Fish Production Estimates and Trends, 2010-2011

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Kontali

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A business economist, Professor Tveteras is a business economist and works in the Department for Industrial Economics, Risk Management and Planning.

His research focuses particularly on aquaculture and seafood markets.
Scope of Analysis

- Focus on internationally traded species:
  - Typically imported to USA, Europe & Japan.

- Production forecasts for 2009 for all chosen species:
  - But for some species only major producer countries/regions.

- Production forecast for 2010 for a majority of species.
Species Included in Analysis

- Tilapia
- Salmon & Trout
  - Atlantic salmon
  - Coho salmon
  - Trout
- Catfish
  - Pangasius
  - Channel catfish
- Seabass & Bream
- Flatfishes
  - Flounders
  - Halibut
  - Turbot
- Barramundi
- Cobia
- Atlantic cod
- Bluefin tuna
TILAPIA
Tilapia
Global Aquaculture Production

Tilapia
Global Aquaculture Production

Sources: Helga Josupeit, FAO and Kevin Fitzsimmons, University of Arizona
Tilapia Production by Country

Average of estimates from several sources: Helga Josupeit, Kevin Fitzimmons, Nesar Ahmed, Ricardo Franklin de Mello, Sergio Zimmerman and anonymous sources.
Tilapia production estimates China – high and low

<table>
<thead>
<tr>
<th>Year</th>
<th>Anonymous 2</th>
<th>Anonymous 1</th>
<th>Fitzsimmons</th>
<th>Josupeit</th>
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Metric Tonnes: 0 - 1,500,000
Tilapia production estimates large producers Min and Max estimates from different sources

- **Thailand**
  - 2011 Max
  - 2011 Min
  - 2010 Max
  - 2010 Min
  - 2009 Max
  - 2009 Min

- **Egypt**
  - 2011 Max
  - 2010 Max
  - 2010 Min
  - 2009 Max
  - 2009 Min

- **Indonesia**
  - 2011 Max
  - 2010 Max
  - 2010 Min
  - 2009 Max
  - 2009 Min

**Metric Tonnes**

0  100000  200000  300000  400000  500000  600000
Tilapia production estimates large producers Min and Max estimates from different sources
Tilapia

U.S. Import Volume & Real Import Price for Frozen Fillets

Source: Fisheries Statistics Division of the National Marine Fisheries Service (NMFS) CALIBRI
Tilapia
US Imports: January - August

Source: Fisheries Statistics Division of the National Marine Fisheries Service (NMFS)
Salmonids
Atlantic & Coho Salmon & Rainbow Trout Total Production

Sources: FAO, Kontali
Atlantic Salmon
Production and EU real import price fresh gutted

Production in metric tonnes

EU real import price (EUR/kg)

Sources: FAO, Kontali, NSEC (prices)
Farmed Atlantic Salmon Production

Source: Kontali
Coho Salmon
Total Production and Real Import Price on Fresh Farmed Canadian Coho to the USA

Sources: FAO, Kontali
Rainbow Trout
Total Ocean Farmed Production and EU real import price fresh gutted

Sources: FAO, Kontali, NSEC (Prices)
Rainbow Trout Production

Source: Kontali
Pangasius, Vietnam
Estimates from three sources

![Bar chart showing production estimates from three sources: Anonymous 1, Josupeit, Kontali. The x-axis represents production in 1000 MT, and the y-axis lists the sources. The chart indicates different production estimates for each source over the years 2009 to 2012.](chart.png)
Pangasius
Production in Vietnam

Pangasius
Vietnam Export Volume & Average Price

Source: FAO, Vietnam Association of Seafood Exporters & Producers (VASEP)
Pangasius

What is the relationship between production and exports?

Sources: Vietnam Association of Seafood Exporters & Producers (VASEP), Kontali, FAO/Globefish, Helga Josuneit
Channel Catfish
Total Global Production and Real Price U.S.

Sources: FAO, Kontali, USDA/NASS (prices)
Channel Catfish
Production by Country

Source: FAO, Kontali
Channel Catfish
U.S. Production and Real Price

Sources: FAO, Kontali, USDA/NASS (Prices)
Seabass & Sea Bream
Mediterranean Production

Source: FEAP, Kontali (2006-2009)
Seabass & Sea Bream
European Production & Real EU Import Price

Source: FEAP, Kontali, Eurostat
Seabream
Production in Mediterranean Countries

Source: Kontali
Seabass Production in Mediterranean Countries

Source: Kontali
Flatfishes
Global Production

Source: FAO
Flatfishes
Global Production

![Bar chart showing the production of different flatfish species from 1985 to 2008. The chart includes data for various species such as Other flatfishes, Atlantic halibut, Righteye flounders, Turbot, Olive flounder, and Lefteye flounders. The chart indicates a steady increase in production over the years. Source: FAO]
Olive Flounder
Production and real farmgate price

Sources: FAO (1985-2006), MOMAF & Dr. Sungchul C. Bai (2007-2011)
Turbot
Production in selected countries

Sources: FAO, Kontali, and anonymous source for Chile
Atlantic Halibut Production

Barramundi
Barramundi
Total Production


ONLY INDONESIA AND TAIWAN UNTIL 2010 AND 2011
Barramundi Major Producing Countries

Source: FAO

Only Indonesia and Taiwan until 2010 and 2011
Barramundi
Production forecasts for selected countries

Source: Anonymous

ONLY INDONESIA AND TAIWAN UNTIL 2010 AND 2011
Farmed Cobia
Major Producing Countries

Source: FAO, Kontali
Farmed Cobia Production

Source: Kontali
Atlantic Cod
Atlantic Cod
Total Farmed Production and Norwegian Export price

Production in metric tonnes

- Production
- Price Farmed Cod
- Price Wild Cod

Real price in Euro per kg

Sources: Norwegian Directorate of Fisheries (1989-2004), Kontali (2005-2011), Norwegian Seafood Export Council (Prices)
Atlantic Cod
Farmed Production by Country

TUNAS
Bluefin Tuna
Total Production

Sources: Production - Apostolos Tzoumas, Farmgate price - FAO
Bluefin Tuna
Production by Region

Japan (Northern Pacific Bluefin Tuna)
Mexico (Northern Pacific Bluefin Tuna)
Mediterranean (Northern Atlantic Bluefin Tuna)
Australia (Southern Bluefin Tuna)

Source: Apostolos Tzoumas
Summary
Production of Surveyed Species
2003-2010

Channel Catfish 2010 data not included
Production of Surveyed Species 2004-2011 (excl. Channel Catfish and Cobia)
Cumulative Change in Production
2004-2010

- Atlantic cod
- Cobia
- Barramundi (IN and TW)
- Turbot
- Olive flounder
- European Sea Bass & Bream
- Channel Catfish
- Pangasius catfish
- Rainbow trout
- Coho salmon
- Atlantic salmon
- Tilapia

Change in production (metric tonnes)

CHANNEL CATFISH AND COBIA NOT INCLUDED 2010 AND 2011
Average Annual Growth Rate
2003-2010

- Atlantic cod: 110.3%
- Barramundi (IN and TW): -14.3%
- Turbot: 13.4%
- Olive flounder: 7.2%
- European Sea Bass&Bream: 10.6%
- Channel catfish: 104.2%
- Pangasius catfish: -14.3%
- Rainbow trout: 6.1%
- Coho salmon: 2.6%
- Atlantic salmon: 3.7%
- Tilapia: 11.6%

CHANNEL CATFISH AND COBIA DATA NOT INCLUDED 2010 AND 2011
Annual Percent Growth Rates
2009-2011

-21.3
Atlantic cod
2.6
21.8

cobia
10.5

-2.5
Barramundi (IN and TW)
6.7
10.3

turbot
3.8
7.2

-3.6
Olive flounder
3.8
4.1

-3.5
European sea bass
3.3

-9.4
Channel Catfish
0.2
11.1

0.5
Pangasius catfish
2.8
9.5

-1.0
Rainbow trout

-0.9
Coho salmon
15.5

-1.9
Atlantic salmon

4.3
7.0

-21.4
Tilapia
7.0

-30 -20 -10 0 10 20 30 40
Percent

2010-2011
2009-10
2008-9

CHANNEL CATFISH AND COBIA DATA NOT INCLUDED 2010 AND 2011