



# Reducing Food Loss in Japan 「食品ロス」を減らせ

Current Situation, Issues and Perspective in Japan  
日本の現状、課題、展望

13<sup>th</sup>, Sep 2019

FPCJ Press Briefing

Faculty of Business Management, Aichi Institute of Technology/ Doggy Bag Committee

Tomio Kobayashi

# Self Introduction of “Tomio Kobayashi”

## Affiliation:

Professor, Faculty of Business, Aichi Institute of Technology

## Education:

Ph.D. in Economics, Nagoya City University, March 2015.

Ph.D. in Agriculture, Nagoya University, March 2003.

## Research Interests:

Adjustment between supply and demand in food supply chains.

Economic impact of environmental policy on food loss and waste

## Committee Service:

2019– Member of Strategic planning meeting for food loss and waste reduction (food service division),  
Consumer Affairs Agency, Japan.

2018– Member of Central Environment Council, Food Recycling Special Committee, Ministry of Environment,  
Japan.

2015– Chairman, Doggy Bag Committee in Japan.(2010–Advisor), and many others..

## Books and Book Chapters:

Kobayashi, T. (Publishing) Economics of Food Loss and Waste, Agriculture and Forestry Statistics  
Publishing Inc. **(English Edition)**

Kobayashi, T., Nomiya, T. (ed.) (2019) Food Bank Diversity and Food Supply Chain Evolution  
–Overseas Trends in Food Donation and problems in Japan–, Tsukuba Publishing Inc.

Kobayashi, T. (2018) Economics of Food Loss and Waste (Third Edition), Agriculture and Forestry  
Statistics Publishing Inc., Japan.

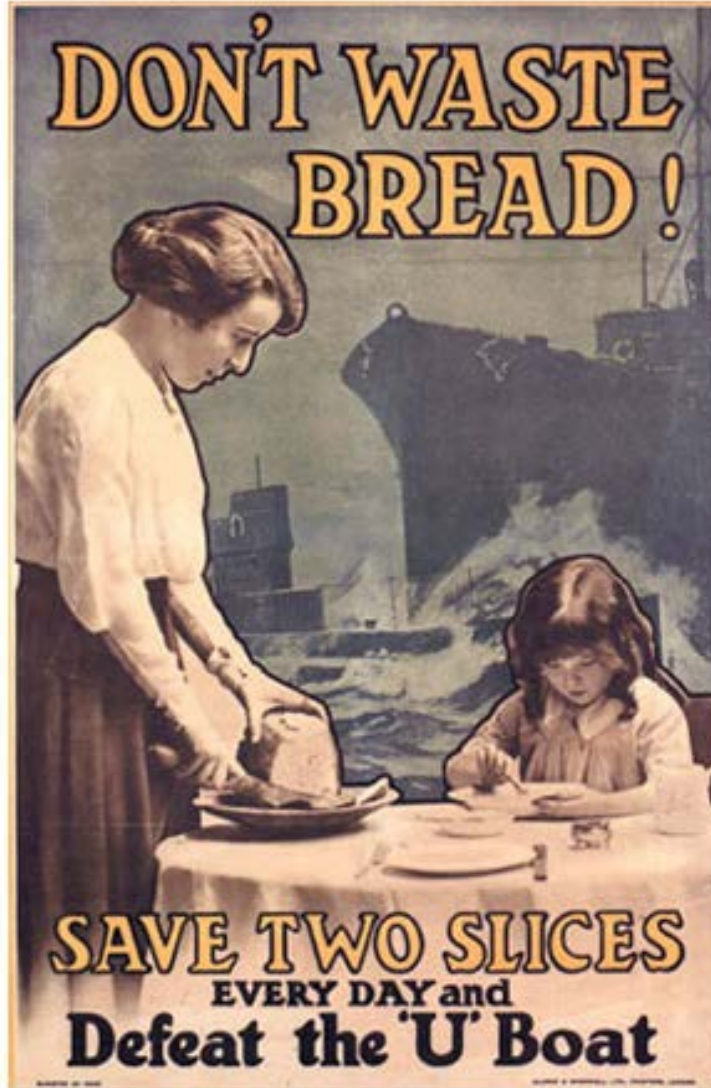




# Agenda

1. Policies and Issues of Legal system for food loss and waste in Japan
2. Food loss and waste management in Japan
3. Japan's outlook regarding food loss in 2030

# Awareness of Food Shortage during World War I & II



er, 1917, Ministry of Food (UK). Similar posters were  
coonition that the waste of internationally traded cc



Second World War poster, 1939-45, UK

# Global trends in food loss and waste

## SUSTAINABLE DEVELOPMENT GOALS



- SDG 12 seeks to “ensure sustainable consumption and production patterns.”
- The third target under this goal (Target 12.3) calls for **halving per capita global food waste** at the retail and consumer levels and **reducing food losses** along production and supply chains (including postharvest losses) by 2030.

	Target	Year decided
EU	Reduce food waste and food loss in 30% and 20% in 2025 & 2030 respectively in comparison to 2014 figure	2017
UK	Reduce food waste per capita in 2025 by 20% in comparison to 2015	2016
France	Reduce food waste in the supply chain in 2025 by 50% in comparison to 2013	2013
US	Reduce food loss and waste by 50% in 2013	2015

# History of Legal system in Japan

- 2001: “**Food Recycling Law**” enforced
  - Food waste measures are mainly food recycling
- 2007: Enacted “**Revised Food Recycling Law**”
  - **Regular report** (>100 tons / year)
  - CVS franchisors are required to take measures including their franchisees
- 2013: “Food Recycling Law” **Basic Policy** Revision
  - Target setting for food loss limit (by food industry)
- 2018: “Basic Plan for Establishing a Recycling-Based Society (4th)”
  - Cabinet decision to **halve household food loss by 2030**
- 2019 “Food Recycling Law” **Basic Policy** Revision
  - Set target of **halving food loss by 2030 (whole food industry)**
- October 1, 2019 Scheduled implementation of the “**Food Loss Reduction Promotion Law**”
  - Reduce food loss as a national movement

# Regular Report

Appended Forms (Re: Article 1)

*Received on	(year/ month/ date)
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## Regular Report

To Minister of Agriculture,  
Forestry and Fisheries  
To Minister of Environment  
To  
To  
To  
To

Reported on / / (year/month/date)

Address

Name Stamp

(in the case of a juridical person, its name and the name of its representative)

Phone number - -

Pursuant to the provisions of Article 9 of the Act Concerning the Promotion of Utilization of Recyclable Food Waste, we hereby report our status as follows:

Business operator name					
Address	Zip code				
Business type					
Any of businesses listed in Article 9, paragraph 2 of the Act					
Name of manager responsible for reporting					

Table 1 Amount of Food Wastes Generated ((1) = (6) + (7) + (8) + (9) + (10))

Business type	Quantity of generation (t)
Total	0.0
How to grasp quantity of generation	

Table 2 Values Closely Related to Amount of Food Wastes Generated ((2))

Business type	Sales, production quantity, etc.		
	Name	Unit	Value
	Sales	million yen	
	Name	Unit	Value
	Sales	million yen	

Table 3 Basic Unit of Generation of Food Wastes ((3) = (1) / (2))

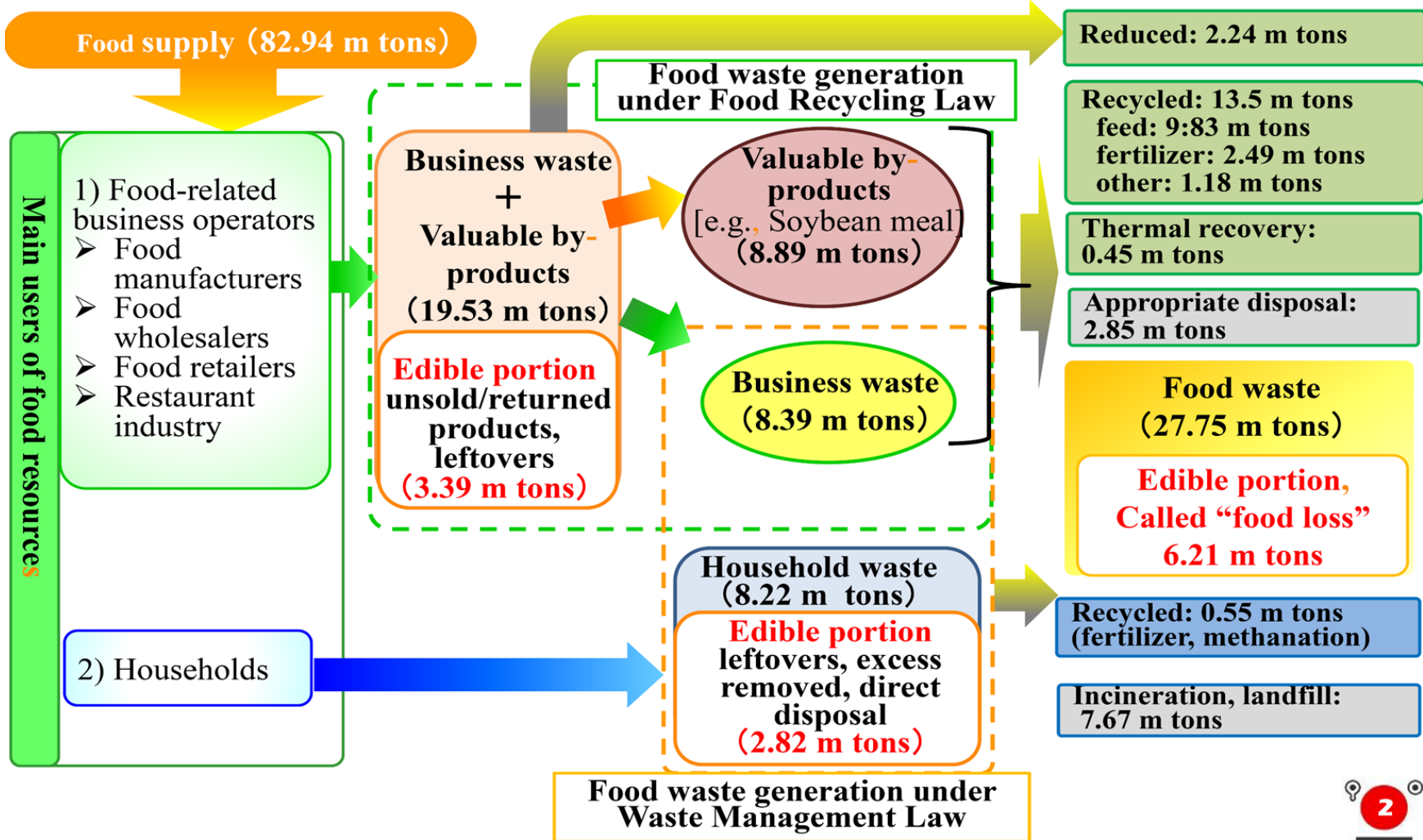
Business type	Basic unit of generation	Year on year rate (%)	Standard basic unit of generation
	kg / million yen		
	kg / million yen		
Reasons why the basic unit of generation exceeded 100% year-on-year or why the basic unit of generation exceeded the standard basic unit			

Table 4 Controlled Quantity of Food Wastes ((4) = ((5) - (3)) × (2))

Business type	Fiscal year 2007 Basic unit of generation ((5) = (1) for FY2007 / (2) for FY2007)	Controlled quantity (t) ((4))
		0.0
		0.0
Total		0.0

# FLW Flow in Japan

Usage situation of food waste generation (FY2014) <Conceptual diagram>



Food Loss structure from Food industry (H26)

Manufacturer: 1390k ton (39.1%)

Wholesaler: 180k ton (5.0%)

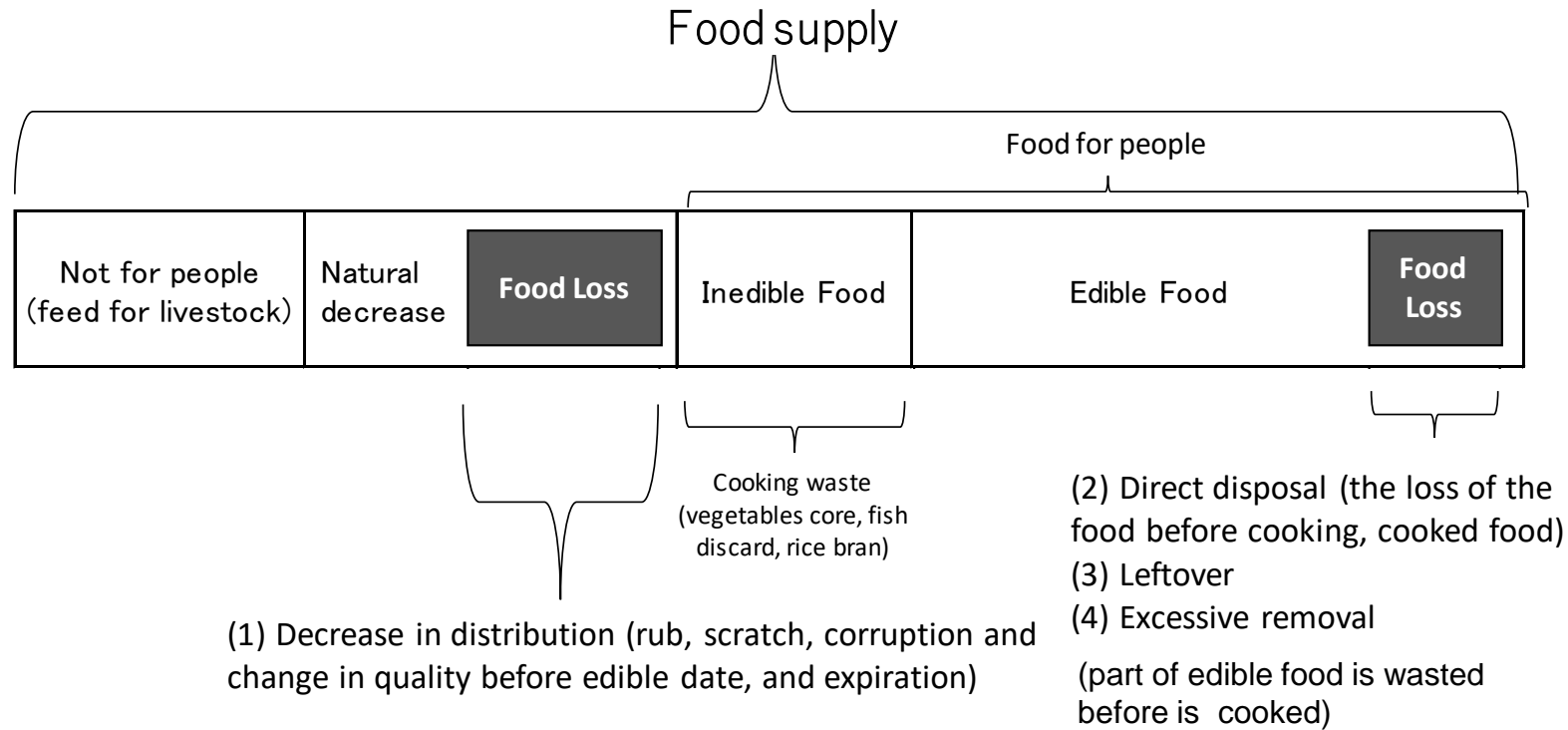
Retailer: 666k ton (18.7%)

Restaurant: 1327k ton (37.2%)

Total: 339万t (100.0%)



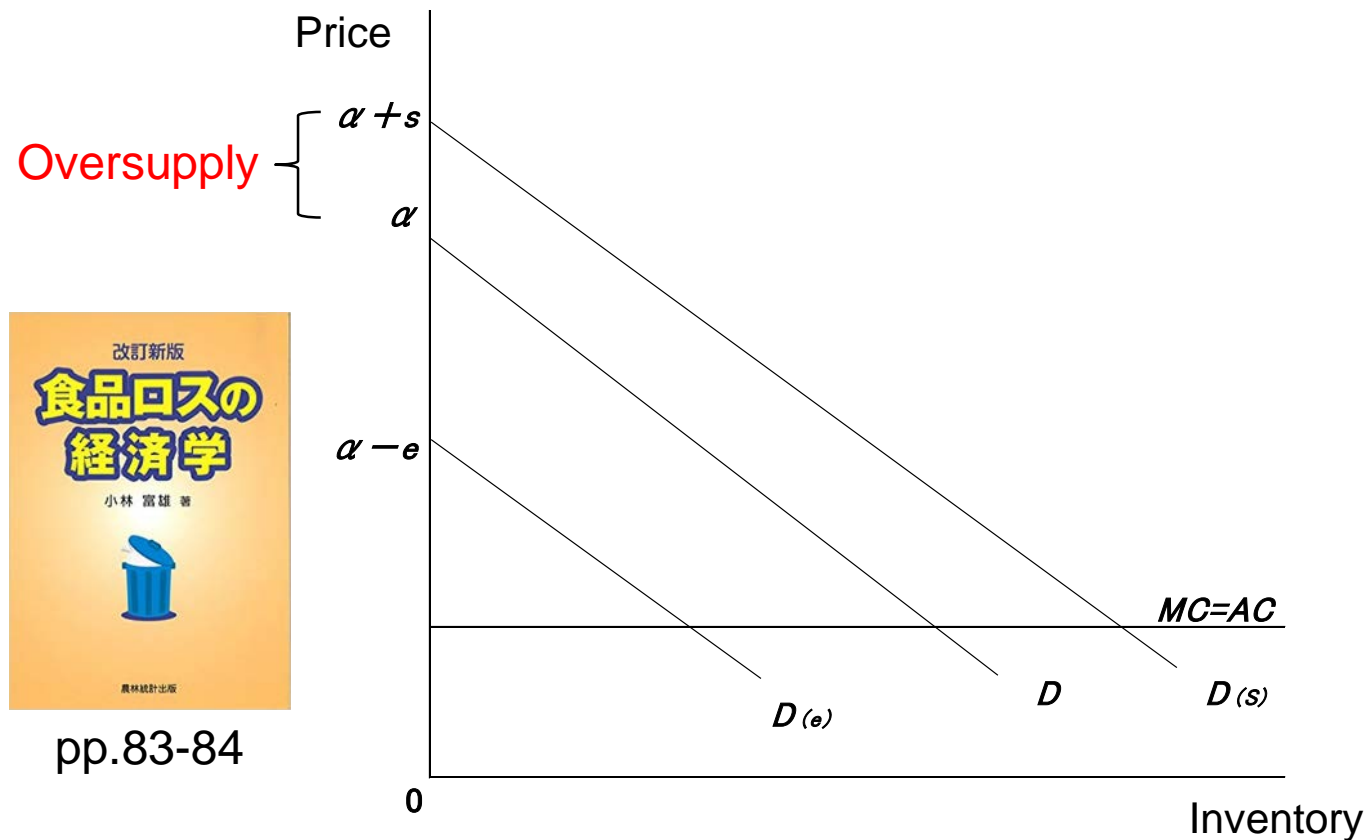
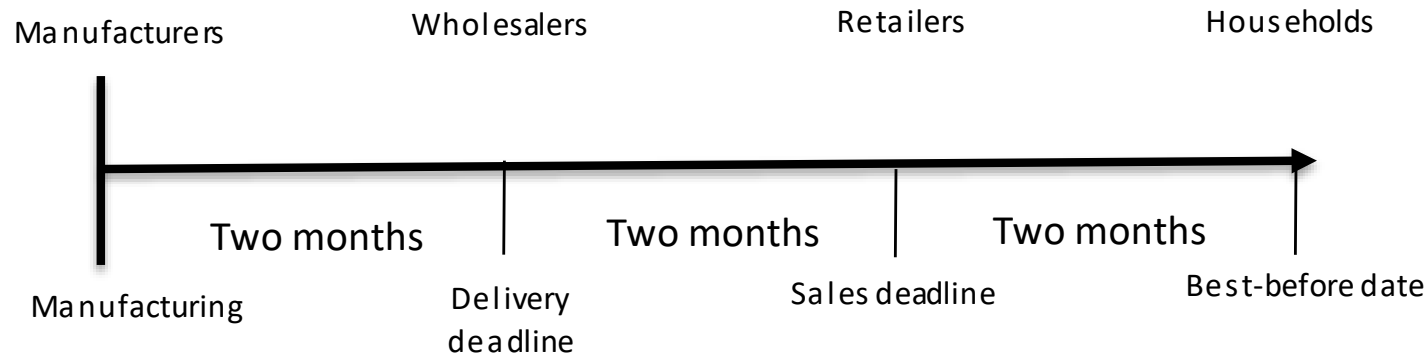
# Definition of Food Loss in Japan



Source: MAFF

“Food Loss” is edible portion of “Food Waste”, which also includes inedible portion

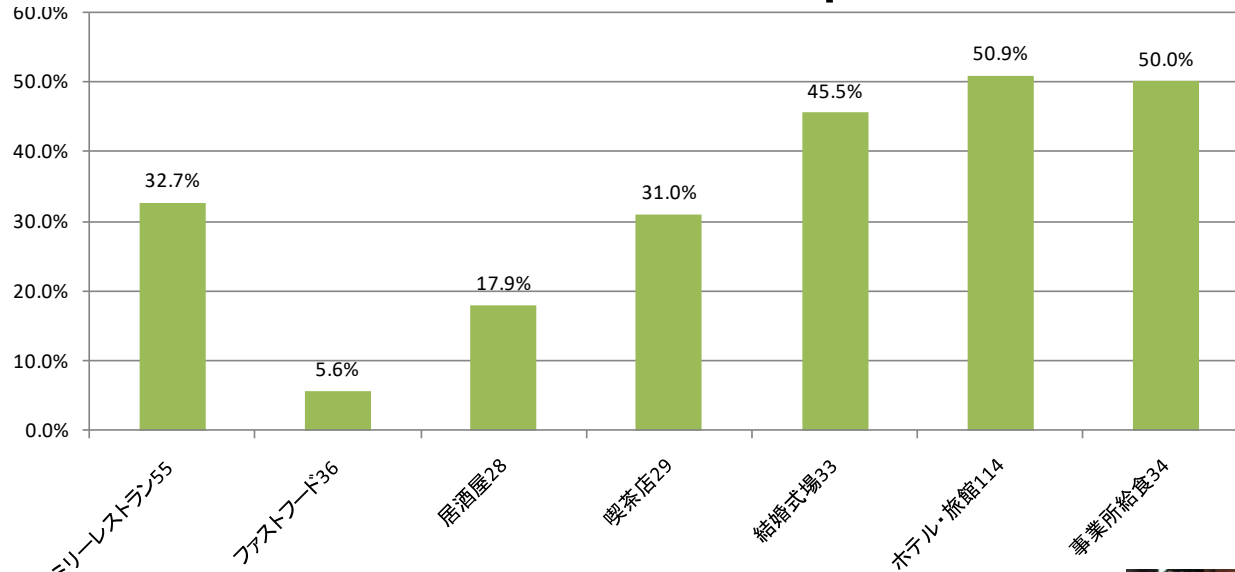
# Characteristic Common Issues in Japan (1): Food Inventory



pp.83-84

US: 1/2  
 UK: 3/4  
 FR: 2/3  
 KR: <1month - >1month  
 JP: 1/3 → 1/2

# Issues in Japan (2): Leftover in Restaurant



To-Go Box

打包



Take Away  
Container  
A\$0.5



取組	関係省庁等連絡会議	関連情報リンク	応募フォーム各種
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## 食品ロス削減に向けた取組について（消費者庁）

消費者庁は、外食時の「食べきり」の啓発促進について、4月19日に開催した「もったいないを行動に！食品ロス削減のための戦略企画会議（外食分野）」での議論を踏まえ、関係省庁と連携し、新たな啓発資料として、外食時のおいしく「食べきり」ガイドを作成し、公表しました。[PDF:380KB] **NEW**

外食時のおいしく「食べきり」ガイド(令和元年5月作成) [PDF:1.4 MB]

**外食時のおいしく「食べきり」ガイド**  
 消費生活・農林水産省・環境省

食料には、食べられるにもかかわらず廃棄される「食品ロス」が、年間643万トン（環境省環境統計）、発生しています。このうち52万トンが食品ロスから発生しています。その削減のため、外食産業では130万トンもの食品ロスが発生しており、食べ残しによるものが削減課題を占めています。

地方公共団体では、飲食店等における食品ロスの削減に向けて、「食べきり」運動や、食べ残しを減らすための料理を自主的に提供で持ち帰る「持ち帰り」の呼びかけなどが行われています。

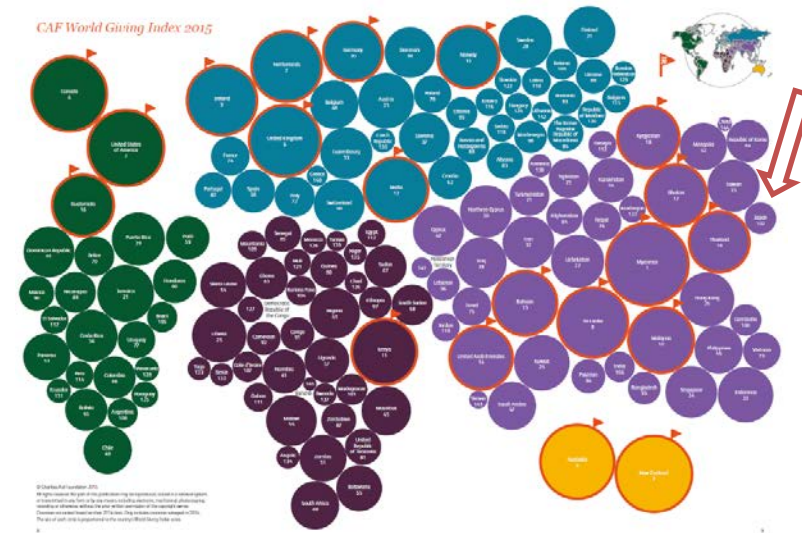
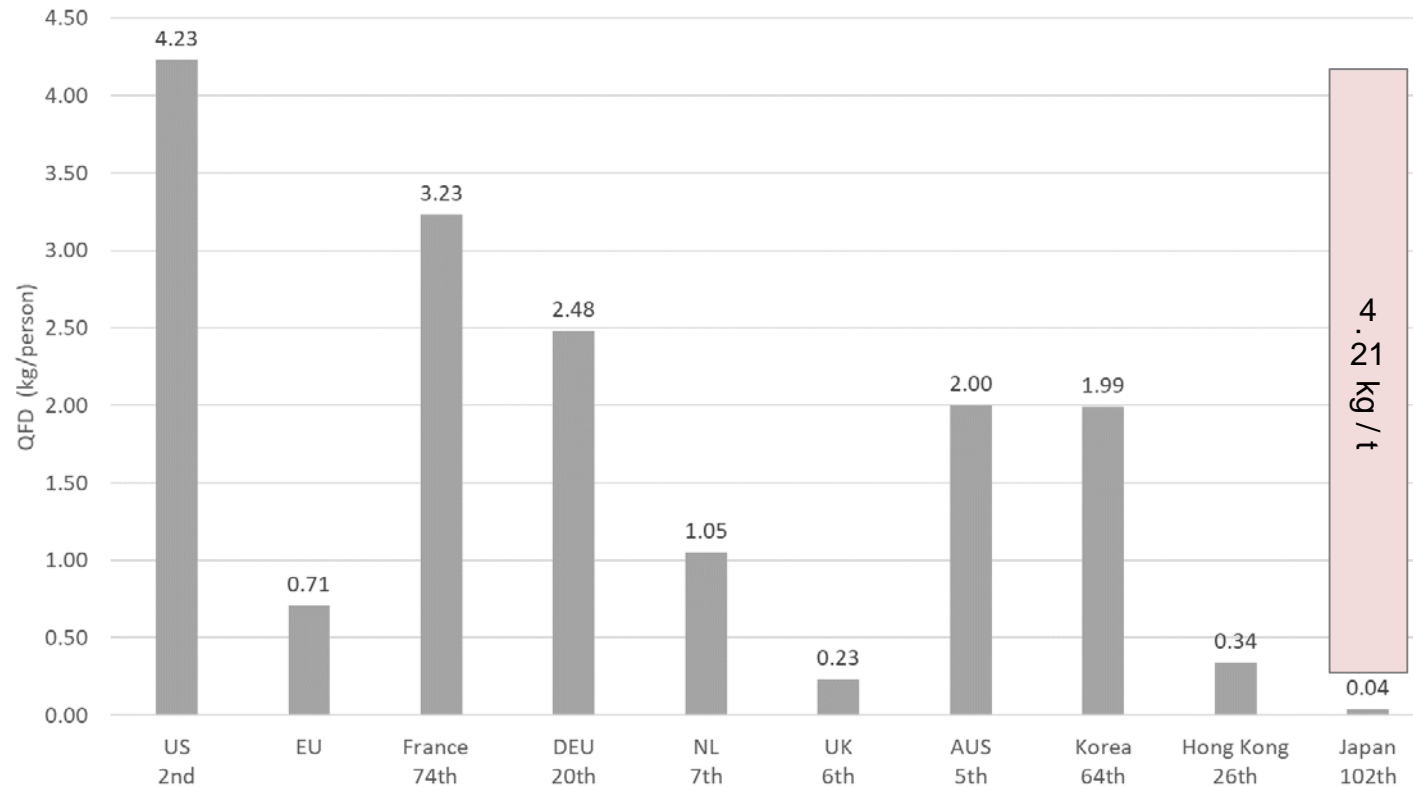
外食時の「食べきり」促進に向けて、食べ手（消費者）と作り手（事業者）双方の理解や意識を更に高めるために、本ガイドを参考に、食品ロスをなくしていきましょう。

この食品ロス量は、1人1日あたり約1.5kgに相当します。

資料：国土交通省、環境省、消費者庁、農林水産省、環境省

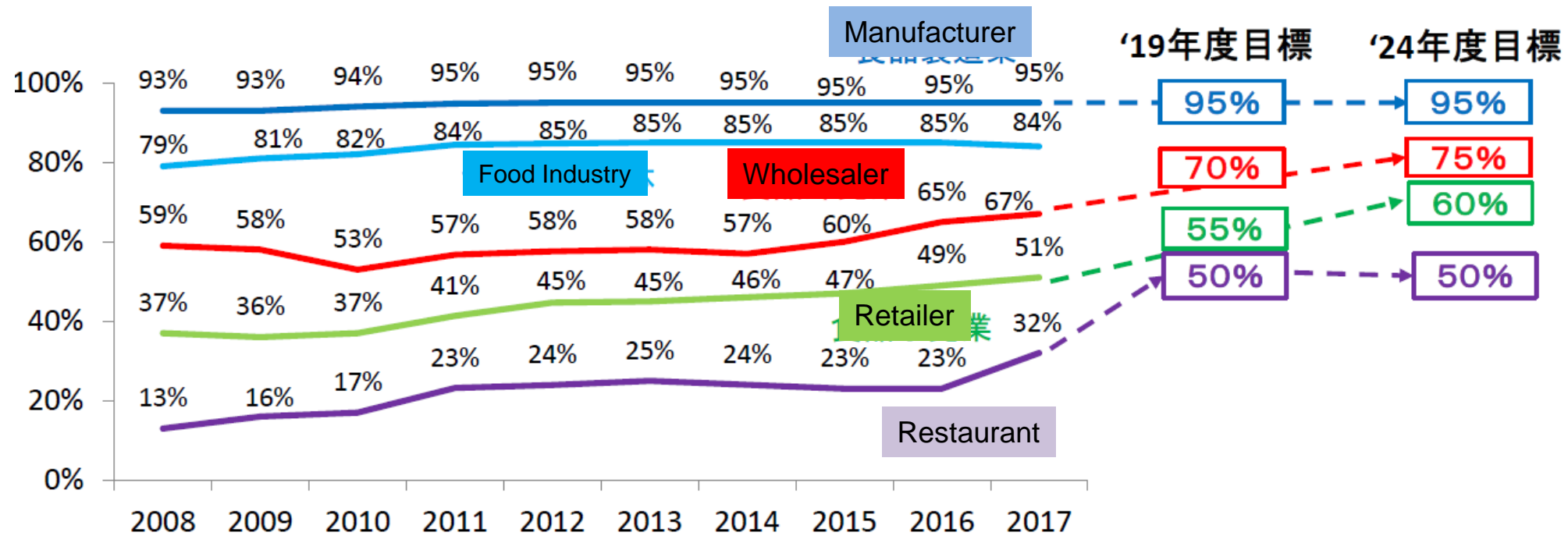
- In Japan, as an excessive response to food hygiene, restaurants may ban taking out of leftovers
- The Consumer Affairs Agency mentions taking home of leftover food is at the consumer's own risk

# Issues in Japan (3): Food Sharing



- Japan has the lowest rate when it comes to donation among the advanced countries (WGI 102nd)
- However, gift exchange of food is popular among close relationships such as family and relatives (ex. Gifted rice).

# Issues in food recycling (Japan / Korea)



- Measures have been implemented in Japan (incineration + recycling) and South Korea (recycling) since the population density is high
- Recycling is the limit of completely replacing incineration and landfill  
 “From Recycling to Upcycling” with Waste to Energy (WtE)



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2030



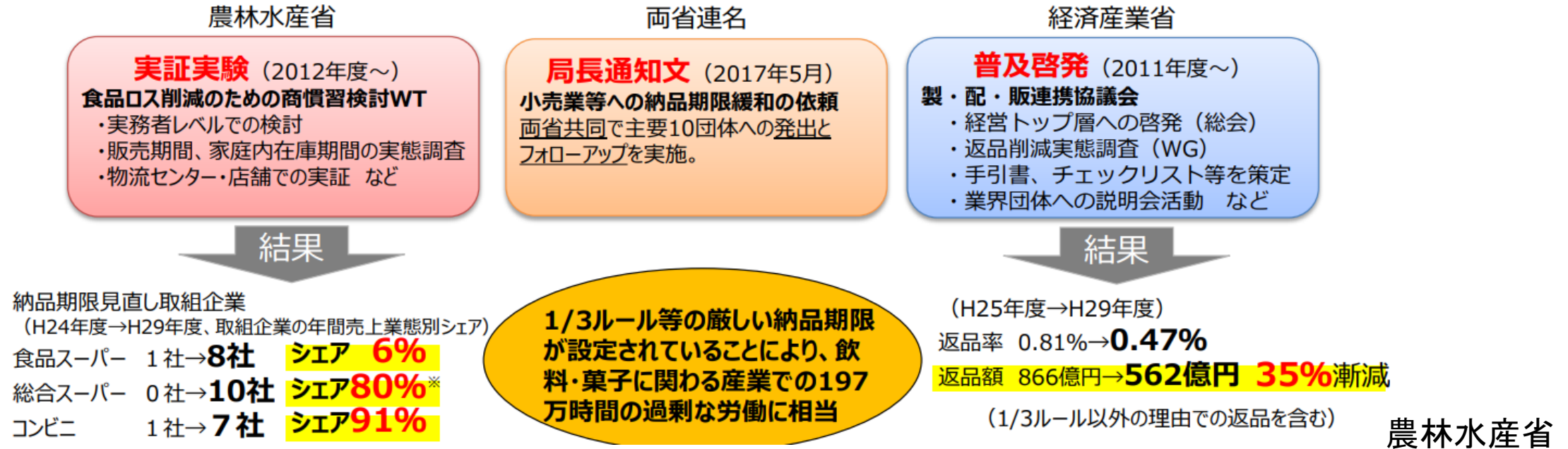
# Review of seasonal product business

- Accepting out-of-store items in the EHO roll, complete reservation system.
- Eel sale by reservation only,
- Seasoned rice with eel flavor (saving of disposal costs).
- Cancellation of GIRI-chocolate(Gift exchange).

# Review of returned goods practice in the food supply chain

Led by Ministry of Agriculture, Forestry and Fisheries and Ministry of Economy, Trade and Industry  
"Business customs study working team for reducing food loss (2012-)"

## ○これまでの取組



Return amount 86.6 billion yen → 56.2 billion yen 35% gradual decrease (H25⇒H29)  
Sales share of retailers that reviewed delivery deadlines: SM6%, GMS80%, CVS91%  
(H24⇒H29)



Self Discipline !!

# We are acting as Doggybag Committee



www.doggybag-japan.com

自己責任において持ち帰ります。

THANKS FOR YOUR HEART.  
ドギーバッグ普及委員会



DOGGY BAG COMMITTEE



ENJOY LEFTOVERS



食べきれずに残した料理、**自己責任で**お持ち帰り頂けます

※「持ち帰り」料理の安全性を保障するものではありません

\* Membership fee (starter kit fee)

Individual membership fee 1,000 yen (one set) / Restaurant / Corporate Fee 5000 yen (sets)

Individual self-responsible member 300 yen / Restaurant self-responsible member 500 yen

There is no annual fee or other maintenance fee, registration only (free)

## More than 600 members nationwide

(including about 100 companies)

(9,914 restaurants are registered by the local government)



# (Reference) Doggy Bag Act in France



ASSEMBLÉE NATIONALE

Accueil > Documents parlementaires > Amendements

Version PDF Dossier législatif Texte de référence

APRÈS ART. 15 N°CD106

**ASSEMBLÉE NATIONALE**  
21 mars 2018

EQUILIBRE DANS LE SECTEUR AGRICOLE ET ALIMENTAIRE - (N° 627)

**ADOPTÉ**

**AMENDEMENT N°CD106**  
présenté par

Mme Abba, Mme Le Feur, Mme Colboc, M. Zulesi, Mme Brulebois, Mme Pascale Boyer, M. Buchou, Mme Yvonne de Courson, M. Colas-Roy, Mme Marsaud, M. Morenaz, Mme Panonacie, M. Perse, M. Pichereau, M. Orphelin, M. Assand, Mme Gie Temmerman, M. Heury, Mme Josso, Mme Hayler-Milafert, Mme Tuffnel, Mme Sarlez, Mme Pompili, M. Perrot, Mme Karbarh, M. Fugit, Mme Vancaunebrock-Malon, M. Dombrevail et Mme Riottan

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**ARTICLE ADDITIONNEL**  
**APRÈS L'ARTICLE 15, insérer l'article suivant:**

La sous-section 1 bis de la section 3 du chapitre 1<sup>er</sup> du titre IV du livre V du code de l'environnement est complétée par un article L. 541-15-7 ainsi rédigé :

« Art. L. 541-15-7. – Les restaurants et les débits de boissons à consommer sur place mettent gratuitement à la disposition de leurs clients des contenants réutilisables ou recyclables permettant d'emporter les aliments ou boissons non consommés sur place. »

**EXPOSÉ SOMMAIRE**

Cet amendement vise à créer l'obligation de mettre à disposition un « doggy bag » ou « gourmet bag » dans les restaurants.



In France, where doggy bags are not well-mannered, legislation that requires the provision of doggy bags is under consideration for enforcement in 2021.



# New development of food bank in Japan

- In Japan, where children's poverty is serious, there are 3,718 children's cafeterias in 2019, and food is often donated
- Cases where local governments directly operate or outsource business
- The donated surplus food is sold at a low price and the proceeds are used for the operating cost of the food bank
- Co-op or food wholesaler that has logistics facilities conducts food bank activities directly.



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# Japan's outlook regarding food loss in 2030

- From recycling-oriented “garbage countermeasures” to “reducing mechanism”
- From “must be reduced” to “realization that life is enriched by reducing”
- What should be reduced??? Further discussion is needed (sashimi garnish, eating competition, education forcing students to eat up all their lunch (Inokori school lunch)), etc.
- Cross-sectional industry-government-academia collaboration design that coordinates various measures such as environment, economy, and society, etc