Circulatory sanitation infrastructure using air-to-water generation technology

Constructing a sustainable water supply model for toilets and hand-washing facilities

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Why we can raise the level of disaster management in Indonesia to the next level

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Contribution to SDGs

Goal 3 (Health and Wellbeing)

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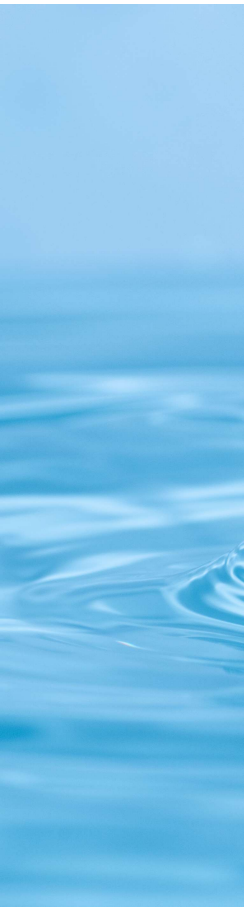
Goal 6 (Clean water and Sanitation)

Goal 8 (Decent Work and Economic Growth)

Goal 17 (Partnerships for the Goals)

Water and Sanitation Challenges Facing the World



Health risk

Hygiene issue

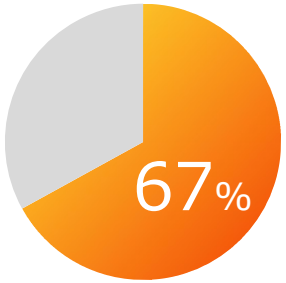
Water infrastructure shortage

Approximately **3.6 billion people** do not have access to safe, controlled toilets

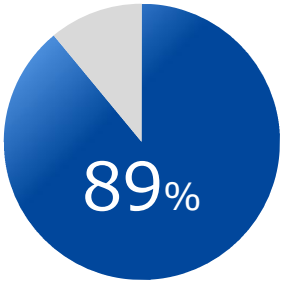
Lack of hand washing habits after toileting

A quarter of children under 5 suffer from diarrhea

Percent contaminated with fecal bacteria

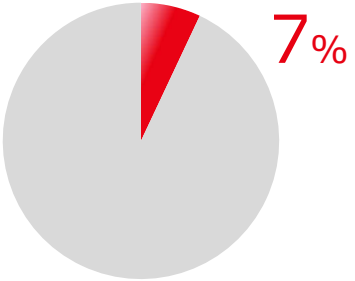


Drinking water for home use



Water source

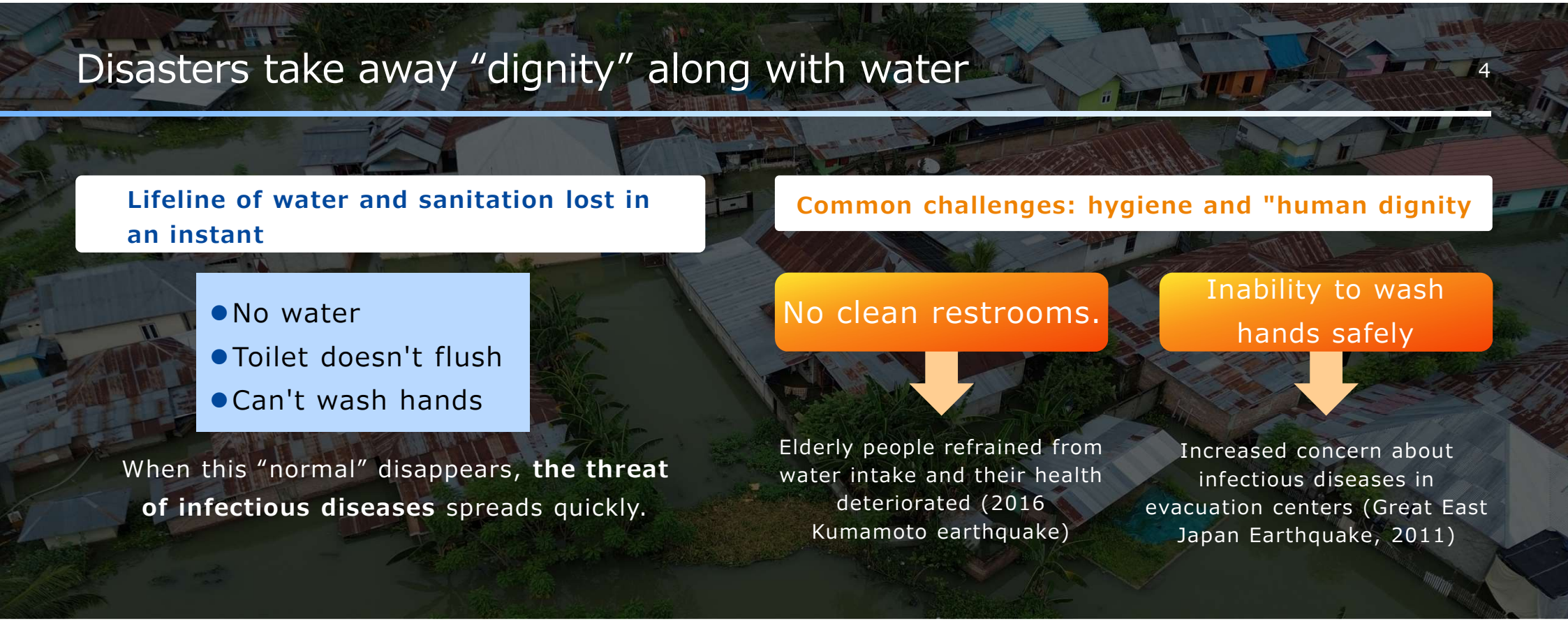
Wastewater treatment rate



Open defecation and improper toilet use can spread infectious diseases and pollute the environment.

*UNICEF Indonesia, “Water, Sanitation and Hygiene Practices Providing Children with a Clean Environment to Live, Play and Learn,” https://www.unicef.org/indonesia/water-sanitation-and-hygiene

Disasters take away “dignity” along with water



Lifeline of water and sanitation lost in an instant

- No water
- Toilet doesn't flush
- Can't wash hands

When this “normal” disappears, **the threat of infectious diseases** spreads quickly.

Common challenges: hygiene and "human dignity

No clean restrooms.

Elderly people refrained from water intake and their health deteriorated (2016 Kumamoto earthquake)

Inability to wash hands safely

Increased concern about infectious diseases in evacuation centers (Great East Japan Earthquake, 2011)

Our circulatory toilets and handwashes are “disaster infrastructure” that works even without water. It is not just a preparation.

Not just “prepare,” but “prepare and protect” infrastructure.

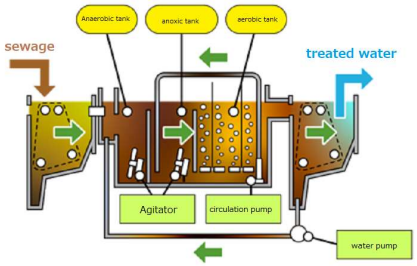
The world's only self-sustaining sanitation solution

Atmospheric water generator

Generates XX liters per day condensing and purifying moisture in the air

Circulating Toilet

Reuse sewage, replenish evaporation with air-made water



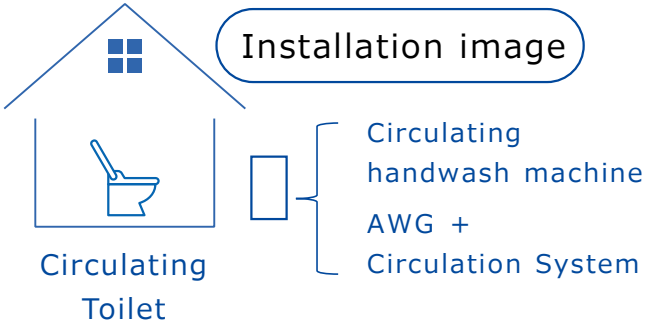
Circulating handwash machine

Minimized water usage, built-in atmospheric water generator

Durabilit

- Handles high temperatures and humidity
- Humidity conditions: average humidity as high as 70% (JMA data), suitable for the technology to produce water from air

Installation image



Peacetime and Emergency: Infrastructure with Two Roles

Use in Peacetime: “Preparedness” integrated into daily life

Usually installed in important places where people congregate.

【Example of installation location】
Schools / Police and fire stations /
Parks / Places of worship

■ **Improvement of public health**
Establish clean restroom and hand washing habits in the community

■ **Base for disaster prevention education**
Creating opportunities for children to come into contact with disaster prevention equipment on a regular basis

■ **Operational Reliability**
Daily use ensures that equipment is well maintained and operates reliably in an emergency

The “usual place” becomes a “base of security” in case of emergency.

Emergency Use: “Transportable” Lifeline

In the event of a disaster, this system serves as a mobile sanitation infrastructure.

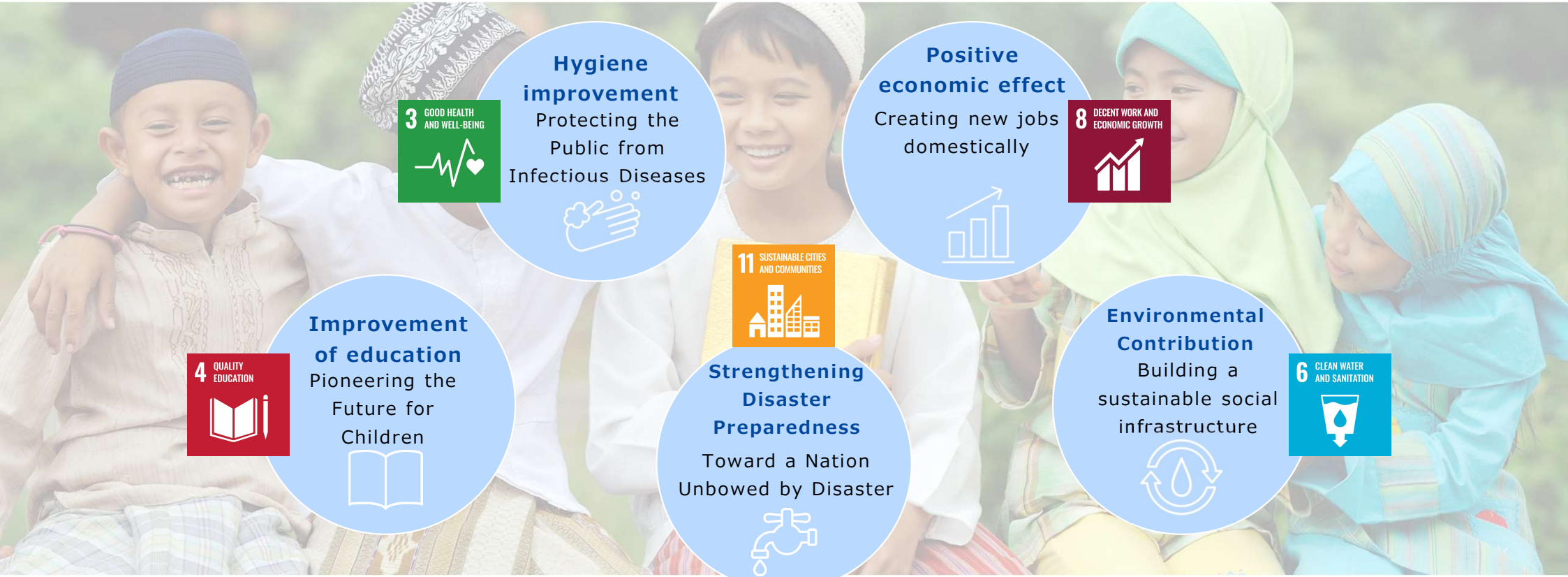
■ **Rapid deployment**
Rapid transport and installation to evacuation centers and isolated areas affected by the disaster

■ **Self-contained**
Even if external infrastructure such as water and electricity is cut off, the system will operate self-contained.

■ **Ensuring dignity**
A warm, clean, and private toilet and hand-washing environment protects the physical and mental health and dignity of victims and dramatically reduces the risk of infection

“Transportable Security" is at the forefront of protecting life and dignity.

Ensuring sanitation during disasters creates a virtuous cycle of health, education, economy, and environment that contributes to national development.



Japanese technology and culture for the future of the world.

The world's only technology to dramatically improve disaster preparedness

An atmospheric water generator that creates water from air and a circulation system that reuses the water. The integration of these two is the only solution in the world that does not depend on any external infrastructure.

Reliability recognized by Japan, a disaster-prone country

Proven to meet the strict disaster prevention standards of Japan, a country prone to frequent disasters. Our track record recognized in Japan is directly linked to our credibility in Indonesia.

Optimization for local dignity

Toilet design that takes into consideration Islamic cultures and customs, and technology that ensures stable operation even in hot and humid climates. We do not simply provide products, but are deeply committed to the culture and environment.

Sustainable Disaster Reduction Partners

Based on Japan's high quality technology and sanitation culture, we provide one-stop solutions optimized for Indonesia. We are your partner to realize the mission of your agency together.

Solution Overview | World's First Circulating Water Infrastructure System

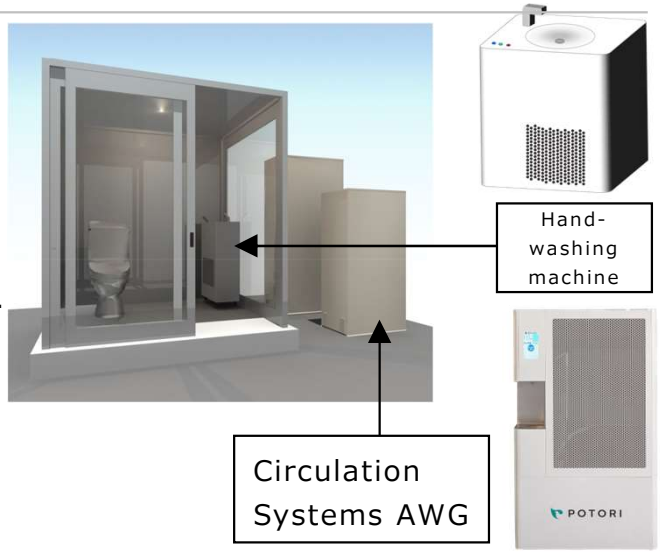
Sales price	Per unit **0,000,000**JPY (Shipping costs included)
10 toilets + 2 hand wash basins	**000,000,000**JPY
50 toilets + 6 hand wash basins	**000,000,000**JPY

Circulating Toilet + AWG

Minimal water is used for cleaning, and water is produced from air to replenish evaporated water.

Circulating handwash machine + AWG

Sensor saves water



Item	Specifications	Remarks
Power supply/Maximum power consumption	Single phase AC100V 50/60Hz Approx. 400W (MAX)	
Water volume for hand washing	2ℓ/min (Continuous use for up to 15 minutes※1)	Adjustable with manual valve
Operating Noise	Approx. 48dB	
Daily water supply capacity	9ℓ/day ※2	Temperature 27℃ Humidity 60%
Circulating water tank capacity	Approx. 80ℓ	Made of SUS
Circulating filtered water volume	MAX 1ℓ/min	
Hand wash water temperature	Room temperature	Hot water specification is optional
Water filtration (filter) method	Cartridge type filter (4 types) + ozone decomposition	
Unit Weight	Approx. 65kgMax	Does not include the mass of water in the tank (circulating water)
Unit dimensions	W850×D700×H900mm (1050 mm to the tip of the spout)	
Circulating water quality	Clean water (but do not drink)	

※1 The time available for continuous use per wash depends on the amount of water used to wash hands. The LED display and buzzer will inform you of the available operating time, etc.

※2 Water production is a theoretical value and varies depending on the surrounding environment.

- Assuming you wash your hands for 30 seconds 200 times per day (not consecutively) and use 4 liters of water, your electricity bill will be approximately 30 yen per day.
- The electricity rate is calculated based on the third stage rate for metered lighting B (28.49 yen/kWh) for AC 100V in the Chubu Electric Power Company area.

Realizing a Global Sanitation Revolution through Circulating Water Infrastructure

Contribution to SDGs and ASEAN Growth

A sustainable, self-sustaining water sanitation solution that combines an atmospheric water generator as core technology with circulating toilets and hand washing machines in areas where water and sewage infrastructure facilities are not feasible. It utilizes traditional Japanese culture and advanced technology.

The goal is to improve sanitation and reduce dependence on water infrastructure in the Global South region, where water resources are limited.

The water produced by the atmospheric water generator is filtered and reused after use, allowing for sustainable operation without relying on external water sources.