Project Seatopia

Draft

Ocean Civilization Institute

Contents

1. Introduction

When we look at the Earth from a cosmic perspective, it appears as a tiny little star within the vast expanse of the universe. Nevertheless, its beautiful form, glowing blue against the stark blackness, evokes a profound sense of awe.

However, when we turn our gaze to the current state of our planet from a global perspective, we find a multitude of problems accumulated, including chronic environmental issues, unceasing conflicts, and issues related to population and food security, among others.

In an effort to solve these various issues, serious discussions and initiatives have taken place among international institutions, including the United Nations. Despite this, the current state of the Earth has reached a point where it cannot be sustained solely through policy measures and political strategies led by developed countries.

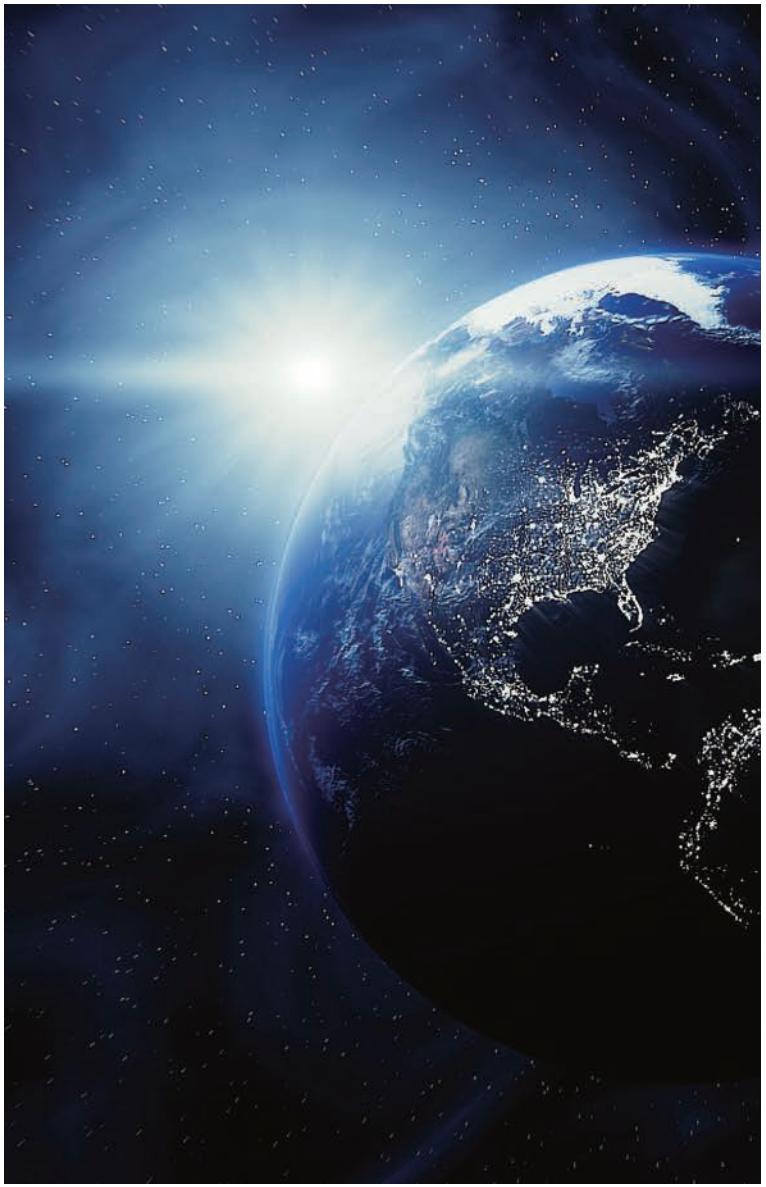
The problems expanding on a global scale can be traced back to man-made disasters, originating from humanity's propensity to distance itself from nature and continue an anthropocentric evolution and development. Alongside this, recent cosmic-scale phenomena, such as anomalies in solar magnetic fields and decreases in solar activity, are predicted to have a significant impact on future Earth's natural phenomena.

As many of us intuitively understand, the crisis that all of humankind faces, caused by man-made disasters and forces far beyond human comprehension, operates on a scale that transcends individual or national levels, encompassing the whole globe and all forms of life.

Under such conditions, what should we do and what can we do?

Earth itself is a massive life form, a motherly water planet that gives birth to and nurtures life. We exist here and now as part of this expansive life that is Mother Earth. To her, each and every one of us is a beloved child for whom she has unhesitatingly sacrificed her own life to foster and develop. Our divergence from nature and continued anthropocentric evolution has caused us to lose sight of the spirit of Gaia, the Earth. We believe the pain she feels, witnessing her children stray away from nature, is reflected in the current state of our planet.

As humankind, we should empathize with the pain of our ailing Mother Earth. Transcending boundaries of race, nationality, thought, and religion, we are all children of Earth, given life by this planet. Perhaps it is our responsibility to contribute to the Earth's revival and create a hopeful future.



As inhabitants of Earth, we are one family. Each of us must nurture our feelings of love for one another, as parents, children, and siblings. We must grow and evolve as "global citizens", facing our challenges sincerely. It seems there is no other path towards resolution but to take responsibility and deal with the issues ourselves.

"Initiating a Project Driven by Earth-Conscious Public Sentiment"

This is indeed what is most urgently needed from us at this moment. This initiative emphasizes the importance of "Recovery of Humanity", while also addressing one of the most pressing issues of recent times - preparation for massive earthquakes and large-scale disasters. Our aim is to build a rescue and relief system capable of operating across air, land, and sea during emergencies, creating the "Multipurpose Emergency-Rescue Mobile Vessel System (MERMVS)".

We propose roughly two purposes for the MERMVS. One is for emergency cases such as disasters. We actuate the MERMVS as an "Emergency-Rescue Mobile Vessel System" to contribute with transportation of personnel and goods, rescue operation, medical treatment, and so on. The other purpose is for normal times. We utilize the MERMVS as a "Future-Creating Ship" cruising around the world to create a new Earth civilization, harmonizing with the vast universe and the great nature as one nation of Earth. We would like to deliver dreams and hopes to people in the world.

A project that gathers the wisdom of "global citizens", unaffected by any vested interests.

This is what we propose as "Project Seatopia".

2. Background

[Anomalies in Cosmic Phenomena]

In recent years, disasters caused by extreme weather occur frequently. Every part of the world is seriously damaged because of numerous disasters such as earthquakes, tsunamis, typhoons, torrential rains, volcanic activities, large-scale forest fires, droughts, cold waves and so on. Recent studies have revealed that these serious disasters on earth is largely affected by the cosmic-scale activities, especially by the sun, not only by human activities on earth.

The largest energy emitted from the sun is light energy, and creatures on earth prosper thanks to this light energy. The sun usually repeats increase and decrease of the number of sunspots and outbreak of solar flares with its polar magnetic fields of north and south inverting with about 11-year cycle. The energy emitted from the sun is not always the same, and its cycle and bipolar magnetic fields have had a big change.

On April 12th, 2012, the Orbiting Solar Observatory "Hinode" of the National Astronomical Observatory of Japan captured the inversion of the North-polar magnetic field. This inversion is considered about two years earlier than expected. Moreover, it was confirmed that despite the North Pole had turned into the north magnetic pole (positive magnetic field) from the south magnetic pole (negative magnetic field), the South Pole had stayed as the north magnetic pole without changing at the same time as the North Pole. A normal magnet has the dipole structure with north and south magnetic poles. However, both the North Pole and the South Pole became north magnetic poles, resulting in the quadrupole structure, as the lines of magnetic force emitted from the both north magnetic poles had been connected to the south magnetic poles at the equatorial region. (Figure 1) This abnormal condition of the poles continued until 2015, and it returned to the dipole structure with the north magnetic pole at the North Pole and the south magnetic pole at the South Pole. Presuming from past data, this kind of pole abnormality could happen again in the future.

Also, that kind of abnormality in magnetic field largely affects sunspot activities. The sunspot number observed during the "Solar maximum" of 2014 (Figure 3) decreased by about 30 percent, compared to the same time of 2003, the former cycle (Figure 2). It was estimated that the sunspot activities will be weaker even during the next "Solar maximum".

※ It is called "Solar maximum" when the sunspot number increases and the radiant energy from the Sun becomes stronger, and the opposite period is called "Solar minimum".

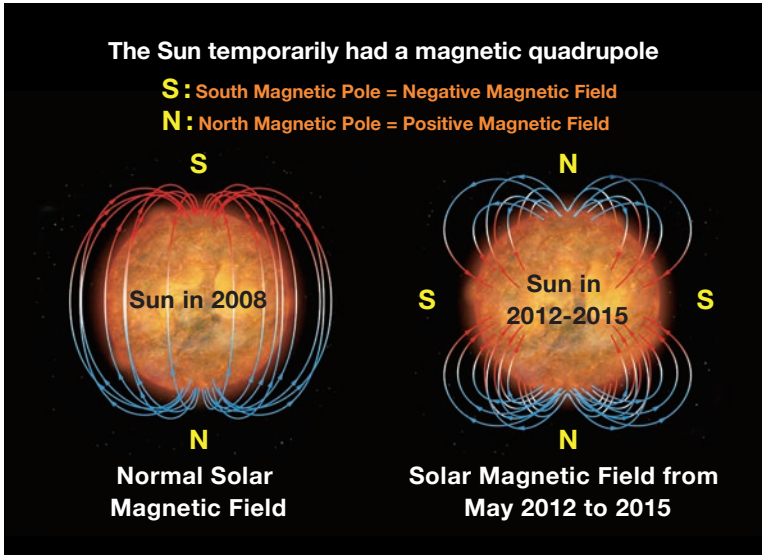


Figure 1 : Edited Image provided by the National Astronomical Observatory of Japan / Japan Aerospace Exploration Agency

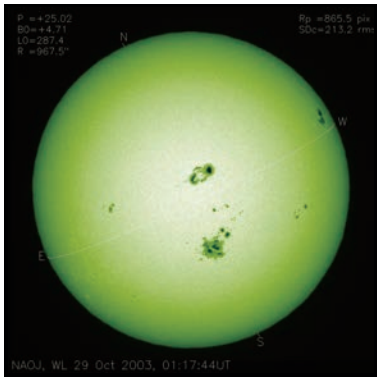


Figure 2 : The maximum scale of sunspot during the Solar cycle 23 (2003)
Image provided by National Astronomical Observatory of Japan

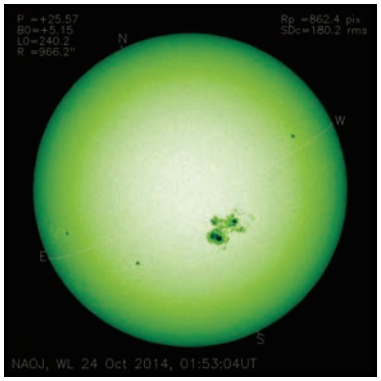


Figure 3 : The maximum scale of sunspot during the Solar cycle 24 (2014)
Image provided by National Astronomical Observatory of Japan

Then why is the abnormal change of solar activities can be a reason to fear the influence on future earth? We can unravel that question by understanding about the solar wind, which is one of the mechanisms of the solar system. The solar wind is important in relation to the global environment, as it largely changes its form depending on the increase and decrease of sunspots, and the lines of magnetic force in the heliomagnetosphere also change its structure on a large scale.

The solar wind, or the magnetic plasma, emitted from coronal holes and solar flares sometimes make the equipment of artificial satellites abnormal and shut off wireless communications with its effect, and it can cause serious damage to electrical facilities on earth and submarine cables. Magnetic storms and auroras are also the effect of the solar wind, and what protects Earth from the solar wind is the Earth's magnetic field. (Figure 4) The lines of magnetic force are also blown along by the solar wind, or the wind of plasma from the Sun, and form a structure like a cometary tail (geomagnetosphere). (Figure 5) From that fact, we can see that the whole Earth is greatly affected from the solar wind.

However, the solar wind has a role to protect the Earth at the same time.

The solar wind stretches out like a big vortex because of solar rotation. Recent exploratory research of NASA has revealed that the solar wind forms a bubble-like heliomagnetosphere that covers the solar system. This heliomagnetosphere protects the Earth by forming a "shield" to cut off the Galactic cosmic rays (harmful highenergy molecules) that tries to invade into the solar system. (Figure 6)

The inflow of Galactic cosmic rays from outside of the solar system is correlated with the solar activities. The quantity of cosmic rays becomes minimum during the Solar maximum, and becomes maximum during the Solar minimum. It is considered because the solar wind blocks the inflow of the Galactic cosmic rays. There is a view that the Earth will experience a drop in atmospheric temperature, or global cooling, if the Galactic cosmic rays poured on Earth increases, which can be a core to generate cloud and thunder that block off the sunlight. It is implicated that there is a possibility of various changes in living organisms and social infrastructure.

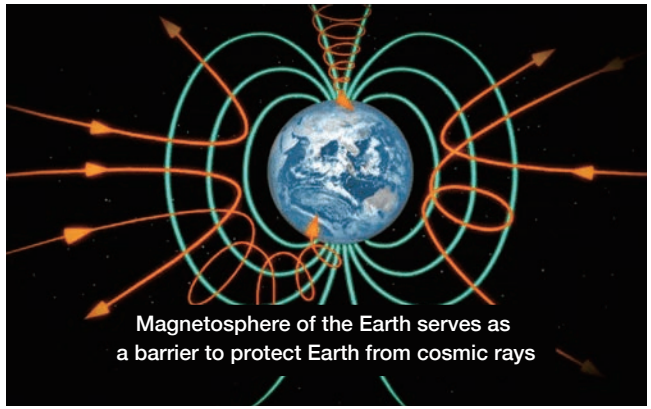


Figure 4 : Image provided by Space Weather Forecast Center

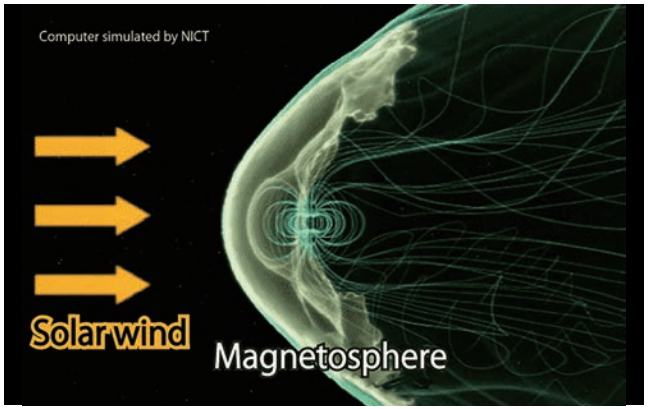


Figure 5 : Image provided by Space Weather Forecast Center

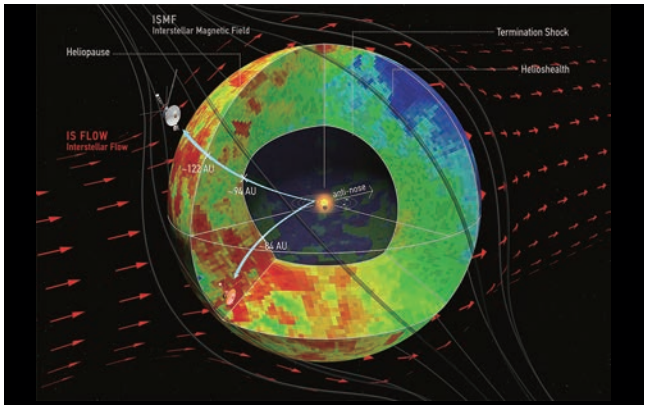


Figure 6 : Image provided by Dialynas, et al./ from NASA Website

Moreover, it is said that if underground water existing in the chasm between active faults and constituents of volcanic magma are exposed to high energy cosmic rays, they will vaporize, expand, be activated, and cause large earthquakes and violent eruptions. It is known that the less sunspot number is, the more frequently massive earthquakes occur.

Such condition as a lowering of solar activities is similar to the condition during the period called "Maunder Minimum" (1645-1715) in the past observation of the solar activities. It is said that the Sun had a possibility to have the magnetic quadrupole during the "Maunder Minimum" from theoretical studies.

During the "Maunder Minimum", world's climate became cooling and experienced the "Little Ice Age", which led poor harvest of farm products and massive famine in various regions. Especially in Europe, plagues spread, disasters and famine continued, and accompanying upheaval of society brought chaos called "The General Crisis".

Disasters and environmental problems caused by humankind and natural disasters caused by the abnormal changes of solar activities are increasingly expanding, and are bringing about unprecedented damage to humankind and all living things on earth. We, humankind, might need to recognize that these problems can affect us tremendously, disrupting our social system from the base.

We, humankind, have continued man-centered evolution and development. It might be the time for us to sincerely face and caution ourselves against seriousness and largeness of our problems caused by ourselves, and to take measures against global-scale disasters that are concerned to occur in the future.

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4) NASA "NASA's SDO Sees a Stretch of Spotless Sun"
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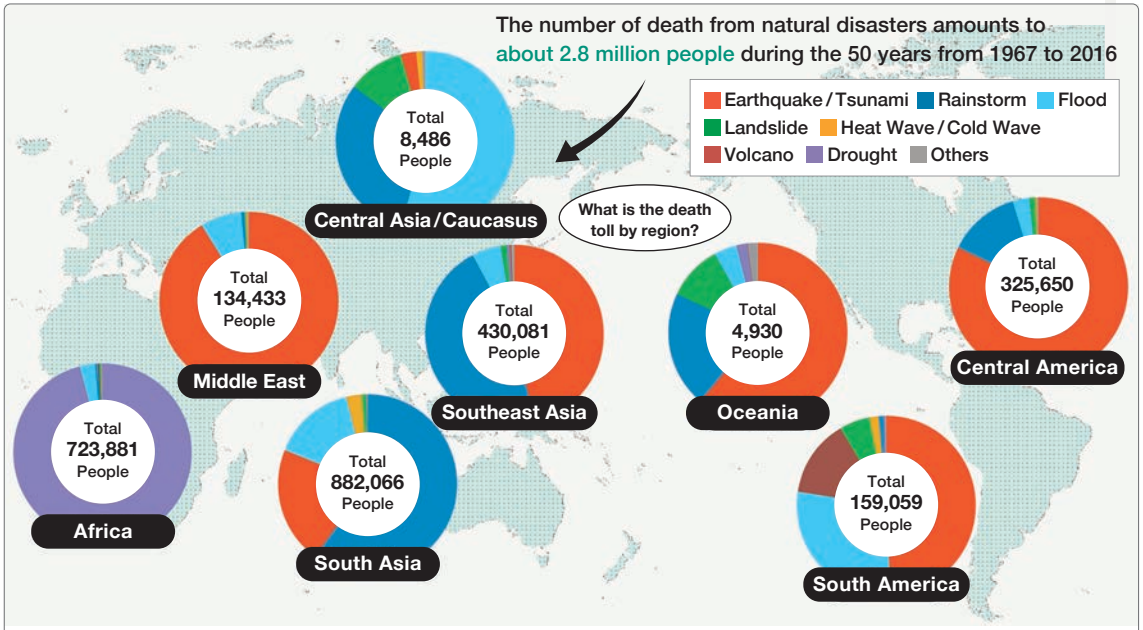
[Recent Major Global Natural Disasters]

■ Disasters Occurring Around the World



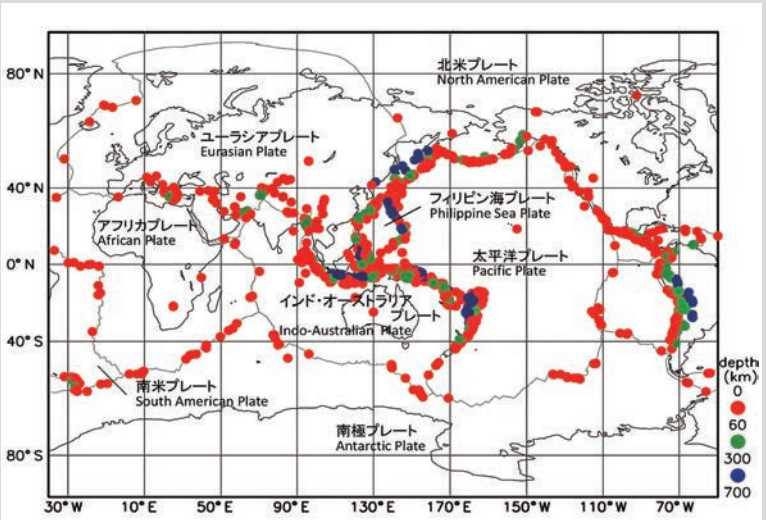
Over the span of 50 years, from 1967 to 2016, approximately 8,000 large-scale natural disasters occurred worldwide These events resulted in roughly 2.8 million deaths and caused damages amounting to about 730 billion dollars

- In Asia, the proportion of deaths caused by wind and water disasters such as storms and floods is higher than in other regions.
- In Central and South America, the highest proportion of deaths is due to earthquakes and tsunamis, followed by wind and water disasters such as storms and floods.
- In Africa, more than 90% of deaths are due to drought.
- The top three regions with the highest number of occurrences are Southeast Asia, Africa, and South Asia.

Figure 7 : Image & Information provided by Japan International Cooperation Agency (JICA)
* The English translation is overlaid on the original Japanese text in the diagram.

The Pacific Ring of Fire is an area with a high frequency of large-scale earthquakes.

The epicenters of earthquakes with a magnitude of 6 or above that occurred from 2011 to 2020 are concentrated in the Pacific Ring of Fire, accounting for about 90% of the total.



注）2011年～2020年
出典：アメリカ地質調査所の震源データより気象庁作成

Note: From 2011 to 2020
Source: Created by the Japan Meteorological Agency from the earthquake epicenter data provided by the United States Geological Survey.

Figure 8 : Image provided by the Cabinet Office, "Supplementary Document 1 of the Disaster Management White Paper: Distribution of Magnitude 6 and Above Earthquake Epicenters and Plate Boundaries Around the World."
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Recurring disasters impose significant stress and hardship on affected countries, regions, and people, and a disaster in one country can cross borders, affecting the lives and environment of all people. The most important aspect of the relief and rescue efforts in response to these large-scale natural disasters is a thorough understanding of the characteristics of the disasters and implementing measures and responses as swiftly as possible. In order to establish a system that can respond immediately when a disaster occurs, it is crucial to analyze high-frequency disaster countries and regions, types of disasters, and so on. It would also seem important to set up multiple bases equipped with pre-arranged system frameworks.

■ Challenges in Disasters and Towards Their Resolution

We have picked out some major disaster cases from large-scale disasters occurred in recent years to inspect problems at the time of disaster, that is, **the Great East Japan Earthquake occurred in March 2011**, **the large-scale Hurricane Matthew occurred in South America in October 2016,** and **the Sulawesi Earthquake and Tsunami occurred in Indonesia in September 2018**. From the inspection, we have found that there are common problems in natural disasters, and problems that varies depending on countries and regions.

Common Problems in Natural Disasters

■ **The collapse of infrastructure significantly hindered relief and rescue operations.**

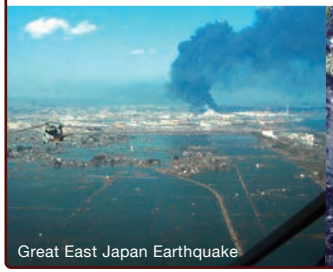
- The destruction of infrastructure, such as communication, power, and medical facilities,limited access to affected areas and posed difficulties in transporting relief supplies.
- This disconnect between the affected areas and the institutions or groups involved in relief efforts obstructed swift relief and rescue operations.
- The collapse of medical facilities made it challenging to receive appropriate medical care,making it particularly difficult to manage chronic disease patients and hospitalized patients, thereby prolonging the issue.

■ **The lack of a unified command system caused various problems at emergency disaster sites**

- Due to the drawbacks of compartmentalized administration, the authority of the local response headquarters became unclear.
- There were difficulties in sharing necessary information between organizations or teams, or in the transmission of information.

Problems Varying by Country and Region

Damage caused by natural disasters is increasing year by year, but the damage suffered by developing countries and the impoverished is becoming particularly conspicuous. In addition to the severe damage caused by disasters, these areas are also affected by local security and political conditions, posing major issues for post-disaster reconstruction. In Haiti, which was severely damaged by Hurricane Matthew, unsanitary conditions continue and securing safe water is challenging. Infectious diseases such as cholera are spreading, threatening the health of the people.


Great East Japan Earthquake

Hurricane Matthew


Sulawesi Earthquake and Tsunami

▶ The Ideal Approach to Disaster Relief Operations in Response to Problems during Disasters

■ There is a need to implement disaster relief measures assuming the collapse of infrastructure where ground-based facilities cannot be relied upon.

■ In order for countries and various organizations and agencies involved in relief efforts to cooperate smoothly and respond quickly, a position that can grasp the full picture of the disaster is essential. Overcoming the disadvantages of segmented administration and formalizing clear role assignments, and being prepared in a state ready for action is important.

- All information converges there
- Command system is established from there

■ As seen in the case of Haiti, recovery from disaster is influenced by the security and political situation of the country. For the people in these countries, it is important to support them not just to return to their pre-disaster state, but to truly rebuild their country by the people of that country, as a nation equipped with the infrastructure to fully meet the needs of the people for education, medical care, employment, etc., so that they can regain hope for the future.

[Future Prospects for Addressing Anomalies in Cosmic Phenomena and Disaster Challenges]

■ Launching a New System to Enable Relief Activities at a Global Level

Formation of rescue and medical teams, consisting of multiple countries and groups, united to surpass the challenges encountered during disaster situations

Towards a rescue and relief system from a global perspective

In this global perspective, what we want to explore as a new functional framework is the utilization of ships, capitalizing on their inherent advantages such as "mass transportation capability" and "self-sufficiency of facilities" which are highly useful during disasters. This involves the development of a ship system that transcends the conventional roles and uses of hospital and disaster relief ships.

Most of the world's hospital ships that greatly contribute during disasters are currently owned by military institutions of various countries. Because of this, it's difficult to conduct flexible operations that transcend national interests. By establishing a framework for a global disaster relief team that operates on a planetary scale, rather than at the traditional national level or as part of military operations, it seems that various issues that have been problematic during disasters can be more easily addressed, leading to a more efficient disaster relief system.

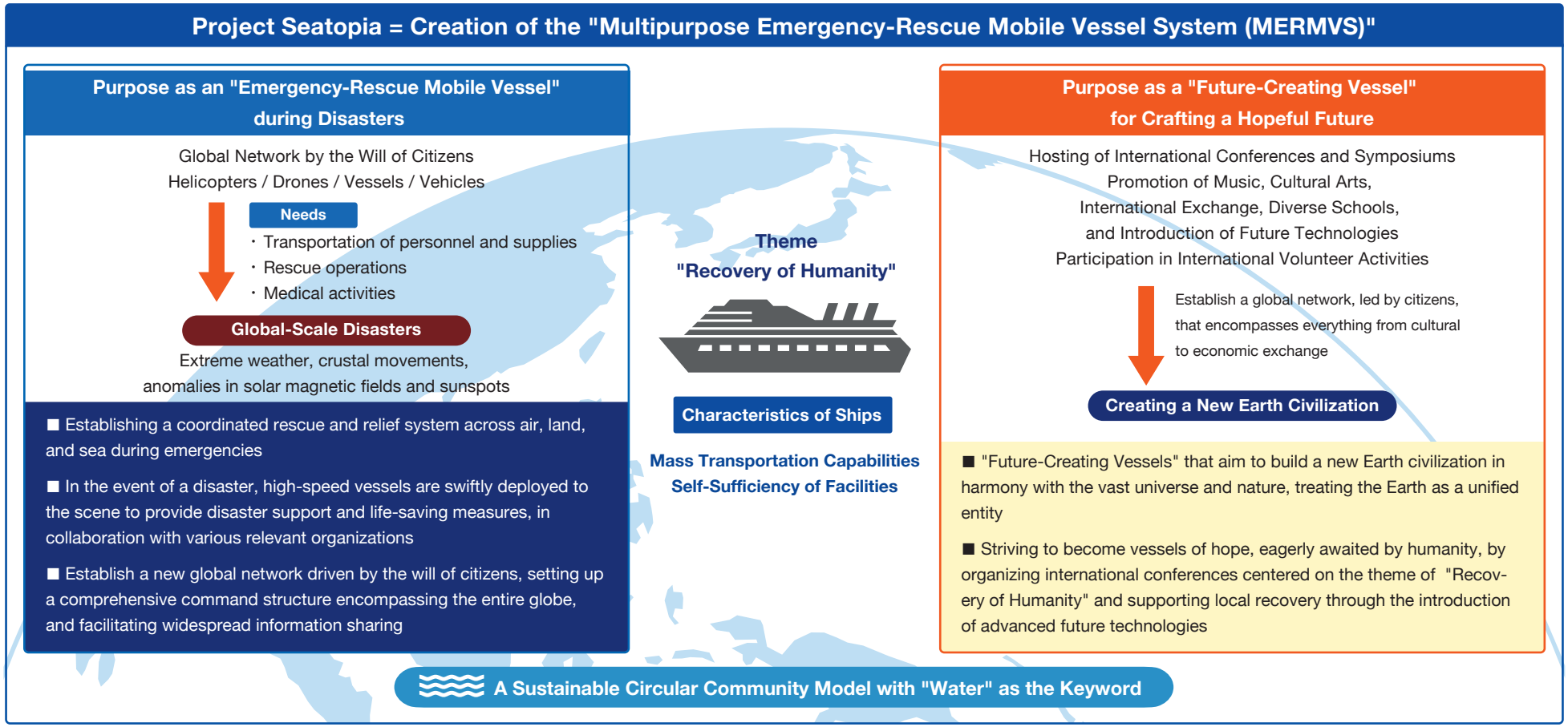
The challenges and issues that have emerged from past disaster experiences, as well as changes in cosmic events, can be seen as guidelines provided for us humans to overcome severe natural disasters and build a prosperous future. We humbly acknowledge these and seek to incorporate them into this concept.

3. Overview of Project Seatopia

[What is Project Seatopia?]

Project Seatopia calls upon all of humanity, originating from Mother Earth and bound by a shared destiny, and is a project driven forward by the "Will of Earth-Conscious Citizens" who resonate with this ideology.

In times of emergencies such as disasters, the unique characteristics and advantages of ships, including their "mass transportation capabilities" and "self-sufficiency of facilities," are crucial. We aim to **establish an emergency rescue system** that addresses a variety of needs, from transporting personnel and supplies to conducting rescue operations and medical activities. At the same time, these vessels also serve as **projects for creating the future.** They are equipped with the latest technologies and filled with abundant creativity, fresh ideas, and potential, thereby linking our dreams and hopes to the future.



[Promotion Strategy for Project Seatopia]

Countries, Corporations, Various Institutions, Organizations, Individuals, etc.

Ocean Civilization Institute

Project Seatopia

Creation of the "Multipurpose Emergency-Rescue Mobile Vessel System (MERMVS)"
Based on the Will of Earth-Conscious Citizens

Emergency Rescue System from Air, Sea, and Land

- ■ Establishment of Command System Covering the Entire Earth
- ■ Building an Information Sharing System, etc.

Future-Creating Ship Operating with the Theme of Recovery of Humanity

- ■ Hosting Symposia and International Conferences
- ■ Introduction of Various Ideas and Future Technologies
- ■ International Exchanges, such as Cultural and Economic Interactions

Model Ships for a Sustainable Circular Community with "Water" as the Keyword

Proposal

Consolidation of the Will of Earth-Conscious Citizens

- ■ Each supporter participates with their own roles and objectives in their respective areas of expertise or assigned fields.
- ■ Proactively support, build, or contribute to the realization of the "Multipurpose Emergency-Rescue Mobile Vessel System (MERMVS)".

Promotion of the Project

Creation of a New Earth Network by Citizens' Will

Establishment of a Central Organization of the Project Promotion Headquarters

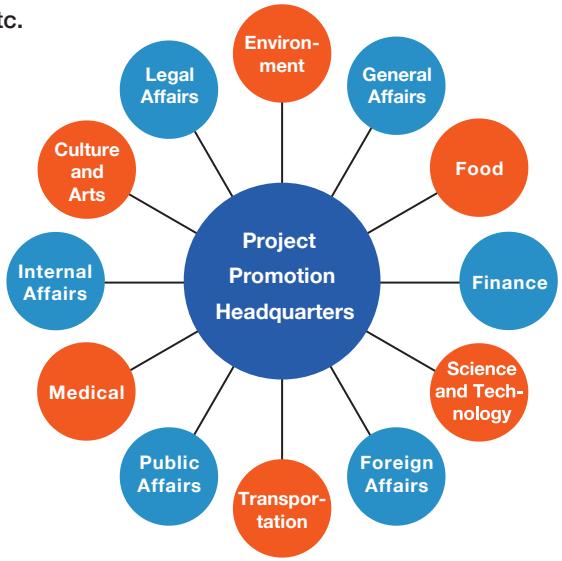
Establishment of a Command System Covering the Entire Earth

Formation of the Project Promotion Team, etc.

Utilizing knowledge and technology in each field of expertise to strive towards a future-oriented ideal society

Creation of the "Multipurpose Emergency-Rescue Mobile Vessel System (MERMVS)"

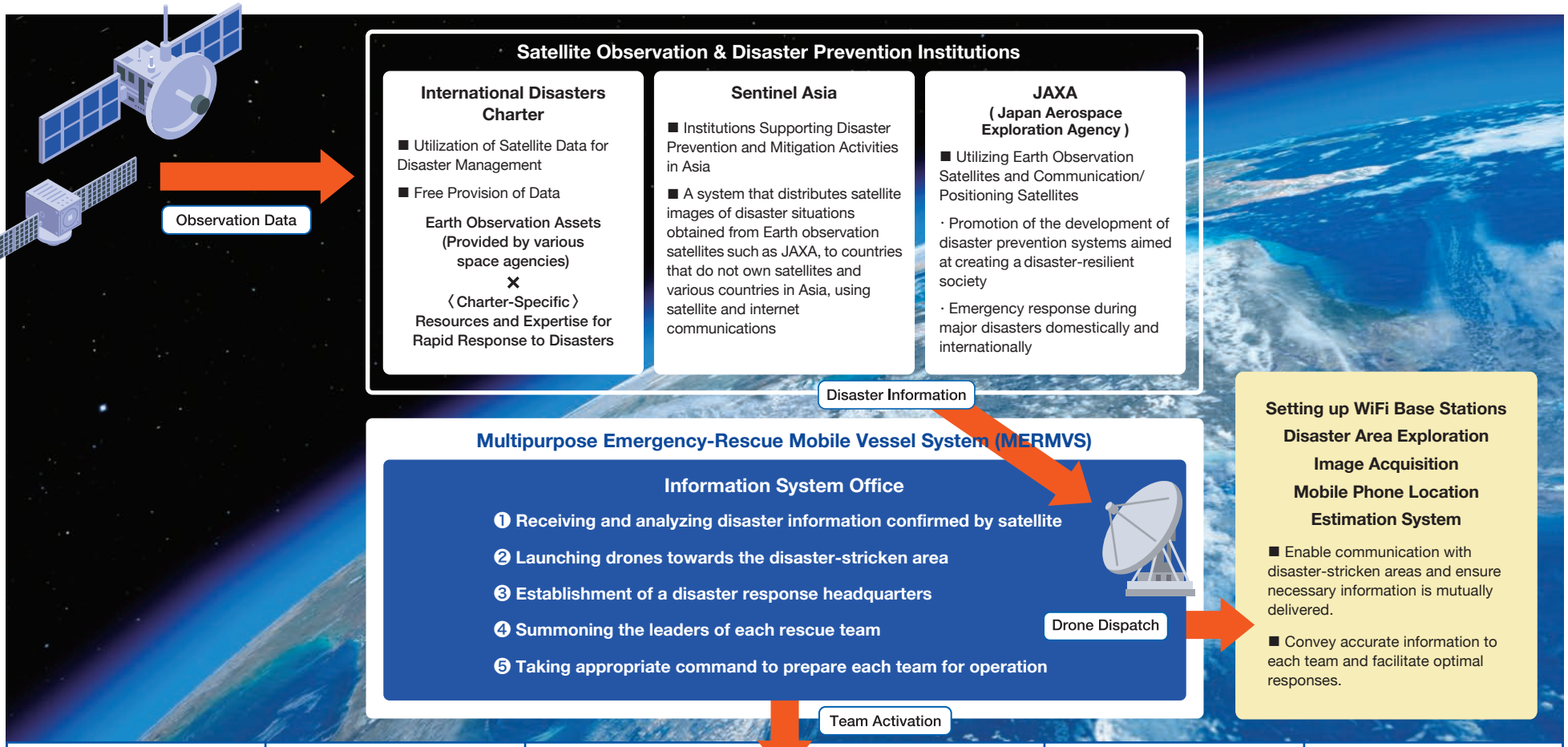
- · Launch of a Global Disaster Relief Team Under a New Framework
- · Assuming the Role of Disaster Response Headquarters During Disasters
- · Formulating Various Plans Based on Earth Consciousness



[Ideal Project Structure Image]

Operational Department	Environment	Land and sea related matters, R&D of energy, etc
	Medical	Medical treatment of diseases and injuries, disease prevention and health management
	Science and Technology	Communication within the space-earth sphere, technology development and practical application
	Transporta-tion	Transport of people and goods, management of transportation means and networks
	Food	Agriculture, forestry and fisheries, food procurement, food education, food processing, provision, and nutrition management
	Culture and Arts	Cultural affairs of various countries and regions, literature, music, arts, and entertainment-related affairs
Political Affairs Department	General Affairs	Record-keeping and documentation of the project
	Internal Affairs	General administrative tasks accompanying the project progress, internal coordination and management
	Foreign Affairs	Discussions and negotiations with different countries and regions, translation and interpretation, public relations
	Public Affairs	Coordination and management of all matters related to the project
	Finance	Financial management, allocation and use of funds
	Legal Affairs	General legal matters domestically and internationally

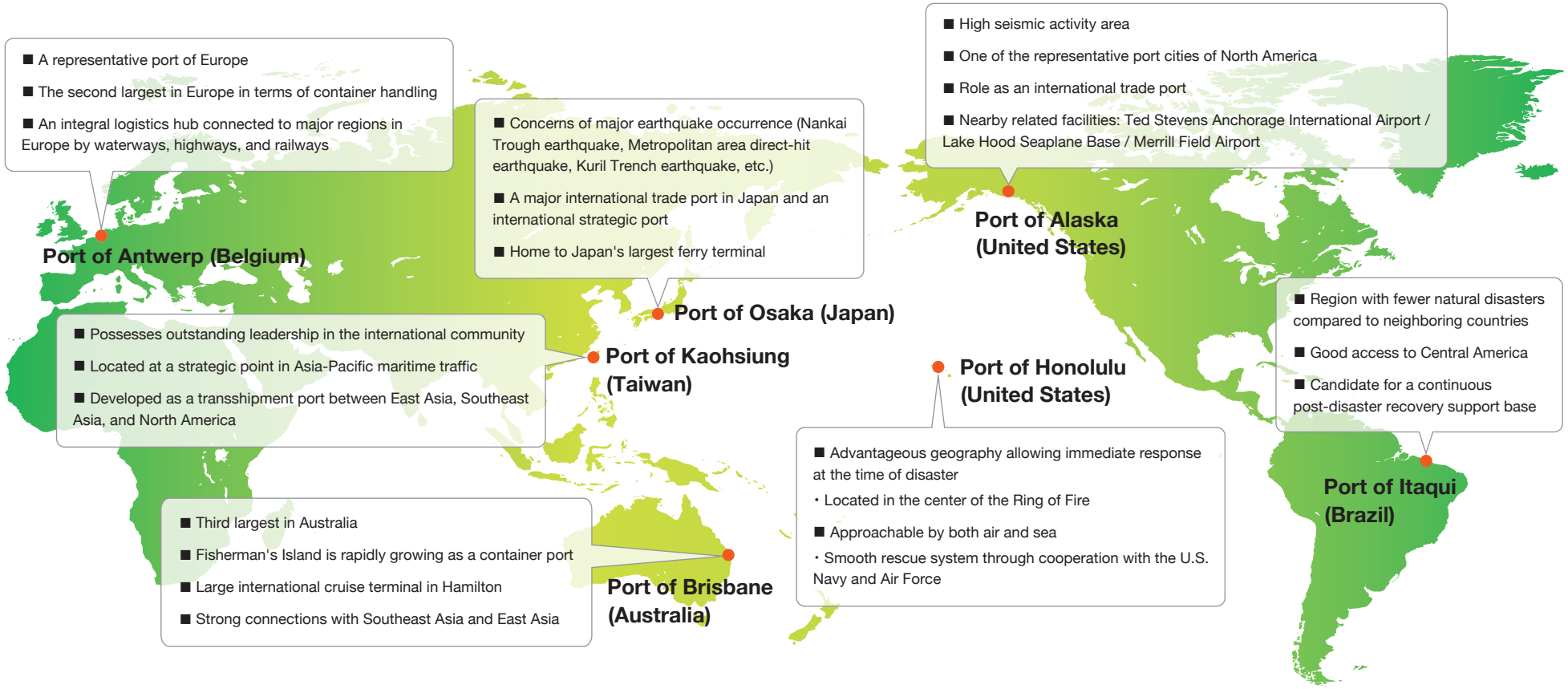
[Operational Image of the "Multipurpose Emergency-Rescue Mobile Vessel System (MERMVS)" in Emergency Situations]



News Team	Rescue and Relief Team	Medical Team	Transport Team	Support Acceptance Coordination	Shelter Operation and Management
■ Disaster site exploration and image acquisition ■ Use of proprietary channels for emergency response ・Preventing confusion caused by false information ・Internet transmission	■ Utilization of hazard prediction information through IoT sensor systems ■ Using mobile phone location estimation systems to aid in searches and other activities	■ Medical staff and others enter the disaster area via helicopter, transport trucks, or medical campervans to respond to the critical 72-hour life-saving period ■ Collaborate with various medical groups involved in life-saving activities ■ Accept evacuees aboard the ship and provide medical care	■ Based on preliminary information, secure a safe route, transport equipment for infrastructure construction, necessary supplies, and the medical team to the disaster area ■ Transport victims to safe locations and shelters	■ We will coordinate to ensure that support from other countries and external organizations is effectively utilized, such as deciding where to allocate resources ■ We will support the creation of shelter management systems that are mindful of detailed considerations, staying close to the feelings of the disaster victims	■ We support the creation of a shelter management system that takes into careful consideration the feelings of those affected by disasters ■ Arrangement of necessary supplies ■ Consideration for sanitation ■ Emotional care, etc

4. Concept of Project Seatopia

[Deployment of "Multipurpose Emergency-Rescue Mobile Vessel System (MERMVS)": Proposed Global Base Locations]



■ We've identified seven potential sites for vessel deployment primarily within the Ring of Fire, an area frequently hit by earthquakes, which have caused the most casualties in natural disasters.

■ As vessel specifications may vary depending on the type of ship, it might be worthwhile to consider deploying different types of vessels at each base, tailored to specific needs.

■ In order to actually dock vessels and rapidly mobilize them in emergency situations, collaboration with the country operating the base port is necessary, and we anticipate that local laws and regulations will significantly influence this process. We plan to start by using existing ports as bases and gradually aim to establish new bases that are not tied to any existing nation.

[Proposed Ship Selection]

The "Multipurpose Emergency-Rescue Mobile Vessel System (MERMVS)" must be designed to meet a variety of needs, including operation during disasters and effective use during normal times. Furthermore, the ships deployed at each base will vary according to the characteristics of the region, its disaster history, the preferred style of relief during emergencies, and the approach to support during regular times. For these reasons, the choice of ships is critical to ensure the maximum efficiency of the "MERMVS".

In order to prepare for large-scale disasters, which can occur anytime, anywhere, it's essential that the "MERMVS" can be activated within a short timeframe. To achieve this, it would be preferable to retrofit used vessels rather than constructing new ones. This approach would not only provide versatility, but also enable us to equip these vessels with the necessary systems and equipment to function efficiently. We must identify the kind of vessels that can handle emergency situations while also serving useful purposes during regular times. Let's examine this more specifically.

Cruise Ship

■ Can be converted into a hospital ship
・Effective as a measure against infectious diseases

■ Large accommodation capacity
・Can be used as a temporary shelter

■ Diversity of existing facilities
・Can be operational with minimal refurbishment

Container Ship

■ Equipped with containers converted into medical facilities, accommodation facilities, equipment and material storage, etc.

■ Operated as a rescue and relief ship during disasters

■ Conducts various outdoor-oriented projects using the spacious deck during normal times

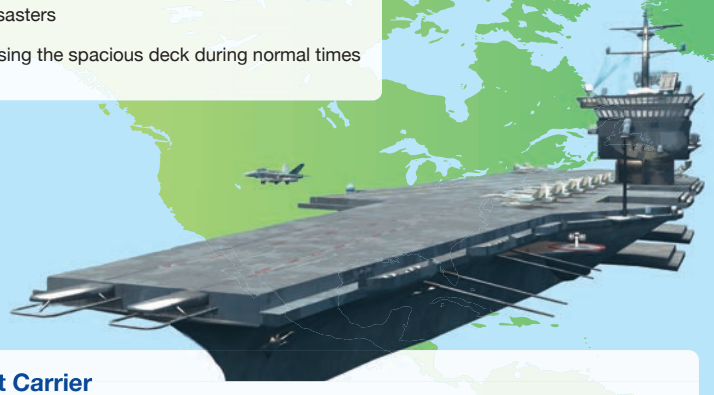
High-Speed Catamaran

■ Capable of high-speed movement
・Approximately 80km per hour
・Approximately 2000km in 24 hours

■ Excellent maneuverability

■ Outstanding stability

■ Able to respond within the first 3 days of the acute phase post-disaster



Aircraft Carrier

■ Capable of accommodating multiple helicopters and aircraft for takeoff and landing

■ Smooth rescue and relief operations possible through professionally trained crew

■ Ample space for temporary shelter

■ Creating an ideal model of a sustainable, circular community utilizing the spacious deck
・Continuously open to the public while cruising the world
・Contributes to the reconstruction of many countries and regions

[As Model Ships for a Sustainable Circular Community with "Water" as the Keyword]

All life has originated from the sea, or water. Our bodies too are mostly composed of water. The stirrings of the mother sea reflect the stirrings of the Earth and the universe itself. It is on the ship, where we can resonate most with these stirrings, that we all have the chance to restore our humanity and move forward into the future with abundance and hope. The keyword that we propose to guide us is "Water".

It is known that water can be converted into a harmless energy when it burns at a high temperature setting using a catalyst, which can truly be said to be a next-generation, future-oriented energy source. The future of the Earth, created using infrastructure technologies that solve energy problems through highly efficient emulsion fuels and hydrogen gas production, is filled with hope and possibilities. In this project, we would like to link such astonishing potential of "water" to the ship specifications and introduce it widely.

Receiving the blessings of "water", life circulates. Envisioning such an ideal state, we will set the overall theme of the ship specifications as **a model ship for a sustainable circular community centered around the keyword "water".**

Water as the Source of Life

- About two-thirds of the Earth's surface is water (Sea water 97.5% / Freshwater 2.5%)
- About two-thirds of the human body is water (Newborns approximately 75% / Children approximately 70% / Adults approximately 60% / Elderly 60%)
- About two-thirds of plant and animal cells are water (Plant cells 75% / Animal cells 67%)

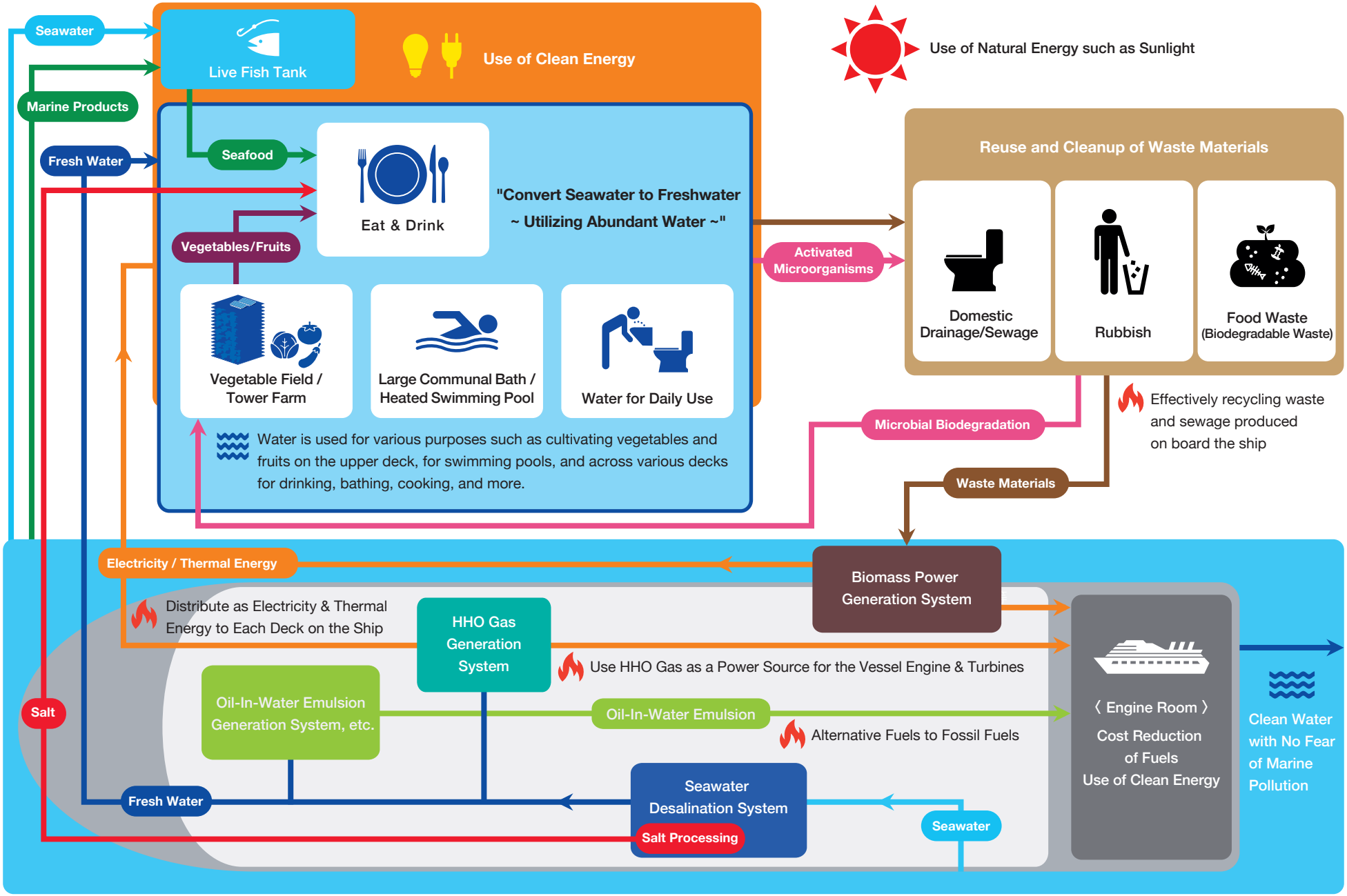
Characteristics and Roles of Water

- Purification power
  - Physical purification (cleaning various things / washing clothes / bathing, etc.)
  - Spiritual purification (purification ritual at shrines and temples / Christian baptism / Islamic Wudu, etc.)
- Memory of information
- Sustenance of life

Use of Water as Fuel and Energy

- Emulsion Fuel (By mixing with fuel oil, it leads to the reduction of fuel costs and greenhouse gas emissions)
- HHO Gas (Oxyhydrogen gas generated by reacting water with a catalyst is used for various purposes)
- Hydrogen Fuel (Hydrogen separated from water by electrolysis is used as fuel)
- Alkaline Ion Cleaning Water (Used as a detergent to remove oil stains with alkaline electrolyzed water)

■ Image of Model Ships for a Sustainable Circular Community with "Water" as the Keyword

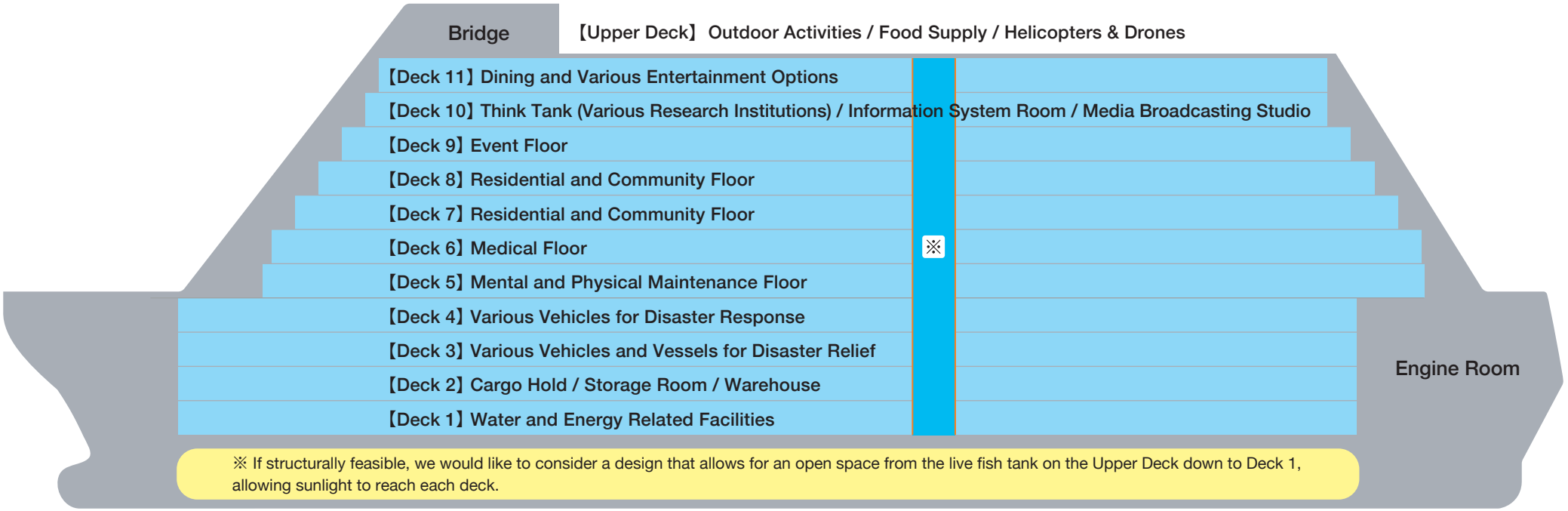


[Specification Plan of the "Multipurpose Emergency-Rescue Mobile Vessel System (MERMVS)"]

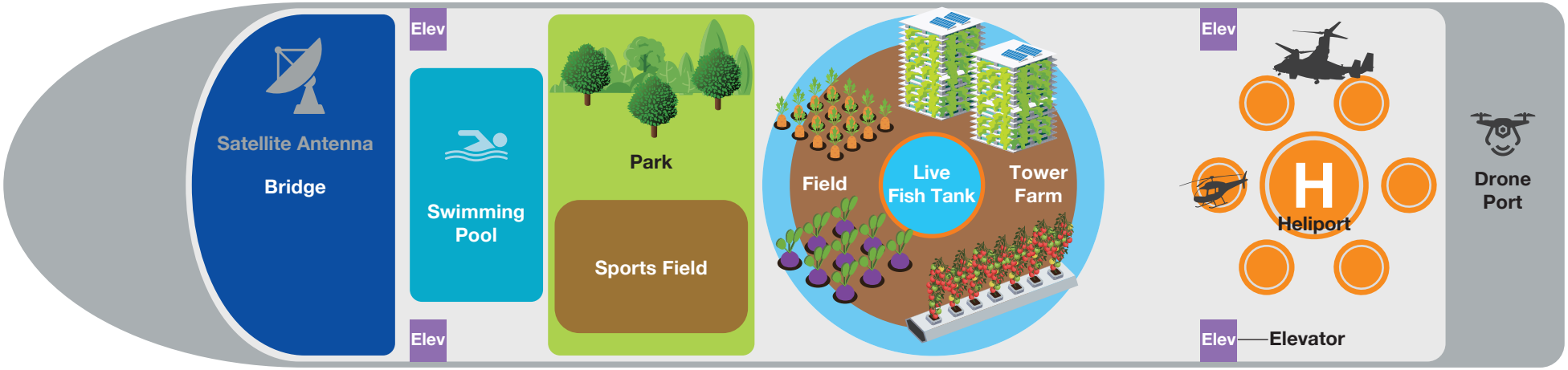
Let's simulate a cruise ship of about 250 meters in full length and about 30 meters in width here as the Multipurpose Emergency-Rescue Mobile Vessel System (MERMVS).
A high-speed catamaran, a container ship or an aircraft carrier mentioned above is different from a cruise ship in its basic structure, but you can imagine all those ships with the specifications for each deck that we are going to mention after this and put all those ideas together.

In times of disaster, it would function as the "Disaster Response Headquarters", leveraging comprehensive information from each department to facilitate an appropriate response to the disaster. The system, comprised of globally sourced talents irrespective of national borders, would foster interdepartmental cooperation and ensure smooth operations in all regions and circumstances.

In addition to the specification plan, we aim to utilize a range of future technologies and information, covering both hardware and software aspects. For instance, in relation to fuel - one of the highest costs in ship maintenance - we plan to explore cost-reduction measures through the use of futuristic clean energy solutions.



Example of Upper Deck	Bridge / Outdoor Activities / Food Supply / Helicopters & Drones



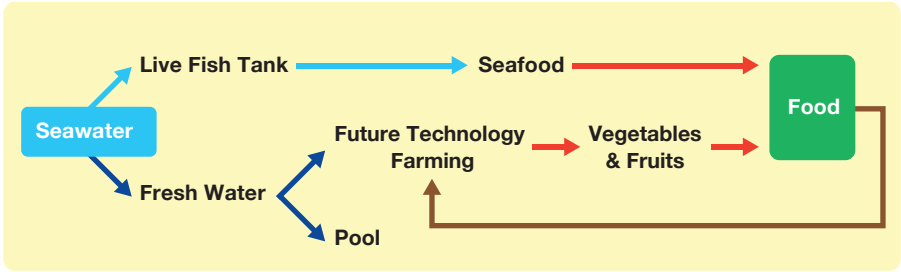
Disaster Response Specification and Open Space with a Sense of Nature's Presence

Remodel the upper deck and construct a heliport & drone port

Make the whole ship a sustainable circular model

Food and Health - Sustainable Circular Model

■ Sustainable Circular Model



- Natural open space on the upper deck, incorporating circular model principles
- Introduction of future technology farming, aiming for self-sufficiency on the ship

Disaster Relief

■ Utilization of Drones

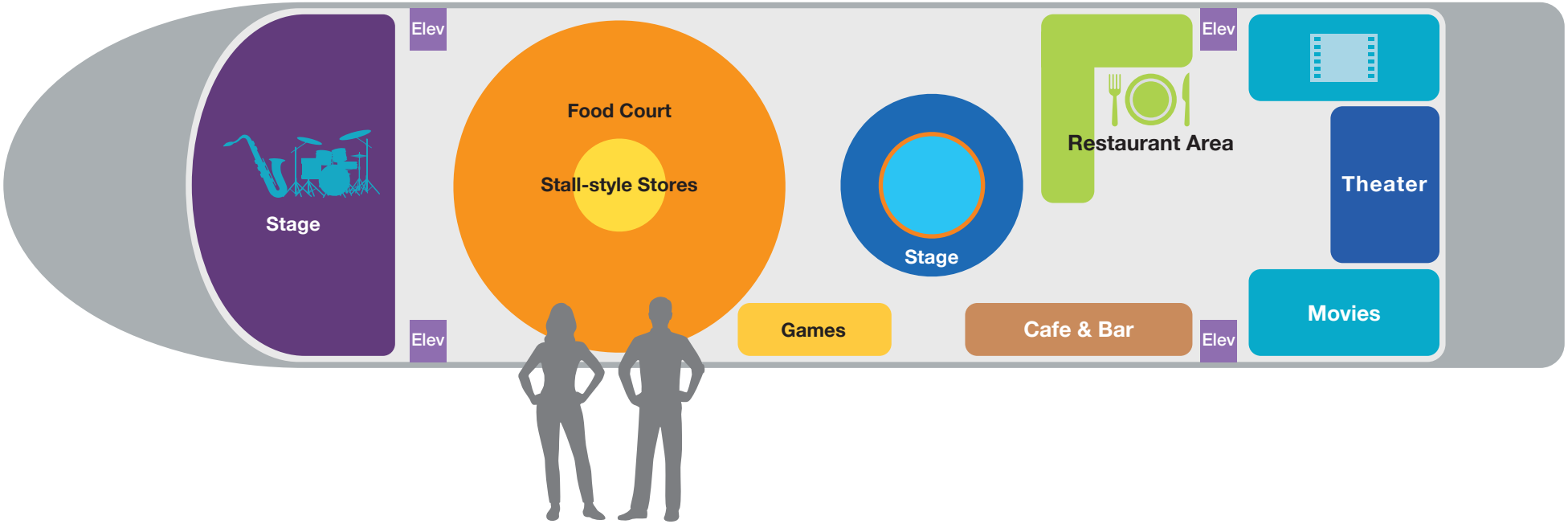
- WiFi communication system (for communication and location information retrieval in disaster areas)
- Inspection of disaster area conditions using onboard cameras
- Significantly reduced time and cost of preparation compared to helicopter flights
- Pinpoint delivery of supplies

■ Deployment of Rescue Helicopters

- Transportation of relief supplies and medical teams
- Transportation of disaster victims
- Consideration of proven rescue equipment, such as the Bell Boeing V-22 Osprey and the UH-60J owned by the Self-Defense Forces"


Reference Image of V-22 Osprey

Example of Deck 11	Dining and Various Entertainment Options



On-board Food and Entertainment

Providing food and entertainment to enrich long-term life on board

Food

■ From authentic full-scale restaurants to casual snacks and street food stalls

・Cuisine from various countries

・Catering for Vegan, Vegetarian, Halal food, etc.

■ Providing safe, secure, and environmentally-friendly food

×

Entertainment

■ Various stage performances such as live concerts and shows onboard

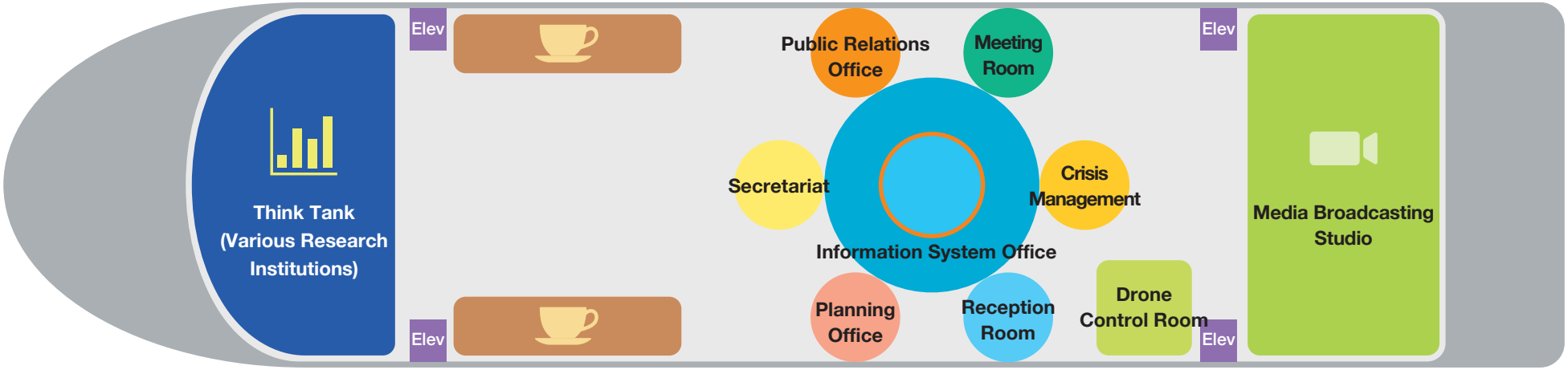
■ Movies

■ Theater

■ Various audio and music facilities


Image for illustrative purposes only

Example of Deck 10	Think Tank (Various Research Institutions) / Information System Room / Media Distribution Studio



Central Floor of the "Multipurpose Emergency-Rescue Mobile Vessel System (MERMVS)"

Dedicated professionals collaborate to tackle global issues

In the event of a disaster, the entire ship quickly transitions to a relief system centered on this floor

Think Tank

■ Experts, awakened to Earth consciousness from various specialized fields and genres, participate with their own roles and purposes

■ Proposing new social policies and disseminating stunning ideas and research results in economics, technology, culture, etc., to countries and people around the world

Information System Office

■ Collects and analyzes information from around the world while closely coordinating with internal and external teams, preparing for disasters

■ Functions as a "Disaster Response Headquarters" during a disaster, establishing a unified command system

■ Collaborates with satellite observation agencies and disaster prevention organizations

・Obtains data such as the occurrence, location, type of disaster, and the conditions of the affected areas

・Collects, analyzes, and communicates information for rescue and relief operations

■ Ensures means of communication for the disaster-stricken area and acts as the command post for local relief teams

・Establishes WiFi base stations through drones

・Captures images and gathers information from the disaster-stricken area for effective relief activities"

Media Broadcasting Studio

■ Activities during Disasters

・Support for rescue and relief operations

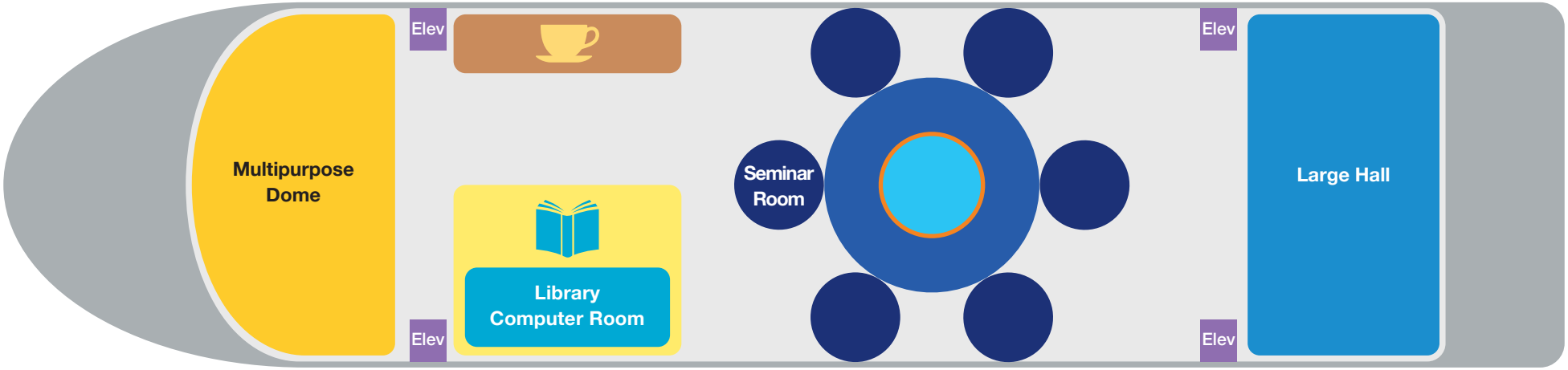
・Exploration of disaster-stricken areas, acquisition of video footage, and distribution of disaster information

■ Production and Distribution during Normal Times

・Introduction of on-board activities such as international conferences, events, and cultural activities


Image for illustrative purposes only

Example of Deck 9	Event Floor



Hosting Various Onboard Events from a Global Perspective

Consolidating the will of Earth-conscious citizens for a hopeful future

Maritime School for the Future's Bearers

■ Establishing a school where onboard experiences serve as a learning environment

- Cruising experiences, such as trips where students encounter dolphins and whales
- An education system that connects the world through information and communication technology
- Creating new educational opportunities where children from different countries and cultures can learn and empathize together
- Visits to observe future technologies
- Participation in various volunteer activities

Image for illustrative purposes only

Hold International Conferences & Symposiums

■ Solve global-scale problems

■ Create a new social system

- Spirit of mutual aid, overcoming the barrier of national interests and concessions
- Respect different culture, traditions and sense of values


Image for illustrative purposes only

Music, Culture & Art, International Exchange

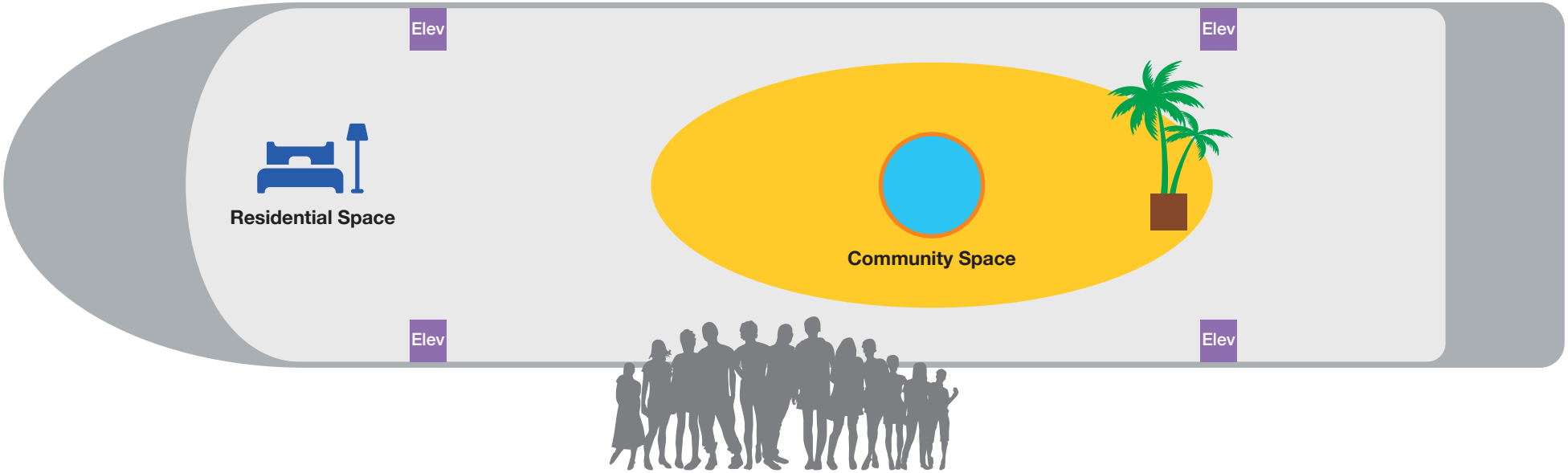
■ Hold music events with full of inspiration and joy

■ Introduce culture and art from different countries and regions in the world

■ International exchange events and so on


Image for illustrative purposes only

Example of Decks 8 & 7	Residential and Community Floor



Comfortable Residential Floor

Functional spaces for relaxation, with colors and lighting adjusted to fit the purpose of the space

Residential Space

■ Staff Residential Area

・A functional space that consolidates efficiency and safety

・Living space that allows for a clear distinction between work and private life, promoting comfortable living

■ Guest Accommodation Facilities

・Accommodation for event participants

・Temporary lodging facilities for disaster victims


Image for illustrative purposes only

Community Space

■ Usage in Times of Disaster

・Utilized as a refuge for disaster victims

■ Normal Use

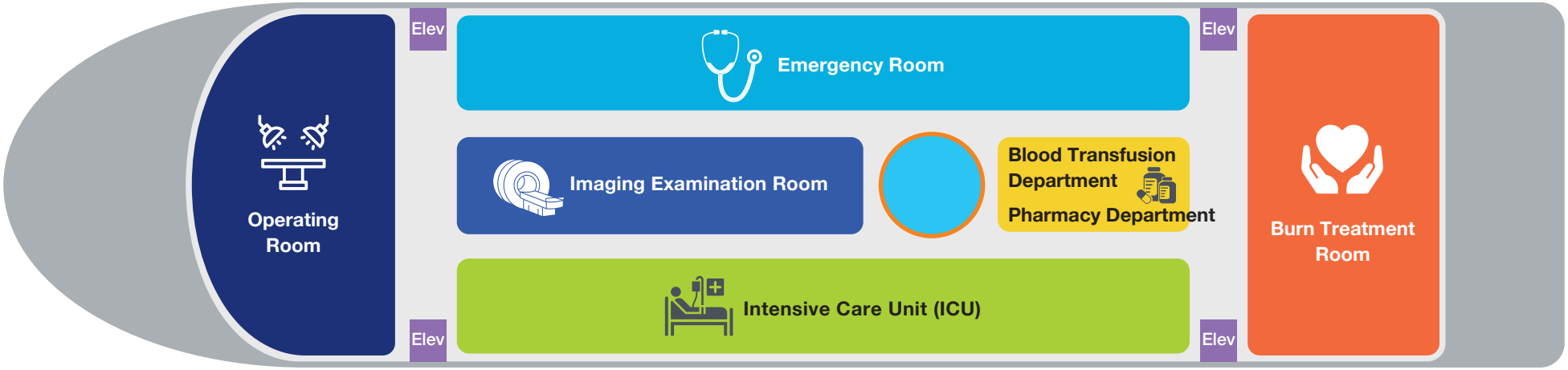
・A community space for crew members and staff

・Regular hosting of music concerts

・Utilized as a gallery


Image for illustrative purposes only

Example of Deck 6	Medical Floor



Medical Floor Providing Hybrid Medical Care in Response to Disasters and Normal Times: Adapting to Different Situations

During emergencies, it functions as an emergency medical center.

In normal times, in addition to that, it also serves as an integrated medical and cutting-edge technology training center.

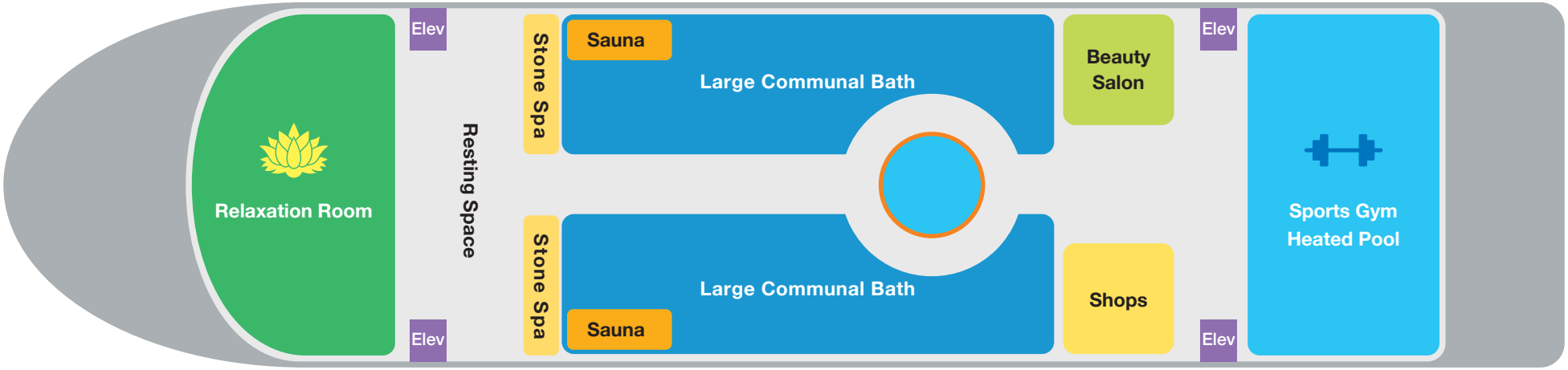
Emergency Function : Emergency Life-saving Medical Center

Operating Room	Emergency Room	Intensive Care Unit (ICU)
・Trauma surgical instruments ・Laparoscopic surgical instruments ・Angiography equipment	・Blood testing equipment ・Electrocardiogram examination equipment ・X-ray imaging equipment ・Ultrasound examination equipment	・Ventilator ・Hemodialysis machine ・Artificial heart-lung machine ・ECMO (Extracorporeal Membrane Oxygenation)
Imaging Examination Room	**Burn Treatment Room**	**Blood Transfusion Department**
・X-ray CT examination equipment ・MRI examination equipment	・Burn unit bed	**Pharmacy Department**

Peacetime Function

Future-oriented Medical Center
・Photodynamic immunotherapy ・Regenerative medicine ・Integrated medicine, etc.
Consultation Room
・Dental Clinic ・Ophthalmology Clinic ・ENT (Ear, Nose, and Throat) Clinic
Operating room
・Robotic Surgery Device
Rehabilitation Center

Example of Deck 5	Mental and Physical Maintenance Floor



Maintenance of Mind and Body

Refreshing the mind and body at the large communal bath, relaxation spaces, gym, and more

In times of emergency, it serves as a healing space for disaster victims to soothe their minds and bodies

Refreshing Life Onboard

■ Relaxation Space

・Aromatherapy, beauty treatment rooms, massages, etc.

■ Health and Beauty

・Sports gym, heated pool, beauty salon, shop for daily necessities, etc.

Image for illustrative purposes only

Large Communal Bath

■ The water in the large communal bath is obtained using a system that converts seawater into freshwater

■ Utilization of purified seawater, removing impurities

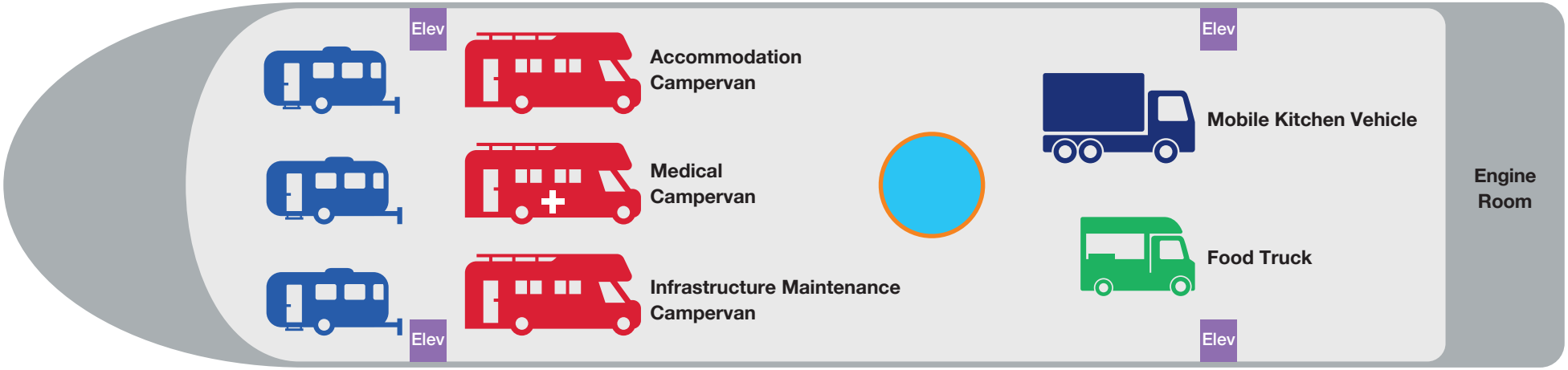
・Promotes sweating, provides thermal insulation and moisturizing effects, and has sterilizing properties

■ Heating the water in the large communal bath and heated pool

・Utilizes heat generated in the process of biomass power generation and other energy conversion methods

・Efficiently utilizes a system of water and energy circulation

Example of Deck 4	Various Vehicles for Disaster Response



Disaster Response Vehicles to Meet Demand

Campervans with enhanced features and facilities, and reliable mobile kitchen vehicles for cooking support during times of disaster

Campervan (Trailer) as a Disaster Preparedness Tool

■ Accommodation Campervan

・Utilized as living space for rescue teams

・Can be converted into patient beds depending on the disaster situation

■ Medical Campervan

・Acts as a mobile surgical facility in areas without medical facilities

・Capable of serving as a temporary field hospital

■ Infrastructure Maintenance Campervan

・Provides temporary power supply when needed

・Functions as a WiFi base station or communication base station


Reference image

Food Truck (Mobile Kitchen Vehicle) that satisfies both the heart and body with deliciousness

■ Mobile Kitchen Vehicle

・Cooks main and side dishes for approximately 200 to a maximum of 250 people within about 45 minutes

■ Mobile Kitchen Facility

・Can provide meals for 50 to 300 individuals as a standalone unit, and up to 3,000 meals per day when connected in a network

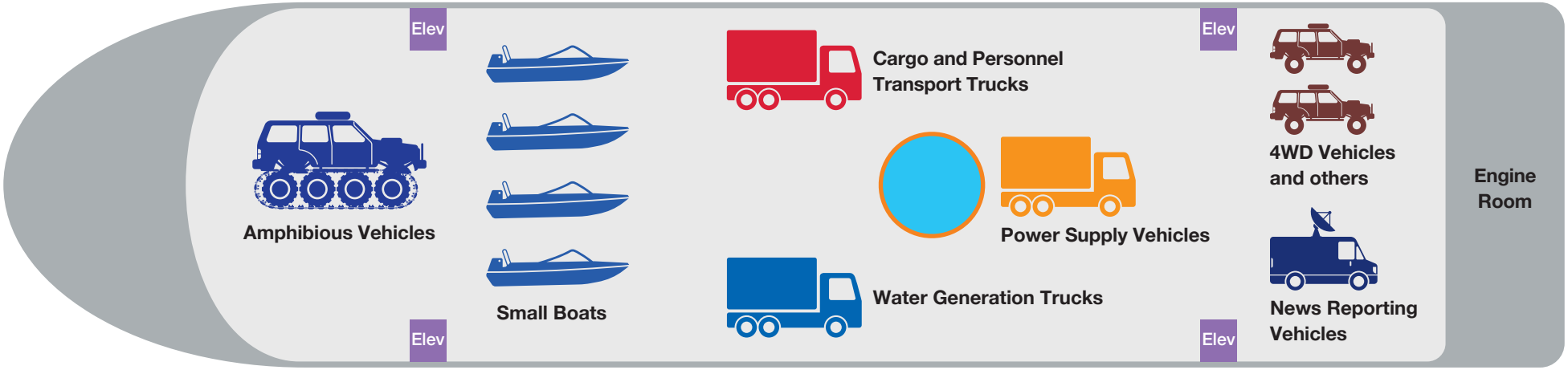
■ Reconstruction Support

・Boosts the spirits of affected individuals and supports reconstruction by lining up colorful food trucks like food stalls

・Provides warm meals to those facing food shortages


Reference Image :
Field Cooking Set No.1 (Self-Defense Forces)

Example of Deck 3	Various Vehicles and Vessels for Disaster Relief



Various Vehicles for Disaster Relief

Vehicles for disaster relief providing strong support for life-saving

Preparedness for future emergencies with a flexible and responsive rescue vehicle system

Disaster Relief Operations According to the Situation

- Rescue operations using small rescue boats in cases where ports are destroyed and ships cannot dock
- Deployment of amphibious vehicles in areas affected by tsunamis or large-scale flooding
- Provision of power supply vehicles equipped with solar power generation systems and batteries to areas where electricity and water supply are unavailable, supplying power to evacuation centers and transporting relief supplies
- Mobile freshwater generation trucks to provide safe drinking water, capable of generating 140,000 liters of drinking water per day from seawater, covering the daily water needs for approximately 45,000 people
- News reporting vehicles for obtaining and disseminating necessary information


Amphibious Vehicle Reference Image

Example of Deck 2	Cargo Hold / Storage Room / Warehouse

Storage Room for Various Equipment

Various equipment necessary for disaster relief and rescue, including daily necessities and preserved food, are stored here

3D Printer : Utilizing Additive Manufacturing (AM) Technology

Utilize 3D printers that enable high precision, high speed, and low-cost fabrication in a wide range of fields such as housing construction, parts manufacturing, medical support, and food provision.

■ Engage in housing construction efforts in disaster-stricken areas, including evacuation facilities and temporary housing, by fabricating necessary building materials on-site to minimize material waste.

■ Output car parts, engine components, and various tools on-site to facilitate emergency repairs and support operations by minimizing the need for carrying additional equipment.

■ In the medical field, contribute to the production of prosthetic limbs, output organ and bone models to assist in complex surgeries, and work towards the practicalapplication of regenerative medicine, including artificial organs.

■ Utilize 3D food printers to provide meals customized to individual health conditions, including dysphagia diets and weaning foods, ensuring food supply in special environments such as disaster-stricken areas and contributing to reducing food waste.


For Construction

Construction Site © Alfredo Milano

For Metal

Emergency Water Purification and Power Storage System

Introducing devices that can rapidly supply essential water and power during disasters

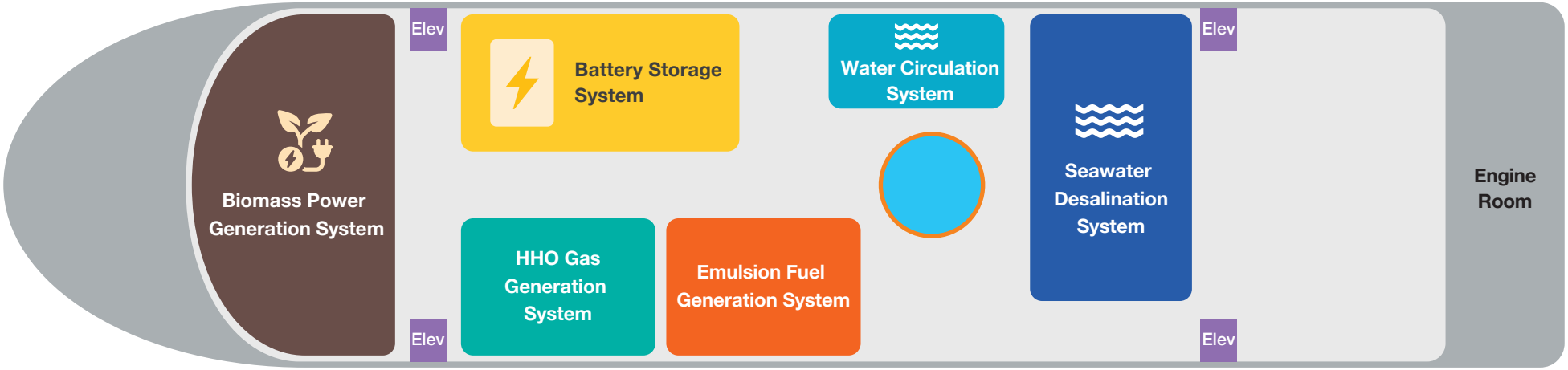
■ Capable of separating water from the air and producing drinking water

■ Water supply devices utilizing reverse osmosis membranes to produce drinking water from sources such as the sea, rivers, lakes, and pools

■ Installation of water reclamation plants for recycling domestic water, and so on

■ Large-capacity mobile storage batteries, autonomous batteries powered by solar energy, and so on

Example of Deck 1	Water and Energy Related Facilities



Shifting to Fuel and Energy with Water and Seawater as Keywords

Utilizing clean energy, next-generation energy, and circular energy The energy shift towards replacing conventional low-quality heavy oil is also progressing in ship propulsion energy

Fuel Cell

■ A power generation system that generates electricity by allowing hydrogen to react with oxygen in the air

・Boasts excellent energy efficiency and only emits water as a byproduct

■ Increasing application in marine vessels

・Installing fuel cell systems for marine vessels powered by renewable energy sources

Hydrogen Energy

■ HHO Gas

・A gaseous mixture of hydrogen and oxygen, utilizing hydrogen energy

・An alternative energy to fossil fuels (petroleum, coal, natural gas, etc.)

・Zero CO2 emissions

・The world's first virtuous cycle-type energy, which is environmentally friendly

Emulsion Fuel

■ The latest emulsion fuel, a mixture of water and oil, improves combustion efficiency by using water generated through a system that harnesses the power of water itself, resulting in fuel savings

■ The technology is already in practical use.

Converting Seawater into Freshwater - Water Circulation System -

Coexistence and mutual prosperity with the "Water Planet" Earth
More than 40% of the global population, approximately 3.6 billion people, are facing water scarcity

Seawater Desalination System

■ Utilizes solar thermal energy to remove nearly 100% of salt content from seawater

■ Technology that can also be used for salt production

■ Generates 6-8 liters of fresh water per day per square meter of evaporative dehydration disc

Reverse Osmosis Membrane Technology

■ Physically separates salt content from seawater

■ Commercialized and enables global proliferation of seawater desalination

■ Applicable to the treatment and reuse of wastewater and industrial wastewater

5. Conclusion

In this concept, we have explained mainly about two things. One is to organize an emergency rescue system to prepare for sudden disasters through the establishment of the "Multipurpose Emergency-Rescue Mobile Vessel System (MERMVS)" by consolidating and activating the "Will of Earth-Conscious Citizens", considering the Earth as one nation. The other thing is to create the future of the new Earth in harmony with the vast universe and the great nature. We have a large intention to revitalize the suffering Earth, or Mother GAIA, and to realize a peaceful and ideal society where people coexist and co-prosper with the Earth.

The most expected thing to realize that is "Recovery of Humanity" of every one of us, humankind, who carries out.

We can pave the way for the "Recovery of Humanity" by feeling the heart of GAIA, the Mother Earth.

In the future, it seems to be unavoidable to suffer from global-scale disaster caused by the change of cosmic phenomenon and man-made disasters. What we need to do in such condition that requires urgency is to establish a special team for disaster support across national borders and to organize a system to bring security and hope for people in disaster area to quickly move, relieve and rescue by utilizing future technology, the gathering of the wisdom of humankind.

MERMVS will have bases on the sea with a good access to the Circum-Pacific volcanic belt, or the Ring of Fire, that are likely to experience many natural disasters. It will also cruise around the world, holding up the light for the hopeful future to hold out a helping hand of rescue to people in the world. We might be able to say that this is exactly a leading project to get close to the heart of Earth.

With the background of this era, MERMVS, which can be a model for the world, will move forward on the sea as its stage with the basis of "Recovery of Humanity", building an inter-city communication network by the will of the people as a project promoted by the Earth-conscious global citizens.

It would be grateful if this project can be a foundation of the core system (the Earth Federation) which functions as a control center to harmonize humankind with the Earth and can contribute to its revival and hopeful future of the Earth.

Ocean Civilization Institute