

GPSS GROUP SUSTAINABILITY REPORT 2022

GPSS

Ignite your soul, not the Earth.

GPSS

Ignite your soul, not the Earth.



To realize a Sustainable Society beginning from the Local Community

We consider the gifts of nature such as: water, wind, and heat, which all exist in the local regions as the “local commons*.”

To create a sustainable society together with the local communities, we utilize these potentials that are naturally replenished.

*The term "local commons" refers to resources that are the property of the entire society and should be maintained and managed together.

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ABOUT GPSS

Message from the CEO

Who We Are

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Purpose of this Report

MESSAGE FROM THE CEO

GPSS Group is celebrating its 10th anniversary since its founding. In October 2012, GPSS was established under the former name of Japan Megasolar Inc., with the mission of reducing the cost of renewable energy and achieving a sustainable society. Despite our renewed name and business expansion beyond solar power, the root of all our activities remains the pursuit of sustainability and collective well-being. Today, we are diligently responding to the need for a varied range of sustainable energies, namely solar power, wind power, geothermal power, hydropower, and biogas.

Our vision is “To realize a Sustainable Society beginning from the Local Community”. At GPSS, we define sustainability not as affluence or prosperity but rather as a state where we can secure essential needs, such as food and energy, necessary for a sustainable life. We respond to the needs of sustainable energy consumers by utilizing the non-depleting natural resources available in the local regions while working together with the local communities. Nowadays, the ageing population and declining workforce are major challenges for societies and economies as it puts extra strain on fiscal revenues and securing human resources. Without rural villages remaining healthy, the world won’t be able to sustain itself mainly due to a lower degree of self-sufficiency. Therefore, we dedicate ourselves to partnering with local communities to support rural villages that are the backbone of our societies. Besides, Japan represents only the first step of our journey to achieve a sustainable world, seeking to expand our contribution to local communities beyond Japan.

We believe that our vision starts with close partnering with the local communities. GPSS’s unique business model enables the promotion of the development of local energy resources through the formation of a joint business. We first identify the sustainable energy potential of local communities and define it as their social common capital; then, we create joint enterprises focusing not only on power generation using solar, wind, geothermal, hydroelectric, and biogas power but also potentially on the supply of others, including thermal energy. Our business model significantly increases the probability of success in developing and commercializing local resources through sharing mutual interests with the local communities. We build joint business with local communities through long-term relationships based on mutual trust and agreement.

Sustainability is also deeply embedded within our company culture. Based on my experiences in more than 100 countries and my studies in anthropology, I constantly strive to build a company where employees can experience ultimate contentment from their work. By creating a positive and significant impact through their daily work, our employees can recognize their individual output toward achieving a sustainable society through GPSS. We also emphasize the value of diversity, as our members consist of people from all different walks of life. Our diversity enables each employee to preserve their uniqueness and have a mindset that encourages independent thinking. The variety of cultures at GPSS also inspires in-house creativity and innovation. In the future, we envision our diverse employees to be the leaders where they will be bridging local communities worldwide.

At GPSS, we are committed to continuing our initiatives and expanding our reach to more local communities. We are confident that we can become an integral and meaningful contributor to a sustainable, vibrant world.

Group CEO

Masaaki Mezaki





Our Mission:

**With Sustainable Energy* resources, which are the commons of the community,
we protect the global environment in danger,
and realize a sustainable world beginning from the Local Community**

Our Purpose:

To realize a Sustainable Society beginning from the local community

Our vision:

**Using local sustainable energy resources, GPSS contributes to improving local sustainability.
Responding the needs of sustainable energy consumers,GPSS dedicates efforts to resolve the social issues regarding stable supply of sustainable energy.**

*Sustainable energy is defined as energy that can continue to be utilized without being depleted because the resource's regeneration cycle is faster than its consumption cycle. Power generation from solar, water, wind, geothermal, waste, etc., heat utilization, fuel conversion of electricity, etc. are included.

WHAT WE DO

GPSS's raison d'etre (Purpose) is "to realize a sustainable society beginning from the local community". We believe that "sustainable" does not equate affluence or prosperity, but rather refers to a state in which people can secure the minimum energy and food necessary to continue living.

On one hand, urban areas with a high concentration of population and wealth are rich and sustainable in this sense. On the other hand, far from urban areas, many villages and local communities have become marginalized and are in danger of disappearing due to the declining birthrate, aging population, and absence of the next generations. In Japan, a country with severe demographic challenges, we run our business with a strong sense of mission: to create a sustainable society by addressing the vital needs of such communities.

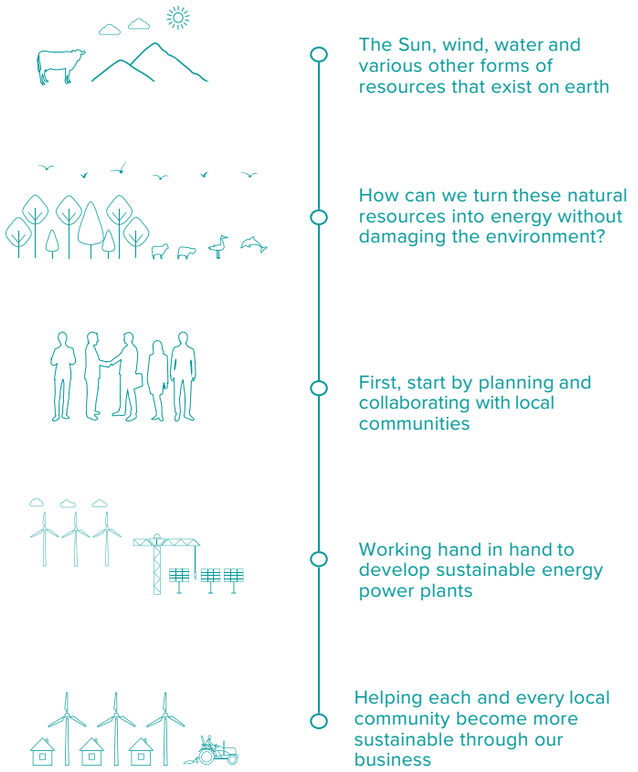
Renewable energy is a means to address such needs. We utilize the "local commons*", i.e., unused water, wind, heat, and other resources that exist in the region, and work together with the local communities (stakeholders) which are directly impacted by the projects, through establishing a joint business entity, from the beginning of development phase to investment management phase. This business model, in which a portion of the wealth of urban areas is redistributed to local communities, helps local communities to become more sustainable.

*The term "local commons" refers to resources that are the property of the entire society and should be maintained and managed together.

We are ready to provide five types of renewable energies: solar, wind, small-scale hydro, geothermal, and biogas, so as to make proposals suited to respective local conditions. Increased introduction of diverse renewable energies will decrease Japan's dependence on imported fuels, decrease security risks and stabilize the society therein, while reducing overall CO_2 emissions globally.

In addition, forest conservation and agricultural land maintenance issues almost always exist among the local community's vital needs. We will work to directly resolve these issues as well. Increasing the properly managed forests and farmland will not only contribute to improving local resilience and economic activity but will also provide valuable "nature-derived" carbon value to society.

Finally, our business model of using renewable energy to make society more sustainable can be adapted to other island countries and continents with limited resources. We aim to make the global society sustainable by delivering the best model for each region, not only in Japan but also overseas.



PURPOSE OF THE REPORT

This report covers activities and progress from 2014 to 2022 and focuses on key issues relevant to our operations and stakeholders. Our reporting approach is to focus on the key issues relevant to our business and stakeholders. Previous years' information such as our Sustainability Policy, targets and impact on the SDGs are also available online at https://gpssgroup.jp/sustainability

OUR SUSTAINABILITY POLICY AND RELATED KPIS

Based on our vision, GPSS's mission is to increase local sustainability through sustainable energy projects which utilize local resources, and to help solve the social issue of a stable supply of sustainable energy, hence creating a sustainable society beginning from the local communities. We define "Sustainable Energy" as energy that can be used continuously without being depleted, because the rate of energy consumption and production are in balance or because the rate of production is faster than the rate of consumption. Through this, we express our intention to work with energy that truly contributes to the "realization of a sustainable society".

To fulfill our vision, we need to address individual environmental, social, and governance issues through our day-to-day business activities. In addressing these specific sustainability issues, GPSS has formulated our Sustainability Policy, which sets out the material issues based on the following fundamental understanding:

- To manage adverse environmental and ecological impacts (air, water, soil, etc.) of its products/services appropriately to achieve sustainable growth in harmony with the natural environment and future generations.
- To adopt environmentally friendly initiatives such as energy conservation and GHG emission reduction, effective use of resources and reduction of waste, proper management of chemical substances and pollutants, water resource management and water conservation.
- Not to violate fundamental human rights of its stakeholders, including employees, subcontractors, and suppliers and to ensure a healthy, safe, and comfortable working environment.
- To ensure equal opportunities, to respect and value diversity and inclusion.
- To comply with relevant legislations, regulations, and industry standards relating to the prevention of bribery, strengthening corporate governance, cyber security, and protection of information.
- To ensure that any of its stakeholders, especially subcontractors and suppliers, respect the same standards.

Based on this fundamental understanding, we have identified sustainability issues that are of high importance to both our business and our stakeholders, and we prioritize these issues in our day-to-day business activities. GPSS' most important stakeholders are the local ones, represented by the communities and residents who are directly impacted by our operations.

We have narrowed down our business activities to nine material issues, which contribute to the realization of a sustainable society (relevance to society), have a positive impact on the local community (impact on the local community) or both. These material issues are represented below as GPSS Group's Materiality. To implement this policy and monitor progress, we have established an organization primarily responsible for resolving sustainability-related issues and we will continue to work with everyone in the company to realize our vision.

In order to monitor and visualize our progress in line with the Sustainability Policy, we have a selection of KPIs to accompany each material issue and show which SDGs (Sustainable Development Goals) each KPI relates to.

GPSS will review the following 9 material issues and policies as necessary considering changes in the environment and the demands of society.

Material Issue 1

Joint sustainable energy business with local communities

Relevance to society:

Our purpose (raison d'être) is to realize a sustainable society starting from the local communities. The local community will be able to realize a sustainable society with the profits from the power generation and other sustainable energy projects in which it participates as joint project partner.

Impact on the local community:

By utilizing the potential value of resources that are local commons, the local community can realize a sustainable society with the funds derived from monetization of these resources.

Number of joint projects with local communities*

5
(2022 results)

For reference: **3**
(2021 results)

Potential Capacity (MW)*

108.8
(2022 results)

57.6
(2021 results)

KPIs	FY2023	Related SDGs
Number of joint projects*	59	
Potential Capacity (MW)*	294.1	

*field PV projects excluded

Material Issue 2

Consideration for the local environment

Relevance to society:

The natural environment is a shared resource, which the local communities and residents benefit from and utilize as a local common; it can become a source of added value through our joint partnerships with the community. Therefore, it is essential for our company to apply rigorous standards for the natural surroundings at all times, when developing joint projects with the local communities.

Impact on the local community:

The preservation of biodiversity and ecosystems is essential for the survival of local communities. Our company may have an impact on the surrounding natural environment and ecosystems through the development and EPC (installation and construction of power generation and other related facilities, etc.) of sustainable energy plants.

KPIs	FY2023	Related SDGs
Number of initiatives considered to have a positive impact on the local natural environment	**1 or more** per project that began operation in the same year	
Number of nature-related issues that are considered to have a negative impact on the local natural environment	**80%** or more issues addressed for projects that began construction in the same year	

Material Issue 3

Initiatives for employees' well-being

Relevance to society:

Our purpose is to realize a sustainable society, and we regard our employees' sense of job satisfaction and happiness as a prerequisite for business activities. Our unique business model of forming joint partnerships with local communities is supported by our employees, who are deeply committed to local communities and sustainability; this greatly influences the success or failure of our business.

Impact on the local community:

Employee initiatives (and the resulting sense of fulfillment and happiness) contribute to better relationships with local communities and residents, based on long-term trust and agreements.

Achievements in 2022

Percentage of female employees (%)	27
Percentage of foreign employees (%)	15
Employees participating in and satisfaction with SustainaTalk (%)	30, 4.5/5 satisfaction score
New employees participating in sustainability training sessions (%)	82

KPIs	FY2025	FY2030	Related SDGs
Percentage of female Employees (%)	30	40	
Percentage of foreign Employees (%)	21	25	
Percentage of employees participating in (%) and satisfaction score with SustainaTalk	25 4 / 5		
Percentage of new employees participating in sustainability training Sessions (%)	80 yearly		

Material Issue 4

Engagement with suppliers

Relevance to society:

Our company has business relationships with various technology, product and services suppliers and local companies in the regions where we build power plants. Even though anti-social forces and compliance checks on suppliers are conducted as part of our risk assessment, raising awareness, and working together with our suppliers on climate change and sustainability issues is important for our risk prevention.

Impact on the local community:

By working with business partners and others who implement best practices, we can expect an indirect positive impact through enhanced sustainability literacy.

KPI	FY2023	Related SDGs
Percentage of Sustainability declarations signed	**100%** for new business partners	

Material Issue 5

Improving resilience to climate change and disasters

Relevance to society:

The physical effects of climate change and natural disasters can have a significant impact on our assets (e.g., power plants). Therefore, ensuring resilience is essential for achieving a stable and secure sustainable energy supply.

Impact on the local community:

Climate change and natural disasters can strike regions with significant destructive power and severely impact the overall sustainability of the region.

KPI	FY2023	Related SDGs
Number of geothermal and hydro energy storage projects	Proposals: 2 Feasibility study: 1	

Material Issue 6

Greenhouse gas emissions

Relevance to society:

As climate change regulations and changing societal expectations (from consumers, businesses, and governments) require and encourage reductions in GHG emissions, providing a stable production and supply of sustainable energy, that does not emit GHG emissions, represents an important growth opportunity for our company.

Impact on the local community:

GHG emissions negatively contribute to climate change and can cause long-term damage not only to local communities, but also to the whole of humanity.

Annual CO_2 reduction (t-CO_2)

58,636
(2022 results)

For reference: **40,974**
(2021 results)

KPI	FY2023	Related SDG
Annual CO_2 reduction (t-CO_2)	**62,703**	

Material Issue 7

Efficient use of waste and resources

Relevance to society:

In Japan, where resources are limited, waste and resource management are essential for us to continue our operations in a sustainable manner. Reducing waste will be more cost-effective and we recognize the potential of waste as a resource as well.

Impact on the local community:

While managing waste contributes to solving social issues in communities with waste problems, management must be done carefully as waste from our construction, operations, and other activities can have a harmful impact.

KPIs	FY2023	Related SDGs
Annual construction site waste (tones)	Target to be set for April 2023	
Amount of waste reused as biogas fuel (tones) (WTP)	NA (Operation expected in FY2026)	
Amount of energy produced from waste ('000 kWh)	NA (Operation expected in FY2026)	

Material Issue 8

Forests

Relevance to society:

Sustainable forest management can contribute to solving local resilience issues. At the same time, by monetizing the CO_2 absorption from forest resources as credits, including through tokenization, our company is preparing for the national introduction of carbon tax and the establishment of an emission trading system. We believe that increasing the quality and quantity of Japanese trees will facilitate carbon removal from the atmosphere and will also contribute to net zero goals.

Impact on the local community:

Our company can contribute to minimize negative impacts on local industries stemming from forests not being properly managed. With more forests that can absorb more carbon, communities will also become healthier.

KPI	FY2030	FY2040	FY2050	Related SDG
Forest area owned and managed (ha)	500	2,000	5,000	

Material Issue 9

Safe and stable supply of sustainable energy

Relevance to society:

Our company is fulfilling the mission to create our own sustainable energy sources, including electric power, and to supply them safely and stably to consumers. Therefore, we will focus on achieving an optimal energy mix, including securing baseload power sources that are not subject to fluctuations, effective utilization of thermal energy, and sustainable power-to- fuel conversion and supply (hydrogen and methanation).

Impact on the local community:

Indirect impacts on the domestic power grid caused by safer and more stable electricity and sustainable energy are expected. In addition, our company believes that the promotion of local production of sustainable energy for local consumption will contribute to further improving the sustainability of the region.

Estimated total electricity generation by project agreed by stakeholders involved ('000 kWh)

22,688	19,798
(2022 results)	(2021 results)

KPI	FY2023	Related SDGs
Estimated electricity generation by baseload power projects gained stakeholder agreement this year ('000 kWh)	127,667	



Environment

Strength in numbers

Consideration for the Local Environmental

Forests

Greenhouse Gas Emissions

Efficient use of Energy and Resources

STRENGTH IN NUMBERS

345,000,000 + kWh
Generated since 2014*

162,000 + t-CO_2
CO_2 emissions avoided since 2014

200 + MW
Renewable energy installed/ in installation*
(Power plants owned by other companies are included)

*As of October 2022

Since 2014, we have cumulatively generated more than 345,000,000 kWh, equivalent to powering more than 29,300 households. Based on this renewable energy capacity, as of October 2022 we have displaced more than 162,000 t-CO_2 emissions since 2014.

Energy Indicators	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Total cumulative owned capacity in Operation (MW)*	8.9	26.5	45.8	62.4	93.4	128.9
・Solar (MW)	8.9	26.5	44.9	61.5	92.2	127.6
・Geothermal (MW)	-	0.1	0.9	0.9	1.2	1.2
・Hydropower (MW)	-	-	-	-	-	0.2
Annual Renewable Energy Generated ('000 kWh)**	12,799	18,723	36,519	56,175	86,579	119,002
Annual CO_2 Emissions avoided (t-CO_2)***	3,780	9,401	17,915	26,684	39,626	53,908

Table 1_Energy Indicators
*Only power plants owned by the company
**Total of power generated by each power station multiplied by the station's equity share
***Share of electricity generated (kWh) x National CO_2 coefficient (t-CO_2/kWh) published by the Ministry of the Environment

CONSIDERATIONS FOR THE LOCAL ENVIRONMENT

Our core activities depend on natural resources. To continue decreasing reliance on fossil fuels and increase Japan's energy self-sufficiency, we must protect and care for the environment around us. With Sustainable Energy resources, which are the commons of the community, we protect the global environment in danger, and realize a sustainable society from the local community. GPSS uses the "commons" to create a sustainable world beginning from the local communities.

In order to ensure efficient protection of the local environment, starting with fiscal year 2023, we will monitor the number of initiatives considered to have both positive and negative impacts on the local natural environment for our projects. Starting with 2022, for projects that began operation each year, we aim to identify at least one initiative considered to have a positive impact on the local natural environment. At the same time, for projects that began construction in the same year, we aim to identify nature-related issues considered to have a negative impact on the local natural environment and to address 80% or more of such issues.

Biodiversity protection

As a responsible infrastructure operator, we seek to minimize our impact on natural resources and biodiversity as much as possible. GPSS has taken several initiatives throughout the entire value chain from development to procurement, construction, and operation. Firstly, we conduct environmental assessments to adhere to the local laws and regulations and when needed we ensure the mitigation of environmental risks associated with projects in development. In addition, we ensure the well-being of the surrounding local communities to minimize risks, as it is crucial to enable a sustainable business process.

In cases where the power plant construction area is greater than 1 hectare and considerable landscape changes are planned, various assessments are conducted to ensure minimizing negative effects on the surrounding environment. For bigger power plants (such as wind power and large PV plants), we conduct environmental assessment to analyze the effect on habitats and species to be able to adapt design of the plant when deemed necessary.

The following table shows cumulative figures for power plants larger than 1 hectare, and for biodiversity protection.

Biodiversity Indicators	FY2019	FY2022	FY2021	FY2022
Total surface area of power plants bigger than 1ha in operation per year (ha)	19	22	36	54
Removed habitat ratio (%)	64	75	68	59
Protected habitat ratio (%)	31	14	25	27
Restored Habitat ratio (%)	1	0.1	3	8

Table 2_Biodiversity Indicators (rounded to the nearest indicated unit)

While we conduct an environmental assessment for wind power projects which is outsourced to an external consultant, we additionally receive a second opinion from a third-party specialist of endangered bird species when the plant is nearby locations where these birds have been recorded to live. We sought advice for several projects currently in development and are planning to adjust our plant design accordingly to minimize negative impact. We are planning to receive advice from a third-party specialist for all our future projects.

FORESTS

Sustainable forest management can contribute to solving local resilience issues, as proper maintenance reduces the likelihood of natural disasters occurring and increases forest carbon sequestration. Sustainable forest management not only contributes to CO_2 emissions reduction from deforestation and forest degradation and increase in CO_2 absorption, it also protects biodiversity and preserves the quality of water and soil. GPSS aims to contribute to the protection and living standards of local communities and livelihoods by increasing the resilience to natural disasters through maintenance and management of forests.



Japan Forest Trust

The company has established the Japan Forest Trust Ltd. with the goal of “protecting the global environment in danger with forest resources, which are the commons of the regions, and realizing a sustainable world from the local communities”. The company will own forests directly or indirectly through funds and continue to properly manage the forests. In addition, we will also issue carbon credits, which will create a virtuous circle for the sustainable management of forests.

Chinju no mori Project

The Guardian Forest Project Public Interest Incorporated Foundation is a public interest incorporated foundation that spreads the wisdom of the "Guardian Forest", which is to create rich forests that are composed of diverse types of deep-rooted trees that can protect the regional ecology, biodiversity, and the local community from natural disasters.

With the alignment of goals with the "Chinju-no-Mori Project", since 2013, GPSS has been supporting the initiative through partnership. In 2022, we have collaborated with professional academics of the "Chinju-no-Mori Project" to create a forest in one of our power plants, "Sukawagawa Small Hydropower Plant". The joint initiation is to promote the ecology of the area and to protect nature and the local community from possible natural disasters.



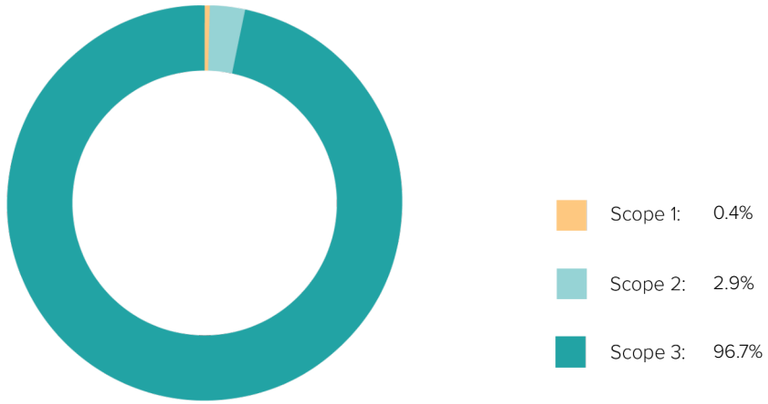
鎮守の森のプロジェクト

GREENHOUSE GAS EMISSIONS

As producers of renewable energy, we are aware of the impact of our own energy use through our business activities. We have calculated our Scope 1, 2 and 3 emissions based on “Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain (ver.2.4)” developed by the Ministry of the Environment and the Ministry of Economy, Trade and Industry Government of Japan. The database of emission factors we have referenced is "Emission intensity unit database for calculating greenhouse gas emissions of organizations through supply chain" from Ministry of Environment. We will continue to measure our emissions with a view to decreasing our CO_2 impact.

GHG Emissions Indicators	FY2020	FY2021	FY2022
Total scope 1 GHG emissions ($t\text{-}CO_2$) *	84	100	36
Total scope 2 GHG emissions ($t\text{-}CO_2$)	152	183	234
Total scope 3 GHG emissions ($t\text{-}CO_2$)	3,584	5,386	7,821

Table 3_GHG Emission Indicators (rounded to the nearest indicated unit)
*Excluding subcontractors' fuel consumption at construction site



Graph 1_GHG emissions for Fiscal year 2022

EFFICIENT USE OF ENERGY AND RESOURCES

We strive to reduce our use of fuels and materials during construction and operation phases, as stated through our official sustainability targets. We actively report the material waste which is produced during the construction phase to local authorities, and internally monitor our yearly waste output.

Waste and Fuel Indicators*	FY2020	FY2021	FY2022
Total solid waste including recycled waste (t)	155.9	321.4	148.3*
Total solid waste generated per MW in construction (t/MW)	4.3	5.1	2.4*
Fuel consumed (ℓ)	33.1	39.1	13.9
Purchased energy ('000 kWh)	318	398	516

Table 4_Waste and Fuel Indicators (rounded to the nearest indicated unit)
*By the end of March, 2022



Society

Joint Renewable Energy Business with Local Communities

Engagement with Suppliers

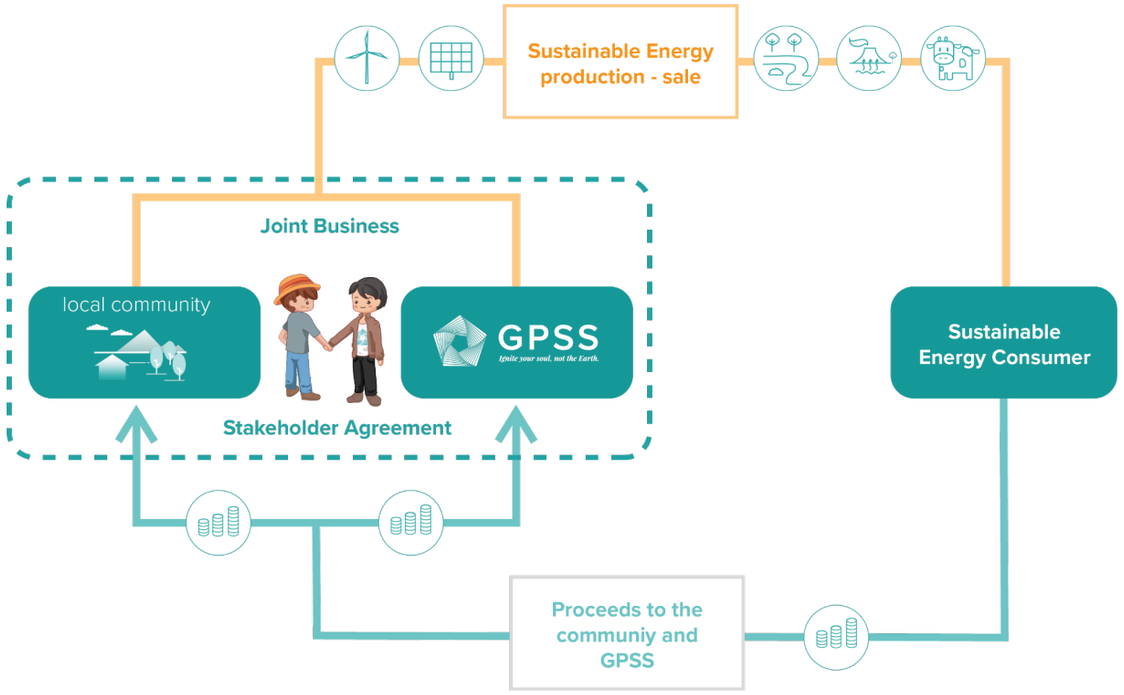
Safe and stable supply of Sustainable Energy

Initiatives for employees' well-being

Health and Safety

JOINT RENEWABLE ENERGY BUSINESS WITH LOCAL COMMUNITIES

We strive to work in harmony with the local communities. At GPSS, we believe that true sustainability comes from long-term lasting relationships with local communities, as they represent the major stakeholders in our renewable energy projects. GPSS' unique community-based approach enables us to promote the development of local energy resources by the formation of joint business with our local stakeholders, based on trust in long-term relationships and agreements.



Each of our power plants are built in collaboration with the local community. These are four examples of our local community partnerships:

Genkawa Fukuchihara Solar Power Project, Okinawa Prefecture

Genkawa Fukuchihara solar power is located in Okinawa Prefecture and represents Japan's first solar sharing with cacao cultivation project. Also known as "Sustainable Cacao", it is a project realised through joined partnership with Local Landscape company, which cultivates cacao on the fields of Okinawa and manufactures and sells chocolates locally to the residents of the Okinawa prefecture. Solar sharing is the simultaneous operation of agriculture and power generation using solar power installed on farmland, as it can be seen in the picture from the "Sustainable Cacao" project.



Even though cacao is usually cultivated in the tropics, the "Sustainable Cacao" project utilizes the solar panels as sunshade for growing cacao in the local community while generating sustainable energy from the local commons known as the Okinawan sun. The "Sustainable Cacao" power plant commenced operation in August 2020, with a generating capacity of 50 kW and an annual electricity generation of 600 kWh.



For more details, please visit: https://gpssgroup.jp/okinawakakao/

Sukawagawa Small Hydropower Project, Gunma Prefecture

In the joint partnership project with the "Kami-Iwabuchi Water Irrigation Association" in Gunma Prefecture, Japan Hydro-Power Development Inc. (JHD), a member company of GPSS Group renovated an almost 100-year-old power plant that had ceased operation due to discontinuance. In July 2022, the renovated power plant commenced operation with a generating capacity of 195kW output power and an annual power generation of 984,000 kWh. The water intake weirs and canals were also improved during the renovation, making it easier for local residents to access irrigation water.



The Sukawagawa Small Hydropower Project also contributes to the maintenance and development of local agriculture through the benefits returned to the local community.



For more details, please visit:
https://gpssgroup.jp/gpss-group-unveiling-ceremony-to-be-held/

Community Power Generation Matsunoyama Onsen Project, Niigata Prefecture





Matsunoyama Onsen Project is a joint venture with hot spring operator in Matsunoyama and GPSS Group. Our strong partnership has provided us with a significant advantage in facilitating the relationship with another local stakeholder, Tokamachi city. As a result, Matsunoyama Onsen commenced trial operation in April 2021, with a capacity of 280 kW and an annual electricity generation of 1.24 million kWh. In addition to the power generation business and the maintenance services provided by the GPSS Group, the project also aims to enable the effective use of limited underground resources. Thus, the hot water that was used for power generation is subsequently used as hot water for the hot spring spa.

For more details, please visit:
https://gpssgroup.jp/matsunoyama-orc-eng/

Higashi Izu Furusato Wind Farm Project, Shizuoka Prefecture



Since December 2003, the Higashi Izu Wind Farm, operated by Higashi Izu Town and a well-known symbol of the "Eco Resort Town" of Higashi Izu, has been decommissioned due to the aging of its wind turbines. In February 2018, Higashi Izu Town and GPSS Holdings signed a basic agreement on joint verification of project feasibility. The power plant will continue to serve as a symbol of the town and a step toward achieving a sustainable society. The Higashi Izu Wind Farm has a planned generating capacity of 7,480 kW.

ENGAGEMENT WITH SUPPLIERS

We are committed to improving our procurement process in line with our sustainability policy. Suppliers are one of our key stakeholders, and we have a view to work together to inspire a more sustainable value chain. To ensure responsible procurement and sustainable supplier engagement, since 2022, we have included sustainability criteria for our partners. Through the sustainability criteria, our partners are asked to respect international sustainability principles and support our vision.

SAFE AND STABLE SUPPLY OF SUSTAINABLE ENERGY

We, as a renewable energy producer, are still in its transformation phase, transitioning from a renewable power producer to a fully-fledged sustainable energy company, handling broader energy sources. We actively participate in various markets, including baseload electricity, heat, and fuel (such as hydrogen and methanation), to improve stable low-emission energy supply.

Safe and stable supply of sustainable energy indicators	FY2021	FY2022
Annual electricity generation from baseload power ('000 kWh)	458	1,351
Estimated annual electricity generation by baseload power projectes gained stakeholder agreement this year ('000 kWh)	19,798	22,688

Table 5_Safe and stable supply of sustainable energy indicators

Waste Heat Recovery

By reusing heat energy that would otherwise be disposed of or simply released into the atmosphere Waste Heat Recovery systems reduce CO_2 emissions and energy costs while improving energy efficiency. GPSS works diligently through strategic partnerships with market leading technology providers to facilitate the access of such systems to local communities all over Japan.

Sanko Binary Powerplant

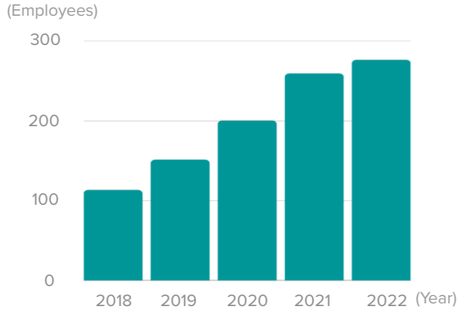
The plant was already equipped with a screw expander generator powered by steam to recover the waste heat from the waste incinerator. However, even after passing through that generator, the heat energy emitted still had room to be recovered, so GPSS Engineering installed a binary generator PC280 in series with the system to generate electricity using the unrecovered thermal energy. This system is expected to lead to a reduction in CO_2 emissions.

INITIATIVES FOR EMPLOYEES' WELL-BEING

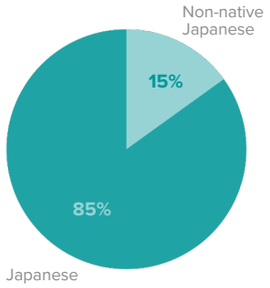
At GPSS, we value that our employees can express their individuality while adhering to the common GPSS vision and culture. Therefore, we plan to integrate Diversity and Inclusion into our business strategy, which will not only to improve the work environment as described above, but also lead to improved financial returns.

Employee Indicators*	FY2018	FY2019	FY2020	FY2021	FY2022
Total number of employees	113	151	200	259	276
Female employee ratio (%)	23	26	25	27	27
Employees with disabilities	1	1	1	2	4
Non-native Japanese employees ratio (%)	16	16	19	15	15

Table 6_Employee-related Indicators (percentages rounded to the nearest indicated unit)
*Part-timers, interns included



Graph 2_Total number of Employees



Graph 3_Distribution of Nationalities (as of October 2022)

We believe that all forms of diversity are important, and as an example of this, the Group currently has employees from 27 different nationalities. We have active diversity initiatives when it comes to recruitment, from hiring people with different backgrounds and nationalities, as well as different age groups.

To promote smooth communication in a culturally diverse workplace, Japanese classes are provided during business hours. As of October 2022, 76% of the non-native Japanese employees are participating. To support employee self-development GPSS also provides a subsidy for the personal use of English and Japanese language study.

GPSS Society Activities

We strive to engage with our employees because we value their health, happiness, and creativity. "GPSS Society Activities" enables our employees to enjoy their collective favorite activity in a diverse environment. The current society activities at GPSS vary from Sustainable Handmade Workshops and GPSS Book Club to GPSS Tennis Circle and Sustainable Football.









Sustainability Sessions – “SustainaTalk”

Our vision of a sustainable society is not easy to make one’s own, and as such, GPSS strongly values and supports employee engagement with sustainability. Every two weeks, employees have the opportunity to join the “SustainaTalk” sessions designed by a committed team to stimulate discussion and learning on selected sustainability-related topics. External guest speakers and internal subject experts contribute to a variety of session formats including panel discussions, interviews and lectures.

This is an opportunity to learn more about topics ranging from biodiversity and greenwashing to diversity and inclusion in the workplace. Employees have a space where they can ask questions, enhance their sustainability knowledge, and interact with colleagues beyond their immediate team.

GPSS employees can all participate, regardless of their location and time-constraints thanks to the online nature of the sessions and the video recordings available after the sessions. All sessions are bilingual, with English and Japanese interpretation available in real time.



Employee Training

We believe that sustainability is possible through the development of our people. This is why we invest in continuous employee development and training, such as the initiatives below.

Sustainability Training



For our new employees, we hold SDGs training sessions conducted by our certified SDG facilitator. The training’s purpose is to understand the importance and complexity of the Sustainability Development Goals (SDGs) and each individual's role in creating a sustainable society. The training includes an introductory seminar on the SDGs and an in-person, multiplayer, card-based game "2030 SDGs Game". Another sustainability training for new employees is “What is Sustainability with LEGO” workshop, where participants are asked to reflect on sustainability and the sustainable energy industry in a creative way.

GPSS Young Leaders Program



To nurture the next generation of leadership for the realization of a sustainable society, we are implementing training for selected young employees in their 30’s and younger. The purpose of the training is to provide an opportunity to build friendships through constructive discussions with others and to support the growth and development of young leaders through dialogue with senior management. As a result of the training, the participants are equipped with the fundamentals of leadership, such as finance and business strategy skills and can demonstrate their leadership and influence on the organization and society.

• Sustainabilist Training Camp



In 2022, GPSS also held its first Sustainabilist Training camp, with the aim of developing human resources who can achieve the vision of GPSS to realize a sustainable society beginning from the local communities. To further consolidate our strength in developing partnerships with local communities, the camp targeted young employees who will become the next leaders of GPSS. In our view “sustainabilists” are regional professionals nationwide, with strong organizational skills based on a strong sense of empathy for the community and sustainability. The camp represents an opportunity for participants to become “sustainabilists” and to exchange knowledge and insights with each other.

• Sustainable Jam Making Workshop





In September 2022, GPSS employees participated in a sustainable rose hip jam making workshop hosted by the Sophia Phytotherapy College. The workshop utilized the Japanese rose called “hamanasu” planted by Millenium Hope Hill Hamanasu Organization. “Hamanasu” (also known as Rugosa rose), is the Japanese rose which naturally grows on sandy beaches in Ibaraki Prefecture. “Hamanasu” was highly affected by the Great East Japan Earthquake and following tsunami, with the few remaining roses on the Tohoku disaster-stricken coast being now under protection. GPSS employees have previously participated in the Iwanuma City Millennium Hope Hill Tree Planting Festival for local disaster mitigation and forest preservation, which helped reintroduce more hamanasu to the area.

“A few years ago, I participated in the Iwanuma City Millennium Hope Hill Tree Planting Festival. I was very happy to have the opportunity to help nature by planting trees. Among the saplings we planted at that time were hamanasu. Making delicious rosehip jam together with the other participants was a great experience. We used fruit from the hamanasu at the Millennium Hope Hill, so it felt like I was using the fruit of the hamanasu I planted myself and was able to feel the cycle of nature”, a GPSS employee commented on these experiences.

The revenue from the rose hip jam making workshop is donated to the Great East Japan Earthquake Relief Fund of Iwanuma City, Miyagi Prefecture, thus also contributing to the sustainable future and preservation of the hamanasu.

• ESG Training by CSR Design

CSR DESIGN **CSR Design Green Investment Advisory Co., Ltd.**

Through our yearly consultancy contract with ESG specialists, we organize an annual ESG investment and sustainable finance training designed to ensure that our sustainable vision is well transmitted and integrated among our employees equally, including our dedicated employees in the ESG and Sustainable finance department.

• Our certificate holders



GPSS also provides ongoing support for obtaining certifications necessary for business

Type 1 Chief Electrical Engineering Examination :	1
Type 2 Chief Electrical Engineering Examination :	5
Type 3 Chief Electrical Engineering Examination :	6
Level 1 Electrical Construction Management Engineering :	9
Level 1 Civil Construction Management Engineer :	13
Level 1 Construction Management Engineer:	4
Level 1 Architectural Construction Management Engineer:	2
Level 1 Landscape Construction Management Engineer:	1
Level 1 Electrician :	10
Level 2 Electrician :	14
First Level Architect :	2
First Level Boiler Engineer :	2

HEALTH AND SAFETY OF EMPLOYEES

Health and Safety at GPSS covers employees, contractors, and local communities. We seek to ensure the highest safety standards for our employees. At GPSS, there are 2 entities that are responsible for the assessment, implementation, monitoring and reporting of Health and Safety of employees, fieldworkers and contractors: the Health and Safety Management Group and the Health and Safety Committee.

Health and Safety Management Group

The Health and Safety Management Group conducts regular “health and safety patrols”, which are monthly site inspections at our power plant sites where guidance on hazardous areas and dangerous work is provided. During the patrols, initiatives to prevent accidents and occupational injuries before they occur are also being taken. “Engineering Health, Safety and Environment Meetings” are carried out by the Health and Safety Management Group once every two weeks for all site personnel. Some of the themes covered are refurbishment of photovoltaic power plants, seasonal national safety campaigns, environmental laws specific to power plant construction, health management specific to winter season and handbooks for hazardous work. The Group also holds mandatory training sessions with new employees where rules and safety measurements are explained, and special training sessions.

Some examples of trainings by the Health and Safety Management Group include:

- Special training on grinding wheels
- Safety and health training for brush cutter operators
- Special training on the use of full-harness safety belts

Promoting health at work in 2022 and beyond

Through the initiative of promoting good health habits and preventing occupational illnesses, annual Health Checks are conducted on all employees.

Furthermore, through the recent outbreak of the coronavirus pandemic, GPSS has been efficient in adapting to necessary measures such as the promotion of proper sanitary manners, regular distribution of N95 masks to all employees, chronic usage of disinfecting sprays in all working spaces and the option of remote work. In addition, there are regular air pollution controls by a third party within the office space to improve air quality and ensure the best environment for employees.

This has also led to the reexamination of the working style and further discussions to create a more flexible work environment adapted to each employee and therefore a better work life balance.





Health and Safety Committee

The Health and Safety Committee ensures the management of the health and safety of employees in the office and during business trips. The Committee investigates and deliberates on matters relating to the prevention of occupational accidents and their recurrence, basic measures for preventing hazards and other matters relating to health and safety.

Some of the main activities carried out by the Health and Safety committee this year are lectures by industrial physicians, regular workplace inspections, reporting on employees working long hours and on the occurrence of occupational accidents.

Occupational accidents*	FY2019	FY2020	FY2021	FY2022
Number of fatalities	0	0	0	0
Work-related injuries with more than one day of absence	1	2	1	2
Total number of days of sick leave	3	120	3	18

Table 7_Occupational Accidents Indicators
*Only employees engaged in construction



Governance

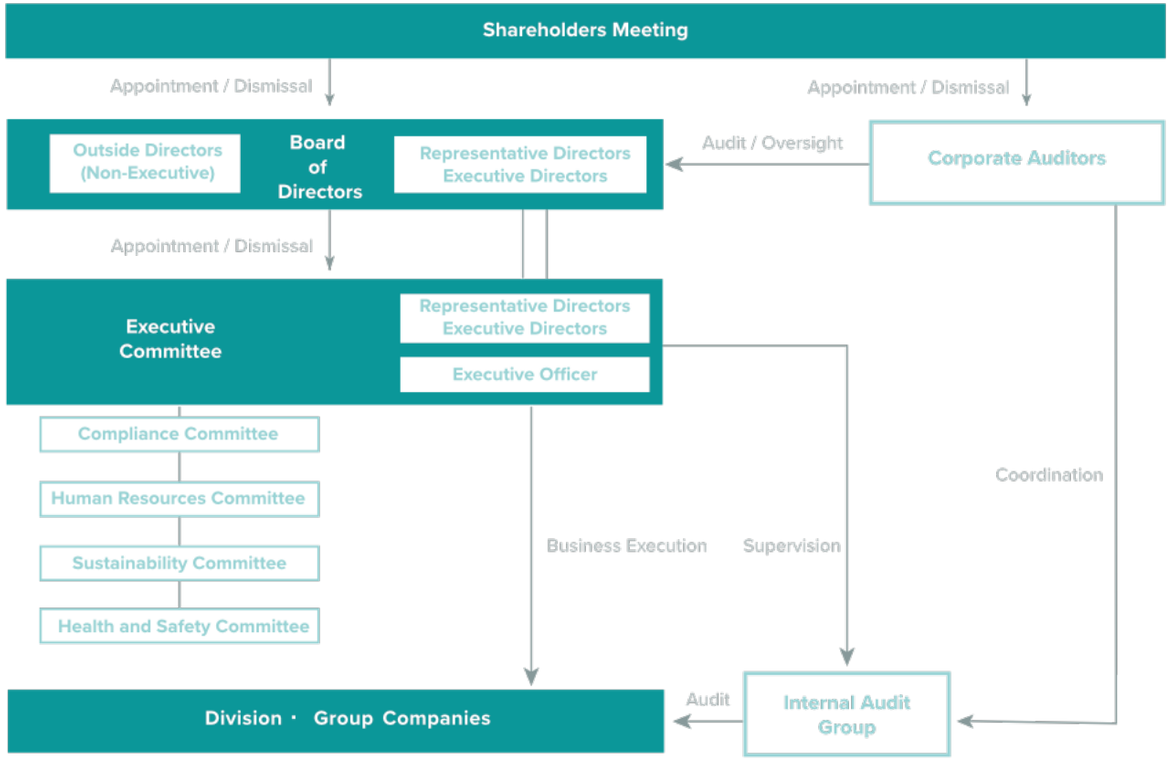
Corporate Governance Structure

Sustainability Governance

External Evaluation and Membership

OUR CORPORATE GOVERNANCE STRUCTURE

GPSS Group conducts a wide range of business through its operating companies. As a holding company, GPSS Holdings Inc. (hereinafter referred to as HD) has established the following governance structure to ensure the appropriateness of group-wide operations and to promote business development.



HD Board of Directors

The HD Board of Directors is responsible for making decisions on important business operations and statutory matters of the GPSS Group, as well as supervising the execution of duties by the directors. Currently, the Board of Directors consists of eight directors, five of whom are outside non-executive directors with deep experience and insight in corporate management and/or the energy sector, and the remaining three are representative directors and an executive director. The Board of Directors meets monthly in principle, and lively opinions are exchanged at each meeting.

HD Corporate Auditor

HD Corporate Auditor is responsible for auditing the execution of duties by directors, as well as for conducting business and accounting audits. Currently, we have an outside auditor who is knowledgeable and experienced in corporate management and finance.

Advisory Board

In addition to many outside directors, GPSS Group has various experts from outside the company to serve as advisors to the Senior Management in order to obtain valuable advice on management and business operations, which we call the Advisory Board.

HD Executive Committee

The HD Board of Directors has established the Executive Committee, which is the highest decision-making body of the GPSS Group at the executive level. The Executive Committee is chaired by the President and CEO of HD.

The Executive Committee has established committees thereunder to ensure effective group governance, including the Compliance Committee, the Human Resources Committee, and the Sustainability Committee (see below).

Co-CEOs

The HD Board of Directors designates the President and CEO of the HD and one representative director or executive director of the major group companies, as "Co-CEOs" of the GPSS Group. The Co-CEOs oversee the day-to-day operations of the GPSS Group companies in accordance with the management policies, rules and regulations, and other important matters established by the HD Executive Committee.

SUSTAINABILITY GOVERNANCE



Sustainability Committee

Responsibility for ESG, sustainability, and thereby climate-related issues lies with the Sustainability Committee. The members of the Sustainability Committee include the Representative Director and CEO of GPSS Group, all members of the HD Executive Committee of GPSS Group including the Chief Sustainability Officer (the supervisor of the Sustainability Promotion Group). At the discretion of the Chairperson, the Committee may, as necessary, invite non-members to attend a meeting and seek their opinions or explanations. The Sustainability Committee has been established under the HD Executive Committee as provided in Sustainability Policy which was adopted by the HD Board of Directors in order to promote proactive and efficient responses to sustainability issues.

The Sustainability Committee's purpose is to review and manage specific targets and activities regarding sustainability issues throughout the GPSS Group's business activities. The Committee's activities are conducted in accordance with the Sustainability Policy, including establishing sustainability-related targets and measures, monitoring progress and reporting, and solving issues when progress is unsatisfactory. Specifically, the Sustainability Committee will work on areas such as collaboration with local communities and engagement with suppliers and partners to promote sustainability, response to climate-related risks and opportunities to strengthen resilience.

Sustainability Promotion Office

The Sustainability Promotion Group is taking the role of secretariat of the Sustainability Committee, which is responsible for leading and promoting various activities to facilitate and coordinate all relevant divisions of GPSS Group.

EXTERNAL EVALUATION

Voluntarily responded to the CDP's Climate Change Questionnaire

Carbon Disclosure Project (CDP) is an international not-for-profit organization that runs the global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts. For 2022, GPSS voluntarily responded to the CDP's climate change questionnaire in order to improve our climate change response and prepare for the future disclosure in line with the TCFD. Learn more at https://www.cdp.net/en/.

Highest "Green 1 (F)" Rating Awarded to GPSS

GPSS Holdings Co., Ltd. has been awarded the highest rank of "Green1 (F)" by the Japan Credit Rating Agency, Ltd. (JCR), for establishing the first Green Finance Framework. Specifically based on the JCR Green Finance Evaluation Method, GPSS Holdings' "Greenness Evaluation (Use of Funds)" is set to "g1 (F)" and its "Management / Operation / Transparency Evaluation" is set to "m1 (F)". As a result, the highest rating was awarded via a comprehensive evaluation.
This framework is a policy that describes the philosophy and procedures of GPSS Holdings' Green Finance (issuing green bonds and borrowing green loans based on this framework). Specifically, GPSS Holdings will raise funds through Green Finance, which is stipulated for use in projects that have a positive effect/ improvement on the environment.

MEMBERSHIPS

GPSS joined Long Term Infrastructure Investors Association (LTIIA). Their vision is to facilitate and promote private investment in infrastructure which enables long-term, sustainable development of communities, countries and regions.

We are a member of the Renewable Energy Association for Sustainable Power supply or REASP, a business organization that aims to promote renewable energy as a main power source and to ensure the long-term stable supply of affordable clean power.

The ” Foundation Guardian Forest Project Public Interest, Inc.” is modeled after the “Guardian Forest” that saved people's lives during the Great Eastern (Kanto) Japan Earthquake, and the Great Hanshin Earthquake, and prepared a regional green infrastructure to coexist with nature. We are engaged in forest-building activities to protect the community and livelihoods from disasters.

GPSS is a premium sponsor of the Japan Sustainable Investment Forum (JSIF). JSIF is actively promoting and developing sustainable investments (SRI and ESG investments, etc.) that are actively carried out in Europe and the United States.



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Issued in January 2023