Bluefin Tuna Farm
〜Sojitz’s challenge to achieve a sustainable food system〜

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Overview of Sojitz Corporation

- Total assets: ¥2.3 trillion
- Number of Branches & Offices: 84
  - Domestic: 5 (Including the Head Office)
  - Overseas: 79
- Number of Subsidiaries and Affiliates: 435
  - Domestic: 129
  - Overseas: 306
- Number of Employees: 19,463
  - Non-consolidated: 2,551
  - Consolidated: 19,463

Total equity: ¥619.0 billion
Profit for the year: ¥27.0 billion
The Rise of Aquaculture

- The global aquaculture has grown continuously over the past 40 years
- Aquaculture holds the key to meet the ever-increasing demand for fish

Aquaculture overtakes capture fisheries in production in 2013

(Source: FAO“Fishstat”, The Fisheries Agency)
Bluefin Tuna Under Threat...

Atlantic Bluefin Tuna/Pacific Bluefin Tuna (クロマグロ)

- Southern Bluefin Tuna (ミナミマグロ)
- Bigeye Tuna (メバチ)
- Yellowfin Tuna (キハダ)
- Albacore Tuna (ビンナガ)
- Skipjack Tuna (カツオ)

Facts about Bluefin Tuna
- Highly prized as sashimi and sushi
- Pacific Bluefin Tuna was designated as “Vulnerable” in 2014
Sea Change in the Bluefin Tuna Farming

Bluefin Tuna Supply in Japan (2019)

- Farmed Bluefin Tuna, 19.6
- Domestic Production, 29.6
- Marine Fisheries (Atlantic), 2.5
- Marine Fisheries (Pacific), 7.5
- Malta, 8.5
- Mexico, 4.2
- Spain, 3.6
- Turkey, 3.2
- Croatia, 2.5
- Morocco, 1.6
- Others, 4.1
- Total, 57.3 (thousand ton)

Farmed Bluefin Tuna Output in Japan

(Source: The Fisheries Agency)

- 2011: 10,224
- 2012: 9,639
- 2013: 10,396
- 2014: 14,713
- 2015: 14,825
- 2016: 13,413
- 2017: 15,858
- 2018: 17,641
- 2019: 19,588
- 2020: 18,609
Sojitz’s Tuna Farm Takashima

- Sojitz has more than 30 years of experience in importing tuna
- Started the Bluefin Tuna Farming business in 2008 to provide a stable supply of safe and high-quality bluefin tuna

Why Takashima?
⇒ Ideal sea conditions for growing tuna
Tuna Farming Process

① Procurement of juveniles/artificial seeds

- Both wild-caught juveniles (90%) and artificially hatched seeds (10%) are procured
- Sojitz Tuna Farm acquired SCSA* Certification as a producer of sustainable seedlings

② Feed Management

- Various initiatives are pursued to optimize feeding through the use of IoT/AI
- An automated feeding system is developed to provide the tuna with compound pellet feed

③ Shipping

- Sojitz Tuna Farm obtained ISO/FSSC22000 (Certification for Food Safety Management System) for the first time in Japan
- Only a 1.5 hours drive to Fukuoka Airport and then to the global market

*SCSA: The Seedlings Council for Sustainable Aquaculture (a Japanese NPO)

New way, New value
Use of IoT/AI ① Feed Optimization

- Feeding is an important operating factor in the Tuna Farm
- Sensors equipped with IoT technology obtain readings on the water temperature, amount of dissolved oxygen, salt concentration etc. to verify the optimal amount of feeding and time
Fish monitoring is indispensable for efficient feeding management
An automated feeding system via portable sonar devices is developed which identifies the timings of compound pellet feeding.
Sojitz Corporation expresses support for FSS (Food Systems Summit) which is held to promote concrete actions for the transformation of Food Systems, for the purpose of delivering all the Sustainable Development Goals.

We are committed to provide a stable supply of food resources for contributing to the development of sustainable food systems.

【Commitment】
①We will pursue sustainable use of living marine resources by leading the spread of MSC certified sashimi tuna, which certifies it has been caught in appropriately managed fisheries.
②We will pursue sustainable and responsible aquaculture, especially by working on maintaining the certificate by Seedlings Council for Sustainable Aquaculture of tuna farming.
③We recognize the potential of tuna farming and are actively seeking to further improve the efficiency of the aquaculture by promoting the use of IoT/AI technologies.

【References】
Sojitz Key sustainability Issues (Materiality)
Key to achieving SDGs

**Benefits of Aquaculture**

- Stable sources of food
- Restoration of threatened and endangered species
- Ease of access
- Bridging the gap of agriculture
- Lower prices for fish
- Job creation ...just to name a few
Bon Appetit ~ Serving Sojitz Bluefin Tuna

Please come visit!

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<th>Restaurant name</th>
<th>Nama Honmaguro Isshin (生 本まぐろ 一心)</th>
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<tbody>
<tr>
<td>Address</td>
<td>Hatchobori 2-20-1 Chuo-ku Tokyo Japan</td>
</tr>
<tr>
<td>TEL</td>
<td>+81-3-3553-3661</td>
</tr>
</tbody>
</table>

Direct order available

1. 赤身中トロ食べ比べセット
   3,300円（税込み）

2. 大トロ中トロ赤身特選セット
   4,800円（税込み）

Sojitz Tuna Farm Takashima | TAKASHIMA Bluefin Tuna (sojitz-tunafarm.com)
Our Final Message

- Despite technological advances, challenges remain to achieve a fully sustainable bluefin tuna farm.

- Sojitz is committed to continue our efforts to pursue sustainable and responsible aquaculture.

- We strongly believe in the potential of tuna farming and are committed to further improve the efficiency of the aquaculture by promoting the use of IoT/AI technologies.

- Lastly, please visit Takashima in Japan, full of nature and history…and bluefin tunas!

Thank you very much for your attention.
ありがとうございました