

**Advanced Sewage Treatment System  
Using the Soil Microbial Membrane  
Treatment Technology**

**ソフィル**<sup>®</sup>

**Sofil**

**ALCO CO., LTD.**

# “Sofil”: Eco-friendly System of Sewage Treatment

“Sofil” acquired a general authorization from the Minister of Land, Infrastructure, Transport and Tourism of Japan

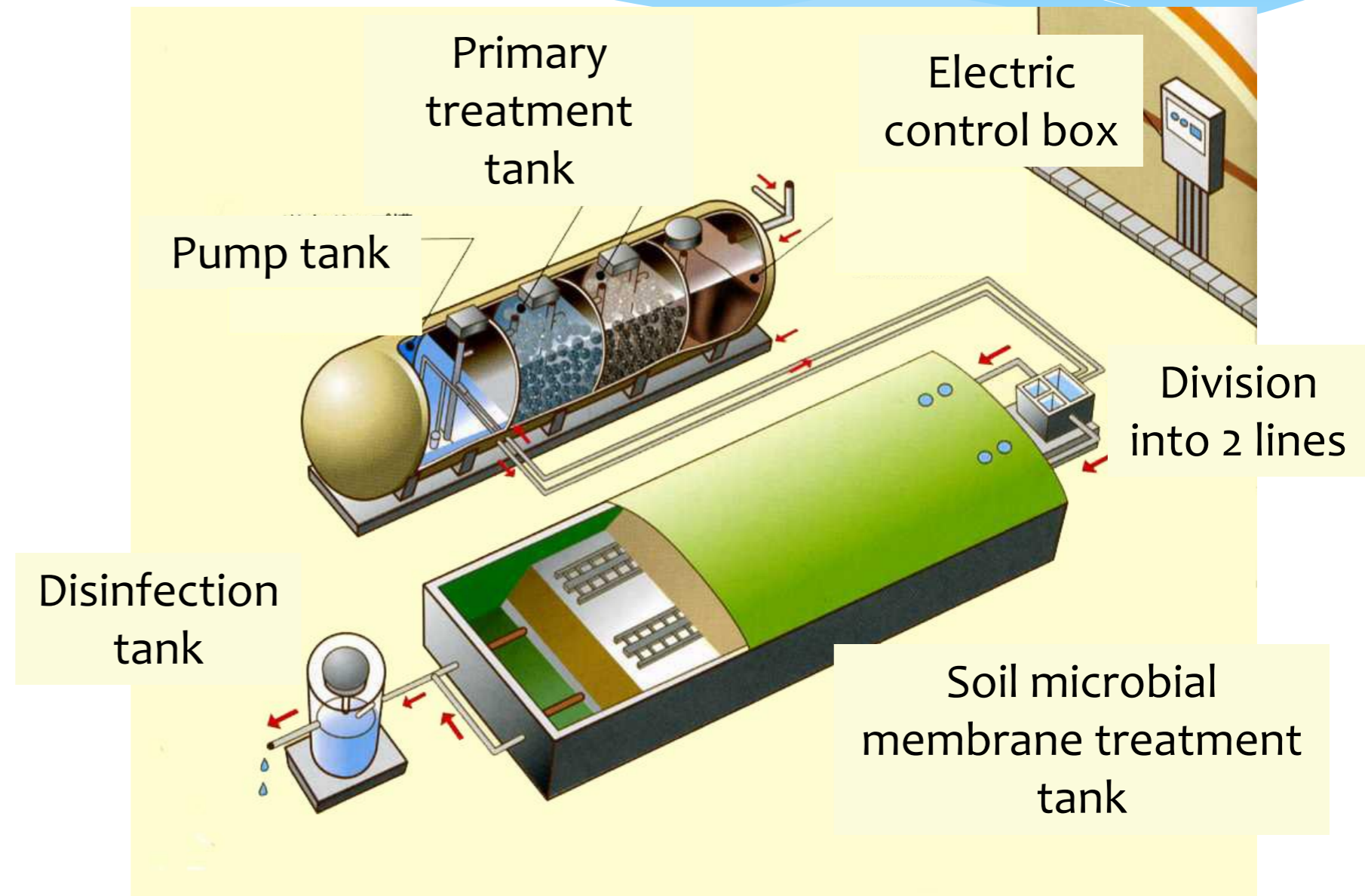
◇ Average volume of sewage treatment:

**2~100 m<sup>3</sup>/day**

◇ Treated water quality:

**BOD 10 mg/L or less**

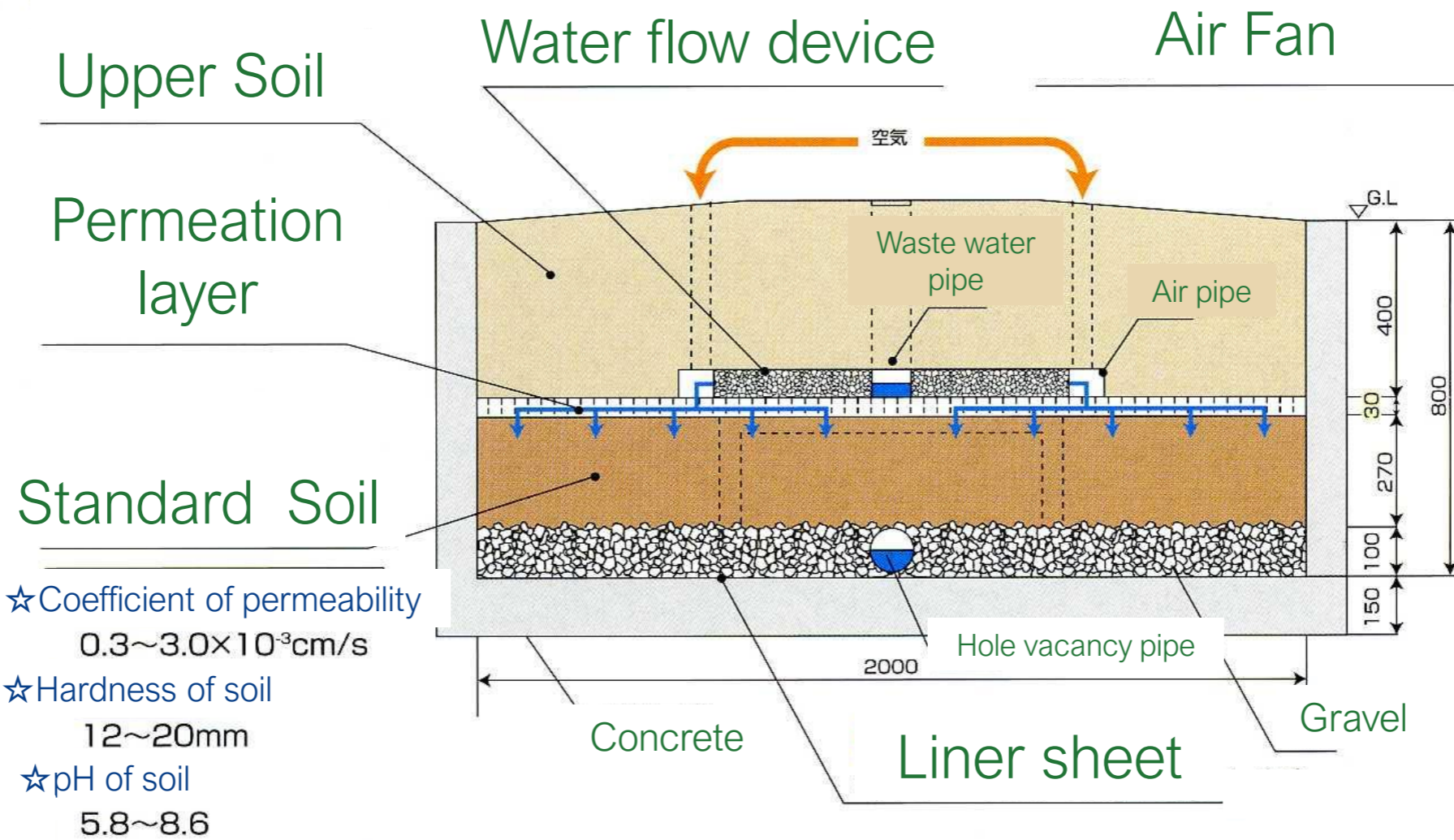
**SS 10 mg/L or less**



Flow of the system

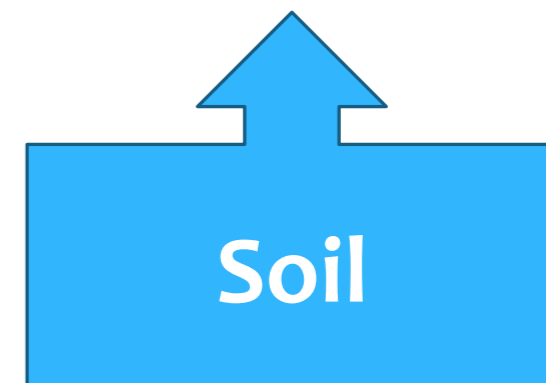
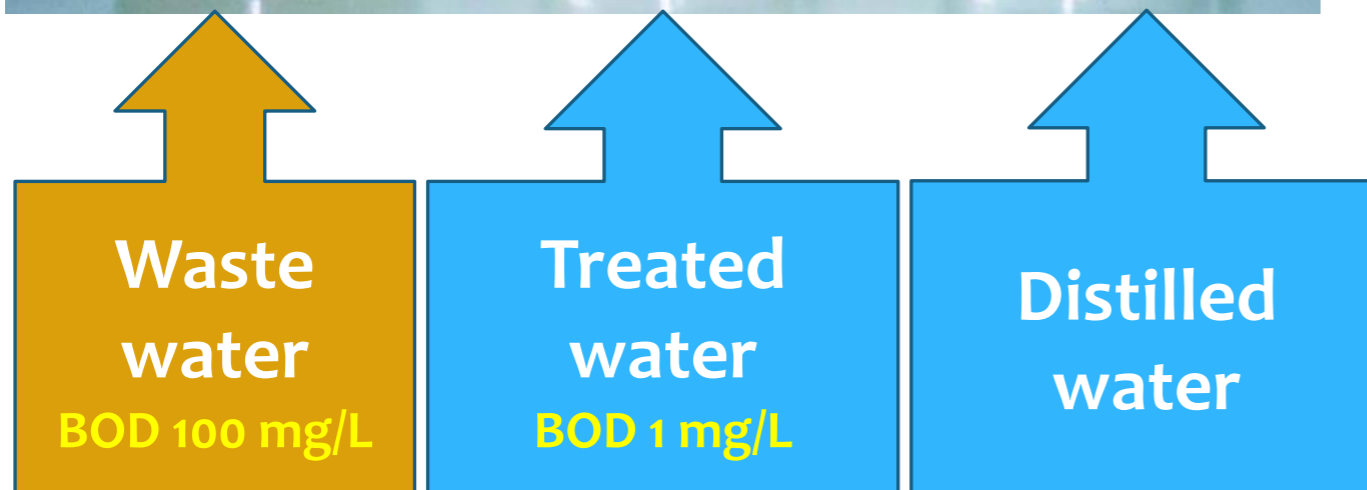
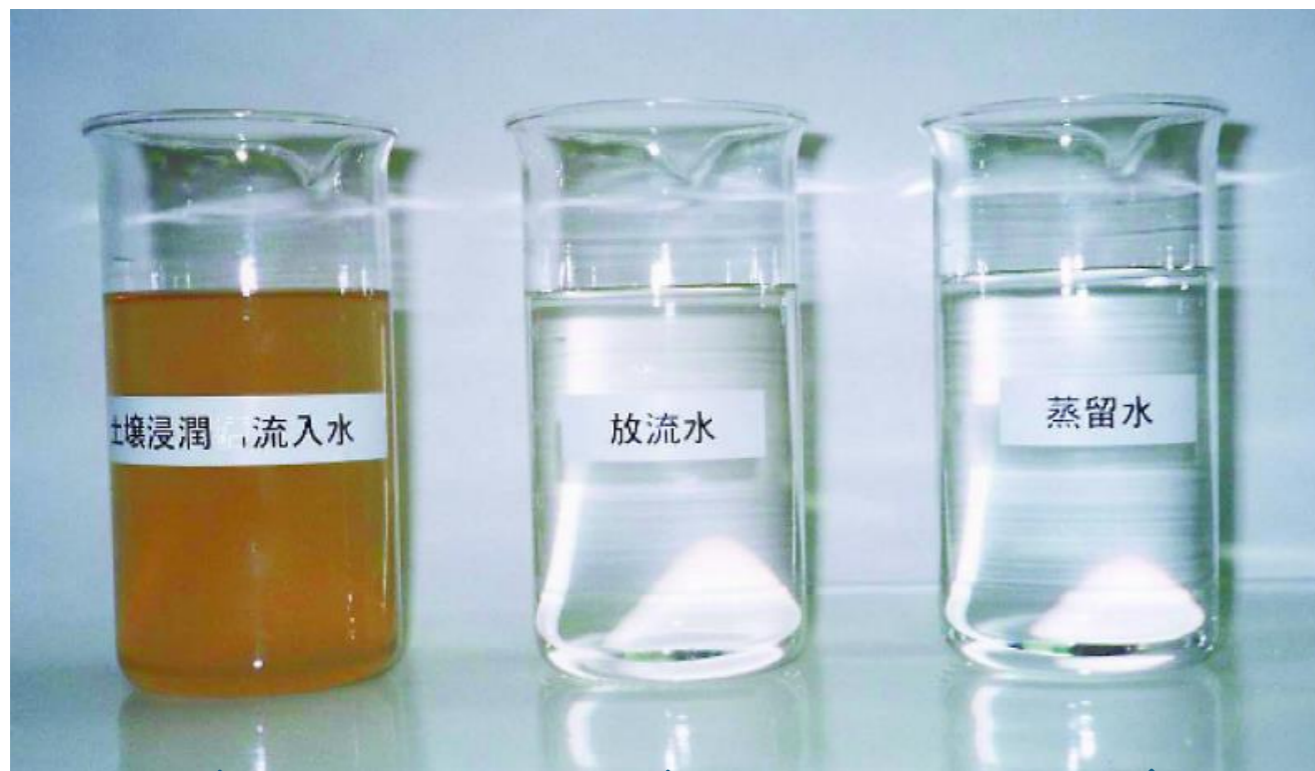
# Structure of Soil Microbial Membrane Treatment Tank

☆ Long and stable operation is possible.



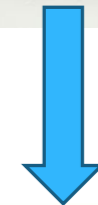
Sectional view

# Waste Water Treatment by the Soil Power



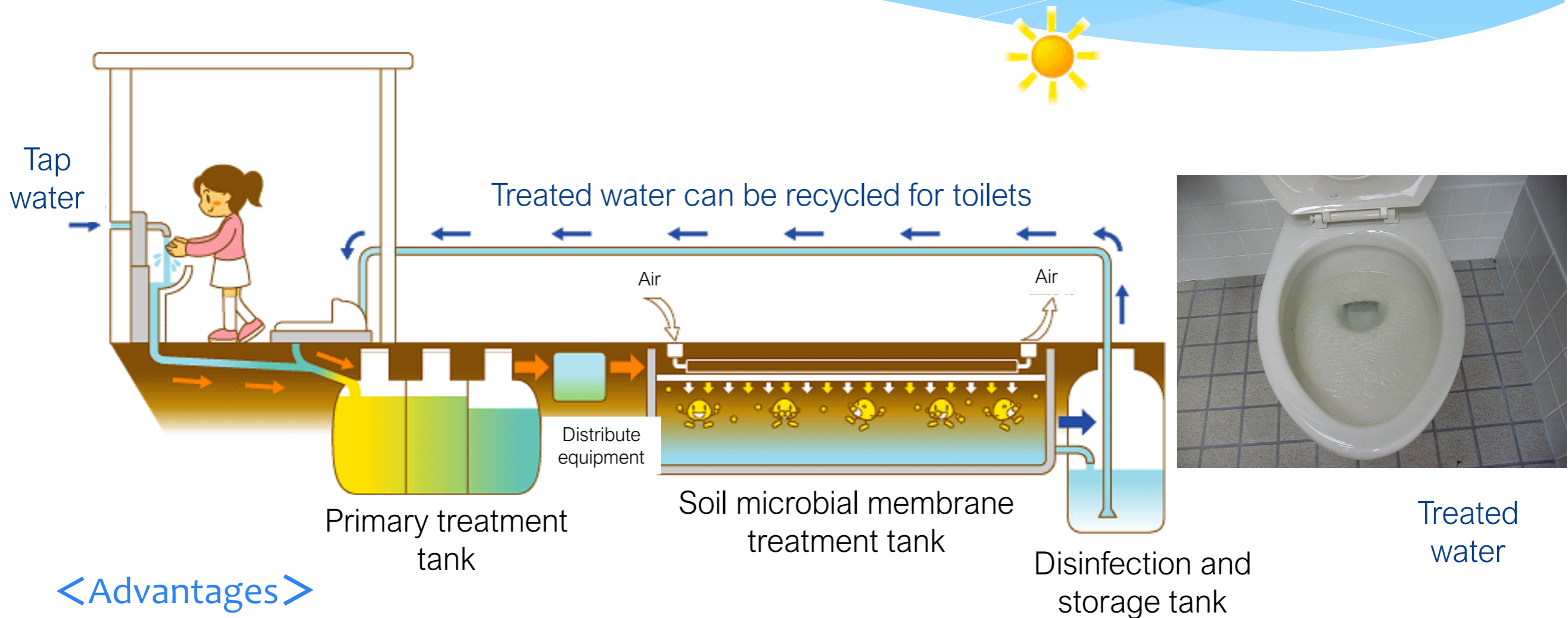
# Features of “Sofil”

- ◇ Advanced sewage treatment system using the soil microbial membrane treatment technology.  
**Quantity of bacteria:  $10^7 \sim 10^8$ /gram of soil**
- ◇ Advanced processing with small power consumption.
- ◇ Phosphorus in the wastewater can be removed almost completely.
- ◇ Treated water can be recycled for toilet and planting.



Aggregated structure of soil

# Treated water can be recycled for toilets.

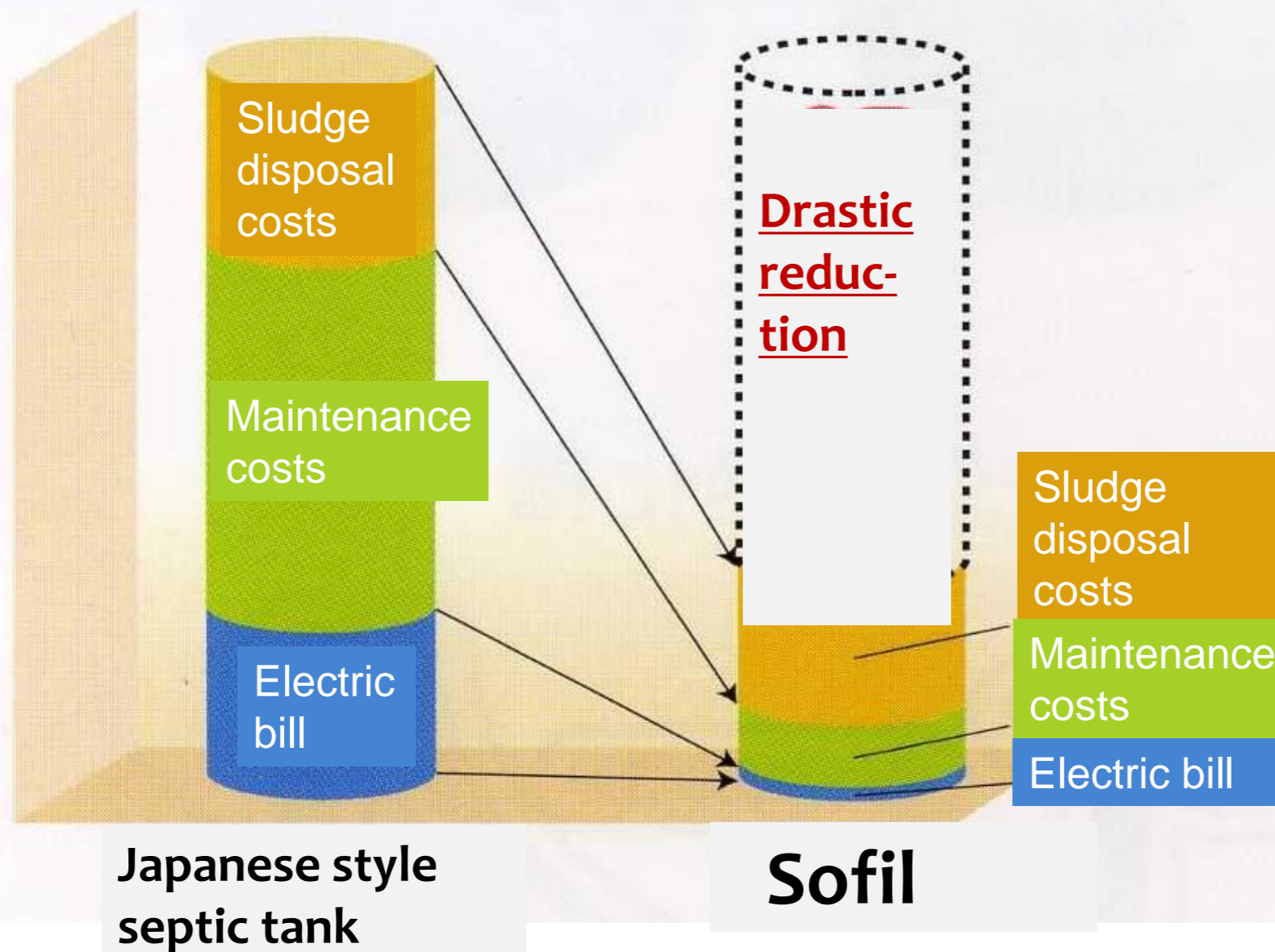


## <Advantages>

- Significant reduction in tap water bill
- Reduced pollution to the rivers, lakes and sea
- Toilet can be used even when there is no water, such as after disaster.

# Low Running Costs

## Comparison of the running costs



# Delivery Records in Japan (1997~)



World Geopark "Island of Oki"



(西島)

World Heritage "Bonin Islands"



(父島)

(黒島)

**200 locations**

Public toilets, schools, factories, campgrounds, etc.