Overseas Waste Management Business
—Appropriate Disposal of Medical Waste in Southeast Asia—

Nishihara Corporation
Nishihara Corporation

Headquarters: Yahatanishi-ku, Kitakyushu City
Plants: 6 plants in Fukuoka
Number of employees: 110
Capital: 500 million yen

The Company engages in the collection, transport and disposal of business waste as a licensed operator in Kitakyushu City. In recent years it has developed its own waste management system and uses it to support waste generating businesses and waste disposal operators nationwide in conducting appropriate waste management in compliance with administrative rules.
1. Status of Waste Disposal in Developing Countries
2. Current Initiatives in Indonesia

(1) Urban-type recycling facilities
Unseparated household waste ⇒ Recycling
Waste reduced by 60%

(2) Urban-type composting facilities
Food waste ⇒ Materials for organic compost
Waste reduced by 80%

(3) Urban-type waste management complex
Household and business waste ⇒ Recycling
Aim to reduce waste by 60% or more
3. Medical Waste Disposal in Developing Countries
4. What Is Required and Current Challenges

<table>
<thead>
<tr>
<th>What is required by governments in developing countries</th>
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<tr>
<td>Appropriate management and disposal of 5-15 tons of daily medical waste including infectious waste</td>
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<td>1) Build a mechanism for collecting and transporting medical waste aimed at boosting the collection rate</td>
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<td>2) Establish disposal facilities that ensure steady operation</td>
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<td>1) Build a mechanism for collecting and transporting medical waste aimed at boosting the collection rate</td>
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<td>With the collection rate remaining low and fly-tipping common, there are concerns that medical waste including infectious waste will have negative effects on not only the global environment but also on citizens. Although local laws and regulations require manifests to be prepared, <strong>there is no method of tracking and managing</strong> all the waste generated by medical activities. Accordingly, despite the existence of governing rules, it is extremely difficult to assess the current status of medical waste management.</td>
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<td>⇒ Beetle Eye system</td>
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<td>2) Establish disposal facilities that ensure steady operation</td>
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<td>The steady operation of incineration processes at disposal facilities <strong>largely depends on the type of materials received</strong>. However, <strong>neither the government nor the private sector has enough relevant experience</strong>. Accordingly, there are unrealistic laws and operating regulations, which sometimes hinder construction/operation of disposal facilities, cause unusually long maintenance periods, and make the steady operation of incinerators difficult.</td>
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<td>⇒ Urban-type medium scale incinerator</td>
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5. Beetle Eye
Approach to Challenge 1

Waste management video tracking linked to paper and electronic manifest information

Prevent fraud with the help of electronic eye-tracking!!

Transport waste to disposal site after loading

Tracker application

Loading
Unloading
After disposal

GPS

Waste disposal operator

Manufacturer

Waste hauler

Waste information management service
bee-net system
5. Beetle Eye
Approach to Challenge 1

- Real-time
- Fraud prevention
- Shooting location authentication
- GPS tracking
6. Urban-Type Medium Scale Incinerator Approach to Challenge 2
6. Urban-Type Medium Scale Incinerator Approach to Challenge 2
7. Collaboration between the Target Country, Local Governments and Citizens

- **Target country**
  - **Local government**
    - **Private company**
      - **NGO**
        - **Citizen**
  - **Japan**
    - **Local government**
      - **Private company**
        - **NGO**
          - **Citizen**

- **Decision on policy and measures**
- **Formulation of a specific improvement plan**
- **Improvement proposal**
- **Commercial business alliance**
- **Environmental awareness-raising activities**