

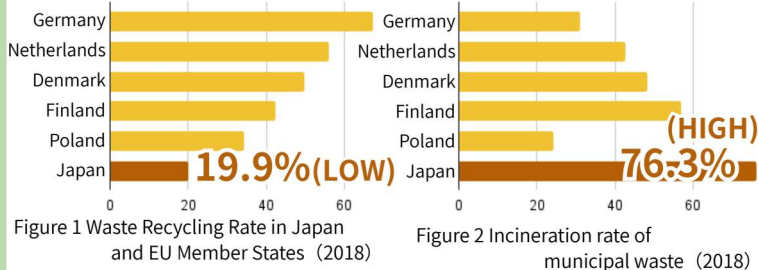
A Study on a Circular Waste Management System between Urban and Rural Areas

Topic : Japan's garbage disposal system

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1.Introduction

Recent Situation



Japan's recycling rate is much lower **Why** heavy dependence on incineration

2.Aim & Methods

Aim

- Increasing waste recycling rate
- Reducing incineration reliance
- Creating circular waste system to connect regions

Research Process

- Fieldwork of methane fermentation facility
- Interviews with city officials
- Analysis of waste management system effects

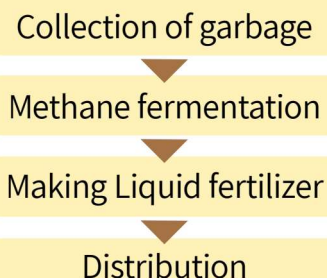
3.Results

Precedent case

A garbage disposal system operated by Maniwa city



Figure 3 Our visit to Maniwa city's facility (December 2024)

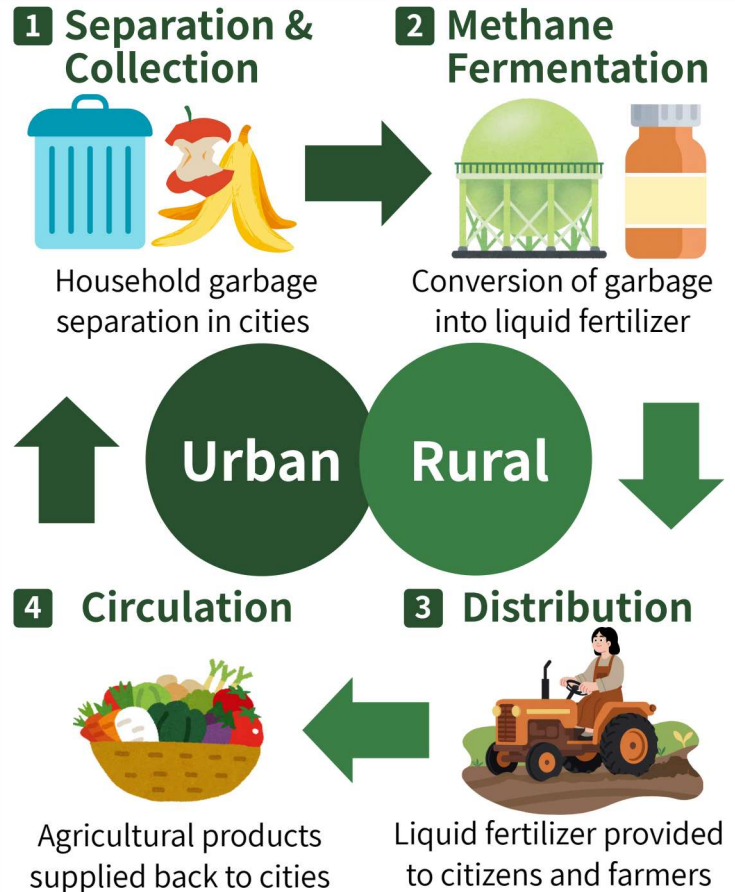


Findings from Fieldwork

- The facility is kept clean, and odors are controlled.
- Contaminants in garbage are removed manually.
- Liquid fertilizer is concentrated to enable to apply fertilizer efficiently.

4.Discussion

A new circular system we propose



Original Points

- **Urban and Rural Partnership**
Shared facilities and resources across regions
- **Promotion**
Awareness raising through SNS campaigns
Environmental education for children

Benefits

- Reduction in agricultural product prices
- Lower dependence on imported chemical fertilizer
- Stronger cooperation between urban and rural areas

Challenges

- High costs of facility construction and operation
- Difficulty in introducing new separation rules
- Hygiene control in cities

sources

• Maniwa Agri Garden. <https://maniwa-agurigarden.com/>
• Ministry of Agriculture, Forestry and Fisheries (MAFF). Situation of Fertilizer Raw Materials. https://www.maff.go.jp/tohoku/syokuryou/attach/pdf/221017-13_

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