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# The Fishing Sector in Somalia/Somaliland

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Kaija Hurlburt  
[khurlburt@oneearthfuture.org](mailto:khurlburt@oneearthfuture.org)

Roberta Spivak  
[rspivak@oneearthfuture.org](mailto:rspivak@oneearthfuture.org)

[Shuraako.org](http://Shuraako.org)

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## Executive Summary

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Between the 1960s and the late 1980s, the government of Somalia and international aid agencies were keenly interested in building a fishing sector. Somalia's long coastline boasts some of the richest fishing grounds in Africa; however, despite millions of dollars in investment, the fishing industry did not take off. A primary reason for this failure was the fact that the majority of Somalis did not eat fish and had little interest in fishing as an occupation. The Somali government worked hard to overcome this aversion to fishing, but by the late 1980s civil war had broken out, making most economic activity, including fishing, untenable.

Now that Somaliland and Puntland are more stable and the local demand for fish is growing, there is potential for more success with renewed investment.

This report proceeds in three sections:

- Background on fishery resources
- Three models for investment in fishing in Somaliland and Puntland
- Five lessons for investors

## Background

Fishing is a highly profitable venture throughout the world; the tuna industry alone is worth \$6 billion globally. Surveys of Somali waters show that there are significant fish stocks off the coast of Somalia—these waters are in fact considered to be some of the richest fishing grounds in the region. Many profitable species live in the waters off the coast of Somalia, data supported by the Sea Around Us Project, which studies the impact of fisheries on marine ecosystems across the globe.<sup>1</sup>

Among the more commercially valuable fish currently landed in Somali waters through both inshore and offshore fishing are the tropical spiny lobster, swordfish, and multiple species of tuna. Miscellaneous other species are also available, and those varieties combined comprise 81% of Somalia’s annual landings by tonnage, or 61% by value (see Table 1 below). These catch totals show that there is considerable value in Somalia’s undeclared Exclusive Economic Zone (EEZ)—the 200-mile area to which Somalis could lay fishing claims if they were to officially declare ownership—the development of which could greatly benefit Somalia’s coastal communities. The values of the catches cited by the Sea Around Us Project, as listed in Table 1, show the potential income from fishing off the coast of Somalia.

**Table 1.** Fish Caught in the Waters off Somalia in metric tons (MT):

Species caught in Somalia’s EEZ	Value Per Ton (avg. 1997-2006)	Annual Landings (avg. 1997-2006)	Total Annual Value (avg. 1997-2006)
Yellowfin Tuna	\$2,333	2,168	\$5,707,851
Bigeye Tuna	\$2,913	1,485	\$5,044,167
Skipjack Tuna	\$1,035	1,417	\$1,471,568
Albacore	\$2,516	90	\$263,354
Tropical Spiny Lobster	\$9,959	453	\$4,390,080
Swordfish	\$2,639	393	\$1,245,157
Mixed Group	\$1,051	26,413	\$27,770,359
<b>Total</b>	<b>\$1,416</b>	<b>32,419</b>	<b>\$45,892,437</b>

Source: Sea Around Us Project 2011<sup>2</sup>

If these projections are correct, there is great potential for Somalis to capture some of this wealth. A 2005 United Nations Development Programme (UNDP) study estimated that Puntland, in northeastern Somalia, has the capacity to produce 180,000 metric tons of fish, which is more than five times the current average number of annual landings reported by the Sea Around Us Project for all of Somalia.<sup>3</sup>

Somalia’s potential for expanding its fisheries can be elaborated on with a comparison to the fishing sectors of nearby countries. The average yield from fishing in Somali waters was approximately \$46 million per year between 1997 and 2006, which is only 1% of Somalia’s estimated 2010 GDP.<sup>4</sup> That is less than half the figure of several nearby countries; fisheries account for 4% of Malawi’s GDP, 2% of Kenya’s, 2.9% of Tanzania’s, and 2.2% of Uganda’s.<sup>5</sup> Furthermore, the East Coast region of the United States, which is roughly the same length as Somalia’s coastline, brought in an annual catch valued at an average of \$1.6 billion each year between 1997 and 2006, more than three times that of Somalia.<sup>6</sup> In Figure 1, below, a comparison of EEZs in the surrounding area—namely the western Indian Ocean, north of the equator—is presented to aid in better understanding the potential income of a fishing industry in Somalia.

**Figure 1.** Catch Values for States in the NW Indian Ocean

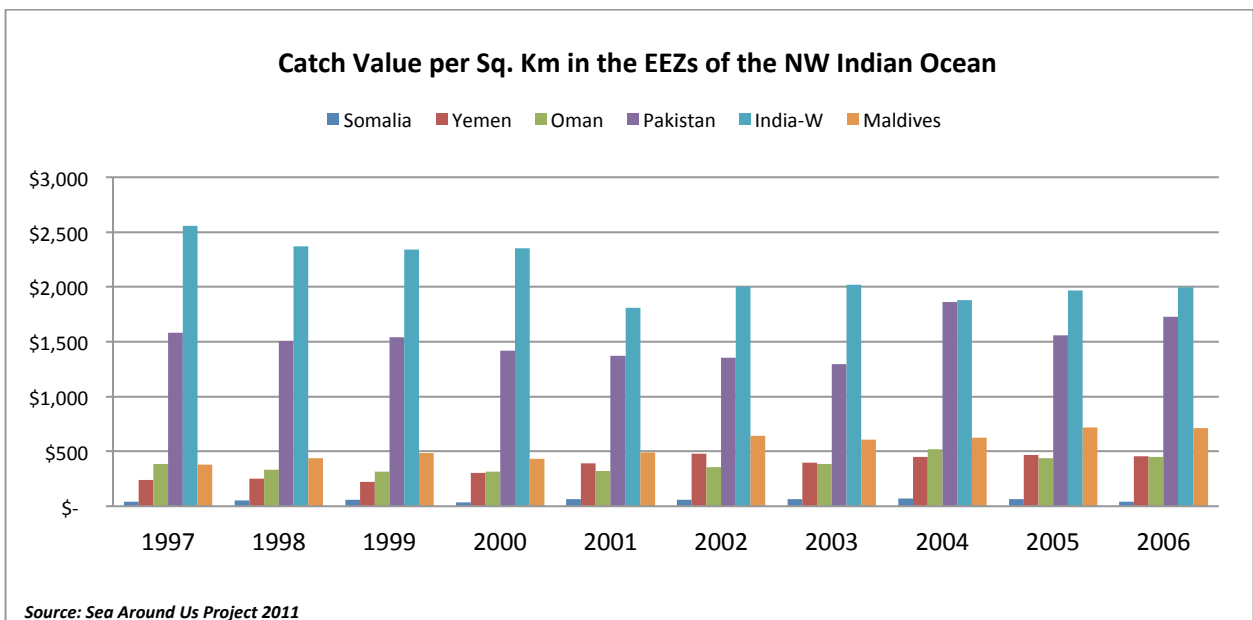


Figure 1 compares the catch value of each EEZ in the region. It looks specifically at the total annual value of the reported landings per square kilometer of each country’s EEZ. This comparison reveals that Somalia accounts for only 1% of all fishing activity over the ten-year period on a per-square-kilometer-basis, which is significantly less than the other countries in the northwest Indian Ocean.

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## Models for investment in fishing

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Given the outlined potential for fisheries, the question is not *whether* Somalis could profit from fishing but *how*. By what means can Somalis, with the help of external funding, harness this potential for wealth?

We identify three possible avenues for wealth accumulation through fishing and discuss the advantages and disadvantages of each:

1. Promoting artisan and subsistence fishing
2. Licensing foreign fishing vessels
3. Combining licensing with small-scale fishing

Shuraako is also exploring opportunities for investment in Las Koray Tuna and Habo Fish Processing and Canning, which are the two main factories, and will update this report as information becomes available.

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## Promoting artisan and subsistence fishing

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Somali fishermen are among the poorest and most marginalized members of Somali society. Empowering them with greater knowledge about fishing and preservation methods and providing them with access to better equipment could significantly increase their standard of living and boost food security. Artisan/subsistence fishing remains the dominant type of fishing for Somalis. It supports more than 8,000 families in Puntland and is therefore an important part of the economy.<sup>7</sup> If Somali fishermen were trained in better methods and were provided with simple processing facilities, they could greatly improve the profitability of their businesses. A small-scale project could serve as a model for other fishing communities and could encourage Somali society to consider including fish as a source of nutrition, which would also reduce the negative effects of the recurring cycles of drought and subsequent livestock die-offs.

Although promoting artisan fishing is low-tech and seems relatively straightforward, it is also challenging. There is little in terms of fishing infrastructure in Somalia. In the aftermath of the collapse of the central government in 1991 almost everything was looted and remains unusable, including boats, nets, and most of the necessary equipment from processing factories and harbors. Institutional knowledge and fishery expertise were also lost as many Somalis fled the country during the civil war.

Not only the infrastructure needs improvement; the Somali fishermen themselves possess little basic information on effective fishing methods or techniques to prevent spoilage. According to a fishery expert from Somali Fair Fishing, an organization planning a small-scale project in Somaliland, “We are starting from square one.”<sup>8</sup> Nevertheless, it is possible to provide training and funding for infrastructure and the fishermen seem eager for this assistance.

Previous small-scale fishery projects did not prove successful, however, because the fishermen remained heavily reliant on donor agencies. Although promoting artisanal fishing would start out as a development project, profitability and independence from donor agencies must both be made medium-term goals.

Profitability is a realistic goal. Although current figures on the number of Somali fishing vessels are unavailable, a UNDP report estimates that in 2005 in Puntland, which is equal to about one-third of Somalia's land area, there were approximately 1,687 artisanal vessels including motorized watercraft, sailboats, and canoes. These 1,687 vessels have the potential capacity to bring in a total of between 84 and 253 MT of fish per day, depending on the season, based on the estimated capacity of between 0.05 and 0.15 MT per day per vessel.<sup>9</sup> Using the provided average annual catch value from the Sea Around Us Project of \$1,416 per ton, these vessels combined have the potential to bring in catches worth between \$119,406 and \$358,218 each day.

If Somali fishermen utilized all 1,687 operational vessels every day of the eight-month fishing season, fishing income could theoretically total \$87 million each year. However, this estimation is based on numerous assumptions that are, in reality, unlikely. First, it assumes the fish would be processed and frozen in a timely manner, but the necessary processing facilities currently do not exist and would have to be built. Second, these numbers assume that Somali fishermen would fish every day of the season. This does not factor in the limitations of weather, the number of days that would likely be taken off for religious or other purposes, and the probability that all fishermen would not catch the maximum estimate of 0.15 MT per day. These limitations, among others, reduce opportunities for profit from the fishing sector. A much lower, yet still beneficial, profit margin is theoretically possible if Somalis increase their consumption of fish; domestic marketing could lessen the need for processing facilities. Currently, as discussed, the amount of fish consumed in Somalia is small but growing.

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## Licensing foreign fishing vessels

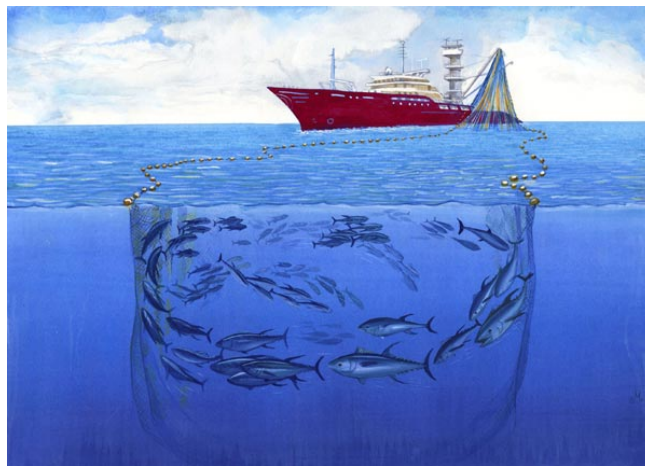
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While it might seem to make sense for Somali fishermen to simply fish and then sell their catches, there are significant obstacles to that model. Even if Somali artisanal fishermen had the necessary skills and knowledge, they are by nature capable of catching only a fraction of the amount of fish that an industrial operation could obtain. International markets therefore offer the greatest potential for Somalia's fishing sector. The Food and Agriculture Organization of the United Nations estimated in 1982 that Somalia exported \$15 million worth of its fish. Fish is the most heavily-traded food commodity in the world—\$56 billion worth of fish was traded in 2001, half of which came from developing countries.

According to the New Partnership for Africa’s Development:

The international trade in fish and fish products is expanding and in 2007, it was valued at \$92 billion with developing countries accounting for 50 percent of all fish exports. The EU is the world’s largest market for fish, reflecting growing domestic consumption. The EU imported USD23 billion worth of fish and fisheries products from non-EU suppliers in 2007. Although Africa is a huge continent, with an enormous coastline, the continent only accounts for 8 million tons [MT] or 5.1 percent of the world’s total fish production—capture plus aquaculture [in] 2007.<sup>10</sup>

The type of industrial fishing most appropriate for Somali waters is purse seining. A typical purse seiner can catch 30 MT a day with a crew of 30. Purse seining does not require a large crew, but the crew members must be well trained in order to safely and effectively operate the machinery. Purse seining uses large nets weighted at the bottom with floats on top. The nets are deployed in the form of a circle around a school of fish and may be closed at the bottom to form a “purse.” These nets can measure up to 610 meters long by 200 meters deep. They are too large to handle manually and require specialized equipment to set the net around a school of fish and to haul in the catch. Industrial purse seining vessels have the capacity to freeze and carry 1,000 MT of tuna on board, which is important for preserving the quality of the fish. Given that the average purse seiner catches 4,655 MT each year, this storage capacity means the vessel must return to port only a handful of times each season. The picture below depicts a typical purse seiner.



Source: FAO

Somalis could simply set licensing and fee schedules for the appropriate foreign vessels and then collect payments, bringing much-needed revenue to regional governments. There are, however, several disadvantages associated with this option. For one, it does not include working constructively with Somali coastal communities. Second, Somalis would receive only a small portion of total profits. If we look at licensing fees in other states in the region as a



model, we calculate that in the fifth year of such a project the fishing company could earn as much as \$17 million, while the Somali portion would be under \$70,000. Third, this scheme also relies on the assumption that fishing companies would begin to comply with such fees, when in fact they are currently able to fish undeterred (and without fees) due to Somalia's inability to protect its waters. This inability also means that Somalis are unable to enforce any catch limits, which could also have a detrimental effect on the health of the fisheries.

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## Combination inshore/offshore option

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The goal of a combination inshore/offshore option is to not only provide income to regional Somali governments through receipt of licensing fees, but to also promote economic development within Somali coastal communities. In this scenario, the purse seiner conducts its offshore operations as described above, but provides additional support to artisanal Somali fishermen by purchasing their catches. One of the main constraints facing inshore fishing, as described by the World Bank, is that the “failure of transporting catches on a fresh fish basis increased capital and operating costs to the extent that [inshore fishing’s] financial rate of return was negative.”<sup>11</sup> The transportation and freezing challenges would be overcome if the artisanal fishermen could sell their fish directly to the offshore vessel, which would store it in their freezer hold and transport it to a port for resale. This also relieves pressure on the fishermen to find new markets for their catches. Like the small-scale fishery plan, this scenario necessarily includes onshore support in the form of training and funding for equipment.

It is unclear, however, whether industrial fishers would support this plan. Given the piracy situation in Somalia, this plan might greatly increase security costs for industrial fishing operations and make them more vulnerable to hijacking attempts and also possibly harm innocent fishermen who might be mistaken for pirates. We estimate that industrial fishing operations would also experience a 10% decrease in the annual catch; the actual reduction may be even greater. The reduction would be due to the need for the vessel to regularly travel into territorial waters to meet Somali boats and collect their catches, which would reduce the amount of time that the purse seiner could spend fishing.

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## Conclusion: Five Key Lessons

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Based on a review of the lessons learned by outsiders in past attempts to invigorate the fishing sector, we offer five key lessons.

1. **Build the local market for fish.** Fish consumption rates in Somalia are low but steadily and rapidly increasing, and organizations such as Somali Fair Fishing and the FAO are



utilizing a marketing campaign to convince Somalis to consume fish. Fish consumption in Somalia is among the lowest in Africa, with yearly per-capita consumption in Puntland estimated at between 1.8-2.2 pounds (or 0.8-1 kilogram) in 2004 according to the UNDP. However, in the summer of 2012, the Shuraako team travelled to Puntland and Somaliland and found that many fish stores were selling out of the entire catch, sometimes even by mid-day. A growing market does exist and can be built upon. There are, however, serious challenges, the first of which is transporting the fish from the coastal areas to the larger inland cities. Poor (or nonexistent) roads and a lack of processing facilities are currently hindering distribution to the interior of the country. For example, the only market in Puntland is Bosaso, the main port town, but in 2005 the UNDP considered its facilities to be “unsuitable in terms of hygiene and sanitation.”

- 2. Teach Somalis how to fish.** Somalis lack a traditional fishing culture because throughout history they have had a very negative attitude toward the consumption of fish and the occupation of fisherman. They considered fish a “low-class food and regard[ed] fishermen with scorn.”<sup>12</sup> Somalis need training in best practices for all aspects of fishing—catching, storing, processing, marketing, and governing the resource. With a product as perishable as fish, it is crucial that fishermen understand best practices for cooling and processing their catches. Fish prices decline precipitously for fish that is not in good condition. The FAO, Somali Fair Fishing, and other groups have set up training programs in Puntland and Somaliland. Investors should keep in mind that although there is great potential, fishing remains a fledgling industry domestically.
- 3. Conform to local capabilities.** In the past, potential infrastructure was “overdesigned” and “too sophisticated for the environmental and maintenance standards of Somalia,” according to the UNDP. Fish processing facilities were built to European standards and relied on clean water, reliable electricity, and technical expertise, all of which Somalia lacks. Investors should assess local conditions and work within them.
- 4. Get “buy-in” from local fishermen, offering risks and rewards.** In the past, investors provided 100% of the project funds rather than soliciting investment from local businesses. Investors should incentivize Somalis to have a stake in project outcome.
- 5. Encourage the Somaliland and Puntland Ministries of Fishing to set standards and catch limits.** In the long term, Somalis must have a fisheries management plan to ensure the health and sustainability of the fisheries. According to the FAO’s Somalia fishery expert, a project that is comprehensive and long term has a much better chance of success. He warns that before we think about “patchwork solutions”<sup>13</sup> such as delivering processing facilities, Somalis must work toward comprehensively incorporating three crucial phases of sustainable fishery:

- the collection of data on marine life and how fishermen are interacting with it;
- a management plan written by qualified Somali personnel which draws on the wealth of knowledge about sustainable fishing; and
- the capacity to enforce relevant laws and regulations.

## Sources:

- <sup>1</sup> The Sea Around Us Project is a collaboration between the University of British Columbia and the Environment Group of the Pew Charitable Trusts.
- <sup>2</sup> We acknowledge the use of information from the Sea Around Us Project, a collaboration between the University of British Columbia and the Environment Group of the Pew Charitable Trusts.  
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