Shrimp Production Review

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In response to higher prices, increased production in India, Vietnam, Ecuador and Mexico led to an overall increase in world production in 2014. Production has fallen again in 2015.

Shrimp Aquaculture Production by World Region:
1995 - 2018


Southeast Asia includes Thailand, Vietnam, Indonesia, Bangladesh, Malaysia, Philippines, Myanmar and Taiwan. *M. rosenbergii* is not included.
Shrimp Aquaculture by Major Producing Regions: 2011 – 2018


Southeast Asia includes Thailand, Vietnam, Indonesia, Bangladesh, Malaysia, Philippines, Myanmar and Taiwan.

M. rosenbergii is not included.

China: Production of Shrimp Feed


SHRIMP FEED: 2012 to 2014 down 15%
Shrimp Exports from China


2011-2015 down 37%
China – Estimated Domestic Shrimp Consumption (Round Weight)


Note: Estimated Consumption = Production + Import - Export
Marine Shrimp Aquaculture in China by Region – 2015 and 2006

2015 Total = 1,161,340 MT. 2006 Total = 732,315 MT. Source: Chinese Fisheries Yearbook

### 2015

- **Guangdong**: Share: 36.4%, 2015 Total: 346,505 MT
- **Guangxi**: Share: 20.1%, 2015 Total: 174,150 MT
- **Shandong**: Share: 15.9%, 2015 Total: 156,545 MT
- **Hainan**: Share: 9.1%, 2015 Total: 91,835 MT
- **Fujian**: Share: 9.1%, 2015 Total: 85,005 MT
- **Other**: Share: 9.3%, 2015 Total: 72,950 MT

2006 Total:

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- **Guangxi**: Share: 20.1%, 2006 Total: 174,150 MT
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**Total for 2015:** 1,161,340 MT

**Total for 2006:** 732,315 MT
Shrimp Aquaculture by Major Producing Regions:

2011-2014 vs. 2014-2018

Southeast Asia: 2011-2014, -0.20%; 2014-2018, -1.70% to -0.50%
Americas: 2011-2014, 2.50%; 2014-2018, 10.30%
Middle East / North Africa: 2011-2014, 1.60%; 2014-2018, 32.90%


Southeast Asia includes Thailand, Vietnam, Indonesia, Bangladesh, Malaysia, Philippines, Myanmar and Taiwan. *M. rosenbergii* is not included.
Shrimp Aquaculture in Asia: 2011 – 2018

Both China and Thailand expect to make a partial recovery by 2018.
Thailand moved from second to fifth place in the region.

Million MT

M. rosenbergii is not included.
Malaysia has been heavily impacted by disease but a partial recovery is expected by 2018. Strong growth is expected in Bangladesh.

Shrimp Aquaculture in Latin America: 2011 – 2018

The most significant growth is expected in Ecuador, reaching nearly 400 thousand tons by 2018. Production in Brazil will remain more or less flat.

Disease issues are affecting and will affect growth in Honduras and Nicaragua. Venezuela is projecting steady growth through 2018.

M. rosenbergii is not included.
Shrimp Aquaculture in Latin America: 2011 – 2018

Uneven growth is expected in the minor producing nations of Latin America.


*M. rosenbergii* is not included.
Shrimp Aquaculture in Other Reporting Countries: 2011 – 2018

Saudi Arabia is expected to ramp up production of *P. vannamei*.

World Shrimp Aquaculture (including *M. rosenbergii*) by Species: 1995 - 2018

Percentages indicate the share of *P. vannamei*.

Shrimp Aquaculture (including *M. rosenbergii*) in Asia by Species: 1995 - 2018

World Landings of Wild-Caught Shrimp by Species

Million MT

Source: FAO (2016).
Aquaculture accounted for 54% of world shrimp supplies in 2014.

Sources: FAO (2016); GOAL (2014, 2016).
Notes: M. rosenbergii is not included.
China includes freshwater production of P. vannamei.
P. vannamei is the most important species in the world, with virtually all production coming from aquaculture.

Percentages indicate the share of P. vannamei.

Sources: FAO (2016); GOAL (2014, 2016).
Notes: M. rosenbergii is not included. China includes freshwater production of P. vannamei.
Composition of Shrimp Aquaculture Production by Size Categories – Aggregate 2015

Expected **Trends** in Shrimp Aquaculture

**Size Categories - GOAL Survey 2016**

<table>
<thead>
<tr>
<th>Size Category</th>
<th>Asia</th>
<th>Americas</th>
<th>World</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;15</td>
<td>Decrease/Stable</td>
<td>Stable</td>
<td>Decrease/Stable</td>
</tr>
<tr>
<td>15-20</td>
<td>Decrease/Stable</td>
<td>Decrease/Stable</td>
<td>Decrease/Stable</td>
</tr>
<tr>
<td>21-25</td>
<td>Stable</td>
<td>Stable</td>
<td>Stable</td>
</tr>
<tr>
<td>26-30</td>
<td>Stable</td>
<td>Increase</td>
<td>Stable</td>
</tr>
<tr>
<td>31-40</td>
<td>Increase/Stable</td>
<td>Increase</td>
<td>Increase/Stable</td>
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<tr>
<td>41-50</td>
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<tr>
<td>51-60</td>
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<td>Stable</td>
<td>Increase</td>
</tr>
<tr>
<td>61-70</td>
<td>Increase/Stable</td>
<td>Increase</td>
<td>Increase</td>
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<tr>
<td>&gt;70</td>
<td>Increase</td>
<td>Decrease</td>
<td>Increase/Stable</td>
</tr>
</tbody>
</table>

India, Indonesia and Vietnam expect increased production of smaller counts.
GOAL 2016 Survey
Composition of Shrimp Aquaculture Production by
Product Form – Aggregate 2016

US Imports
- Other Forms: 2%
- Breaded: 8%
- Cooked: 10%
- Peeled: 15%
- Green / Head-off: 38%
- Green / Head-on: 22%

Asia
- Other Forms: 4%
- Breaded: 7%
- Cooked: 10%
- Peeled: 15%
- Green / Head-off: 56%
- Green / Head-on: 23%

Americas
- Other Forms: 9%
- Breaded: 7%
- Cooked: 16%
- Peeled: 21%
- Green / Head-off: 19%
- Green / Head-on: 20%

World
- Other Forms: 13%
- Breaded: 29%
- Cooked: 56%
- Peeled: 22%
- Green / Head-off: 32%
- Green / Head-on: 29%
For a number of years there has been a trend for increased production of green / head-on shrimp in Ecuador for the European and Asian markets.
GOAL 2016 Survey
Issues & Challenges in Shrimp Aquaculture
All Countries

- Diseases
- ***Production costs - Feed/Fishmeal
- Seed stock quality & availability
- Access to disease-free broodstock
- ***International market prices
- Production costs - Others
- Product quality control
- Environmental management
- Feed quality and availability
- Production costs - Fuel
- Access to Credit
- Banned chemicals / antibiotic use
- ***International trade barriers
- Market coordination
- Infrastructure
- Public Relations Management
- Conflicts with other users

Asterisk indicates a Top 3 issue in GOAL 2007 Survey

- International market prices
- Diseases
- Production costs - Feed/Fishmeal
- Environmental management
- Access to disease-free broodstock
- Seed stock quality & availability
- International trade barriers
- Production costs - Fuel
- Access to Credit
- Production costs - Others
Issues & Challenges in Shrimp Aquaculture

Not Important
Moderately Important
Extremely Important

GOAL 2016 Survey

Asterisk indicates a Top 3 issue in GOAL 2007 Survey
GOAL 2016 Survey

Issues & Challenges in Shrimp Aquaculture

Latin America

- **Production costs - Feed/Fishmeal**
- **International market prices**
- Diseases
- Access to disease-free broodstock
- Production costs - Others
- Access to Credit
- Production costs - Fuel
- Seed stock quality & availability
- **International trade barriers**
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Asterisk indicates a Top 3 issue in GOAL 2007 Survey
GOAL 2016 Survey
Top Issues & Challenges in Shrimp Aquaculture
Asia vs. Latin America

- Diseases
- International market prices
- Production costs - Feed/Fishmeal
- Seed stock quality & availability
- Product quality control
- Access to disease-free broodstock
- Production costs - Others
- Environmental management
- Feed quality and availability
- Production costs - Fuel

Asia vs. Latin America

Not Important  Moderately Important  Extremely Important

Not Important  Moderately Important  Extremely Important
GOAL 2016 Survey

Global economic conditions will be better in 2017 compared to 2016

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<tbody>
<tr>
<td>Strongly Agree</td>
<td>Philippines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>Bangladesh, Taiwan, Vietnam</td>
<td>Brazil, Ecuador, Mexico,</td>
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<tr>
<td></td>
<td></td>
<td>Venezuela</td>
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<tr>
<td>Neutral/No Opinion</td>
<td>China, India, Indonesia, South Korea, Thailand</td>
<td>Honduras, Nicaragua</td>
<td>Australia, Madagascar, New Caledonia, Saudi Arabia</td>
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<tr>
<td>Disagree</td>
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<td>Egypt</td>
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GOAL 2016 Survey
Feed prices will be lower in 2017 compared to 2016

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GOAL 2016 Survey
The global shrimp market will strengthen in 2017 compared to 2016

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Trends in Trade
Imports from Thailand declined sharply (by 68%) between 2010 and 2014, with a slight recovery taking place in 2015 (from 65 to 74 thousand tons). India and Indonesia have become the top exporters to the U.S. market, accounting for 44% of imports in 2016.

Source: USDC/NMFS (2016)
* Estimate
U.S. Landings of Wild-Caught Shrimp

Source: USDC/NMFS (2016)
Real prices increased sharply during 2013 but returned to previous levels in 2014 and early 2015. Real prices have remained stable over the last 12 months.

Coinciding with falling supplies from Thailand, wholesale shrimp prices began rising in 2010 with the sharpest increase taking place in 2013. Prices declined during 2014 and 2015 as other countries (India, Indonesia, Ecuador, Vietnam) increased their exports to the U.S. The increase in prices during 2016 is partially driven by low harvests from the Gulf of Mexico shrimp fisheries.

European Shrimp Imports from Extra-EU Countries

Down 9% between 2011-13, Up 7% between 2013-16

Source: Eurostat (2016).

* Estimate
Spanish Shrimp Imports

Down 16% between 2011-13, Up 9% between 2013-16

Source: Eurostat (2016).

* Estimate

Source: Eurostat (2016).
* Estimate
French Shrimp Imports

Down 9% between 2010-14, Up 10% between 2014-16

Source: Eurostat (2016).

* Estimate

Imports from Ecuador and India have increased dramatically since 2000, currently accounting for nearly 38% of the import market.

Source: Eurostat (2016).

* Estimate
Japanese Shrimp Imports

Down 25% between 2011-15, Up 4% in 2016

Declining imports were caused primarily by lower shipments from Thailand, which went down from 80 thousand tons in 2012 to 36 thousand tones in 2015, with no substantial increase in 2016.

Source: Japan Customs (2016).
* Estimate
Conclusions

2014 to 2015 -5%
2015 to 2016 +2%

Expected global growth rate 2015-18 about +4% per year
(Less bullish about than recovery last year)

Disease - Biggest Constraint Esp. Asia
Followed by cost and availability of quality seed stock

2017 - Expectations
Higher feed prices;
Stronger shrimp markets (esp. in Asia)
Leaning bullish on global economic conditions
(Asia less bullish & Americas more bullish than last year)
Thank You

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BONUS SLIDES
Shrimp Aquaculture in Asia:
2011-2014 vs. 2014-2018

*M. rosenbergii* is not included.
Shrimp Aquaculture in Asia:
2011-2014 vs. 2014-2018

![Average Annual Growth Rate Chart]

*M. rosenbergii* is not included.
Composition of Shrimp Aquaculture Production by Size Categories – Comparison of Survey Data for Asia

Disease problems in Asia led to the harvesting of smaller sizes since 2011.
Composition of Shrimp Aquaculture Production by Size Categories – Comparison of Survey Data for the Americas

There was also a temporary trend towards smaller sizes in Latin America in 2011 and 2012.
Composition of Shrimp Aquaculture Production by Product Form – Comparison of Survey Data for Asia
There has been a trend in China towards the production of green head-on/head-off and peeled shrimp relative to processed forms in recent years.
The growing share of the green head-on form reflects an increased presence of Ecuadorian shrimp in European and Asian markets.