







With the social and environmental impacts of climate change, resource depletion and biodiversity loss becoming more pronounced, the Bridgestone Group has established a framework to address these challenges within its operations and to contribute, throughout the product lifecycle and entire value chain, to addressing them within the larger community.



THE MEANING BEHIND THE ENVIRONMENTAL MISSION STATEMENT

The Bridgestone Group's Environmental Mission Statement includes its unwavering commitment to help ensure a healthy environment for current and future generations...

It aims to create a sustainable society with integrity and in unity with customers, partners and communities. The Group seeks to exist "in harmony with nature" while also developing more efficient technologies and business models that "value resources" and "reduce CO₂ emissions" to address urgent concerns about climate change and resource depletion.

Based on this Environmental Mission Statement, the Bridgestone Group engages with these issues throughout its product lifecycle and value chain.



ENVIRONMENT Working Toward the World of 2050



A STAKEHOLDER'S COMMENT ON BRIDGESTONE GROUP'S LONG-TERM ENVIRONMENTAL VISION AND A NEW MILESTONE 2030

"Global environmental issues — including deforestation, marine plastic pollution and the climate crisis — are affecting people's lives and businesses. WWF believes that it is essential to develop concrete solutions and practices to address these urgent challenges. As the leading company in the industry, we expect that Bridgestone's work will be implemented with clear goals and timelines in cooperation with its stakeholders toward 2030 and beyond."

- Sadayoshi Tobai, Chief Executive Officer, WWF Japan

VISION

Toward 2050, Bridgestone continues to provide social value and customer value as a sustainable solutions company.

LONG-TERM ENVIRONMENTAL VISION (2050 AND BEYOND)

IN HARMONY WITH NATURE In balance with nature¹ (CONTRIBUTION > FOOTPRINT)

VALUE NATURAL RESOURCES Towards 100% sustainable materials²

> REDUCE CO2 EMISSIONS Contribute to globally agreed target³ (TOWARDS CARBON NEUTRAL SOCIETY)

SUSTAINABLE SOCIETY Bridgestone Group's Environmental Mission

To help ensure a healthy environment for current and future generations...

CHALLENGE FOR THE FUTURE: DECOUPLING

The United Nations Environmental Programme (UNEP) defines decoupling as separating economic growth from the impact on the environment and growing resource consumption. The Bridgestone Group simply does not accept that resource consumption and environmental impact are inevitable outcomes of population growth and economic development. Rather, it must engage in a balance between business success and the use of the earth's resources. Decoupling is a key concept of the Group's long-term environmental vision and this is the challenge for the future we will take on to balance growth and environmental considerations.



¹ "In balance with nature" is the Bridgestone Group's commitment to contribute to biodiversity through habitat enhancement, environmental education and research.

- ² The Bridgestone Group defines sustainable materials as those that 1) come from resources with a continual supply, 2) can be used as part of its business over the long term, and 3) have a low environmental and social impact over their lifecycle from procurement to disposal.
- ³ The Bridgestone Group recognizes that the international community aims to become carbon neutral society based on the Paris Agreement (holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels), IPCC reports, and subsequent international debates.

Long-term Environmental Vision (2050 and beyond)

The Bridgestone Group is reducing its environmental footprint and creating social and customer value with various solutions that contribute to addressing environmental challenges toward its 2050 long-term environmental vision and beyond.



IN HARMONY WITH NATURE

The Bridgestone Group aims to exist in harmony with nature by maximizing its contribution to biodiversity (ecosystems, species and genetic resources) while minimizing the impact of its business activities.

In balance with nature

(CONTRIBUTION > FOOTPRINT)





VALUE NATURAL RESOURCES

The Bridgestone Group is working toward its goal to minimize resource depletion by implementing sustainable resource use through promoting technological innovation and business innovation.

Towards 100% sustainable materials





REDUCE CO2 EMISSIONS

The Bridgestone Group is working with customers and partners to reduce CO₂ emissions based on scientific modeling of climate trends, emission reduction called for in the Paris Agreement, and other expectations of global society.

Contribute to globally agreed target

(TOWARDS CARBON NEUTRAL SOCIETY)



ACTION!	ACTION 1 Minimizing footprint	MPLES	 Reduce CO₂ emissions from operations Reduce water withdrawal impact in water stress areas Reduce waste generated and amounts sent to landfills Request suppliers' consideration of biodiversity
	ACTION 2 Enhancing contribution	EXAI	 Develop and expand solutions business to contribute to CO₂ reduction Preserve and restore ecosystems around Bridgestone Group facilities Contribute to enhancement of circular economy Introduce biodiversity educational program
ACTION!	ACTION 1 Reduce raw material consumption	EXAMPLES	 Weight-savings technologies Durability improving technologies Reduction of manufacturing process losses
\rightarrow	ACTION 2 Recycle resources & use effectively		 Retread technologies and solutions Recycled rubber, recycled carbon black, etc.
	ACTION 3 Expand and diversify renewable resources		 Natural rubber productivity improvement technologies Diversified natural rubber supply sources (guayule) Development of bio-derived raw materials
ACTION!	ACTION 1 Minimize CO2 emissions	 Maximize energy efficiency Increase use of renewable energy Promote manufacturing and engineering innovation 	
	ACTION 2 Enhance contribution to CO ₂ reduction	EXAN	 Provide solutions that contribute to CO₂ reduction via customers' use of the Bridgestone Group's products and services Reduce CO₂ emissions across the value chain of products including lightening weight, increasing recyclability, etc.

ENVIRONMENT Achieving Milestone 2020: Continuing Our Path Forward

Achievement of Milestone 2020 and Improvement of Environmental Efficiency

The Bridgestone Group conducted initiatives to achieve mid-term 2020 targets (Milestone 2020) on its way to achieving its long-term



¹ Manage water withdrawal according to base units for each business based on production volumes or sales units. Set targets for weighted average decrease ratio. Water withdrawal does not include water regeneration by other companies or rainwater.

environmental vision by 2050. As a result of its global activities, the Group reached Milestone 2020 goals in 2019, ahead of schedule.

CO2 REDUCTION TARGET Contribute to CO2 reduction at usag

Contribute to CO_2 reduction at usage stage more than all other emissions² in the product lifecycle



² Calculated based on Tire LCCO₂ Calculation Guidelines Ver. 2.0 (April 2012, The Japan Automobile Tyre Manufacturers Association, Inc.). "CO₂ emissions from operations and products' afteruse" means the emissions from product lifecycle stages other than use. (i.e., raw material procurement, manufacturing, distribution and after-use.)

ACHIEVED SIGNIFICANT IMPROVEMENT OF ENVIRONMENTAL EFFICIENCIES THROUGH ACTIVITIES FOR MILESTONE 2020³





Working Toward 2030 — Setting New Mid-term Environmental Targets

The initiatives of the Bridgestone Group's Milestone 2020, introduced in 2012, allowed it to build an internal structure to reduce its environmental impact on an ongoing basis. As a result, the Group can now engage in activities with greater speed to reflect the frequent changes in societal conditions.

Since setting Milestone 2020, the Bridgestone Group has seen the adoption of the United Nations Sustainable Development Goals and the Paris Agreement, as well as momentum behind other social movements. Today, environmental issues are one of the greatest global risks, rising in importance in terms of both risk and opportunity for corporations. Looking at these developments, the Group set a new Milestone 2030, which aims to accelerate its ambition toward "decoupling" to further reduce its environmental impact. At the same time, the Group will promote the circular economy and contribute to globally agreed CO₂ emissions reduction targets through innovation and leading-edge technologies. Through these activities, the Bridgestone Group will be a solutions provider driving common value creation with customers and partners.



SUSTAIN

SYMPHONY

SUSYM

EVOLVING INTO AN ADVANCED MOBILITY AND SUSTAINABLE SOLUTIONS COMPANY

2030

TECHNOLOGIES FOR SOLUTIONS



Double network concept rubber¹



² The world's first polymer that bonds rubbers and resins on the molecular level with high levels of durability and resistance. ³ Reversible cross-linking technology that enables recycling of rubber materials.

reversible closs linking technology that enables recycling of rabber materials.

Reversible Crosslink Rubber³



In Harmony with Nature: Improve Environmental Impact

The Bridgestone Group intends to be even more ambitious in its activities in response to the continued importance of social and environmental issues, and the potential impact on the environment caused by business growth.

Key Actions

- Create and implement water stewardship plans based on <u>Water Stewardship Policy</u> (policies related to the responsible use of water)
- Continuous improvement¹ of water withdrawal intensity
- Continuous improvement¹ of environmental footprint (reduce hazardous/nonhazardous waste, waste to landfill, VOC from solvent use, SOx/NOx)
- Improve supply chain environmental footprint through the Sustainable Procurement Policy
- Enhance activities that contribute to improved biodiversity
- ¹ Continuous improvement is ongoing efforts to improve environmental performance year by year (such as 1% improvement) through PDCA cycle.

Focused Target

Execute water stewardship plan at manufacturing facilities in water stress areas² by 2030

The Bridgestone Group has developed its Water Stewardship Policy to help ensure water is available on a socially equitable basis and the water cycle is preserved. It addresses water issues through a stakeholder-inclusive process that involves catchment-, site- and downstream-based actions. It will develop and implement a water stewardship plan based on the Policy, especially at manufacturing facilities in water stress areas.

² Manufacturing facilities in water stress area: Manufacturing facilities that have water-related risks due to the locations with the risk of deterioration of fresh water resources in terms of quantity and quality.



OVERVIEW OF BRIDGESTONE GROUP'S MANUFACTURING FACILITIES

Action Examples

Action In Water Stress Area

The Buenos Aires plant located in the water stress area of Argentina has been working on improvement of efficiency of water use continuously and achieved 56% reduction of water withdrawal by 2019, compared to a 2005 baseline. In April 2019, the plant partnered with a concrete manufacturing company and provided its treated water discharge by reverse osmosis to the company for production usage. This helped reduce net water withdrawal in the water stress area.

The Bridgestone In Harmony with Nature – Promoting Biodiversity Program

The Bridgestone Group launched The Bridgestone In Harmony with Nature – Promoting Biodiversity Program in early 2019. Through the program, it encourages all manufacturing facilities across the globe to promote activities to conserve biodiversity. Many of its facilities already have initiatives in place, such as educational partnerships, conservation efforts and microhabitats. This program seeks to highlight those facilities for their efforts to achieve measurable annual results.



Outputs of Global Activity Summarized in 2019

380+

FOR ENVIRONMENTAL CONSERVATION AND EDUCATION

* Including 130+ events for children/adolescents.

14,700+

PARTICIPATED IN ENVIRONMENTAL EVENTS 62 PARTNERSHIPS

WITH LOCAL SCHOOLS, ETC. **54**

WITH ON-SITE MICROHABITAT/ WAYSTATION

38 | Environment | In Harmony with Nature: Improve Environmental Impact



Value Natural Resources: Accelerate Circular Economy Adoption in our Business

The Bridgestone Group contributes to the creation of a circular economy¹ by designing and developing products and business models with high resource efficiency, using recycled and renewable resources (material circularity²) and accelerating comprehensive initiatives in the effective use of used tires (product circularity³).

Key Actions

- Develop and implement roadmap to expand sustainable materials
- Continuous improvement of resource productivity
- Continuous improvement in product circularity (beneficial next use of used tires)
- Develop and implement policy/roadmap to contribute to single-use plastics reduction

Focused Target

Increase ratio of recycled and renewable material⁴ to 40% by 2030

Though it improved its resource productivity under Milestone 2020, the Bridgestone Group has gone beyond that in seeking to achieve its long-term environmental vision toward 100% sustainable materials. To do so, we will accelerate innovation and improve usage ratios of materials from recycled and renewable sources. In its efforts toward this goal, the Group also is advancing a number of diverse initiatives in other stages of the product life cycle, including long-lived design, using renewable resources, retreading, recycling, repairing and sharing. Economic growth is expected to increase resource consumption and demand, thereby restricting resource supply and deepening issues of natural resource depletion and soaring resource prices. Smarter, more sustainable use of resources is important not only for addressing environmental issues, but also for society and the Bridgestone Group's businesses. For the Group, realizing a circular economy not only mitigates environmental issues, it also generates new business models and leads to sustainable economic growth.

The Group will create common value with communities, customers and partners across the product lifecycle and entire value chain by developing unique technologies and business models.

¹ An economic system where sustainable products are designed and produced with fewer resources (reduced), where consumption is conducted in a sustainable fashion, and used products and resources are appropriately recovered, recycled, and reused in order to eliminate resource waste and reduce the risk of environmental destruction.

² A concept to show circularity of raw materials. The Bridgestone Group uses the ratio of recycled materials and renewable materials to total raw materials as the indicator for Material Circularity.

³ A concept to show circularity of used products. The Bridgestone Group uses the ratio of used tires from its retail shops that go to beneficial next use as the indicator for Product Circularity.

⁴ Within total material weight for tire products including tire casing for retreading.



BRIDGESTONE GROUP'S APPROACH TO CONTRIBUTING TO THE CIRCULAR ECONOMY

Contribution Area on Circular Economy	Bridgestone Group's Approach	Activity Example
Enhancement of Resource Productivity	 Further strengthen competitiveness of Dan-Totsu (the clear and absolute leader) products by Long Life/Resource-Saving Design Create business opportunities through transformation from resource-consumption dependent business by Sharing, Service/Subscription 	 New technology for tire weight reduction (Enliten, SUSYM, etc.) Studless tire rental services, etc. Replacement service for automotive parts, subscription model for electric bicycles, etc. Tire maintenance, optimization of product use (Retreading business, Tirematics, EcoValue Pack, Webfleet Solutions), etc.
Enhancement of	 Further strengthen competitiveness of Dan-Totsu (the clear and absolute leader) products by utilization of Recycled Material and Renewable Resources 	 Expanding use of recycled materials (recycled rubber, recovered carbon black, etc.) Improving productivity of natural rubber, development of bio-derived raw materials (Guayule, etc.)
Enhancement of	 Create values across the product lifecycle by Recycling/Upcycling, Repair/Reuse, etc. and build business models 	 Retreading business Aircraft solutions Tire repair services, etc.
Product Circularity	Create new value by Cascade Recycling	 Power generation by waste tire, development of material recycling technology, etc.



Reduce CO₂ Emissions: Reduce Emissions Across the Product Lifecycle and Entire Value Chain

With decoupling in mind, the Bridgestone Group set a goal to reduce its absolute volume of CO₂ emissions from its own immediate production activities. In addition, the Group will accelerate its contribution to the reduction of CO₂ emissions through products and solutions. In this way, the Bridgestone Group will pursue CO₂ reductions throughout its product lifecycle and entire value chain.

Key Actions

- Develop products and services that contribute to CO₂ emissions reduction
- Continually improve energy efficiency in operations to reduce total energy consumption
- Enhance renewable electricity ratio
- Promote manufacturing and engineering innovation

Focused Target

Reduce our absolute CO₂ emissions (Scope 1 and 2) by 30% and aspire to reduce by 50% by 2030¹

Contribute to global CO₂ emissions reduction across the lifecycle and value chain (Scope 3) of our products and services exceeding five times our operation's (Scope 1 and 2) CO₂ emissions by 2030²



The Bridgestone Group will contribute to the reduction of CO₂ emissions during customer use, raw material/procurement, distribution and reuse/recycle phases of the product life cycle by providing customer value through Dan-Totsu (the clear

and absolute leader) products/services. It also will reduce CO₂ emissions from manufacturing. This allows the Group to reduce CO₂ emissions across the product lifecycle and entire value chain.

¹ Base Year: 2011. ² Base year: 2020.

Contribution to reduction of CO₂ emitted during customer use

The Bridgestone Group offers revolutionary solutions that contribute to CO₂ reductions by customers and partners across society. The Group's fuel-efficient tires contribute to greater vehicle fuel efficiency and meet a variety of customer needs, including superior levels of low-rolling resistance, lighter weights and other performance metrics. The Group achieved a 23% reduction (from a 2005 baseline) in tire rolling resistance, equal to a contribution of approximately 13.4 million tonnes CO₂ reduction¹, in 2019.







Pune plant, India



Wuxi plant, China

Reducing CO₂ emissions at manufacturing facilities

As one of its efforts towards contributing to a carbon neutral society, the Bridgestone Group is working to minimize its CO₂ emissions by maximizing energy efficiency and expanding its use of renewable energy at manufacturing and other facilities. Three of its tire manufacturing facilities (Bilbao, Puente San Miguel and Burgos) and one tire cord facility (Usansolo), all in Spain, sourced 100% of their electricity from renewable sources in 2018. Additionally, three facilities in Europe (Tatabanya, Hungary, and Stargard and Poznan, Poland) are powered by 100% renewable electricity in 2020. The Wuxi, China plant and the Pune, India plant began using electricity generated by large-scale, solar power generators installed on the facilities' roofs with electricity suppliers in 2019.

Support of Bridgestone World Solar Challenge (BWSC)

The BWSC is the world's foremost solar car race, which travels 3,000km (1,860miles) from Darwin to Adelaide in Australia. It started in 1987 with the purpose of contributing to the development of solar cars, supporting young engineers, and contributing to the environment through the use of solar power. Participants are challenged to design, build and develop the world's most efficient vehicles. In addition to supporting the competition as a title sponsor, Bridgestone supplies "ECOPIA with ologic" tires to participating teams, contributing to the mobility of society and reducing environmental impacts while supporting young engineers.



BRIDGESTONE WORLD SOLAR CHALLENGE



¹ Calculated based on Tire LCCO₂ Calculation Guidelines Ver. 2.0 (April 2012, The Japan Automobile Tyre Manufacturers Association, Inc.).