Prevention and Recycling of Food Wastes in Japan: Policies and Achievements

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Introduction

The Food Recycling Law was enacted in 2001 in Japan. We report what it has achieved so far. We show the material flow of food wastes in Japan, and explain the two distinctive policy actions. The first is the establishment of prevention targets according to the type of business (in 16 businesses) in 2012, the second is prevention of food wastes by the Sell What You Separate[#] (SellWYS) scheme introduced in 2007.

Objectives

Food wastes need prevention from both a moral and a waste management point of view. While 870 million people are reported to be chronically undernourished (FAO, 2011), about 1.3 billion tons/year – that is one third of the food produced for human consumption – is wasted, globally. Thus the food waste problem is one major problem for mankind, also for reasons of ecological stress by unnecessary food production. In this presentation, we report the material flows of food waste and it's management in Japan to share information and experiences with concerned people.
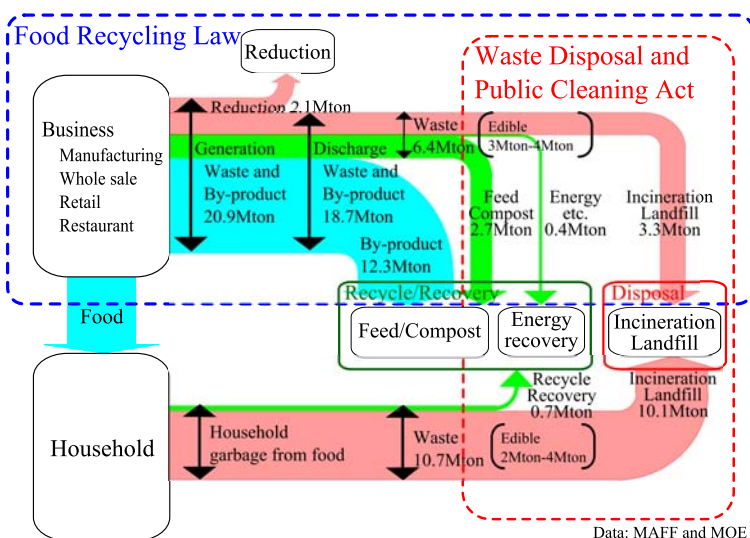

Figure 1 Material flow of food wastes in Japan (2010)

Data: MAFF and MOE

Food Waste Flows in Japan

In 2010, 32 million tons of food wastes and food production byproducts were produced in Japan. This consists of 21 million tons of business sector wastes and byproducts, and 11 million tons of household kitchen garbage. Of the former, 12.33 million tons are valuable food byproduct resource (business sector), and 6.41 million tons are business sector wastes. The recycling of food waste is making progress in the food industrial sector (especially food producers), but is less advanced with household food waste. The recycling rate of food manufacturing, which is in upstream of food supply chain is 94%, but low in downstream such as retail (37%) and restaurant (17%) in 2010.[1]

1) Current Picture of Recycling of Food Related Wastes and Questions: Special Focus on the Next Review of the Food Recycling Law, M. Ishikawa and R. Kojima, Kokumin Keizai Zasshi, 206(6), 2013 (in Japanese)

Efforts for food waste prevention
(1) Target for prevention in 16 business types

The government calculated the specific generation of waste per amount of sales, production, etc. for each of the business types to identify the most appropriate target definition. The provisional targets were set so as 70% of firms clear in 2012. The review is scheduled in 2015.

Table 1 Food waste reduce/prevention target

Business sector	Detail	target	unit
Food Manufacturing	Meat Products	113	kg/Myen
	Milk and Dairy	106	kg/Myen
	Soya sauce	895	kg/Myen
	Miso	191	kg/Myen
	Sauce	59.8	kg/t
	Bread	194	kg/Myen
	Noodle	270	kg/Myen
	Tofu and Fried tofu	2,560	kg/Myen
	Frozen food	363	kg/Myen
	Prepared food	403	kg/Myen
	Sushi, Lunch bag, Prepared bread	224	kg/Myen
Whole Sale	Whole sale (beverage)	14.8	kg/Myen
	Whole sale(other foods)	4.78	kg/Myen
Retail	Retail (food)	65.6	kg/Myen
	Retail(sweets, bread)	106	kg/Myen
	Convenience store	44.1	kg/Myen

(2) Sell What You Separate (SellWYS) scheme

This scheme was designed to improve the recycling rates in the retail and restaurant industry, as well as to avoid contamination risk. This scheme embeds incentives to retailers and restaurants of high level of source separation and of serious monitoring of recycling loop. If the scheme is approved, regulation of waste transport is eased.
First results: The amount of throughput in food recycling by SellWYS is increasing substantially.[1]
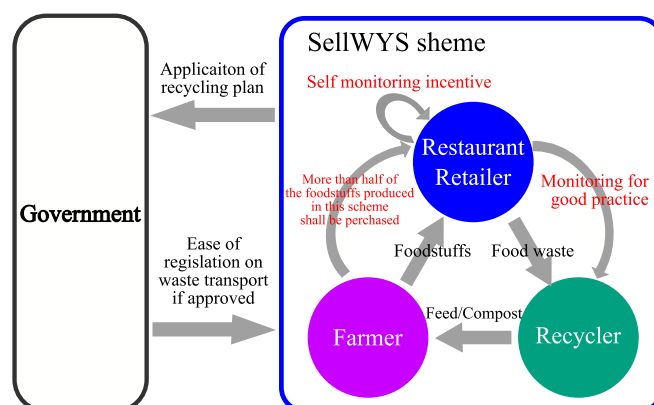

Figure 2 Sell What You Separate (SellWYS) scheme: Autonomous risk avoidance by "The deed comes back upon the doer"

#: Named by authors, literal translation is Recycling Project Business Plan

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