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**NAVAL  
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**MONTEREY, CALIFORNIA**

**THESIS**

**TRADING NETS FOR GUNS: THE IMPACT OF ILLEGAL  
FISHING ON PIRACY IN SOMALIA**

by

Aaron S. Arky

September 2010

Thesis Co-Advisors:

Letitia Lawson  
Sophal Ear

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**TRADING NETS FOR GUNS: THE IMPACT OF ILLEGAL FISHING ON  
PIRACY IN SOMALIA**

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Submitted in partial fulfillment of the  
requirements for the degree of

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## ABSTRACT

Somali piracy reached a record high level in 2008, with 111 of the 293 worldwide attacks occurring in the waters surrounding Somalia. The incidence of piracy in Somali waters almost doubled in 2009, and the Somali share of total piracy attacks worldwide increased from under 40% to over 50%. Often overlooked is the initial upsurge in piracy, following the Indian Ocean tsunami in December 2004, which contributed to a sharp increase in piracy in 2005 and again in 2008. This thesis addresses *why* this initial surge occurred *when* it did. This increase can be attributed to the transformation of the pirate business model from fishermen who started to defend themselves, to the organized crime that displaced them in 2004 due to the opportunistic behavior of warlords. A convergence of factors contributing to the conditions at the time of the tsunami had short-term effects in 2005 that were enough to provide a boost to the already increasing business model of piracy.



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## LIST OF ACRONYMS AND ABBREVIATIONS

AIS	Automated Identification System
EEZ	Exclusive Economic Zone
FAO	Food and Agriculture Organization
FAS	Federation of American Scientists
F/V	Fishing Vessel
GDP	Gross Domestic Product
ICU	Islamic Courts Union
IMB	International Maritime Bureau
IMO	International Maritime Organization
IUU	Illegal, Unreported, and Unregulated
M/V	Motor Vessel
NGO	Non-Governmental Agency
RPG	Rocket Propelled Grenade
TFG	Transitional Federal Government
UN	United Nations
U.S.	United States
WFP	World Food Program



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## I. INTRODUCTION

Somali piracy reached a record high level in 2008, with 111 of the 293 worldwide attacks occurring in the waters surrounding Somalia.<sup>1</sup> The incidence of piracy in Somali waters almost doubled in 2009, and the Somali share of total piracy attacks increased from under 40% to over 50% (217 out of the 406).<sup>2</sup> While observers generally trace Somali piracy to the persistent insecurity resulting from state collapse in 1991, piracy remained limited until the middle of the 2000s. It then increased from around five attacks per year in 2004 to 25 in 2007, 111 in 2008, and 217 in 2009.<sup>3</sup> Insecurity may be a necessary condition, but it clearly is not a sufficient explanation. Piracy was also transformed in these years. In the 1990s, pirates targeted mostly foreign fishing vessels close to shore. In recent years, Somali pirates have reached hundreds of miles out to sea, operating from “mother ships” to attack large cargo ships. American attention was captured as never before in April 2009, when the Captain of the *Maersk Alabama* was held hostage for several days before U.S. Navy SEALs enacted a rescue. What accounts for the low level of piracy in the first 15 years of state collapse, and its rapid rise thereafter?

While the European Union, the United States, and other partner nations attempt to control piracy by patrolling the seas off the coast of Somalia, the mission of effectively patrolling over one million square miles is virtually impossible to achieve. Patrolling alone cannot be the answer. The International Maritime Bureau, policy makers, navy commanders, and academics all recognize the importance of developing policies that will

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<sup>1</sup> All Africa News, *Piracy Grows to Record Levels*, January 2009, <http://allafrica.com/stories/200901160618.html> (accessed August 17, 2009).

<sup>2</sup> International Maritime Bureau, *2009 Worldwide Piracy Figures Surpass 400*, January 14, 2010, [http://www.icc-ccs.org/index.php?option=com\\_content&view=article&id=385:2009-worldwide-piracy-figures-surpass-400&catid=60:news&Itemid=51](http://www.icc-ccs.org/index.php?option=com_content&view=article&id=385:2009-worldwide-piracy-figures-surpass-400&catid=60:news&Itemid=51) (accessed March 12, 2010).

<sup>3</sup> Robert Middleton, *Piracy In Somalia*, Royal Institute of International Affairs (London: Chatham House, 2008), 1–12.; James Krasaka and Brian Wilson, *Combating Pirates of the Gulf of Aden*, Working Paper (Rochester: SSRN Working Paper Series, 2009); G. H. and Tako, M. H. Musse, *Illegal Fishing and Dumping Hazardous Wastes Threaten the Development of Somali Fisheries and the Marine Environment*, September 9, 1999, [www.geocities.com/gabobe/illegalfishing.html](http://www.geocities.com/gabobe/illegalfishing.html) (accessed July 14, 2009).

effect change onshore.<sup>4</sup> However, these policies generally are understood to require governance and capacity rebuilding, which today appears as unlikely as effectively patrolling one million square miles of ocean. The 15-year gap between the collapse of the state and the rise of piracy suggests the possibility of other interim solutions. Understanding that gap should provide new insight into potential medium-term responses to piracy that move beyond patrolling, but do not require state reconstruction.

Most of the research on the rise of piracy in the region falls into two camps, one arguing that it is a product of an enabling environment, and the other arguing that it is an act of self-defense by local fishermen and those who live in and around fishing communities.<sup>5</sup> The first camp argues that statelessness created an “enabling environment” in which pirates can carry out attacks and hold ships while negotiating ransoms with little to no risk of repercussions.<sup>6</sup> Ahmedou Ould-Abdallah, the UN Special Representative to Somalia, posits that piracy is driven by a group of opportunistic persons responding to the collapse of state authority and the poverty and insecurity it brought about.<sup>7</sup> Patrick Lennox of the Canadian Defense and Foreign Affairs Institute adds that, as young Somalis carry out successful piracy attacks and receive a portion of the ransom, they become more emboldened.<sup>8</sup> Historian Walter Zapotoczny notes that “[e]ach successful hijack by the pirates brings more young men into the village to seek

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<sup>4</sup> “Piracy and Armed Robbery Against Ships off the Coast of Somalia,” (resolution, International Maritime Bureau, 2009).

<sup>5</sup> Patrick Lennox, “Contemporary Piracy off the Horn of Africa,” Canadian Defence and Foreign Affairs Institute (Calgary, 2008).

<sup>6</sup> Peter Lehr, *Violence at Sea* (Taylor & Francis, Inc., 2006); Harvard Model Congress Europe 2009, “UNSC: Modern Maritime Piracy,” 2009, [http://www.hmceurope.org/2009/docs/briefings/UNSC\\_maritime\\_piracy.pdf](http://www.hmceurope.org/2009/docs/briefings/UNSC_maritime_piracy.pdf) (accessed September 9, 2009); Michelle Nakamura, *Piracy Off the Horn of Africa*, (Newport: Naval War College, 2009); Charles Post, “A Growing Threat to Global Security,” *The Drew Review* (Drew University College of Liberal Arts) 2 (April 2009): 72–85; Dennis Zogg, *Why the US Navy Should Not be Fighting Piracy Off Somalia*, (Newport: Naval War College, 2009), 1–27; Stig Hansen, *Piracy in the Greater Gulf of Aden*, Report (Oslo: Norwegian Institute for Urban and Regional Research, 2009), 19–33.

<sup>7</sup> Lauren Ploch et al., *Piracy off the Horn of Africa*, Congressional Research Service (CRS.gov, 2009), 6–7.

<sup>8</sup> Patrick Lennox, “Contemporary Piracy off the Horn of Africa,” Canadian Defence and Foreign Affairs Institute (Calgary, 2008).

their fortune.”<sup>9</sup> If the benefits of carrying out pirate attacks outweigh the probability of being caught and punished, the Somalis will continue to seek out piracy as a means of income. Similarly, Zimombro concludes, “[w]ithout an effective government to ... enforce law and order, criminality and nefarious activities have flourished.”<sup>10</sup>

The second camp argues that piracy was initially a defensive response by local fishermen to increased illegal fishing and dumping of toxic waste along the coastlines of Somalia—itsself a side effect of the collapse of the state and, thus, its enforcement of fishing regulations that protected the coastlines from poachers.<sup>11</sup> Pirates initially engaged in attacks against illegal fishing vessels, demanding compensation. Warlords also established illegal fishing licenses that were sometimes printed on old Somali Democratic Republic letterhead, adding to the legitimate appearance of the licenses.<sup>12</sup> According to this camp, despite the weakness of the Somali state prior to 1991, fishing contracts were strictly enforced as a source of income for the government.<sup>13</sup> Without a functioning Coast Guard after 1991, fishing contracts were no longer enforced, and European and Asian trawlers were able to take as much fish as they desired, leaving fewer fish for Somalia’s artisanal fishing sector.<sup>14</sup> As the large majority of fishing in Somalia was artisanal, the fishermen did not stand much of a chance against large trawlers and other foreign fishing vessels. Fishermen started to defend their territorial

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<sup>9</sup> Walter Zapotoczny, “Walter Zapotoczny,” *Piracy*, June 2009, <http://www.wzaponline.com/Piracy.pdf> (accessed March 02, 2010).

<sup>10</sup> Denise Ziombro, “Somali Piracy,” *The Heinz Journal* (Carnegie Mellon University) 6, no. 4 (December 2009). Lauren Ploch and et al., *Piracy off the Horn of Africa*, Congressional Research Service (CRS.gov, 2009), 6–7.

<sup>11</sup> Ahmed Nor, *Executive Summary*, 2007, <http://fisheries.puntlandgovt.com/fisheries.php> (accessed July 16, 2009); Theodore Richard, “Reconsidering the Letter of Marque,” *Public Contract Law Journal* 39, no. 3 (Spring 2010): 412–464; Katie Stuhldreher, “To Turn the Tide on Piracy in Somalia, bring Justice to the Fisheries,” *Christian Science Monitor*, November 20, 2008: 9; Robert Middleton, *Piracy In Somalia*, 1–12; Donna Nincic, “Maritime Piracy in Africa,” *Africa Security Review* 18, no. 3 (2009): 1–16.

<sup>12</sup> M.G. Hassan, “IUU Fishing and Insecurity Impacts on Somali Fisheries and Marine Resources,” in *4th IUU Fishing Update & Consultation* (London: Chatham House, 2008).

<sup>13</sup> Somali Democratic Republic, *Fisheries Joint Venture Guidelines*, Policy (Mogadishu: Somali Democratic Republic, 1985).

<sup>14</sup> Shashank Bengali, “An Interview With a Jailed Somali Pirate Leader,” *The Christian Science Monitor*, May 3, 2009: 6–7; Sabrina Grosse-Kettler, *External Actors in Stateless Somalia*, Policy Report (Bonn: Bonn International Center for Conversion, 2004); Massip Ikken, “The Reasons Behind Piracy,” *New African*, July 2009: 34–35; James Kraska and Brian Wilson, “Maritime Piracy in East Africa,” *Journal of International Affairs* (ABI/INFORM Global) 62, no. 2 (2009): 55–70.

waters themselves, first by firing upon trawlers to chase them away, and then by taking fishing boats engaged in illegal fishing captive and their crews hostage, seeking compensation from the fishing companies. The upsurge in piracy 15 years later is attributed to the displacement of local fishermen-pirates by organized crime.<sup>15</sup>

Neither camp explains why the upsurge in piracy occurred when it did.<sup>16</sup> The first camp notes, but fails to provide an explanation for, the timing of the upsurge. Some researchers in this camp, such as Stig Hansen, consider the shift a campaign with intensive periods of attacks followed by quieter moments at sea.<sup>17</sup> Some have pointed to changes in weather and financing as possible factors impacting the rise of piracy during certain periods of time, arguing that periods of calm weather and the injection of capital led to surges in piracy almost akin to there having been different campaigns.<sup>18</sup> However, as this thesis will argue, these events—and those who argue their importance wrongly—discount the significant and lasting impact on the levels of piracy that an event like a tsunami may have.<sup>19</sup> Roger Middleton argues that profit-seeking militiamen and local warlords began working with the fishermen, providing better weapons and training to the fishermen who would carry out the attacks, but does not address *why* this occurred *when* it did.<sup>20</sup> Fishermen pirates and profit-seeking militiamen and warlords had been active for over a decade before the two phenomena merged. Nor does either camp explain how the transformation occurred. This thesis will begin to fill this gap. It argues that a

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<sup>15</sup> Stig Hansen, *Piracy in the Greater Gulf of Aden*, Report (Oslo: Norwegian Institute for Urban and Regional Research, 2009), 19–33. Jon Shane and et al, “Criminological Theories and the Problems of Modern Piracy,” in *Maritime Piracy and Maritime Terrorism: The Challenge of Piracy for the 21st Century*, 1–11 (Dubuque, IA: Kendall Hunt Publishing Company, 2009). Karl Sorenson, “State Failure on the High Seas,” Swedish Defense Research Agency (Stockholm, 2008), 18.

<sup>16</sup> James Kraska and Brian Wilson, “Maritime Piracy in East Africa,” *Journal of International Affairs* (ABI/INFORM Global) 62, no. 2 (2009): 55–70. Peter Lehr, *Violence at Sea* (London: Taylor & Francis, 2006).

<sup>17</sup> Stig Hansen, *Piracy in the Greater Gulf of Aden*, 19–33.

<sup>18</sup> Ibid; Theodore Richard, “Reconsidering the Letter of Marque,” *Public Contract Law Journal* 39, no. 3 (Spring 2010): 412–464; Martin Murphy, “Suppression of Piracy and Maritime Terrorism,” *Naval War College Review*, Summer 2007: 23–26.

<sup>19</sup> Shashank Bengali, “An Interview With a Jailed Somali Pirate Leader,” *The Christian Science Monitor*, May 3, 2009: 6–7; United Nations, “Tsunami - Somalia,” Desk Report, Environmental Protection, United Nations (New York, 2005); Sara Percy and Anja Shortland, *The Business of Piracy in Somalia*, Discussion Paper, DIW Berlin (Berlin: DIW, 2010), 13–26.

<sup>20</sup> Roger Middleton, *Piracy In Somalia*.

convergence of actors at the time of the December 26, 2004, tsunami facilitated the move of organized criminal organizations into piracy.<sup>21</sup> The analysis will show that the tsunami's effects, intertwined with the changing business model, had a much greater impact on the transformation of piracy than is recognized.

The research uses a process-tracing approach to isolate the effect of the 2004 tsunami. Chapter II will examine the state of the Somali fishing industry and the levels of piracy from the collapse of the Somali government through to December 2004, just before the tsunami struck. The health of the industry, levels and the nature of piracy during this period will be explored. Determining the conditions in this first time period will be important for comparison to the second time period. Chapter III will look at the state of the fishing sector and levels of piracy in the five years after the tsunami. Finally, Chapter IV draws conclusions and policy recommendations based on the findings.

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<sup>21</sup> Reuters, "UN Says 54,000 Somalis Stricken by Tsunami," January 2005.



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## II. FROM STATE COLLAPSE TO 2004

This chapter examines the evolution of the fishing industry and piracy during the 1990s. It shows that the collapse of the Somali state in 1991 adversely affected the living conditions of coastal fishing populations on the one hand, and created an enabling environment for warlords on the other hand, setting off two separate chains of events that would eventually lead both warlords and fishermen into piracy. The chapter shows the slow transformation of fishermen into coast guards and later pirates, and the delayed but ultimately more aggressive and transformative move of warlords into piracy, affecting the financing, methodology, and ultimately the incidence of attacks in the region.

Fishing, which never comprised more than 2% of GDP or employment, has always been the primary source of food and income for coastal populations. Although nomadic Somalis, the vast majority of the population, do not consume fish, there was a small industrial fishing sector in the 1980s, devoted to exports to Europe and other East African countries.<sup>22</sup> However, tax rates of 35–40% made commercial fishing barely profitable, which kept the industrial sector small and allowed local artisanal fishermen to continue to operate alongside an average of 10 to 15 large foreign trawlers each season.<sup>23</sup> After the state collapsed, the tax rate fell to zero and foreign fishing trawlers poured into Somali waters. While it is difficult to ascertain the exact number of vessels engaged in illegal, unreported, and unregulated (IUU) fishing, groups such as the Somali Fisheries Society and the NGO Ocean Training Program collected data on approximately 200 vessels conducting IUU fishing each season between 1991 and 1999.<sup>24</sup> These ships used “prohibited fishing methods like drift nets, dynamites, breaking coral reefs and

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<sup>22</sup> FAO, *FAO Fishery Country Profile*, Profile, Food and Agriculture Organization (New York: United Nations, 2005); Mohamed Yassin, *Somali Fisheries Management and Development*, Thesis, Marine Resources Management, Oregon State University (Oregon State University, 1981), 41–42; Somali Democratic Republic, 7.

<sup>23</sup> Tbjorn Johnson, *Commercial Trawling For Fish and Deep Sea Lobster Off Somalia*, Institute of Marine Research (Bergen: UNDP FAO Program, 1985), 7.3; Somali Democratic Republic, *Fisheries Joint Venture Guidelines*, Policy (Mogadishu: Somali Democratic Republic, 1985); N.P Van Zalinge, “Summary of Fisheries and Resources Information for Somalia,” in *Proceedings of the Workshop on the Assessment of the Fishery Resources in the Southwest Indian Ocean*, 3.1 (Rome: FAO, 1988).

<sup>24</sup> G.H. Musse, *Illegal Fishing and Dumping*, 3.

destroying the coral habitats where lobsters and other coral fish live.”<sup>25</sup> Puntland and UN representatives in Somalia immediately decried the prevalence of illegal fishing.<sup>26</sup> Leaders from the Somali political factions, along with the Somali Fisheries Society and the Centre for Research and Dialogue, wrote the Italian Foreign Minister, UN Secretary General Boutros Ghali and the EU, detailing illegal fishing activity in Somali waters.<sup>27</sup> All to no avail.

Local fishermen saw their catch decline by about 20% between 1992 and 2000, from 25,500 tons to 20,600 tons.<sup>28</sup> Foreign companies reported catches in Somali waters of 12,200 tons in 1992 and 15,700 tons in 2000.<sup>29</sup> This indication of a declining local industry and slightly increasing foreign catch is misleading, however, given the underreporting by foreign trawlers fishing illegally. The Marine Resources Assessment Group estimates that on average 90,000 tons of fish are caught in Somali waters each year by IUU vessels.<sup>30</sup> In 2001, a local fisherman reported that at night the lights of the ships off the coast were so numerous that they could be mistaken for the lights of a city.<sup>31</sup> IUU fishing vessels were pushing artisanal fishermen out of the market. Data on the

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<sup>25</sup> Ibid.

<sup>26</sup> Mohamed Abshir Waldo, “The Two Piracies in Somalia,” *Wardheer News*, January 8, 2009.

<sup>27</sup> Ibid; Mahamudu Bawumia and U. Sumaila, *Fisheries, Ecosystems and Piracy*, Working Paper, Fisheries Centre, The University of British Columbia (Vancouver: Fisheries Centre, 2010), 21.

<sup>28</sup> University of British Columbia, *The Sea Around Us*, 2007, <http://www.seaaroundus.org/eez/706/14.aspx> (accessed June 29, 2010); FAO, *FAO Fishery Country Profile*, Profile, Food and Agriculture Organization (New York: United Nations, 2005).

<sup>29</sup> University of British Columbia, *The Sea Around Us*.

<sup>30</sup> Marine Resources Assessment Group Ltd, *Review of Impacts of Illegal, Unreported and Unregulated Fishing on Developing Countries*, (London: MRAG, 2005), 113.

<sup>31</sup> Abdirahman Kulmiye, “Militias or Trawlers: Who is the Villain?,” *The East African*, July 9, 2001. Similarly, according to the Indian Ocean Tuna Commission and the Marine Resources Assessment Group, between 1990 and 2002 10 to 12% of the tuna caught in the Indian Ocean was caught in Somali waters (Marine Resources Assessment Group Ltd, *Review of Impacts of Illegal, Unreported and Unregulated Fishing on Developing Countries*, Final Report (London: MRAG, 2005), 166–167; Indian Ocean Tuna Commission, “The Role of Tuna Fisheries in the Indian Ocean,” *Indian Ocean Tuna News*, March 2001: 1–3). But this number is likely an underestimate. The non-governmental Marine Resource Management Project Somalia found that 75 days of fishing produced 420 tons of fish per vessel, worth approximately \$6.3M (Alec et al. Craford, *Growing Unrest*, International Institute for Sustainable Development (Winnipeg: IISD, 2008), 27). Using the lower estimate of IUU vessels, as reported by the Ocean Training Program and Somali Fisheries Society, the catches of tuna reported to the IOTC would be accurate. Using the higher estimates of the number of IUU vessels found in Somali waters each season, the numbers reported to the IOTC would be greatly under representative of the actual amounts of tuna being caught in Somali EEZ waters.

types of gear used to catch the fish corroborates the displacement of Somali artisanal fishermen by foreign fishing fleets. The Somali fishing fleet is comprised of fiberglass skiffs and traditional sailboats or canoes, which are incapable of trawling or large-scale long lining, so the breakdown between commercial and artisanal fishing is also a breakdown between foreign and local fishing (Table 1).<sup>32</sup> Foreign IUU/commercial fishing increased by 30% between 1990 and 1994, while local/artisanal fishing increased by 7%.<sup>33</sup> The fish caught by IUU commercial methods represents the potential lost catch for artisanal fishermen, considering that IUU vessels operated in the waters regularly fished by artisanal fishermen. Along with lost revenue from reduced catches, there were environmental impacts from IUU vessels' overexploitation of resources and the destruction of coral reefs.<sup>34</sup> In early 2004, Somali fisherman Daouda Wade summed up frustration with the foreign trawlers: "Those big boats have caught everything. And now there's nothing left for us, the Africans."<sup>35</sup>

Table 1. Landings by gear type in waters of Somalia (tons)<sup>36</sup>

	1990	1992	1994
Commercial	24,878	27,993	33,016
Artisanal	8,902	9,743	9,546

According to Omar Abdulle Hayle, a Mogadishu-based fishery expert, immediately after the collapse of the state "trawlers began to come closer to the coast—

<sup>32</sup> G.H. Musse, "Current Status of Marine Fisheries in Somalia," in *Assessment & Monitoring of Marine Systems*, 255–265 (Kuala Terengganu: University Putra Malaysia Terengganu, 1999). FAO, *FAO Fishery Country Profile*, Profile, Food and Agriculture Organization (New York: United Nations, 2005).

<sup>33</sup> While this represents a potential for local fishermen being prohibited from successfully growing in their annual catch, it is difficult to know without more data whether 7% growth over four years was less than usual for them. Data availability for time beyond 1994 is too limited to make the same assessment.

<sup>34</sup> Marine Resources Assessment Group Ltd, *Review of Impacts of Illegal, Unreported and Unregulated Fishing on Developing Countries*, Synthesis (London: MRAG, 2005), 4–5; G. H. and Tako, M. H. Musse, *Illegal Fishing and Dumping Hazardous Wastes Threaten the Development of Somali Fisheries and the Marine Environment*, September 9, 1999, [www.geocities.com/gabobe/illegalfishing.html](http://www.geocities.com/gabobe/illegalfishing.html) (accessed July 14, 2009).

<sup>35</sup> Edward Harris, "Fishermen No Match for EU Trawlers," *Los Angeles Times*, January 11, 2004: A3.

<sup>36</sup> Data derived from the Sea Around Us project

looking for lucrative fish species—triggering direct confrontation between the foreign vessels and Somali inshore fishermen.”<sup>37</sup> Ad hoc groups of Somali fishermen and juveniles, including those who considered themselves local fisheries enforcers, attacked the trawlers and demanded compensation for illegal catches, but usually settled for taking anything of value from the trawlers.<sup>38</sup> Many of the attacks originated from fishing regions, where the affects of IUU fishing would be greatly felt.<sup>39</sup> Pirates of this period are accurately described as armed sea robbers because they were crewmembers of private vessels that committed armed robberies of vessels in Somali territorial waters.<sup>40</sup> They roamed the coast in loosely formed groups, with little equipment, stealing whatever money or supplies they could, but rarely holding the crew hostage or taking vessels captive for ransom. Most attacks took place in northeastern and central Somalia (Figure 1). In response, foreign fishing companies began arming their vessels in 1993. Local fishermen also reported trawlers pouring boiling water on them, cutting their fishing nets, and destroying their small boats.<sup>41</sup> In response to the illegal fishing and attacks against artisanal fishermen, they began more organized armed patrols near fishing towns in search of foreign vessels engaged in IUU fishing.<sup>42</sup>

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<sup>37</sup> Abdulkadir Khalif, *How Illegal Fishing Feeds Somali Piracy*, November 15, 2005, <http://www.somalilandtimes.net/200/08.shtml> (accessed July 18, 2010).

<sup>38</sup> Sabrina Keller, *External Actors in Stateless Somalia*, Bonn International Center for Conversion (Bonn: BICC, 2004), 22–23; Shashank Bengali, “An Interview With a Jailed Somali Pirate Leader,” *The Christian Science Monitor*, May 3, 2009: 6–7; Abdulkadir Khalif, *How Illegal Fishing Feeds Somali Piracy*, November 15, 2005, <http://www.somalilandtimes.net/200/08.shtml> (accessed July 18, 2010).

<sup>39</sup> Robert Middleton, *Piracy In Somalia*, 5.

<sup>40</sup> Chairman Security Council Committee Established Pursuant to Resolution 751 (1992) Concerning Somalia, “Report of the Monitoring Group on Somalia Pursuant to Security Council Resolution 1766 (2007),” S/274, Security Council, United Nations (New York, 2007), 18.

<sup>41</sup> Mohamed Abshir Waldo, “Somali Piracy: the Other Side of the Coin,” *African Prospects*, October 2009: 8–11; Gary Weir, “Fish, Family, and Profit,” *Naval War College Review*, Summer 2009: 19–21.

<sup>42</sup> Abdulkadir Khalif, *How Illegal Fishing Feeds Somali Piracy*, November 15, 2005, <http://www.somalilandtimes.net/200/08.shtml> (accessed July 18, 2010); National Imagery and Mapping Agency, *1993 Anti-Shipping Activity Messages (ASAM)*, <http://www.fas.org/irp/world/para/docs/ASAM-1993.htm> (accessed August 3, 2010). Of note, reports of attacks upon fishing vessels and privately owned yachts are underreported.

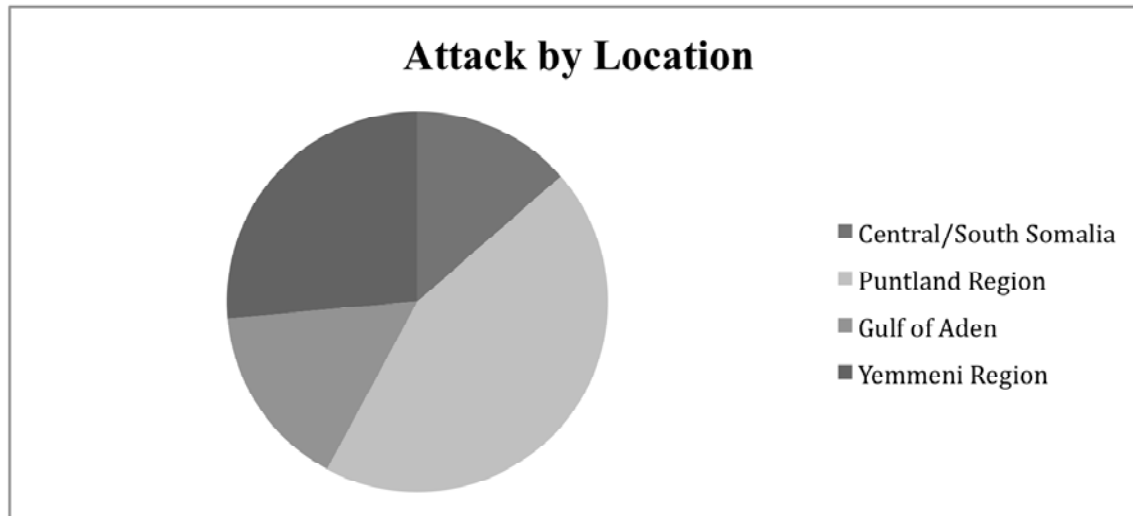


Figure 1. Location of attack, by region, 1991–1995.<sup>43</sup>

In search of protection from this escalating violence, in 1993, foreign companies began negotiating fishing “licenses” with local warlords and clan leaders.<sup>44</sup> It is unclear which party initiated the licensing scheme. Owners and operators arranged licenses with warlords prior to entering Somali waters or after docking at a local port.<sup>45</sup> Warlords provided armed sentries to guard the IUU fishing vessels, which in essence protected the warlord’s license ventures from attack by disgruntled fishermen.<sup>46</sup> These licenses were often typed on letterhead of the previous government or bore the seal of the warlord, and were accepted as valid by local businesses, clans, and other warlords.<sup>47</sup> Warlords then used the “licensing fees” to fund their militias in order to maintain their authority on

<sup>43</sup> Adapted from FAS data (<http://www.fas.org/irp/world/para/pirates.htm>) and Stig Hansen, *Piracy in the Greater Gulf of Aden*, Report (Oslo: Norwegian Institute for Urban and Regional Research, 2009), 22.

<sup>44</sup> UN (2003a), *Report of the Panel of Experts on Somalia Pursuant to Security Council Resolution 1425 (2002)*, (New York: United Nations, 2003), 44; M.G. Hassan, “IUU Fishing and Insecurity Impacts on Somali Fisheries and Marine Resources,” in *4th IUU Fishing Update & Consultation* (London: Chatham House, 2008).

<sup>45</sup> Chairman Security Council Committee established pursuant to resolution 751 (1992) concerning Somalia, 24.

<sup>46</sup> M.G. Hassan, “IUU Fishing and Insecurity Impacts on Somali Fisheries and Marine Resources.”

<sup>47</sup> Ibid.

land.<sup>48</sup> This was a natural extension of preexisting warlord taxation of the banana trade, in which multinational corporations, including Dole and the Italian firm De Nadai, paid warlords for protection.<sup>49</sup> In addition to collecting taxes from shipping and airports, General Aideed reportedly earned a monthly income of \$150,000 from taxing banana exports, just under the \$175,000/month cost of funding his militia.<sup>50</sup>

However, warlords were unable to deliver on the promised protection. Indeed, starting in 1994, Somali fishermen shifted from robbery at sea directed at any vessel to boarding vessels suspected of illegal fishing, becoming more violent and aggressive in the process.<sup>51</sup> They shifted their focus from robbing non-fishing vessels in the early 1990s to attacking fishing vessels predominantly in the mid-1990s. AK-47s were used routinely and occasionally rocket-propelled grenades—both readily available in Somalia. According to the Federation of American Scientists (FAS), three of the six attacks recorded in 1994 were on fishing vessels and three were against merchant vessels, compared with the attacks in 1993, during which no fishing vessels were reported as being attacked.<sup>52</sup> Two Italian owned Somali Fishing Company (SHIFCO) vessels were captured in 1994, and two merchant vessels were captured and then used to pursue other fishing vessels, albeit unsuccessfully. This showed that even non-fishing vessels, if boarded, were used to attack fishing vessels. The two SHIFCO trawlers were held for ransom and released after the company paid \$1M, and the merchant vessels released (without any ransom being demanded) after pirate efforts to use them to capture fishing

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<sup>48</sup> Alec Craford, *Growing Unrest*, International Institute for Sustainable Development (Winnipeg: IISD, 2008), 25.

<sup>49</sup> Abdi Samatar, “Somalia’s Post-Conflict Economy,” *Bildhaan* 7 (2007): 146–151; Sabrina Keller, *External Actors in Stateless Somalia*, 15–16.

<sup>50</sup> Alec et al. Craford, *Growing Unrest*, International Institute for Sustainable Development (Winnipeg: IISD, 2008), 23. Warlords also financed their militia, which in turn maintained their control of territory, allowing them to continue their profit making operations, through the sale of charcoal to Gulf States and illegal printing of Somali Shillings. UN (2003a), *Report of the panel of Experts on Somalia pursuant to Security Council Resolution 1425 (2002)*, (New York: United Nations, 2003), 36–43.

<sup>51</sup> Stig Hansen, *Pirates in the Greater Gulf of Aden*, 20–21.

<sup>52</sup> National Imagery and Mapping Agency, *1995 Anti-Shipping Activity Messages (ASAM)*, <http://www.fas.org/irp/world/para/docs/ASAM-1994.htm> (accessed August 3, 2010).

vessels failed. Two fishing vessels were reported captured in 1997 and three in 1998.<sup>53</sup> However, many attacks were not reported, because the targeted ships were engaged in illegal activities and/or desired to pay a low ransom quickly and move on.<sup>54</sup> ‘Fishermen-pirates’ took these vessels back to Somali ports, where they held the crews for what they claimed was lost fishing revenue.<sup>55</sup>

More organized groups such as the “Somali Marines” in Harardhere, the Marka Group in central Somalia, and the Kismayo Volunteer Coast Guards in Southern Somalia, composed mainly of former fishermen, also began appearing in late 1994.<sup>56</sup> An extension of the organized violence on land, which by this time had subsided below the 1992–1993 levels, these groups came into existence along with the exit of UN forces. This increased organization facilitated holding ships for ransom over extended periods of time, and thus the shift from robbery to ransom. Merchant vessels had been attacked and robbed by the pirate groups from the early 1990s, but the Kenyan merchant vessel *Clove*, captured by the “Somali Coast Guard” in February 1996, was the first merchant vessel to be held for ransom.<sup>57</sup> This was the first unequivocal act of piracy, as defined by the UN, because the attackers were crewmembers of private vessels that committed attacks against vessels on the high seas—beyond the 12-mile territorial boundary of Somalia—

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<sup>53</sup> National Imagery and Mapping Agency, *1998 Anti-Shipping Activity Messages (ASAM)*, <http://www.fas.org/irp/world/para/docs/ASAM-1998.htm> (accessed August 3, 2010); Shashank Bengali, “An interview with a jailed Somali pirate leader,” *The Christian Science Monitor*, May 3, 2009: 6–7; Scott Coffin-Smout, “Pirates, Warlords and Rogue Fishing Vessels in Somalia’s Unruly Seas,” 2000, <http://www.chebucto.ns.ca/~ar120/somalia.html> (accessed March 17, 2010); National Imagery and Mapping Agency, *1999 Anti-Shipping Activity Messages (ASAM)*, <http://www.fas.org/irp/world/para/docs/ASAM-1999.htm> (accessed August 3, 2010).

<sup>54</sup> As an example of the disparity, an interview with pirate leader Farah Ismail Eid discusses the 1997 attack and capture of a Chinese fishing vessel, while IMO and FAS reports show no reports of a captured fishing vessel that year.

<sup>55</sup> Shashank Bengali, “An Interview with a Jailed Somali Pirate Leader:” 6–7; Gary Weir, “Fish, Family, and Profit,” *Naval War College Review*, Summer 2009: 18–20.

<sup>56</sup> Ademun Odeke, *Somali Piracy - Underlying Causes and New Challenges to International Law and World Order*, Draft, Royal Irish Academy, National University of Ireland, Galway (Galway: Cent for Ocean Policy Studies, 2009), 26–27; International Expert Group on Piracy off the Somali Coast, *Piracy off the Somali Coast, Recommendations* (Nairobi: United Nations, 2009), 18–19; National Imagery and Mapping Agency, *1995 Anti-Shipping Activity Messages (ASAM)*, <http://www.fas.org/irp/world/para/docs/ASAM-1995.htm> (accessed August 3, 2010).

<sup>57</sup> National Imagery and Mapping Agency, *1997 Anti-Shipping Activity Messages (ASAM)*, <http://www.fas.org/irp/world/para/docs/ASAM-1997.htm> (accessed August 3, 2010).



for private profit. The attacks following the capture of the *Clove* typically involved detention of the crew and vessel for ransom. In the years following 1996, this piracy and maritime extortion, in the form of ransoms, became even more organized and profitable.<sup>58</sup> Ransom money was used to purchase new boats that could reach further out to sea, and more automatic weapons.<sup>59</sup> Vessels were hijacked and held for ransom regardless of whether they were fishing illegally—or even fishing vessels (Figure 2). Though merchant vessels had been attacked before, only fishing vessels had been held for any sort of payment. The proportion of fishing vessels versus merchant vessels captured during this time period started to shift. As the number of fishing vessels captured remained the same, the amount of merchant vessels captured went up. Attacks also occurred further from shore starting at this time, because the more lucrative merchant vessels were farther out at sea.

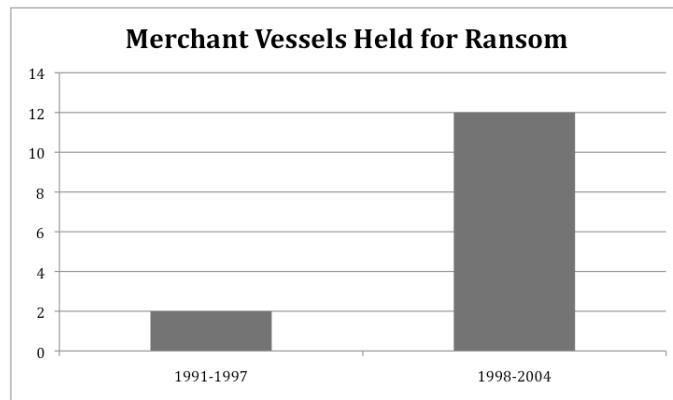


Figure 2. Merchant vessels hijacked and held for ransom.<sup>60</sup>

The pirates hunted for bigger ships to get larger ransoms, but had fewer successes capturing bigger ships because of the increased difficulty due to the higher freeboard of the larger vessels and their greater maneuverability.<sup>61</sup> When the vessels were captured,

<sup>58</sup> M.G. Hassan, “IUU Fishing and Insecurity Impacts on Somali Fisheries and Marine Resources;” Shashank Bengali, “An Interview with a Jailed Somali Pirate Leader:” 6–7.

<sup>59</sup> UN (2003a), *Report of the Panel of Experts on Somalia Pursuant to Security Council Resolution 1425 (2002)*, (New York: United Nations, 2003), 44.

<sup>60</sup> Data derived from FAS and IMB reports.

<sup>61</sup> FAS data on attacks denote that during attacks on merchant vessels, the vessels were able to increase speed and utilize their maneuverability to evade capture.

however, there were larger payoffs.<sup>62</sup> The increase in payment of larger ransoms, beginning in 1998, showed that piracy could be a profitable enterprise, encouraging more hijacking of vessels for ransom. The conditions for organized crime to move into piracy were falling into place. Targets were plentiful, a few large ransoms began to be taken for merchant vessels, and the warlords took notice.<sup>63</sup>

Warlords' fishing licensing income dwindled as piracy took off. Foreign fishing companies stopped purchasing licenses, which provided little actual protection from attack. African Fisheries Management (AFMET), which funded warlords Hussein Ali Ahmed, General Aideed and Ali Mahdi, saw its revenue decline from \$600,000 per year in 1996–1998 to about \$300,000 in 2002.<sup>64</sup> Puntland's 1999 regional government licensing scheme ended as a result of conflict in Puntland in 2001–2002.<sup>65</sup> Warlord fees for protection in the banana trade also dried up, as Dole and De Nadai left Somalia in 1996 due to the warlords' inability to deliver protection.<sup>66</sup>

Mohamed Abdi Hassan "Afweyne" was the first warlord to move into piracy.<sup>67</sup> A former civil servant, Afweyne accumulated large sums of money from importing weapons from Eritrea for warlord General Hussein Aideed in the 1990s.<sup>68</sup> In 2003, he co-opted the Somali Marines of Harardhere, improving their organization. He arranged financing from Somali businessmen and hired more experienced pirates from Puntland to

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<sup>62</sup> Ken Menkhaus, "Dangerous Waters," *Survival* 51, no. 1 (Feb-Mar 2009): 21–25; Jon Shane and et al, "Criminological Theories and the Problems of Modern Piracy," in *Maritime Piracy and Maritime Terrorism: The Challenge of Piracy for the 21st Century*, 9–10 (Dubuque, IA: Kendall Hunt Publishing Company, 2009); Lloyd's List Ship Management, *Piracy Timeline*, 2010, <http://www.lloydsshipmanager.com/ll/media/piracyTimeline.htm> (accessed June 12, 2010).

<sup>63</sup> IMO and FAS data on reported ransom payments and the number of vessels held for ransom show an increase in numbers from one in 1996 to eight in 2001. Though few payments are publicized, the data on those reported remained large, such as \$500,000 for the *Clove* in 1997.

<sup>64</sup> UN (2003a), *Report of the Panel of Experts on Somalia Pursuant to Security Council Resolution 1425*, 44.

<sup>65</sup> Stig Hansen, *Piracy in the Greater Gulf of Aden*, 30–31.

<sup>66</sup> Alec Craford et al., *Growing Unrest*, 24.

<sup>67</sup> Gary Weir, "Fish, Family, and Profit," 20.

<sup>68</sup> Chairman Security Council Committee Established Pursuant to Resolution 751 (1992) Concerning Somalia, 18.

join the organization and train new recruits.<sup>69</sup> He acquired larger engines, which allowed attacks to be carried out several hundred miles from the shore with larger crews. Afweyne realized attacking slow, less well-armed cargo ships would increase the success rate of pirate attacks, and the profitability of the enterprise.<sup>70</sup> The take-over of pirate groups by Afweyne and other warlords that followed introduced sophisticated high seas piracy against merchant vessels to Somalia.<sup>71</sup> The Somali Marines continued to claim to be defending Harardhere fishermen, but as their piracy operations moved further out onto the high seas the only ties to fishing that remained were some of the boats they used to carry out their attacks.<sup>72</sup> The pirates themselves were now ex-fishermen who were no longer protecting fishing grounds. “Mother” ships were used to tow even small boats farther out to sea to attack larger vessels for higher profits.<sup>73</sup> Skiffs once used for fishing were now fitted with larger outboard engines and used to capture ships on the high seas. Fishing nets were still carried in the boats, so that pirates could claim to be fishermen if caught, and former fishermen remained part of the crew because of their seafaring knowledge.<sup>74</sup> However, the new warlord-led Somali Marines continued to distribute a portion of stolen cargo and ransoms throughout the town, creating bonds of economic dependency with the fishermen it had now fully displaced.

The Afweyne model was emulated by Sheik Yusuf Indoahaadde, a warlord, businessman, and Governor of Lower Shabelle beginning in 2005 after the success

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<sup>69</sup> Stig Hansen, *Piracy in the Greater Gulf of Aden*, 23–25. Karl Sorenson, “State Failure on the High Seas,” Swedish Defense Research Agency (Stockholm, 2008), 18.; UN (2003a), *Report of the panel of Experts on Somalia Pursuant to Security Council Resolution 1425 (2002)*, (New York: United Nations, 2003), 27.

<sup>70</sup> Peter Lehr and et al, *Lloyd’s MIU Handbook of Maritime Security* (London: Lloyd’s MIU, 2009).

<sup>71</sup> Raymond Gilpin, *Counting the Costs of Somali Piracy*, Working Paper, Center for Sustainable Economies, US Institute for Peace (Washington D.C.: USIP, 2007), 4–5. An analysis of locations where attacks occurred using FAO and IMB data shows that with the exception of attacks within the vicinity of Mogadishu, most attacks that occurred south of Puntland were against fishing vessels, while most of the attacks against merchant vessels occurred near Puntland.

<sup>72</sup> James Kraska, “Freakonomics of Maritime Piracy,” *Brown Journal of World Affairs* 16, no. 2 (2010): 109–119.

<sup>73</sup> International Expert Group on Piracy off the Somali Coast, *Piracy off the Somali Coast, Recommendations* (Nairobi: United Nations, 2009), 18–19.

<sup>74</sup> Shashank Bengali, “An Interview with a Jailed Somali Pirate Leader.” 6-7; Donna Nincic, “Maritime Piracy in Africa,” *Africa Security Review* 18, no. 3 (2009): 1–16; Gary Weir, “Fish, Family, and Profit,” *Naval War College Review*, Summer 2009: 15, 18–20.

Afweyne found in the enabling environment following tsunami, who transformed the Marka Group, and warlord Mohamed Garaad, who began pirating ships in 2002, rose through the ranks of a pirate gang, and in 2005 as its leader adopted tactics similar to Afweyne's in the southern port city of Kismayo.<sup>75</sup> Thus, piracy was transformed by warlord entrepreneurship, in its organization, targets, tactics, and potential profitability beginning in 2003. Nevertheless, the incidence of piracy remained relatively low, with two attacks in 2003 and three in 2004, all successful attempts.<sup>76</sup> Potential profitability was finally realized only in the wake of the December 26, 2004 tsunami, which wreaked havoc along the Somali coast. Fishing communities and fishing boats were destroyed and targets of opportunity close to the coast increased as ships carrying tsunami relief supplies arrived, drawing a substantial number of people out of fishing and into piracy. Pirate attacks jumped to 35 in 2005. As the next chapter will demonstrate, the previous transformation of the piracy enterprise and the economic fallout of the tsunami combined to produce the dramatic growth in piracy that captured the world's attention after 2004.

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<sup>75</sup> International Expert Group on Piracy off the Somali Coast, *Piracy off the Somali Coast, Recommendations* (Nairobi: United Nations, 2009), 27. While details of when certain groups consolidated, the literature on the subject of pirate leaders agrees that piracy in its current form in Somalia was started by Afweyne.

<sup>76</sup> ICC International Maritime Bureau, "Piracy and Armed Robbery Against Ships," Annual, International Maritime Bureau, International Chamber of Commerce (Barking, 2007), 5.

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### III. FROM TSUNAMI TO 2009

The tsunami that struck the Indian Ocean on December 26, 2004, led to more than death and destruction along the Somali coast, as it rolled over beaches and fishing villages in the volatile Mudug region. The devastation caused the virtual collapse of the already weakened Somali fishing sector. Nearly 75% of all fishing gear was lost or destroyed, and hundreds of fishing vessels were destroyed or severely damaged.<sup>77</sup> At least 2,000 fishermen lost their livelihoods, and several fishing communities lost what few warehouses and cooling facilities had survived the war.<sup>78</sup> The tsunami added to the misery Somali fishermen were already experiencing due to IUU overexploitation of their fishing grounds, and a lack of appropriate equipment for developing their trade. This additional burden pushed an already fragile industry to the brink of collapse. This development converged with the increased organization, stronger networks, new targets, and increased profitability of pirate groups associated with warlord innovations, and a spike in targets of opportunity as tsunami relief supplies flowed into the region, to produce an unprecedented upsurge in piracy. This chapter attempts to separate the independent effects of the tsunami and the continuing evolution of the business model on the growth of piracy after 2004.

#### A. TSUNAMI

NGO and UN relief assessments discovered that IUU fishing had done great damage before the tsunami struck, making recovery from the tsunami much more difficult. Over a decade of IUU fishing had caused reduced yields, which led to the collapse of fishing co-operatives because of the reduced production.<sup>79</sup> As fishermen gave up on the fishing in the face of IUU competition and/or tried their hands at piracy,

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<sup>77</sup> Gonzalo Tello, *Fisheries Tsunami Emergency Program*, EOM Report, Food and Agriculture Organization, United Nations (Nairobi: FAO, 2005), 10.

<sup>78</sup> Daahir Burale, *FAO Post Tsunami Assessment Mission to Central and South Coast of Somalia*, Field Report, United Nations, Food and Agriculture Organization (UN, 2005), 2–4.

<sup>79</sup> *Ibid.*

professional knowledge fishery management had been reduced.<sup>80</sup> The large towns of Las Korey, Bosaso, Berbera, and the capital city of Mogadishu had cold storage and processing facilities that had been damaged during the war, but which had returned to some level of production as of 2003.<sup>81</sup> In smaller towns along the coast, however, only two cold storage facilities existed.<sup>82</sup> A severe shortage of functioning cold storage facilities meant that the fishermen who lived in outlying areas were dependent upon refrigerated trucks in order to bring their products to markets in the large cities or abroad to the Middle East.<sup>83</sup> Ice was delivered to remote villages for short-term storage of products sold locally.<sup>84</sup> The delivery of ice and transport of fish products was hindered by a road system that had suffered years of neglect in the absence of a state.

The tsunami damaged both of the remaining coastal cold storage facilities in the smaller towns on the coast.<sup>85</sup> Roadways to several villages in the Mudug and Nugaal regions in central Somalia were damaged or wiped out completely from the tsunami waves, limiting access to markets and cold storage in the larger towns, cold storage via refrigerated truck, and delivery of ice for short-term local storage.<sup>86</sup> As result, over 50% of fish (excluding lobster) caught in 2005 was wasted due to spoilage.<sup>87</sup> In addition, the tsunami destroyed nearly 25,000 nets and 3,700 traps—approximately three-quarters of all the fishing gear.<sup>88</sup> Fishermen also lost 480 boats, with a further 466 severely damaged: accounting for two-thirds of all fishing boats.<sup>89</sup> No reliable data is available for Somali fishery production after 2002, but FAO statistics show exports of fish and

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<sup>80</sup> Daahir Burale, *FAO Post Tsunami Assessment*, 3–7.

<sup>81</sup> FAO, *FAO Fishery Country Profile*.

<sup>82</sup> G.H. Musse, “Current Status of Marine Fisheries in Somalia.”

<sup>83</sup> FAO, *FAO Fishery Country Profile*.

<sup>84</sup> *Ibid.*

<sup>85</sup> *Ibid.*

<sup>86</sup> UNEP, “The State of the Environment in Somalia,” Environment Program, United Nations (Nairobi, 2005), 35–36.

<sup>87</sup> Burale, *FAO Post Tsunami Assessment*, 10.

<sup>88</sup> *Ibid.*, 15.

<sup>89</sup> *Ibid.*; G.H. Musse, “Current Status of Marine Fisheries in Somalia,” in *Assessment & Monitoring of Marine Systems*, 255–265 (Kuala Terengganu: University Putra Malaysia Terengganu, 1999).

lobster products dropped 25%, from 6,000 tons in 2004 to 4,500 tons, in 2005.<sup>90</sup> Catch rates per vessel dropped from 17 tons/day in 2004 to 7 tons/day for yellowfin tuna in 2005, due to the devastation of the fishery and fishing grounds as a result from the tsunami.<sup>91</sup> As a result, in 2006, tuna fishing vessels moved further off the Somali coast in search of more lucrative fishing grounds, because of the lack of tuna found in the normally lucrative fishing grounds.<sup>92</sup>

The UN put together a program to train fishermen and provide equipment and technical expertise aimed at rebuilding fishing communities.<sup>93</sup> Starting in April of 2005, the training and equipment was focused in areas where 50–70% of the fishing capacity had been damaged or destroyed. Funds from donor nations and agencies were used to purchase new fishing boats, nets, traps, and other gear. Improperly sized lobster nets and traps (which captured immature lobsters) that had been lost were replaced with properly sized ones.<sup>94</sup> Training, equipment, and rehabilitated processing facilities contributed to the partial recovery of fisheries, which increased exports from 4,500 tons in 2005 to 5,200 tons in 2006.<sup>95</sup>

Still, the loss of two-thirds of the fishing fleet and three-quarters of fishing gear put most fishermen out of business, at least temporarily. Many found their way into piracy, already a growth industry. Fishermen had always led pirate attacks using their knowledge of the sea.<sup>96</sup> Of the three crewmembers on a typical pirate skiff, at least one would be a fisherman. Some interviews with pirate groups suggest that ex-fishermen carried out attacks exclusively, with other activities being carried out by non-fishermen

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<sup>90</sup> Food and Agriculture Organization, *Fishery Trade Statistics*, 2010, [http://www.fao.org/fishery/countrysector/FI-CP\\_SO/4/en](http://www.fao.org/fishery/countrysector/FI-CP_SO/4/en) (accessed August 10, 2010).

<sup>91</sup> *Ibid*, 19.

<sup>92</sup> *Ibid*, 24.

<sup>93</sup> Gonzalo Tello, *Fisheries Tsunami Emergency Program*, 11–15.

<sup>94</sup> Daahir Burale, *FAO Post Tsunami Assessment Mission*, 8.

<sup>95</sup> Food and Agriculture Organization, *Fishery Trade Statistics*, 2010, [http://www.fao.org/fishery/countrysector/FI-CP\\_SO/4/en](http://www.fao.org/fishery/countrysector/FI-CP_SO/4/en) (accessed August 10, 2010).

<sup>96</sup> *Ibid*, 30.



pirates.<sup>97</sup> Anecdotal evidence suggests that the promise of reward lured new recruits from various occupations in 2005, but especially from the battered fishing industry. Estimates place the number of pirates at 1000 in early 2005, with up to 2500 more in the training pipeline, the majority of whom were either ex-fishermen or former Somali Navy.<sup>98</sup> Having heard of the massive ransoms being brought in by pirates, when fisherman Farah Ismail Eid found himself no longer able to provide for his wife and two children in 2005, he traded what fishing equipment he had left for AK-47s and RPGs.<sup>99</sup> Other pirates claim they also switched from fishing to piracy in 2005 because of the better opportunity it afforded them when they could no longer subsist on fishing due to a decline in catch.<sup>100</sup>

Containers of hazardous waste—uranium, nuclear material, heavy metals such as mercury and cadmium, along with lead—broke open when they were washed ashore by the tsunami, spilling their contents into the waters and onto the beaches.<sup>101</sup> UN studies ultimately suggested that the amount of hazardous waste spilled was relatively low,<sup>102</sup> but dumping of hazardous waste nevertheless became a new rallying call for pirates, who now claimed they were carrying out their activities to fight illegal fishing *and* hazardous waste dumping.<sup>103</sup> This justification allowed fishermen and others to deny that they were criminals—even *Time* magazine discussed the problem of toxic waste, agreeing that

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<sup>97</sup> Karl Sorenson, “State Failure on the High Seas,” Swedish Defense Research Agency (Stockholm, 2008), 19; Patrick Lennox, “Contemporary Piracy off the Horn of Africa,” 9; Jane’s, “Unholy high seas alliance,” *Jane’s Terrorism and Security Monitor*, October 31, 2009: Africa Section.

<sup>98</sup> Patrick Lennox, “Contemporary Piracy off the Horn of Africa,” 10–11; Jane’s, “Unholy high seas alliance,” Africa Section.

<sup>99</sup> Shashank Bengali, “An Interview with a Jailed Somali Pirate Leader:” 6–7.

<sup>100</sup> Mustafa Haji Abdirur, “Life in Somalia’s Pirate Army,” *Agence France-Presse*, April 30, 2009: 1–5.

<sup>101</sup> United Nations, “Tsunami - Somalia,” Environmental Protection, United Nations (New York, 2005), 135.

<sup>102</sup> UNEP, “The State of the Environment in Somalia,” Environment Program, United Nations (Nairobi, 2005), 48.

<sup>103</sup> Jeffrey Gettleman, *Somali Pirates Tell Their Side: They Want Only Money*, October 01, 2008, [http://www.nytimes.com/2008/10/01/world/africa/01pirates.html?\\_r=1](http://www.nytimes.com/2008/10/01/world/africa/01pirates.html?_r=1) (accessed June 10, 2010); Abdulkarim Jimale, *An Interview With Somali Pirate, Unraveling The Piracy Career Story*, June 23, 2010, [http://beforeitsnews.com/story/84/638/An\\_Interview\\_With\\_Somali\\_Pirate,\\_Unraveling\\_the\\_Piracy\\_Career\\_Story.html](http://beforeitsnews.com/story/84/638/An_Interview_With_Somali_Pirate,_Unraveling_the_Piracy_Career_Story.html) (accessed July 28, 2010).

something should be done to stop the dumping.<sup>104</sup> It is difficult to ascertain whether or not this had a direct impact on the level of piracy, though anecdotal evidence from pirates shows that this often-cited reason for piracy may have in fact added to the draw toward piracy for some, and legitimized the activity for others.<sup>105</sup>

Finally, the tsunami exacerbated the ongoing food shortage, leading to an increase in World Food Program (WFP) aid shipments, 80–90% of which were delivered by cargo ship.<sup>106</sup> These vessels increased the overall level of shipping traffic in the region and bore higher than average risk of pirate attack as they sailed close to the coast approaching ports. The *M/V Semlow* was hijacked in June 2005 and the *M/V Miltow* in October 2005.<sup>107</sup> These WFP hijackings were part of two surges in successful hijackings overall, in June and November.<sup>108</sup> IMB and foreign policy think tanks estimate that until 2008 the average ransom per vessel was \$1M.<sup>109</sup> In total, 22 vessels were captured and held for ransom in 2005, increasing the income of the pirates and allowing them to expand their enterprises further (Table 2).<sup>110</sup>

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<sup>104</sup> Ishaan Sharoor, “How Somalia’s Fishermen Became Pirates,” *Time Magazine*, April 8, 2009, <http://www.time.com/time/world/article/0,8599,1892376,00.html> (accessed August 29, 2010).

<sup>105</sup> Abdulkarim Jimale, Joseph Clark, *East African Piracy*, Homeland Security Policy Institute, George Washington University (Washington, D.C.: GWU, 2009), 6.

<sup>106</sup> Patrick Lennox, “Contemporary Piracy off the Horn of Africa,” 8.

<sup>107</sup> Donna Nincic, 10–11; World Food Programme, *News*, October 15, 2005, <http://www.wfp.org/news/news-release/wfp-welcomes-release-second-food-aid-ship-hijacked-somalia> (accessed July 19, 2010).

<sup>108</sup> International Maritime Organization, *Reports on Acts of Piracy and Armed Robbery At Sea*, Annual (London: IMO, 2006), Annex 3.

<sup>109</sup> International Chamber of Commerce, *IMB Piracy Reporting Centre*, <http://www.icc-ccs.org/> (accessed August 10, 2010); Bridget Coggins, “The Pirate Den,” *Foreign Policy*, no. 180 (July/August 2010): 86–87; Patrick Lennox, “Contemporary Piracy off the Horn of Africa,” 3.

<sup>110</sup> Raymond Gilpin, *Counting the Costs of Somali Piracy*, Working Paper, Center for Sustainable Economies, US Institute for Peace (Washington D.C.: USIP, 2007), 10–11; James Kraska, “Freakonomics of Maritime Piracy,” *Brown Journal of World Affairs* 16, no. 2 (Spring/Summer 2010): 116.

Table 2. Estimated ransom amounts per year.<sup>111</sup>

	2004	2005	2006	2007	2008
Ransom	\$3M	\$22M	\$6M	\$12M	\$100M

By 2005, shipping companies were already avoiding the Somali coast due to the increasing violence at sea. The WFP shipped 32,000 tons/month of food aid into Somalia in 2005, which brought 80–100 additional, slow moving vessels/year, through 2008, along the coastline of Somalia.<sup>112</sup> This created a target rich environment, increasing the success rate of pirate attacks (Figure 3).<sup>113</sup> The success rate jumped from about 25% in 2004 to 50% in 2005, before dropping off in 2006. This in turn led to larger amounts of money being taken in by individual pirates, and an increased supply of them.

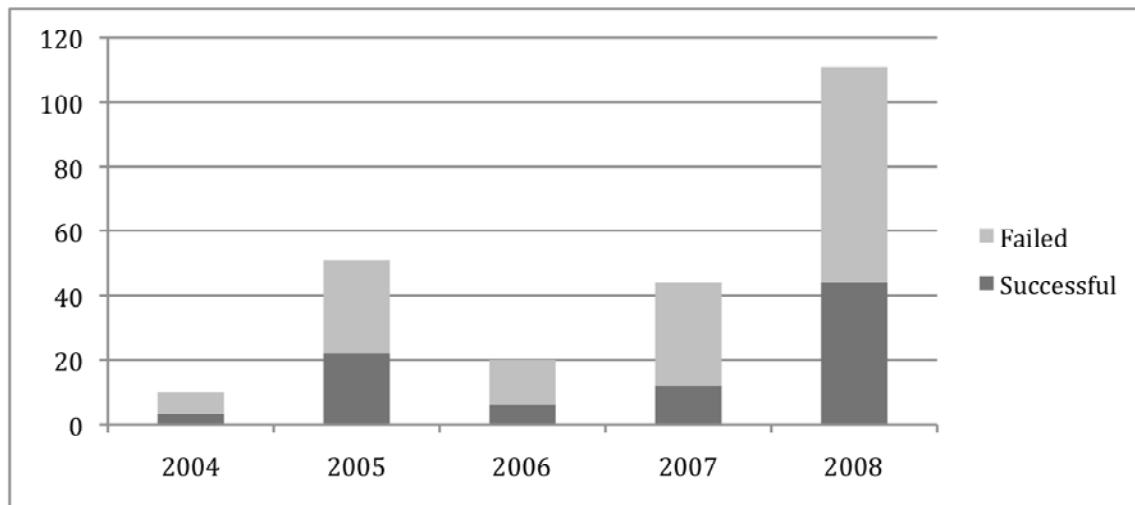


Figure 3. Number of successful and failed attacks, 2004–2008.<sup>114</sup>

<sup>111</sup> Data gathered from open source search of piracy attacks and reported ransoms paid. Strategy Page, *Sea Transportation Article Index*, <http://www.strategypage.com/htm/htseamo/default.aspx> (accessed August 10, 2010); International Chamber of Commerce, *IMB Piracy Reporting Centre*, <http://www.icc-ccs.org/> (accessed August 10, 2010).

<sup>112</sup> World Food Program, *Shipping*, 2010, <http://logistics.wfp.org/logistic-services/shipping> (accessed August 10, 2010).

<sup>113</sup> Donna Nincic, “Maritime Piracy in Africa”: 11.

<sup>114</sup> Adapted from IMO circular data (<http://www.imo.org/circulars>)

## B. BUSINESS MODEL

Reinvestment of profits from piracy attacks in 2005 and later went to import new outboard motors and boats, further increasing the size and effectiveness of the operations.<sup>115</sup> Outboard motors allowed pirates to catch up to vessels during an attack. Somali fishermen generally operate with 15–30 horsepower motors.<sup>116</sup> Pirate skiffs required engines with 60–100 horsepower to catch a commercial fishing or merchant vessel.<sup>117</sup> Pirate leader Farah Ismail Eid reports that after several failed attacks with three boats he was responsible for he purchased more powerful engines from Dubai, with which he had more success.<sup>118</sup>

However, there was a sharp reduction in piracy in 2006 (to 10 attacks) as a result of the rise of the Islamic Courts Union (ICU), which established control over most of Somalia in June 2006, cracking down on piracy and forcing warlords and their militia to disband.<sup>119</sup> With return of the rule of law on land, including amputation as a punishment for theft (including piracy), pirated vessels could not be brought near shore and supplied, and hostages could not be held onshore.<sup>120</sup> Despite the sophistication of the business model, the imposition of rule of law, even by the very weak short-lived state the ICU created, stopped it cold. Fortunately, for the pirates, the rule of law collapsed when the Ethiopian army displaced the ICU in early 2007, and they went right back to business.

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<sup>115</sup> Sara Percy and Anja Shortland, *The Business of Piracy in Somalia*, Discussion Paper, DIW Berlin (Berlin: DIW, 2010), 25.

<sup>116</sup> Daahir Burale, *FAO Post Tsunami Assessment*, 16; G.H. Musse, “Current Status of Marine Fisheries in Somalia,” in *Assessment & Monitoring of Marine Systems*, 255–265 (Kuala Terengganu: University Putra Malaysia Terengganu, 1999); Gonzalo Tello, *Fisheries Tsunami Emergency Program*, EOM Report, Food and Agriculture Organization, United Nations (Nairobi: FAO, 2005), 30.

<sup>117</sup> International Expert Group on Piracy off the Somali Coast, *Piracy off the Somali Coast, Recommendations* (Nairobi: United Nations, 2009), 18; Robert Middleton, *Piracy In Somalia*, Briefing, Chatham House, Royal Institute of International Affairs (London: Chatham House, 2008), 7. Sara Percy and Anja Shortland, *The Business of Piracy in Somalia*, 25.

<sup>118</sup> Shashank Bengali, “An Interview with a Jailed Somali Pirate Leader”: 7.

<sup>119</sup> International Maritime Organization, “IMO Assembly calls for action on piracy off Somalia,” *Newsroom*, November 24, 2005; International Maritime Organization, *Reports on Acts of Piracy and Armed Robbery at Sea*, Annual, (London: IMO, 2007), Annex 4, 2; Patrick Lennox, “Contemporary Piracy off the Horn of Africa,” Canadian Defence and Foreign Affairs Institute (Calgary, 2008), 4. Data on piracy do not differentiate between Somalia and Puntland (which the ICU did not control) in 2006.

<sup>120</sup> Sara Percy and Anja Shortland, *The Business of Piracy in Somalia*; Sarah Percy and Anja Shortland, *The Pirates of Somalia*, 4; *Ibid*, 12–13.

Between April 2007 and the end of 2008 there were 111 attacks (Figure 3). New, smaller pirate organizations, born from legitimate fishing businesses, emerged around 2008, suggesting that piracy was now more profitable at the enterprise level than fishing.<sup>121</sup> Pirates had a banner year in 2008, reportedly taking in \$100M in ransom.

In November 2005, the IMO had established a 200-nautical-mile avoidance range, which might have had some effect on the level of piracy after the fall of the ICU but for new developments in the business model. By 2006, attacks were carried out using radio and satellite phone communication, launched from mother ships with enough weapons, fuel, and water for several months of activity at sea.<sup>122</sup> Handheld GPS and portable satellite phones enabled pirates to coordinate attacks with mother ships operating at great distances, acting like wolf packs.<sup>123</sup> Automated Identification System (AIS) technology was adopted to aid the search for targets, allowing pirates to move beyond simply lying in wait. By the end of 2005, most commercial vessels were required to carry AIS, which transmitted the vessel's position, course, and speed via VHF signal to any AIS receiver 12 to 70 miles away.<sup>124</sup> With AIS receivers, which became cheaper and smaller in 2005, pirates were able to hone in on targets and conduct attacks farther out at sea. Instead of having to lie in wait, hoping for a vessel to come by, pirates were now able to home in on specific vessels from great distances. Even naval escorts were unable to deter all pirate attacks. Naval escorts for WFP shipments started at the end of 2007, after three WFP aid ships had been attacked, with two of them being hijacked.<sup>125</sup> Despite this escort, two

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<sup>121</sup> Stig Hansen, *Piracy in the Greater Gulf of Aden*, 34.

<sup>122</sup> Sarah Percy and Anja Shortland, *The Pirates of Somalia*, Working Paper 09-42, Department of Economics and Finance, Brunel University West London (London: Brunel, 2009), 4.

<sup>123</sup> Michael Ryan, "The Origins and Challenges of Somali Piracy," Thesis, Royal Canadian Mounted Police (2010), 8–10.

<sup>124</sup> U.S. Coast Guard, *AIS Carriage Requirements*, <http://www.navcen.uscg.gov/?pageName=AISCarriageReqmts> (accessed July 11, 2010).

<sup>125</sup> U.S. Coast Guard, *AIS Carriage Requirements*, 2010.

were attacked at sea in 2008 and three in 2009, including the *Maersk Alabama*, attacked 240 miles from the Somali coast.<sup>126</sup> Other high-profile hijackings far out at sea include the *M/V Faina*, carrying Russian T-72 tanks, captured 300 miles from the Somali coast and the *M/V Sirius Star*, a 900-foot long very large crude carrier, captured 400 miles from Somalia.<sup>127</sup>

The convergence of the evolving business of piracy and the December 2004 tsunami led to a dramatic increase in not only the incidence of piracy, but also the success. Fishermen were largely put out of business by having three-quarters of their gear destroyed in the tsunami, causing them to search for new avenues of income. This loss of economic opportunity led many ex-fishermen to join pirate gangs, or support piracy indirectly via their knowledge of the sea. The destruction brought by the tsunami also brought many WFP ships close to the shores of Somalia, when so many other ships tried to stay away. An additional 80 to 100 vessels in a constrained space allowed for more targets. Without the tsunami, it is likely that the business model of piracy would have continued to increase, and successes would have been seen in 2005–2008, but it is hard to discount contributions like the 2500 ex-fishermen reported to have joined the pirate gangs in 2005, due to a lack of fishing driving them away from their traditional jobs. Perhaps they would have eventually shifted to piracy, as some lobster fishermen did in 2008, but in 2005 there would have been no other visible reason to push large amounts of fishermen into piracy. Piracy increased in 2005 in large part because of the increase in targets and the increase in ex-fishermen pirates. These factors interacted with the continuation of the pirate business model and the later transformation of piracy to create an increase in attacks in 2005 and again in 2008.

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<sup>126</sup> International Maritime Bureau, *Piracy and Armed Robbery Against Ships*, Annual, ICC (Barking: ICC, 2009), 7–15.

<sup>127</sup> *Ibid.*

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## IV. CONCLUSION

What accounts for the low level of piracy in the first 15 years of state collapse, and its rapid rise thereafter? As this thesis has shown, a transformation of the pirate business model from fishermen, who started to defend their territorial waters themselves, to the organized crime that displaced them 15 years later, occurred in 2004 due to the opportunistic behavior of warlords who had the proper financing and ability to operationalize the fledgling pirate gangs. This did not happen in 1994, because piracy was still in its infancy stages, with attacks being carried out by loose groups of disgruntled fishermen. The tsunami that occurred in December 2004 helped to fuel the trend of increasing success that was created by the warlords moving into piracy in 2003–2004. This is important in resolving the debate between those who claim the impoverished fishermen should be the target population for combating piracy and those who argue that the fishermen have nothing to do with piracy and therefore should not be taken into account.

The shift of piracy from loosely organized groups of ex-fishermen to more organized pirate gangs was driven by a shift in motives, as piracy began to be strictly about money. Warlords in Somalia were too busy with other moneymaking schemes, such as the banana trade and profiting from fishing licenses, to be concerned with moving into the market until 2002–2003, when those sources of profit dried up. The shift in 1996 to holding merchant ships ransom was pivotal in bringing piracy to the attention of warlords such as Afweyne. The shift of piracy toward more organized groups also gave warlords a loosely formed organization to co-opt; versus the unstructured robbery-at-sea that took place in the early to mid 1990s. That condition, coupled with the increasing success of pirates in extracting ransoms when the shift in targets held from ransom from fishing vessels to merchant vessels led warlord Mohamed Abdi Hassan “Afweyne” to move into the business of piracy. Afweyne provided a business expertise that included the acquisition of better equipment, faster motors, and better-trained pirates from Puntland, which flourished in the stateless environment of Somalia. Other powerful warlords and strongmen of Somalia because of its demonstrated success emulated the Afweyne model. The warlords and their financiers, who were businessmen, became a



driver of the increase in piracy around 2005, which is often overlooked because the temporary suppression by the ICU, and the delay associated with bringing new equipment and technology online, meant that piracy did not really take off until 2008. Focusing on the 2008 increase in pirate attacks misses the *how* and *why* of the transition. This understanding of how the transition occurred is important for understanding how to disrupt piracy and pirate networks. Understanding why and how it shifted to a model more like organized crime impacts the tactics that should be employed to work against piracy. Fishery regulations and enforcement along will no longer work as a method to combat piracy, because of its criminal nature. Simple steps such as safeguarding vessel cargo manifests and transit routes can be effective in the fight against piracy.

However, the December 2004 tsunami also played a critical role in the emergence of this piracy as a (criminal) business enterprise. The evidence shows that the tsunami had short-term effects in 2005 that were enough to provide a critical boost to the evolving business of piracy. By providing a larger pool of knowledgeable seamen to carry out attacks on ships and bringing WFP ships close to the Somali coast, the tsunami led to more success in 2005 than ever seen before. Capturing larger merchant vessels with expensive cargoes led to increased ransom payments, which further bolstered the ability of pirates to reach far out to sea in numerous locations by purchasing better equipment. The overall effect of this was to draw more financing and more pirates. Without the 2005 spike, and especially the high success rate that was never repeated, the post-Afweyne investors may not have seen the business as profitable, and not invested as heavily in it as has been experienced in the past several years. Thus, the virtual collapse of Somali fishing accelerated the already increasing dominance of piracy in the waters off Somalia. While the business model of piracy had already crafted the requisite model for training and structure, it lacked the support from the populace and lacked the enabling environment to flourish. The conditions created following the tsunami enabled both to exist, which supported the rise of piracy. Absent a tsunami, there would have still been a rise in piracy, though most likely not as steep an incline as there was from 2004–2005. Among the factors that pushed piracy in Somalia was the plight of the fishermen. This was temporary, but nevertheless it changed everything about piracy. While there may be

some residual effect of piracy in providing a more plentiful fishery, the belief that fishermen themselves can improve the conditions may help to both put negative pressure on the pirates and stem the flow of fishermen transferring into the pirate trade. Improving processing techniques and access to markets will benefit the local economies. Regenerating the fishing co-operatives that existed prior to the civil war, along with better access to markets, will reduce overheads and increase earnings. The UN consultants that investigated the communities following the tsunami also believed that there was greater potential for fish products in the domestic markets.<sup>128</sup> International NGOs must play a role in the redevelopment of the coastal villages in Somalia, due to the extreme distrust that exists between local NGOs and clan leaders along the coast.

Local initiatives carried out properly can lead to an improved employment environment for young Somali men from coastal towns. Somalia's unemployment rate tops 50%, which includes two-thirds of all young males. While a job that pays a self-sufficient wage will certainly not compete monetarily with the profits that drew young males to piracy in 2005, it has the prospects of being more stable, and therefore more promising in the long term. In conjunction with law enforcement and an international naval presence designed to make the costs of piracy outweigh the benefits, a step toward a reduction in piracy can be made. Strengthening local institutions and markets can help to stabilize the coastal economy in Somalia, which will provide jobs for young Somalis.

When looking for a solution to piracy off Somalia, it must be remembered that piracy emerged out of massive exploitation of the fisheries by foreign IUU fishing vessels, which created economic hardships among the fishing communities. Local fishermen on the grounds of IUU fishing and the dumping of toxic waste legitimized piracy. The potential exists to combat piracy through undercutting that legitimization by eliminating IUU fishing and the dumping of toxic waste. This, however, assumes that the ideological legitimization is more important than the cash being distributed to the people in the fishing communities. Therefore, joining this de-legitimization with strong enforcement at sea may impact the drive toward piracy.

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<sup>128</sup> Daahir Burale, *FAO Post Tsunami Assessment Mission to Central and South Coast of Somalia*, Field Report, United Nations, Food and Agriculture Organization (UN, 2005), 23.

Among the factors that facilitate piracy in Somalia, the most significant one is the lack of a functioning state ashore. It is, however, unrealistic to believe that the international community has either the political capital or the financial capital to rebuild the Somali state. A top-down approach would be costly and require much more time than the international community is willing to spend. A much more realistic method would be a combination of the top-down and bottom-up stabilization methods. A “building block” approach, wherein several microstates are created with the end goal of unification, has promise. The weak state that the ICU created was able to enforce laws against piracy and successfully joined that enforcement with military attacks against pirate strongholds along the coast. The dramatic decline in piracy in Somalia during the reign of the ICU shows promise for a shore-based method of stopping piracy, though it would be more difficult today, with current Islamic radicals in the pirate strongholds supporting rather than suppressing piracy. While it is accepted that piracy is far from being an enterprise undertaken solely by fishermen, it was interesting to note that during the rule of the ICU, coinciding with the decline in piracy, fishing productivity in Somalia increased. More research would be needed to determine whether fishing picked up due to a reduction in piracy, or if the ICU and the UN projects to rebuild the fishery worked in tandem to drive low-level pirates from piracy back to fishing.

By both providing hope for employment and an effective deterrent from piracy, the ever-increasing trend in piracy can be reduced. Targeting the population of fishermen can work to reduce the pool of available skilled mariners to the pirate leaders. The early stages of piracy, carried out by fishermen, did not include ransoms and did not include capturing merchant vessels. It is plausible that the early generation of pirates was more interested in protecting the fishing grounds and making a living as they knew how. The 2004–2005 shifts of fishermen into piracy appear to have been affected by the ability of fishermen to earn a living wage for themselves and their families. Those who were driven by a desire to earn vast riches by piracy can be dissuaded from such activity by making it extremely prohibitive and dangerous. This thesis has shown that both avenues of approach are needed to combat piracy.

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