

Voluntary Report – Voluntary - Public Distribution

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Report Name: Fisheries and Aquaculture in Senegal

Country: Senegal

Post: Dakar

Report Category: Fishery Products

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Report Highlights:

The fisheries sector contributes to 3.2 percent to Senegal's gross domestic product (GDP), accounts for 10.2 percent of Senegal exports, and generated \$400 million in value in 2021. There is a growing demand for high quality fish and seafood products because overfishing and illegal, unreported, and unregulated (IUU) fishing have led to depleted fish stocks, creating market access opportunities for U.S. seafood exporters.



Photographs: Bousso and Juan Vilata

Production

With a relative long coastline of approximately 712 km and high biodiversity, Senegal has one of the world's richest fishing grounds. With an annual catch rate of 450,000 MT per year, for the last five years Senegal has been the second largest fish producer in West Africa, behind Nigeria (530,000 MT) and closely followed by Ghana (344,000 MT). The fisheries sector contributes to 3.2 percent to Senegal's gross domestic product (GDP) and accounts for 10.2 percent of Senegal exports. It also employs over 600,000 people. There are two fish production seasons in Senegal — the low catch season from June to October which almost coincides with the rainy season and the high season November through June.

Senegal's total fish production in 2021 is estimated at 460,000 MT, down 10.8 percent compared to production for the same period in 2020, estimated at 510,000 MT. The 2021 estimated commercial value is \$400 million, down 9 percent year-over-year. This decline is likely largely due to COVID-19. Artisanal fisheries landed 348,208 MT, a 12 percent drop compared to the production in 2020, estimated at 395,000 MT. The value dropped by eight percent to \$248.89 million in 2021 against \$271.78 million in 2020. Industrial fishery landings dropped by three percent in both volume and value to 110,722 MT and \$151.97 million, respectively, from a year ago.

Artisanal vs. Industrial

Artisanal fishing is very important in the sector not only in terms of volume and employment, but it also provides about 80 percent of the catch. The majority of the catch is pelagic fish¹. Most of the fishing landing sites are located in Dakar, Saint-Louis, Kaya, Joal-Fadiouth, Mbour, Rufisque, and Bargny. Artisanal fishing primarily uses traditional pirogues with or without engines. Currently, the *pirogue* park consists of 24 331 *pirogues*, 80 percent of which are motorized.

¹ Fish that inhabit sunlit waters up to about 655 feet deep, typically above the continental shelf, like sardines, anchovies, tuna, mackerel.

Unlike artisanal fisheries, the industrial fishing fleet is made up of 280 ships, 158 of which are locally owned. The majority of species caught are demersal² and intended for export. There are three types of fishing: sardine, trawler, and tuna.

Fresh and Salt

The Senegal fisheries sector is made up of salt water and fresh water catch with a very strong predominance of saltwater fishing which accounts for more than 95 percent of landings. The wild catch sector is composed of artisanal fisheries with pirogues and industrial fisheries with boats. Both are practiced all along the coastal areas by local and foreign fishermen and generate many downstream activities such as the post-harvest handling, selling fresh fish, processing, storage, packaging, and marketing.

Fresh water fishing is practiced mainly in rivers such as the Senegal, the Sine-Saloum, the Gambia, and the Casamance rivers and lakes the most important of which are Lake Guiers, Lake Tanma, Lake Retba, Lake Fass Boye, and Lake Kayanga. The main species caught are freshwater tilapia, clarias (catfish), mullet, oysters, and cockles.

Top 15 of Saltwater Species Caught in Senegal

Skipjack/Bonito/Listao (<i>Katsuwonus pelamis</i>)
Octopus (<i>Octopus vulgaris</i>)
Fish (various)
Cuttlefish/Seiche commune (<i>Sepia officinalis</i>)
Deep shrimp (<i>Parapenaeus longirostris</i>)
Albacore (<i>Thunnus albacares</i>)
White shrimp (<i>Penaeus notialis</i>)
Grouper (<i>Epinephelus aeneus</i>)
Round Sardinelle (<i>Sardinella aurita</i>)
Bigeye tuna (Patudo)(<i>Thunnus obesus</i>)
Senegalese Sea Mullet (<i>Pseudupeneus prayensis</i>)
Bengal Tongue Sole (<i>Cynoglossus cynoglossus</i>)
Longneck ladyfish (Courbine nanka) (<i>Pseudotolithus typus</i>)
Common squid (<i>Loligo vulgaris</i>)

Source: [CBI 2018 Report on Value Chain Analysis: Senegal Fish](#)

Aquaculture

Several African countries are developing aquaculture to reverse the trend of a significant drop in marine production due to the effects of climate change and global warming. Aquaculture was introduced in Senegal in the early 1980s but has shown slow growth since then. Despite significant support for the various government agencies to boost the aquaculture sector, the production remains weak. The Ministry of Fisheries, through the National Agency for Aquaculture (ANA), has developed a national strategic plan for aquaculture development but lacks resources for efficient implementation. To support private producers, the GOS through ANA acquired 200 MT of fish feed in 2021 for the production of

² Demersal fish, also known as groundfish, live and feed on or near the bottom of seas or lake.

fingerlings to support producers whose numbers have been increasing since 2012. Yet, the 2021 production is far from the objectives due to mainly lack of quality fish feed

Total farmed fish production in 2021 was estimated 1,400 and is mostly composed of Nile tilapia, brackish water Tilapia, African catfish, oysters, and mussels. This was a 24.9 percent jump year-over-year due to government increased access to subsidized inputs such as feed which represents approximately 60 percent of the operating costs of a fish farm. Feed cost constitutes an impediment to the development of aquaculture in Senegal. The price of feed depends on quality. Imported fish feed costs between \$1.6 and \$1.8 per kilo. The price of local fish feed which is mostly sinking feed ranges from \$0.62 to \$1.33 depending on the quality.

The General Directorate of Planning and Economic Policies of the Ministry of Economy, Planning and Cooperation Marine has initiated saltwater fish farming projects on sea bream and meager which could slightly boost the production in 2022/23.

Marine aquaculture production activities mainly concern fish farming projects on sea bream and meager which are being developed in collaboration with the General Directorate of Planning and Economic Policies of the Ministry of Economy, Planning, and Cooperation, and this could slightly boost the production in 2022/23.

Fish production has dwindled over the years due to illegal, unreported, and unregulated fishing (IUU), mostly by foreign boats that have gone through a process of “Senegalization” that allows the vessels to carry Senegal flags. These fleets mostly catch small pelagic species to make fish oil or fishmeal, which is processed and sent back to Senegal to feed domestic fish stock, pets, or livestock. This is exacerbated by steadily rising sea temperatures that led to the migration of fish to cooler waters in the north and away from the equator.

Overall domestic production is trending downward which leaves room for U.S. fish exporters to explore market access opportunities in Senegal. See Opportunity for U.S. Exports.

Processing

Fish processing is mainly practiced along the seacoast of Senegal. It is an essential link in the fishery value chain as it contributes to the creation of jobs as well as the reduction of post-harvest losses. It is practiced in two forms — artisanal and industrial processing.

Artisanal vs. Industrial

About forty percent of the landings from the artisanal fisheries goes to traditional processing. Approximately 40,000 women process sardinella and other species from artisanal fisheries into *Keccax* (braised, salted, and dried fish), *Gejj* (fermented and salted-dried fish), *Metorah* (smoked and salted-dried fish), *Tambajeng* (whole salted and dried fish), *Yeet*, *Tuufa* (fermented and dried cymbium), *Paañ* (dried arcas) and fins (dried in the sun without prior treatment). (Source: [Marine Policy, Article 138](#))

As for industrial fish processing, it is mainly carried out by companies that process some species such as sole and grouper into fillets for the export market. Artisanal fisheries supply more than 50 percent of the raw material for industrial processing.



Photographs: Bousoo and Juan Vilata: Artisanal Fish Processing Site



Photographs: Bousoo and Juan Vilata: Industrial Fish Processing Site

Fresh and Salt

Only five percent of the catch is fresh water. Processing of the freshwater catch is almost insignificant. However, for the processing of fresh catch it is mostly done with Tilapia and African catfish.

Aquaculture

The two main farmed species are tilapia and African catfish. African catfish is mostly processed into smoked fish and sells well in local markets.

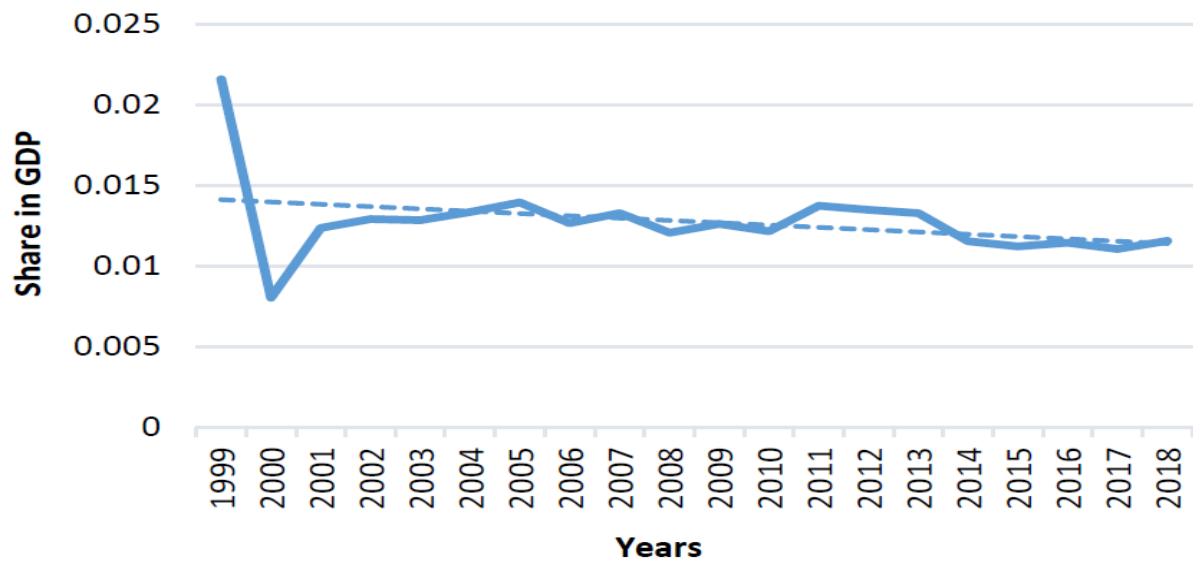
Distribution

Fish distribution is dominated by a large number of market aggregators. First, there are aggregators who buy fish at the fish landing site and transport it to markets and wholesalers. Second, there are others who collect and sell their aggregated fresh catch to industrial companies for exports and to retailers for domestic consumption. In addition, fish is also sold directly to consumers in other regions. Finally, there are Local Artisanal Fishing Councils (CLPA) recently involved in the marketing of fish products.

The domestic market includes the central fish market, the local wet markets, and the main landing sites. Artisanal fisheries supply 95 percent of the national market. About 60 percent of processed fish and

seafood products are exported to neighboring countries (Guinea, Burkina Faso, Mali, Ghana, etc.). The value added generated by fishing represented 1.5 percent of GDP in 2017, compared to 1.6 percent of GDP in 2018.

Table 1: Artisanal Fisheries Share in Senegalese’s GDP from 1999 to 2018



Source: The National Agency of Statistics and Demography of Senegal (ANSD, 2019 data)

Artisanal vs. Industrial

Industrial fishing targets the export markets while artisanal fishing supplies domestic consumption. Fish and seafood such as shrimp, crab, lobster, octopus, grouper, and snapper are sold at fish landing sites, in local markets, supermarkets, hotels, restaurants, and neighboring countries.

Fresh and Salt

Inland fishing lacks adequate monitoring and thus lags behind saltwater fishing. Fresh water fishing is usually for self-consumption, but it has been trending more and more to commercialization - either live or processed. Fresh water fish is mainly sold in local markets in rural areas.

Aquaculture

Farmed fish is usually sold to consumers in local communities. It has been difficult to commercialize farmed fish production since it is primarily tilapia and catfish, and the HRI sector prefers saltwater fish such as sea bream and grouper to satisfy their international customers. Additionally, farmed fish is not very accessible as it costs a bit more than saltwater fish due to its high cost of production. (See Prices)

There are also e-commerce startups that connect fishermen and customers for the sale of fish and seafood in Senegal. Customers log into the websites and access a wide variety of fish and seafood products, and have their order delivered to their home.



Photo taken at Lompoul Fish Landing Site

Local Consumption

Fish is highly appreciated by Senegalese consumers and contributes to more than 70 percent of animal protein intake in Senegal. Fish products are used as major ingredients of many dishes and particularly that of the national dish, rice with fish. Fresh fish consumption was formerly limited to coastal areas such as Dakar, Rufisque and Saint-Louis and has gradually spread inland where in the past fish was traded for rice, millet and salt. Now, thanks to the development of supply chain channels fish and seafood products can be found in all the regions, despite persistent disparities in consumption levels. Braised fish is consumed for its availability and cheap price. Smoked and salted-dried fish is consumed locally and also exported to other nearby countries such as Mali, Burkina Faso, Guinea Bissau, Guinea Conakry, Cote d'Ivoire, Benin, etc.

Fish consumption exceeds local production by 150,000 MT annually (FAO), which the low imports cannot compensate. (See imports) However, fish consumption has followed a downward trend in recent years, falling from 41 kg in 2003 to 29 kg in 2021, but still above the world average (20.5 kg) and higher than average annual per capita consumption in Africa (10 kg) (FAO). This high consumption in Senegal as compared to other countries, however, hides some disparities. For instance, fish consumption per capita in Dakar is way higher than in Kolda, in the south of the country due to different eating habits and the fact that this region is distant from coastal areas. In addition, Dakar consumes 26.8 percent of processed products from artisanal fisheries while Kolda and Kaolack consume respectively 14.9 percent and 13.6 percent (ANSD).

An overall drop in consumption is mainly due to climate change dynamics, illegal, unreported, and unregulated (IUU) fishing, overexploitation, and strong competition from external markets for pelagic species which constitute 75 percent of the most consumed fish in the country. The national annual fish per capita consumption is expected to continue to drop over the next ten years if nothing is done to mitigate climate change and combat IUU fishing. In addition, artisanal fishing seems to have relinquished its initial objective of supplying the domestic market with pelagic fish insofar as some artisanal fishermen have now switched to demersal fish, catching cephalopods (octopus, squid, cuttlefish) for export.



Photographs: Bousso and Juan Vilata

Exports

Government of Senegal 2021 export and import data is not yet available. Thus, Post is utilizing 2020 data compared to the previous year. In 2020, the trade value of Senegal's exports to Africa fell by 40.6 percent compared to the previous year even though the quantities exported increased in volume. This drop is due to the fact that the exported species consists of unprocessed, whole pelagic fish with a low commercial value. The most traded species are Cunene horse mackerel (16.7 percent), Spanish mackerel (13.5 percent). Swordfish and Octopus, although having lower volumes than mackerel and horse mackerel, display a very high commercial value. (Source: Directorate of fish Processing Industries-DITP, 2020 Report)

Senegal's 2020 fish and seafood exports and re-exports³ are estimated at 364,000 MT, a seven percent drop compared to 2019 which was estimated at 391,000 MT. Exports of fishery products reached 291,000 MT, up two percent year-over year. Re-exported fishery products are estimated at 73,000 MT, a twenty percent increase compared to 2019. The export trend noted in recent years continued in 2020 despite the COVID-19 pandemic that slowed down global exports in general with confinements and quarantine all over the world. Access to international markets by Senegalese companies is facilitated by Senegal obtaining approval for the export of fishery products to the European Union market in 1996.

Table 2: Exports by category

Type of Conservation	2020 Exports in Metric Tons (MT)	2020 Quantity Percentage (percent)	2019 Exports in Metric Tons (MT)
Frozen	264,249	90.8%	263,415
Canned	12,636	4.3%	9,929
Fish Meal	7,521	2.6%	5,852
Fresh	3,028	1.04%	6,089
Fish Oil	2,069	0.7%	478
Salted-Dried	1,277	0.4%	669
Dried	287	0.1%	
Smoked	0.72	-	
Live	18	0.01%	73
TOTAL	291,087	100%	285 237

(Source: Directorate of fish Processing Industries-DITP, 2020 Report)

³ Re-exports or products of foreign origin are made up of landings from foreign flag vessels.

Exports of fishery products on the world market are in the classic forms of frozen, fresh, processed, canned tuna, fish meal, fish oil and a small volume of live product. Fish exports in 2020 were predominantly frozen products with 90.8 percent, followed by canned tuna 4.3 percent and fish meal 2.6 percent. Exports of fresh and live products intended mainly for the European market reached 3,0456 MT in 2020, a 12.2 percent drop compared to 3,417 MT in 2019.

Table 3: Exports by category and destination in 2020

CONTINENT	PRESERVATION TYPE									GRAND TOTAL
	FROZEN	CANNED	FISH MEAL	FRESH	FISH OIL	SALTED-DRIED	DRIED	SMOKED	LIVE	
AFRICA	209,363	1, 902	822	5		1,248				213, 342
EU	28,487	1,539	139	2,735	141	4	11		2	33, 057
ASIA	22,778		5,780	201	20	25	274		15	29,094
AMERICA	2,433	9,196	108	47	1,908		2	1		13,696
OUTSIDE EU	1,188		670	40						1,898
TOTAL 2020	264,249	12, 637	7,521	3,028	2,069	1,277	287	1	18	291,087
2019 STATS	263,415	9,229	5 282	6,089	478	669			73	285,237
VARIATION percent	0.32%	36.9%	42.4%	-50.3%	332.3%	134%			- 75.8%	2.05%

(Source: Directorate of Fish Processing Industries-DITP, 2020 Report)

In 2020, Senegal exported fish to 68 countries, including 28 in Africa, 19 in Europe, including 15 in the European Union (EU), 15 in Asia and 6 countries on the American continent. During the same year, Senegal's exports of fish and seafood products to Africa were estimated 214,000 MT, a 3.9 percent drop compared to 2019. Exports to the European Union are estimated 33,000 MT, a 13.3 decrease compared to 2019. The export volume to Asia was estimated 29,000 MT, 0.15 percent slight drop compared to 2019. Exports to the American continent amounted 13,700 MT, up 9.6 percent compared to 2019.

Table 4: Export Evolution from 2015 to 2020

Year	Quantity in MT	Value in Millions (USD)
2015	188, 463	\$357
2016	192, 162	\$365
2017	207,036	\$383.5
2018	272, 178	\$525
2019	285, 237	\$540.4
2020	291, 087	\$458
Average	251, 503	\$453

(Source: Directorate of fish Processing Industries-DITP, 2020 Report)

Exports in recent years jumped from 188,463 MT in 2015 to 291,087 MT, a 64.7 percent growth in six years, corresponding to an average annual increase of 8.03 percent. However, the commercial value for 2020 did not increase according to the quantities exported as highlighted in the table above. This was probably due to the COVID-19 pandemic effects on global economy.

Exports have increased and represent about 30 percent of annual production due to artisanal fisheries providing the export industry with inputs instead of focusing on the local market. In addition, small pelagic species are caught by foreign fleets and transformed into fishmeal for aquaculture, poultry and hog feeds in Asian and European countries and even sold back to Senegal. This situation has led to a drop in domestic supply of fish and an inflation of prices.

Exports to the United States

In 2020, the United States imported fish and seafood products worth \$29.26 million, a 4.9 percent drop as compared to 2019 which was estimated \$31 million, according to Trade Data Monitor (TDM). Tuna, skipjack, bonito, mollusks, octopus, and shrimps are the main fish and seafood products exported to the United States for the last five years.

Table 5: Senegal Fish and Seafood Exports to the United States

Product Group: BICO-Seafood Products;							
Annual & YTD Series							
						January-August	
	2015	2016	2017	2018	2019	2019	2020
Senegal	3339576	3581337	7636506	34097617	51564707	30794783	29264219

(Source: Trade Data Monitor)

Imports

Senegal fish product imports keep increasing every year. Imports in 2018 were estimated 3,300 MT. According to the Directorate of Fish Processing Industries' (DITP) 2020 report, Senegal imported 8,872 MT in 2020, up 47.42 percent year-over-year and 280 percent jump as compared to 2018. However, according to TDM, Senegal imported 7,072 MT of fish and seafood products worth \$11.65 million for the same year, down 9.2 percent from the previous year because of COVID-19 restrictions. Imports are largely sardines, sardinella and brisling or sprats (57 percent), other frozen fish (11 percent), tuna (9 percent), fish-liver oils (8 percent), frozen lula and sepias (8 percent) and crustaceans and mollusks (7 percent). (Trade Data Monitor)

In Senegal, imports of fish products are made all year round with peaks in July, corresponding to the winter period, biological rest periods and religious ceremonies (Magal, Gamou) and in October, November, and December. According to Senegal's Directorate of Fish Processing Industries-DITP 2020 report, the main supplying country remains Mauritania with a volume of 67.4 percent. Imported products are mainly made up of frozen mullet and dried fermented fish. According to the Trade Data Monitor, Morocco supplied 35 percent of Senegal fish imports in 2020, most likely because Mauritania did not report. Scotland and Norway provide fresh salmon, France smoked salmon and Pilchard (Sardinella).

Overall, the low imports cannot cover the local demand. There is a gap of approximately 150,000 MT to fill every year. Fish product imports cover only one-tenth of this deficit, which represents an opportunity for U.S. fish and seafood exporters.

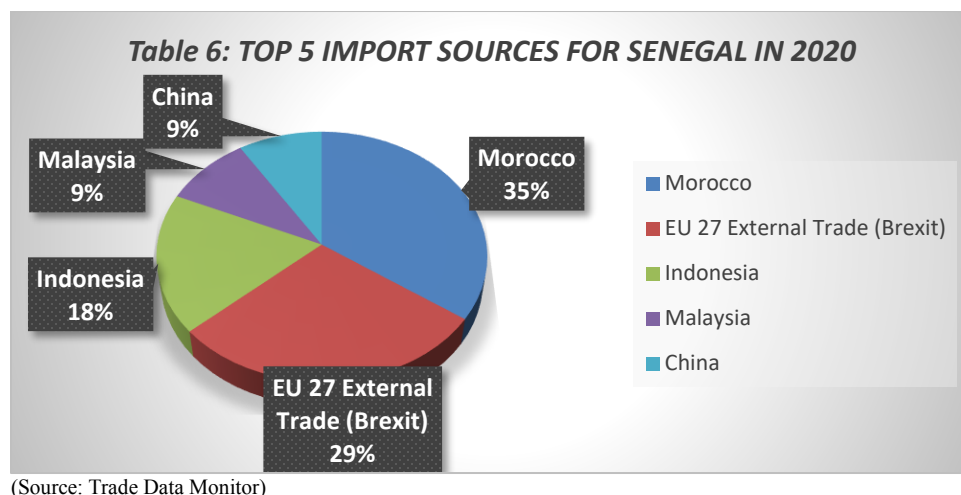


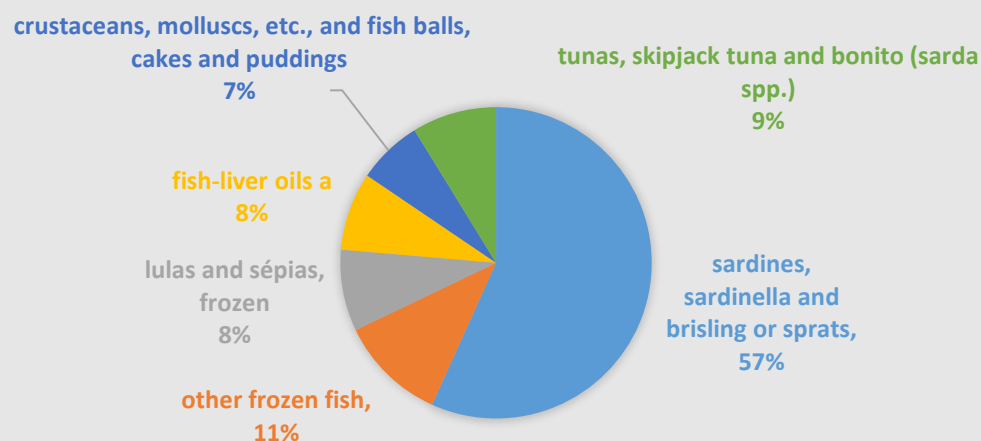
Table 7: Senegal Fish and Seafood Product Imports from the World

Country of Origin	Commercial Name	Product Nature	Quantity in MT	Percentage
Mauritania	Royal Spiny Lobster	Fresh	0.04	67.4%
	Living Cicada		0.20	
	Mullet	Frozen	4,850	
	Various Fish		837.43	
	Fermented-Dried Fish	Salted-Dried	295	
Morocco	Mullet	Frozen	467.60	6.2%
	Various Fish		54	
	Seiche		28	
Somalia	Various Fish	Frozen	537.16	6.1%
Oman	Barracuda	Frozen	263.29	4.5%
	Jewfish		80.74	
	Coryphene		27	
	Sea Bream		24.68	
Argentina	Black Drum	Frozen	38.79	3.2%
	Daurade		55.20	
	Mullet		192.82	
Indonesia	Barracuda	Frozen	91	1.9%
	Northern Pike		26.52	
	Jewfish		27	
	Emperor Fish		27	
Sierra-Leone	Barracuda	Frozen	147.45	1.9%
	Various Fish		23	
Guinea	Golden Grouper	Fresh	0.43	1.9%

Conakry	Barracuda		143.73	
	Shrimp		3.38	
	Grouper		11.35	
	Giant Tiger Prawn		0.06	
	Salmon		0.73	
	White Grouper		1.06	
	Gorean Snapper		4.53	
Uruguay	Northern Pike	Frozen	51.25	1.5%
	Jewfish		78.84	
Spain	Squid	Frozen	77.18	0.9%
South Korea	Greater Amberjack	Frozen	76.81	0.9%
Yemen	Carp		20.50	0.8%
	Hogfish/Glasseyes	Frozen	27.00	
	Grouper		22.60	
China	Northern Pike	Frozen	50.00	0.6%
Italy	Various Fish	Frozen	49.17	0.6%
Norway	White Grouper	Fresh	0.17	0.3%
	Salmon	Fresh	29.14	
Mexico	Umbrina	Fresh	27.00	0.3%
Peru	Horse Mackerel	Frozen	26.60	0.3%
Japan	Various Fish	Frozen	26.00	0.3%
Brazil	Angler	Frozen	25.05	0.3%
United Arab Emirates	Barracuda	Frozen	22.85	0.3%
France	Pilchard (Sardine)		0.04	0.025%
	Shrimp		0.34	
	Fresh Salmon	Fresh	0.81	
	Oyster		0.21	
	Sea Trout		0.01	
	Cod Fillet		0.05	
	Smoked Salmon	Smoked	0.72	
Scotland	Salmon	Fresh	0.44	0.005%
Island	Salmon	Fresh	0.16	0.002%
Chile	Various Fish	Frozen	0.04	0.0005%
TOTAL IMPORTS			8,872,18	100%
2019 TOTAL IMPORTS			6,018,040	
Import Evolution Percentage			47.40%	-

(Source: Directorate of fish Processing Industries-DITP, 2020 Report/Unofficial Translation by Agricultural Specialist)

TABLE 8: SENEGAL FISH AND SEAFOOD PRODUCT IMPORTS FOR THE LAST 5 YEARS



(Source: Trade Data Monitor)

Imports from the United States

In 2020, Senegal imported fish and seafood products from the United States valued at \$380,000, down 23.5 percent compared to imports in 2019, estimated at \$500,000. Most of the imports from the United States are mainly fish liver oil, frozen shrimp and prawns and prepared or preserved fish, including products containing meat of crustaceans, mollusks, etc., and fish balls, cakes, and puddings.

Table 10: Senegal Fish and Seafood Imports from the United States

Data									
Printer Friendly		Other Formats		Create CSV File		Calculation Formulas		Change Base Year	
Area/Partners of Destination		January - December		Values in Thousands of dollars		2020			
And Commodities Exported									
Partner	Product	Value	Value	Value	Value	Period/Period %	Change (Value)		
☐ 1 Senegal 1	Seafood Products	48	0	497	380		-24		
☐ 1 Senegal 1.1	1504100000 - FISH LIVER OIL	0	0	497	368		-26		
☐ 1 Senegal 1.2	0302130032 - PINK SLMN F/C NS	0	0	0	7		--		
☐ 1 Senegal 1.3	0304991140 - SURIMI NES FZ	0	0	0	4		--		
☐ 1 Senegal 1.4	0303390120 - ROCK SOLE,FZ	37	0	0	0		--		
☐ 1 Senegal 1.5	1604200500 - PRODUCTS, MEAT C	11	0	0	0		--		
☐ Grand Total		48	0	497	380		-24		

Notes:
1. Data Source: U.S. Census Bureau Trade Data
2. Product Group : BICO-HS10

Price

The price for white grouper has increased sixfold, from an average of 650 FCFA (\$1.20) during the period 1980–2000 to an average of 3600 FCFA (\$6.60) per kilogram over the period 2000 – 2016. In 1990, captain fish and octopus were sold at less than 150 FCFA (\$0.27) per kilogram. Over the decade 2010–2020, the price of captain fish has also grown sixfold (i.e., an average of 750 FCFA (\$1.37) per kilogram), while the price of octopus has multiplied by fourteen (i.e., an average of 1720 FCFA (\$3.21). Sardinella, the most locally consumed fish previously accounted for less than ten percent of the volume of exported products, now represents sixty percent of the volume exported, and is therefore less available on the local market. It was sold at 25 FCFA (\$0.05) per kilogram during the period 1980–2000 but is now traded at over 150 FCFA (\$0.27). (Source: [Marine Policy, Article 138](#)) Climate change, global warming and the Ukrainian crisis will continue to exacerbate price inflation for demersal and pelagic fish.

As for farmed fish, the price range for tilapia is 1500-2500 FCFA (\$2.67-\$4.46). The price for African catfish is between 2500 and 3000 FCFA (\$4.46-\$5.35) and is approximately \$8 once processed into smoked fish.

Despite all these challenges, Senegal is a large exporter of fish and fishery products. Since 2008, there has been a surge in exports, reaching \$458 million in 2020, thirteen times higher than imports, causing the scarcity of fish on the domestic market. The low imports cannot cover the local demand.



Photographs: Bousso and Juan Vilata

Policies

Government monitoring and support programs

The Government of Senegal (GOS) has developed a new Sectoral Policy Letter for the Development of Fisheries and Aquaculture (LPSDPA) which covers the period 2016 – 2023. This goal of this policy is to ultimately enable the sector to contribute to food security, economic growth, and local development in accordance with the orientation of the national economic and social development strategy of the Senegal Emerging Plan (PSE) through the Sustainable Management of Fisheries Resources and Restoration Program, the Aquaculture Development Program, and the Valorization of Fish Production Program.

The GOS has expressed commitment to sustainably manage fisheries and increase enforcement efforts to stop IUUF. USAID's Senegal Fisheries Applied Political Economy Analysis highlights that the GOS is also working with the World Bank to freeze the already large artisanal fleet by registering licensed pirogues in a more permanent manner (plaques as opposed to painted identification), equipping registered boats with Automatic Identification System (AIS) chips, and banning the construction of new pirogues. Even with limited state resources for surveillance, the GOS has increased human resources dedicated to enforcement, initiated the ratification process for the Food and Agricultural Organization (FAO) of the United Nations -led Port States Measures Agreement (PSMA) to increase international coordination to detect IUUF, and, in some cases, punish industrial and artisanal IUU fishing. More on USAID's Senegal Fisheries Applied Political Economy Analysis is available [here](#).

The government of Senegal has implemented recent innovations in the policy system such as:

- *The Implementation of an Early Warning System (SAP)*

Since 2015, the USAID - ComFish project, in collaboration with the University of Rhode Island (URI) and the GOS, has supported the implementation of a platform for the transmission of meteorological information to fishermen, commonly known as the Early Warning System (EWS). This system is reinforced by USAID through the Climate Information Services Project to Increase Resilience and Productivity in Senegal (USAID/CINSERE). The SAP broadcasts SMS alerts received directly by the recipients' phones and used by the committees at the landing sites to green flag (safe sea), yellow flag (prudence) or red flag (dangerous sea, no exit) drapes. Local radio is also used to broadcast alerts (Senegal Ministry of Fisheries, 2018).

- *The project for the geolocation of small-scale fishing boats (in test phase)*

The Directorate of Fisheries Protection and Monitoring (DPSP) has undertaken a geolocation program for SSF vessels with the help of fishing stakeholders as well as technical partners. Four geolocation platforms are currently being tested with a total of 274 beacons (ANSD, 2020). For more information, please refer to the report A Situational Analysis of Small-Scale Fisheries in Senegal: From Vulnerability to Viability - Challenges and Opportunities for Fisheries Governance. V2V Working Paper 2022-2. V2V Global Partnership, University of Waterloo, Canada. Please read more [here](#).

In addition, to satisfy the strong demand for fisheries, the Government of Senegal provides incentives to support the fisheries sector. This support includes fuel equalization, tax exemption for fish products, subsidies for outboard motors and free access to fishery resources for artisanal fishing. There are also management measures for the offshore pelagic resources which are:

- A reduction in fishing effort on skipjack,
- An allowable catch rate (TAC) set at 110,000 MT along the African coast between 20° W, 5° N and 4° S for yellowfin tuna,
- A TAC of 62,500 MT for bigeye tuna,
- A ban on fishing with natural or artificial floating objects from January to March throughout the Atlantic,
- Banning of fishing with explosives or poison.

Sustainability Concerns

There are serious issues of fish sustainability as the fisheries sector is facing coastal erosion, pollution, the degradation of marine ecosystems, overexploitation, and illegal, unreported, and unregulated fishing. This situation has led to a significant depletion of fisheries resources.

Overfishing

Many Senegalese depend on fishing to make a living, but overfishing and unauthorized industrial fleets pose many threats to the livelihoods of the population, as well as to the country's economy. Senegal loses about 150 billion CFA (\$272 million) annually because of illegal, unreported, and unregulated fishing. Even though the GOS has made considerable efforts, through the adoption of a new law, the development of a national action plan to combat IUU fishing, validated in 2015, and the acquisition of operational resources, IUU fishing activities remain rampant. This is particularly concerning as high market value (mainly exported) coastal demersal stocks (deep fish) are overexploited. In addition, the fishing pressure on species consumed locally (small pelagics) is increasing due to the growing export of these species, with a serious risk of a shortage of supply on the local market. Read more [here](#).

Monitoring of International Standards

A Situational Analysis of Small-Scale Fisheries in Senegal: From Vulnerability to Viability report highlights the legal texts on the protection and monitoring of fisheries developed by GOS to establish a legal framework to combat illegal, unreported, and unregulated (IUU) fishing. These include Law No. 2015-18 of July 13, 2015, on the maritime fishing code and its implementing decree.

The report also highlights the main fisheries management policies and projects at the international level which include:

- *International conventions and agreements:* these include the 1992 Convention on Biological Diversity ratified in June 1994, the 1994 United Nations Framework Convention on Climate Change and the 2001 Kyoto Protocol.
- *The ECOWAS Integrated Maritime Strategy and Common Fisheries Policy* aims to establish a prosperous maritime domain and to facilitate the exchange of information on the fisheries sector.
- *The sub-regional Canary Current Large Marine Ecosystem Protection Project* initiated by FAO and UNEP to combat the degradation of the Canary Current ecosystems.
- *Adaptation to Climate and Coastal Change in West Africa Project* funded by United Nations Development Programme/Global Environment Fund (UNDP/GEF).

At the national level, fisheries strategies, development and management plans are accompanied at the local level by Local Development Plans or specific local plans. The main national regulations include:

- *The National Strategy for the Management of Protected Areas (MPAs)* aims to promote and enhance Senegal's MPAs through a coherent network of MPAs managed in a participatory way.
- *The 2001 Strategy for the Sustainable Development of Fishing and Aquaculture* aims to ensure the sustainable management of fishing and aquaculture, the viability of fisheries, to satisfy national demand for fish products, to improve the conditions for small-scale fishing, to enhance the value of fish production, and to develop a sustainable system for financing fishing and aquaculture.
- *The National Action Plan for the Environment in September 1997 and implemented in 1999* with the support of the GEF, which accompanied the State in anticipating and resolving problems related to sectoral vulnerabilities to climate change, including fishing.
- *The National Action Plan for Adaptation to Climate Change in 2006* led to the establishment of a National Committee for Climate Change and an Adaptation Fund, whose Ecological Monitoring Centre has been responsible for studying the admissibility and relevance of projects and their monitoring and evaluation since 2010.
- *The National Sectoral Plan for Adaptation to Climate Change in Fisheries and Aquaculture for 2035* aims to integrate adaptation to climate change into fisheries development policies and strategies.
- *The Sectoral Policy Letter for Fisheries and Aquaculture for 2008-2013* aimed at the sustainable management and restoration of fisheries resources, the satisfaction of national demand, the optimal development of resources, the qualification of professionals and the financing of activities. The second Letter of Sectoral Policy for the Development of the Fisheries and

Aquaculture Sector for 2016-2023 should eventually allow the development of aquaculture, the strengthening of food security, economic growth and local development. Please read more [here](#).

Opportunities for U.S. Exports

There are market access opportunities for U.S. exports in Senegal as there is a growing demand for fish products because overfishing and IUU fishing have led to depleted fish stocks. Fish products are among the most traded products in the world. Fishing and aquaculture provide more than half of the fish for human consumption (FAO, 2014).

Trade missions are the best market entry strategy. Thanks to USDA efforts, these buyers' missions have recently led to U.S. feed grain exports to Senegal. Larger fish importers in the region could be invited to Seafood Expo Global in Barcelona, Fish International, European Seafood Expo to expose them with U.S. seafood industry and build business contacts.

U.S. fish and seafood exporters could also make a business trip to Senegal to meet with local buyers, gain knowledge about the market, consumer preferences and conduct long-term marketing campaigns to expand U.S. fish exports to Senegal and the region. Alaska Seafood Marketing Institute (ASMI) and FAS initiated dialogue in this regard to see the best ways to penetrate the market.

U.S. exporters could target the following species: mullet, barracuda fish oil, mackerel, tuna, herring, sardine, salmon, frozen shrimp, Barracuda, jewfish, mullet, Northern Pike, squid, amberjack, and grouper.

Attachments:

No Attachments.