

# **AIM Strategic Database for Water and Waste**

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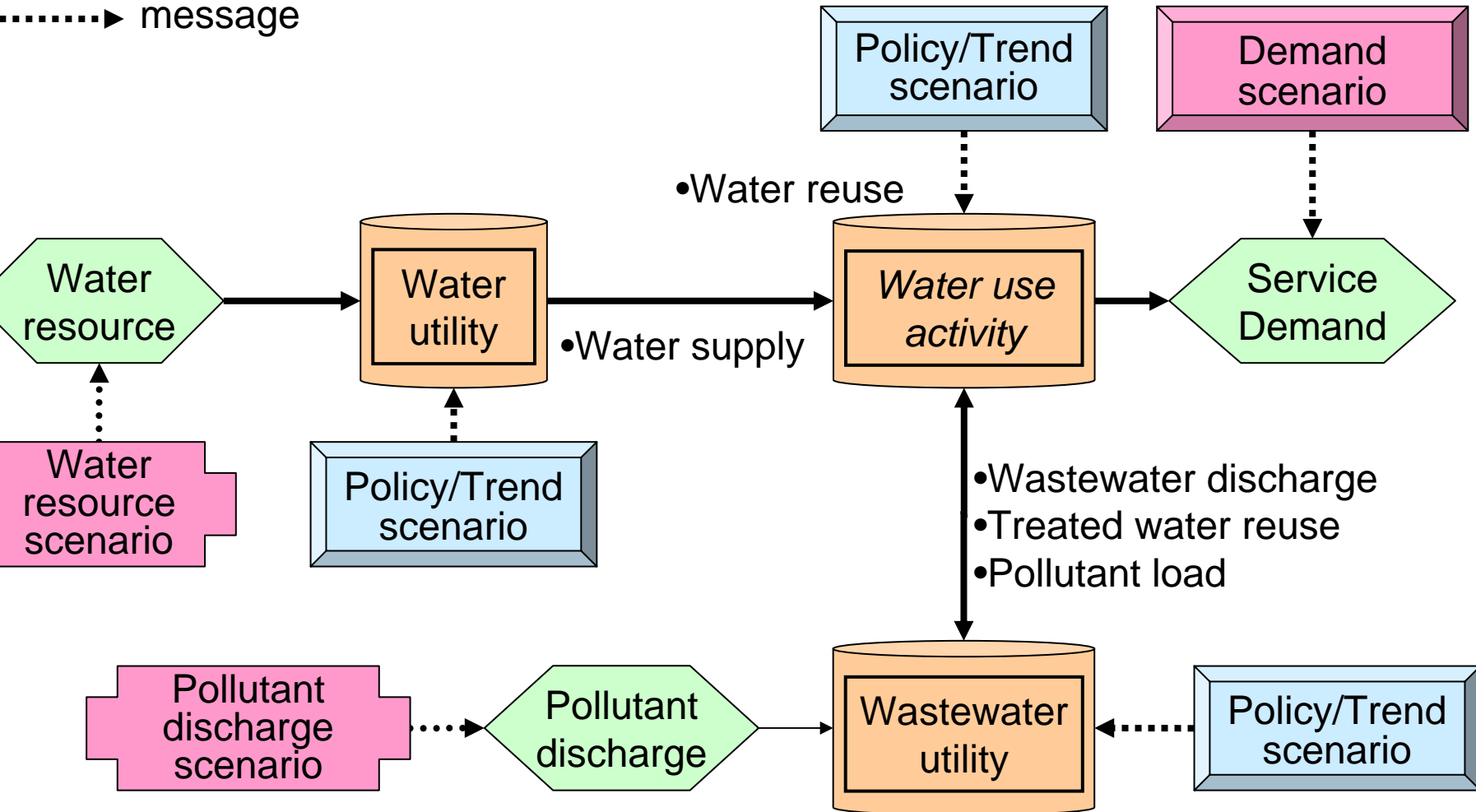
13 March, 2004

# AIM Strategic Database for Water

## -Basic idea-

—————> physical flow

.....> message

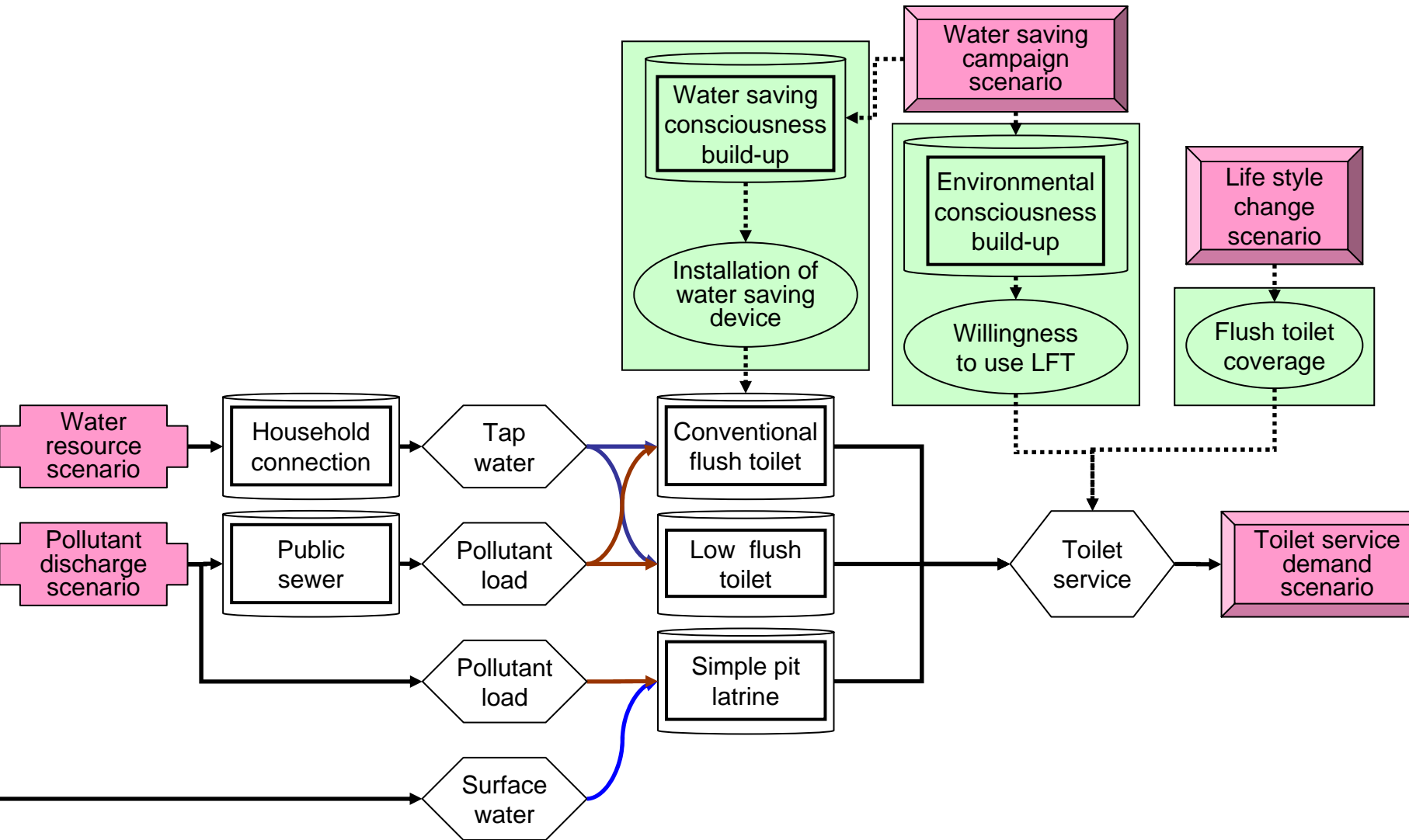


# **AIM Strategic Database for Water -Application-**

- **From viewpoint of water use sector**
  - Domestic
  - Industry
  - Agriculture
- **From viewpoint of material flow**
  - Water quantity
  - Water quality (Pollutant load)

# AIM Strategic Database for Water

## -Example of Toilet-



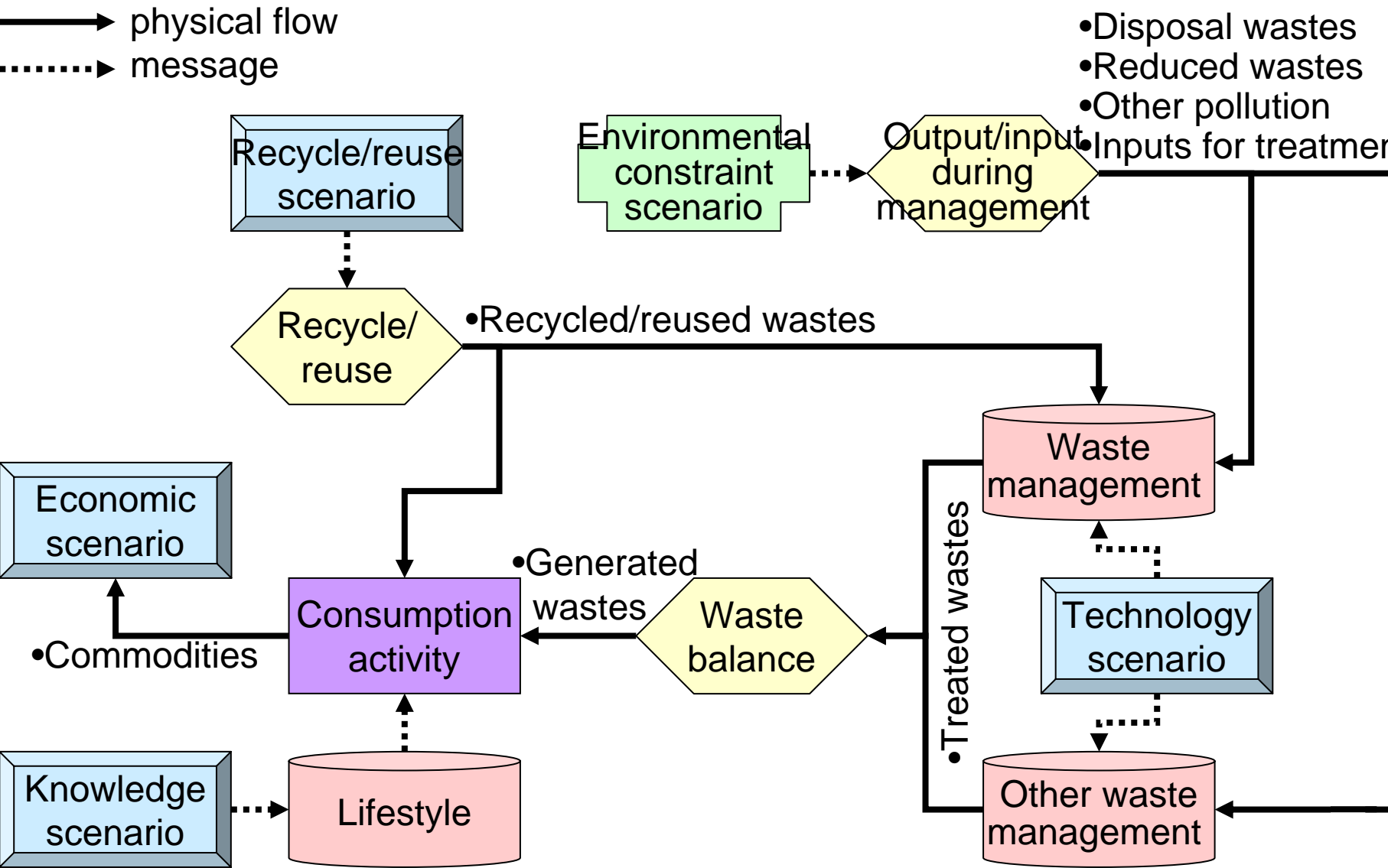
# **AIM Strategic Database for Water**

## **-Example of SDBE element-**

- **Activity**
  - Operation of Water/Wastewater utility (with stock: Quantitative activity)
  - Water use activity (with stock : Quantitative activity)
  - Water saving behavior (without stock: Level activity)
- **Stock**
  - Water/Wastewater utility (Infrastructure)
  - Water saving devices/behavior (Physical and intellectual)
- **Flow**
  - Water, Pollutant, Water related services, Industrial & Agricultural product
- **Confluence**
  - Water, Pollutant, Water related services, Industrial & Agricultural product
- **Scenario**
  - Water saving scenario
  - Water resource/Pollutant discharge restriction scenario
  - Changes of Lifestyle, Industrial structure and agricultural product scenario

# AIM Strategic Database for Waste

## -Basic Idea-

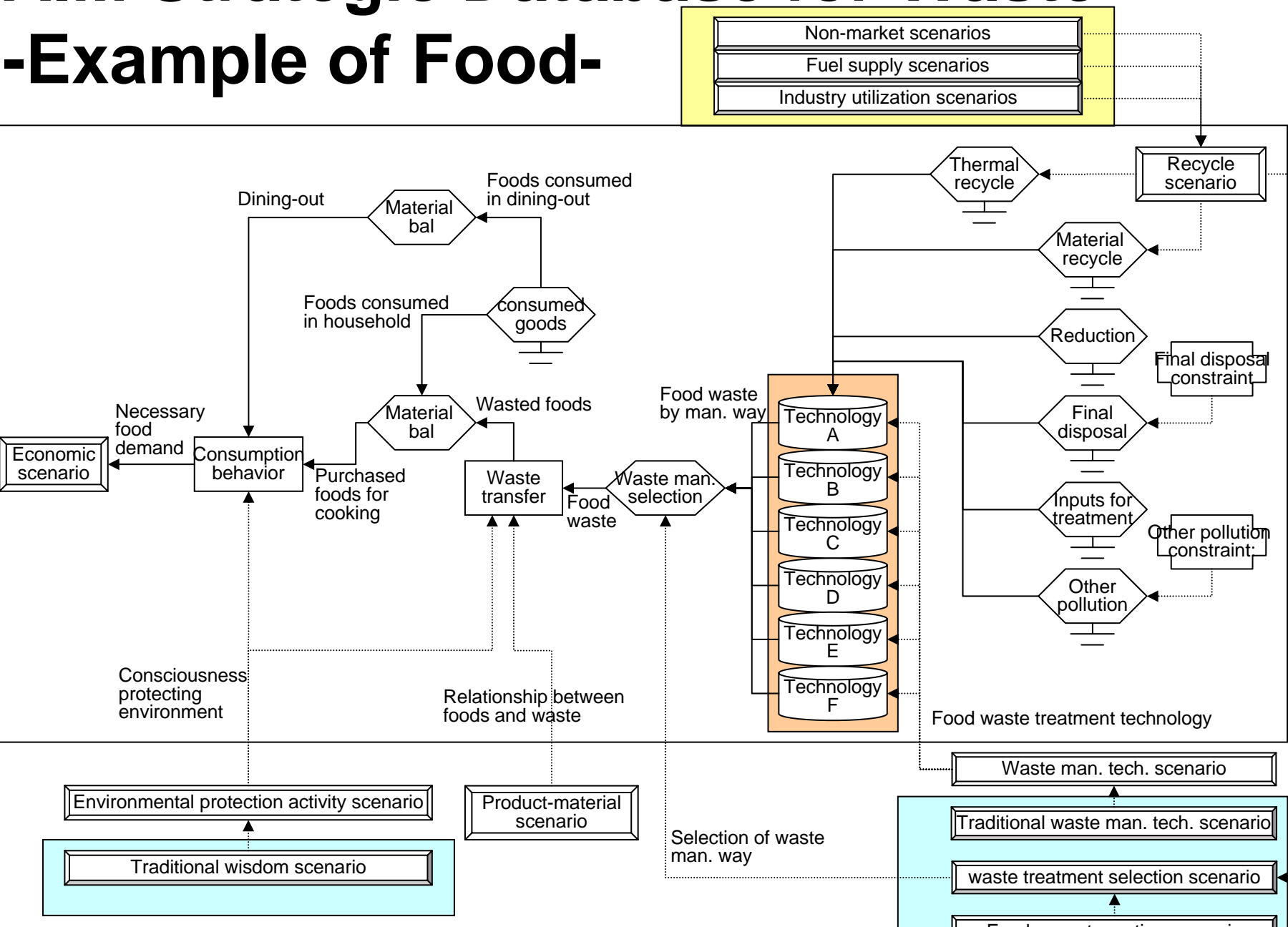


# **AIM Strategic Database for Waste -Application-**

- **From viewpoint of waste**
  - Metal
  - Paper
  - Woods
  - Plastic
- **From viewpoint of commodity (source)**
  - Food

# AIM Strategic Database for Waste

## -Example of Food-





# AIM Strategic Database for Waste

## -Example of technology-

### In the case of food waste management:

- Simple incineration → ash
- Incineration with power plant → electricity & ash
- Composting → manure
- Gassification → methane
- Process to feed → animal feed
- Direct final disposal

### SDB on waste management technology

- ⇐ Inputs (capacity, energy, labor, capital cost, ...)
- ⇒ Outputs (residual, pollution, recycled goods, ...)

# AIM Strategic Database for Waste

## -Example of scenario-

### Recycle scenario

- Non-market scenarios
  - self-consumption of recycled goods,  
barter exchange etc.
- Fuel supply scenarios
  - biomass energy,  
waste power generation etc.
- Industry utilization scenarios
  - utilization of fly ash cement,  
Zero-emission etc.

# AIM Strategic Database for Waste

## -Example of scenario-

### Other scenarios

- Traditional wisdom/technology scenario  
eco-conscious consumption,  
waste management, etc.
- Employment creation scenario  
dominant labor intensive treatment
- Environmental constraint scenario  
pollution reduction