Green Oasis GX
Proposal for Utilization

Proposal for “G-Box,” a self-sustaining infrastructure base that will dramatically increase the world’s disaster response capabilities

2025.07.00

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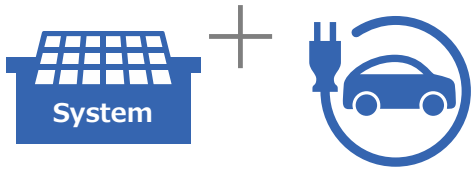
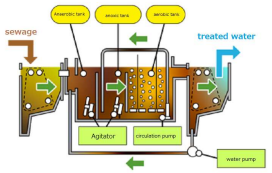
Concept: Fully self-contained resilience base "G-Box"

Strategic base that is fully self-contained of water, power, and communications and can function in any environment





Project name

Green Oasis GX

Solar house

Solar panels are installed on the roof and walls, and the rooms are powered by sunlight. A storage battery provides electricity at night.

Generate water from air

Powered by solar energy, it can provide a sustainable water supply

Water circulation system

Purifying and reusing domestic wastewater, and using a rainwater collection system

Erectric Vehicle

Also used as a storage battery

Installation location proposal	● Temporary housing model for disasters (operates even if power and water are cut off) ● Revitalization center for depopulated areas, sustainable settlement model

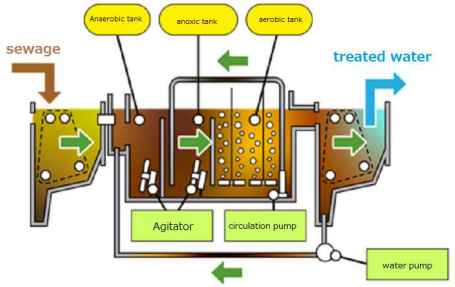
Solution Overview | Off-Grid House + Water Circulation System

Solar panel

Water storage tank

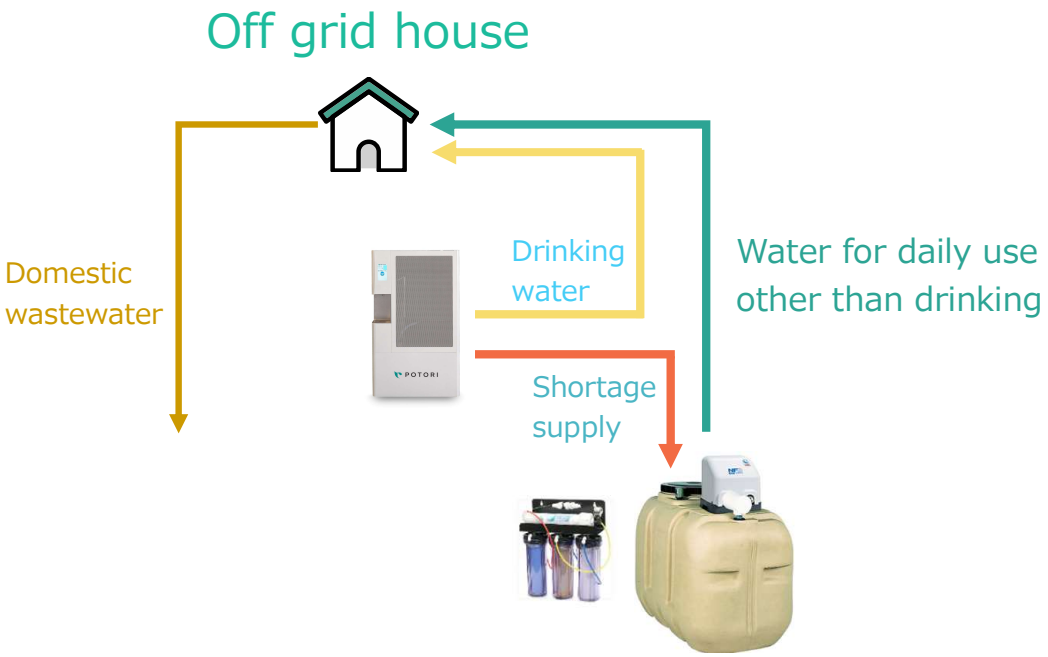
Shower/toilet

Circulation system atmospheric water generator



Structure	Steel frame construction
External dimensions	W＝5,400×D＝2,100×H＝2,550 (including solar panels)
Area	10.78㎡
Weight	1.98t(including solar panels)
Facilities Shower, toilet	Air conditioners, LED lighting, ventilation fans, ventilation openings, breakers, wall outlets, louvers, carpets, LED sign panels, modular jacks for LAN connections
Solar panel maximum output	2.16kW （AM1.5 1,000W/m2）
Average daily power generation forecast	Around 6kWh (summer) Around 3.5kWh (winter)

Minimal infrastructure system with POTORI installed



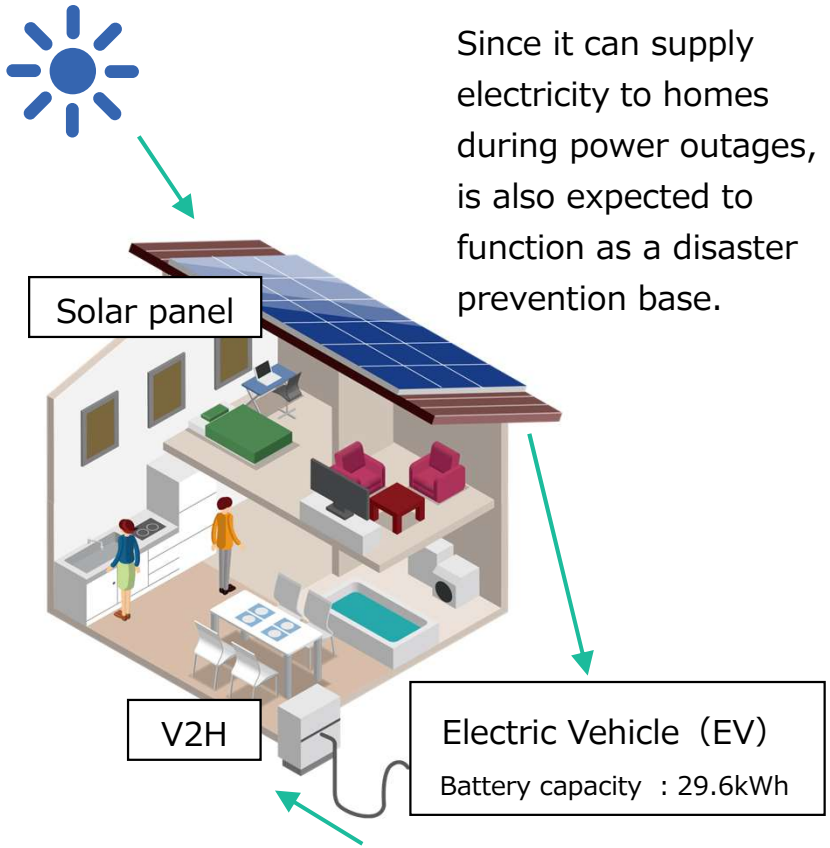
By applying a circulating (wastewater reuse) air water purifier system, it is possible to realize a home that is independent of water infrastructure and does not rely on public water and sewerage infrastructure.

*Toilet system can be separate.

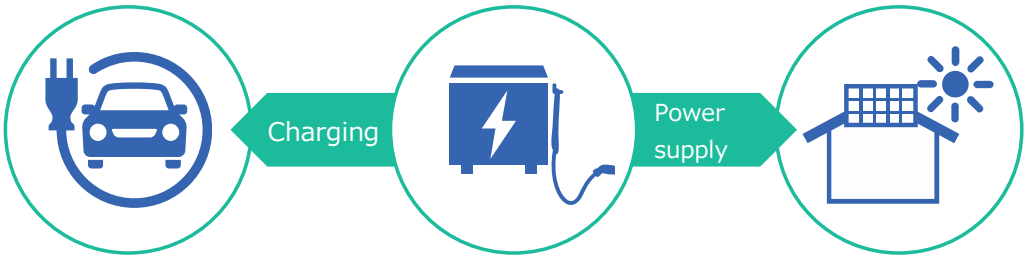
FR-50	
Water production amount	48 ℓ /day
Size	W780 D430 H1,400 (mm)
Weight	78kg
Power supply	single phase alternating current AC220V
Installation environment	Semi-outdoor, not directly exposed to rain

Note: Water production volume is a theoretical value and varies depending on the surrounding environment.

Solution Overview | Electric Vehicle Type



Since it can supply electricity to homes during power outages, it is also expected to function as a disaster prevention base.



It can supply power 24 hours a day, 365days a year, even in the event of a disaster.

Rainwater is also utilized 660L/month for 4 persons

Circulation system

Electric power: Approx. 2.5kW

Area: Approx. 12㎡ (standard passenger car, approx. 1 car)

For operating the Atmospheric Water Generator (POT1, 70L)

Electric power: Approx. 4kW

Area: Approx. 20㎡ (standard passenger car, approx. 2 car)

For electric vehicles

Electric power: Approx. 10kW

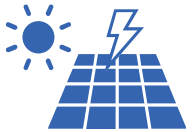
Area: Approx. 50㎡ (standard passenger car, approx. 5 car)

Storage battery for backup and stable operation

Electric power: Approx. 80kWh

Size: Width approx. 1.5 m X Depth approx. 0.3 m X Height approx. 1.3 m

Weight: Approx. 600kg



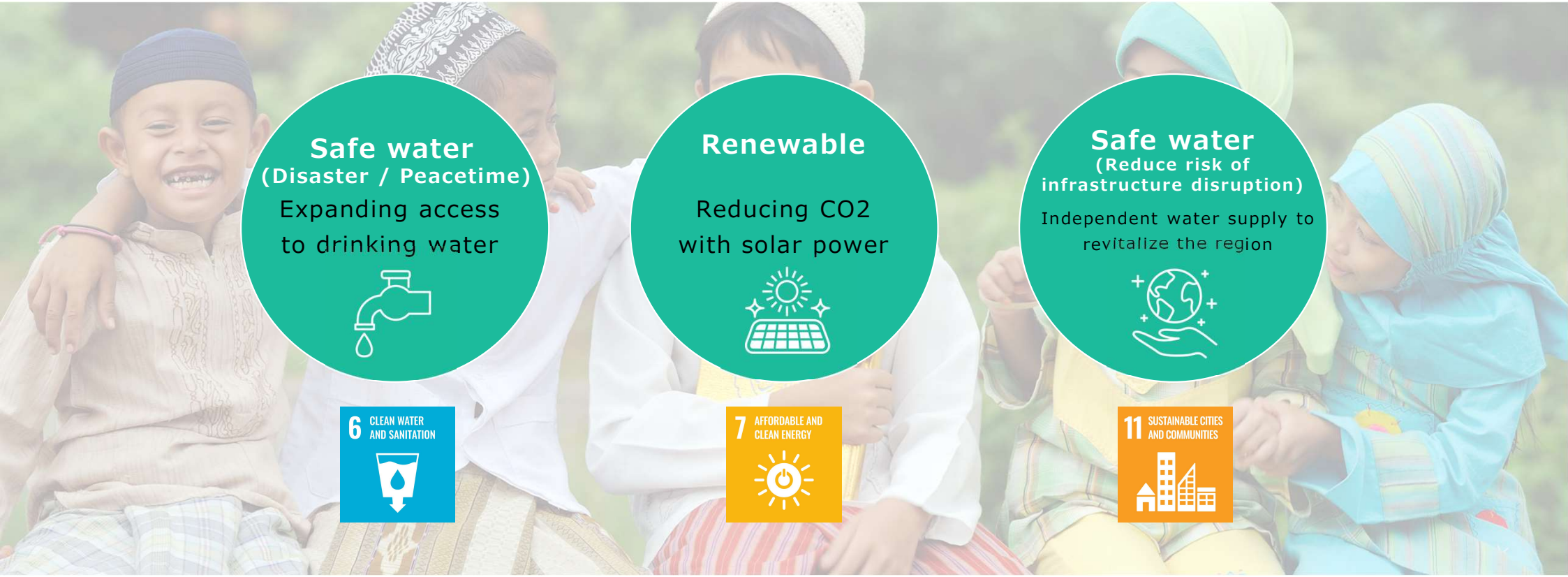
generation to supply the necessary electricity for the circulation system, including wastewater treatment

Solar power

Prepare a tank that can store rainwater for one month plus the required amount.

Contribution to improving national resilience

Creating a better society, environment and economy, and contributing to the SDGs



Why our solutions?

Japan's strengths: High-quality technology and hygiene culture

Uniqueness	Achievements	Local adaptation	Competitive comparison	Japan's strengths
The world's first air-generating water machine and circulation system	Minimal infrastructure Demonstration experiment in Japan	Designed to handle any harsh environment, including extreme heat and cold, high humidity, salt damage, and earthquakes	No water source is required, allowing for flexible installation. Generates water from air to ensure sustainability.	High quality technology and hygiene culture

FREE	Other companies
No water source required (air-generated water)	Dependence on water source (risk of contamination)
Circulation type (high sustainability)	Non-recycling (water cannot be reused, low sustainability)
Combined use of solar power (energy independence)	Dependent on electricity (no solar power, affected by power outages)

Green Oasis GX: Optimizing Water Supply with DX

Remote monitoring and control :

Remote management via IoT/smartphone app, real-time monitoring of temperature, humidity, and water volume

Smart meter cooperation

It is possible to analyze usage, billing, and usage status. It is also possible to consider power control based on demand forecasts.

Environmental data linkage

Weather and meteorological sensors determine optimal operation and installation

Sustainability visualization

CO2 reduction and water saving effects digitized

Improved monitoring efficiency through failure prediction and automatic maintenance notifications

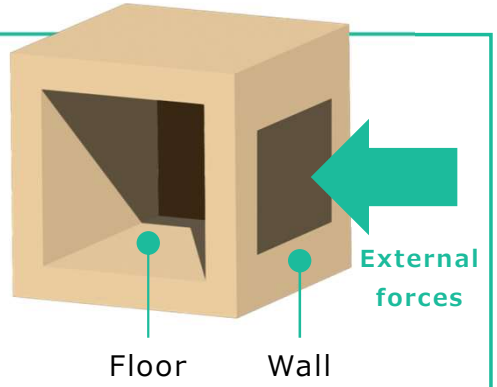
Use it to determine optimal operating times and installation locations

Example: A family of four

Water saving	Approximately 100㎥/year
CO2 reduction	2.2 tons/year

Integration and optimization through digital technology

SUMERU as a Strategic Location: Japan's Cutting-Edge Building Technology



The framed wall construction method is supported by “surfaces” such as walls and floors, so high earthquake and wind resistance can be expected.

Structural performance
- Excellent earthquake and wind resistance
- Highly airtight and highly insulated

Construction efficiency
- Cost optimization through standardization
- Standardized workflow shortens construction time

Safety performance
- Fire resistance

Frame wall construction

Wooden construction method using dimensional lumber to assemble walls

×

Monocoque structure (S×L method)

Wooden panel construction method using panel structure

Structural features
- Surface support system with box-shaped structure
- High earthquake and wind resistance
- Excellent airtightness and insulation

Technical advantages
- S×L structure used in the automotive industry
- Proven technology that proves strength

"SUMERU" is a wooden strategic base that can be permanently installed, overcoming the weaknesses of conventional temporary buildings.

A comfortable house that combines two building techniques

Proposed SUMERU

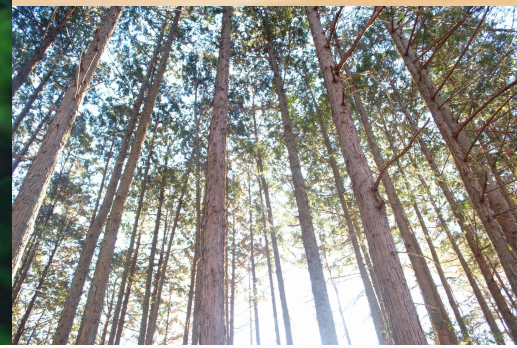
Japanese residential construction technology | Features of SUMERU

檜 HINOKI

Japanese cypress smell

The finest wood used for shrines, temples, and high-class housing in Japan since ancient times “Nihon Hinoki” (Japanese Cypress) is used.

Japanese shrines



The scent of Japanese cypress

The craftsmanship of Japanese carpenters

The craftsmanship of the craftsman combines modern technology with traditional woodworking techniques and highly precise handwork, while understanding the characteristics of wood.

- High durability and termite resistance
- Natural aroma effect, deodorizing and antibacterial function
- High water resistance and humidity change resistance
- Maintaining long-term asset value and reducing maintenance costs

Simple construction design that creates local jobs

We aim to provide sustainable value through the creation of locally rooted jobs.

The minimalist house SUMERU is designed to be constructed with only basic tools (hammer, impact driver, and sealant).

It will be assembled by local personnel, contributing to the creation of sustainable employment opportunities.

Achieve the “speed” required for disaster response

Items needed for this construction

Hammer

Impact driver

Sealing

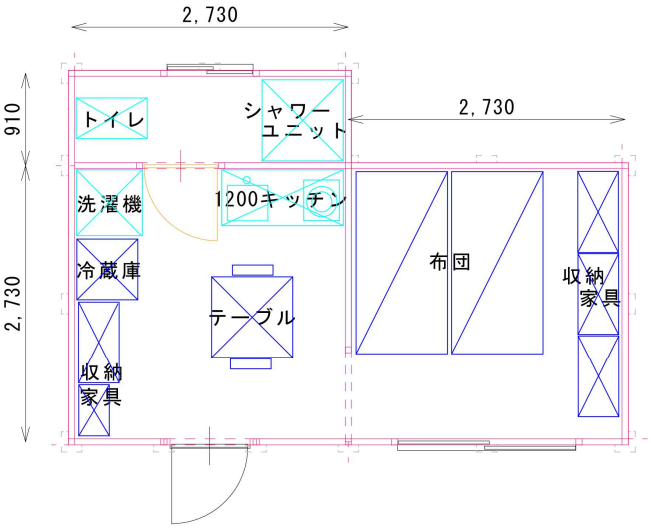
Japan's sealing construction techniques are among the best in the world, with excellent precision and care, and excellent airtightness and waterproofing.

Minimalist houses utilizing this technology also contribute to local job creation

SUMERU (Completion rendering) | 1DK

Equipment

Toilet
Shower
Kitchen
Air conditioner
LED lighting



Concept “G-Box”: Improving National Resilience, 5 Strategic Uses

We will build “self-sustaining infrastructure hubs” that can be deployed immediately to any location where water, electricity, and infrastructure are not needed.

	1: GX-Base	2: GX-Hospice	3: GX-TerraGate	4: GX-Heaven	5: Digital G-Box
	Strategic forward base / temporary command center	Emergency Medical and Humanitarian Assistance Center	Remote border monitoring stations	Special Environment Training Facility	Self-sustaining communications infrastructure hub
Purpose	C4ISR (command, control, communications, intelligence, surveillance, and reconnaissance) bases on remote islands and in jungles where supply is difficult	Temporary hospitals, evacuation centers, and command centers in disaster areas where lifelines have been cut off	Monitoring base for smuggling control and trespassing in vast border areas where infrastructure is underdeveloped	Base camp for national military and police special forces to train for extended stays in harsh environments	Digital infrastructure centers equipped with lifestyle functions on uninhabited islands and in remote areas
Effect	Fully self-sustaining equipment supports the nation's defense network on the front lines and strengthens readiness to respond.	Immediately after a disaster strikes, we begin lifesaving operations to save as many lives as possible.	Linked to surveillance cameras and drones to ensure the safety of our vast border areas 24 hours a day.	Provides realistic extreme situations and dramatically improves troop readiness and survival skills	Bridging the domestic digital divide to accelerate national integration and economic development

The front lines of national defense and lifesaving

	1: GX-Base Strategic forward base / temporary command center	2: GX-Hospice Emergency Medical and Humanitarian Assistance Center
Issue	Vast land area, especially in remote islands and jungle areas where supply is difficult to come by, and where there is a lack of defense and surveillance networks.	Quickly secure medical functions and sanitary shelters in disaster areas where lifelines have been cut off
Solution	● Fully autonomous “G-Box” strategically deployed as a C4ISR base ● Complete command, control, communications, intelligence, surveillance, and reconnaissance functions locally	● Immediately after a disaster strikes, “G-Box” is deployed to the disaster area ● Function as a temporary hospital with safe water and electricity and as a command center for countermeasures
Effects of introduction	✓ Strengthening the national defense network ✓ Dramatically improving readiness ✓ Breaking dependence on logistics and supply	✓ Improve life-saving rates (overcome the 72-hour barrier) ✓ Maintain the health and dignity of victims ✓ Expedite recovery efforts

Protecting the border and improving troop strength

	3: GX-TerraGate	4: GX-Heaven
	Remote border monitoring stations	Special Environment Training Facility
Issue	Threats such as smuggling and trespassing in vast and difficult to manage land borders and coastal areas	Lack of a realistic and demanding training environment to maximize the proficiency of national military and police special forces
Solution	● Utilize “G-Box” as an operational base for drones and surveillance cameras ● Build a 24-hour unmanned surveillance system	● "G-Box" is offered as a training base camp for long-term stays ● Training for survival and operational skills in extreme environments
Effects of introduction	✓ Increased sophistication and efficiency of border security ✓ Maintaining national sovereignty and domestic security ✓ Deterring the activities of terrorist and criminal organizations	✓ Improving unit strength and readiness ✓ Strengthening counterterrorism and disaster relief capabilities ✓ Improving morale and passing on skills to future generations of troops

Accelerating National Integration through Digital

	5: Digital G-Box
	Self-sustaining communications infrastructure hub
Issue	The digital divide that exists across a vast country and many islands (information gap), as well as the lack of telecommunications infrastructure in remote areas
Solution	● "G-Boxes" equipped with living functions and powerful communication facilities will be installed on uninhabited islands and remote mountainous areas ● Serve as nodes for a digital network connecting all of country
Effects of introduction	✓ Accelerate digital integration of the entire country ✓ Ensure a robust information transmission network in the event of a disaster ✓ Contribute to education and economic development in remote areas

These five solutions promise to be “strategic assets” that will fundamentally support your country's security and the lives of its people and create its future.

Proposal and Estimate

SUMERU GX

Highly durable and habitable model for permanent installation,
ideal for command centers and long-stay facilities

Selling price **00,000,000**JPY
(freight included)

Steel frame GX

Standard model for rapid mass deployment
Ideal for temporary shelters and stockpiles

Selling price **00,000,000**JPY
(freight included)

We will design the optimal plan based on your requests, including site survey, detailed installation, training, and establishment of a maintenance system.