# Foodwaste Minimization and Recycling (FMR) in Korea

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### Why should we initiate the FMR?

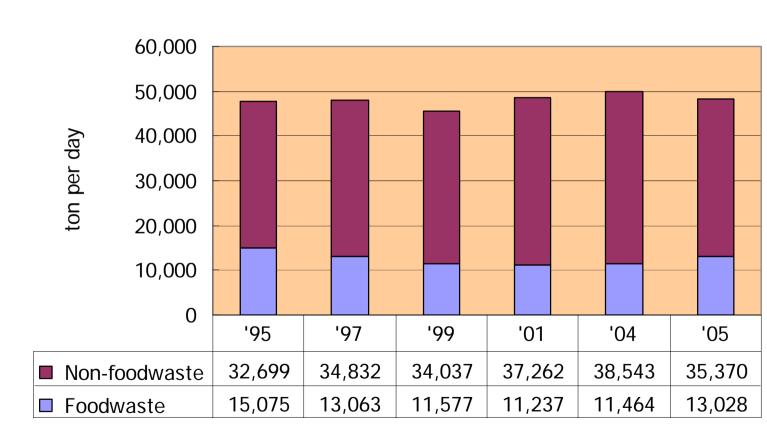
- Difficult to secure additional landfill sites
  - Due to rapid urbanization and NIMBY syndrome
  - Foodwaste share: 25% of non-industrial waste
- Second-hand pollution attributed to foodwaste landfilling
  - Land and groundwater pollution, malodor, infested with vermin
- Waste recyclable resources of foodwaste worthy of about USD 14.7billion dollars
  - Import 70% of grains(except rice) and 96% of livestock feed

## **History of FMR Policy**

- Establish Foodwaste Reduction Masterplan by Environment Conservation Committee in 1996
- Set the Standard Rules concerning foodwaste collection and transportation and separated collection system in 1997
- Establish Foodwaste Recycling Program ('98~'02) in 1998 and Foodwaste Reduction and Recycling Program ('04~'07) in 2004
- Inhibit direct landfilling of foodwaste nationwide since Jan. 1, 2005 to promote FMR
  - Steer Foodwaste Forum May to Nov. 2005 to address and improve challenges after inhibiting direct landfilling of foodwaste
- Establish Foodwaste Comprehensive Plan in 2005 to change food culture and facilitate foodwaste minimization and recycling

## Status of Foodwaste Generation and Disposal(1)

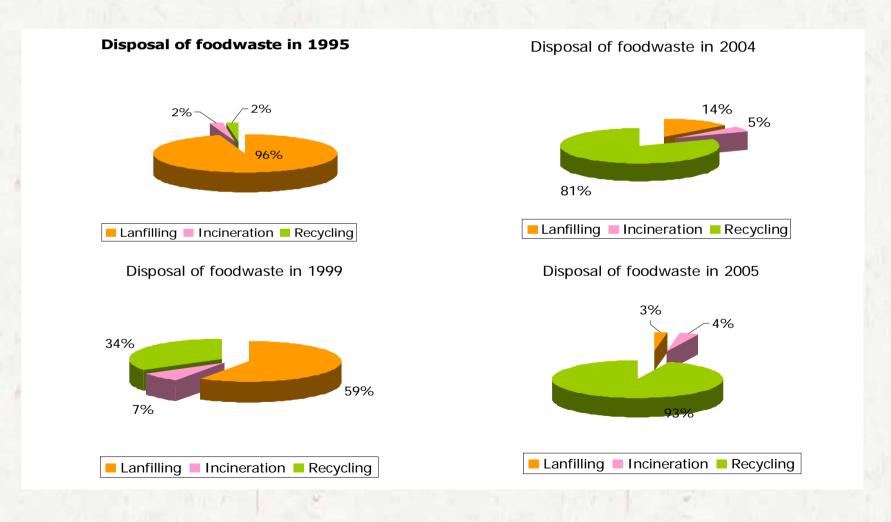
#### Trend of foodwaste generation



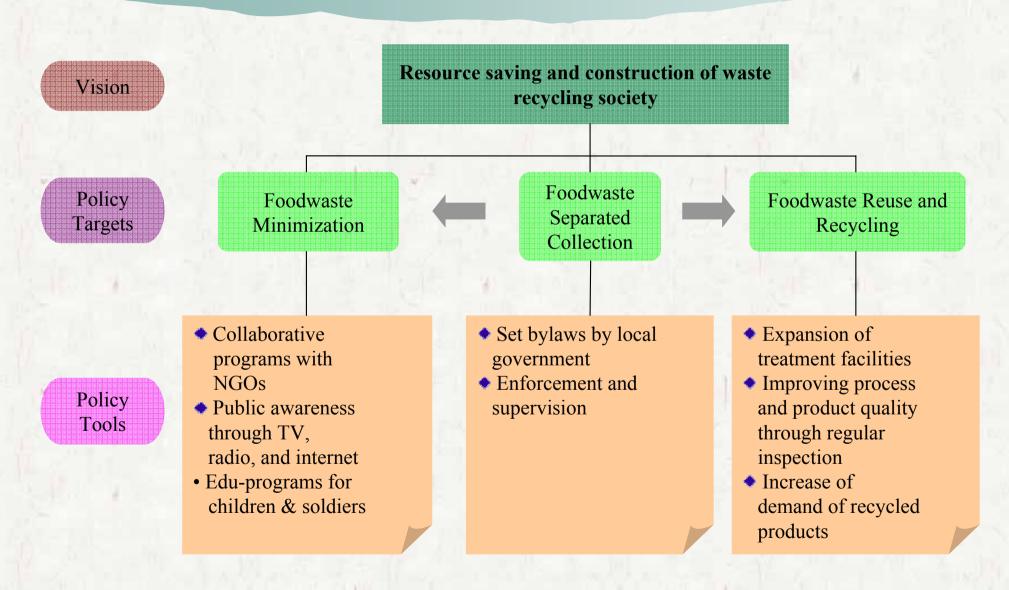
year

## Status of Foodwaste Generation and Disposal(2)

#### Trend of foodwaste recycling



## System of FMR



## **Foodwaste Disposal Process**

Transportation & Generation Consumption Products treatment Livestock farm Livestock feed Self-recycling through Household - Waste volume reduction machine - Self-recycling facilities Agriculture Compost farm Restaurants Consignment recycling - Public & private recycling facilities Energy for Methane gas Agriculture & electricity or fishery center heating

#### Where are we now?

## Remarkable increase of recycling rate and effect of import substitution

- Foodwaste recycling rate : 2.1% in 1995  $\rightarrow$  41.1% in 2000  $\rightarrow$  93.8% in 2005
- Effect of import substitution for livestock feed and compost : about USD 111.8 mil. in 2005

#### Reduction of foodwaste bringing into lanfill sites

- Extension of life span of land fill site: 7 years→11 years
- Saving wastewater treatment expense : about USD 61.1 mil.

#### Settling down separated collection system of foodwaste

-81.3% in 2004  $\rightarrow$  96.6% in 2005

#### **Issues & countermeasures**

- Reduce increasing foodwaste : 11,464 ton/day in 2004 → 13,028 ton/day in 2005
  - → Waging the intensified foodwaste-reduction campaigns with NGOs and mass media to improve wasteful food culture
  - → Driving the FMR Comprehensive Plan(2006~2010) with 10 central government agencies
- Improve negative recognition of foodwaste recycling products
  - → Stable operation of foodwaste treatment facilities through regular inspection
  - → Holding annual contest for selecting best foodwaste recycling products
- Diversification of foodwaste treatment methods
  - → Anaerobic treatment of biomass (foodwaste+nightsoil+sewage sludge)

## Thank you very much for your attention!

Any Qs?