ROUGH SEAS

THE CAUSES and CONSEQUENCES of FISHERIES CONFLICT IN SOMALI WATERS

one earth FUTURE Peace Through Governance



This page intentionally left blank

ROUGH SEAS: THE CAUSES and CONSEQUENCES of FISHERIES CONFLICT IN SOMALI WATERS

Colleen Devlin Sarah M. Glaser Ciera Villegas Natasia Poinsatte

January 2020

http://dx.doi.org/10.18289/OEF.2020.042 Cover Image: Two fishers prepare their boat for a night of fishing at a port in Bossaso, Puntland. Photo: Tobin Jones, United Nations.

Design & layout by Liz Allen, One Earth Future.

This page intentionally left blank

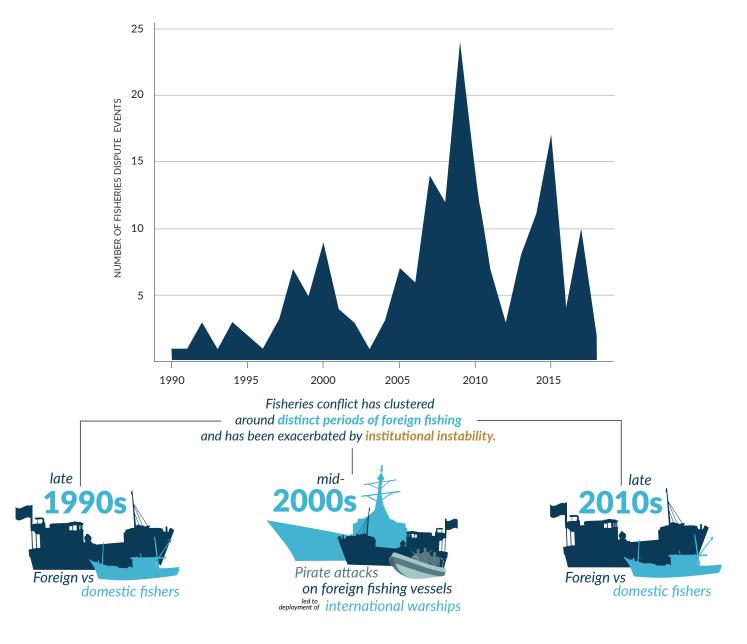
TABLE OF CONTENTS

EX	EXECUTIVE SUMMARY iv		
I.	INTRODUCTION	01	
II.	THE SOMALI REGION	02	
	Civil Conflict in the Somali Region	02	
	Fisheries in the Somali Region	03	
III.	RESEARCH APPROACH	06	
IV.	RESULTS	08	
V.	CONCLUSIONS	16	
EN	DNOTES	19	

EXECUTIVE SUMMARY

In the Somali region, as in a growing number of places around the world, the stability of fisheries and the maritime domain more broadly are critically linked to the economic and physical security of the Somali people. As Somali waters are the gateway between the Indian Ocean and the Red and Mediterranean seas, smooth passage facilitates maritime economic commerce on a global scale. Likewise, the nutrient-rich waters around the Horn of Africa support domestic and foreign fishing fleets that harvest tens of thousands of tons of valuable fish every year. However, low capacity for enforcement of maritime laws since the civil war began in 1991 has enabled illegal fishing while undermining domestic maritime domain awareness.

Here, we investigated conflict in Somali waters in order to add to the limited but growing understanding of the factors contributing to or mitigating conflict over fisheries resources. In particular, we assessed the actors in and motivations driving fisheries conflict in the Somali region. To do so, we collected and analyzed reports in the media of fisheries conflict in Somali waters from 1990–2018. We found three distinct periods of conflict with different defining characteristics: conflict between domestic and foreign fishers (1998–2000), conflict driven by piracy in Somali waters (2007–2010), and conflict resulting from the return of foreign fishing fleets (2014–2015).



In the Somali region, fisheries conflict emerged from unmanaged competition over fish stocks and was exacerbated by institutional instability within the Somali fishing sector. We found five significant causes of fisheries conflict: the presence of foreign fishers (whether illegal or legal), territorial disputes, illegal fishing, weak governance, and piracy. Contrary to the causes of many other fisheries conflicts around the world, declines in fish stocks was not a leading cause of conflict in Somali waters.



The Federal Government of Somalia has taken important steps towards strengthening fisheries governance and thereby reducing institutional instability. For example, they recently formally declared the boundaries of their exclusive economic zone (EEZ), joined international management efforts through the Indian Ocean Tuna Commission, provided online transparency about recent licensing of Chinese fishing vessels, and are spearheading collaborative efforts to collect fisheries catch data across the region.

Our findings have several important implications for the continued development of fisheries governance in Somali waters.

- First, weak governance can be enhanced by strong cooperation between federal and state authorities, but, more importantly, by INCREASING THE RESOURCES AVAILABLE TO FEDERAL AND STATE MINISTRIES OF FISHERIES for technical and institutional capacity.
- Second, the laws and regulations governing fisheries resources need to be developed more fully with the PARTICIPATION
 OF FISHING COMMUNITIES. At the local level, fishing communities should be integrated into the fisheries management
 process. Community-driven natural resources management partnerships present an opportunity to build both management
 capacity and government legitimacy.
- Third, the transparency around legal licensing of foreign fishing vessels should continue and be supplemented by outreach to and engagement with fishing communities about the process. GREATER INFORMATION-SHARING ABOUT LEGAL FOREIGN FISHING MAY REDUCE CONFLICT between domestic and foreign fishing vessels.
- And fourth, THE INTERNATIONAL COMMUNITY MUST TAKE GREATER RESPONSIBILITY FOR STOPPING ILLEGAL FISHING BY GLOBAL FLEETS IN SOMALI WATERS in order to support the nascent but growing Somali fisheries sector. Given that the presence of foreign vessels is the most significant cause of fisheries conflict at this time, it is incumbent upon the nations responsible to track and report upon their own vessels while also removing vessels that are fishing illegally in Somali waters.

This page intentionally left blank

I. INTRODUCTION

On December 11, 2018, the Federal Republic of Somalia issued legal fishing licenses to foreign vessels for the first time in over 20 years. Thirty-one Chinese longline fishing vessels acquired one year of legal access to tuna, sharks, and billfishes in the Somali Exclusive Economic Zone (EEZ), a region with abundant and valuable fish stocks. In exchange, the Somali government earned over \$1 million in license revenue that could be reinvested into the domestic fishing sector. According to Somalia's Fisheries Law No. 23, updated in 2014, licensed foreign vessels may only operate outside 24 kilometers from the coastline; this provision is intended to protect small-scale domestic fishers from interference and competition.¹ Foreign boats must also declare to the government their positions and the weight and types of fish they catch.² All licensed vessels are monitored using an automatic tracking system, and there have been no reports of the 31 newly licensed vessels breaking the boundary rules or clashing with domestic fishers. Despite the improvements to fisheries governance and management that a legal licensing mechanism for foreign fishing provides, segments of the Somali public protested the licensing of Chinese fishing vessels, highlighting the contentious history of foreign fishers in Somali waters. Decades of violent interactions between Somali boats and foreign fishing boats, the looming threats of overfishing and habitat damage from industrial vessels, and the legacy of piracy have entrenched hostility to foreign fishing boats. This report investigates how the Somali fishing sector arrived at this point.

Following the outset of the Somali civil war in 1991, foreign fishers began taking advantage of the anarchy in the region by illegally fishing in Somali waters. Some Somali opposition groups, such as the Somali Salvation Democratic Front (SSDF), began "arresting" these vessels. In 1996, reports surfaced of Somali fishers' arming themselves and fighting against illegal, unreported, and unregulated (IUU) foreign vessels. The increased presence of foreign trawlers (vessels that drag large nets along the seafloor) led to more clashes and harassment. Organized civilian groups like the "National Volunteer Group" in Jubaland³ and the "Defenders of Somali Territorial Waters" in Galmudug⁴ patrolled to defend Somali maritime resources. Tension grew between local Somalis and organized pirate groups, increasingly controlled by warlords driven by ransom opportunities.⁵ Opportunists' quests for profit drove piracy to grow beyond something the Somali region could extinguish alone.⁶ The Somali government's plea for assistance brought foreign naval warship coalitions into the region.⁷ The naval vessels were also a response to foreign governments' concerns with the attacks on cargo vessels, a significant threat to global commerce. Somali fishers alleged that the harassment they endured multiplied with the arrival of foreign warships, who denied locals access to fishing grounds, sabotaged nets, and confused their vessels for pirates'.⁸ Many fishers decided to remain close to their beaches to not fall victim to mistaken identity.⁹ Finally, the new practice of bringing private contracted armed security personnel (PCASP) aboard foreign boats of all kinds served to increase tensions (see **Box 4**).



EU Naval Force French frigate Surcouf and NATO warship USS Halyburton apprehending twelve people, alleged to be pirates, off the Somali coast in 2013. Photo: EU Naval Force.

As warships and PCASP quelled the threat, the cost of carrying out pirate attacks increased. This deterred the armed robbery and hijackings, but an unintended consequence was renewed foreign illegal fishing in Somali waters. In 2015, 86 percent of fishers reported seeing foreign fishing vessels near their coastal village.¹⁰ In 2016, fishers voiced frustrations over stolen gear, the kidnapping of local fishers, toxic pollution, and terrorizing of locals.¹¹ A drought in 2017 drove Somali food prices up and increased domestic dependence on fishing, but illegal vessels had already severely impacted the health of Somali fisheries.¹²

While the causes and consequences of piracy in Somali waters are well known, the role of fishing in perpetuating (or even reducing) conflict in and around the Horn of Africa is less understood. Today, the domestic fishing sector is still wary of large, foreign boats in their waters. The small, artisanal vessels are unable to compete with the powerful, better-equipped foreign vessels, and communities are frustrated by inconsistent and—sometimes—corrupt licensing. Local fishers lack understanding of how central and local fisheries management might work, undermining the legitimacy of government policies and enforcement capacities.¹³ Neither the Somali Federal Government nor its federal member states have sufficient naval or coast guard capacity to patrol their massive EEZ.¹⁴ There is a concern that even licensed foreign boats may further deplete stocks, which are already targeted by illegal vessels.¹⁵

While the causes and consequences of piracy in Somali waters are well known, the role of fishing in perpetuating (or even reducing) conflict in and around the Horn of Africa is less understood. To inform mitigation strategies for future fisheries conflict, we investigated the key actors and drivers involved in fisheries conflict in Somali waters and the patterns that emerge. Fisheries conflict is a complex, underreported, and under-investigated issue—most conflict occurs at the local level and affects marginalized communities. The salience of this issue will grow as competition for finite fisheries resources and the attendant risk of violent conflict also rise. Globally, fisheries are the primary source of protein for 1.5 billion people. This sizeable population is at risk of food insecurity, loss of livelihood, and heightened violent conflict if fish stocks collapse. To prevent this, we aim to understand what situations lead to violence over fisheries, and how we can best prevent that violence from occurring.

II. THE SOMALI REGION

Civil Conflict in the Somali Region

The Somali region, at a strategic location connecting Africa, the Middle East, and Asia, was under colonial rule from the 1880s to the 1950s. Northern Somalia was colonized by Great Britain in 1887 and southern Somalia by Italy in 1889. Following the merger of the British and Italian territories, the independent United Republic of Somalia was formed in 1960 and lasted until 1969, when Somalia's second president was assassinated. At this time, Mohammed Siad Barre, the major general of the Somali army, assumed power in a coup that overthrew the Somali Republic to form the Somali Democratic Republic, a socialist state aligned with the former Soviet Union. Siad Barre was ousted by a rebellion in January 1991, marking the beginning of the Somali civil war.

From 1991 to 2006, the Somali region was without a recognized central government as clan-based militia groups fought for power. This period of anarchy and violence was ruinous to Somali infrastructure and security resources. Former British Somaliland declared independence as the Republic of Somaliland in 1991. In 1998, the Puntland region declared itself an autonomous state. Meanwhile, the central and southern parts of the country divided into competing factions. In 2006, the Transitional Federal Government (TFG) that had been operating from Kenya convened its first parliament in the Somali region, but the Islamic Courts Union (ICU), an Islamic group of sharia courts in opposition to the TFG, soon seized control of Mogadishu and most of the southern regions. The ICU brought a significant degree of lawfulness to a lawless state, garnering public support for the security



that the courts' infrastructure provided.¹⁶ In early 2007, an internationally supported Ethiopian intervention defeated the ICU, at which point it splintered into militant groups to continue their fight against the TFG. One of these groups became Al Shabaab, a jihadist extremist group that aligned with al-Qaeda in 2010. These Islamist groups maintain a presence today and continue to pose a threat to national stability.

The establishment of the Federal Government of Somalia occurred in 2012, upon the conclusion of the TFG mandate. The Federal Government of Somalia (FGS) provided Somalis with formal international representation for the first time in over two decades. Because there had not been a permanent central government since the beginning of the Somali civil war in 1991, however, other self-governing authorities predated the FGS. Somaliland, though it declared itself an independent republic in 1991, is considered by the FGS and international bodies as an autonomous region of the Federal Republic of Somalia. Puntland has considered itself an autonomous state since 1998. These conflicting jurisdictions have led to legislative confusion and tension in the fishing sector.

Fisheries in the Somali Region

In 2014, the FGS declared an EEZ according to the United Nations Convention on the Law of the Sea (200 NM from shore). At 3,333 km in length, the Somali region has the longest coastline in mainland Africa.¹⁷ The 2014 declaration made the Somali government responsible for surveilling fisheries practices over 0.78 million square km¹⁸ (an area 0.15 million sq. km larger than the Somali region's land territory¹⁹)—a daunting task for any government. The productive fishing grounds on the region's continental shelf exacerbate this challenge. Sharing the Gulf of Aden in the north with Djibouti and Yemen, and the Arabian Sea and the Indian Ocean to the east, productive Somali waters attract fishing fleets from all over the world.

In Somali waters, rampant IUU fishing is driving overfishing of stocks while depriving the Somali government of millions of dollars of revenue it might otherwise gain through licensing.

In the 1980s, fishing cooperatives were established and financially supported by the Soviet Union, but many of them stalled after the Somali civil war began in 1991. The fishing sector lost any support it was receiving from the central government, including maritime managers and enforcers, during the three decades of civil conflict. Any law enforcement capacity that the Somali region did have was unable to match the number of foreign vessels fishing in its vast maritime territory. Private companies began exploiting the market space left open by the government, prompting IUU fishing by foreign vessels to become the most significant concern for Somali fisheries management.²⁰ IUU fishing is any fishing that violates the law, is not reported to legal and scientific authorities, or occurs in parts of the ocean not subject to fisheries management or regulations. In Somali waters, rampant IUU fishing is driving overfishing of stocks while depriving the Somali government of millions of dollars of revenue it might otherwise gain through licensing.²¹ Overfishing not only negatively impacts marine ecosystems; it also threatens coastal livelihoods in communities that cannot compete with foreign vessels' efficient gear.



Photo: Jean-Pierre Larroque, One Earth Future.

In Somali waters, foreign fishing vessels typically are of two kinds: those fishing for highly migratory species (HMS) and those fishing for coastal pelagic or bottom-dwelling species.²² HMS vessels are large, industrial longline or purse seiners from European and Asian distant water fleets or smaller gillnet vessels from Yemen or Iran (see Box 1). Industrial trawlers and coastal dhows using gillnets predominantly seek the small pelagic fishes like sardines, demersal fishes like groupers, and invertebrates like shrimp. These vessels come from countries across the globe, such as South Korea, Egypt, Greece, and Kenya.²³ Before the buildup of piracy in Somali waters, foreign fleets took advantage of the region's lack of governance over its maritime space to fish throughout Somali waters without licenses and without benefit to Somalis. Foreign fleets decreased their presence in Somali waters following the rise of piracy in the region in the mid-2000s, but many distant water fleets returned to Somali waters once piracy began to decline in 2014. In 2015, there were reports of vessels returning from Iran, South Korea, and China following the improved maritime security situation.²⁴ Iran, Egypt, and Yemen (Box 2) were accused most commonly of overfishing and destructive bottom trawling in Puntland in 2016.²⁵

BOX 1. FISHING GEAR TYPES AND IMPACTS

	Description:	Environmental Impact:
PURSE SEINE	A long wall of netting that surrounds the target species. The bottom of the net has a purse line that, when pulled, closes to prevent fish from swimming downward—a natural response of fish to danger. Purse seines target high-value, highly migratory species in the deep sea, like sharks and schooling tunas.	Purse seining can result in bycatch.** The degree of bycatch depends on how tightly the target species swim, or school, together and whether a fishing vessel sets the net on non- target indicator marine life. This high- efficiency gear, if mismanaged, can also put too much pressure on fish stocks.
LONGLINE	A long mainline that has shorter branch lines, or snoods, attached. Each snood has a single baited hook. Longline vessels operate in deep water, targeting the larger, more solitary, highly migratory stocks such as sharks, swordfish, or billfishes, and the larger schooling fishes such as tuna.	Longlines could be less environmentally harmful because each snood can only catch one fish. If the longline is pulled in shortly after hooking bycatch, the non-target species can be released. Unfortunately, most bycatch dies on the snood before release.
GILNET	A single vertical wall of netting, with floats on the top and weights on the bottom. When fish attempt to swim through, their gills get caught in the net. Gillnets are one of the more versatile types of gear used in Somali waters. They can target highly migratory fishes (tuna, swordfish, billfish) in deep water or reef fishes close to shore.* They are popular among artisanal fishers, and the most common gear used by Somalis.	Gillnets trap whatever swims into them, so they can result in higher rates of bycatch, including of endangered species like sea turtles and mammals.
TRAWLER	A net, coupled to heavy doors that keep the net open, towed along the ocean floor or through the water column. Bottom trawlers in Somali waters operate close to shore in relatively shallow water, targeting reef fishes or demersal fishes (bottom feeders). Relatedly, midwater trawls do not contact the seafloor and target pelagic invertebrates (squid and shrimp). Foreign bottom trawlers are the most likely to interact with Somali fishers.	Bottom trawlers destroy seafloor habitats by gathering everything they encounter and harming fragile seafloor ecosystems. Trawling is non-selective and can result in significant bycatch, including corals, sea turtles, and seafloor foraging mammals.

*In Somali waters, fishing within 24 NM is protected by Somali fisheries law and limited to domestic, artisanal fishing. These nearshore waters overlap most of the shallow continental shelf. Deepwater fishing, where foreign-flagged vessels can be licensed, occurs outside of 24 NM, where the continental shelf drops off into the open water pelagic zone.

**Bycatch is the unintentional catch of non-target marine life while fishing for other species.

BOX 2. FROM SUPPLIERS TO SCAPEGOATS: THE YEMENI AGREEMENT

Yemen has had an increasing interest in its maritime resources since the 1970s, and with a much smaller EEZ, Yemeni fishers expanded into Somali waters to meet the onshore demand.²⁶ Informal agreements developed between the Yemenis and Somalis starting in the 1990s. Yemenis would bring fuel, and eventually ice (subsidized in Yemen), and in exchange, the Yemenis had access to the local fishing grounds and were able to buy fish directly from Somali fishers at a cheaper cost.

The illegal overfishing that developed on the Somali coast caused tension to grow between Somali communities and their past trading partners. What was once a peaceful relationship declined as competition over fishing grounds escalated. Some Yemenis began to take advantage of unlicensed fishing opportunities in their neighbor's waters, joining the armada of foreigners invading Somali fishing grounds and helping drive frustration and mobilization by fishing communities. Conflict and contention grew highest in Somaliland and Puntland, where the state governments were attempting to establish their maritime authority. Fishing grounds competition, rampant piracy, and warship harassment eventually made their way into the Yemeni EEZ.

2006

The Somaliland Coast Guard arrested 50 Yemeni fishers and seized their eight boats as part of a campaign to enforce territorial sovereignty in the Gulf of Aden.²⁷ Yemen reported the event as a pirate attack.²⁸

- 2007 Puntland signed unofficial deals with Yemen to establish coast guards, trade fish with each other, and allow Yemeni fishers in their waters. Yemenis sailed their boats to Puntland and either bought Somali catch or paid a "hefty fee" to the Puntland Ministry of Fisheries for a license to fish for themselves. The license included provision of an armed man to go on the vessel with the crew. Before reaching the Puntland coast, Yemeni fishers risked encountering pirates who would stop their boats and seize the fishers' diesel and food. Sometimes the pirates kidnapped them and demanded \$20,000 for their release. Some Yemeni fishers were killed trying to outrun the pirates, but fishing in Somali waters was their only way to earn a living. Many Yemeni fishers belonged to the Fishery Cooperative Union (FCU) in Mukalla, the umbrella organization for fisherfolk along Hadramaut's (Yemen's largest state) coastline. The leader of the FCU advised fishers to not go on individual fishing trips into Somali waters.29
 - TFG warned Puntland not to make deals over its territorial waters with other federal governments.³⁰
 - Puntland complained that illegal Yemeni fishing vessels played a large role in depleting stocks in their water.³¹ One hundred thirty Yemeni fishers in nine dhows were seized by Puntland security officials for illegally fishing in Puntland's waters as a part of their crackdown on illegal fishing.³²
- 2008 Yemeni media reported about 50 fishing boats had been attacked.³³

Somali pirates hijacked two Yemeni fishing vessels, the M/V *Qana'a* and the M/V *Falluja*, near the Mait area close to the port of Aden (Yemen). Seven fishermen managed to escape and report the event. The 22 remaining fishers were held hostage. The pirates had intended to use the fishing vessels as mother ships for their attacks on other ships in the Gulf of Aden.³⁴

- 2009 Yemeni fishers in Somali territorial waters were fired upon by pirates, killing one fisherman and injuring two others. The boat managed to escape and return to the Yemeni port of Mukalla.³⁵
 - An official report by the Yemeni government linked piracy to a US\$200 million loss to their fishing industry, as Yemeni fishers stopped fishing in Yemen's territorial waters out of fear of pirate attacks and being mistaken for pirates by international defense forces.³⁶
 - Pirates killed Yemeni fishers for something as simple as an engine, and international forces sent aircrafts to hover over boats until they were convinced the boats were used for fishing. Many fishers were wrongly accused of piracy.³⁷
 - Eighty-one Yemenis in six fishing boats were arrested by the Somaliland coast guard for fishing illegally near Berbera (northern coast). The commander of the Somaliland Coastal Guard said their forces doubled their efforts to combat illegal fishing.³⁸
 - Pirates took over Yemeni fishing boats in the Gulf of Aden and the Indian Ocean, used fishers as human shields while carrying out attacks, and used Yemeni dhows as weapons storage facilities. Additionally, Yemeni fishers were attacked by international coalition forces as collateral damage in the fight against piracy or because they were mistaken for Somali pirates.³⁹
- 2010 Fishing boats from Oman and Yemen that used to sail to Eyl (the northeast region) to buy fish and trade goods no longer arrived because foreign vessels were looting and destroying their boats. The fishers also complained that foreign warships were unable to differentiate between fishing crews and pirates.⁴⁰
 - Three Yemeni fishermen were kidnapped by a gang of pirates that assaulted them and threw them into the Gulf of Aden. They were found alive on a Yemeni beach three days later. This story caused most Yemeni fishers to be too afraid to travel more than 20 miles offshore. They said their business was cut in half. They also felt their lives were threatened by international forces patrolling the waters.⁴¹

III. RESEARCH APPROACH

To investigate the primary drivers and consequences of fisheries conflict in Somali waters, our team of researchers analyzed articles from news outlets for incidents in which a fisheries resource was the source of conflict in Somali waters during the period 1990–2018. Our systematic search included all reports of incidents that occurred in Somali water bodies (specifically, the Jubba and Shabelle Rivers and all marine waters extending to the 200 NM EEZ). Using NexisUni, an online archival database of news-based print publications, we created the Fisheries Conflict Database.

To be coded into our database, an incident had to meet our definition of a fisheries dispute event (FDE), which is an incident or incidents where a fisheries resource is contested, disputed, or the source of conflict, between a minimum of two actors at a discrete location. Temporal moments and places may be approximate, but events need to occur within bounded time and space. FDEs were identified and characterized using a standardized codebook that recorded the date, location, actors involved, measures of violence, and causes of conflict. Causes of conflicts, referred to as "drivers," were sorted into 15 categories:

- WEAK GOVERNANCE: corruption, weak enforcement, weak institutional capacity, a lack of public participation, inadequate information, or organized crime
- FISH STOCKS: an actual or perceived decline in fish population(s)
- **ENVIRONMENTAL CHANGE:** changes to the natural ecosystem, excluding the health of fish populations
- **POVERTY:** limited livelihood options, lack of public health services, or a lack of public education services
- FOOD INSECURITY: a lack of access to a reliable source of sufficient and nutritious food (both fisheries and non-fisheries food)
- MARGINALIZATION: actors targeted for their social, economic, ethnic, tribal, gender, or political identity
- GROUNDS LIMITS: limitations on access to fishing grounds
- OPERATIONAL SCALES: competition between actors that operate at a different scale of fishing
- FOREIGN FISHERS: the presence of foreign fishers in domestic waters
- MARKETS: the supply or demand from transnational markets
- **GEAR EFFICIENCY:** destructive fishing practices that collect fish rapidly in high volumes (illegal), highly efficient gear types (legal), or technological advances aimed at increasing catch
- INCREASED PRESSURE: increased domestic market demand for seafood or an increased number of fishers at a water body
- PIRACY: acts of piracy (outside 24 NM) or armed robbery (inside 24 NM) by members of organized gangs and not fishing vessels. (Note: In a related study⁴², we coded piracy in a category of maritime crime, but for clarity we use the term "piracy" here.)
- STRATEGIC LOCATION: the strategic importance of a fishery's land location
- ILLEGAL FISHING: illegal methods of fishing, such as gear, location, species, or without license

Illegal fishing and foreign fishing often occur together in Somali waters, but their motivations for conflict should not be confused. Conflict driven by illegal fishing involves one actor's ignoring a regulation that other actors respect, such as using banned gear, fishing during closed seasons, catching endangered species, or fishing without a license. The other actor in an illegal fishing conflict usually engages out of frustration that they are losing by following the rules. Illegal fishing vessels can be foreign or domestic. A domestic fisher might incite an illegal fishing conflict by fishing in a marine protected area. Conflict driven by foreign fishing is usually motivated by the presence of foreign fishers in domestic waters, whether or not they have permission. One foreign fishing event could include the arrest of unlicensed foreign fishers but would also apply to an attack against a licensed foreign fishing vessel motivated by locals' anger that their government is approving licenses.

BOX 3. AN IMPORTANT DISTINCTION: PIRACY AND FISHERIES

The belief that pirates operating off the Somali coastline are fishers is a common and unfortunate misconception.43 Media coverage and pirates' justifications for their actions promoted this misunderstanding. Most of the coverage on the rise of piracy in the early 2000s sounded like this: "The problem of piracy in the Horn of Africa began five years ago when Somali fishermen reacted to foreign overfishing by seizing trawlers and their crews and holding them for ransom. Civil war and anarchy had left their shattered government unable to protect its fisheries. When such tactics produced money, it emboldened the pirates to go after freighters and yachts on their way to and from Europe and Asia."44 The narrative developed that victims of war were trying to defend themselves when they stumbled upon an exploitative moneymaking opportunity.



The crew of the merchant vessel Faina, seized by pirates in 2008. Photo: Jason R. Zalasky, US Navy.

While it is true that fishers organized to defend their fish stocks against illegal vessels in the 1990s, the narrative omits that the piracy this region is known for actually originated with prominent businessmen and politicians who entered the system by licensing foreign vessels as a method of extortion.⁴⁵ Somali fishers became casualties in rivalries between warlords who wanted to issue fishing licenses. Vessels granted fishing rights in water controlled by one warlord were often targeted by rival groups who disputed control of the area.⁴⁶ Hijack-for-ransom activities began in the early 2000s when international financing transformed piracy into an "industry" with an organized business model.⁴⁷

The relationship between organized piracy and coastal fishing communities is a complicated one that varies by the village. Some viewed the maritime space as a dangerous environment to operate in, getting caught between pirates and warships.⁴⁸ On occasion, communities mobilized to suppress piracy. In 2008, the mayor of Eyl told the Puntland government that his village, and others, had stopped allowing pirates to dock near their towns.⁴⁹ In another small community in Mudug, at least two people died in a conflict between villagers and pirates attempting to anchor a hijacked vessel.⁵⁰ Residents of Eyl told the media they were tired of pirates' dominating their town following a dispute in which the village prevented the pirates from relaunching a hijacked vessel as a mother ship, eventually forcing them to free the hostage fishers.⁵¹ Other communities viewed piracy as their country's only option to protect resources and saw the pirates as Somali heroes.⁵² A 2009 survey found that 70 percent of coastal communities strongly supported piracy as a form of national defense of territorial waters.⁵³ When foreign warships arrived in Somali waters, some communities voiced concern that their presence would impede the pirates' ability to protect their natural resources. In 2015, with illegal foreign fishers once again causing overfishing and impacting Somali fishers' incomes, some communities feared a return to piracy,⁵⁴ while others threatened it.⁵⁵

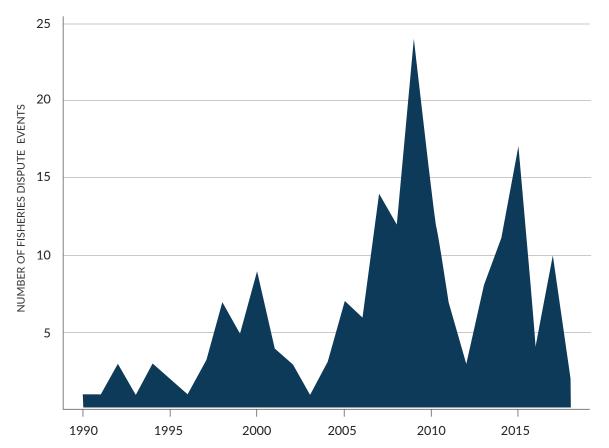
Another source of the "pirates are fishers" narrative stems from pirates themselves: if arrested, pirates commonly claimed they are or once were fishers.⁵⁶ Though not always the case, there are instances when acts of piracy can be considered fisheries conflict. Piracy is defined as "armed robbery" in attacks that occur within states' EEZ boundaries. Armed robbery targeted at fishing vessels meets our definition for a fisheries conflict motivated by piracy. For example, the pirates who hijacked the Spanish fishing vessel *Playa del Bakio* in international waters used missiles and machine guns—far beyond the capacity of organized domestic fishers in the 1990s. Yet, the pirates aboard the *Playa del Bakio* explained to their hostages that the attack occurred because the foreigners were plundering their fishing waters. The men who hijacked the Indian dhow, M/V *Safina al-Birsarat*, held the crew hostage while they used the vessel as a mother ship to carry out hijackings. Once arrested, they claimed they were innocent fishers who did not understand why the US Navy had abducted them. That claim was often a cover for criminal behavior.

When coding events for this research, our project defers to court decisions. The United Nations established specialized antipiracy courts in the Somali region and other nations, with prosecution assistance provided by the United Nations Development Programme (UNDP), the United Nations Office on Drugs and Crime (UNODC), and the United Nations Political Office for Somalia (UNPOS). In the M/V Safina al-Birsarat case, the suspects received piracy convictions.

IV. RESULTS

Three clusters of fisheries conflicts occurred: (1) during the years when informal groups of Somali fishers came in conflict with foreign fishers (1998–2000); (2) during the height of piracy in Somali waters (2007–2010); and (3) during the resurgence of foreign fishing in Somali waters (2014–2015) (**Figure 1**). The decline in conflict in 2012 was likely a result of the increased international maritime security presence during 2010–2011.

FIGURE 1. THE OCCURRENCE OF FISHERIES DISPUTE EVENTS IN A GIVEN YEAR IN THE SOMALI REGION FROM 1990 TO 2018. Three clusters of conflict are seen in 1998–2000, 2007–2010, and 2014–2015.



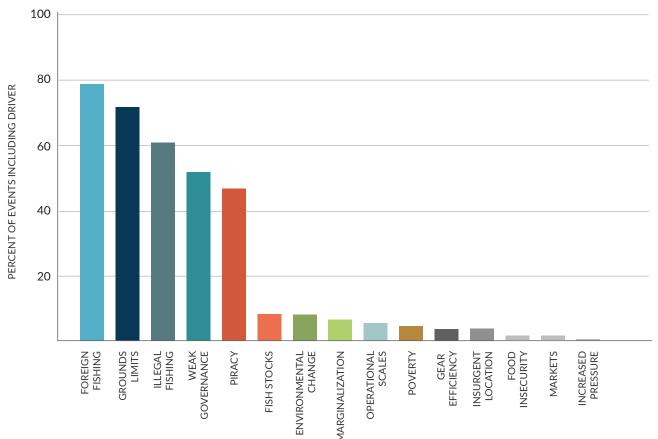
The primary drivers of fisheries conflict in Somali waters are the presence of foreign fishers, grounds limitations, illegal fishing, weak governance, and piracy (see **Figure 2**). Foreign fishing motivated approximately 80 percent of Somali FDEs. In the first conflict cluster, clashes between domestic fishers and foreign vessels over the locals' fishing nets and catch were frequent. Following one such conflict in 1997, locals accused the foreigners of looting and fishing illegally in Somali waters and threatened they would destroy every foreign fishing vessel they saw in their area of operation (Ego Beach).⁵⁷ This example also shows how grounds limitations can be a cause of conflict, because there are perceived limitations to access to fishing grounds, in the opinion of at least one of the actors (in this case, the local fishers). During the third and most recent conflict cluster, in 2014, the president of Puntland issued a declaration that illegal foreign fishing was a national disaster and directed the Puntland Maritime Police Force to take action to deter future foreign fishers.⁵⁸ The examples from 1997 and 2014 illustrate the role of illegal fishing in causing conflict, as well. Fifty-seven percent of Somali FDEs involved vessels that





were fishing without a legal license. Somali fishing grounds were tempting to foreign vessels because the productive fishery existed under a governance structure with limited capacity to enforce maritime laws (weak governance). Many of the informal coast guard cooperatives in the 1990s grew from perceived vulnerability in the absence of government.

FIGURE 2. CAUSES OF FISHERIES DISPUTE EVENTS (FDES) IN THE SOMALI REGION FROM 1990 TO 2018.



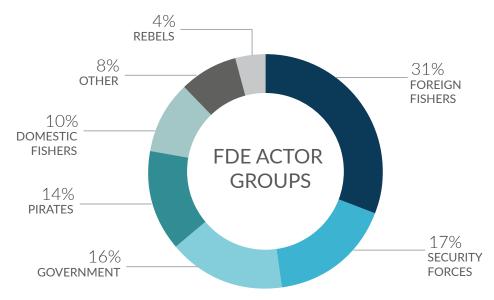
Fisheries dispute events received a violence score based on the intensity of the event, ranging from 1 to 3. Level 1 means the conflict remained verbal, and there was no physical action, such as when the mayor of Eyl arrived in Garowe in 2008 to criticize the Puntland government for not responding to earlier concerns about commercial vessels fishing illegally in Somali waters.⁵⁹ Level 2 signifies mid-level intensity—some action was taken (such as an arrest or abduction), but there was no physical harm done to humans. One level 2 event in Somali waters was the seizure of two Egyptian vessels by the Somaliland Coast Guard on January 4, 2007.⁶⁰ The boats had violated a previous agreement, failed to pay required fees, and had been in an area where fishing was banned. Level 3 involves physical harm (injury, sexual assault, or fatalities). For example, the 2008 hijacking of the Omani fishing vessel M/V *Asmak 1* in which the engineer died in captivity was coded as a 3. Over half (54 percent) of fisheries dispute events were assigned a violence score of 2 (see **Figure 3**). Approximately one-fourth (26 percent) of FDEs were verbal altercations (level 1), and 20 percent of events involved injury or death of an actor (level 3). Thirteen percent of FDEs involved at least one fatality (**Figure 4**).

FIGURES 3 & 4. THE LEVELS OF VIOLENCE ASSIGNED TO FDES (LEFT) AND TYPES OF VIOLENT OCCURRENCES (RIGHT) IN FDES IN THE SOMALI REGION FROM 1990 TO 2018.



The most common actors in Somali fisheries conflicts were foreign fishers, who were involved in one-third of Somali FDEs. Other frequent actors were security forces (police, military, resource security, and international security units), government (local, state, and federal), and pirates, who participated in 17 percent, 16 percent, and 14 percent of FDEs, respectively (**Figure 5**). **Figure 6** shows that foreign fishers were the most common actors in conflict in 2009, the height of piracy. Domestic fishers were noticeably involved in the late 1990s and early 2000s, corresponding to the era when domestic and foreign fishers conflicted with each other. The next significant conflict cluster, from 2007 to 2010, was between pirates and foreign fishers. In order to understand which actors were commonly coming into conflict with each other, we categorized the pairs of actors in a dispute, also known as an "actor dyad" (Actor A versus Actor B) (**Figure 7**). Notable in this figure is the conflict between foreign fishers and resource security forces in the late 1990s. There were no formal resource security sectors, like marine park authorities or rangers, in the 1990s, so the sections representing resource security from 1998 to 2001 in **Figure 6** signify the informal groups of fishers who considered themselves maritime coast guards in the absence of official government infrastructure. **Figure 7** also reflects the anarchic state that existed in the Somali region for over a decade. Federal government actors did not get involved in fisheries conflict until 2007.

FIGURE 5. TYPES OF ACTORS PARTICIPATING IN FISHERIES DISPUTE EVENTS IN THE SOMALI REGION.ª



Rebel actors include those affiliated with organized opposition groups.

FIGURE 6. SOMALI FISHERIES DISPUTE EVENT ACTOR PARTICIPATION BY YEAR, 1990–2018. Because there can be more than one actor dyad in each event, this figure reflects difference total annual events compared to Figure 1 and Figure 7.

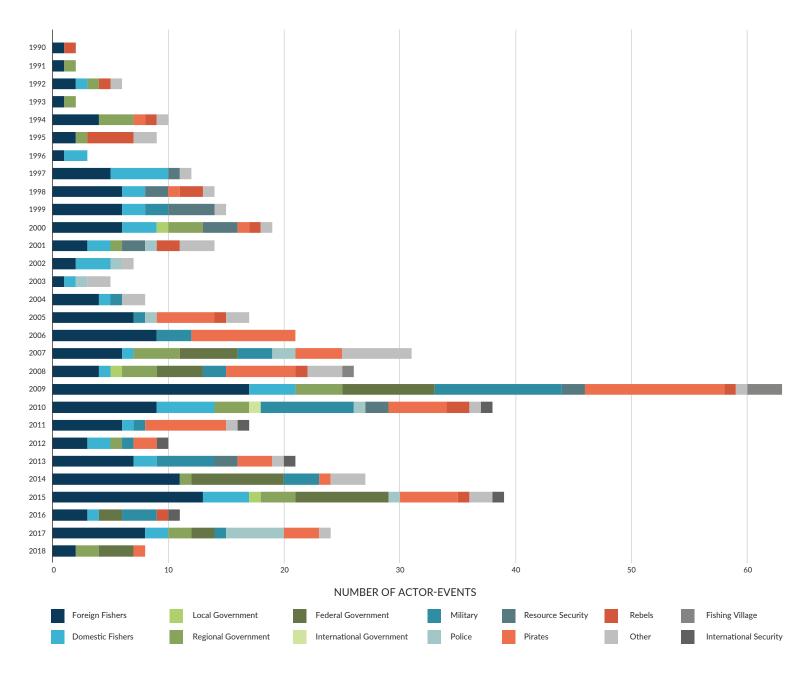
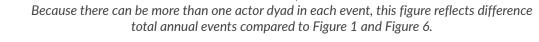
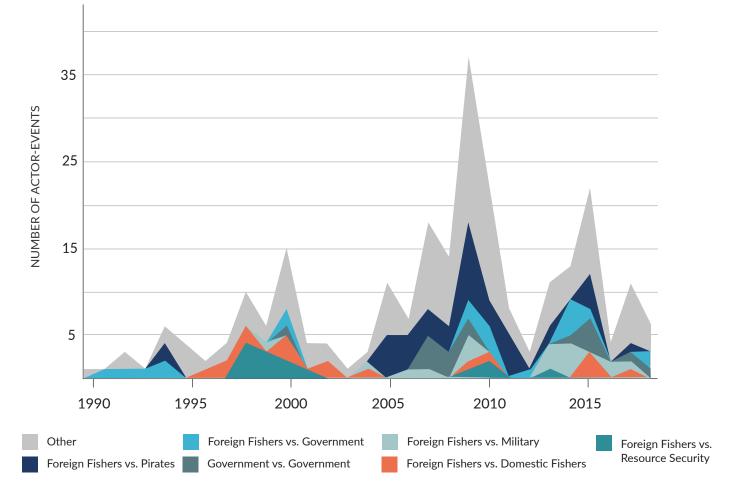


FIGURE 7. THE PAIRS IN CONFLICT (ACTOR DYADS) IN OUR FISHERIES DISPUTE EVENTS IN THE SOMALI REGION, 1990–2018.





Fisheries conflict over the whole period was most intense in Puntland, although all areas of the coast showed periods of high intensity (**Figure 8**). Awdal and Jubbada Hoose, the administrative regions on the borders with Djibouti and Kenya, respectively, have higher conflict intensity than the other regions in their states. The Federal Republic of Somalia has disputed maritime borders with both neighboring nations. Individual fisheries dispute events (blue dots) on the map cluster around major fishing towns, such as Bosaso, Eyl, Hobyo, Mogadishu, and Kismayo. We also investigated the breakdown of conflict by federal member state, seen in **Figure 9**, to learn if there were any strong relationships between actors, drivers, and locations. Puntland was the most common location for conflict in each FDE cluster. Puntland has the most productive fishing grounds and is where piracy was most prevalent. Events that occurred in unknown locations were common during the height of piracy (the second cluster). Most of these events were hijackings of fishing vessels that received limited media coverage, so details were sparse. Foreign warships became much more prevalent in 2010, driving conflict in the central regions (**Figure 9**). These warships were stationed there to help disrupt piracy and escort foreign aid vessels to the Mogadishu port, but many reports during this time cited ongoing harassment directed toward domestic fishers operating in the same waters as the warships (see **Box 5**).

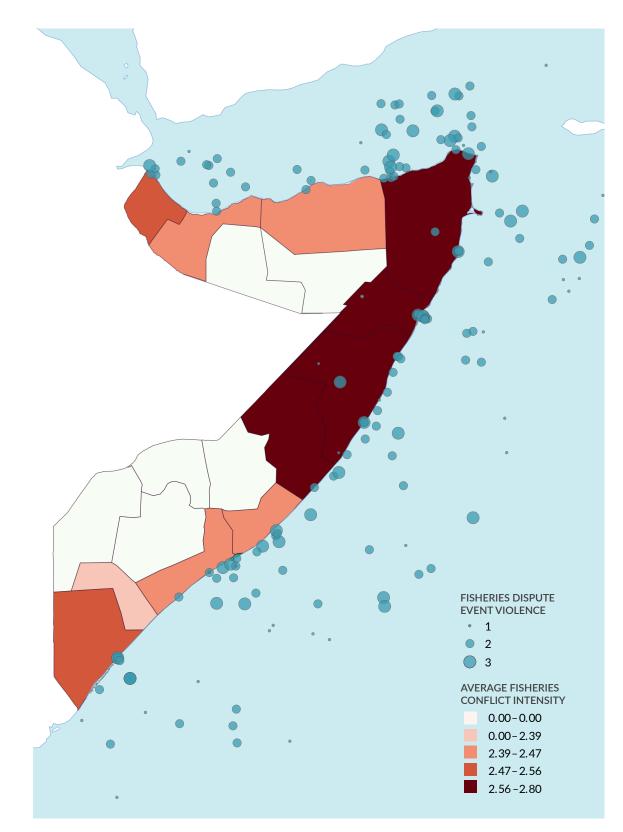
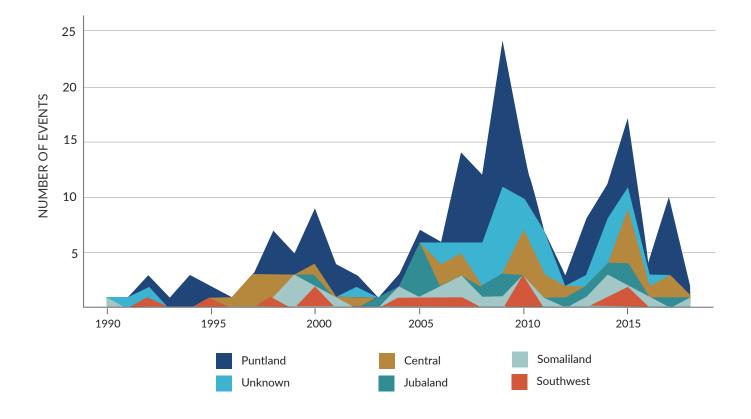


FIGURE 8. THE LOCATIONS OF FISHERIES CONFLICT IN THE SOMALI REGION FROM 1990 TO 2018. FDE violence captures specific conflict events. Regions are color coded by average fisheries conflict intensity on a scale of 1 to 3 over the 28 years we investigated: 1 signifies an inconvenience for fishing communities, 2 signifies a major problem for the communities, and 3 is assigned when fishers are afraid to fish.

FIGURE 9. THE FREQUENCY OF SOMALI FISHERIES DISPUTE EVENTS BY STATE, FROM 1990 TO 2018. The administrative regions composing each state are as follows: Puntland, Central, Jubaland, Somaliland, and Southwest. Events were assigned to the regions on the modern map, regardless of dates of declared statehood - which ranged from 1991 to 2016. There were no fisheries conflict events found in the inland regions.



BOX 4. PRIVATE CONTRACTED ARMED SECURITY PERSONNEL

In response to hijackings and the kidnap-for-ransom method in Somali waters, commercial vessels began employing private contracted armed security personnel (PCASP) in 2010 to protect themselves during transit through the region. Before PCASP, the primary methods for combating piracy were naval operations and adherence to the suggested planning and operational measures for ship operators and masters as outlined in the shipping industry's Best Management Practices for Protection against Somalia Based Piracy, Version 4⁶¹ (these include ship protection measures such as installing barbed wire, water cannons, and other antiboarding devices on vessels).

These two solutions provided moderate success, but the problem of piracy continued. As a result, flag states began allowing the use of professionally trained private security aboard commercial vessels transiting through the waters around the Horn of Africa and in the Western Indian Ocean. The first private security teams were made up of qualified protection personnel from British and American contractors. These highly effective teams became an integral factor in deterring piracy in the Gulf of Aden and the Indian Ocean. Reports like this one from March 2010 became frequent: "Armed private guards aboard two Spanish tuna trawlers, the *Taraska* and *Ortube Barria*, repelled a pirate attack approximately 100 NM southwest of the Seychelles. There was an exchange of gunfire, but no one was hurt and there was no damage."⁶² However, this had repercussions for Somalis: fishers have feared being mistaken for pirates by freelance contractors since PCASP teams first arrived in their waters.

As targeted pirate attacks decreased, boat owners placed less value on their armed guards' security training, and the PCASP labor pool expanded to include more inexperienced, thus cheaper, guards for hire. Though pirate attacks became less frequent, the regular use of PCASP became accepted practice by most vessels navigating high-risk waters. Today, fishing vessels interested in licensing opportunities in Somali, Nigerian, and Philippine waters are unwilling to sign fishing agreements without permission for private security. The expanded scope for PCASP combined with the decline in training increases the risk that interactions with fishers become dangerous for Somalis.

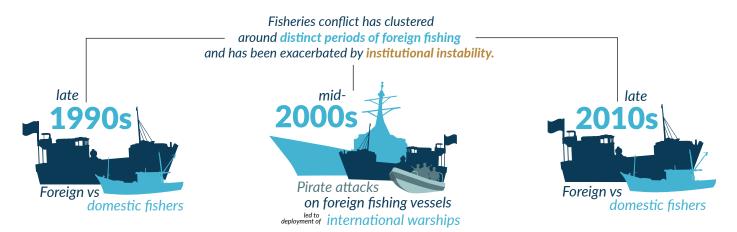
BOX 5. HARASSMENT BY INTERNATIONAL WARSHIPS

Pirates often disguised themselves as fishing crews while operating at sea (see Box 5), leading to cases of mistaken identities against real fishing vessels. Following the arrival of the international naval coalition in the Gulf of Aden and the Indian Ocean, Somali and Yemeni fishers began reporting harassment from warships. During 2007-2011, this problem was acute.

2007	•	Fishers in Lower Jubba (the southern region) said American and French ships chased them and tore their nets. ⁶³
2008	•	Fishing families left coastal areas for fear of being caught between authorities and "those aiding pirates." Local fishers stopped taking their boats on the water because they were afraid of being targeted by warships. ⁶⁴
2009	•	Somali and Yemeni fishers were afraid to fish far from the coast because marine forces arrested them and accused them of piracy. ⁶⁵
	•	Approximately 75 miles off the coast of Yemen, an Indian naval vessel approached a Yemeni fishing vessel and forced all fishers to hand over their weapons and jump into the sea. Though the fishers said they did not have any weapons, they were forced to tread water for two hours before they could climb back on board. All of their fish spoiled. ⁶⁶
	•	The French Navy stopped and questioned three fishing boats off the coast of Bari (Puntland). The French forces opened fire on the fishers, killing two men and injuring four. ⁶⁷
2010	•	Foreign navy warships were accused of paralyzing the coastal fishing sector and causing panic among residents. ⁶⁸
	•	Fishers in Puntland complained of harassment by foreign warships.69
	•	The Al Shabaab Lower Shabelle governor, Sheikh Muhammed Adballah, issued a warning to warships in Lower Shabelle (the state south of Mogadishu) waters that a special unit of fighters was mobilized to fire on warplanes and ships that harass local fishers. ⁷⁰
	•	A Russian helicopter fired at Yemeni fishers in seven boats near Qusay'ir Village (Yemen) and forced them to board the Russian destroyer RFN <i>Marshal Shaposhnikov</i> . The fishers were robbed of their boats, money, identification, GPS units, and clothes and sent back to shore on a single boat. ⁷¹
	•	Members of an Indian Navy warship stopped a crew of 17 Yemeni fishers, boarded their vessel, beat 11 men, and forced 2 men to jump into shark-infested waters. ⁷²
	•	Yemeni fishers held a sit-in demonstration demanding the countries that destroyed their boats pay them restitution. They argued warship abuse cost them YER 30 million in damages from searches and seizures and the forces in the region are often as dangerous as the pirates themselves. ⁷³
	•	AMISOM (African Union's Mission in Somalia) troops blocked fishers in Banaadir (Mogadishu) from going into the high seas by chasing and shooting at them. At least one local fisher was killed. ⁷⁴
	•	Fishers in Bari Region (Puntland) said the foreign warships sometimes deliberately ran over their fishing nets, aimed hot water at them, and sometimes arrested them over suspicions of piracy. ⁷⁵
2011	•	AMISOM troops denied fishers permission to fish along Mogadishu's coast. ⁷⁶
	•	Fishers in Kismayo (the southern region) said that warships destroyed a number of their fishing nets and forced them not to fish. ⁷⁷
	•	NATO forces killed at least three Somali fishers and injured three others in an airstrike in Hobyo (the central region). The fishers complained that warplanes taking off from foreign ships often target their fishing boats. ⁷⁸
	•	Residents from Kudha and Raskamboni (the southern region) stopped fishing in areas near Kismayo out of fear and concern for their safety. Kenyan planes and other warships sunk a number of fishing boats. ⁷⁹
		Kenyan warships killed up to 20 Kismayo fishers. ⁸⁰

V. CONCLUSIONS

In the Somali region, fisheries conflict has emerged from unmanaged competition for access to fish stocks. While these events are reported more frequently in later years of our study (e.g., after 2005), there is not a clear increase in conflict events. Rather, fisheries conflict has clustered, in time, around distinct periods of foreign fishing and has been exacerbated by institutional instability. First, foreign fishing in the late 1990s resulted in conflict with domestic fishing vessels and a response by Somali fishers. Second, pirate attacks against foreign fishing vessels occurred during the mid-2000s, during the height of piracy, and resulted in the deployment of international warships. Third, in the past few years, conflict between domestic fishers and foreign vessels has resumed, and the government has responded with institutional reforms to reduce illegal fishing. The presence of foreign vessels, illegal fishing, and unclear maritime boundaries are the three primary causes of conflict in the Somali region. But in contrast to the primary drivers of fisheries conflict in Tanzania,⁸¹ this research shows that Somali fisheries conflict is aggravated more by institutional instability than by the health of fish stocks. And despite the attention from the media, piracy contributed to conflict less often than weak governance institutions over the past three decades.



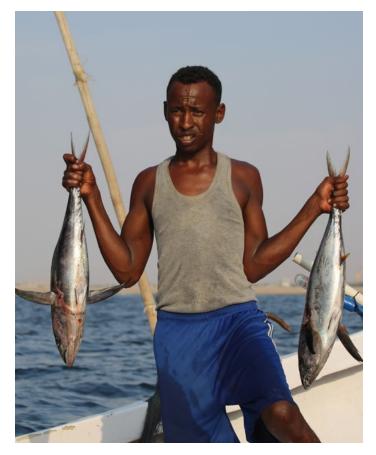
Historically, weak fisheries governance in the Somali region has manifested as an absence of fisheries laws and regulations, poor data collection, low stakeholder participation, lack of fisheries infrastructure, and shortage of trained personnel.⁸² Our findings show this institutional instability, especially during the 1990s and 2000s, placed subsistence fishers in defensive positions without a trusted system of protections for them or the resource on which they depend. Decades of limited governance and accountability have left Somali fishing communities hesitant to rely on formal mechanisms for management. But community trust can be built when management is effective, when the distribution of benefits and sacrifices is fair, when the judicial process is efficient, and when authorities can actively enforce laws and regulations.⁸³ While significant progress has been made (see below), fishing communities can be better integrated into this progress.

In Somali waters, unclear or changing maritime boundaries, overlapping jurisdiction of fisheries ministries (state versus federal), and decentralized authority among the states have made it difficult for resource users to distinguish illegal from legal fishing.⁸⁴ From the shore or from artisanal fishing boats, Somalis have been unable to tell if a foreign vessel is properly licensed. Insufficient enforcement capacity (low surveillance, regulatory compliance, probability of detection, and severity of penalties) has enabled illicit foreign fishing in Somali waters.⁸⁵ In the 1990s, there were 200 illegal foreign vessels fishing along the Somali coastline, some of them using prohibited methods like trawling, which destroys marine habitats.⁸⁶ By 2005, there were approximately 700 illegal foreign vessels.⁸⁷ The visibility of these vessels has contributed to mistrust and anger at the presence of foreign vessels in Somali waters.

The presence of foreign vessels, illegal fishing, and unclear maritime boundaries are the three primary causes of conflict in the Somali region.

But fisheries governance in the Somali region has shown changes for the better, and continued progress toward effective management and oversight can build a more stable and secure maritime and fishing environment. In the past five years, governance of Somali waters has taken important steps. The formal declaration of EEZ boundaries in 2014—while disputed by neighboring countriessignaled to foreign fleets that the Federal Republic of Somalia is claiming domain over internationally recognized boundaries. Also in 2014, the Somali government joined the Indian Ocean Tuna Commission (IOTC), taking on the voluntary role for monitoring and reporting catch of commercially important HMS in its waters. That same year, the Federal Government of Somalia updated its national fisheries law, outlining clearer laws for fishing by both domestic and foreign fishing vessels.

More recently, the federal member states and the Federal Government of Somalia have been cooperating on mechanisms for collecting data and managing fisheries resources. Efforts to train fisheries officers, collect and analyze fisheries data, and work with local communities on mechanisms of fisheries cooperative management have attracted the attention of the international community. The creation of a formal mechanism for issuing legal licenses to foreign fishing boats—specifically, those longline and purse seine vessels targeting HMS and in compliance with IOTC mandates-can reduce confusion over what vessels are fishing legally. It also facilitates data collection by requiring logbook entries from licensed vessels. While licensing does not alleviate concerns of local communities about overfishing or competition with industrial vessels, this is an important first step in creating functional maritime domain awareness needed to reduce fisheries conflict in Somali waters. Finally, partnerships between the government and fishing communities are also growing through joint workshops, the biannual Somalia Fisheries Forum, and new initiatives on local data collection.



A Somali fisher holding his catch. Partnerships between fishers and government bodies can support information sharing and enforcement against illegal fishing. Photo: Jean-Pierra Larroque, One Earth Future.

These growing partnerships are important for building trust in fishing communities. Compliance by fishers with laws and regulations stems from trust in the governing body.⁸⁸ Consequently, including fishers themselves in the management process encourages effective compliance with laws governing domestic fishing. Cooperative management (also known as co-management) presents an opportunity to build both management capacity and government legitimacy because it is a community-driven fisheries management partnership between the government and resource users. Co-management provides an effective governance structure for conflict resolution and community decision-making. While co-management does not regulate foreign fishing, partnership between resource users and government can support information sharing and coordinated enforcement against illegal fishing. Fishers can bring concerns regarding illegal fishing to government authorities, rather than taking matters into their own hands.

The Somali fisheries sector would benefit from data collection, community input to management systems, and strong government support for resource sustainability. Once issues of weak governance are improved, fisheries conflict may still result from declining fish stocks.⁸⁹ The nets of illegal trawlers in Somali waters have entangled turtles and dolphins and destroyed sensitive habitats. The lack of data collection means the health of fish stocks in Somali waters is highly speculative. There are anecdotal reports that fishers have faced declining yields, suggesting fish stocks are declining. More research and data collection are needed to better understand and address these risks. Additionally, the adverse effects of unbridled IUU fishing have created both the perception and the reality of declining fish stocks.⁹⁰ The perception of decline in fish stocks generates frustration and concern about sustainability. Lacking effective enforcement against IUU fishing, this also erodes trust in the government. And a real decline in fish stocks has implications for resiliency of Somali

fishing communities. In 2017, for example, the town of Bendar Beyla, which had traditionally relied on livestock and fishing, had to rely exclusively on the fishery due to a drought that increased food and water prices.⁹¹ If fish stocks decline, even in the face of improved governance and a future with fewer illegal foreign vessels, fisheries conflict will remain a possibility.

Enhanced fisheries management measures can help prevent fisheries conflict and support institutional capacity in the Somali region. In particular, the Somali fisheries sector would benefit from data collection, community input to management systems, and strong government support for resource sustainability. In conflict and post-conflict zones like the Somali region, addressing domestic instability takes priority over issues of long-term ecological sustainability. But once the security context stabilizes, the Somali region will face threats to community resilience from overfishing and resource depletion, just like most other fishing nations around the world. Recognizing this threat, the Somali region has the opportunity to prevent the kinds of fisheries conflict driven by competition over finite marine resources by implementing cohesive, sustainable management practices before stocks are overfished.

A fisher carries his catch ashore at the fish market in Bosaso. Photo: ©FAO/Arete/Will Baxter.

ENDNOTES

- Ministry of Natural Resources, "A Review of the Somali Fisheries Law (Law No. 23 of November 30, 1985), in Accordance with Article 79, Paragraph (d) of the Federal Constitution of Somalia" (Mogadishu, Somalia: Federal Republic of Somalia, 2014).
- 2 Abdi Latif Dahir, "China Will Start Fishing along Somalia's Coastline Just as Piracy Makes a Comeback," *Quartz Africa*, December 24, 2018, <u>https://qz.com/africa/1506419/somalia-gives-fishing-license-to-31-china-vessels/</u>.
- 3 "Somalia: Piracy Top on Agenda in Maritime Meeting," *Africa News*, November 14, 2005.
- 4 Ali Musa Abdi, "Somali Pirates Free South Korean Fishing Boat after Ransom Paid," Agence France-Presse, July 29, 2006.
- 5 Aaron S. Arky, "Trading Nets for Guns: The Impact of Illegal Fishing on Piracy in Somalia" (master's thesis, Naval Postgraduate School, Monterey, CA, 2010).
- 6 Stig Jarle Hansen, "Debunking the Piracy Myth: How Illegal Fishing Really Interacts with Piracy in East Africa," *RUSI Journal* 156, no. 6 (2011): 26–31.
- 7 "Kenya Charges US-Seized Somali Ship Attackers with Piracy," Agence France-Presse, February 3, 2006.
- 8 "Somalia: Livelihoods—and Lives—at Risk in Puntland," Africa News, August 24, 2009.
- 9 Abdurrahman Warsameh, "Fishing Is a Livelihood for Many in Somalia's Capital," Xinhua News Agency, April 7, 2011.
- 10 African Development Solutions, *Illegal Unreported and Unregulated (IUU) Fishing in the Territorial Waters of Somalia* (Nairobi, Kenya, 2015).
- 11 "As Piracy Is Contained, Somali Fishermen Again Compete with Illegal Vessels in Their Waters," ABC Transcripts (Australia), August 15, 2016.
- 12 "Somali Women Fight the Drought by Fishing in the Sea as Famine, Cholera Loom," *EFE Newswire*, April 21, 2017.
- 13 Richard B. Pollnac, Kifle W. Hagos, Brian R. Crawford, Abdi Mohamed Dahir, Hussein Haji Yusuf, and Abdirashid Mohamed Hussein, "Chaos, Conflict and Change: The Reemergence and Evolution of Fishery Governance in the Small Scale Fisheries of Somalia," Ocean and Coastal Management 162 (2017): 1–9.
- 14 U. Rashid Sumaila and Mahamudu Bawumia, "Fisheries, Ecosystem Justice and Piracy: A Case Study of Somalia," *Fisheries Research* 157 (2014): 154–163.
- 15 Laura Angela Bagnetto, "Somalia: Chinese Deal Angers Fishing Communities, Sparks Concerns over Sovereignty and Piracy," RFI, February 8, 2019, <u>http://en.rfi.fr/africa/20190207-Somalia-Chinese-deal-angers-fishing-communities-sparks-concerns-over-sovereignty-and.</u>
- 16 Mary Harper, *Getting Somalia Wrong? Faith, War and Hope in a Shattered State* (London: Zed, 2012), 9.
- 17 Ministry of Fisheries and Marine Resources, "Federal Republic of Somalia," <u>https://mfmr.gov.so/en/</u>.
- 18 "Marine Regions," http://www.marineregions.org/.
- 19 World Bank, "Land Area (Sq. Km)," https://data.worldbank.org/

indicator/AG.LND.TOTL.K2.

- 20 Sarah M. Glaser, Paige M. Roberts, Robert H. Mazurek, Kaija J. Hurlburt, and Liza Kane-Hartnett, *Securing Somali Fisheries* (Broomfield, CO: One Earth Future Foundation, 2015).
- 21 Ibid.
- 22 Ibid.
- 23 Ibid.
- 24 "Somalia Fishguard in the Hot Seat," *Indian Ocean Newsletter*, April 10, 2015.
- 25 "As Piracy Is Contained, Somali Fishermen Again Compete with Illegal Vessels in Their Waters," ABC Transcripts (Australia), August 15, 2016.
- 26 FAO Fisheries and Aquaculture, "Global Capture Production," http://www.fao.org/fishery/statistics/global-capture-production/en (accessed September 5, 2019).
- 27 "INTERNATIONAL AFFAIRS," PAP Newswire, March 31, 2006.
- 28 "U.S. Navy, Suspected Pirates Clash," CNN.com, March 18, 2006.
- 29 "Yemenis Take Big Risks Fishing in Waters," *Africa News*, September 19, 2007.
- 30 "Govt. Demands Return of Six Ships," Africa News, July 3, 2007.
- 31 "Yemenis Take Big Risks Fishing in Waters."
- 32 "Puntland Releases Yemeni Fishermen," *Africa News*, May 10, 2007.
- 33 Ahmed Al-Haj, "Big Mistake: Pirates Caught after Attacking German Naval Ship off Somalia," Canadian Press, March 30, 2009.
- 34 "French Navy Prevents Pirate Attack off Somali Coast," Deutsche Presse-Agentur, January 2, 2009.
- 35 Al-Haj, "Big Mistake."
- 36 Alyssa Rallis, "Yemen Lost \$350US Mil. to Piracy, Says Report," IHS Global Insight, July 17, 2009.
- 37 "Piracy Threatens Fishermen in Yemen," *Colombo Times*, November 28, 2009.
- 38 "Eighty-One Yemenis Deported from Northwest Somalia for Illegal Fishing," Xinhua News Agency, February 6, 2009.
- 39 Laura Kasinof, "Yemen's Fishermen Caught between Somali Pirates and Pirate Hunters," *Christian Science Monitor*, June 17, 2009, 6.
- 40 "Somali Fishermen in Danger Due to Illegal Fishing," BBC Monitoring Africa, January 27, 2010.
- 41 "Pirates Threaten Lives and Livelihoods of Yemeni Fishermen," Thai News Service, March 1, 2010.
- 42 Sarah M. Glaser, Colleen Devlin, Joshua E. Lambert, Ciera Villegas, and Natasia Poinsatte, *Fish Wars: The Causes and Consequences of Fisheries Conflict in Tanzania* (Broomfield, CO: One Earth Future Foundation, 2018).
- 43 Hansen, "Debunking the Piracy Myth."
- 44 Matthew Fisher, "Warships Deter Modern-Day Pirates: If the Coast of Somalia Is the Wild West, Then the Canadian Navy Is Acting as Travelling Sheriff," *Edmonton Journal* (Alberta), July 14, 2008, A3.

- 45 "Livelihoods—and Lives—at Risk in Puntland," Africa News, August 24, 2009.
- 46 Neil Mackay, "SOS as Pirate Motherships Take to the High Seas Seeking Cargo and Hostages; Royal Navy Called in as Death Toll and Number of Attacks by Somali Brigands Reach New Highs," Sunday Herald (Glasgow), November 13, 2005, 13.
- 47 Arky, "Trading Nets for Guns."
- 48 "Tension in Coastal Town after Pirate Clashes, 1 Killed," Africa News, February 14, 2008.
- 49 "Hijacked French Yacht Did Not Anchor in Eyl—Mayor," *Africa News*, April 7, 2008.
- 50 Ibid.
- 51 "Residents and Sandbank Stymie Pirates' Plan," *Africa News*, November 19, 2009.
- 52 Mustafa Haji Abdinur, "Defiant Somali Pirates Await EU Navy Force," Agence France-Presse, December 6, 2008.
- 53 "Tanzania Can Now Prosecute Piracy Cases—Minister," BBC Monitoring Africa, January 4, 2014.
- 54 "Fears Loom over Return of Piracy Northeastern Somalia," BBC Monitoring Africa, October 14, 2015.
- 55 Catrina Stewart, "Somalia Threatened by Illegal Fishermen after West Chases Away Pirates; Flotillas from Yemen, Iran and South Korea Are Breaching International Maritime Law and Plundering the Country's Rich Fishing Grounds," *The Observer* (London), November 4, 2015.
- 56 Hansen, "Debunking the Piracy Myth."
- 57 "Clashes between Somali Fisherman, Foreign Vessels," Xinhua News Agency, October 7, 1997.
- 58 "Puntland Leader Speaks Out on Illegal Fishing, Calls as 'National Disaster," Africa News, June 2, 2014.
- 59 "Hijacked French Yacht Did Not Anchor in Eyl—Mayor," *Africa News*, April 7, 2008.
- 60 "Somaliland: Egyptian Vessels Seized for Illegal Fishing," BBC Monitoring Africa, January 5, 2007.
- 61 Available at <u>https://eunavfor.eu/wp-content/uploads/2013/01/</u> bmp4-low-res_sept_5_20111.pdf.
- 62 "Spanish Fishing Boats Repel Pirate Attack: Owners," Agence France-Presse, March 19, 2010, <u>https://advance-lexis-com.ez-</u> proxy.net.ucf.edu/api/document?collection=news&id=urn:contentItem:7Y24-NGM0-Y95B-G2Y1-00000-00&context=1516831.
- 63 "U.S. Warships Threaten the Lives of Fishermen," *Africa News*, January 29, 2007.
- 64 "Tension in Coastal Town after Pirate Clashes, 1 Killed," Africa News, February 14, 2008.
- 65 "Somalia Piracy Began in Response to Illegal Fishing and Toxic Dumping by Western Ships off Somali," *Democracy Now!*, April 14, 2009.
- 66 Kasinof, "Yemen's Fishermen Caught between Somali Pirates and Pirate Hunters."
- 67 "High Seas Shootout Kills Two off Somalia," Agence France-Presse, November 1, 2009.

- 68 "Al-Shabab Mobilizes Fighters to Attack Foreign Ships from Somalia Coast," BBC Monitoring Africa, April 1, 2010.
- 69 "Somalia: Fishermen from Puntland Conclude Training in Libya," BBC Monitoring Africa, January 3, 2010.
- 70 "Somalia's Al-Shabab Warns Foreign Warships against "Terrorizing" Residents," BBC Monitoring Africa, April 1, 2010.
- 71 "Anti-Piracy Forces off Yemen Playing Pirates with Fishermen," Arab News, May 6, 2010.
- 72 Ibid.
- 73 Ibid.
- 74 "Fishermen in Mogadishu Complain of Harassment by AU Troops," BBC Monitoring Africa, July 5, 2010.
- 75 "Fishermen in North Eastern Somalia Complain of Harassment by Foreign Warships," BBC Monitoring Africa, December 21, 2010.
- 76 "Somalia: Fishermen Complain about Harassment by Amisom Soldiers," BBC Monitoring Africa, January 21, 2011.
- 77 "Somali Fishermen Accuse Foreign Naval Forces of Harassment," BBC Monitoring Africa, January 30, 2011.
- 78 "Somali Fishermen Complain of Harassment by International Anti-Piracy Force," BBC Monitoring Africa, April 23, 2011.
- 79 "Somali Fishing Boats Reportedly Being Sunk by Kenyan Forces," BBC Monitoring Africa, November 16, 2011.
- 80 "Somalia's Al-Shabab Claims Killing Kenyan Navy in Attack on Warships," BBC Monitoring Africa, November 21, 2011.
- 81 Glaser et al., Fish Wars: The Causes and Consequences of Fisheries Conflict in Tanzania .
- 82 Ibid.
- 83 Ibid.
- 84 African Development Solutions, Illegal Unreported and Unregulated (IUU) Fishing in the Territorial Waters of Somalia, 7.
- 85 Pollnac et al., "Chaos, Conflict and Change."
- 86 Judith Achieng, "Environment-Somalia: Local Fishermen Battle Foreign Trawlers," Interpress Service, March 26, 1999.
- 87 "Seafarers Group Accuses EU Vessels of Illegal Fishing in Somali Waters," Xinhua News Agency, August 11, 2007.
- Rachel Turner, Jane Addison, Adrian Arias, Brock J. Bergseth, Nadine A. Marshall, Tiffany H. Morrison, and Renae C. Tobin, "Trust, Confidence, and Equity Affect the Legitimacy of Natural Resource Governance," *Ecology and Society* 21, no. 3 (2016): 18.
- 89 Jessica Spijkers, Gerald Singh, Robert Blasiak, Tiffany H. Morrison, Philippe Le Billon, and Henrik Österblom. "Global patterns of fisheries conflict: Forty years of data," *Global Environmental Change* 57 (2019): 101921.; Glaser et al., *Securing Somali Fisheries*.
- 90 Glaser et al., Securing Somali Fisheries.
- 91 "Somali Women Fight the Drought by Fishing in the Sea as Famine, Cholera Loom," *EFE Newswire*, April 21, 2017.

ONE EARTH FUTURE

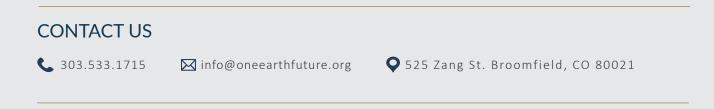
oneearthfuture.org 🛛 🗗 🖬 🗖 🙆

One Earth Future (OEF) is a self-funded, private operating foundation seeking to create a more peaceful world through collaborative, data-driven initiatives. OEF focuses on enhancing maritime cooperation, creating sustainable jobs in fragile economies, and research which actively contributes to thought leadership on global issues. As an operating foundation, OEF provides strategic, financial, and administrative support allowing its programs to focus deeply on complex problems and to create constructive alternatives to violent conflict.

SECURE FISHERIES

securefisheries.org 🛛 💽 📢

Secure Fisheries is a program of One Earth Future. Secure Fisheries works with local, regional, and international stakeholders to strengthen fisheries governance, combat illegal fishing, and promote sustainability in fragile and post-conflict regions as a pathway towards greater peace and stability.





one earth FUTURE

Peace Through Governance