Tilapia Trade
Global and Regional Trends

FAO/ASTF GCP/RAF/510/MUL: Enhancing capacity/risk reduction of emerging Tilapia Lake Virus (TiLV) to African tilapia aquaculture

Blessing Mapfumo
Fisheries & Aquaculture Advisor
Facts and Figures…. 

Tilapia now almost everywhere around the world (140+ countries farming it)

Bulk of tilapia production now comes from aquaculture
  • Aquaculture ~ 6.5 million metric tonnes (2017)
  • Capture fisheries <1 million tonnes (2017)

2018 sales to reach > $12,000,000,000

China being world’s largest producer, consumer and exporter

Egypt being the largest producer of tilapia in Africa (wild and farmed)

Several large scale commercial farms in Africa mostly Nile tilapia

• Very difficult to get data on wild catches of tilapia from Africa as most of it listed as “freshwater fishes nei” in FAO fishstat
Global trends
SUPPLIES: Global Tilapia Production

"Global tilapia production (million tonnes)"

- Orange: Aquaculture
- Gray: Capture

Year:
- 1990
- 1991
- 1992
- 1993
- 1994
- 1995
- 1996
- 1997
- 1998
- 1999
- 2000
- 2001
- 2002
- 2003
- 2004
- 2005
- 2006
- 2007
- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- 2014
- 2015

Million tons:
- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
Tilapia aquaculture production continues to spread to many additional countries

- Tilapia production in 140+ countries.
- China is world’s largest aquaculture producer, consumer and exporter.
- Indonesia, Egypt, Philippines, Thailand, Bangladesh, Brazil, Vietnam, Myanmar, Mexico, Ecuador, Costa Rica, Honduras, Uganda, Ghana, Kenya, Nigeria are significant producers
Aquaculture of Tilapia

- Egypt – cage and pond farming, rice-tilapia, polyculture in brackish and freshwater
- Indonesia – cage culture, polycultures, rice culture
- Bangladesh – government support and private sector investment
- Brazil – lots of available water, labor, land, feed
- Thailand – better reporting
- Mexico – continued intensification, some govt support, large and small private investments
- Sub-Saharan Africa – commercialization, small farms
Tilapia  Global Aquaculture Production

1000 METRIC TONNES

REAL PRICE (USD/KG)

World Tilapia Aquaculture Production

World Tilapia Production of 6,510,700 mt in 2017
Tilapia has become big business!!
Global Aquaculture Tilapia Sales

For year 2000 = US $1,615,321,000 (FAO FishStat 2007)

2005 sales = $2,457,312,000 (FAO FishStat 2007)

2010 sales = $5,680,410,000 (FAO FishStat 2012)

2012 sales = $7,656,257,000 (FAO FishStat 2014)

2018 sales > $12,000,000,000

2028 sales > $25,000,000,000
Global Tilapia Market Trends to 2028

Prices have been constant, only fresh fillets have increased significantly
Price (Frozen whole tilapia)
The US market

Value: 962 million USD
Quantity: 215,585 tons

Commodity composition in United States of America in 2015 by Value

- Frozen whole tilapia: 19%
- Fresh fillet tilapia: 7%
- Fillet tilapia: 93%
- Frozen fillet tilapia: 74%

Top suppliers of all tilapia to the US market, quantity, 2015

- China: 75%
- Taiwan Province of China: 4%
- Honduras: 5%
- Indonesia: 5%
- Viet Nam: 2%
- Ecuador: 1%
- Costa Rica: 2%
- Mexico: 2%
- Colombia: 2%
- rest of world: 2%
US Tilapia consumption (imports and domestic)

513,361 mt of live weight equivalent – 2011
613,406 mt of live weight equivalent – 2012
660,762 mt of live weight equivalent – 2013
633,759 mt of live weight equivalent – 2014
568,488 mt of live weight equivalent – 2015
528,667 mt of live weight equivalent – 2016
Tilapia demand in US and Europe has been falling

- Imports are down, even in cases of lower prices and improved quality
- More value added products, better packaging and better traceability
- But still willingness to pay is down

- Primarily due to inflammatory statements made on websites
GLOBAL OUTLOOK: 2028 tilapia aquaculture

Metric tons (000)

Africa
Tilapia production – Africa (capture vs. aquaculture)

Africa aquaculture production of 1.2 million metric tonnes (2017)

<table>
<thead>
<tr>
<th>Year</th>
<th>Capture</th>
<th>Aquaculture</th>
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<tbody>
<tr>
<td>2007</td>
<td></td>
<td></td>
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<td>2017</td>
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Egypt
- 940,000 (80%)

Rest of Africa
- 237,000 (20%)
African Champion (Aquaculture): Egypt

Metric tons – largely for domestic consumption

<table>
<thead>
<tr>
<th>Year</th>
<th>Estimate (Metric tons)</th>
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<td>2009</td>
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<tr>
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<td>2016</td>
<td>1,000,000</td>
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<tr>
<td>2017</td>
<td>1,000,000</td>
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</tbody>
</table>
Capture fisheries of tilapia

- Still high and important but have generally stagnated >400,000MT
- Still support livelihoods of many communities along water bodies.
- Issues eg fish bans, closed seasons, illegal fishing, quotas etc
Supplies to Africa - Imports

China dominate frozen whole tilapia in African markets

Suppliers for African market, frozen whole tilapia, quantity, 2015

- China: 98%
- India: 1%
- Thailand: 0%
- Rest of the world: 1%

98% of African market of all tilapia goes to frozen whole tilapia, where 98% of them are imported from China.
Commercial aquaculture producers of Tilapia in Africa

- Lake Harvest Aquaculture (Zimbabwe)
- Kariba Harvest Aquaculture (Zambia)
- Source of Nile (Uganda)
- Yalelo (Zambia)
- Tropo (Ghana)
- Triton (Nigeria/Ghana)
- Victory Farms (Kenya)
- Maldeco (Malawi)
- Several other small to medium commercial farms (eg Egyptian farms)
Trade of live tilapia in Africa

- Limited international sales of live market size fish. Sales are largely (fresh/frozen)
- Genetically improved broodstock strains from Asia or elsewhere
- Fingerlings distributed to countries with limited, poor to no hatcheries
- Expanding commercialisation of tilapia farms within Africa:
  - eg Triton (Ghana, Nigeria, Togo)
  - Lake Harvest subsidiary farms (Zimbabwe, Zambia, Uganda)
Recent developments in Tilapia value chains in Africa

- Increase in commercial farms (especially medium sized farms)
- Increase in fish distribution businesses of tilapia
- Import tariffs/restrictions/controls for frozen tilapia
- Genetics work, monosex tilapia - Distribution of improved tilapia strains in many countries around Africa continue
- Fish standards development (especially for tilapia) EAC now SADC
- Fish feed companies for tilapia in Africa are growing
- National policy and plans, enablers, etc – continue to apply
- Improved public understanding of tilapia, particularly as a farmed fish
- Improved market information as producers promote their products
- Disease – wake up call – biosecurity measures on farms
Outlook (Africa tilapia)

- Tilapia widely expected to play a substantial role as a food fish to meet the needs of the poor for animal protein in many developing countries
- Aquaculture of tilapia will continue to grow (currently average 10%)
- Capture fisheries will continue to be important, but remain stagnant
- Imports of frozen tilapia (mainly from China) will continue especially in less producer countries but will face lots of barriers
- Increase in vertically integrated commercial farms
- Many originally subsistence farms graduating to become SME commercial farms
- Demand will remain firm (largely fresh and frozen whole product), limited production of value added products
- Value prices might go down as farmed product become widely available – increasing supplies
- African tilapia for Africans – limited global exports (competition on global markets, cost of shipping to international markets etc)
- Improved biosecurity measures on farms for fear of growing disease outbreaks
Acknowledgements

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