

Initiatives to Protect the Environment

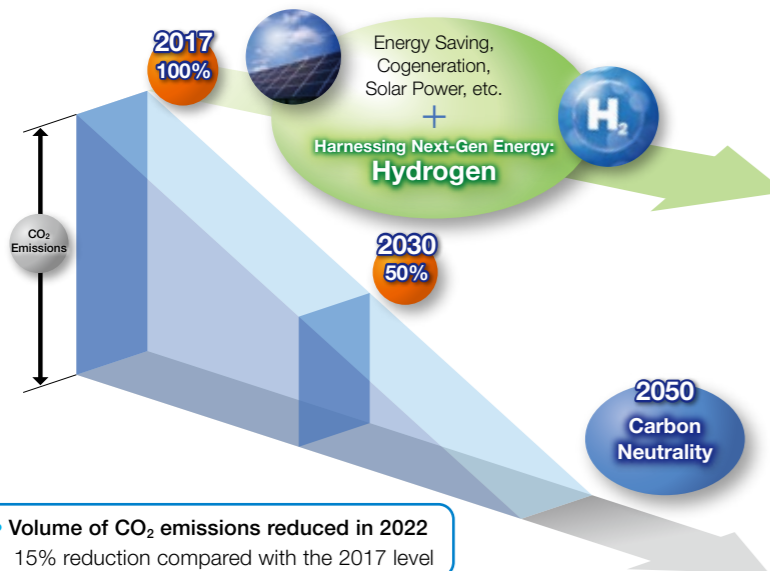
Initiatives to Achieve Carbon Neutrality

Initiatives to Reduce Scope 1 and 2 Emissions

The Sumitomo Rubber Group has identified a target of halving its Scope 1 and 2 CO₂ emissions by 2030 (compared with the 2017 level) and achieving carbon neutrality by 2050. To this end, each base has undertaken the preparation of carbon neutrality scenarios that include the installation of energy-saving facilities, the expansion of cogeneration systems, the introduction of solar power generators, a shift to the procurement of green energy and the adoption of hydrogen as an alternative fuel. If the reduction of CO₂ emissions

progresses in line with these scenarios, we will be able to halve our CO₂ emissions in 2029, a year ahead of schedule.

To raise awareness among employees, we also launched an intranet website that disseminates informational videos on carbon neutrality. Furthermore, as part of efforts to nurture a keen awareness of the need to protect the Earth's environment into the future among younger employees, we host roundtable talk events in which new recruits are invited to discuss carbon neutrality.



An intranet website created by employee suggestions as part of feedback gleaned via questionnaires targeting new recruits

• Volume of CO₂ emissions reduced in 2022
15% reduction compared with the 2017 level

Note: Figures are calculated using CO₂ emission factors in 2017 as a fixed coefficient

Utilizing Hydrogen in Tire Manufacturing

As part of initiatives to achieve carbon neutrality, a project is now under way to switch from natural gas to hydrogen as the fuel used to produce steam for curing, an essential part of tire manufacturing process.

This project is subsidized by the New Energy and Industrial Technology Development Organization (NEDO), with verification testing under way since August 2021 at our Shirakawa Factory in Shirakawa City, Fukushima Prefecture.

The specific aim of this project is to supply steam for the curing process that is produced by hydrogen-fired boilers to our leading-edge NEO-T01 Manufacturing System, which employs a high-precision metal core and enables the production of tires boasting extremely high

performance with a compact, streamlined process. We have also introduced a set of solar power generators with a large enough capacity to supply the electricity needed to run the entire NEO-T01 production line. Employing these energy sources, in January 2023 we launched Japan's first mass-production tires manufactured via a carbon neutral process as defined in terms of eliminating Scope 1 and 2 emissions.

Going forward, we will conduct verification testing to identify and resolve various issues associated with the around-the-clock operation of this production line, including how to control the volume of NOx emissions. In this way, we will assess the effectiveness of hydrogen utilization.



Hydrogen-fired boilers



Solar power generators



(From left) Mr. Eiji Ohira from NEDO, President Satoru Yamamoto from Sumitomo Rubber Industries and Mr. Hirohide Furutani from the National Institute of Advanced Industrial Science and Technology

Shifting to Energy Procured from Renewable Energy Sources, Introducing Solar Power Generators and Expanding Cogeneration Systems

In January 2022, our two factories in China (Changshu and Hunan) shifted all their energy purchasing to energy procured from renewable energy sources. A similar shift was then executed in the same year at another of our factories in China (Zhongshan), some affiliates in Japan and our factory in Turkey.

In 2023, our Brazil Factory, Tokyo Head Office (office facilities only) and Thailand Factory plan to also shift their energy purchasing to renewable energy. In addition, the Thailand Factory plans to install cogeneration systems as well as rooftop solar power generators, the latter of which will be the world's largest in scale.



Artists' rendering of solar panels to be installed at the Thailand Factory

Toward the Reduction of Scope 3 Emissions

The Sumitomo Rubber Group not only strives to achieve carbon neutrality in terms of Scope 1 and 2 emissions but also endeavors to reduce the volume of greenhouse gas (GHG) emissions from the entire supply chain, including Scope 3 emissions. It should be noted that the Group's overall Scope 3 emissions are approximately 40 times as much as the sum of its Scope 1 and 2 emissions. Also, as the reduction of Scope 3 emissions is now deemed an integral part of mitigation measures, which have become more significant than ever in countering the impact of climate change, the Sumitomo Rubber Group considers curbing these emissions an important issue to be addressed by both itself and society as a whole.

With this in mind, in 2022 we strove to enhance the accuracy of our calculation of Scope 3 emissions. We have thus measured the volume of these emissions across all emission categories related to business activities undertaken throughout the Group. In addition, we have undergone the third-party verification of Category 1 emissions (Purchased

Goods and Services), Category 11 emissions (Use of Sold Products) and Category 12 emissions (End-of-Life Treatment of Sold Products) as our emissions in these three categories are particularly voluminous. In this way, we have secured the reliability of our emission data. [▶ P99](#)

The sum of emissions from the abovementioned three categories and Category 4 emissions (Upstream Transportation and Distribution) accounts for around 99% of our Scope 3 emissions. Accordingly, we are now formulating reduction targets and planning reduction measures to address emissions in these four categories.

In November 2022, Sumitomo Rubber Industries submitted a commitment letter to the Science Based Targets Initiative (SBTI). Currently, we are striving to acquire SBT certification by formulating targets consistent with the Paris Agreement and clarifying measures to be undertaken to achieve such targets by the end of the fiscal year ending December 31, 2023. We plan to feature the details of these endeavors in the next edition of the Integrated Report.

Breakdown of Scope 3 Emissions

Category	Fiscal 2022 emission volume (thousand t-CO ₂ e)	Proportion of each Category in Scope 3 emissions
Category 1 Purchased Goods and Services	5,073	12.86%
Category 2 Capital Goods	46	0.12%
Category 3 Fuel- and Energy-Related Activities not Included in Scopes 1 and 2	154	0.39%
Category 4 (Upstream) Transportation and Distribution	349	0.88%
Category 5 Waste Generated in Operations	19	0.05%
Category 6 Business Travel	5	0.01%
Category 7 Employee Commuting	17	0.04%
Category 9 (Downstream) Transportation and Distribution	5	0.01%
Category 11 Use of Sold Products	32,870	83.35%
Category 12 End-of-Life Treatment of Sold Products	897	2.27%
Category 13 (Downstream) Leased Assets	3	0.01%
Total	39,437	100%

Note: Emissions in categories 8, 10, 14 and 15 are excluded from calculation.

Implementing ICP

To create a framework for promoting internal activities in order to achieve our carbon neutrality targets, we introduced Internal Carbon Pricing (ICP), setting ¥8,000 (USD70)/t-CO₂ as the reference price on a trial basis in 2022. We then officially adopted the ICP approach in 2023. Although we had previously applied ICP to investment in energy-saving measures, we now implement ICP to examine all investment projects that could possibly affect the volume of CO₂ emissions. Current ICP: ¥10,000 (USD70)/t-CO₂

"Sustainability Challenge," an In-house Campaign

Since 2021, we have conducted the "Sustainability Challenge," an in-house campaign, with the aim of encouraging every employee to

think about sustainability and fostering a sense of unity regarding the promotion of ESG management.

This campaign involves the periodic inspection of tire pressure to prevent the deterioration of fuel efficiency* due to insufficient tire pressure. Other activities include encouraging employees to use their own shopping bags and water bottles instead of purchasing them at stores. In this way, the campaign has begun by facilitating small actions that we can take in our daily lives.

In 2022, all Sumitomo Rubber Group employees were called upon to participate in this campaign. As a result, a cumulative total of 14,285 employees have now taken part and thus achieved a 509-ton reduction in CO₂ emissions.

* Fuel efficiency deteriorates by 4.3% with a 50kpa decrease in tire pressure; based on a survey of the Japan Automobile Tyre Manufacturers Association, Inc.

Initiatives to Protect the Environment

Initiatives to Support a Circular Economy

A Certification System for Sustainable Products (Internal Standards)

In 2023, the Sumitomo Rubber Group introduced a certification system for sustainable products based on internal standards as part of measures specified in its Long-Term Sustainability Policy “Driving Our Future Challenge 2050.”

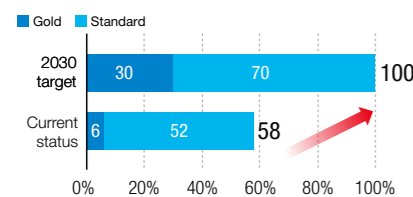
We thus apply our own assessment standards to the selection and certification of sustainable products from among all offerings of our Tire, Sports, Industrial Products and other businesses. Assessment items are set for each product group and include the ratio of sustainable raw materials used, the type of energy consumed in manufacturing processes and the product’s recyclability after use. Products that meet bare minimum requirements are designated

“Standard,” while “Gold” certification is granted only to products boasting outstanding features in terms of sustainability. Our current aim is to ensure that all products are certified “Standard” by 2030 and, to this end, are striving to update their features.

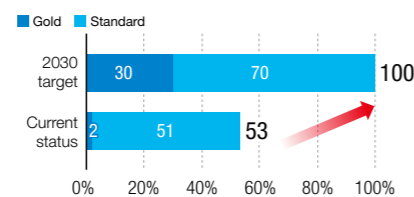
Looking ahead, we will continue to develop an internal certification framework to identify products capable of contributing to global warming countermeasures and environmental load reductions throughout their life cycles. By doing so, we will align our product development approach with a progressive shift to a business model in favor of circular economies.

The Current Ratio of Internally Certified Products and Our Target for 2030 Regarding This Ratio

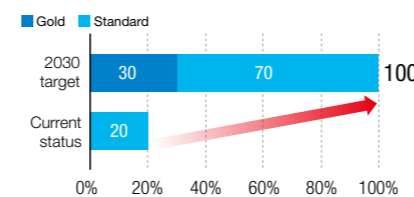
Ratio of Certified Tires (based on units of tires)



Ratio of Certified Sports Business Offerings (based on sales)



Ratio of Certified Industrial Products Business Offerings (based on the number of sites)



We aim to ensure that all products acquire “Standard” certification or above by 2030.

Examples of Assessment Standards

Phase	Assessment items	Examples of initiatives deemed worthy of certification
Planning and design	Lightweight	Promote weight saving for tire products to curb CO ₂ emissions in the course of use Save resources by reducing packaging material use, curb CO ₂ emissions in the course of transportation, cut back on the volume of waste plastics, etc.
Material development and procurement	Materials	Increase the ratio of sustainable raw materials used (adoption of biomass or recycled raw materials)
Production and distribution	Energy	Increase the ratio of renewable energy used in the course of manufacturing Reduce the overall volume of energy used in the course of manufacturing, etc.
Sale and use	Fuel efficiency	Decrease tires’ rolling resistance to reduce environmental burden
	Product life	Improve tires’ wear resistance to reduce environmental burden
Recovery and recycling	Specifications	Enhance the ease of retreading Adopt product labeling designed to indicate environmental friendliness and raise public environmental awareness Adopt resource-saving installation methods for industrial products

Based on internal standards, including items listed above, we grant certification based on a two-grade system, with each eligible product bearing “Standard” or “Gold” certification in line with cumulative total points earned.

Our Scheme for Certifying Sustainable Products

The following diagram shows the flow of our certification scheme. First, separate product development committees are convened to examine Tire, Sports and Industrial Products business offerings to determine candidate products. Directors then screen these products at the annual meeting of the Sustainable Products Certification

Committee to finalize those worthy of certification. Through this scheme, we will promote the development of an internal structure for incorporating sustainability elements into product development.

Certification Scheme



Promoting the Use of Sustainable Raw Materials

In line with our Long-Term Sustainability Policy “Driving Our Future Challenge 2050,” we aim to pursue the creation of “a future of joy and well-being for all” through the practice of ESG management. Moreover, as part of our environmental initiatives, we have formulated “TOWANOWA,” a unique business concept that supports the circular economy. Based on this concept, we aim to reduce the volume of CO₂ emissions and realize sustainability along our entire value chain, including material development and the procurement process. To this end, we have set targets for increasing the sustainable raw material content of our tires at 40% by 2030 and 100% by 2050.

In March 2023, we developed new tires for racing use. These tires are manufactured using biomass and recycled raw materials, which together account for 38% of raw materials used, and are sold under the Dunlop brand in the motor sports field—the front line of tire development. To create these tires, we utilized natural rubber and naturally derived raw materials as well as materials recovered from recycled steel. The resulting tires have a sustainable raw material content much greater than that found in conventional racing tires. Looking ahead, we will update and finely tune these tires to enhance their performance as we aim to make them available for actual racing use by the end of 2024.

In addition, from 2024 onward we will release replacement tires with high sustainable raw material content for commercial use.



Honda NSX-GT, which belongs to the Modulo Nakajima Racing team, uses our racing tires with high sustainable raw material content



The tire bears a uniquely designed logo sticker on its side

Initiatives to Reduce the Use of Plastics

The Sumitomo Rubber Group aims to reduce the volume of plastics it uses on a global basis by 40% by the year 2030 compared with the 2019 level and promotes initiatives to this end.

In the Sports Business, our initiatives include updating tennis ball

packaging by abolishing the use of plastic lids and switching to paper-based labeling. As for golf ball packaging, we are phasing out window films. (Please refer to page 42 for details.)

Initiatives to Counter the Microplastics Problem

Artificial turf used in sporting facilities is now considered a possible source of microplastic*¹ dispersion into rivers and the sea as, with use over time, turf fibers break and the rubber chips used as fillers may leak, spreading into the environment. Aware of this possibility, since 2020 Sumitomo Rubber Industries has been engaged in surveys aimed at determining the degree of dispersion with the collaboration of local governments and other bodies in charge of the management of the sports facilities in question. Moreover, we are developing materials and products designed to robustly curb microplastic dispersion while conducting the verification testing of such materials and products.

Products we have developed thus far include barrier materials used in the outer perimeter fences of artificial turf and filtering materials to be installed in drainage conduits. For some of these products, their use as a microplastics countermeasure has been designated by the Ministry of the Environment as a good practice*² or featured in Guidelines Regarding the Curbing of Microplastic Dispersion from Artificial Turf Facilities*³ issued by Osaka Prefecture in March 2023. Moreover, since June 2022, the planning of countermeasures to curb the dispersion of microplastics from municipal tennis courts with artificial turf incorporating sand*⁴ has been under way in collaboration with Tama City, Tokyo.



Installation of a system for curbing microplastic dispersion



Barrier materials for use in the outer perimeter fences of artificial turf

*1 Small pieces of plastic that have a diameter of no more than 5mm.

*2 https://www.env.go.jp/water/post_113_00005.html (Japanese only)

*3 <https://www.pref.osaka.lg.jp/hodo/index.php?site=fumin&pageId=47315> (Japanese only)

*4 <https://www.city.tama.lg.jp/map/sports/tennis/1003856.html> (Japanese only)

Initiatives to Protect the Environment

Environmental Management

Basic Policy on Environmental Preservation (fundamental philosophy)

The Sumitomo Rubber Group established its Environmental Policy in July 2007 and revised said policy in April 2019, putting it into practice via environmental initiatives. Environmental preservation is one of the most important responsibilities that companies must fulfill within a global society.

Demand for global companies to implement uniform environmental management throughout the world regardless of country or region is strong.

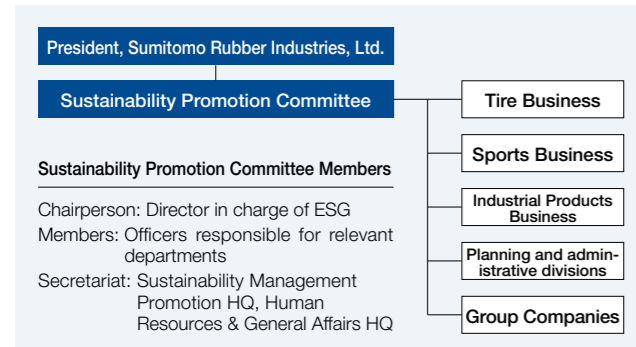
As it accelerates its global expansion, the Sumitomo Rubber Group is focusing more than ever on promoting global environmental management.

Environmental policy
https://www.srigroup.co.jp/sustainability/genki/environment/pdf/ep_sri.pdf

Global Environmental Management

P.88

Environmental Management System



The Sustainability Promotion Committee meets twice a year to ensure that members share their recognition of priority issues to be tackled through sustainability activities undertaken around the globe, including environmental management, and to confirm progress in such activities. With the Director in charge of ESG serving as the committee chair, the committee includes officers responsible for relevant departments.

Responding to Climate Change

Among the myriad issues that society currently faces, we believe that climate change stands out as one of the most important and pressing issues in the world today. Thus, while fully abiding by the Act on the Rational Use of Energy and the Shift, etc., to Non-Fossil Energy (Energy Saving Law), the Act on Promotion of Global Warming Countermeasures (Global Warming Law) and other environmental laws and regulations, the Sumitomo Rubber Group is also committed to fulfilling our corporate social responsibilities in other ways, including harnessing the advanced technical capabilities that we have amassed since our founding in order to tackle the challenges of reducing greenhouse gas emissions and so forth.

To counter the climate change problem, the Sustainability Promotion Committee is also engaged in the follow-up monitoring of progress in countermeasures while ensuring information sharing within the Company and delivering timely reporting to the Board of Directors.

In addition, the Risk Management Committee, which is chaired by the President, analyzes various business risks that coincide with climate change risks based on internal risk management rules. Results of this analysis are reported to and discussed by the Board of Directors after being deliberated on by the committee itself. We also

conduct annual assessments of climate change risks in order to account for external changes, such as updates to targets established under the Paris Agreement.

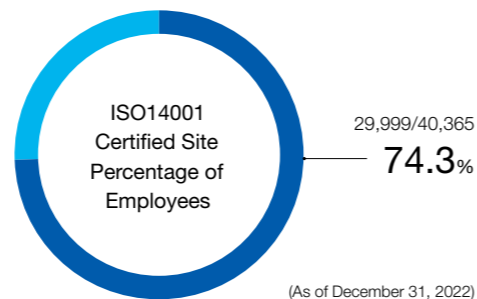
ISO 14001 Global Multi-Site Certification

To implement global management in all of its corporate activities, including the creation of a low-carbon society, in December 2010, the Group obtained ISO 14001 Global Multi-Site Certification for its 30 bases in Japan and overseas. This enabled us to carry out unified environmental management at major production and development bases in Japan and overseas.

The number of sites maintaining ISO 14001 certification has since risen, reaching a total of 36 at the end of 2022 (of these, 34 bases are covered by the multi-site certification). As such, the ratio of ISO 14001 certified sites amounted to 94.7%. Moreover, the number of employees working at these sites as a percentage of total employees was 74.3%.

In fiscal 2022, no sites were newly certified. However, we subjected uncertified sites to corporate audits conducted in a manner similar to those conducted at certified sites in order to strengthen our environmental management structure.

Coverage Rate of ISO 14001 Certified Sites (Percentage of employees)



Initiatives to Reduce TRWP

The generation of TRWP*1 is an unavoidable side effect of generating the level of friction necessary to ensure driving safety, the most important tire function. On the other hand, it is a fact that TRWP is emitted into the environment. The Sumitomo Rubber Group considers TRWP emissions a profound issue that must be addressed by the tire industry as a whole.

Sumitomo Rubber Industries is one of the founding members of the WBCSD's*2 TIP,*3 an industry association consisting of 10 global tire manufacturers. We have been involved in such activities as research and studies focused on TRWP and dialogue with stakeholders.

In addition to tackling the issue of TRWP, TIP currently strives to address such universal ESG concerns of the tire industry as the management of waste tires, the handling of raw materials and their chemical substance content and environmental KPIs.

Sumitomo Rubber Industries is also a member of the JATMA,*4 which similarly endeavors to tackle the TRWP problem.

*1 Tire and Road Wear Particles
 *2 World Business Council for Sustainable Development
 *3 Tire Industry Project
 *4 The Japan Automobile Tyre Manufacturers Association, Inc.

Environmental Data

P.96

Honors and Certifications from Outside Organizations

P.99

Supply Chain Management

In step with advances in the mobility industry around the world, tire demand is expected to grow. Accordingly, demand for natural rubber, the primary tire raw material, is likely to grow even stronger. This prospect has prompted looming concerns about deforestation and the emergence of human rights issues in regions where natural

rubber is produced. As a tire manufacturer, the Sumitomo Rubber Group aims to curb these problems, and to this end has implemented a variety of initiatives to help the entire natural rubber supply chain improve and update itself into a more sustainable industry.

Targets under Our Long-Term Sustainability Policy: "Driving Our Future Challenge 2050"

- **Raw Material Procurement in Line with the Sustainable Natural Rubber (SNR) Policy**
 By 2030: The SNR Policy applies to key suppliers
 By 2050: The SNR Policy applies to all suppliers
- **Realizing Sustainable Procurement through Third-Party Assessments Provided by EcoVadis**
 Aim to procure 95% of tire raw materials on a purchase value basis from suppliers who earn scores of 45 or higher (2030)
 Note: Plans call for expanding the scope of third-party assessments to include businesses other than the Tire Business

Issues to Be Addressed in the Course of Natural Rubber Procurement

- **Securing Traceability**
 The natural rubber supply chain includes stakeholders around the globe, including approximately 6 million smallholders as well as plantations, dealers and natural rubber processors. This complexity makes it hard to clarify distribution routes. Securing traceability is thus a major issue confronting the industry.
- **Supporting Smallholders**
 Smallholders account for around 85% of natural rubber producers. These farmers constitute the uppermost tributary of the supply chain and tend to be the most exposed to risks of poverty and human rights violations. This is why we deem it essential to support them via, for example, the development of a framework that enables them to continue as sustainable producers.

Initiatives to Resolve Issues

Sumitomo Rubber Group Sustainable Natural Rubber (SNR) Policy (since 2016)

In October 2016, Sumitomo Rubber Industries joined the SNR-i*1 advocated by the IRSG.*2 In September 2018, we also became a participant in the GPSNR.*3 In August 2021, we updated our SNR Policy to reflect a policy framework approved by the GPSNR, with the aim of gearing up efforts to resolve issues in regions where natural rubber is produced, such as environmental problems caused by the destruction of forests and human rights problems in the working environment. In line with our updated SNR Policy, we will proactively promote collaborative initiatives with companies in our supply chain to realize a society in which natural rubber is procured in a sustainable manner.

*1 Sustainable Natural Rubber Initiative
 *2 International Rubber Study Group
 *3 Global Platform for Sustainable Natural Rubber

Establishing a Natural Rubber Procurement Subsidiary in Singapore (2020)

SUMITOMO RUBBER SINGAPORE PTE. LTD., established in Singapore—home of the world's largest natural rubber market—initiated operations in April 2020. This subsidiary strives to ensure the sustainable procurement of high-quality natural rubber while serving as a key base for promoting the Sumitomo Rubber Group's Sustainable Natural Rubber (SNR) activities. Currently, it is proactively tackling human rights-related and environmental issues.

Monitoring Activity Undertaken by France-based EcoVadis (since January 2021)

To improve our procurement activities, we have commissioned EcoVadis, an external assessment firm specializing in monitoring and rating supplier performance with regard to human rights, governance and the environment. We expect that third-party assessments offered by this firm will help us unify our standards for supplier evaluations while enabling us to efficiently promote sustainability activities among suppliers.



Initiatives to Improve Traceability and Support Smallholders

- **Resuming the Pilot Project in Indonesia (since September 2022)**
 SUMITOMO RUBBER SINGAPORE has been undertaking the Pilot Project in Jambi Province, Indonesia. Although the project had been temporarily suspended in the face of the COVID-19 pandemic, the subsidiary has now resumed it, once again launching such activities as surveys to assess the status of natural rubber farms and their raw material distribution routes, the provision of training to farmers and the free-of-charge provision of fertilizers. Acting in collaboration with Halcyon Agri, a natural rubber supplier in Singapore, the subsidiary thus strives to support smallholders in a way that takes heed of their real-life circumstances and needs while assessing the status of natural rubber distribution routes as well as risks associated with natural rubber supply. In this way, we push ahead with improving the traceability and transparency of our natural rubber procurement.

- **Initiating Procurement through the Agridence Rubber Platform (since November 2022)**
 We initiated natural rubber procurement employing the Agridence Rubber Platform provided by Singapore-based Agridence Rubber to trace natural rubber distribution routes, which are often complex. This platform not only keeps us well-informed about the status of natural rubber processors, it also enables us to trace upstream processes that take place in locations where natural rubber is produced.

- **Funding Financial Assistance to the Capacity Building Project in Thailand**
 We are providing financial assistance to the Capacity Building Project undertaken by the GPSNR in Thailand to support smallholders. The objectives of this project include helping farmers achieve higher incomes and promoting Good Agricultural Practices (GAP).

- **Providing Training to Neighboring Farmers in Thailand**
 We support farmers operating in the neighborhood of Sumirubber Thai Eastern Corporation Co., Ltd., one of the Sumitomo Rubber Group's natural rubber processing bases. Specifically, we offer seedlings to them while sharing our knowledge of fertilization and other farming practices, with the ultimate goal of improving their standards of living.

Initiatives to Protect the Environment

Initiatives to Address Water Security Risks

Business activities undertaken by the Sumitomo Rubber Group involve the use of water in the course of producing raw materials and manufacturing products. Accordingly, we have positioned appropriate water resource management as an important business issue that must be addressed as part of our Long-Term Sustainability Policy.

Water Security Risk Assessment and Evaluation

The Sumitomo Rubber Group has been conducting assessments based on the Aqueduct Water Risk Atlas, a tool provided by the WRI.* In addition, we employ our own standards regarding legal compliance, limitations on water intake and other items to conduct risk assessments for our bases.

In these ways, we will continue to perform risk assessments for our major production bases to determine which bases may be at high risk and thereupon implement concrete countermeasures.

* World Resources Institute

Reducing Water Intake Volumes and Recycling Wastewater

The Sumitomo Rubber Group is striving to reduce its volume of water intake and recycle wastewater, with the overall aim of addressing the depletion of water resources worldwide. In summer 2020, our Turkey Factory became the first Sumitomo Rubber Group base to achieve a 100% factory wastewater recycling rate.

External Collaboration

Partnerships with Suppliers

In line with the Sustainable Natural Rubber (SNR) Policy, which is integral to its Procurement Guidelines, the Sumitomo Rubber Group strives to confirm the status of water resource preservation and other sustainability initiatives undertaken by suppliers through the utilization of third-party assessment firms.

Participating in the Water Project Sponsored by the Ministry of the Environment

In conjunction with the enforcement of the Basic Law on the Water Cycle in 2014, the Water Project was launched by the Ministry of the Environment in order to maintain and restore the soundness of the water cycle through industry-academia-government collaboration.

Sumitomo Rubber Industries has been a participant in this project since 2014.

Waste Reduction

Achieving Complete Zero Landfill Waste

The Sumitomo Rubber Group is promoting the 3Rs (reduce, reuse and recycle) of waste management.

In fiscal 2022, we achieved complete zero landfill waste at 23 production bases, including affiliates, in Japan and overseas.

Complete zero landfill waste is defined as the complete diversion

of landfill waste, meaning a 100% recycling rate and no waste sent directly to landfills.

In fiscal 2023, the aim of our efforts is to maintain the status of complete zero emissions at these bases.

Achievement Status of Zero Emissions at Production Bases (23/26)

Name of production base	Timing of achievement	Name of production base	Timing of achievement
Shirakawa Factory	2004	Malaysia Factory	2010
Nagoya Factory	2004	Zhongshan Factory, China	2008
Izumitsu Factory	2005	Vietnam Factory	2009
Miyazaki Factory	2004	Switzerland Factory	2008
Kakogawa Factory	2005	Thailand Factory (tennis balls)	2011
Ichijima Factory	2005	Thailand Factory (natural rubber processing)	2013
Indonesia Factory	2008	Dunlop Retread Service, Ltd.	2010
Changshu Factory, China	2006	Dunlop Retread Service Ltd. Hokkaido Factory	2010
Hunan Factory, China	2016	SRI Engineering, Ltd.	2008
USA Factory	2007	Nakata Engineering, Ltd.	2008
Thailand Factory	2009	Dunlop Golf Club, Ltd.	2006
Turkey Factory	2017		

Forestation Activities to Help Curb Global Warming

Progress in Greening Initiatives

Environmental Initiatives and Greening Initiatives Undertaken by the Sumitomo Rubber Group

Guided by the "Sumitomo Business Philosophy," since the Meiji period, Sumitomo Group companies have been engaged in tree planting at Mount Besshi—the desolated site of a former copper mine—in Ehime Prefecture, striving to bring its natural environment back to the original state. This spirit has been passed down to Sumitomo Rubber Group, serving as a cornerstone for its endeavors.

"Sumitomo Rubber GENKI Forest," a Green Initiative in Japan

The primary objectives of our forest development efforts include protecting biodiversity and preventing landslides and other disasters, along with curbing global warming through the absorption of CO₂. In Japan, we develop the forests around our business bases, engaging in greening activities in 11 locations (covering 32ha) across the country. We collectively call these locations the "Sumitomo Rubber GENKI Forest."

In order to protect biodiversity, we plant only seedlings grown from seeds gathered in the target area. Although our 2022 activities were

somewhat restricted due to the need to prevent the risk of COVID-19 infection, we planted a total of 3,219 trees and provided 4,495 seedlings. Our forestation activities also include cutting back weeds, removing unnecessary trees and other ongoing forest maintenance tasks.

We also consider communicating with local communities through satoyama (working forests that are maintained and managed by humans) conservation activities, another important objective. To align our forestation activities with the circumstances unique to each local community, we promote collaborative activities in which employees, families, friends, local residents and regional organizations participate.

Greening Initiatives Overseas

In 2022, we planted a total of 3,326 trees and provided 9,385 seedlings. Furthermore, 2,400 trees were planted through the "1 Pair for 1 Love activities," in which some of the proceeds from the sale of rubber gloves are allocated to the DUNLOP Home Products Forest on the island of Borneo, Malaysia, in order to protect the orangutan, an endangered species.



Kouno Yama GENKI Forest managed by Izumiotsu Factory (Osaka)



A tree planting activity undertaken at DUNLOP Home Products Forest in Malaysia

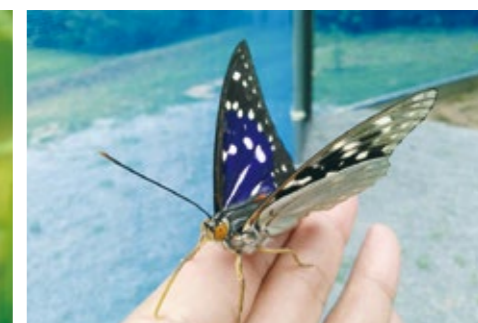
Initiatives to Preserve Biodiversity

The Group is involved in conservation activities focused on endangered, near threatened and rare species (five species of animal and 15 species of plant) at all eight of its sites in Japan, consisting of six factories, the Head Office and the Tire Proving Ground. For example, the Kakogawa Factory (Hyogo Prefecture) is engaged in transplanting "Fujibakama" (*Eupatorium japonicum*) cultivated on its grounds to Kakogawa River beds as well as providing this plant to neighboring corporations and cities. Meanwhile, the Ichijima Factory (Hyogo Prefecture) strives to preserve the great purple emperor (*Sasakia*

charonda), a designated national butterfly, and the tiny loach fish *Lefua echigonia* (Cobitidae family). The above butterfly was also found to be emerging successfully on the premises of the Okayama Tire Proving Ground. In "Kobe Mount Rokko GENKI Forest," we are currently striving for the preservation and breeding of the Japanese bellflower, a rare species. Having collected seeds from native grown flowers, we have nurtured seedlings and transplanted them to areas where we engage in conservation activities.



Kobe Mount Rokko GENKI Forest Native grown Japanese bellflower



Okayama Tire Proving Ground Great purple emperor butterfly