

Ensuring the continuity of faecal sludge collection service in Japan

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Legal context: Waste Management Act (1970)

- ❑ Municipalities are responsible for collection, transport, treatment and disposal of faecal sludge (FS: Night soil from vault toilet / *Johkasou* sludge).
- ❑ Municipalities are required to set a **FS management plan** as part of the general waste management plan. The FS management plan generally includes:
 - Demand forecast: Current and future volume of FS generation
 - FS Collection and Transportation System:
 - Collection service area
 - Collection frequency
 - Number of licensed operators
 - Contract arrangement with the operators
 - Number of collection vehicles
 - Treatment facility plan
 - Business and Operator Support Measures

Points worth noting:

- FS collection business is not easy to start: requiring well maintained vehicles and trained workers for obtaining municipalities' licence.
- Courts issued rullings that too many operators erode viability and put residents' health at risk.

Unique legal arrangement : Gattoku Law (1975)

- ❑ “Act on Special Measures for the Rationalization of General Waste Management Businesses Affected by Sewerage Development”
- ❑ Objectives:
 - To ensure the continuity of essential sanitation services.
 - To facilitate a smooth transition of the night soil collection industry during the expansion of sewerage systems.
 - To maintain local collection capacity necessary for public health protection.
- ❑ Key measures:
 - **Rationalization Planning:** Municipalities prepare rationalization plans in consultation with licensed operators.
 - **Business Transformation and Diversification:** Operators are encouraged to expand into related environmental service sectors while maintaining necessary FS collection service.
 - **Financial and Institutional Support:** Municipalities may provide support measures necessary for business restructuring and transition.
 - **Maintaining Essential Service Capacity**

Ensuring continuity of the service provision: Why and How?

(1) Why?

- ❑ Ensuring public health is the primary responsibility of municipalities.
- ❑ Essential Service for Unsewered Areas.
- ❑ Need for Emergency Response Capacity: Collection services must remain available during disasters, epidemics, and other emergencies.

Therefore, maintaining service provision by keeping local operators and equipment is essential for municipalities.

(2) How? Municipalities:

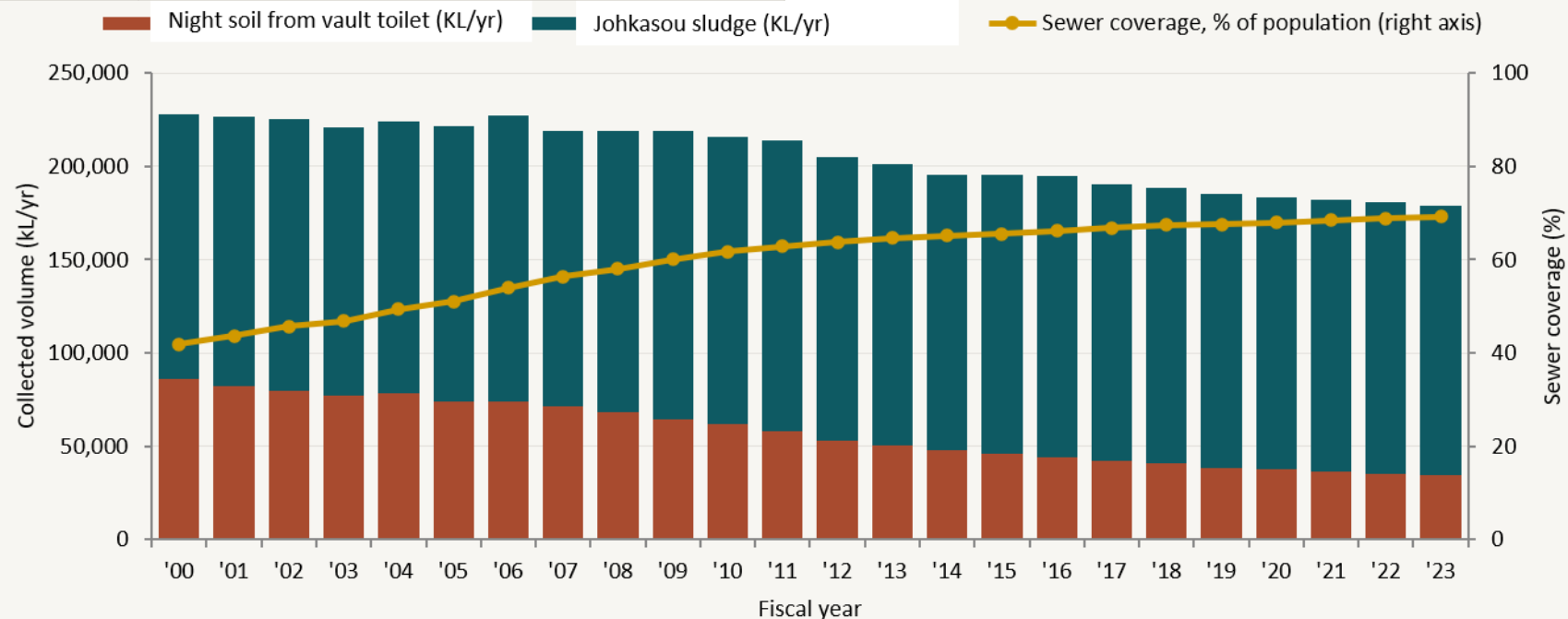
- ❑ Allocate collection areas to licensed operators.
- ❑ Control the number of licensed operators to avoid excessive competition.
- ❑ Secure long-term contracting and stable service arrangements by setting tariffs through ordinance.
- ❑ Consider business rationalization and provide transition support based on the *Gattoku Law*.
- ❑ Conduct periodic review of collection systems in line with changing demand.

Case of Okayama City

Adjust FS collection service capacity in line with changing demand while maintaining the capacity necessary to ensure uninterrupted service provision.

Plan	Period	Number of permitted night soil collection vehicle (excl. Johkasou sludge collection)
Phase 1	FY2004 - 08	33 → 28 (-5)
Phase 2	FY2009 - 13	28 → 24 (-4)
Phase 3	FY2014 - 18	24 → 21 (-3)
Phase 4	FY2019 - 23	21 → 18 (-3)
Phase 5	FY2024 - 28	18 → 15 (-3)

- Penalty on the operators if a vehicle is not actually scrapped
- The municipality arranged alternative work to the affected operators: sewer sludge haulage, treatment-plant cleaning and O&M



Source: MOE survey (FY2000–18); Okayama City overview (FY2019–23); Okayama City Statistics (sewer FY2000–06); Okayama Prefecture (sewer FY2007–23)

Key messages

- ❑ Ensuring an uninterrupted FS collection service is a public duty.
- ❑ To this end, operators and equipment should be maintained through public measures, such as:
 - Allocating designated service area to each operator.
 - Limit the number of licensed operators to avoid excessive competition.
 - Set tariffs so that projected revenue is predictable for the operators.
- ❑ On the other hand, service provision should be revised according to changing demand.
 - Operators should be asked to review the number of vehicles required in response to changes in demand. Consider providing support or compensating measures as necessary.