Tuna goes around the world on sushi

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World catch amount of blue fin tuna

Catch amount (10^3 ton)

Year

1950
1970
1990
2010

10
20
40
60
80
100
120

Rapid Increase

Rapid decrease

Total
Southern
Pacific
Atlantic
15th CITES in Doha, in this year, did not adopt listing of Atlantic blue fin tuna in Appendix I.

However, we cannot deny the degradation in stock condition of blue fin tuna.
World catch amount of blue fin tuna

Rapid Increase

Rapid decrease
(Target period)
Previous to other discussions

Who did eat blue fin tuna?
catch of blue fin tuna by Japan
World trade of blue fin tuna in 2007

Trade of Pacific blue fin tuna is not included in export
Supply of Blue fin tuna in Japan

Supplied amount (10^3 ton)

- Import
- Domestic production
- Total

9,750t.
World aquaculture production of blue fin tuna

Production (10^3 ton)

8,800 ton (6,900 ton except Japan)

- Japan
- Australia
- Mexico
- The others
- Total

World aquaculture production of blue fin tuna
In market mechanism

supply = demand

What was the demand in Japan?
What is conveyor belt sushi bar?
History of sushi
BC 4th: Sushi was born in Southeast Asia as nonperishable food
Early 19th: Edomae (Tokyo style) sushi was originated as fast food
1958: Convey belt sushi bar was invented
1960s: Sushi became fine dining
1978: the duration of patent finished
After 1980s: development of fast food industry
After 2000: Major conveyor belt sushi bar chains began to use imported cultured blue fin tuna
In classic style shish bar
Artisan cooks sushi following each request
In conveyor belt sushi bar
One chef can serve many customers
Lean meat (Akami)

Fatty meat (Toro)

Medium
Fatty meat of cultured blue fin tuna were used as call bird

Because nearly whole body is fatty meat

Fatty meat of cultured blue fin tuna is cheaper than that of wild caught blue fin tuna
Domestically produced cultured blue fin tuna is expensive than imported blue fin tuna because culture period is long (2 or 3 years)
Annual sales of conveyor belt sushi bar companies (A, B, C)
Number of conveyor belt sushi bar in Japan at 2007: 5000

(A) Estimated total sales in 2007: 500 x 10^9 JPY
(Torii 2007)

Calculation conditions
(B) Average customer spend: 1200 JPY
(C) Ratio of customers who eat fatty tuna: 50%
(D) Weight of tuna meat in one dish: 25g
(E) Ration of fatty meat in a body of tuna: 70%

\[
\frac{(ACD)}{(BE)} = 7,440 \text{ (ton)}
\]
Between 2000 too 2005
Increase of culture production 6,900 ton /year (except Japan)

Increase of import by Japan 9,750 ton/year

Consumption in conveyor belt sushi bar 7,440 ton/year
Conveyor belt sushi bar is popularized all over the world
Fattening of blue fin tuna is a cause of stock degradation
Cultured tuna were eaten in conveyor belt sushi bar

We have to consider future of conveyor belt sushi bar

Factors

Taste of young generation is changing from fatty tuna to fatty salmon in Japan

Belt conveyor sushi bar is not popularized in China
Though many tourist from china visit sushi bar in Japan

Many new style sushi are produced all over the world
California roll born in USA
Avocado and Kanikama are ingredients
Philadelphia roll is using Smoked salmon and cream cheese
Conveyor belt sushi bar is now popularizing in Taipei

We have to go to sushi bar in Taipei to see
Future of tuna and human being