

# SGS, LLC AQUACULTURE



## SUSTAINABLE GLOBAL SOLUTIONS

The price for various fish species are influenced by demand and supply factors, including the cost of production and transportation, but also by alternative fish types and commodities (e.g. meat and feeds). Fish prices (Food and Agriculture Fish Price Index) have increased to 150 in January 2015 up from 97 in 2001, despite increased worldwide fisheries and aquaculture production as worldwide population continues to increase. In 2012 total worldwide fish production reached 158 million tons, up 12% from 2007 fish production of 141 million tons.

The management team brings a wide operating experience with them, having operated in many different regions with different demands and requirements on fish growth management, aqua tank design and construction, water management, feed patterns and environmental demands and requirements. Countries where they have operating experience from include U.S. (Florida and Texas), Israel, Ivory Coast, Nigeria, Ghana, Guyana, Uganda, Ecuador, Ethiopia, Azerbaijan, Panama and Turkey.

The Company management team has strong relationships in the aquaculture industry through industry and trade groups, advisory and work experience with other producers, seafood wholesalers and distributors.

## World Fisheries and Aquaculture Production (2007 to 2012)

(millions of Tons)	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
<b><u>Capture</u></b>						
Inland	10.1	10.3	10.5	11.3	11.1	11.6
Marine	<u>80.7</u>	<u>79.9</u>	<u>79.6</u>	<u>77.8</u>	<u>82.6</u>	<u>79.7</u>
<b>Total Capture</b>	<b>90.8</b>	<b>90.1</b>	<b>90.1</b>	<b>89.1</b>	<b>93.7</b>	<b>91.3</b>
<b><u>Aquaculture</u></b>						
Inland	29.9	32.4	34.3	36.8	38.7	41.9
Marine	<u>20.0</u>	<u>20.5</u>	<u>21.4</u>	<u>22.3</u>	<u>23.3</u>	<u>24.7</u>
<b>Total Aquaculture</b>	<b>49.9</b>	<b>52.9</b>	<b>55.7</b>	<b>59.0</b>	<b>62.0</b>	<b>66.6</b>
<b>Total World Fisheries</b>	<b>140.7</b>	<b>143.1</b>	<b>145.8</b>	<b>148.1</b>	<b>155.7</b>	<b>158.0</b>

Source: The State of World Fisheries and Aquaculture 2014. 1 ton equals 1,000 kg (2,200 lbs.).

Global fish production and demand has grown steadily over the past five decades with fish food supply increasing at an average annual rate of 3.2%, outpacing population growth of 1.6% per year. Population growth, rising incomes and urbanization are drivers behind this growth which has been facilitated by rapid growth of fish production and the introduction of more efficient distribution channels (Source: Food and Agriculture Organization of the United Nations).

## Global Fish Utilization (2007 to 2012)

(millions of Tons)	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Human Consumption	117.3	120.9	123.7	128.2	131.2	136.2
Non-Food Uses	<u>23.4</u>	<u>22.2</u>	<u>22.1</u>	<u>19.9</u>	<u>24.5</u>	<u>21.7</u>
<b>Total Use</b>	<b>140.7</b>	<b>143.1</b>	<b>145.8</b>	<b>148.1</b>	<b>155.7</b>	<b>158.0</b>
Population (billion)	6.7	6.8	6.8	6.9	7.0	7.1
Per Capita Food Fish Supply (kg) <sup>(1)</sup>	17.6	17.9	18.1	18.5	18.7	19.2
Per Capita Food Fish Supply (lbs.) <sup>(2)</sup>	38.7	39.4	39.8	40.7	41.1	42.2
Annual Increase in Per Capita Supply	--	1.7%	1.1%	2.2%	1.8%	2.7%

Source: The State of World Fisheries and Aquaculture 2014. 1 ton equals 1,000 kg (2,200 lbs.).

Note: (1) Per capita food fish supply represents kilos per year of fish per capita.

(2) Per capital food fish supply represents lbs. per year of fish per capita.

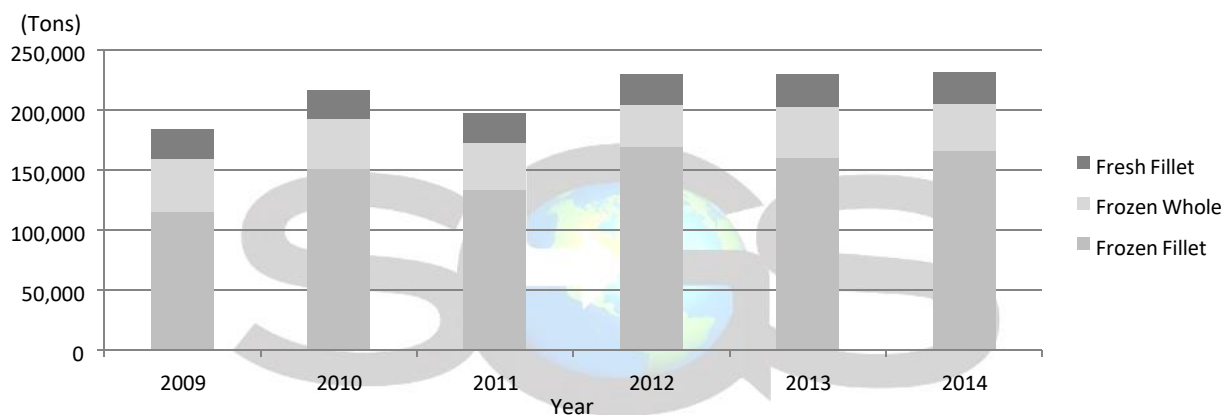
A portion of 150 grams (5 oz.) of fish provides about 50-60% of an adult's daily protein requirement according to the Food and Agriculture Organization of the United Nations. In 2010, fish accounted for 17% of the global population's intake of animal protein and 7% of all protein consumed. Fish can represent a crucial nutritional component in some densely populated countries where total protein intake levels are low.

## U.S. TILAPIA MARKET OVERVIEW

The price for Tilapia is affected by the same factors as for other species of fish, including demand and supply factors, and the cost of production and transportation, but also by alternative fish types and commodities (e.g. meat, protein replacements such as beans and feeds).

In the U.S. the demand for Tilapia exceeds domestic production resulting in annual imports of 231,000 tons in 2014, with 165,000 tons of frozen fillets, 26,000 tons of fresh fillets and 40,000 tons of frozen whole fish. The wholesale price per pound for fresh fillets has recently reached up to \$ 6.50 versus \$ 4.10 in 2014 for fresh fillets with frozen fillets selling at \$ 2.25 per pound wholesale. The total value of Tilapia imported in 2014 was more than \$ 1.1 billion at the wholesale level.

### U.S. Tilapia Imports (2009 to 2014)



(Tons = 2,200 lbs. per ton)

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
Fresh Fillet	24,409	23,772	24,435	24,949	27,330	25,930
Frozen Fillet	115,020	151,145	132,724	168,645	160,216	165,338
Frozen Whole	<u>44,267</u>	<u>40,978</u>	<u>39,733</u>	<u>35,336</u>	<u>41,862</u>	<u>39,955</u>
<b>Total Imports</b>	<b>183,696</b>	<b>215,894</b>	<b>196,892</b>	<b>228,929</b>	<b>229,408</b>	<b>231,223</b>

#### Distribution by Type

Fresh Fillet	13.3%	11.0%	12.4%	10.9%	11.9%	11.2%
Frozen Fillet	62.6%	70.0%	67.4%	73.7%	69.8%	71.5%
Frozen Whole	24.1%	19.0%	20.2%	15.4%	18.2%	17.3%

Source: Department of Commerce, Bureau of the Census, April, 2015. 1 ton equals 1,000 kg (2,200 lbs.).

SGS, LLC Aquaculture seeks to capture a large (10%) share of the 26,000 ton per year fresh Tilapia fillet market by providing a superior product with no off flavor contamination that is locally produced with reduced transportation costs and a low environmental impact. The company has indication of orders for 400,000 pounds of fillets on a weekly basis (substantially above the current anticipated production level of 110,000 pounds of Tilapia fillet per week at full operations).

The largest supplier of imported Tilapia is Mainland China with three quarters of all U.S. Tilapia imports, supplying frozen Tilapia fillet. Taiwan, Honduras and Indonesia each represent between 4 to 6% of total imports with Costa Rica, Columbia and Ecuador representing 1 to 2% each.

For fresh fillet the largest sources for import was Honduras with 9,811 tons per year followed by Costa Rica with 5,187 tons and Colombia with 4,115 tons of fresh fillet in 2014. Other sources include Mexico and Ecuador. In total the top five suppliers of fresh fillet supply 95% of all fresh fillets imported into the U.S.



### U.S. Tilapia Imports – By Country and Type – 2014

<i>(Tons, % share category)</i>	<b><u>Frozen Fillet</u></b>	<b><u>Frozen Whole</u></b>	<b><u>Fresh Fillet</u></b>	<b><u>Total</u></b>
China (Mainland)	148,015 (90%)	24,795 (62%)	--	173,027 (75%)
Taiwan	1,088 (1%)	12,165 (30%)	461 (2%)	13,714 (6%)
Indonesia	11,633 (7%)	--	--	11,633 (5%)
Honduras	541 (0%)	--	<b>9,811 (38%)</b>	10,353 (4%)
Costa Rica	--	--	<b>5,187 (20%)</b>	5,467 (2%)
Colombia	--	--	<b>4,115 (16%)</b>	4,149 (2%)
Ecuador	84 (0%)	--	<b>2,439 (9%)</b>	2,524 (2%)
Mexico	--	--	<b>3,123 (12%)</b>	3,123 (1%)
Other	<u>3,977 (2%)</u>	<u>2,996 (8%)</u>	<u>792 (3%)</u>	<u>7,234 (3%)</u>
Total Imports	165,338 x	39,995	<b>25,930</b>	231,223

Source: Department of Commerce, Bureau of the Census, April, 2015. 1 ton equals 1,000 kg (2,200 lbs.).

Note: Department of Commerce data does not itemize frozen fillet or frozen whole imports for Cost Rica, and Columbia. Therefore, the total shown does not equal to the sum of frozen fillet, frozen whole and fresh fillet imports.

Percentages (%) represent individual country share within each product category.

The total amount of Tilapia frozen fillets imported from China has increased by 33% since 2009 as China has continued its dramatic expansion in its fish production, particularly from aquaculture. Total Tilapia imports from China have increased from 130,694 tons in 2009 to 173,027 tons in 2014. In China fish plays a key role as a source of protein for its population with fish consumption being 35 kg per person in 2010 versus 15 kg per person for the rest of the world.

### Value of U.S. Imported Tilapia (2014)

(Pounds in 1,000s)	Volume		<u>Wholesale Value / lbs.</u>	<u>Wholesale Value</u>
	<u>Tons</u>	<u>Pounds (lbs.)</u>		
Frozen Fillet	163,338	359,343 (72%)	\$ 2.25	\$ 808,523,100 (69%)
Fresh Fillet	39,995	57,046 (11%)	4.10	233,888,600 (20%)
Frozen Whole	<u>25,930</u>	<u>87,989 (17%)</u>	<u>1.40</u>	<u>123,184,600 (11%)</u>
	231,223	504,378 (xx%)	Average: \$2.31	\$ 1,165,596,300

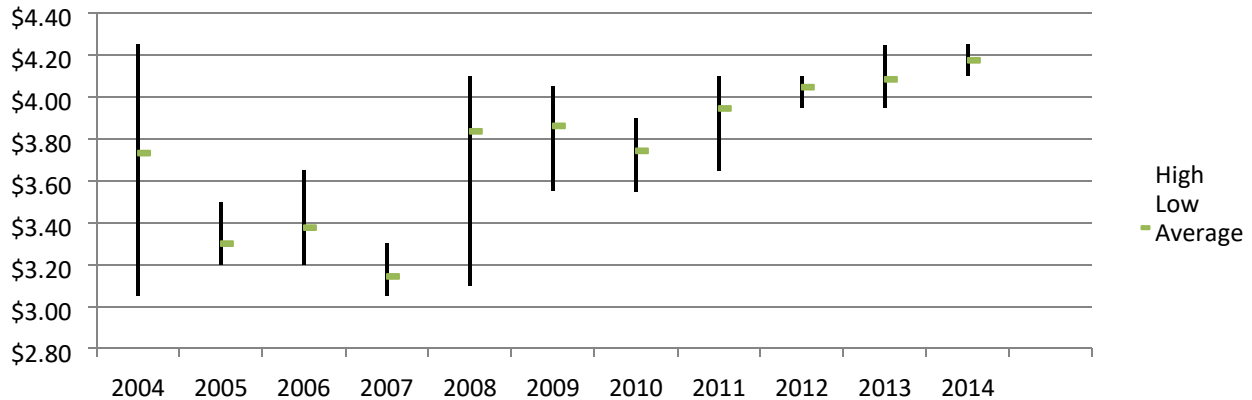
Note: Percentages (%) represent share within volume (weight) and value (\$ amount). 1 ton equals 2,200 lbs.

The wholesale market value for the 231,223 tons of Tilapia imported in 2014 is estimated at over \$1.2 billion. Fresh fillet imports totaled \$ 234 million or 20% of the total \$ 1.2 billion import value while only representing 11% of total volume (lbs.).

SGS, LLC Aquaculture plans to produce 50 tons of fillets per week, which with four production cycles each month for 200 tons per month (2,400 tons per year). SGS, LLC's sales will be attributed to taking market share from existing fresh fillet importers, frozen fillet and whole fish importers, and from taking market share from other fish as the SGS, LLC tilapia will be marketed as a clean, fresh fish produced locally in an environmentally friendly way. This marketing approach will increase the overall Tilapia market as customers switch to an environmentally friend product versus frozen fillets or fresh fillets that have been shipped long distances. There is a substantial pent up demand for fresh Tilapia fillet in the U.S. as wholesaler and retailers are unable to source commercial amounts on fresh Tilapia fillets from domestic or international producers. SGS, LLC Aquaculture has received interest for four times the projected production volume at full operations from one fish wholesaler.

## Historical U.S. Fresh Tilapia Wholesale Prices – FOB Miami (5-7 oz. fillet)

The below table shows the annual high, low and average price (\$) for fresh tilapia fillets (5 to 7 oz. fillets) for the period 2004 to 2014.



Source: Urner Barry's Comtell, Commodity Code: 5395. Data as of December, 2014.

## Domestic U.S. Tilapia Producers – Competitor Overview

There are currently no commercial sized aquafarm operations in the U.S. that offer fresh Tilapia fillet to wholesalers or super market chains (buying direct from producer). U.S. domestic Tilapia is grown locally by smaller operators who sell their product to local customers such as restaurants and diners or through smaller food retail stores and food markets.

The farms are small and do not operate cost effectively by taking advantage of economies of scale throughout the different production steps. The operators most often grow the Tilapia on ponds or in tanks outside. Growing Tilapia outside, rather than inside in a warehouse, exposes the tanks to outside elements such as wind, dirt and direct sunlight. All of the outside elements impact the water quality and growth of the fish. Direct sunlight promotes the growth of algae in the water resulting in an off flavor taste on the fish. The lack of commercially scaled systems (including solids capture, water circulation and aeration) create lower production yields with a wider distribution in fish size and weight. Production volumes are rarely above 2,500 to 5,000 lbs. per week of fish, resulting in 800 to 1,600 lbs. of fish fillet per week. That amount of Tilapia is most often sold whole rather than in fillet format. When sold in fillet format it is sold locally.

The largest Tilapia aquaculture producer in the U.S. is located in Blue Ridge, Virginia. The operation is inside warehouses. Given the weather in Virginia additional heating has to be provided during the colder periods of the year, resulting in higher operating costs. The weekly production at the Blue Ridge farm is 75,000 pounds of whole fish per week. The whole fish is distributed fresh (harvested within 72 hours (3 days)) to end customers such as small markets and restaurants on the East Coast and Canada. Chinese restaurants are large buyers as they prefer to offer live fish in tanks to the customers in their restaurants. The wholesale price of the whole fish is \$ 2.35 per pound.

Factors limiting the presence of commercial Tilapia producers in the U.S. to date include:

- (1) Limited knowledge as to establishing a commercially scaled production process.
- (2) Limited interest in growing fish rather than focusing on marine capture.
- (3) Sizable investment needed to reach economies of scale at 20,000 lbs. of Tilapia fillet per week.
- (4) Labor intensive operation requiring access to: trained, committed and dependable labor force.
- (5) Lack of automated fillet processing equipment to date with the first automated tilapia fillet machines coming to market now.
- (6) Long start-up phase of 18 months (with warehouse and permits), can exceed 24 or 36 months.

The above factors that have limited the presence of commercial U.S. tilapia production work to the advantage of SGS, LLC, as the company has a proven commercial technology and approach to achieve commercial scale production of 110,000 lbs. of fillet per week. The Company has access to a skilled workforce from Plumbing by Us and USA Pipelining, state-of-the-art knowledge from the team plus access to various Tilapia strains.





## SGS, LLC AQUACULTURE INVESTMENT OPPORTUNITY

SGS, LLC Aquaculture (SUSTAINABLE GLOBAL SOLUTIONS) is seeking to establish an industrial scale Tilapia (a freshwater fish) aquaculture operation in Ecuador. The Company's key advantage is its management expertise in using proprietary aquaculture technology to optimize fish grow out (output) in an environmentally friendly way to produce a premium fish product.

The Company seeks to achieve a production capacity of 110,000 pounds of Tilapia fillet per week (2,600 tons per year) within 14 months of operations (additional output includes fish meal, fish oil, fertilizer and fish feed). During the initial six-month startup phase the Company will complete the construction of all tanks needed for the fry, juvenile, fingerling and grow out stages. As the first fry tanks get completed the Company will source fry from Israeli suppliers to begin aquaculture operations. As more and more tanks get completed the operations are ramped up with all tanks anticipated to be completed by Month 6.

During Months 7 to 10 the Company will complete the fish processing, fishmeal and oil equipment installation. The first harvest of fish will take place on Month 14 as the fish requires 12 months to mature from Juvenile to adult size. At the time of harvest the fish will weigh 2 pounds (900 grams) of which 32% is premium fish fillet (two 5 ounce fillets, 10 ounces' total). By-products include fish meal (22%), fish oil (3.5%), fertilizer (25%) and fish feed (17.5%). The total wholesale value in the U.S. for a 2-pound fish is \$ 3.40 of which the fish fillets represent \$ 2.88 (85% of total revenue).

Through SGS, LLC's management contacts the Company has been in discussions with various seafood wholesalers and secured interest from one large seafood wholesaler to supply up to 400,000 pounds of Tilapia fillet per week (9,500 tons annually). This order would secure a distribution channel for all fresh Tilapia produced once operations are operating at full capacity while leaving an additional upside to increase output by 300% as current annual production is estimated at 2,400 tons per year.

The U.S. market for Tilapia is robust, with increased demand for protein from fish expected to remain strong domestically. The U.S. imported 231,000 tons of Tilapia in 2014 (frozen and fresh fillet plus frozen whole fish) worth \$ 1.1 billion at the wholesale level. Fresh Tilapia fillets represented \$ 234 million of the wholesale value and 11% of the wholesale amount (weight) in 2014. U.S. Premier Aquaculture intends to target this market by introducing a premium, high quality, fresh (never frozen) and locally produced Tilapia product to the U.S. market, expecting to take a 10% market share in the fresh fillet segment.

The Company's proprietary approach to construct epoxy covered fish tanks out of Styrofoam and concrete together with its access to a unique filtration system and select processes for efficient down flow and fish breeding (hatch phase) allows for optimum fish grow out combined with no off flavor contamination (clean fish taste). The approach utilizes ponds as a filtration

system, removing solids and ammonia from the water, creating a water efficient production process, while ensuring the highest water quality and growth environment for the fish.

The total estimated upfront investment amount is \$ 19.0 million with \$ 9.0 million raised through equity and \$ 10.0 million through debt. An additional \$ 1.3 million of debt will be added in Year 1, with \$ 0.9 million in capitalized interest payments added to the loan principal and \$ 0.4 million used from a working capital credit line. The total investment amount includes \$10.6 million for capital investments, \$ 4.7 million to cover operational losses until Month 14, \$1.5 million of feed stock expense, \$ 0.5 million of stocking of fish (brood and fry), \$ 0.5 million for closing expenses and relocation payments and a \$ 2.5 million financial reserve.

### Key Highlights of the Project Include:

- Premium, fresh, sustainable high quality fish product, with no flavor contamination from water or feed product as fish undergoes a five-day purging stage before processing (harvest)
- Improved and commercialized aquaculture technology that achieves optimum fish grow out through the use of Recirculating Aquaculture System (RAS) with efficient recirculation of water in grow out tanks using a sequence of airlift pumps supplying oxygen to the water while removing carbon dioxide.
- Extensive use of epoxy coating techniques to enhance the flow of water, ensure quality of plumbing system and eliminate hiding places for bacteria and viruses.
- Identified 30 acres of land with all permits and water supply arrangements in place.
- Scalable production process with weekly production of 343,750 pounds of whole fish at full operating capacity resulting in 110,000 pounds of Tilapia fillet and 233,750 pounds of other output. The production is ultimately scalable to 400,000 pounds of Tilapia fillet per week through expanded operations and quadrupled warehouse space.
- Ability to produce 13 different species of fish, including striped bass and red drum.
- Interest from large seafood wholesaler to buy up to 400,000 pounds of fillet per week (400% of current annual max production during the first five years).
- Thorough system design reduces risk of system failure combined with minimal system maintenance and enhanced energy efficiency (>90% energy savings vs current systems). Lack of moving parts within the fish tanks reduces breakdowns and potential entry of outside liquids such as oils and hydraulic fluids into the tanks during equipment failures.
- Strong underlying operating financial performance with 63% gross profit margin and a 47% EBITDA margin on \$25 million in revenue in Year 2 (first year of revenues).
- SGS, LLC Aquaculture will create 115 well paid, full-time employment opportunities.



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