STATUS OF FOOD WASTES MANAGEMENT AND FUTURE IN KOREA

Yong-kyun Cho

Dept. of Environmental Engineering, Hanseo University, Seosan, Korea, 356-706
enpia@hanseo.ac.kr

1. POLICY OF FOOD WASTES REDUCTION AND RECYCLING

1.1 Results in of Food Wastes Recycling in 1999
- 1.1.1 Food wastes generation and recycling rate
  - Feed 2,400 ton/day , Composting 1,460 ton/day
  - < Food Wastes Generation and Recycling Rate>
  - < Food Wastes Recycling Facilities Increasing >
- 1.1.2 Improving System of Food Wastes Reduction and Recycling
- 1.1.3 Implementation of Food Wastes Reduction Policy
- 1.1.4 Research & Development of Food Wastes Reduction and Recycling

1.2 Goals of Food Wastes Reduction and Recycling

1.3 Planning in Food Wastes Reduction and Recycling
- Minimizing of Food Wastes
- Improvement of System for Separation of Food Wastes (Source, Collection, Transport)
- Expansion of Facilities for Food Wastes Recycling
- Increasing consumption of Food Wastes Recycling Goods
- Improving Management for Food Wastes Reduction and Recycling

2. CASES OF FOOD WASTES RECYCLING

2.1 Cases of Diversion to Feed from Food Wastes
- 2.1.1 Joong Gu in Seoul(Feed)
  - the downtown area of Seoul
  - 1) Food wastes generation rate
  - 2) Facilities to Feed from Food Wastes
- 2.1.2 Cheonan city
  - 1) Facilities to Feed from Food Wastes
- 2.1.3 Wonju City
  - 1) Apartment Households 84% participate in separating of Food Wastes
  - 2) Recycling of food wastes

2.2 Cases of Diversion to Compost from Food Wastes
- 2.2.1 Ansan city
  - 1) Solid wastes generation rate
  - 2) Treatment of food wastes(1999)
  - 3) Facility of Food Wastes Composting
    - ○ Capacity : 70 ton/day
    - ○ Aerobic Composting
    - ○ Capital Cost : US $ 2,360,000
    - ○ Construction period : '98. 12 ~'99. 9
  - 4) Effect

Saving : US $ 715,400/year (1,022,000 - 306,600)
- landfill : US $40/ton×70ton/day×365days/year = US $ 1,022,000/year
-Composting : US $12/ton×70ton/day×365days/year = US $ 306,600/year

2.2.2 Paju city

1) Solid waste generation rate and recycling

2) Recycling of Food Wastes

2.2.3 Kwangmyoung city

○ Aerobic Digestion combined Food Wastes with night-soil → Compost

○ All of the food wastes(68ton/day) is recycled

○ Capital cost : US $700,000

2.3 The other Cases of Food wastes Recycling

2.3.1 Anaerobic Digestion combined with thickened sludge

2.3.2 Fermented Food Wastes breed earthworm