





Bridgestone Corporation

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Editorial Policy

Bridgestone Corporation produced its first environmental report in 2000, providing information about the company's environmental activities*1. To reach all Bridgestone Group global stakeholders and convey the company's sustainability vision and initiatives in an easy-to-understand way, we have focused on presenting the information in both Japanese and English. The Group communicates to its stakeholders in regions including Japan, the United States, Europe and China through detailed environmental reports and on websites.

*1 In 2004, information about activities was given in a social and environmental report, and was included as part of a Corporate Social Responsibility ("CSR") report in 2009. Since 2010, the company has produced separate CSR and environmental reports in order to provide greater detail about specific environmental activities.

Period

In principle, this report covers activities for fiscal year 2014 (1 January, 2014 to 31 December, 2014), but some of the information covers activities up to March 2015.

Scope of the Report

This report presents information about Bridgestone Group activities including domestic and international subsidiaries and affiliated companies of the Bridgestone Corporation. Bridgestone Corporation is referred to as "Bridgestone" or "the Company" in the text; "Bridgestone Group" and "the Group" refers to the entire Bridgestone group of companies including all domestic and foreign subsidiaries and affiliated companies.

Prepared with Reference to:

- GRI (Global Reporting Initiative) 4
- Environmental Reporting Guideline (Ministry of the Environment of Japan, 2012)

Published

Next Publication

June 2015

Planned for June 2016

Materiality

Taking into account the concerns and expectations of all stakeholders, as well as the impact on the Group, the following themes of materiality have been identified for the Group's commercial activities: "Biodiversity: In harmony with nature"; "Sustainable use of resources: Value natural resources"; and "Climate change: Reduce CO2 emissions."

In 2011, in order to meet the challenge of these issues as one body, the Group refined its Environmental Mission

Materiality and the Environmental Report

The Company developed the scope of this report by considering the following sources:

Stakeholders' Concerns and Expectations

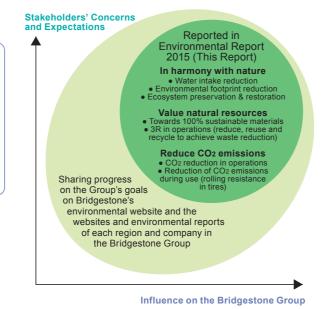
- Opinions the Bridgestone Group has received directly from environmental and sustainability experts (such as through individual interactions, CSR stakeholder dialogues and the W-BRIDGE advisory
- Assessment from socially responsible investing (SRI) and environmental grading and assessment bodies (DJSI, CDP, FTSE4Good, etc. See page 25)
- Reports from environmental NGOs and research bodies

continuity, compliance with laws and regulations, impact on brands) Feedback from stakeholders, increase in brand value Trends in international treaties and meetings **High Materiality Issues Environmental Mission Statement and** Long-term Environmental Vision KPI reporting for particularly important activity information in the environmental report

Statement to make the goal of its activities clear. In 2012. we also drew up the Group's Long-term Environmental Vision, looking ahead to the year 2050, to promote concrete

Among the various themes contained herein, the main focus is placed on the substance of important activities and progress of KPIs*3 in particular.

■ Focus of the 2015 Environmental Report



*2 A joint research project between Bridgestone and Waseda University

Influence on the Bridgestone Group

opportunities (customer

value and social value) Reduction of business

Creation of business

risk (business

*3 Key Performance Indicator

Environmental Mission Statement

The Bridgestone Group has more than 188*1 production and development centers in 26 countries, conducts business activities in more than 150 countries and has more than 144,000 employees globally. The Group's shared Environmental Mission Statement serves as a basis to engage employees from a wide range of backgrounds, working together toward established environmental goals. Our mission statement is unchanging: "to help ensure a healthy environment for current and future generations." This ensures that together with our stakeholders, we are committed to continually working toward a sustainable society with integrity.

In an effort to ensure everyone in the Group is familiar with the Environmental Mission Statement, we have translated it into 19 languages*2 and displayed it in every Bridgestone Group business. The company also uses educational opportunities, such as e-learning, training programs and environmental intranets, to support employees in understanding the connection between the Environmental Mission Statement and the work they do each day.

- *1 As of December 2014.
- *2 Posters are available on Bridgestone's website. http://www.bridgestone.com/responsibilities/environment/ mission/statement.html

■ The Bridgestone Group's Environmental Mission Statement



Looking Ahead to the World in 2050

Bridgestone Group Environmental Report 2015

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1 Bridgestone Group Environmental Report 2015 Bridgestone Group Environmental Report 2015 2

Top Commitment

Aiming to achieve a "Dan-Totsu" position from an environmental perspective in order to contribute to achieving a sustainable society

CEO and Representative Board Member, concurrently Chairman of the Board

Targeting a Dan-Totsu position in all aspects of our business

The Bridgestone Group operates in a world experiencing substantial change in a wide range of areas, including governmental policies, the economy, the environment, information distribution, technical innovation and globalization. Social structures and consumer attitudes also are changing significantly. In alignment with the Group's mission of "Serving Society with Superior Quality," we will pursue the ultimate goals of becoming a truly global company and achieving Dan-Totsu, or the absolute and clear leader, in all aspects of our business. To do this, we will continue implementing our management reforms.

Setting long-term environmental vision for 2050 and beyond

It is recognized that, globally, average temperatures are rising. According to the Intergovernmental Panel on Climate Change, this trend is likely the result of changes in our climate that have been accelerated by greenhouse gas emissions and human activities*1. In light of this assessment, it is expected that a consensus regarding long-term climate change response measures will be reached at the 21st session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP21). This meeting will be held in late 2015, and it is anticipated to inspire companies to conduct environmental activities from an even more long-term perspective.

Bridgestone is the world's largest tire and rubber company. Understanding our role in effecting a positive impact on the environment globally, we have established a long-term environmental vision for the year 2050 and beyond based on the Group's Environmental Mission Statement. We have used a back casting*2 method to formulate our mid-term targets with regard to our long-term vision, and set sights on accomplishing them by 2020.

Specifically, we are pushing forward with worldwide initiatives focused on three areas: operating in harmony with nature, valuing natural resources and reducing CO2 emissions.

Advancing initiatives to achieve mid-term targets

The Group has established a long-term environmental vision for 2050 and beyond in which we commit to operating in harmony with nature*3. In pursuing this goal, which relates to biodiversity, we are taking steps to minimize the impact of our operations on ecosystems while simultaneously working to preserve and restore local habitats. In addition, we have established a goal to reduce our average water intake rate by 35% by the year 2020*4, using 2005 levels as a baseline. With this target in mind, we are instituting global initiatives to reduce the extent to which water usage in our business impacts ecosystems. By 2014, the Group realized a reduction of approximately 28% in water

In regard to valuing natural resources, we have established the long-term environmental vision of working toward using 100% sustainable materials*5 to manufacture our products. To realize this vision, we have been advancing research to determine whether guayule*6, a shrub that grows in arid regions, could be used as an alternative source of natural rubber to the Hevea rubber tree, which is currently the primary source of natural rubber. In September 2014, we celebrated the grand opening of the Bridgestone Biorubber Process Research Center (BPRC) in Arizona, U.S.A. This research facility was constructed with the aim of bringing guayule-derived natural rubber to practical application in tires.

As for reducing CO2 emissions, the Group has set a long-term, globally-agreed upon environmental target of achieving a 50% or more*7 reduction in CO2 emissions toward 2050 and beyond. This goal was set to guide us in

contribute to the creation of a low-carbon society. Advancing technical and business model

innovation to accomplish goals

Bridgestone Group

Long-term

Environmental Visior

To achieve our long-term environmental vision for 2050 and beyond, we must do more than simply continue our current activities. Rather, we must tackle issues from new perspectives and cultivate a global corporate culture that advances technical and business model innovation. We will continue to create innovative new technologies. products and services to help us further realize a balance between our business and the environment.

our commitment to contribute to the realization of a

low-carbon society. In order to ensure the steady progress

of our efforts to achieve this target, we have established

mid-term targets for 2020, detailing specific numeric goals

for cutting CO2 emissions from the Company's total

operations and from tire usage. Tire usage reductions will

be achieved by lowering rolling resistance (see page 20). By 2014, the Group realized a reduction of approximately

32% in CO₂ emissions from operations and after-use, and

a reduction of nearly 13% in tire-rolling resistance. In this

manner, we are making steady progress in our efforts to

A prime example of activities in this area is the new "ologic" tire technology from the Group. This technical innovation exceeds the boundaries of conventional tires and delivers substantial reductions in rolling resistance and aerodynamics. In addition to contributing to the global goal to reduce CO2 emissions, "ologic" tire technology also delivers high grip performance on both wet and dry road surfaces. These features have been extensively evaluated, which led to the technology being selected for the 2014 Tire Technology of the Year award. Moreover, "ologic" technology is utilized in the original equipment tires as "ECOPIA EP500 ologic" for practical use.

As for business model innovation, the Group is developing a business solution that will go beyond selling individual

Mid-term Long-term Water Intake Reduction Targe target To help ensure a healthy 2020 2050 and beyond 35% reduction per unit at vironment for current and future generations... In balance with nature sustainable society with nature Towards 100% Sustainable materials Resource productivity globally agreed Value natural Balancing with earth's capacity Reduce ross products Reduce CO₂ CO2 Reduction Target (baseline: 2005) -35% reduction in CO₂ per sales from the company's total operations and its products' "after-use" improving tire rolling efficiency by 25% (the potential improvement in the customers' fuel efficiency exceeds all other emissions in the products' life cycle.

> tires. We are exploring opportunities to provide service packages that bundle tires with after-sales maintenance services including retreading the tires. These packages not only help customers cut costs while driving safely, but also contribute to reductions in both resource consumption and CO₂ emissions from company's operations and after-use.

Advancing initiatives that span the supply chain

In order to be successful in achieving our long-term environmental targets, it is essential that our initiatives span the entire supply chain. For example, in the development of raw materials, we will develop technologies for improving the productivity of natural rubber while providing support to small-scale rubber farmers to accomplish our goal of being in harmony with nature. We are also exploring new raw materials for use in our products to move closer to our long-term goal of manufacturing products made from renewable and sustainable materials. Meanwhile, to reduce CO₂ emissions, we developed a new, highly functional tire rubber compound that provides superior fuel efficiency and wet grip performance through a joint research project. In the sales activities, we are pursuing reductions in CO2 emissions by encouraging our customers to use our fuel-efficient tires.

To expand the range of these activities while adding a new dimension of depth, it will be absolutely essential for the global Bridgestone Group, comprised of more than 144,000 teammates, to share the same commitment for the environment. Aiming to achieve a Dan-Totsu position from an environmental perspective, teammates will band together and continue to advance activities that span the supply chain and make progress toward accomplishing our mid-term environmental targets for 2020 and the long-term environmental targets that lie beyond.

^{*1.} Intergovernmental Panel on Climate Change, Fifth Assessment Report Climate Change 2013, accessible at (https://www.ipcc.ch/report/ar5/).

^{*2.} A planning method whereby the desired state at a future time is defined and the actions needed to meet the future targets are planned and executed by working backwards from that future time to the present.

^{*3.} In harmony with nature is our commitment to contribute to biodiversity through habitat enhancement at our facilities and in the communities where we live, and through environmental education and research. Our business operations will take into account impacts on the ecosystem as a whole

^{*4.} Measure of water intake per production volume and sales are managed by business, and a weighted average of their reduction rates is used as a Group

^{*5.} We define "sustainable materials" as materials which are derived from renewable resources, can be used as part of the Bridgestone Group's business over the long-term, and have a low environmental and social impact across the entire lifecycle, from raw material procurement to final disposal

^{*6.} Continued research on quavule, a perennial shrub native to the southwestern United States and northern Mexico. Extraction of natural rubber from the quayule may provide a sustainable and renewable alternative to Hevea natural

^{*7.} At the G8 Hokkaido Toyako Summit (held in July 2008), G8 leaders agreed to target a reduction of at least 50% in greenhouse gas emissions worldwide by 2050. The same year, at the Major Economies Meeting on Energy Security and Climate Change, developed countries and certain emerging nations, such as China and India, adopted this target as a shared global objective.

Looking Ahead to the World in 2050

It is expected that, by 2050, the world population will surpass 9 billion*1 and the number of automobiles will increase to 2.4 billion*2. With the increased demand of automobiles accompanying population increase and improved living standards, the world will face significant problems in climate change, resource shortages and biodiversity loss. As a global company, Bridgestone Group is aware that it shares responsibilities for meeting the various needs in the world and assuring the stable supply of high-quality products. While fulfilling these responsibilities, we aim to contribute to building a sustainable society by balancing our operations with the earth's capacity. Based on this philosophy, we have prepared a long-term environmental vision to carry out our activities.

Population increase. economic development

Present

Population: 7 billion*1 (2011)

Total number of automobiles: 900 million*2

CO₂ emissions: 29 billion tonnes*3 (2005)

Resource consumption: 49 billion tonnes*4 (2000)

In the case of no action

Increase of

Sustainable society

Reduction of resource consumption and environmental footprint

The world's largest tire and rubber company

Operations in more than 150 countries

Bridgestone Group

More than 144.000 employees

More than 3.6 trillion yen

Mission of Bridgestone Group

Serving Society with Superior Quality

- *1 World Population Prospects: The 2012 Revision (United Nations, 2013)
- *2 Projection of World Energy and Transport Demands Mainly in the Automobile Sector (The Institute of Energy Economics, Japan, 2012)
- *3 Based on the scenarios of RCP8.5 of the CLIMATE CHANGE 2013 The Physical Science Basis -Working Group 1 Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC (Working Group 1), 2013)
- *4 Decoupling Natural Resource Use and Environmental Impacts from Economic Growth (United Nations Environment Programme, 2011)

The world in 2050

Population: 9.6 billion*1 Total number of automobiles: 2.4 billion*2

CO₂ emissions: 75 billion tonnes*3 Resource consumption: 141 billion tonnes*4

Exceeds the earth's capacity

The importance of decoupling in working toward building a sustainable society

The total number of automobiles worldwide is expected to increase with the global population and economic development in emerging nations. As a result, resource consumption is expected to increase and the global environmental footprint will likely become greater. There is a possibility of exceeding the earth's capacity, through climate change, resource depletion and biodiversity loss.

To work towards building a sustainable society, we shouldn't simply accept that increased resource consumption and environmental footprint correlate with population increase and economic development, but instead work to separate them. The United Nations Environment Programme (UNEP) refers to this separation as "decoupling."

> Decoupling population increase and economic development from environmental footprint (Decoupling)

Striving to create a balance between operations and the environment through technical innovation and business model innovation

The Bridgestone Group's

Environmental Mission Statement

a sustainable society

Working toward

To help ensure a healthy environment for current

and future generations...

Long-term Environmental Vision (for 2050 and beyond)



In balance with nature*5 (Contribution > Footprint)

Towards 100% sustainable materials*6



Contribute to globally agreed

(Over 50% reduction of CO₂ emissions)

- *5 "In balance with nature" is our commitment to contribute to biodiversity through habitat enhancement, and through environmental education and research
- *6 The Bridgestone Group defines sustainable materials as materials "1) that come from resources with a guaranteed continual supply, 2) that can be used as part of our business over the long-term, and 3) that have a low environmental and social impact over their lifecycle from procurement to disposal."
- *7 At the G8 Hokkaido Toyako Summit (held in July 2008), G8 leaders agreed on a reduction of at least 50% in greenhouse gas emissions worldwide by 2050. The same year, at the Major Economies Meeting on Energy Security and Climate Change, developed countries plus certain emerging nations, such as China, India, etc, adopted this target as a shared global objective

Progress of Activities toward Long-term Environmental Vision

Working toward a sustainable society

The Bridgestone Group's Environmental Mission Statement

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

100% sustainable

Towards

materials*3

Resource

productivity

improvement

Long-term **Environmental** Vision for 2050 and beyond

In balance with nature*1

(Contribution > Footprint)

Mid-term **Environmental Targets** for 2020 (Base year: 2005)

Major

in 2014

Promote ecological conservation & restoration

- Minimizing footprint (Reduce water intake per unit*2 by 35%)
- Enhancing contribution activities
- 28.3% reduction in water per unit intake at manufacturing
- Enhanced technical support to improve the productivity of natural rubber
- Promotion of ecosystem preservation and restoration



▶ pages 8-12

facilities (compared with 2005)





Value natural

▶ pages 13-18

tone manages water intake per

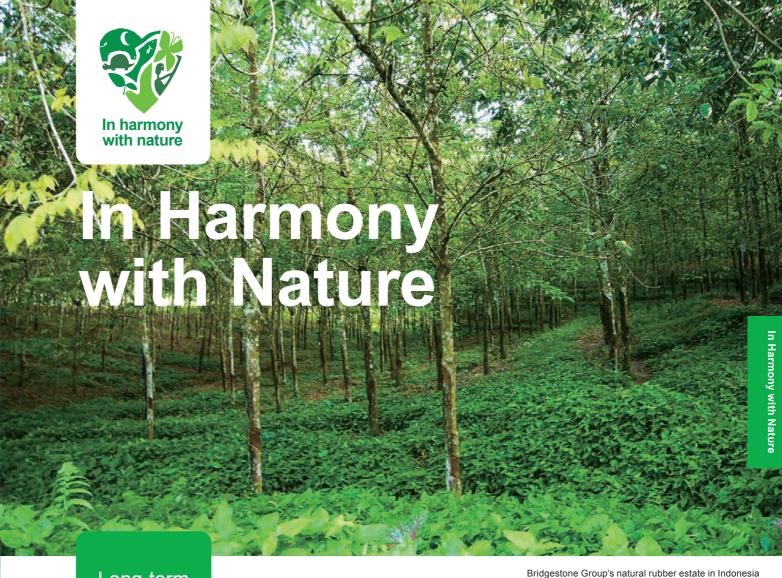
Contribute to globally agreed target*4

Over 50% reduction of CO2 emissions

- Reduce CO2 emissions per unit of sales from all lifecycle stages by 35%
- PReduce rolling resistance of tires by 25% and thereby achieving CO2 reductions during use (CO2 emission related to rolling resistance during use exceeds all other emissions in the product's lifecycle)
- 31.8% reduction of CO2 emissions from Bridgestone's (or company's operations and after-use per sales (compared with 2005)
- 12.7% reduction of rolling resistance in tires







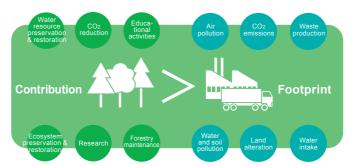
Long-term Vision

(for 2050 and beyond)

In balance with nature

(Contribution > Footprint)

Activity Concept



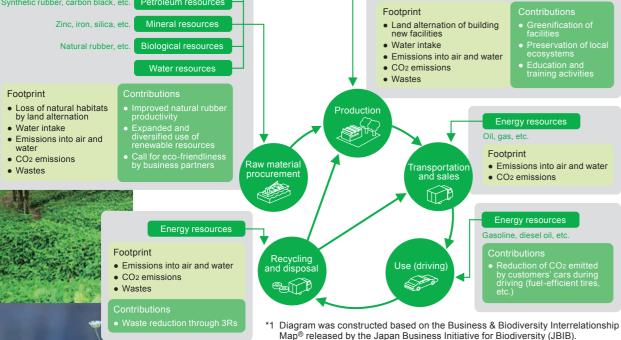
The Bridgestone Group is committed to being "in harmony with nature" in accordance with the long-term vision formulated at the tenth meeting of the Conference of the Parties (COP 10) held in 2010. To accomplish this, we will maintain a constant understanding of the relationship between our business and biodiversity, and define the priority issues that should be addressed.

"In balance with nature," the Group's long-term environmental vision for the above-mentioned goal, is our commitment to contribute to biodiversity through habitat enhancement, environmental education and research. The Group is conducting activities targeting "in balance with nature" throughout all business areas.

Framework of Activities Relativities Since 20 on and c following relations ating our

Relationship Between the Bridgestone Group's Tire Operations and Biodiversity*1

Since 2013, the Bridgestone Group has conducted a materiality analysis of the footprint on and contributions to biodiversity made by the Group's operations. This is based on the following interrelationship map which will inform our priorities. We will improve our relationship by taking key actions on these issues in the future, while continually reevaluating our priority issues to meet changes in social needs.



Priority Issues and Key Actions

Minimizing footprint

Reduce impact on land utilization

- Consider biodiversity at the time of new factory construction
 Request that suppliers give consideration to
- Request that suppliers give consideration to biodiversity

Reduce impact on water intake

Reduce the amount of water intake in the procurement and production processes

Reduce air and water emissions

- Strengthen management of environmental activities at manufacturing facilities, and prevent pollution
- Manage the use of chemicals to ensure environmental protection and reduce the use of
- targeted volatile organic compound (VOC) solvent

 Request that suppliers establish an environmental management system

Reduce CO₂ emissions from lifecycle stages

 Reduce CO₂ emissions from lifecycle stages from procurement to production, distribution and product disposal

Reduce waste production

Reduce waste production

Enhancing contributions

Preservation and restoration of habitat areas for wild plants and animals

 Local preservation or restoration of ecosystem and water resources at our facilities and in the communities where we live – around the globe.
 Education and research activities

Improvement of natural rubber farm productivity

 Contribution to the control of new forest exploitation by developing and promoting technologies to improve the productivity of natural rubber

Water resource preservation or restoration

 Water resource preservation or restoration activities around company locations and through support of water resource-based public organizations

Reduction of CO₂ emissions (customer us

Development and sales of fuel-efficient tires
 Improvement of vehicle fuel efficiency by reducing cars' weight

Mid-term Environmental Targets (by 2020)

35% reduction of water intake at manufacturing facilities

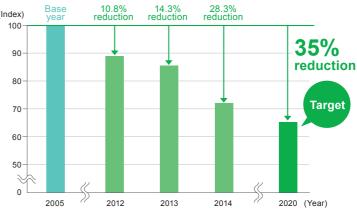
(compared to 2005, per unit*1)

2014 performance

28.3% reduction of water intake at manufacturing facilities

(compared to 2005, per unit)

■ Target and Actual Figures of Water Intake at manufacturing facilities (per unit)



* Because we refined past data, the data above differ slightly from

- *1 Bridgestone manages water intake per production volume and sales for each business unit. A weighted average efficiency of the reduction rate is used as an index.
- *2 Water risk assessment tool developed by World Business Council for Sustainable Development (WBCSD)
- *3 Water risk assessment tool developed by World Resources Institute (WRI)

"Water intake impact reduction" is given as the primary action for "minimization of impact" on biodiversity. The Bridgestone Group employs cooling water and steam in the production process. Continued use of such water resources is a current production requirement that cannot be separated from continuation of business for the Group. The Group has therefore the target of reducing water intake at 35% (per unit) by 2020 throughout the Group, based on 2005 levels.

Environmental Report 2014

We are reusing/recycling water at many of the Group's manufacturing facilities, including operations in areas where there is serious concern for

water shortage such as China and Mexico. We are also using water resources more efficiently by enhancing the production process and using rainwater. The results of 2014 revealed a 28.3% reduction (per unit) compared with 2005.

In addition to implementing risk assessment for water quality and volume, we take efficient use of water resources and wastewater into account when building new tire facilities. We are studying corrective measures for each location by assessing risk using WBCSD Global Water Tool*2 and WRI Aqueduct*3 at all existing facilities.

Examples of Initiatives

Introducing Closed Drainage at Manufacturing Facilities

The Kitakyushu Plant recycles discharged water from manufacturing process by building a closed drainage system. Also, the facility introduces a real-time water monitoring system to manage

water intake and recycle amount.



Water recycling system at Bridgestone's Kitakyushu Plant

Utilizing Rainwater

Rainwater is utilized in some of the Bridgestone Group's facilities. At these locations, rainwater is collected and used for operations or watering plants at

the facility.



Rainwater collection pond at Bridgestone Carbon Black (Thailand) Co., Ltd. (BSCB)



Minimizing footprint Enhanced VOC Solvent Reduction in Manufacturing Process

Bridgestone Group

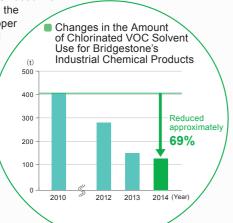
Global

The Bridgestone Group is continuously striving to switch to substitutes for chemical substances that could have a negative environmental footprint such as volatile organic compound (VOC) solvents, thus reducing the amount of chemical substances used.

As an example, the Group proactively worked on reducing the amount of chlorinated VOC solvent used at production bases in the Group's industrial chemical department, and realized a dramatic reduction of approximately 69% in a span of five years from 2010 to 2014. Bridgestone also progressively switched from VOC solvent-based adhesive to water-based adhesive used for

automobile seats at the Bridgestone APM's Upper Sandusky Plant and Dickson Plant in the USA, eventually eliminating VOC solvents altogether.

The Group will continue to reduce use of VOC in a global basis.





Minimizing footprint 2 Reduced SOx and NOx Emissions into the Air through Fuel Conversion

Bridgestone Japan

Bridgestone is working to reduce emissions of sulfur oxides (SOx) and nitrogen oxides (NOx) at our manufacturing facilities by converting from heavy fuel oil to natural gas. By 2014, we reduced the total SOx emissions by 62% and the total NOx emissions by 82% as compared to 2005.

We will continue to proactively promote fuel conversion in an effort to reduce the Group's environmental impact.



Natural gas tank in



Enhancing contributions 1 Support for Protection of Wildlife Indigenous to South Africa

South Africa

Bridgestone South Africa (Pty) Ltd. (BSAF) supports the protection of precious wildlife indigenous to South Africa. For example, BSAF has been supporting the organizations that protect endangered wildlife including the Cape Leopard Trust who is protecting mountain leopards which are unique to the Western Cape area. In addition to sustained support of them, BSAF cooperates in efforts to provide environmental education to local elementary schools. In 2014, BSAF launched a program where local students submitted drawings of animals that inhabit the Western Cape area and used the best drawings to create a calendar to enhance awareness toward biodiversity conservation.



Signs for studying mountain leopards



Enhancing contributions 2 Tree Planting Initiatives of "Ecopia Forest" to Protect the Environment around Bridgestone's Facilities

Bridgestone Japan

Bridgestone is spearheading many initiatives for conserving the environment in Japan. One noteworthy initiative is establishment of an "Ecopia Forest" district near company locations such as tire facilities. Forest conservation initiatives such as periodic thinning are carried out by teammates. In addition to improvement initiatives by volunteering employees, events are held to allow local people to enjoy nature in our eight "Ecopia Forests" nationwide



Forest experience event



Enhancing contributions 3 Technology Provision to Improve the Productivity of Small-Scale Natural Rubber Farmers

BSRE Indonesia

The majority of natural rubber production in the world is conducted by small-scale rubber farmers in Southeast Asia. The Bridgestone Group uses large volumes of natural rubber produced by such farmers. However, the productivity of the rubber trees raised by these farmers is low, and the quality and volume of natural rubber produced vary, making it difficult to maintain stable harvests.

To help such small-scale farmers improve the quality of their operations, P.T. Bridgestone Sumatra Rubber Estate (BSRE), a subsidiary that directly operates rubber farms in Indonesia, provides these farmers with the productivityimproving technologies Bridgestone has developed on its own rubber farms

The company started providing technical assistance to the agricultural training center established in the city of Siantar in North Sumatra. The company also provided Hevea rubber tree seedlings and implemented a technical training program for instructor candidates selected from various areas.

Such initiatives are expected to improve quality of natural rubber and income per unit area for small-scale farmers and help control expansion of agricultural land utilization.





Contribute to improve the productivity by providing technology and seedlings



Enhancing contributions 4 Acquisition of Certification Concerning Wildlife Habitat Conservation and **Environmental Education**

BSAM Mexico

The Monterrey tire plant of Bridgestone Americas, Inc. (BSAM) acquired certification for wildlife habitat conservation and environmental education from the Wildlife Habitat Council (WHC) in 2014

The certification applies to wildlife habitats and biodiversity conservation activities; education of employees at the Monterrey tire plant and nearby community about the local ecosystem and recycling, recovery and recycling of discarded tires from the Salinas River

BSAM has expanded its environmental conservation activities in partnership with the WHC in 10 locations in North America in addition to the Monterey tire plant, providing opportunities for environmental education that go along with preservation of natural fauna and flora in the various regions.

Protected wilderness donated by BSAM to the state of Tennessee (Bridgestone Firestone Centennial Wilderness





Enhancing contributions 6 Forest Restoration Initiatives around Natural Rubber Farms

BSKP/ W-BRIDGE Indonesia

An important national forest surrounding the P.T. Bridgestone Kalimantan Plantation (BSKP) in South Kalimantan, Indonesia was destroyed by fire and is experiencing unmanaged regrowth. Support initiatives of "W-BRIDGE*1" aim to restore this national forest. Waseda University and Japan International Forestry and Cooperation Center have been working together with BSKP, Lambung Mangkurat University and Tanah Laut Prefecture Forestry Bureau to implement a project utilizing the local community forestry system since 2012.

Forest management must be sustained over a long period of time by the local community to prevent the forest from being burned again. Thus, in addition to having the local community create a Hevea rubber tree forest from the damaged land, the project includes everything from producing crops such as rice and beans, to closing off the forest canopy. The project aims to create a forest with high economic value for the local community while taking biodiversity into account by planting native tree species in the surrounding area. So far, a total of 37 hectare (ha) forest has been created. Forest fire prevention is implemented in the form of local community patrols.

*1 Industry and academic institution collaborative project participated in by Bridgestone and Waseda University to contribute to conservation of the local

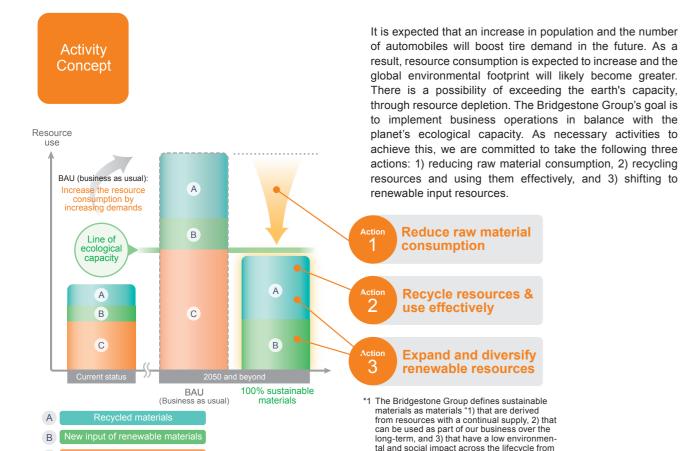


Rubber trees where rice is cultivated on the ground



"Guayule" research farm of the Bridgestone Americas Tire Operations, LLC, Arizona, USA

Towards 100% sustainable materials*1



procurement to disposal.

Main Technologies and Products Towards 100% Sustainable Materials

Run-Flat technology

Contribute to conservation of resources by making spare tires unnecessary by being able to continue drive a reasonable distance even if air pressure becomes zero



Longer operating life with improved durability

designed to maintain a high durability in casing and can be retread twice*1

Action 1 Reduce raw material consumption

Truck and bus tires "M800" series are

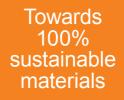
*1 Applicable to the following product sizes: 11R22.5 14PR/16PR and 275/80R22.5. The usage or management conditions of the tire and condition of components other than the tread

Half weight technology

The technology helps to reduce the volume of raw material that is used in a tire by half, while keeping the tire's original durability.

Cutting-edge Revolutionarily Reinforced Radial structure for aircraft tires

Contribute to conservation of resources by making tires 7 to 10% lighter by new belt construction using high elastic/high strength fiber that offers better safety









Action 2 Recycle use effectively

Recycle used tires by retreading, or applying new rubber to replace the worn tread part of used tires

Recycled rubber

Use recycled rubber for rubber products such as tires, while ensuring safety and quality

"Air free Concept (Non-Pneumatic) Tire"

With a unique structure of spokes stretching along the inner sides of the tires supporting the weight of the vehicle, there is no need to periodically refill the tires with air, meaning that the tires require less maintenance. At the same time the worry of punctures is eliminated. In addition, the spoke structure is made from thermoplastic resin*2 and, along with the rubber in the tread portion, the materials used in the tires are recyclable. contributing to the efficient use of resources. Further, by pursuing extremely low rolling resistance and contributing to reductions in CO2 emissions through use of proprietary technologies, Bridgestone believes it is possible to achieve even higher levels of environmental sustainability and safety. Aiming for practical application in 2013, "2nd generation" with enhanced functionality was announced*

*2 A synthetic resin that becomes flexible when heated, can be processed into a variety of shapes. and becomes hard when cooled.

*3 The tire can be installed on ultralight vehicles with about four times more weight and about 10 times maximum speed, compared to electric cart wearing the first-generation "Air Free Concept Tire."



Concept Tire of 100%

Bridgestone is expanding the range of reinforced plant fibers it uses in order to secure renewable resources used in raw materials. Synthetic rubber and carbon black generally made from finite resources were instead synthesized from renewable materials. The concept tire is being developed from these sustainable raw materials

Research and development of guayule, a new natural rubber resource

Bridgestone is performing research that explores extracting natural rubber from the quavule shrub, which is indigenous to arid regions, to use as a raw material of tires. Bridgestone Americas Tire Operations, LLC (BATO) holds 114 hectares (280 acres) of farmland in Eloy, Arizona, USA. On that land, a research farm for cultivation research of guayule was established and put into operation in September 2013. The grand opening ceremony for the "Biorubber Process Research Center" was held in Mesa, Arizona, in September 2014. The research center started production of

natural rubber from guayule in 2015 with a goal of practical application in the

Development of a new kind of

This fiber can be produced from general-grade pulps and the production volume is expected to increase significantly.

Improve productivity of Hevea rubber tree

Bridgestone has implemented a technical assistance program to improve the productivity and quality from small scale farmers by developing diagnostics for Hevea rubber trees.

Bridgestone Group Environmental Report 2015 14 13 Bridgestone Group Environmental Report 2015

Dialogue

Towards 100% Sustainable Materiality

Joint development of high-function tire rubber materials derived from plants

Bridgestone revealed its high-function tire rubber derived from plants developed together with Kao Corporation "Towards 100% sustainable materials" of tire raw materials in 2014.

- Mr. Hisanori Yoshida, as interviewer Announcer from Nippon Broadcasting System, Inc.
- Kao Corporation Performance Chemicals Research
 Mr. Kenichi Suenaga
- Bridgestone Corporation Materials Development Dept.
 Masahiro Hojo

Nippon Broadcasting
System, Inc.
Announcer
Mr. Hisanori Yoshida

Bridgestone Corporation
Materials Development
Dept.
Masahiro Hojo

Kao Corporation
Performance Chemicals
Research
Mr. Kenichi Suenaga

Mr. Kenichi Suenaga

Amnotstone

Mr. Yoshida: Even elementary school students know that Bridgestone Group is the world's largest tire rubber manufacturer. Kao Corporation, on the other hand, has the image of being Japan's representative detergent and chemical products manufacturer. I don't think tires are often associated with detergent, so what do you think you have produced together?

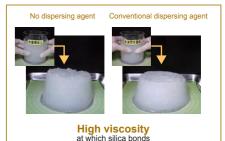
Hojo: Eighty percent of the tire consists of rubber and filler powder; a small amount of chemical is used when blending these materials. This time, we have jointly developed this chemical. A black powder called "carbon black" was originally used for the filler, but makers also began using a white powder called "silica" about 20 years ago. Silica offers good fuel efficiency, and enhances grip on rainy days as well. Silica has therefore recently come to be used often for fuel-efficient tires. Carbon black blends well with rubber, which works well with oil. Silica works well with water; however, it does not blend well with rubber. When we were trying to figure out a way to blend them, we had the idea of using a detergent that melts oil well.

Mr. Yoshida: Yes, of course, if you add detergent, you can mix water and oil. That's where Kao comes in.

Mr. Suenaga: First, allow me to explain about the surface active agents contained in detergent. Surface active agents (surfactants) are substances that alter the boundary (interface) between different substances. Surface active agents facilitate uniform mixing of water and oil, which intrinsically do not mix. These are used in detergents. Utilizing Kao's knowhow with surface active agents, we mixed silica, which has affinity for water, and rubber, which has affinity for oil.

"ECOPIA EX20" is a tire made with new silica dispersion improver **Mr. Yoshida**: What do you think specifically was improved by mixing rubber well with silica using surface active agents?

Hojo: In short, it enhanced fuel efficiency. In the past, if it didn't mix well using silica, it would change to "heat" when silica rubbed on silica when the vehicle was traveling, causing energy to be lost. On the other hand, if silica is mixed sufficiently, fillers do not rub against each other and change to thermal energy, so tires roll without resistance and ultimately result in better fuel efficiency.



New silica dispersion improver

Low viscosity at which silica comes apart

Mr. Yoshida: So, Kao has produced a new material designed especially for use with tires?

Mr. Suenaga: That's right. The "new silica dispersion improver" is especially developed for silica; it enables it to mix (disperse) well, and is furthermore completely made from plants.

Mr. Yoshida: Are tires using this material ready for being sold on the commercial market?

Hojo: In addition to ECOPIA EX20, we plan to gradually adopt it for our tires, one type at a time. We will begin using it for large tires and gradually expand to usage overseas. We will continue to work with Kao to develop good tires, solving problems together, one at a time.

Promotion of Activities in Our Operations

The Bridgestone Group is committed to "value natural resources" through the efficient use of resources on the planet throughout the lifecycle of products, from raw material procurement to disposal and recycling. In particular, important activities include reducing waste production, limiting waste to landfill and the 3Rs (reduce, reuse, recycle). The Group is working toward the development of a society that actively recycles.

Bridgestone's activities to "Value natural resources"



Activities towards 100% sustainable materials (See pages 13-14)



 Reducing waste production Limiting waste to landfill



Reducing packaging materials Saving resources for labeling



Longer life of

products

Reducing, reusing and recycling of used products

Disposal and

recycling

Eliminating the need for spare tires (See pages 13-14)

Example Initiative



Approach for Reducing Waste at Manufacturing Facilities

Bridgestone Group Global

The Bridgestone Group aims to reduce the product defect ratio by focusing on quality management and reducing the amount of waste emitted during production at various production bases. Due to new establishments or closure of facilities, etc., waste emission for 2014 was a total of 321,000 tons, which was an increase over 2013 with 8.7 tons per 100 million yen (waste emission proportional to sales). The 89.6% rate of recycling reflects an increase of 2.0% from 2013. Going forward, we will continue to reduce waste production volumes and recycling rates to contribute to the development of a society that actively recycles.

Waste Production at Bridgestone Group Manufacturing Facilities



* Because we refined past data, the data above differ slightly from Environmental Report 2014

Expansion of Initiatives to Realize Zero Landfill at **Various Production Bases**

BSAM U.S.

"Zero waste to landfill" was maintained for 2014 by completely eliminating landfill waste at the Wilson Plant, the Aiken Plant and the Anoka Plant. The Kings Mountain Plant and Gastonia Plant achieved zero waste to landfill status since July 2014. BSAM also has been proactively involved in recycling initiatives at tire facilities since 2006, and has reduced the percentage of landfill waste included in amount of waste from 50% to less than 10%

The Bridgestone Group already has achieved zero waste to landfill status at all its production facilities in Japan and four tire facilities in China, and will continue to work as a group to reduce waste emission and recycle waste.



Wilson Plant which has achieved zero emission

Efforts to Recycle Used Tires in America

BSRO U.S.

Bridgestone Retail Operations, LLC (BSRO) has been implementing the "Tires4Ward program" since 2012 with a goal that for every new tire sold in the United States; one spent tire would be reused for a valuable purpose.

Initiatives include support of free recovery and recycling of tires abandoned in parks and rivers through a partnership with the "River Network" volunteer organization. The company has provided support for more than 400 regional cleanup initiatives all over the United States, and has collected over 100,000 discarded tires. The company has annually donated \$25,000 to support the River Rally and the River Network, as well as an additional \$5,000 in 2014 which was collected through Rethink Green campaign to educate customers about fuel-efficient tires. The community-involvement initiatives are currently being expanded from the U.S. to South and Central America, and will continue in the future as well.



Initiative to collect discarded tires



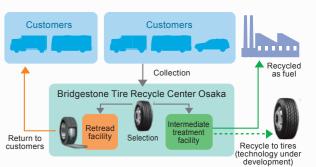
Operation of Facilities Oriented toward Recycling of Used Tires

BTJ

Japan

Bridgestone Tire Japan Co., LTD. (BTJ) operates the Bridgestone Tire Recycle Center Osaka. The center combines functions of a retread tire*1 manufacturing facility and an intermediate used tire*2 treatment facility in a single location, and it enables collection*3 of customers' used tires, and reusing and recycling of all the collected tires. The center won the "Bridgestone Environmental Activities Award" for 2014 presented by the Bridgestone Group in Japan. We will continue to work to use resources in a more sustainable way.

- *1 Tires that are reused by replacing tread rubber
- *2 Crushing of waste tires that cannot be re-tread
- *3 Collection areas include Osaka Prefecture and parts of Kyoto, Hyogo, Shiga and Wakayama Prefectures The Group also collects discarded tires in accordance with established laws/regulations and procedures.



Recycling of Used Tires in Japan

Bridgestone

Japan

Japan Automobile Tyre Manufacturers Association (JATMA) and many others in the tire industry are working toward reducing (controlling the emergence of used tires) and recycling used tires, which is vital for the development of a society that recycles. More specifically, they implement monitoring of reduction factors focusing on making tires lighter and longer lasting, monitoring of tire recycling status and measures against illegal accumulation and dumping of waste tires. According to a JATMA survey, the 2014 recycling rate of used tires in Japan was 88%

Bridgestone contributes to reducing the environmental impact of used tires in Japan through joint activities with JATMA.

Recycling of Scrap Tyres in 2014 Thermal Recycling Others 12% Cement calcining 59 Boilers 1% Export Used tyres 12% Cut tyres 1% 2014 Others 1% Reclaimed & bowdered rubber 1 Source: JATMA

Activities to Reduce Environmental Impact of Used Tires through WBCSD Bridgestone Group Global

Bridgestone Group

Global

It is projected*4 that approximately one billion used tires will emerge worldwide each year. Reducing the environmental impact of used tires is a common issue of the tire industry. Bridgestone has been involved in the Tyre Industry Project of the World Business Council for Sustainable Development (WBCSD), which was established in 2006. As a leading tire and rubber company, the company has worked toward building a sustainable society in cooperation with other companies in the industry. This project aims to develop an effective management system for used tires by encouraging related industries and governments in various countries to appropriately manage used tires and reduce the environmental impact through the publication of "End-of-Life Tires: A Framework for Effective ELT Management Systems" and disclosure of survey results.

*4 WBCSD Tyre Industry Project



Report on WBCSD's project



Reduce CO2 Emissions

Long-term Vision

(for 2050 and beyond)

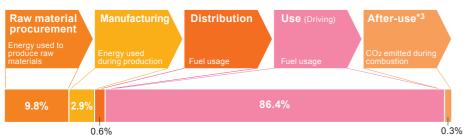
Solar power generation panels installed on the roof of

Contribute to the globally agreed target*1

(over 50% reduction of CO₂ emissions)

Activity Concept

■ Greenhouse Gas Emissions by Tire Lifecycle Stage (Converted to CO₂ Base)*2



As a supplier to the automotive industry, the Bridgestone Group is paying close attention to the impact of CO₂ emissions. Based on the projections of IPCC*4 and other internationally recognized agencies, the Group has established a goal to reduce CO₂ emissions in our business operations.

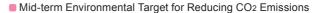
Our efforts to reduce CO2 emissions goes beyond tire manufacturing. The Bridgestone Group has committed to reducing CO₂ emissions through the lifecycle of the tire. The tire lifecycle stage that accounts for the largest volume of CO2 emissions is "Use (Driving)." Tire contribution to automobile exhaust emissions can be lowered by reducing

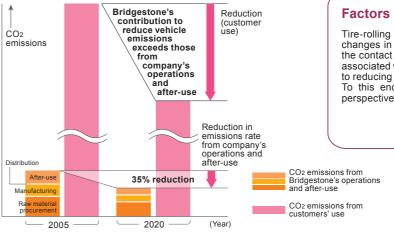
rolling resistance, thus improving vehicle fuel efficiency and contributes to reduction of amount of CO2 emission from the vehicle. The Group will continue its efforts to reduce amount of CO2 emission for the lifecycle of our products, including the time while the product is being used.

Along with striving to mitigate climate change by reducing amount of CO2 emission, the company recognizes the risk of Group activities on climate change and is implementing adaptation measures such as conducting research on providing natural rubber from areas other than tropical regions.

Mid-term Environmenta **Targets** (by 2020)

- 1 35% reduction in CO₂ from the company's total operations (raw material and component procurement, manufacturing and logistics) and also its products'
- Improve tire-rolling efficiency by 25%, and the reduction in CO₂ emissions from helping improve the customers' fuel efficiency exceeds the emissions related to Bridgestone's operations and its products' after-use.





* Calculation methods can be found on the Company's homepage

* The Company's ability to control CO2 emissions from disposal is limited, but we are working to reduce emissions by making products lighter and promoting usage of retread tires

Factors Behind Rolling Resistance

Tire-rolling resistance is primarily caused by three factors: changes in the shape of the tire while driving, friction between the contact patch of treads and the road, and the air resistance associated with the rotation of the tire. Bridgestone is committed to reducing the energy losses that result from rolling resistance. To this end, we are advancing tire R&D ventures from the perspectives of structure and shape, as well as materials.

Composing Elements of Rolling Resistance



2014 performance

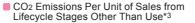
- 1 CO₂ Emissions from Lifecycle Stages Other Than Use: 31.8% Reduction (Compared to 2005, Per Unit of Sales)
- 2 Fuel Efficiency-Influencing Tire-Rolling Efficiency: 12.7% Improvement

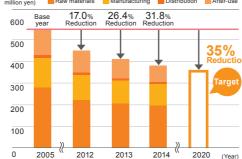
Regarding the amount of CO2 emitted from tire lifecycle stages other than use, we established a target of 35% reduction relative to our sales by 2020, and recorded a 31.8% reduction (compared with 2005) by 2014. The total amount of CO₂ emission was also reduced compared with 2005. We are striving to document our track record of CO2 emissions by third-party assurance. (See page 27)

Likewise, the Bridgestone Group has established 25% improvement in tire-rolling efficiency by 2020 as a target. By 2014, we achieved an improvement of 12.7% (compared with 2005). This CO2 reduction contribution is the equiva-

lent of approximately 6.8 million tons*1. Improving rolling efficiency while maintaining safety is a difficult task that requires innovative technologies. Bridgestone's proprietary "NanoPro-Tech*2" technology enables such improvements, and we are helping reduce the volume of CO2 emitted by customers when they drive by selling fuel-efficient tires that use this technology around the world.

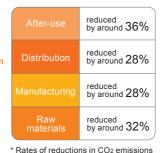
- *1 Calculated based on "Tire LCCO2 calculation guidelines Ver. 2.0" (established by Japan Automobile Tire Manufacturers Association [JATMA] in April 2012)
- *2 The NanoPro-Tech is a technology that allows engineers to analyze and control the molecular structure of rubber at the nano-scale level





*3 Because we refined past data, the data above differ slightly from both Environmental Report 2014 and CSR Report 2014. Includes CO2 emissions reduction activities and exchange rate fluctuations of sales.







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^{*1} At the G8 Hokkaido Toyako Summit (held in July 2008) G8 leaders agreed on a reduction of at least 50% in greenhouse gas emissions worldwide by 2050. The same year, at the Major Economies Meeting On Energy Security and Climate Change, the developed countries, along with emerging nations including China, India and others, adopted this target as a shared global objective.

^{*2} Greenhouse gas emissions throughout the lifecycle of 1 fuel-efficient passenger car tire (195/65R15): 243.9kgCO2e

^{*3} Greenhouse gas emissions from after-use stage: 13.1kgCOze (emissions reductions: 12.5kgCOze)

⁽Source: Tire LCCO2 Calculation Guidelines Ver. 2.0, 2012, Japan Automobile Tyre Manufacturers Association)

^{*4} Intergovernmental Panel on Climate Change

Awards and Accolades for "ologic" Next-generation **Fuel-efficient Tire**

Bridgestone Group

Global

"ologic," which offers both fuel efficiency and safety by higher dimensionality, suppresses deformation of the part of the tire that makes contact with the road by enlarging diameter of the tire, and along with reducing rolling resistance related to vehicle fuel efficiency, reduces air resistance while traveling by width constriction. This technology also secures high-grip performance on wet and dry roads by combining long contact shape in tire traveling direction with dedicated pattern or compound. In 2014, this technology won the "Tire Technology of the Year," "BMW Supplier Innovation Award 2014," "2014 Global Warming Prevention Initiatives Minister of Environment Award" and "2014 Nikkei Global Environment Technology Award" for Excellence. "BLIZZAK NV ologic" studless tire for passenger vehicles equipped with this technology also went on sale in 2014.



Achieved No. 1 Mounting Rate in Japan along with Improved Performance of "ECOPIA" **Fuel-efficient Tire**

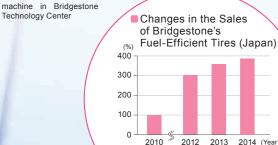
Bridgestone Japan

The number of fuel-efficient tires shipped domestically in Japan increased more than 3.8 times the number of units voluntarily established for the industry in 2010, in just four years from 2010 to 2014. An investigation conducted in late August 2014 clearly showed that Bridgestone's "ECOPIA" fuel-efficient tire is "the most frequently selected tire in Japan*1."

The company's "ECOPIA PZ-X" fuel-efficient tire has 37% less rolling resistance that the conventional "play PZ-X" tire*2, and contributes to better mileage and less CO2 emission when used.

*1 Bridgestone Tires Japan commissioned a third-party investigation company o conduct random sampling investigation by online survey in accordance with the current state of structure ratio by region/type of vehicle and according to sex of passenger vehicle drivers from August 25 to September 1, 2014, 4,461 vehicles mounted with fuel-efficient tires were sampled. *2 Test conditions: Tire size: 215/60R16 95H/test load: 5.42 kN/air pressure: 210

kPa/speed: 80 km/h/test method: force



Based on unit shipments. The definition of fuel-efficient tires is based on the grading Manufacturers Association (JATMA)



New technology "ologic" that offers both fuel efficiency and safety by higher dimensionality

> "Tire Technology of the Year" in the Tire Technology Internationa Awards for Innovation and



Industry-wide Initiatives Connected with Reduction of CO₂ Emissions

Bridgestone

Japan

Bridgestone contributes to reduction of CO2 emissions in Japan by participating in various industry organizations and being a member of the Japan Automobile Tyre Manufacturers Association (JATMA) and the Japan Rubber Manufacturers Association (JRMA).

JATMA is trying to reduce the amount of CO2 emissions through reduction of rolling resistance in tires in the entire tire industry. The "system of tire labeling" started being used in 2010. Tires that meet the criteria for rolling efficiency and wet grip performance are defined as "fuel-efficient tires." In January 2015, a study of CO2 emission amounts of all passenger vehicle tires sold by JATMA member companies in 2006 and 2012 was conducted. The results showed that the amount of CO2 emission per tire used in 2012 was reduced by 7.5% compared to 2006*3.

The "Low-carbon society implementation plan (Phase II)" was established by JRMA in January 2015. The plan indicates a 21% reduction in CO2 emission rate in production as a new target for 2030 compared with 2005. This is a collection of initiatives for proactive environmental preservation for the rubber industry based on an international framework for climate change and global warming that is supposed to go into effect in 2020 in accordance with the COP21 agreement scheduled for the end of 2015.

*3 Calculated based on JATMA "Tyre LCCO2 calculation guidelines Ver. 2.0" assuming 30,000 km as service life of passenger vehicle tires

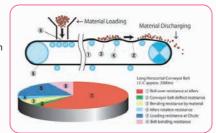
Flame Resistant. **Energy-saving Conveyor Belt on Sale**

Bridgestone Japan

Using rubber material development technology cultivated through the development of the "ECOPIA" fuel-efficient tire, Bridgestone began marketing its flame-resistant conveyor belt that add further capacity to save energy in November 2014.

High efficiency and cost reduction have recently become important themes at facilities, resource/energy development, etc. The most significant source of energy loss from belt conveyor operation is produced by resistance when the belt travels across rollers (roller crossing resistance). By focusing on this roller crossing resistance and utilizing the rubber materials development technologies cultivated in the tire business, the Company succeeded in developing a conveyor belt designed to save energy while maintaining flame resistance. The company will continue to contribute to solutions for customer's challenges by taking advantage of the Bridgestone Group's advanced technical capacity.

Various types of resistance that occur during belt conveyor operation



Operations

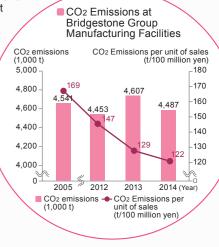
Reduced CO₂ Emissions at Manufacturing Facilities by 27.6% (Compared with 2005, per unit of sales)

Bridgestone Group

Global

The Bridgestone Group is working to reduce CO2 emissions from its facilities by using energy more efficiently and switching to alternative forms of energy that result in lower emissions. As a result of these efforts, CO2 emissions in 2013 per unit of sales were 27.6% lower than in 2005. Going forward, we are working to introduce

more energy-efficient equipment and implement stringent energy management measures to realize further reductions in CO₂ emissions.



* Because we refined past data, the data above differ slightly from Environmental Report 2014

Initiatives Operation

Introduction of Biomass **Boiler to Cut Amount of** CO₂ Emissions in Half

BSCR

Costa Rica

Bridgestone de Costa Rica, S.A. (BSCR) has introduced a biomass boiler to produce heat for its San Jose Plant in 2014. The company has reduced CO2 emission for the facility by approximately 50% by replacing fossil fuel oil with wood pellets as biogenic fuel for the boiler. Through this initiative, BSCR contributes to achievement of carbon neutral*1 aimed for by the Republic of Costa Rica.

*1 Maintaining the balance of amount of CO₂ emissions with amount absorbed to keep the amount of CO2 emitted artificially with the below the amount absorbed by plants, etc.



Introduced biomass boiler



Wood pellet biomass fuel

Initiatives

Acquisition of ISO50001 **Certification by Tire Manufacturing Facilities** in Thailand

TBSC Thailand

The Rangsit Plant of Thai Bridgestone Co., Ltd. (TBSC) acquired International Standard ISO50001 for energy management systems in January 2015.

The Wilson Plant of Bridgestone Americas, Inc. (BSAM) became the first tire facilities in the world to obtain ISO50001 in October 2012, followed by the technical center of Bridgestone Europe NV/SA (BSEU) in May 2012. The Bridgestone Group is working on identifying the main factors of energy consumption, defining an effect index, setting targets, informing employees, enhancing capacity of engineers at related facilities, forming a special team for saving energy and making energy management more efficient.

Registration Certificate Thai Bridgestone Co., Ltd. (Rangsit Plant) ISO 50001:2011

ISO50001 certificate of Rangsit Plant

Environmental Management

The Bridgestone Group has developed the Total Environmental Advanced Management System, or TEAMS, which is a Group's own environmental management system (EMS) that serves as a foundation for environmental activities. The values and practices learned through certifying all Bridgestone's production facilities to the ISO 14001 international standard enabled implementation of non-certified EMS systems which adhere to the standard. TEAMS was developed by adding the concepts of Total (denoting the participation of all business units, facility functions and employees throughout the Group) and Advanced (denoting the Group's commitment to active disclosure and the consistent pursuit of advanced, world-class activities).

■ Total Environmental Advanced Management System (TEAMS)

Following the TEAMS concept, each Strategic Business Unit (SBU) and each facility in Bridgestone Group prepare and adopt an EMS using methodologies employed by ISO 14001. Then environmental activities are improved through the use of the plan-do-check-act cycle (PDCA) at three levels: individual facilities, SBUs and globally or Group-wide.

As of December 2014, 162 (over 99%) of the Group's production facilities*1 have obtained the ISO 14001 certification. We plan to strengthen our activity even further by achieving and maintaining ISO 14001 certification for all target facilities. We also are preparing EMS for new production sites according to the Bridgestone Group's proprietary factory production certification system and plan to successively gain ISO 14001 certification for these sites.

We have an EMS for all Bridgestone operations in Japan—including all factories, the headquarters office and technical centers—and have received a single multi-sites ISO 14001 certification. We are working to be eco-friendly in every area of our operations, from product development and design, through production, distribution and manufacturing, to sales and service.

As a basis for supporting TEAMS, we also are striving to provide and consolidate shared global information systems, working toward improvement by analyzing each SBU's environmental activities and data through the Group's PDCA cycle.

*1 Facilities defined by Bridgestone as needing ISO 14001 certification.

■ ISO 14001 Certification in the Bridgestone Group

Certified sites	Percentage	
162	99.4%	

Global Environmental Management

The Global Head Office (GHO), Global Management Platform (GMP) and SBUs work together to pursue TEAMS activities to help achieve the objectives of the Mid-Term Management Plan (MTP). The GHO draws up overall strategy and basic policy, communicating this to the GMP, which directs the SBUs, provides support and assistance.

A Group environment committee, defined as the CEO and Representative Board members, has been established to provide an opportunity for top management review. The committee determines environmental activities of the Group as a whole concerning biodiversity, resource recycling and climate change. We also continually strive to improve our environmental approaches by sharing issues and activities at regular liaison meetings between SBUs and facilities. This is in addition to holding annual Global Environmental Meetings.

Global Environmental Management

Global Head Office (GHO)

- Draws up top-level environmental management policy
- · Implements management review

Global Management Platform (GMP)

- · Implements GHO policy
- Provides support for each environmental management

Strategic Business Unit (SBU) Controls environmental function, provides support for each sit			
Japan Tire SBU	Environmental management platform Facility		
Americas SBU	Environmental management platform Facility		
Europe SBU	Environmental management platform Facility		
Specialty Tire SBU	Environmental management platform Facility		
China, Asia-Pacific Tire SBU	Environmental management platform Facility		
Middle East & Africa Tire SBU	Environmental management platform Facility		
Diversified Product SBU	Environmental management platform Facility		

Environmental Management at SBU and Business Facilities

The Bridgestone Group is taking various measures in the areas of system development and human resources development in order to improve environmental management at SBUs and business facilities.

For the system development, we have conducted environmental assessments since 2010 and evaluated the environmental management constitution (structure and functionality) at three levels (Level I, Level II and Level III). Level I needs improvement, Level II demonstrates systematic competence, and Level III demonstrates sustainable proficiency. We conducted the assessment in all of our manufacturing facilities*1 in 2014 and use the PDCA process based on the results to improve our constitution.

The Group holds regular training programs to advance development of environmental personnel and enhance the environmental education system in the entire Group. In 2014, the training program was held in Japan, China, Asia, North America and EU countries, with more than 150 participants engaged in environmental improvement activities and projects. The environmental training program included on-site training and discussions among participants, aiming to further enhance the abilities of environmental personnel and foster greater coordi-

nation within the regions. We are planning to hold the program in 2015 and beyond.

*1 Facilities defined by Bridgestone as needing ISO 14001 certification



Environmental training program

Eco-Products

The Bridgestone Group is working together with its customers to reduce its environmental footprint by providing products and services that have been developed considering the environment throughout the lifecycle, from the procurement of raw materials to after use of products. This is in line with the goals set in the Group's Environmental Mission Statement: to achieve harmony with nature, value natural resources and reduce CO2 emissions.

The Group has developed Standards for Eco-Products for all of its products and services based on the three above identified environmental goals, as well as comfort and safety. We also are striving to develop new products and services which contribute to a reduction in environmental impact.

Criteria for Eco-Products

Assessment area		Assessment criteria (examples)		
In harmony with nature	Harmony with nature	Consideration of sustainability in use of resources Reduction of chemicals used		
	Minimization of resources used	Weight reduction, water-saving functionality, increased lifespan, waste reduction		
Value natural resources	Recycling	Use of recycled resources, reusability, possibility and ease of dismantlement		
Reduce CO ₂ emissions	Prevention of global warming	CO2 emissions, low fuel consumption / power saving		
(Comfort	Low road noise		
	Safety	Wet grip, ice traction		

■ Factory Production Certification System

The Bridgestone Group has adopted a proprietary factory production certification system based on ISO 14001 to rapidly identify and minimize environmental risks at new factories and production lines.

This four-stage system checks and certifies the environmental management systems at new factories, such as the establishment of an environmental plan, the implementation of a preliminary environmental review at the time of construction, the preparation of environmental policies. legal compliance and environmental training. In 2014, five facilities in five countries achieved certification.

Promotion of Environmental Activities throughout the Supply Chain

Working together with suppliers, the Bridgestone Group developed the CSR Procurement Guidelines in order to promote environmental activities throughout the supply chain. The guidelines stipulate suppliers' efforts toward the management of chemical products, minimization of environmental impacts from discharged water and emissions, management and reduction of wastes, reduction of greenhouse gases, consideration of biodiversity and others. We are improving our chemical product management system by including in these guidelines an original chemical list prepared by the Group to prevent undesirable chemicals from getting mixed in among the items we procure. We also request that our suppliers cooperate in environmental improvement by holding an annual procurement policy meeting to gain understanding of Bridgestone's policy on procurement.

We have developed a CSR Self-Check Sheet as a tool to assist suppliers with enhancing environmental commitment. We hold CSR training sessions and provide on-site support based on the check results, and are working together with suppliers in their environmental activities. We received CSR Self-Check Sheet from approximately 90 percent of the suppliers in 2014; we also visited two companies to provide assistance.

Bridgestone have been an engaged member of the Japan Business Initiative for Biodiversity since 2010 to further promote environmental conservation. As a member of the working group consisting of businesses of various types, we are involved in researching techniques that are useful when businesses implement measures to protect and preserve biodiversity from impacts of the supply chain and impacts on the environment "visible," etc.

Award for Environmental Activities of Suppliers

In 2013, Bridgestone established the "Green Partner Award" to recognize suppliers for their environmental activities. Based on the Environmental Mission Statement of the Bridgestone Group, "In harmony with nature," "Value natural resources," "Reduce CO2 emissions," it commends activities that help reduce the environmental footprint and result in an environmental contribution. The award was presented to two suppliers in 2014.

Environmental Communication

Company Environmental Awards

Each year, the Bridgestone Group holds the Bridgestone Group Awards, including the Bridgestone Group Award for Environmental Excellence, to recognize achievements by organizations and employees within the Group. These awards have been presented since 2008, with the goal of increasing interest in and motivation toward environmental activities among all our employees.

The "Tires4Ward Program" of Bridgestone Retail Operations received the "Bridgestone Group Awards for Environment Excellence" for 2014. (See page 18)



Award ceremony

External Assessment

Ranking/Rating System	Assessment
CDP (Carbon Disclosure Project) disclosure score	97 out of 100
DJSI (Dow Jones Sustainability Index) Asia Pacific	selected
The 18th Nikkei Environmental Management Survey	26th (manufacturing) / 419 companies in Japan
The 9th Toyo Keizai CSR Ranking (Environment)	5th / 1,305 companies in Japan

Major Environmental Ranking and Rating Systems (2014)

Global Initiatives that Contribute to Sustained Development of the Tire and Automobile Industries

The Bridgestone Group participates in the "Tyre Industry Project" and "Sustainable Mobility Project 2.0" established under the World Business Council for Sustainable Development (WBCSD), which is headquartered in Geneva, Switzerland.

Activities of the Tyre Industry Project

As one of the chair companies of the Tyre Industry Project, Bridgestone is a leader in addressing environmental and public health-related issues associated with tires and the tire industry.

Research on the impact of tire wear particles on the environment

The project includes assessment and analysis of the impact of particles produced by tires in use on the environment

Research on the impact of the use of nano materials on society, economy and environment

The Tyre Industry Project think that the use of nano materials in the tire industry has a low risk of negative impact on health and the environment (study of results published in 2011). Research conducted by the Organization for Economic Cooperation and Development (OECD), which cooperated in the project in June 2014, has revealed that use of nano materials contributes to sustainability in the tire industry and transportation sector. The risk assessment method for studying impact of use of nano materials on the environment at the tire development and manufacturing stages was announced.

3 Global development of effective used tire management system

Concerning effective management of used tires, a "discarded tire management manual" has been issued, and activities are being promoted continuously to expand Group Global. (See page 18)

Initiatives of "Sustainable Mobility Project 2.0"

With this project, a cross-sectional group of businesses, etc., related to mobility such as automobiles, railways, tires, etc., is created and initiatives are being taken to realize sustainable development of mobility which is an important factor of a recycling-focused society. Bridgestone is participating in a traffic congestion mitigation project in Bangkok, Thailand, and is pursuing initiatives in collaboration with other pertinent companies.



Major External Environmental Awards and Certifications (2014)

Award/Certification	Activity	Recipient of award/certification			
Products and Services					
Tire Technology International Awards for Innovation and excellence 2014" / "Tire Technology of the Year"	Development of "ologic" next-generation fuel-efficient tire technology	Bridgestone Corporation			
2014 Nikkei Global Environment Technology Award" for excellence	Development and preparation of "ologic" next-generation fuel-efficient tire technology for practical use	Bridgestone Corporation			
2014 Global Warming Prevention Initiatives Minister of Environment Award Technology Development / Product Development Dept.	Development and preparation of "ologic" next-generation fuel-efficient tire technology for practical use	Bridgestone Corporation			
2014 Good Design Award	ECOPIA EX20 fuel efficient tire	Bridgestone Corporation			
Reduce / Reuse / Recycle Promoter Award RR Promotion Council Chairman Award	Creation of good recycling-supported environment by turning tree trimmings into wood chips	Bridgestone Green Landscape Corporation			
	Communication				
nvironmental Communication Award for Excellence	Bridgestone Group Environmental Report 2014	Bridgestone Corporation			
	Operations				
Green Industry Awards 2014	Environmental activities in general	P.T.Bridgestone Sumatra Rubber Estate			
Northeast Energy Efficiency Partnerships (NEEP) 2014 Northeast Business Leader for Energy Efficiency ecognition*	Energy conservation promotion	Firestone Building Products Company, LLC Bristol Plant			
New District Administrative Commission of Wuxi Municipal People's Government "Superior Business"	Business activities in general, including the environment	Bridgestone (China) Investment Co., Ltd. Wuxi Plant			
HONDA Green Factory Environmental Achievement Recognitions 2014	Environmental activities in general	Bridgestone Americas, Inc. Wilson Plant			
Recognition by the Québec Coalition of Watershed Organizations	Wastewater treatment management	Bridgestone Americas, Inc. Joliette Plant			
2014 Maronnier ECO Enterprise Award for Excellence	CO2 emission reduction, etc.	Bridgestone Corporation, Tochigi Plant			
Yokohama City Global Warming Prevention Plan/System, Excellent Business Award	CO ₂ emission reduction	Bridgestone Corporation, Yokohama Plant			
Ciudad de Burgos award	Environmental activities in general	Bridgestone Europe NV/SA Burgos Plant			
2014 China CSR Contribution Award	Business activities in general, including the environment	Bridgestone (China) Investment Co., Ltd.			
Best Environmental Protection and Public Welfare Practice Award	Environmental activities in general	Bridgestone (China) Investment Co., Ltd.			
	Community Activities				
Wildlife Habitat Council "Wildlife at Work" Certification 2014	Wildlife habitat conservation activities	Bridgestone Americas, Inc. Aiken County Plant			
Wildlife Habitat Council "Wildlife at Work" Certification 2014	Wildlife habitat conservation activities	Bridgestone Americas, Inc. Monterrey Plant			
2014 Tennessee Environmental Stewardship Award" "Excellence in Sustainable Performances"	Collecting and recycling of used tires "Tires4ward Program"	Bridgestone Americas, Inc. Bridgestone Retail Operations, LLC			
CSR-DIW (Department of Industrial Works) Award 2014	CSR activities in general	Thai Bridgestone Co., Ltd.			
Letter from N.C.DENR Secretary	Environmental activities in general	Bridgestone Americas, Inc. Wilson Plant			
Chichibu City Green Curtain Contest 2014 Special Award	Green Curtain*1	Bridgestone Sports Corporation Chichibu Facility			
Annual Pretreatment Compliance Awards Banquet" 014 City of Wilson Pretreatment Compliance Gold Award"	Compliance	Bridgestone Americas, Inc. Wilson Plant			
Citizens Gathering to Think about the Environment Certificate of Gratitude	Environmental activities in general	Bridgestone Elastic Co., Ltd.			

^{*1} Growth of climbing facilities over building windows for energy saving.

Third-party Assurance of Environment Data

The Bridgestone Group received the assurance of a third-party institution to ensure transparency, completeness, and accuracy of water intake results and results of tests concerning 2020 CO2 emission reduction targets.





* It is on the homepage

http://www.bridgestone.com/responsibilities/environment/mission/emissions3.html

CO₂ emission data (Scope 1/2/3) was provided through evaluation by a third-party institution based on ISAE3000 and conforming to ISO14064-3; water intake data was provided by testing implemented by a third-party verification based on and conforming to ISAE3000. Verification of primarily production based in 3 countries, 5 bases/facilities was conducted by on-site inspection; issues at the various bases were identified and solutions were proposed and implemented. Initiatives to further reduce CO₂ emission are also being implemented.



On-site inspection at Hofu Plant, Japan



On-site inspection at Bekasi Plant,

Bases where on-site inspection was implemented for third-party verification in 2015

Name of country	Name of facility	Main product(s)	Function of CO ₂ emission and water intake report
Japan	eco-Activities Promotion Division	_	Summary and report concerning amounts of CO ₂ emission (SCOPE 1/2/3) and water intake at various facilities
Japan	Hofu Plant	Tire manufacturing	Measurement of and report concerning amounts of CO ₂ emission and water intake from facility
Japan	Saga Plant	Manufacturing of steel cord	Measurement of and report concerning amounts of CO ₂ emission and water intake from facility
U.S.	La Vergne Plant	Tire manufacturing	Measurement of and report concerning amounts of CO ₂ emission and water intake from facility
Indonesia	Bekasi Plant	Tire manufacturing	Measurement of and report concerning amounts of CO ₂ emission and water intake from facility

Main Performance Indicators

GRI-listed items for each data are disclosed here based on the standard disclosure of the GRI Guideline*1.

Management-Related Data

Data items	Results in 2012	Results in 2013	Results in 2014	GRI
Sales of the group	3,039.7 billion yen	3,568.0 billion yen	3,673.9 billion yen	G4-9
Rubber production volume	1,760,000 tonnes	1,820,000 tonnes	1,820,000 tonnes	G4-9
Number of employees	143,448	145,029	144,632	G4-9
Number of manufacturing facilities*2	178	178	172	G4-9

- *1 Global Reporting Initiative Sustainability Reporting Guidelines (Fourth Edition (G4))
 *2 Number of facilities as of April 1 each year (as of the end of December each year for other data).

Environment-Related Data

Data items	Results in 2012	Results in 2013	Results in 2014	GRI
Amount of raw materials used	4,144,000 tonnes	4,329,000 tonnes	4,210,000 tonnes	G4-EN1
Total consumption of energy	46,100,000 GJ	46,781,000 GJ	45,792,000 GJ	G4-EN3
Energy consumption (fuel)*1	716,000 kl	729,000 kl	705,000 kl	G4-EN3
Energy consumption (electricity)	4,520,000 MWh	4,635,000 MWh	4,629,000 MWh	G4-EN3
Energy consumption (steam)	2,063,000 GJ	1,821,000 GJ	1,812,000 GJ	G4-EN3
Energy consumption per unit of sales	1,517 GJ/100 million yen	1,311 GJ/100 million yen	1,246 GJ/100 million yen	G4-EN5
Reduction volume of energy consumption	2,386,000 GJ	-681,000 GJ	989,000 GJ	G4-EN6
Total water intake	82,189,000 m ³	83,236,000 m ³	77,278,000 m ^{3**}	G4-EN8
Water intake (surface water)	_	3,280,000 m ³	5,570,000 m ^{3**}	G4-EN8
Water intake (groundwater)	_	21,428,000 m ³	12,730,000 m ^{3**}	G4-EN8
Water intake (water supply, industrial water)	_	20,269,000 m ³	19,228,000 m ³ **	G4-EN8
Water intake (seawater)	_	38,258,000 m ³	39,749,000 m ^{3**}	G4-EN8
Volume of recycled water	511,830,000 m ³	445,379,000 m ³	517,663,000 m ³	G4-EN10
Greenhouse gas emissions (SCOPE 1)	2,003,000 t-CO2	2,036,000 t-CO2	1,922,000 t-CO2**	G4-EN15
Greenhouse gas emissions (SCOPE 2)	2,450,000 t-CO2	2,571,000 t-CO2	2,565,000 t-CO2**	G4-EN16
Greenhouse gas emissions (SCOPE 3)*2	110,037,000 t-CO ₂	120,994,000 t-CO ₂	125,888,000 t-CO2**	G4-EN17
CO2 emissions per unit in lifecycle stages*3	469 tonnes/100 million yen	415 tonnes/100 million yen	385 tonnes/100 million yen	G4-EN18
CO2 emission reduction rate in lifecycle stages (compared with 2005)	17.0%	26.4%	31.8%	G4-EN19
NOx emissions (from Bridgestone Corporation)	846 tonnes	600 tonnes	578 tonnes	G4-EN21
SOx emissions (from Bridgestone Corporation)	499 tonnes	456 tonnes	424 tonnes	G4-EN21
Total water discharge	66,981,000 m ³	71,387,000 m ³	63,008,000 m ³	G4-EN22
Waste discharge	293,000 tonnes	296,000 tonnes	321,000 tonnes	G4-EN23
Volume of recycled waste	255,000 tonnes	259,000 tonnes	287,000 tonnes	G4-EN23
Volume of waste landfill	38,000 tonnes	37,000 tonnes	34,000 tonnes	G4-EN23
Investment in environmental preservation*4 (of Bridgestone Corporation)	2.6 billion yen	2.5 billion yen	3.4 billion yen	G4-EN31
Expenses for environmental preservation*4 (of Bridgestone Corporation)	13.1 billion yen	13.8 billion yen	13.9 billion yen	G4-EN31
Environmental preservation effective amount*4 (of Bridgestone Corporation)	2.1 billion yen	2.1 billion yen	2.3 billion yen	G4-EN31

Environment-related data represents all manufacturing facilities of Bridgestone Group for the period January 1, 2012 through December 31, 2012 for 2012 results, January 1, 2013 through December 31, 2013 for 2013 results and January 1, 2014 through December 31, 2014 for 2014 results. A portion of the data includes estimated figures. The data above differ slightly from both Environmental Report 2014 and CSR Report 2014 because we refined past data.

- The data with the mark have been assured by third-party institution
- *1 Includes fuels used for in-house power generation.
 *2 Category 8 and 15 are excluded of the 15 categories in SCOPE 3 of the GHG protocol.
- *3 CO2 emissions per unit of sales produced from lifecycle stages from procurement to manufacturing, distribution and disposal
 *4 Calculated based on the Environmental Accounting Guidelines 2005 (Ministry of the Environment, Japan).

Disclosure of Financial and Non-Financial Information

The Bridgestone Group is following developments of the disclosure of non-financial information occurring around the world and working to provide information that meets all of our stakeholders' needs. Apart from environmental information, which includes this environmental report, we report corporate social responsibility (CSR) information through CSR reports and on our website as part of our non-financial information disclosure. Financial information is available on the sections of the Group's website aimed at investors through various reports as well as articles with the latest information. Also, our global website includes environmental and CSR information in English for the Group, as well as environmental or sustainability reports in each of the regions where we operate.

[Non-Financial Information] Environmental Information

Environmental Report (This Report)

http://www.bridgestone.com/ responsibilities/environment/ environmental_report/index.html



Global Site (Environment)

Web http://www.bridgestone.com/ responsibilities/environment/ index.html



Special Environmental Site (READY for 2050) Japanese

Web http://www.bridgestone.co.jp/ sc/readyfor2050/



[Financial Information]

Investor Relations

http://www.bridgestone.com/ ir/index.html



CSR Report

web http://www.bridgestone.com/ responsibilities/csr/report/ download/index.html



Bridgestone Homepage (CSR)

http://www.bridgestone.com/ responsibilities/csr/index.html



Bridgestone Homepage (Environment) Japanese

http://www.bridgestone.co.jp/



Annual Report

http://www.bridgestone.com/ corporate/library/annual report/ index.html



Overview of Bridgestone Group

Overview

Bridgestone Corporation Company name 1-1, Kyobashi 3-chome, Chuo-ku, Headquarters

Tokvo 104-8340, Japan

Masaaki TSUYA, CEO and Representative Board Representative Director Member, Concurrently Chairman of the Board

Paid-in capital JPY 126,354 million (As of December 31, 2014)

Consolidated: JPY 3,673.9 billion Net sales

Non-consolidated: JPY 990.7 billion Employees

Consolidated 144,632 (As of December 31, 2014) Non-consolidated 14,248 (As of December 31, 2014)

Summary of Bridgestone's manufacturing facilities 172 locations in 26 nations

(Bridgestone Group total as of December 1, 2014)

14.6%

Michelin

Goodyear

Products and Operations

Tires and tubes for passenger cars, trucks and buses, construction and mining vehicles, industrial machinery, agricultural machinery, aircraft, motorcycles and scooters and others automotive parts, retreading materials and services, automotive maintenance and repair services, raw materials for tires and other products and services

Diversified Products

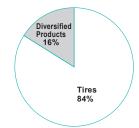
<Chemical and industrial products> Antivibration and noise-insulating materials, Polyurethane foam products, Electro-materials, Industrial rubber products, Building products, Belts, Hoses, and other products <Sporting goods> Golf balls, Golf clubs, Golf wear, Tennis goods and other products

Bicycles > Bicycles, Other bicycle goods and other products

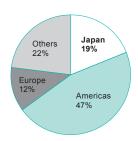
Global Tire Market Share in 2013 (based on sales figure) Toyo 1.6% Kumho 1.8% Others Cooper 1.8% GITI 2.0% Hangzhou Zhongce 2.4% Cheng Shin 2.6%

Source: Tire Business—Global Tire Company Rankings





Sales by Market (in 2014)



Yokohama 2.6% Hankook 3.7%

Sumitomo 3.7% Pirelli 4.3% Continental 6.0%