

Nichirei Foods

CASE 1 A Chicken Processing Factory That Uses the Entire Chicken (Thailand)



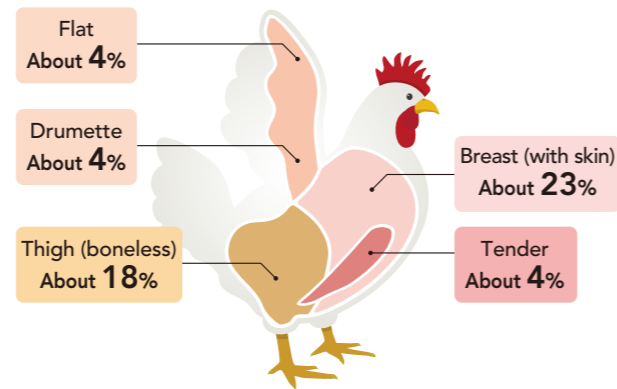
Social Issue

Food Waste: Thigh and Breast Meat Are Only About 40% of Total Weight

Fried, sauteed or prepared in various other ways, chicken is ubiquitous in daily dining. Thigh meat is the most popular part of the chicken in Japan, but it only accounts for about 20% of the whole bird by weight. Breast meat, which is popular in the United States and Europe, also only accounts for about 20%.

On the other hand, non-meat parts such as bones and feathers account for more than 40%, and become waste if they cannot be utilized. Devising processing and sales channels for well-balanced use of the entire bird is necessary to avoid food waste from carefully raised chickens.

Breakdown of Chicken Parts by Percentage of Total Weight*



* Weight may differ among individual chickens

Initiatives to Resolve the Issue

1 Establishment of a Joint Venture with a Major Poultry Processing Company in Thailand (2008)

Demand for chicken continues to increase worldwide, and Japan is one of the world's leading chicken importers, with consumption far exceeding domestic production.

Aiming for stable procurement of raw materials, in 2008 Nichirei Foods established GFPT Nichirei (Thailand) Company Limited (GFN), a joint venture with a major Thai poultry processing company (GFPT Group). As a joint venture, GFN utilizes the functions of the GFPT Group for fully integrated processing from raw materials to finished products. Under the system, live chickens from poultry farms that use only the best feed and breeding stock are brought in, slaughtered and cut, then cooked, frozen and packaged at a directly connected processing plant.



2 Systematic, Effective Use of the Entire Chicken

In addition to facilitating stable procurement and production of safe and reliable raw materials, GFN essentially eliminates food waste by using the entire chicken in various ways. GFN considers effective uses and sales channels for each part, from the meat to the head, feathers and blood, then adds value and sells those parts (see the figure below). For example, feathers are processed and sold for use in feed for farmed fish; bones, intestines and heads are processed and sold as raw materials for pet food; and feet are sold in China, where demand for this part is strong.

Aside from product quality, consideration for the environment and human rights is also important, especially in Europe, to which breast products are exported. GFN focuses on initiatives such as creating a comfortable working environment and animal welfare, and has acquired ISO 14001 and other international certifications.



Our integrated measures for safety and reliability, from utilizing GFN Group functions to raise chickens from breeding stock to production at GFN, have earned a positive response from customers in Japan and elsewhere. The factory has no concept of waste when it comes to raw materials. Fully using all resources reduces not only food waste but also environmental impact. Moreover, expanding business by increasing the number of value-added products leads to returns to the local community and provides employment. GFN will continue working to address a variety of social issues through a sustainable chicken business.

Social Value

- Reducing food waste and environmental impact by using the entire chicken
- Improving employee engagement
- Providing returns to the local community and employment

Economic Value

- Expanding business by selling all parts of the chicken
- Improving profitability by adding value
- Continuing safe, reliable and stable procurement



Nichirei Logistics Group

CASE 2 SALS Next-generation Transportation and Delivery System

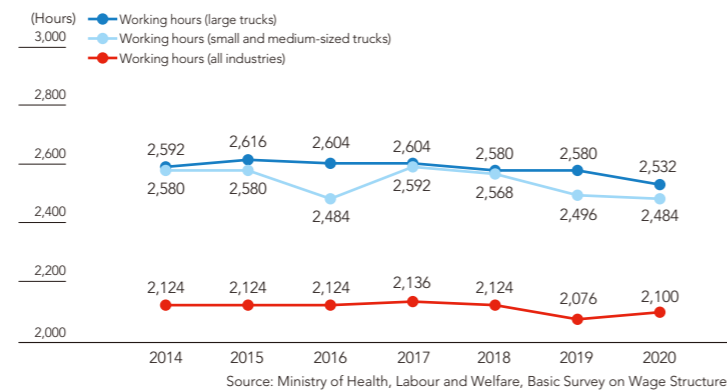


Social Issue

The Logistics Industry's 2024 Problem: A Shortage of Truck Drivers and Long Working Hours

Long hours have become the norm for truck drivers. In addition to long distances, drivers must contend with factors such as dwell time at logistics facilities and incidental non-driving work that they have been subcontracted to do, which has become standard business practice in the industry. The 2024 Problem for logistics refers to issues such as those that the shipping and logistics industry must address from April 1, 2024, when Japan's Work Style Reform Act imposes a mandatory limit of 960 hours of driver overtime per year to improve the working environment.

Annual Working Hours for Truck Drivers



Initiatives to Resolve the Issue

1 SALS Next-generation Transportation and Delivery System

SALS is an acronym for S&U Logistics System, in which "S" stands for speedy, sustainable and solution, and "U" stands for utility, usability and user experience. By synergizing the advantages of Nichirei Logistics Group, we will generate speedy, sustainable logistics solutions and provide utility, usability and superior user experience to our customers and society.

Increasing the Sophistication of the Services We Provide

The Three "S"s
Provided by Nichirei Logistics Group

Speedy
Sustainable
Solution

The Three "U"s
of Customer Value

Utility
Usability
User Experience

Japan's No. 1 temperature-controlled logistics network for food

One of Japan's largest base cargo volumes

SALS
S&U Logistics System

Robust transportation and delivery network
(Collaborative partnerships with approx. 100 companies)

About 80 self-operated distribution centers nationwide

2 Using SALS to Build a New Transportation and Delivery Infrastructure for Temperature-controlled Logistics

SALS was initially introduced for transportation and delivery among the Nichirei Logistics Group's facilities in Tokyo, Nagoya and Osaka, with plans for a nationwide rollout in stages. We will continue to support our customers' supply chains through the evolution of our temperature-controlled logistics' transportation and delivery operations into higher-quality, more sustainable formats.

Using low-temperature trailers with detachable cargo beds enables return trips from relay points

Reduction of long-distance transport

Loading, unloading and related work are performed by the Nichirei Logistics Group facility rather than the truck drivers

Help truck drivers devote their time to driving

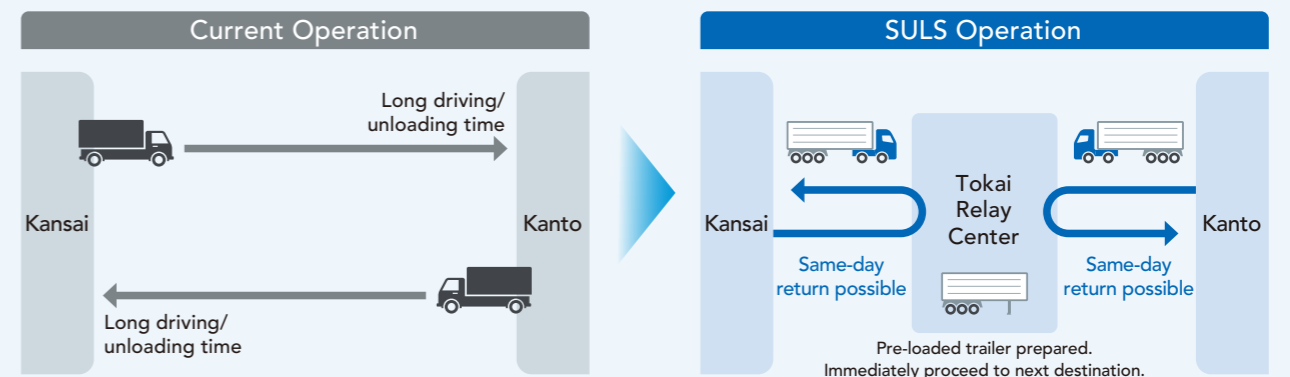
Nichirei Logistics Group-owned trailers at relay points that are loaded and ready to go at all times allow drivers to proceed to their next destination immediately after arrival

Reduction of dwell time at logistics facilities

Introduction of Japan's largest-capacity trailer, able to carry a 24-pallet load

Detachable

Trailer Tractor



Expected Effect

A conventional large truck with 16 pallets can transport 32 pallets with a single driver taking a total of about 48 hours to make one return trip. SALS has demonstrated the capability of transporting 48 pallets, taking a total of about 10 hours for one return trip.

Why Nichirei Logistics Group Is Uniquely Capable

1. Nichirei Logistics Group-owned logistics facilities in approximately 80 locations throughout Japan
2. Dominant lead in volume of storage consignors' products handled as base cargo
3. Collaborative partnerships spanning more than 30 years with about 100 companies nationwide

Social Value

- Achieving stable and sustainable transportation and delivery
- Reducing truck drivers' work load by shortening their on-duty work hours
- Reducing environmental impact
- Reducing risk of inability to transport cargo

Economic Value

- Significantly reducing total driving time
- Creating an efficient and sustainable transportation infrastructure
- Significantly expanding transportation capacity

CASE 3 Nichirei Logistics Group
Truck Loading Dock Reservation System



Social Issue

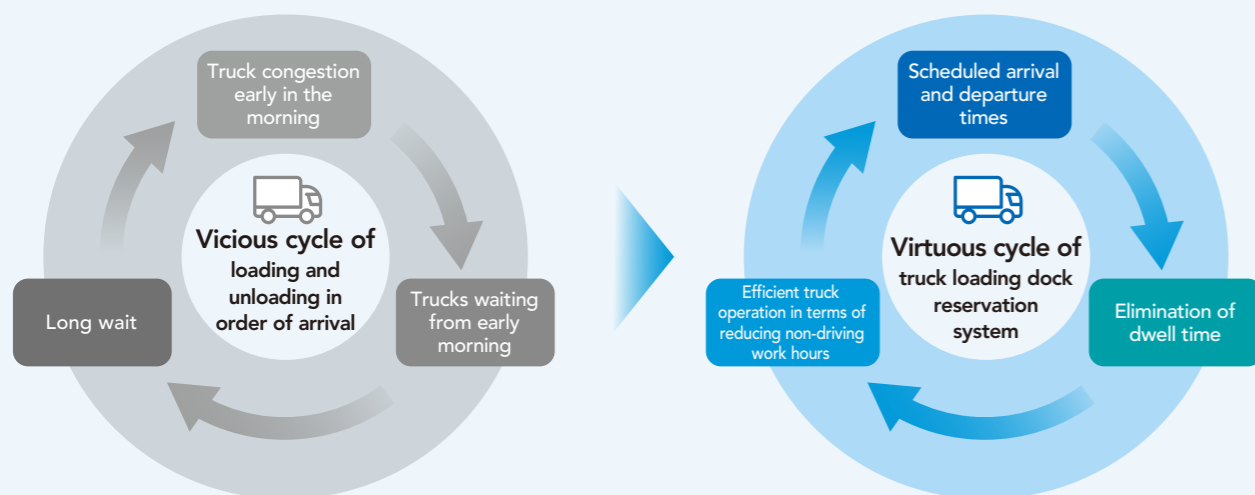
Truck Dwell Time at Distribution Centers

Truck drivers are forced to wait for long periods of time at distribution centers due to the inability to unload and load cargo smoothly. This dwell time has become a social issue. The main reason for the long dwell time and on-duty work hours is that, especially during busy periods, there are periods during the day when the distribution centers' processing capacity cannot keep up with the numerous vehicles entering and leaving due to the bottleneck created by the limited number of loading docks. In addition, it is burdensome for distribution centers to keep track of when each vehicle will be unloading or loading, because trucks from many shippers come and go, making it difficult for the center to coordinate operations with drivers in advance.

Initiatives to Resolve the Issue

1 Truck Loading Dock Reservation System to Alleviate or Eliminate Dwell Time

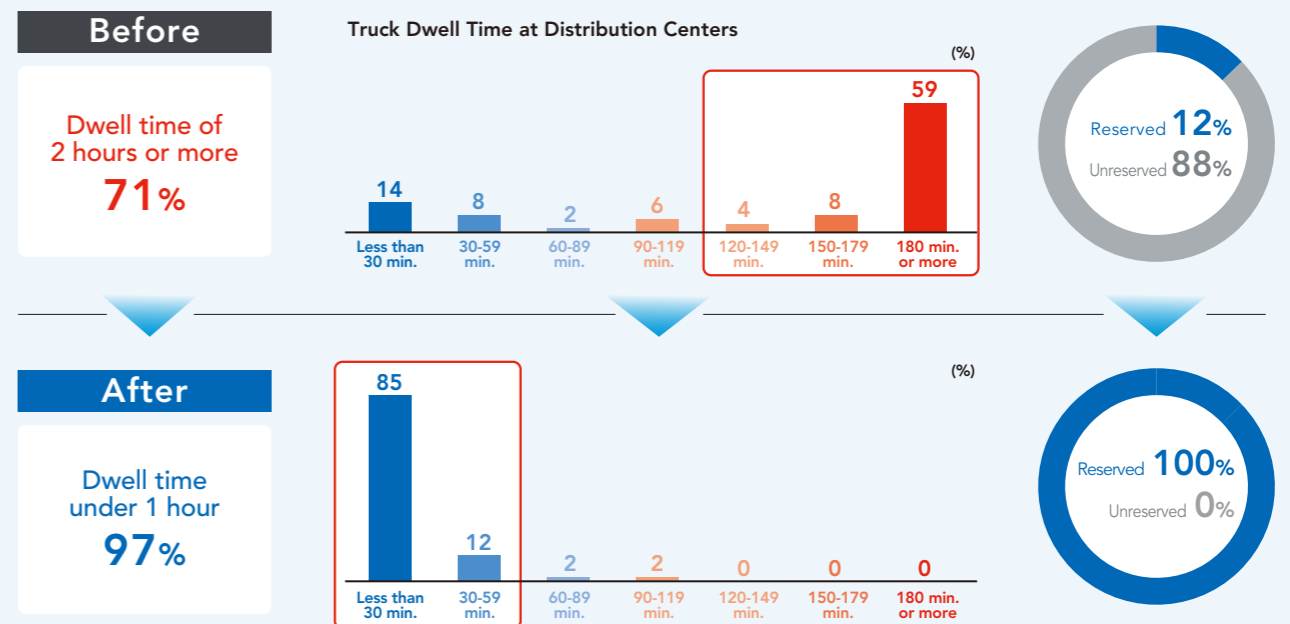
In October 2017, Nichirei Logistics Group began operating a truck loading dock reservation system to alleviate dwell time or eliminate it entirely. The system allows truck operators (the shipper or shipping company) to reserve a desired time for loading or unloading trucks, in line with the loading and unloading time slot framework at each distribution center. As a result, it is no longer necessary to line up and wait.



2 Introduction at 30 Locations throughout Japan

Confirmation of shipping companies and orders was previously performed by distribution centers after the truck arrived. However, the truck loading dock reservation system enables shipping companies to send the bill of lading, invoice and other details about the cargo to distribution centers ahead of time. Advance confirmation allows smooth assignment of trucks to loading docks upon arrival. In FY2021, we introduced this system at 30 locations nationwide.

For distribution centers where the reservation system has been steadily operating, dwell time, which had been two hours or more for about 70% of trucks before complete introduction of the system, was reduced to less than one hour for 97% of trucks. Meanwhile, the system has reduced both the number of trucks waiting late at night and early in the morning and the number of trucks parked around the distribution center. It has also alleviated the burden of reception duties by reducing the frequency of calls to confirm loading dock arrival time.



Social Value

- Alleviating traffic congestion and noise by reducing the number of trucks waiting
- Reducing truck drivers' work load by shortening time on duty
- Reducing environmental impact (CO₂ reduction)

Economic Value

- Reducing economic loss due to truck non-operational hours, etc.
- Increasing the number of employed truck drivers and curbing driver turnover
- Creating efficient and sustainable transportation infrastructure



Notable reduction in number of trucks waiting

CASE Nichirei Fresh 4 Inochi-no-Mori-Project



Social Issue

Environmental Disruption and Impact on Biodiversity from Intensive Shrimp Aquaculture

Shrimp farming requires large plots of land. In many Asian countries, wide areas of mangrove forests, which buffer the effects of tsunamis and strong winds, have been cut down to make way for artificial ponds for shrimp farming, a practice called intensive aquaculture.

In addition to affecting the ecosystems of birds, fish and small animals, this practice results in contamination of soil, local rivers and the sea by runoff containing the antibiotics and drugs in formula feed. Such marine pollution has become a social issue.

Initiatives to Resolve the Issue

Inochi-no-Mori-Project

The *Inochi-no-Mori-Project* is a joint mangrove planting project started in 2006 by Nichirei Fresh, a local shrimp supplier, and Tarakan City in Kalimantan, Indonesia to reduce environmental impact from local shrimp farming and enable sustainable procurement of safe and reliable shrimp.

A portion of the proceeds from this extensive shrimp aquaculture, which has been practiced in Indonesia for hundreds of years, is donated to a fund for systematic mangrove planting in ponds that have been abandoned after intensive aquaculture, in local parks, and elsewhere. We are currently expanding our activities into Java and Sumatra in cooperation with local suppliers.



Sign commemorating the project's 10th anniversary



Mangrove planting in coastal areas

1 Extensive Shrimp Aquaculture

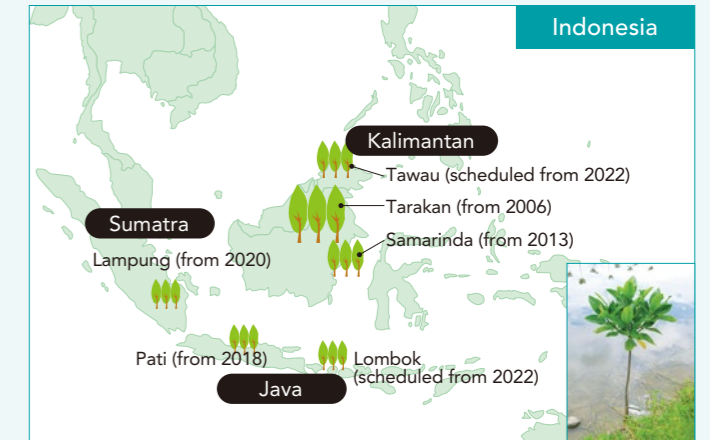
A traditional shrimp farming method in Indonesia, extensive aquaculture makes use of the natural topography. A small number of juvenile shrimp are released into a pond larger than 10 hectares that is surrounded by berms and mangroves. No feed is given, and the shrimp grow by eating plankton from the sea. As a result, impact on the soil is low, diseases peculiar to shrimp are less likely to spread, the shrimp grow larger, and electricity is not used during the cultivation period.



2 Mangrove Planting

The mangrove planting that started in Tarakan City, Kalimantan in 2006 has expanded to the islands of Java and Sumatra. We have been planting for 15 years, reaching a total of approximately 380,000 mangrove trees in 2021. The soil and ecosystem in and around Tarakan City have been recovering as planting has spread.

Inochi-no-Mori-Project activity reports
<https://www.nichireifresh.co.jp/inochinomori/> (Japanese only)



Social Value

- Contributing to the restoration of local natural ecosystems
- Reducing energy usage
- Increasing CO₂ absorption through larger mangrove forests
- Coexisting with local communities



Economic Value

- Providing high-quality, safe and reliable shrimp
- Improving product brand value
- Providing sustainable shrimp

