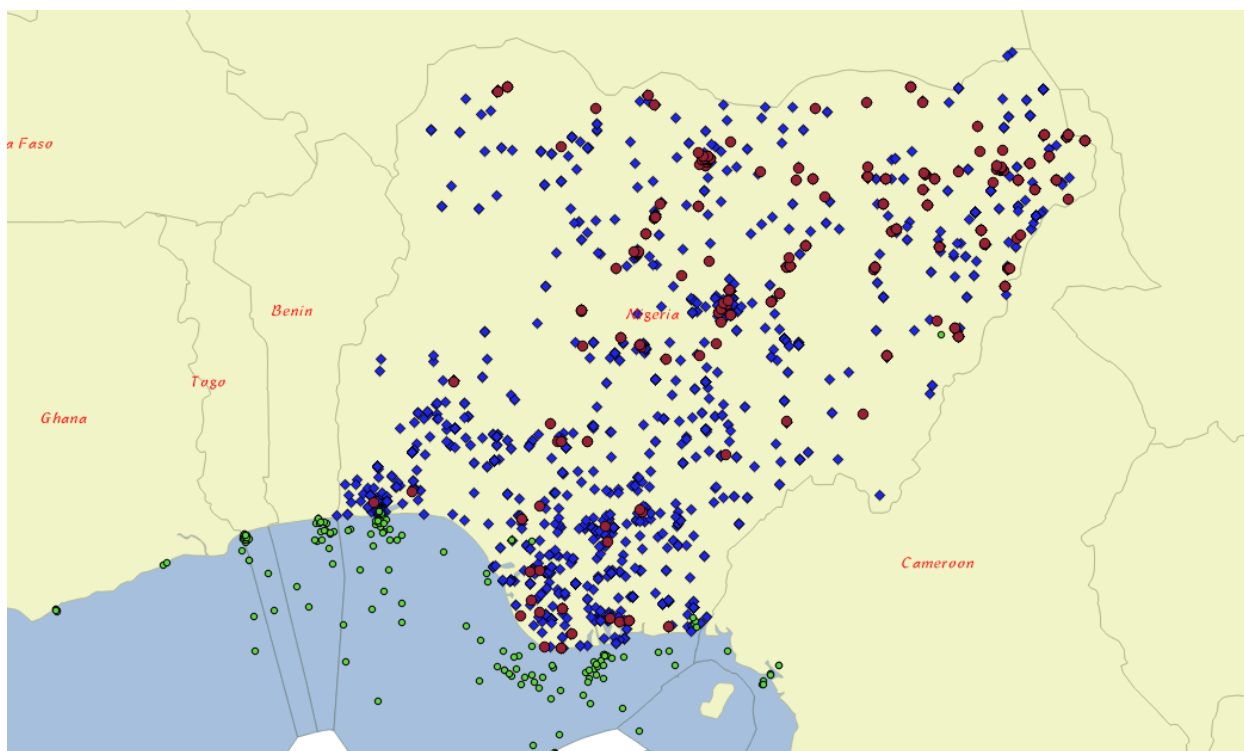


Figure 11: Armed Conflict, Terrorism and Piracy in Nigeria, 2009-2013 (Blue Dots = Armed Conflict; Red Dots = Terrorist Attacks; Green Dots = Piracy Incidents)

substantial violence is visibly present near and around the Niger Delta. It remains to be seen whether armed insurgent groups apply their foot-soldiers as pirates, but the locations of these events suggests there may be overlap.

Seasonal variation in rainfall, wind-speed, and wave height appear to affect piracy off Nigeria and in the Indian Ocean. As monthly rainfall totals increase in the late spring and summer, piracy attacks drop significantly (Figure 12). This also occurs off of Somalia when the summer (and stronger) monsoon winds pick up beginning in May. The number of hijackings decreases from April to May and attacks continue to remain low through early August (data from 2005-2013).

If weather influences pirate activity off Nigeria, so too it appears do crude oil production and the price of sugar. Figure

13 plots piracy off Nigeria against crude oil production (monthly barrels) and the

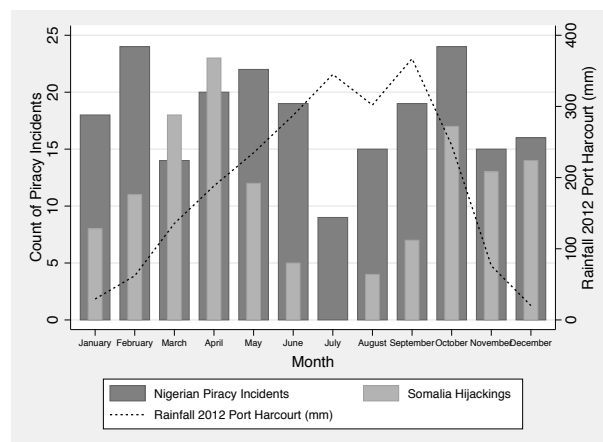


Figure 12: Weather and Piracy off Nigeria and Somalia

world price of sugar (\$/kilogram) from 2009-2013. Both show a negative albeit weak relationship with the number of monthly piracy attacks occurring in Nigerian waters. This makes sense as both crude oil production and the price of sugar measure the health of the legal

economy and so conversely the attractiveness or lack thereof of in engaging in pirate activity. Increases in crude oil production likely signal more jobs and so fewer pirate recruits. The price of sugar indicates the worth of legal employment versus employment in the black market. Again, it appears that as the price of sugar increases, piracy decreases.

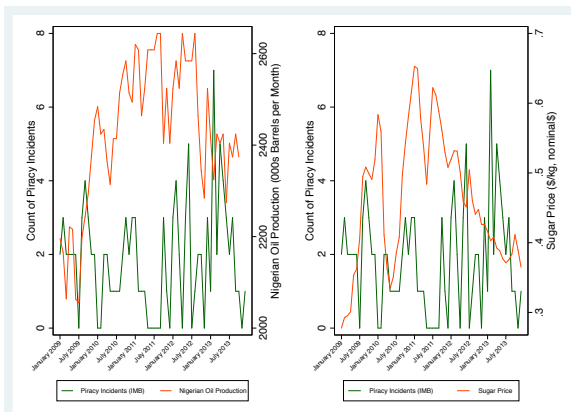


Figure 13: Comparing Variation in Piracy with Variation in Crude Oil Production and the Price of Sugar

Conclusion

This research report has documented trends in, and correlates of, maritime piracy in nine Sub-Saharan African countries. Although pirate attacks dropped dramatically off the coast of Somalia in 2013, they increased significantly in the Gulf of Guinea.

Counter-piracy naval operations and improved security onboard ships likely contributed to the decline in the greater Gulf of Aden. Some strengthening in Somali governing institutions also likely had an effect even as armed conflict continued to create difficulties for the new regime. In the Gulf of Guinea, a deteriorating security environment and continued fragility in many West African governments provided space for pirate groups to operate. In Nigeria, for example, the number of conflict events on land increased by over 200% from 2011 to 2013 and the number of terrorist attacks jumped by nearly 250% from 2011 to 2012. Political violence was also on the rise in Togo, Ghana, the Ivory Coast and the DRC. Although West African leaders met during the summer of 2013 to plan an assault on piracy and pirate groups, insufficient resources and too few naval patrol craft will likely hamper their efforts. Permitting foreign-armed guards on merchant vessels transiting Nigerian waters may be a next step in countering this maritime threat. Clearly, though, conditions on land must improve before the piracy threat will disappear. Weak states, joblessness, and abundant targets currently ensure that piracy will continue.