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Activity Report in the Fiscal Year of 2011

Activity Report in the Fiscal Year of 2011

The Yokohama Rubber Group has prepared this report to show our stakeholders what our ideas are, what we achieved in FY2011, and what issues we face as we strive to build a trusted identity as a contributing member of the global community.

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Corporate Governance and Compliance

Yokohama Rubber Group is making every effort to fortify and improve the support system for corporate governance to be established in order to realize management with transparency and fairness under our Corporate Philosophy. Thereby, this is becoming the management body to maintain our ever evolving corporate value in order for our management to continue to win un-shakeable credibility.

Corporate Governance Support System

Our support system of corporate governance is on top of various organizations stipulated under the Companies Acts (General Shareholder's Meeting, Representative Director, Board of Directors, Board of Auditors, and Accounting Auditors). We have also deployed a Corporate Officer System in order to ensure prompt management decision making and execution of work operations by making clear the supervision of our management and execution of work operations. Also, in order to fortify strategizing functions in our top management, we conduct discussions to understand the current status of various business schemes and business strategies by holding Management Meeting among our Directors as core members. The Chair of the Board Meeting is our Chairman and cannot serve as a Corporate Officer at the same time. Also, we do not appoint any External Directors.

Under our systems, Corporate Officers can get know the status of our business operations by attending various important meetings or committees such as the Management Meeting. We have three pillars in our auditing system; the audits done by our Corporate Officers who supervise work execution by our Directors, accounting audits done by our independent accounting auditors as external audits, finally, the audits done by our Internal Audit Department for work operation by our each corporate division and group companies, plus accounting audits. They function by maintaining each other's independency; by establishing the three pillars of the audit system, our Corporate Auditors can fortify the function of Corporate Auditors by obtaining information from our Accounting Auditors and Internal Audit Department in a timely manner.

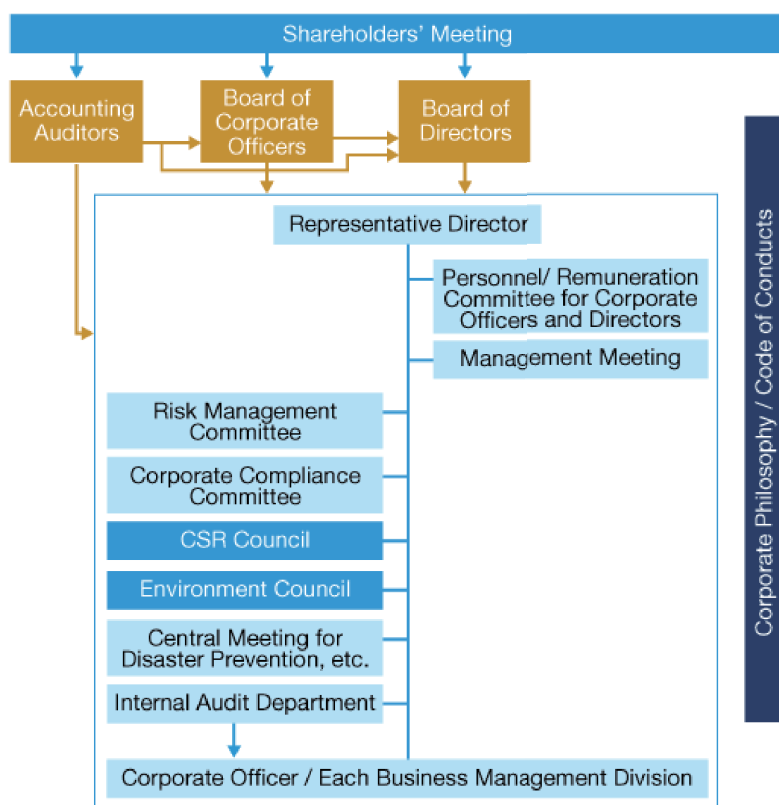
Also, in order to secure transparency and fairness in appointment and various benefits of our Directors, we will determine them at the Board of Directors' Meeting by establishing a Personnel/Remuneration Committee for Corporate Officers and Directors followed by our review. We have deployed the Merit System so that the part of their remuneration is in proportion with our actual business performance. Also, the measurement for critical matters such as conflict of interest will be determined in accordance with the Regulations of our Board of Directors.

Corporate Governance Supporting System (as of March 29, 2012)

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Improvement of our Corporate Governance System

We have made resolutions under the "Basic Guidelines for Corporate Governance in Accordance with Companies Act" during our Board of Directors' Meeting in May 2006. Not only do we follow up with their activity status every year, but also we keep making further enhancements such as our review by aiming for clearer description of the "Guidelines of the Elimination of Anti-Social Behavior" in April 2009. Also, to comply with the J-SOX Law effective from the fiscal year of 2008 (evaluation of support system for financial account in accordance with Financial Instruments and Exchange Act), it has been confirmed that our corporate governance system is effective both in internal and external evaluation in the fiscal year of 2011. We will continue to make improvements on this aspect as well in order to maintain our sustainable and effective functions.

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Risk Management Support System

We have established a Risk Management Committee to manage risks in a cross-sectional manner and handle properly anything that may impact our company management greatly. Our Risk Management Committee has two functions; to "act promptly in case of any emergency situation occurred" and to "confirm what to do towards potential risks and establish a meticulous risk management supporting system". We have divided potential risks towards the entire Yokohama Rubber Group into Safety, Earthquake/Fire, Compliance, Environment, and so on; followed by our development upon setting up of guidelines and measurements from each Committee and Body for Meeting. Also, each of our business units is addressing not only the preceding descriptions, but also various risks related to quality and business management.

In the wake of the Great Eastern Japan Earthquake that struck the Tohoku region on March 11, 2011, we established a "Central Disaster Handling Division" under our President as the Head, to handle the emergency situation right after the earthquake broke out. The Central Disaster Handling Division gave instructions to our employees on duty remaining in our company premises and office buildings, understanding of damage situation both in human and facilities, any measures to avoid the effect on our customers, and relief goods for our operation sites in the affected area and its surrounding areas. Our Risk Management fulfilled its duties in a sense but it became clear that there are so many areas for further inspection and enforcement needing to be made. We will thereby evaluate the impact of the earthquake in a more holistic way to fortify our risk management support system.

We have begun organizing our response to changes in the expected intensity and tsunami height resulting from a coupled earthquake epicenters in the Tokai, Minami Tokai and Nankai areas, as released by the Cabinet Office of Japan on March 30, 2012. In order to achieve this, we should not ignore any of our activities on normal days; we will continue to work more on our PDCA activities which is to sample any possible risks, discuss what to do with them, let the relevant personnel know about them, followed by our verification.

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Our Approaches for Corporate Compliance

■ Our Basic Notion of Corporate Compliance

Our basic notion of Corporate Compliance is "not just to pursue operational profit, but also to enhance our presence as a corporate citizen by respecting social ethics, high credibility, and fair business, while proactively engaging in the environmental protection".

■ Our Supporting System for Corporate Compliance

We are holding meetings under the "Corporate Compliance Committee" to review and confirm any incidents related to corporate compliance and activities as to its enlightenment four times every year. Our President has been appointed as the Committee Chair and its Secretariat is from our Corporate Compliance Department. Every division in Yokohama Rubber is placed with personnel who belong to the Corporate Compliance Department as well, to continue to share the progress of the activities in internal enlightenment and related information in the workplace. In our domestic Group Companies as well, we have appointed our managers to facilitate each of them to develop the same level of activities. We are aiming to do the same for our overseas offices, too; we have completed the appointment of our managers to facilitate all our overseas offices in the fiscal year of 2010.

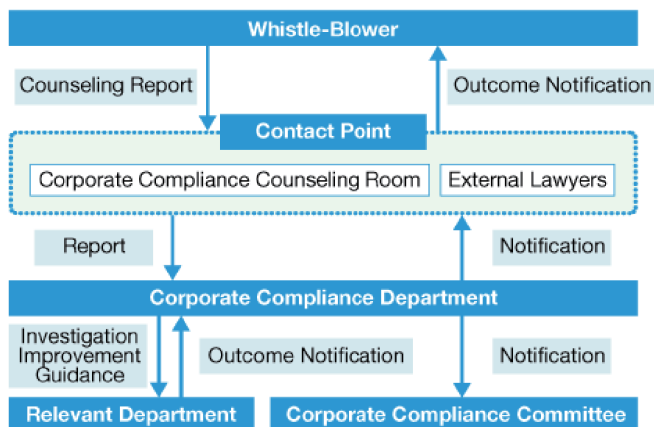
Incidentally, in the fiscal year of 2011, there was no major breach of the Anti-Monopoly Act confirmed; also, no legal sanction has been made against our company.

■ Whistle-Blowing System (Corporate Compliance Hotline / General Counselling Room)

The Corporate Compliance Hotline refers to the system to entertain even anonymous whistle-blowing as our Corporate Compliance Department and our external legal office as contact points, being in place in accordance with Whistle-Blower Protection Act. You can find its telephone number, fax number, and e-mail address on "Corporate Compliance Card" to be distributed to all our domestic Yokohama Rubber Group's employees. There were 14 reports in the fiscal year of 2011.

The General Counseling Room is the contact point where all our internal email users can utilize as to any doubt or anxieties at work related to Corporate Compliance. Each case is handled by personnel from the Legal Department. In the fiscal year of 2011, we received 11 cases of questions and concerns for items to confirm or seeking advice.

Whistle-Blowing System (Corporate Compliance Hotline)



*We will notify with the outcome for whistle-blowers who had identified themselves.

■ Activities on Seminars and Various Enlightenment

We are trying to be effective in order to have our employees equipped with general knowledge as basic knowledge of Corporate Compliance by combining it with special contents they need to take note of at work. In the fiscal year of 2011, we focused on the education towards our expatriates overseas in order to enhance our Corporate Compliance Support System overseas; also we had conducted the seminar as to Sub-Contracting Acts and Anti-Monopoly Acts towards personnel in charge of procurement.

Seminars Conducted (fiscal year of 2011)

Name	Number of participants (people)	Format
Legal compliance	96	Group
Act against Delay in Payment of		

Subcontract Proceeds, Etc. to Subcontractors	263	Group
Harassment	119	Group
Pre-departure orientation for overseas dispatch	33	Group
Middle Eastern Law for distributors	19	Group
English language contracts	28	Group

■ Global Compliance Meeting

As a new initiative, we launched the Global Compliance Meeting in which persons in charge of compliance and legal affairs from our overseas subsidiaries gather. If a compliance violation occurs at an overseas subsidiary, local staff must respond in accordance with local laws. This meeting was established in order to foster a consistent approach globally in terms of local staffs' awareness and ability to identify compliance violations. It was held for four overseas subsidiaries in the fiscal year of 2011, and going forward we plan to expand its scope to include distributors as well.

■ Privacy Policy for Employees

We strictly manage employees' personal information by obtaining prior consent by quoting the purpose of its usage. We understand the importance of employees' personal information and ensure its proper treatment; we also let our employees know through our internal intranet that we continue to take measures to protect their personal information.

■ Measurement against any Violations

- No sanctions against Anti-Monopoly Acts have been imposed on our company.
- No sanctions against fraudulent accounting practice, any discrimination or misconducts at workplace have been imposed on our company.
- No sanctions owing to any violation against environmental regulations have been imposed on our company.
- No complaints have been lodged over the loss of our customers' data.
- There is no case of a breach confirmed against the law with regards to the supply of products, services, and their usages.

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Environmental Preservation

Environmental Preservation

Environmental GD100

Following the principle of dealing fairly with society and valuing harmony with the environment, we shall assert our world-class strengths in technologies for protecting the environment.

- Continued improvement of environmental management
- Action to combat global warming.
- Contributing to the creation of a sustainable recycling society.

GD100 guidelines for action on the environment

For the sake of future generations and this irreplaceable planet, we shall act to protect the environment.

Practice of global environmental management

We will adopt consistent, high-level environmental management practices at all operations worldwide.

Contribution to society through manufacturing

We will take action to minimize the environmental impact in all products.

We will take action to protect the environment as a duty to society by practicing top-level environmentally conscious production.

All industrial waste will be recycled.

Improvement of communication with society and local communities

Yokohama Rubber Environmental Policy

Following the principle of dealing fairly with society and valuing harmony with the environment, we shall assert our world-class strengths in technologies for protecting the environment.

1. Yokohama Rubber will initiate measures considerate of the environment in all of its activities as well as make all of its manufactured goods environmentally-friendly products. Additionally, we will deepen communication with stakeholders as well as strive to make contributions to local communities and society as a whole.
2. Yokohama Rubber will strengthen its environmental management system to become a company trusted by its stakeholders and will continually strive to help improve the environment through the mitigation of its impacts on the environment as well as through the prevention of environmental pollution and sensory nuisances using preemptive approaches.
3. Yokohama Rubber will comply with all related laws, regulations, and agreements as well as endeavor to continually implement activities that help improve the environment.
4. Yokohama Rubber will strive to prevent global warming, conserve energy and resources as well as promote resource recycling aimed at the fulfillment of a recycling-oriented and low-carbon society.
5. Yokohama Rubber will strive to conserve biological diversity and use organic resources sustainably in its business activities.
6. Yokohama Rubber will promote harmony with local communities as part of its commitment to work with and become a company that is trusted by local communities.

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Reduction of Greenhouse Gas Emission

Utilization of Natural Resources / Reduction of Industrial Waste

Management of Chemicals and Emission Provision onto Water, Air, and Soil

Biological Diversity

▶ Together with our Customers

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7. Yokohama Rubber shall publish this policy and make it known to all.

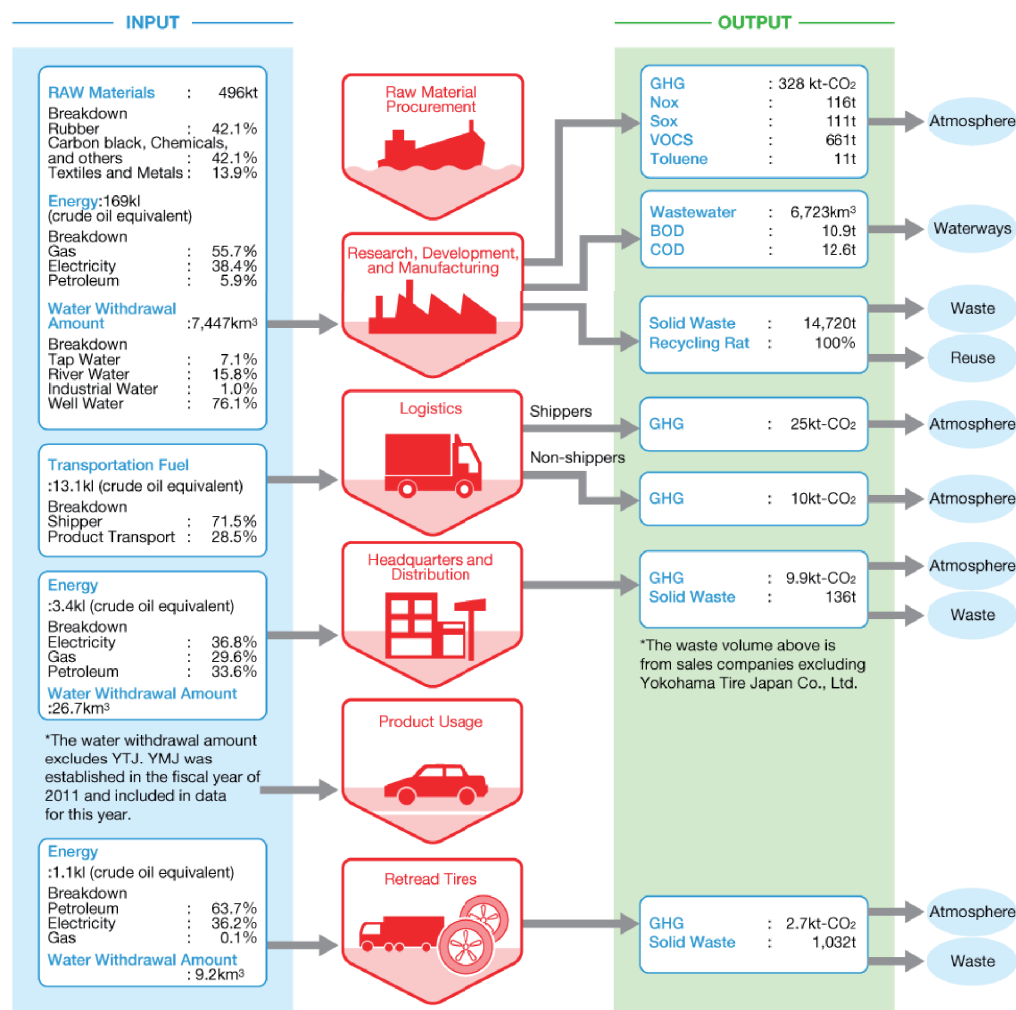
November 15, 2011

Kina Kawaka mi

Director and Managing Corporate Officer, General Manager, Corporate Social Responsibility Division

川上 欽也

Overall Picture of Environmental Burden



*GHG emission is calculated based on the actual emission coefficient.

<Statistics Source>

Research, Development, and Manufacturing:
Yokohama Rubber's 8 domestic operation sites

Headquarters and Distribution:
Headquarters Building, YTJ, Tire Distribution Companies, YMJ

Retread Tires:
Yokohama Tire East Japan Retread Co., Ltd. and Sanyo Retread Co., Ltd.

The accounting period for the fiscal year of 2011 is from April to December. Data from January to March 2011 has been added to this to provide a tally for the January to December 2011 period.

▶ Environmental Management

▶ Environmentally-Friendly Products

▶ Reduction of Greenhouse Gas Emission

▶ Utilization of Natural Resources / Reduction of Industrial Waste

▶ Management of Chemicals and Emission Provision onto Water, Air, and Soil

▶ Biodiversity

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Environmental Preservation

Environmental Management

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Guidelines

Supporting System of CSR & Environmental Affairs

Yokohama Rubber has established a system to plan for and examine important social responsibility issues facing the entire Yokohama Rubber Group, with the ultimate goal to build a trusted identity as a contributing member of the global community. Our CSR and environmental promotion system consists of the CSR Council*1 led by the chairman and CEO as well as the Environmental Council*2 chaired by the president. Each of these councils meets twice per annum. The CSR Council deliberates safety, quality, human rights, labor practices, social contribution activities, corporate governance and compliance matters. The Environmental Council evaluates the performance of the Yokohama Rubber Group's environmental activities and proposes improvements for subsequent fiscal years.

We also have three task forces, six committees, and one sub-council that promote CSR and environmental activities as sub-bodies within both councils.

To practice consistent and high-level environmental management in all our operations worldwide, we hold a Global Environment Council meeting each year, which is a gathering of managers from all of our overseas production sites. Nineteen people, including from all overseas production sites and core distribution subsidiaries, attended the FY2011 event held on December 15. On the day of the meeting, all attendees engaged in a discussion focusing on environmental policies and initiatives. This helped to reaffirm the same consistent high-level environmental management and promotion of CSR activities at our sites outside of Japan.

*1: The CSR Council has been chaired by the chairman and CEO since April 2012.

*2: The Environmental Council has been chaired by the president since March 2012.

[Click here to refer to our Supporting System of CSR and Environmental Promotion Framework](#)

Enforcement of Global Environmental Management Based on ISO14001

We aim to keep up with the high-quality environmental management under the same standard both in domestic and overseas group companies; thereby we have placed ISO14001 which is the international standard of Environmental Management System as the basis of our management.

We are trying to get all our operation sites to obtain ISO14001; so far, a total of 15 operation sites in Japan, comprising ten from Yokohama Rubber and five from our group for domestic operations have obtained it, whereas overseas a total of 13 operation sites have been certified.

In addition, our non-manufacturing sites are promoting environment management in accordance with GD100 and our approach to the environment. The Yokohama Rubber head office in Japan and a Group distribution subsidiary in Australia have acquired ISO14001 certification, under which they are further advancing their environmental management.

In June 2011, Yokohama Tyre Australia Pty., Ltd (YTA), a tire distribution subsidiary in Australia, acquired ISO14001 certification.

In the fiscal year of 2012, we will aim to acquire blanket ISO14001 certification for the Yokohama Rubber head office as well as 10 production sites in order to further integrate our environmental management.

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Participation in Worldwide Approaches

Yokohama Rubber is working on various approaches such as surveys of various possibilities for tires that might impact the environment and people's health; this is a common issue in the tire industry in accordance with the Tire Industry Project being established under the WBCSD (World Business Council for Sustainable Development: headquartered in Geneva).

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Achievements

Execution of Comprehensive Environmental Audit

We are conducting audits as to continual progression for improvement on the management system of environmental management, improvement on the environmental performance, and minimizing environmental risks per operation unit by conducting corporate-wide environmental audits, external audits (ISO14001), and internal audits (ISO14001) by scheduling well in advance. Also, our CSR and Environmental Affairs Department is checking and verifying the score of self-evaluation at each site in accordance with the guidelines of the "Environment GD100" for domestic distribution companies within our group. Incidentally, there was no suspected item as to any violation against environmental legislation among all the auditing items in the fiscal year of 2011.

■ Corporate-Wide Environmental Audit

Other than external audit (regular/renewal) and internal audit based on ISO14001 management system, we are conducting corporate-wide environmental audits done by our headquarters upon setting forth important items from a corporate-wide perspective towards each operation site. In the fiscal year of 2010, we thoroughly audited the chemical substance control system mainly for our production sites. Also, we were promoting various activities to contribute to the society and having more communication with local residents nearby which is initiated by each of our operation site. From now on, we will continue to enhance our "blending with local communities, cultural interaction, and social contribution".

■ External Audit (ISO14001)

In the fiscal year of 2011 as well, we were able to confirm that all our existing certifications can be retained and renewed upon regular audit and for renewal at all our operation sites of Yokohama Rubber; these are conducted by ISO's screening and registration agencies without any major implications of our management systems' shortcomings.

■ Internal Audit (ISO14001)

According to our manual of ISO14001, we conducted likewise at all our certified operation sites in the fiscal year of 2011 as well.

Through our internal audit, we can make sure of our continual leverage of the function levels from our environmental management system. We conducted our audit not just to operate and maintain the "Environmental Management System", but also by setting our common themes as "whether our system is duly functioning for our purposes, whether each of our group is walking the talk by reviewing and setting up the guidelines, purposes, and target by shifting more focus on the reduction of environmental burden even more proactive manners during their normal business activities."

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Enforcement of Environmental Training and Enlightenment

■ Environmental Training

We have incorporated environmental training as one of the subjects for newly hired employees. Also, we are holding a "Techno College" which is CSR and environmental training by targeting our technicians who have been with our company for two to three years. Incidentally, a total of 42 persons attended this seminar in the fiscal year of 2011.

Meanwhile, in order for our employees under managerial and supervisor level to thoroughly understand ISO14001, we are conducting "training classes for environmental internal auditor". Including 175 personnel who have completed this course to get certified in the fiscal year of 2011, currently total 1,266 personnel have been registered and are already active as our internal auditors.

■ Enhancement of our Personnel Enlightenment

As part of our activities for personnel enlightenment for the environment, we are conducting something to aim for improvement by getting involved with our entire personnel by sending our President's message towards all our employees in the Energy Saving Month in February and the Environment Month in June every year. During our Energy Saving Month in February, we are open for any proposals with regards to energy saving from all our employees, followed by awarding the ones among all the entries which have brought about significant improvement effect for energy saving. Also, in addition to our proposals for improvement, we are internally gathering environmental slogans and environmental posters. In the fiscal year of 2011, we were able to receive 4112 entries for slogans and 87 entries for posters.

Environmental Poster



■ President's Award for Environmental Contribution

As a part of our strategy to raise awareness and enlighten with regards to the environment through our work operation, we have been giving out a "President's Award for Environmental Contribution" through our system. The fields for the award consists of a "Factory Award" for the production group, a "Products Award" for the groups of development and designing of environmentally-friendly products, and an "Office Award" and "Special Award" for secretarial groups such as sales and administrative teams.

We select these upon screening and reviewing as to their activities for the past one year per case description of their field from all our groups of our entire corporation. The award winning groups from each award will receive the certificate from our President every year in June.

By implementing this "President's Award for Environmental Contribution", it is evident that all our employees can have even better awareness of "Getting involved with environmental contribution" from their daily operation work.

The List of our President's Award for Environmental Contribution in the Fiscal Year of 2011

	Fields of Environmental Contributions Award	Award Winning Groups
Factory Award	Award for Excellence	Mishima Plant
	Effort Award	Shinshiro Plant / Shinshiro-Minami Plant
	Effort Award	YOKOHAMA MOLD CO., LTD.
	Effort Award	YOKOHAMA TIRE MANUFACTURING(THAILAND)CO.,LTD.
	Effort Award	Ibaraki Plant
Product Award	Award for Excellence Development of Compound with Low-RRC and High-WET quality	Tire Materials Development Dept.
	Effort Award GEOLANDAR SUV	Tire Designing Dept. No.1
	Effort Award BluEarth-A	Tire Designing Dept. No.1 / PC Tires Product Planning Dept.
	Effort Award TBS STL ZEN 903ZW	TB & OTR Tires Product Planning Dept. No.3
	Effort Award Pneumatic fender comprehensive monitoring system	Industrial Products Technical Dept. / R & D Dept.
Office Award	Award for Excellence	YTJ Kanto-Koshinetsu Sales Dept.
	Effort Award	YMJ Tokyo Hamatite Company
	Effort Award	Hamagomu Engineering Co., Ltd
	Effort Award	Headquarters
	Effort Award	YMJ Kyushu Company
Special Award	Overseas Social Contribution Award	YOKOHAMA EUROPE GmbH
	Domestic Social Contribution Award	Mie Plant

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Black Illumination

■ Our Operation Sites Participated in Light-Down Campaign

Yokohama Rubber Group participated in the CO2 Reduction / Light-Down Campaign in the fiscal year of 2011 as a member of Challenge 25. A total 767 of our operation sites conducted light-down, including headquarters, tire distribution companies, directly-owned tire shops, plants, and so on. This campaign was started upon proposals by the Ministry of the Environment in 2003 under the theme of "let us consider global warming issues by turning our lights off".

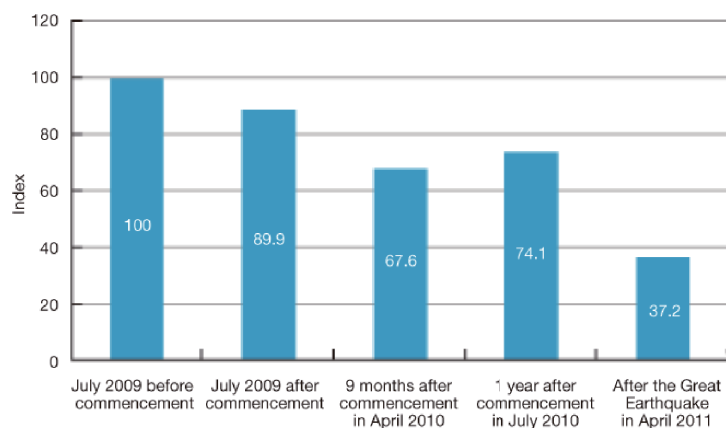
In 2011 we held our annual summer lights off and Tanabata lights off campaigns on June 21 and July 7 respectively, in which we encouraged lights to be turned off for a two-hour period between 8pm and 10pm each night. In addition, during the period between June 22 and August 31, when electricity conservation is particularly needed, we called for a voluntary initiative to turn off the lights in the afternoon and evening. In the end, many companies, facilities and organizations participated in our call.

■ Corporate-Wide Black Illumination

As a part of our electric energy saving activities of office buildings and administrative areas of our plants, we have been trying to promote our campaign to have all our personnel leave the office without any overtime work by setting up a Black Illumination Day; three days a week (basically on Monday, Wednesday, and Friday) from the fiscal year of 2009 onwards. During Energy Saving Month in February, we conduct mutual patrol activities at each workplace throughout our offices in order for our employees to have a better awareness. Also, we are encouraging them to acquire a habit to make sure to turn off the lights for their colleagues' who are away, or to switch off any standby electricity such as PCs or office automation equipment when they go home.

Reduction of Electricity Consumption through BI (Black Illumination Day) at Hiratsuka Factory Research and Development Integrated Centre No. 1

Comparison of Total Electricity Consumption per Day



Compliance with Various Legal Restrictions

■ Zero Environmental Accidents

There was no incident of Environmental Accident in the fiscal year of 2011.

■ Strengthening our Compliance with various Regulated Parameters

From fiscal year of 2008 onwards, we are trying to strengthen our control measures by setting up our voluntary control values in order to ensure our compliance of regulated parameters. We are reviewing our voluntary control values on a regular basis based on our measurement value in the past by reflecting onto statistical index. Also, we are fortifying our control system by internally defining terminologies such as "Environmental Trouble, Major Environmental Near-Accident, and Environmental Near-Accident".

We will act immediately for corrective measures in the event of any environmental trouble or major environmental near-accident occurring. In the fiscal year of 2011 we made further changes to the definitions of these terms.

○ Definition of Terminologies

- Environmental Accident
 1. An accident that causes significant damage outside the company and was covered in the newspaper or other news media.
 2. An accident that results in a government cease and desist order, such as improvement order or suspension of use order.
- Environmental Trouble
 1. A situation that results government warning or instruction.
 2. A situation where the company failed to meet a pollution regulation requirement.
 3. A situation where an environmental pollutant such as carbon, waste oil or solvent is leaked or emitted into the environment from a factory, resulting in minor pollution.
 4. A situation deemed as an environmental trouble by the company's environmental officer (General Manager of the CSR & Environmental Affairs Department).
- Major Environmental Near-Accident
 1. A near-accident in which environmental pollution was not caused outside the business site, but a liquid pollutant leaked or was at risk of leaking into the drainage canal or the street gutter connected to the drainage canal.
 2. A situation deemed as a major environmental near-accident by the company or site's environmental manager because it has been identified as an emergency situation in advance after it exceeded the predetermined environmental impact score set for each site.
- Environmental Near-Accident
 1. A minor leakage of a liquid pollutant or scattering of a powdered pollutant not considered as an environmental accident, environmental trouble or major environmental near-accident above.
 2. A situation where the leakage of a liquid pollutant or scattering of a powdered pollutant was about to occur or was anticipated to occur.

■ Our Response to Environmental Troubles

There were four cases of environmental troubles (three cases in Onomichi Plant, one case in Mie Plant) in the fiscal year of 2011; we had thereby taken corrective measures accordingly.

During the accounting period from April to December there was only one environmental trouble, which occurred at the Mie Plant. However, when adding the last quarter of the previous reporting period (January to March 2011), there were a total of four environmental troubles.

For any environmental troubles unable to comply with regulated values, we reported to the governmental body immediately after such occurrence.

■ Our Response to Major Environmental Near-Accident

There were 23 cases of major environmental near-accident in the fiscal year of 2011; 18 cases for water quality (including non-conformity of voluntary control value of water discharge) and five cases for atmosphere (including scattering of carbon); we thereby took corrective measures accordingly.

During the accounting period from April to December there were 10 cases of water quality pollution (including non-conformity of voluntary control value of water discharge) and one case of atmospheric pollution (including scattering of carbon). However, when adding the last quarter of the previous reporting period (January to March 2011), there were a total of 23 major environmental near-accidents.

For major environmental near-accidents which exceeded their voluntary control values, we reviewed each case based on our measurement value in the past by reflecting onto a statistical index.



Environmental Preservation

Environmentally-Friendly Products

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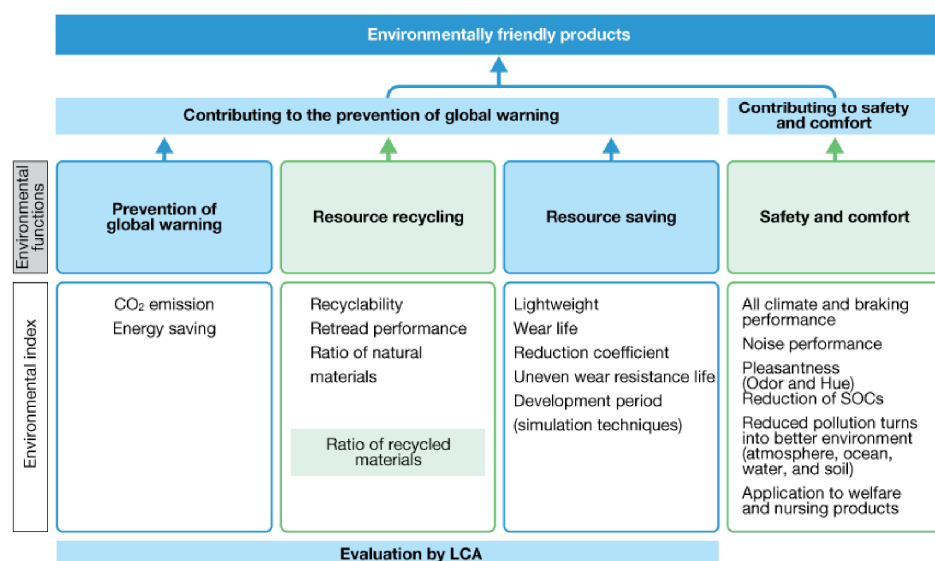
Guidelines

Our Notion for Environmentally-Friendly Products

It is our desire to continue to support co-existence and growth for both people and automobiles through providing tires as our main products. In order to achieve this, we wish to contribute to our customers' happiness and wellbeing by continually providing products that can meet diversified requirements such as not just products to pursue environmental design, but also products mainly for sport purposes that can incorporate environmental design whilst aiming to balance environmental design and the drivers' sense of joy for racing. Furthermore, it is a vital mandate of manufacturers to contribute to society through providing "quality products (goods)". Yokohama Rubber's Basic Policy from the latest Mid-Term Management Plan (GD100), which started from the fiscal year of 2006, reads that "we will deliver the best products at competitive prices and on time"; we target to switch all the products from Tire and MB Groups into environmentally products by the fiscal year of 2017.

Incidentally, our definition of "Environmentally-Friendly Products" is products that exceed 5% or more on the average under four categories; "prevention of global warming", "resource recycling", "resource saving", and "safety and comfort" whilst no deterioration is observed from all categories.

4 Pillars of Environmental Function and its Index



System Creation so that only Environmentally Products can turn into Commodities

By using "Product Assessment Check Sheet", Yokohama Rubber is screening our new products' design adaptability to the environment. The Product Assessment Check Sheet refers to the scores in 17 items in total from planning to production stage of the products, CO₂ emissions during usage, ELV compliance in Europe, and

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▶ Together with our Customers

▶ Together with our Employees

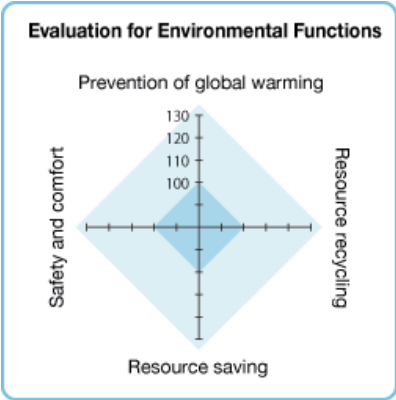
▶ Together with our Business Partners

▶ Together with our Shareholders and Investors

▶ Together with our Society

so on. Upon conducting judgment of the total score both in initial development stage and prior to mass production, we only go ahead with mass production for products that can meet those standards. Also, we are deploying our evaluation method called the Environmental Design Radar Chart in order to improve our company's comparison method of our products. This is our method to digitize by comparing with our benchmark (products in 1998) by roughly classifying environmental design into four categories (prevention of global warming, resource recycling, resource saving, and safety and comfort). Our evaluation is made more objective by digitizing the degree of improvement by comparing with our existing products. Currently, we define our Environmentally-Friendly Products as ones that exceed 5% or more of each index on the average under four categories whilst no deterioration is observed from all categories; we strictly set the rules that any products other than environmentally products will not be approved as new products. By applying this, now, it is no longer easy to develop new products anymore as it has become compulsory even for special sport tires that used to require travelling performance only to clear the preceding criteria as well. We will continue to fulfill our responsibility as a contributing member of the global community as we have our systems in place so that "we will not produce other than environmentally-friendly products". From now on as well, we will contribute to society through our manufacturing by utilizing our various performance simulation technologies and material technologies, not just to reduce rolling resistance only, but by thoroughly discussing from the developing concept stage as to which items can meet the standards of environmentally-friendly products in the light of comprehensive aspects.

Radar Chart of our Evaluation for Environmental Function



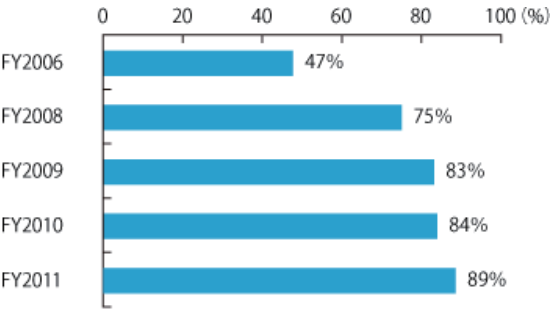
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Achievements

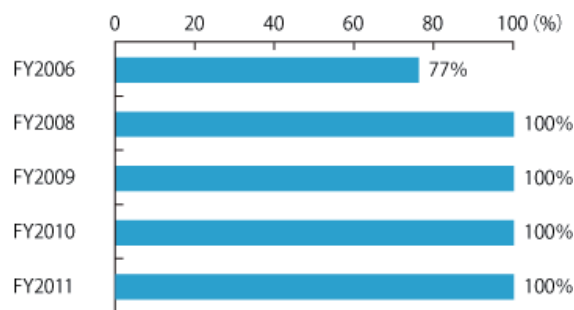
Ratio of our Environmentally-Friendly Products in the Fiscal Year of 2011

From the fiscal year of 2006 onwards, we started to aggregate the ratio of our environmentally-friendly products versus our entire product line-ups. We are calculating the share ratio versus both in our entire product line-ups and our new products; in the fiscal year of 2011, the share ratio in our entire product line-ups has resulted in 89% which is a 5 point increase compared to the fiscal year of 2010, whereas the share ratio in our new products has achieved 100% from the fiscal year of 2008 onwards. From now on, we will continue to make various efforts to aim for 100% by the end of the fiscal year of 2017 as to share ratio in our entire product line-ups.

Share Ratio of our Environmentally-Friendly Products versus our Entire Product Line-Ups



Share Ratio of our Environmentally-Friendly Products versus our New Products

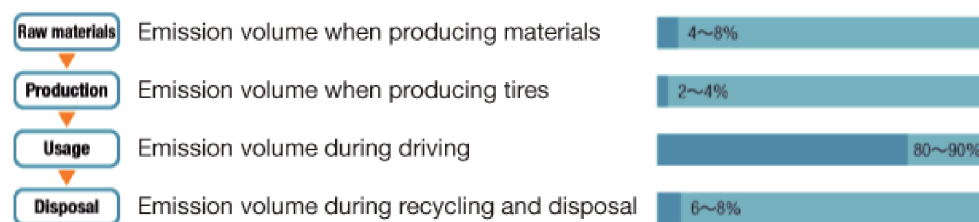


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Case Introduction (Tires)

LCA Evaluation for Tires

LCA (Life Cycle Assessment) refers to the method to understand the environmental load (CO₂ emission) in numeric data of each stage of the products from production to disposal. For the case of tires, since 80 – 90% of CO₂ emission would take place during usage period of their entire life cycle. Yokohama Rubber is focusing on "coming up with environmentally-friendly products to realize low fuel consumption".



*The graph above shows approximate values as to products from Yokohama Rubber

Yokohama Rubber's Manufacturing Philosophy Imputed in "BlueEarth"

Yokohama Rubber has been pursuing technology and product development by focusing on the improvement of fuel consumption by reducing rolling resistance, along with our major launch of "eco tire DNA" since 1998 well ahead of our competitors. However, pursuing fuel efficiency and environmental friendliness would not suffice to fulfill our responsibility as a tire manufacturer. In order to win even better customer satisfaction, not just "fun" and "joy" that can contribute to motorization per se, we need to realize product development of the next stage under a new concept of being "gentle to people and society". Yokohama Rubber has been working on product development for a number of years to aim for the realization of those performances.

- Technology to maintain fuel efficiency and less hassle for maintenance work called "AIRTEX" – our endeavour to achieve "zero" air leak
- Natural material and material technology to reduce WET stress called "Orange Oil"
- Evaluation technology to digitize the relativity between human muscle force and stress called "Biological Monitoring"
- Technology for relativity detection between aerodynamics of the tires and travel resistance



Technical Development aimed at a Sustainable Society

Technologies using tire design to reduce a vehicle's drag

Roll resistance is one way in which a vehicle's tires help improve fuel efficiency. Whereas, drag is a major factor that inhibits a vehicle's fuel efficiency. Drag accounts for 65% of a vehicle's resistance, while roll resistance accounts for 20%. Although the concept of reducing the drag of tires has been around for some time, Yokohama Rubber considers the tire to be an aerodynamic device and has been actively involved with research and development from the all-new perspective of reducing a vehicle's drag by changing the way air flows around the vehicle.

BluEarth-1, which was released last year, employs a dimple design. Figure 2 illustrates simulation results of this evolved aerodynamic design as it compares to conventional tires. A vehicle's drag is said to be derived from large vortexes that occur behind the vehicle. This new aerodynamic tire design can reduce the size of these vortexes. It also reduces the flow of air from the upper wheel housing to the upper lateral sides of the vehicle.

As a result, the vehicle's overall drag is reduced, which has been confirmed in wind tunnel testing. We are pushing forward with industry-academia collaborative projects in order to accelerate research and development in this field. While cooperating with our joint research partners, we are conducting aerodynamic simulations, wind tunnel testing and design exploration in order to place our discoveries on the next generation of BluEarth tires.

Figure 1: Flow of air around a vehicle with conventional tires (left: side view; right: back view)

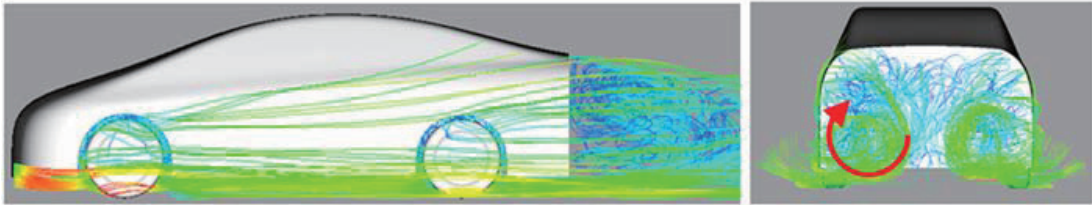
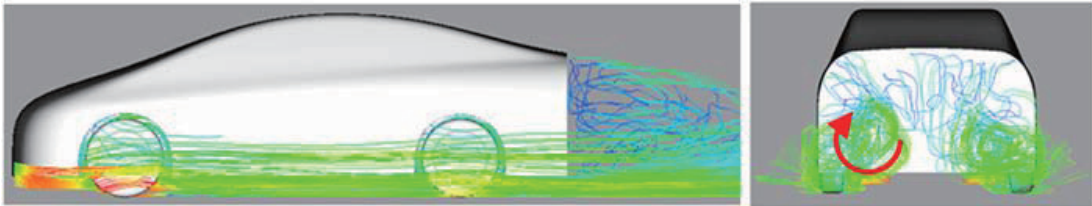


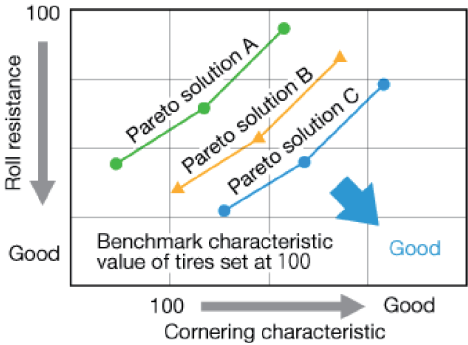
Figure 2: Flow of air around a vehicle with new aerodynamic tires (left: side view; right: back view)



■ Technologies that help awaken engineers to new design space possibilities

The development of fuel efficient tires involves not only reducing roll resistance, which impacts fuel economy, but also simultaneously fulfilling other performance needs that are often at odds with one another. To accomplish this, it is important to examine design spaces, or the causal relationship between each characteristic value and design parameters in the basic design stage. Yokohama Rubber is actively exploring new designs (technologies that help visualize design spaces) using simulations in order to help awaken its engineers to new design possibilities. The exploration of new designs enables the visual analysis of the relationship between characteristic value balance (Pareto solution) and design parameters, which often stand at odds to one another. This also enables engineers to uncover ideas (design parameters) in order to further improve the direction of more advanced Pareto solutions. Figure 1 illustrates the Pareto solution for cornering characteristic and roll resistance obtained through design exploration. As the figure shows, we were able to recognize the positive trend of the Pareto solution as it moved from A to B to C (expansion of design space) and in the process uncover the key design parameter. We plan to move on to the next stage of development in order to utilize this design expertise in the next generation of BluEarth tires. We can not only uncover the relationship between the characteristic value and design parameter of the Pareto solution, but also take one step forward toward effectively uncovering important design parameters for improving the Pareto solution. This will empower us to pursue product development in parallel and move forward with industry-academia joint research on multipurpose optimization.

Figure 1: Explorations results of factors that can improve characteristic value



■ Simulation technologies that make invisible pass-by noise visible

We are working to improve pass-by noise as part of our efforts to enhance environmental performance. Tire noise consists of noise that can be heard inside the vehicle's cabin and noise that can heard outside the vehicle itself. Here, we will introduce the development of a forecasting technology for the noise heard as a vehicle passes by. Today, we are working to counteract noise that occurs when the tire tread pattern contacts the road surface and noise created by the flow of air around the tire. For the former, we have developed a simulation technology that predicts the surrounding sound pressure distribution level from tire vibrations originating from the tread pattern. The two figures illustrate the sound pressure distribution level from simulations (Figure 1) and the sound pressure distribution level seen in experiments in an anechoic chamber (Figure 2). The results of which

match up comparatively well, which confirms the validity of simulations. Going forward, we will aspire to development technologies that can be employed in our tire development. These technologies will be utilized in the next generation of BluEarth tires that will be much quieter than previous versions.

Figure 1: Sound pressure distribution level obtained from simulations (left: side view; right: top view)

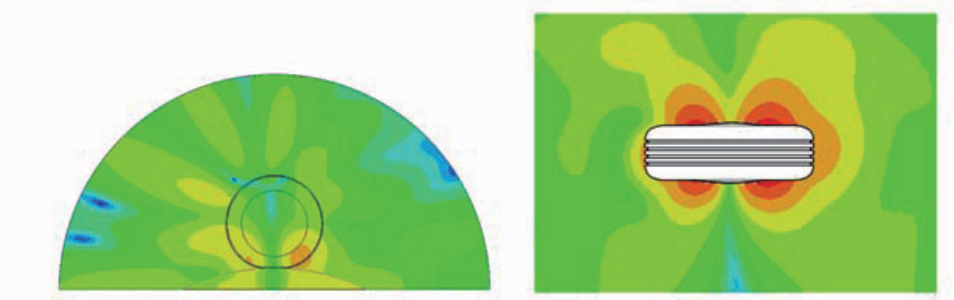
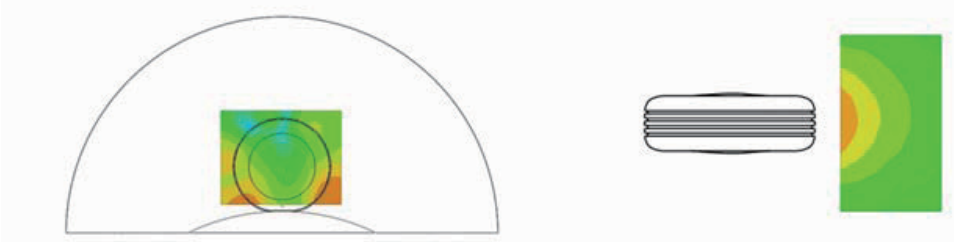


Figure 2: Sound pressure distribution level obtained from experiments (left: side view; right: top view)



Fuel Efficient Tires

Fuel efficient tires for environmentally-friendly vehicles

Automakers are intensifying their efforts to develop environmentally-friendly cars, including hybrid vehicles, and original equipment tires installed on new vehicles must now meet stringent environmental performance standards, including lower roll resistance. Yokohama Rubber is proactively developing original equipment tires based on a new environmentally-friendly concept embodied by its BluEarth series. In addition to improving environmental performance, we have helped reduce the burden on drivers, passengers and the surrounding environment with standards that clear the strict targets set by automakers. The sidewall of Yokohama Rubber’s environmentally-friendly tires installed on new vehicles feature the BluEarth logo.

The BluEarth A34 installed on a new environmentally-friendly vehicle



GEOLANDAR SUV

GEOLANDER SUV is a fuel efficient SUV tire developed with the BluEarth concept in mind that forms part of our GEOLANDER series of tires for SUVs. Featuring an exclusive structure and new tread pattern developed for SUV tires as well as the core compound technology of nano-blended rubber found in the BluEarth series of environmentally-friendly tires, GEOLANDER SUV achieves a 16% reduction in roll resistance, a 6% improvement in weight braking performance, a 21% improvement in pattern noise performance, and a 13% reduction in road noise compared to the GEOLANDER H/T-S. As a result, the tire offers superior fuel efficiency, while enhancing safety, reducing noise, and enabling SUVs to drive on a wide range of road surfaces. GEOLANDER SUV features the BluEarth logo on the tire side wall as proof that it offers superior environmental performance.

GEOLANDAR SUV



■ Truck and bus tire ZEN

First released in 2007, our truck and bus tire brand ZEN was designed based on the concept of taking total environmental performance to the extreme. ZEN stands for Z.ENVIRONMENT.

Featuring an extended life casing and tread as well as reduced fuel consumption through lowered roll resistance, each of which are key to improving the environmental performance of truck and bus tires, ZEN is a tire brand with a total commitment to the environment that helps to reduce impacts on our natural environment.

ZEN's lineup includes the ZEN 701ZE, a premium all season tire dedicated to improving wear performance, the ZEN 702ZE-I, a premium all season tire dedicated to improving fuel efficiency, the ZEN102ZE, a ribbed tire dedicated to improving fuel efficiency and reducing maintenance, and the ZEN 902ZE, a studless tire dedicated to improving fuel efficiency. In September 2011, we released the ZEN 903ZW, a studless tire dedicated to improving drivability on snowy and icy roads.

The ZEN 903ZW is an all-new studless tire design that improves drivability on snowy and icy road surfaces, which is an essential element of a studless tire, while also lessening its impact on the environment through improvements in fuel efficiency and reduced wear.

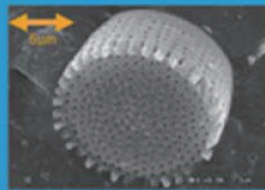
The ZEN 903ZW has also been recognized with a Good Design Award for its unique design qualities and superior environmental performance.

ZEN 903ZW



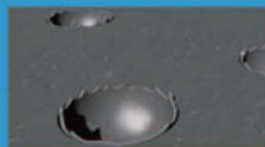
Water-absorbing honeycomb silica

The honeycomb structure absorbs water from icy surfaces. It also improves grip on icy surfaces by digging into the surface of the ice.



Micro water-absorbing balloon II

The cavity of the water-absorbing balloon absorbs water from icy surfaces. It also improves drivability on icy surfaces by gripping the surface of the ice with the tips of the tire tread.



Conceptual image

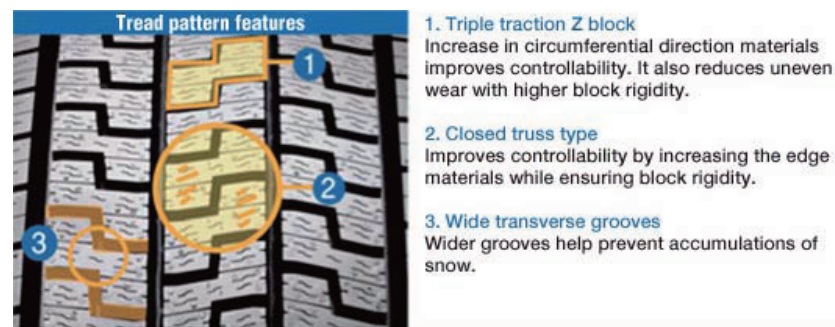
High density reinforced rubber structure II

Balances anti-wear performance on dry and slick road surfaces with pliant rubber contact effective on icy roads.

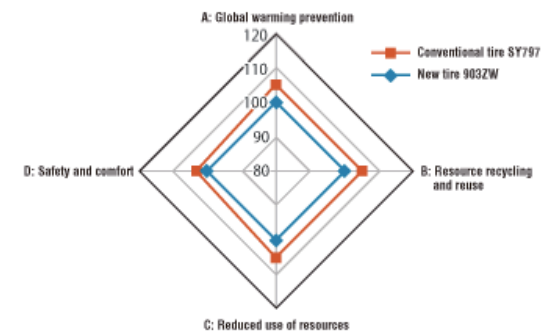


Conceptual image

Rubber reinforcing agent
Pliant rubber (Nano-order)



Environmental initiatives



	Indicator	Features / Comments
A: Global warming prevention	105	Reduced roll resistance (+10% compared to existing tires)
B: Resource recycling and reuse	105	Enhanced durability with ZEN casing (+10% compared to existing tires)
C: Reduced use of resources	106	Extended wear life (+13% compared to existing tires)
D: Safety and comfort	103	Enhanced control on icy surfaces (+10% compared to existing tires)
Composite index	105	

Environmentally-Friendly Tire Related Products

■ Tire pressure monitoring system HiTES

We released a new updated version of HiTES in 2009. This is a tire monitoring system that enables the user to check tire pressure and internal air temperature of all tires in real time from the cabin of the vehicle. Information from air pressure and temperature sensors placed inside each tire is sent and received wirelessly to the driver's side instrument cluster. Once a decrease in air pressure or increase in temperature is detected, the driver is immediately alerted with a noise and light. For example, the detection of a decrease in air pressure will help identify a possible puncture before it happens, prevent poor fuel efficiency due to increased roll resistance, ensure the safe operation of the vehicle, help protect the environment and realize cost savings. Since its release, this tire pressure monitoring system has received strong remarks from customers that transport hazardous materials, that operate highway inter-city bus services, and that operate transportation systems.

This tire pressure monitoring system is essential for super single tires that have seen an increase in use recently. A super single tire refers to a super flat tire where only two are used on a single rear axle compared to four for conventional tires. In this regard, we have seen an increase in the use of our tire pressure monitoring system.

HiTES's temperature measurement system has also successfully helped to prevent vehicle fires, which are often caused by heat from brake friction.

Given these features, HiTES was honored with the Eco Products Awards Steering Committee Chairperson's Award in the Products Category at the 6th Eco -Product Awards of Japan.

HiTES Display Monitor

Super Single Tire





■ Sound Absorbing Materials to Reduce Tire Noise called "Silent Ring"

The "Silent Ring" refers to a module in ring form dedicated to developed sound absorbency which is excellent in acoustic absorption and durability. It reduces tire noise by absorbing air noise vibration in the tire (air hole resonance) arises from shocks from road surface as it is installed inside of the tire. It makes the operation work easy during flat tire repair for being a separate module of the tire; it has also enabled the use of flat tire repair kits such as "AIR LOCK".

A "Silent Ring" is a product that enhances the level of comfort as we were successfully able to improve the noise performance of well-reputed "DNA dB super E-spec" even further. This tire is ideal especially for hybrid cars that require fuel saving and noise performance.

Image of the Installation of Silent Ring



AIR LOCK



■ The Latest Material to Realize Lighter Weights called "Air Transmission Control Film"

Air pressure in the tire would greatly impacts the fuel efficiency of the car. We are working on the development of inner liners that can retain excellent air transmission control functions; under-inflated tires would not be able to fulfill their tire performance to the fullest, they also might jeopardize safety during driving.

"Air Transmission Control Film", which is already applied to our numerous commodities, refers to the film that controls air seeping by pasting inside the tire; it is a new material of our own technology that has blended the special resin with conventional rubber for the inner liner. It contains smoothness whilst being high in density; henceforth we were able to significantly reduce the natural air seeping from the tire. Also, we have achieved approximately 1 out of 5 with its thickness to fulfill a comprehensive fuel saving effect such as contribution to making a lighter weight tire.

This technology has won "the 22nd Award by Society of Rubber Industry, Japan" which is the awarding system organized by the Society of Rubber Industry, Japan. For "Award by the Minister of Education, Culture, Sports, Science and Technology under the Science and Technology Fields in the fiscal year of 2011" organized by Ministry of Education, Culture, Sports, Science and Technology, we were able to win the Science and Technology Award (Development Sector) under our project title of "Development of inner-liner by deploying rubber and polymer



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Case Introduction (MB)

Environmentally Products by our MB Group Applicable to Wide Range of Industrial Fields such as Land, Ocean, and Air

MB stands for Multiple Business; this term implies the ever diversifying and expanding businesses of nowadays. Mainly it consists of four fields such as Hose and Couplings (high-pressure hoses, steel joints, etc.), Adhesives and Sealants (for construction, automobiles, etc.), Industrial Products (conveyor belts, seismic isolation rubbers, etc.), and Aerospace Division to develop diversified line-ups of products catering to a wide range of industry.

■ Sealants and Adhesives for Solar Panels

For solar panels which are drawing attention as the energy source for next generation, we are trying to develop products such as rapid hardening adhesives for edge seal materials and current-collection box.

The edge seal materials "M-155" and "M-155P" are used to seal the solar panel itself and the outer frame. It helps to keep the panel performance for long period of time not just by preventing water immersion into the panels, but also by retaining insulation qualities. Meanwhile, adhesives for the current-collection box called "FLASH ONE" fix the current-collection box in the backside of the panel. This helps to retain water-tightness at the same time. "FLASH ONE", like the edge seal, has obtained UL Certification,* an internationally authorized safety standard of the products.

* UL Certification: It refers to safety standard to be authorized by Underwriters Laboratories Inc. in the United States, a safety standard development agency with the longest history, being established in 1894. On top of the products for various fields such as electrical products, they also screen their parts, materials, and more.

■ Windmill Hose for Wind Electricity

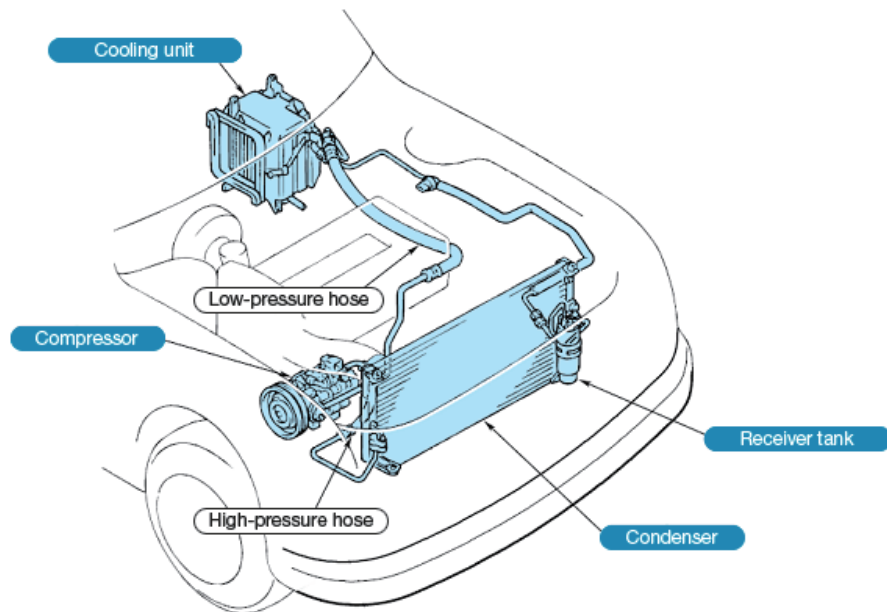
These days, wind-powered electricity is gaining more attention than ever. Windmills have the function to change their angles of their blades depending on the wind speed in order to convert the wind power more efficiently; a hydraulic pressure hose is used as their driving systems.

Our hoses in the LEVEX (NWP) series have been selected as hydraulic pressure coupling hose for windmills. We were able to realize compact couplings by developing ORS type metals in order to improve the sealing part of the mouth ring of large calibre hoses.



■ Hoses for Car Air Conditioners Complied with New Cooling Medium

Until recently, the HFC-134a has been deployed as a cooling medium for car air conditioners; however, owing to its higher coefficient in terms of global warming, currently it is under review and we are inclined to switch to HFO-1234yf, the latest type of cooling medium with a lesser coefficient for global warming. To cope with this issue, we have developed a hose for car air conditioners complying with the latest cooling medium which excels as durable cooling medium, transparency, and durable hose.



■ Container for the Sealing Materials for Construction (e-can)

"e-can" refers to the container of sealant materials to be applied as a construction joint mainly for buildings and apartment complexes. Despite its sturdiness, it can be dismantled rather easily after use; we started its actual launching from 2002 onwards as a container that can substantially reduce the volume of waste cans compared to conventional tin cans. In 2005, we collected the "e-can" free of charge to develop nationwide (excluding Okinawa prefecture) material recycling to re-use as raw materials of our products. Every year its collection ratio is increasing; in the fiscal year of 2010, we were able to collect about 65% among our entire products that we delivered. We will turn collected "e-cans" into regenerated pellets upon pulverizing and powdering to be recycled as raw materials of plastic pallets or artificial wood.

Furthermore, "e-can" has been awarded with the "Chairman Award of Clean Japan Centre" in the fiscal year of 2010, following our winning of the "Encouragement Award" in the fiscal year of 2008 under their awarding system called the "Circular Resource Techniques and Systems Award" which holds the longest history in the field of 3R*2, supported by the Clean Japan Center (CJC)*1.

*1: CJC is a public-service corporation established in 1975 to serve as the national center to promote recycling, jointly supported by the public and private sectors, including the Ministry of Economy, Trade and Industry (METI), the Japan Chamber of Commerce and Industry (JCCI), Nippon Keidanren, etc. It plays a leading role in promoting creation of a sustainable resource-saving society, including solutions for waste and resource issues through the 3R's.

*2: 3R refers to reducing waste generation ("Reduce"), reusing goods ("Reuse"), and effective usage of recycled materials ("Recycle").

■ ECO FINLEX

ECO FINLEX refers to environmentally friendly hydraulic hoses used in forklifts, power shovels, and other construction equipment. Since they are made of chlorine-free materials, there is no danger of dioxin emissions or suchlike after incineration disposal; these are the products being developed whilst aiming for the facilitation of thermal recycling after use.



■ STAIRCASE MODULE for Boeing 747-8

We are providing aircraft staircases for the Boeing 747-8 Intercontinental Airliner. The Boeing 747-8 Airliner refers to the latest model affectionately known as the Jumbo,, whereas the Intercontinental Airliner refers to a jumbo passenger craft with two stories.

The biggest feature of the aircraft staircase we have developed this time is the highest standard of design; it provides sophisticated and comfortable space for passengers with its elegant and characteristic appearance by drawing gentle curves through numerous curved lines and curved surfaces. In addition, the rich deployment of metal parts for the outer surface, such as stainless steel and aluminium, gives it a high quality appearance. Also, in addition to implementing lightweight and long lasting LEDs for all the lighting, we have optimized forms and materials for each part during design. We are contributing to a craft that is proud of its high fuel efficiency and noise performance by our meeting strict requirements from Boeing as to durability and weight by realizing a high level of its design.

STAIRCASE MODULE



■ Transmission Coupling for Highly-Efficient Sport Cars

We have developed transmission coupling for highly-efficient sport cars by realizing non-spill configuration, low pressure drop, high in durability, lightweight, and compactness. As for low pressure drop, we were able to achieve energy saving, i.e. a 60% reduction compared to conventional products by optimizing the performance of flow-volume through computer analysis.



■ Wear-Resistant Belt with Flame-Resistance and Anti-Cut under JIS

Since blast furnace conveyor belts mainly transmit sinter or coke, they require excellent anti-cut functions and flame-resistance at the same time, in addition to wear-resistance when transmitted materials are being shot onto the conveyor belt. Through the wear-resistant belt with flame-resistance and anti-cutting under JIS we have developed this time, we were able to achieve reduction of waste materials by enhancing its cutting function compared to the existing products by our competitors, plus prolonging its life expectancy due to wear by 28% to surely reduce the frequency of belt replacement whilst maintaining existing flame-resistance performance at the same time.

■ Simplified Steel Joint

As a part of the project to prolong the life span of bridges, we came to know that demand for minor extension joints made of steel for maintenance work is growing. We have launched some joints with 20mm type of extension made of steel called "YHT-20" and "YFS-20", plus 30mm type of extension called "YHT-30Ⅲ" and "YFS-30Ⅲ". They are low in height compared to conventional products as we have made some modification with their configurations; they have led to environmental contributions by reducing the volume of materials and CO₂ emission during transportation as we have achieved significantly lighter weights.

■ Adhesives with Insulated and Super Heat Conductive Type

As a part of our effort to reduce environmental burden, Yokohama Rubber is trying to expand our products from "Electric Material Division".

For electronic devices to be used for various electronics, it is inevitable that most of the input electricity ends up with generating heat; the approach to radiation has become the most important technological item in the light of reliability of electronic device and durability. Also, heat conductivity is greatly related to power saving effect by reducing the time elapsed from switching on the power until it starts running. Our "Adhesive with Insulated and Super Heat Conductive Type YB Series" is equipped with insulation with excellent in heat conductivity; also it has cleared various regulated values for the environment being required for electronic devices such as RoHS, REACH, halogen free, and so forth.

We have maintained a good reputation as it is deployed for wide range of electric appliance manufacturers' DVDs, or TV sets, decks, and personal computers equipped with Blue-Ray, and more. We will continue to apply this for wide range of electronics parts from now on.

■ Hard Coat for Plastic Display

"Y-coat" VH series refers to coating onto polycarbonate, PMMA resin, etc.; it provides outstanding anti-scratch function whilst being excellent in transparency; this product is suitable as a hard coat for displays.

Also, it is equipped with the grade where stains or thumb prints can be easily wiped out by compounding fluorine, plus another grade with improved functionality of touch panels, etc. by providing slip characteristics; this gives another level of comfort for smartphones.

■ Development of Offshore Cargo Loading and Unloading Support Systems

Yokohama Rubber's mooring monitoring and dual vessel operations system is a comprehensive monitoring system for managing cargo loading and unloading between two vessels and the status of pneumatic fenders used as shock-absorbing materials between two vessels when transferring crude oil or liquefied natural gas (LNG) between two tanker ships at sea. This particular system represents the world's first-ever commercialized system to comprehensively monitor fenders wirelessly (see Figure 1).

This same system uses a proprietary developed wireless pressure sensor (see Figure 2) installed inside a pneumatic fender to remotely monitor changes in internal air pressure and compression in real time during the mooring of two vessels as well as during loading and unloading of cargo at sea. Using GPS, the system can also monitor the position and speed of the two mooring vessels.

This system also enables ship captains and cargo handling officers to monitor pneumatic fenders and the status of both vessels from the vessel's bridge. This assures the quick detection of issues in real time, such as over-compressed fenders, reduced internal air pressure, or excessive speed as the two ships approach one another, whereby preventing major accidents such as collisions and resulting oil or gas spills. This system's safety warnings and recording functions can also be effectively utilized to confirm the safety of cargo loading and unloading operations, to formulate operating standards, and to analyze the cause of an accident. In turn, this will help to improve the safety of vessel operations as well as play an integral role in achieving economic efficiencies and protecting the environment (see figures 3 and 4).



Figure 1: Monitoring screen of the mooring monitoring and dual vessel operations system



Figure 2: Proprietary developed wireless air pressure sensor



Figure 3: Pneumatic fenders placed between two vessels



Figure 4: Transfer of LNG cargo between two vessels

■ Developed comprehensive pneumatic fender monitoring system

Yokohama Rubber's fender monitoring system comprehensively monitors pneumatic fenders used as shock-absorbing materials when large vessels berth at a pier.

By collecting air pressure data from inside the fender wirelessly, the system can monitor the status of a fender remotely away from the pier. Furthermore, the system can also remotely monitor conditions from a central command center located several kilometers away using data transmitted over a fiber optic cable. This particular system represents the world's first-ever commercialized system to comprehensively monitor fenders wirelessly (see Figure 1).

The system can estimate the movements of vessels berthed at a pier by converting air pressure data into data on deformation volume, reaction force and energy being absorbed. This enables it to detect dangerous situations such as excessive movements, in advance, which helps prevent major accidents, such as damage to cargo loading or unloading facilities like loading arms, a vessel's hull, or pier, and any possible resulting oil spills. This system's safety warnings and recording functions can also be effectively utilized to confirm the safety of cargo loading and unloading operations, to formulate operating standards, and to analyze the cause of an accident, if one were to occur (see Figure 2).

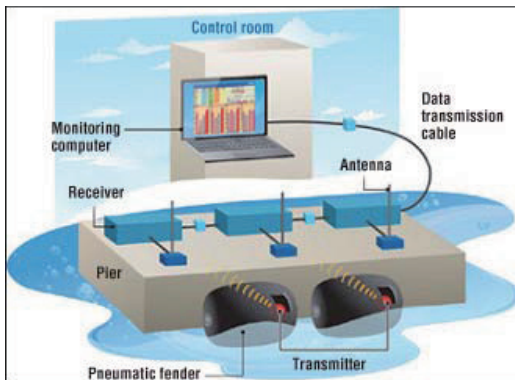


Figure 1: Operational diagram of Yokohama Rubber's fender monitoring system



Figure 2: Pneumatic fenders positioned between the vessel and pier

■ Discovering the potential of pneumatic fenders as tsunami countermeasures

Yokohama Rubber has made wide reaching contributions to the safety and efficiency of cargo loading and unloading operations as well as vessel operations by capitalizing on the unique qualities of pneumatic fenders through simulations on the movement of vessels berthed in a harbor (see figures 1 and 2). Using these simulations and the cooperation of Kobe University Professor Emeritus Masayoshi Kubo (Faculty of Maritime Science), we are in the process of developing a simulation method for vessel movements during an earthquake and tsunami.

In order to accelerate research and development in this field, we are also attempting to advance tsunami simulations, conduct field-studies on damages incurred by vessels berthed in harbors during the Great East Japan Earthquake and tsunami, and re-enact damage scenarios using simulations (see Figure 3).

Our research and development will help to determine whether a moored vessel should leave port or seek shelter during an earthquake or tsunami. It will also provide information on potential secondary damages (environmental problems) from vessels breaking free or being carried out to sea, and as a result, it will play a key role in helping to reduce damages from a disaster.



Figure 1: Pneumatic fender being used on the landing bridge of an LNG carrier

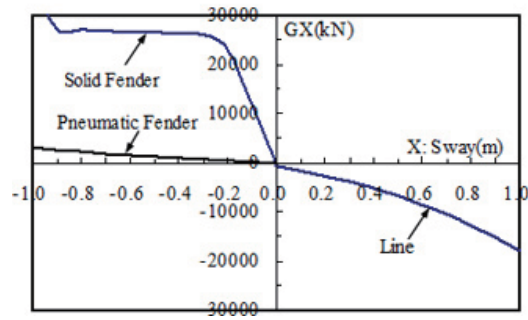


Figure 2: The swaying force of a berthed vessel

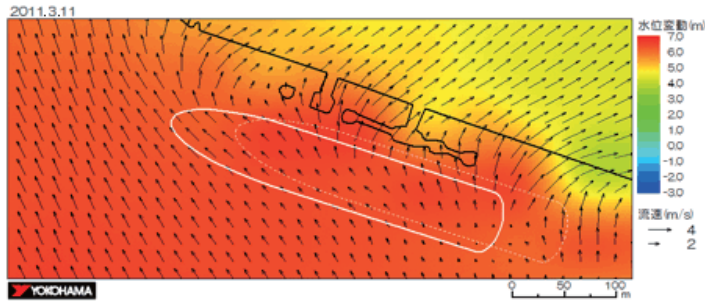


Figure 3: Simulation re-enacting vessel movements and tsunami waves around a large oil tanker damaged in the Great East Japan Earthquake and tsunami

■ Radio propagation technologies supporting new technologies

Yokohama Rubber has developed a range of unique products that combine sensors with radio waves, such as its tire air pressure monitoring systems HITES and AIRwatch, its comprehensive pneumatic fender monitoring system, and its dual vessel operations monitoring system.

We have used our proprietary radio propagation simulation technology to become the first in the world to successfully identify and visualize radio waves emitted from tires and pneumatic fenders. This enables us to quantitatively ascertain radio propagation phenomena, including the directional characteristic and decay of radio waves (see figures 1 and 2). Using this data, we have enabled long-distance communication after researching and developing a compact and high efficiency transmitter and receiver antenna (see Figure 3).

Today, society demands products that are safe, secure, comfortable and considerate of the environment. Yokohama Rubber is committed to moving forward with promoting development centered on radio propagation technologies and in the process tackling the challenge of developing products that are safer and more considerate of the environment through combining and accumulating elemental technologies further.

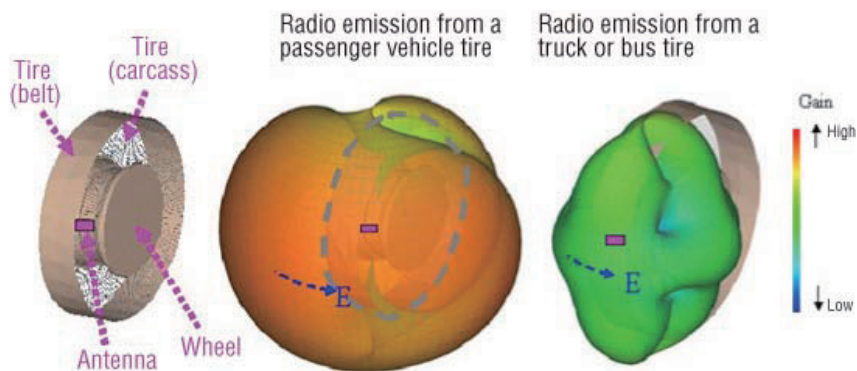


Figure 1: Radio emission from a tire

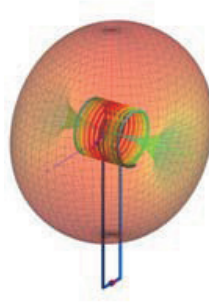


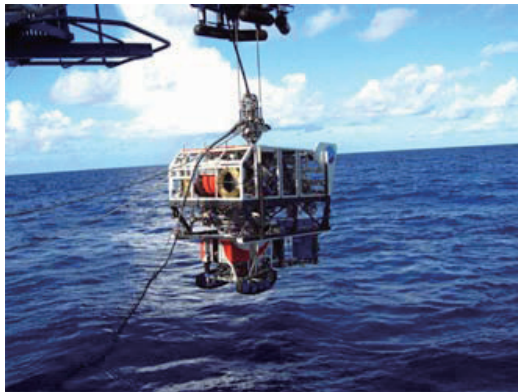
Figure 2: Radio emission from a pneumatic fender Figure 3: Radio emission from an antenna

■ High performance floating buoyant material

Yokohama Rubber has successfully developed a high performance floating buoyant material in a joint research project with the Japan Agency for Marine-Earth Science and Technology, a leader in maritime research in Japan. An underwater research vehicle requires stable buoyancy, to prevent it from moving up or down, in order to maintain mobility when exploring the seafloor. As such, a floating buoyant material is necessary for providing the buoyancy to balance the weight of the underwater research vehicle. On this occasion, we have developed a high-strength, low-density material with a low specific gravity to absorb water pressure based on the depth of the exploration.

Our floating buoyant material is now being used to explore the deepest depths of the ocean in the Marianas Trench. This material must be able to withstand the more than 1 ton of pressure per square centimeter that occurs at depths of about 11,000 meters without breaking. Yokohama Rubber is committed to helping advance maritime research and development in Japan through the provision of its floating buoyant material.

Deep sea compact unmanned underwater research vehicle ABISMO *1



*1 Image courtesy of: Japan Agency for Marine-Earth Science and Technology

■ "Medi-Air1" Air Cell Cushions for Preventing Wheelchair Pressure Sore

Air-cell cushion "Medi-Air" for wheelchairs is effective to stimulate blood circulation always maintains the condition to optimally disperse body pressure catering to each user's body contour or body weight by automatically regulating the air pressure through its sensory-and-control function at the base. Also, since its air-cells keep repeating a pinch-and-swell motion in an alternate way to prevent pressure sores, it stimulates blood circulation around humans' hip bones. The body pressure sensing, preventing hip bones from pressing directly on the wheelchair seat, also pressure sores are all operated automatically; users can customize air pressure setting by using remote controllers according to their preference.

This product has received a certification on October 1, 2010 from the Ministry of Health, Labor and Welfare in Japan under the category of completed parts of the seat position retention equipment; this is subject to the subsidiary for assistive device in accordance with Services and Supports for Persons with Disabilities Act in Japan. Currently, disabled persons are able to receive subsidies according to their purchased amount once they are approved by their Rehabilitation Counseling Office of their municipal government.

Medi-Air1 has also been certified as an approved rental device under Japan's nursing care insurance program. When its use is deemed necessary due to the condition of the user, Japan's nursing care insurance program will provide a subsidy for the rental of this product.

Medi-Air1



■ Significantly reduced environmentally hazardous substances used in PRGR golf clubs

Some weights used to adjust swing balance when assembling golf clubs as well as pigments used in golf club paints contain lead, which could negatively affect the environment after the golf club has been disposed of. In 2009, we made changes to the materials that we use in golf clubs to reduce the amount of lead. The golf industry does not have any specific standards or regulations in place concerning the use of hazardous substances. We were among the first in the industry to actively reduce our use of lead, which is an environmentally hazardous substance, and today all of our golf clubs contain reduced amounts of lead. We are firmly committed to taking proactive and sustained Group-wide measures to address environmental issues so that we can mitigate our impact on the environment during every phase of our product's life cycle, from production through to disposal, which includes not only the product itself but also raw materials, parts and the manufacturing process.

■ Providing manifolds for the H-2A and H-2B rockets – Helping launch satellites for observing our planet's environment

Yokohama Rubber supplies manifolds and couplers used in the H-2A and H-2B rocket engines that are regularly launched into space by the Japan Aerospace Exploration Agency (JAXA). Manifolds used in the main LE-7z engine and two-stage LE-5B engine are made from stainless steel or inconel, a high heat resistance metal. We manufacture a broad range of manifolds and couplers that range in size from thick 8-inch diameter models to smaller more finely designed models.

In the fiscal year of 2012, a total of four H-2A or H-2B rockets are scheduled to be launched into space. Payloads for these rockets will include unmanned cargo transporter Konotori, which will take supplies to the International Space Station (ISS), and a satellite that will be used for observing changes in the planet's water environment, Shizuku. In this regard, our manifolds and couplers used to launch satellites for observing our planet's environment will help to advance research on global warming and to enable observations of our environment on a truly global scale.



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Environmental Preservation

Reduction of Greenhouse Gas Emission

[Guidelines](#)
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Guidelines

Targets

By positioning ourselves for various countermeasures for global warming, one of our most important issues to tackle, we are trying to develop our activities to realize a low-carbon society by developing approaches on carbon management such as deployment of co-generation systems (CGS), changing into clean fuel, and thorough energy-saving activities by establishing our Expert Committee.

Our Target for Environmental Activities

- Short-term reduction target value
"Reduce GHG emission within our domestic group by 12% on the average compared to the benchmark year over the five years from fiscal year 2008 to fiscal year 2012."
- Mid-term target in 2020
"By the fiscal year of 2020, try to reduce GHG emissions within our domestic group by 25% compared to our benchmark year."

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Financial Risks of our Businesses where Climate Change may Impact

1. Critical Risks due to Regulations

At this moment, we should be able to achieve a reduction target which is 12% or more compared to our benchmark year in accordance with the Target Value of Japan (6% reduction) under the category of the Reduction of Greenhouse Gases as per Kyoto Protocol; in the event of any stricter target value being set by Post Kyoto Protocol (for example -25%), our critical issue would shift accordingly to achieve the revised rate.

2. Critical Risks due to Physical Influence

Our company is producing and distributing seasonable commodities such as snow tires; amount of snowfalls or fluctuation of outside temperature owing to climate change might make our business performance rather unstable. Also, any climate change in the production areas of natural rubber may affect the steady procurement of raw materials.

3. Other Critical Risks

There should be some cost involved to meet "the requirements from society" which is to reduce the burden of biodiversity arise from greenhouse gases. Also, there is another risk that the number of vehicles may be reduced due to any change in their ownership structure.

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Activity Report in the Fiscal Year of 2011

▶ Corporate Governance and Compliance

▼ Environmental Preservation

Environmental Preservation

Environmentally-Friendly Products

Reduction of Greenhouse Gas Emission

Utilization of Natural Resources / Reduction of Industrial Waste

Management of Chemicals and Emission Provision onto Water, Air, and Soil

Biological Diversity

▶ Together with our Customers

▶ Together with our Employees

▶ Together with our Business Partners

▶ Together with our Shareholders and Investors

▶ Together with our Society

Financial Opportunities through Climate Change

1. Major Opportunities through Regulations

As the need for development and launching for "the commodities to meet environmental regulations" may grow rapidly, it might lead to great business opportunities as we go about the development of products to meet those requirements.

Example 1: Product development of regenerative energy such as solar energy generation, or product development and launching that can meet stricter regulations on low fuel consumption tires.

Example 2: Product development and launching of tires along with the ratio increase in electrical cars.

Example 3: Product development along with the ratio increase in electrical cars (fuel batteries, high-pressure hydrogen hose, etc.)

Example 4: Mandatory installation of tire pressure monitoring system along with the legal regulations of air pressure control of tires.

Example 5: Inner tire materials with lesser tire pressure leaks according to the legal regulations as to tire pressure control.

2. Major Opportunities through Physical Influence

Actualize the needs of marine related products due to water surface elevation and their product development.

Product development of sealing materials to alleviate temperature rises in the house, thermal insulation materials on the rooftop, etc.

Providing heavy equipment related to the construction to brace for flood (example: high-pressure hoses, conveyor belts or that kind, or tires for heavy construction vehicles).

3. Other Major Opportunities

Boost the sales of environmentally-friendly products (our commodities to alleviate climate change).

We can expect sales growth on a consolidated basis; alleviation and adaption to climate change is a worldwide issue and such business management should become global as well.

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Participation in "National Campaign" to Prevent Global Warming

We are participating in a "National Campaign" (Challenge 25) to prevent global warming as a nation. As a member of Challenge 25, we post our President's message for both the Environment Month in June and Energy Saving Month in February; also, we are trying to promote corporate-wide Cool Biz and Warm Biz for our personnel to adopt. Also in the fiscal year of 2011 as well, we participated in the CO₂ Reduction / Light-Down Campaign; our 767 offices including our headquarters, tire distribution companies, our directly-owned tire shops, and our plants got involved with this light-down campaign.

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Achievements

Emission Volume of Greenhouse Gases within Domestic and Overseas Group Companies

Emission volume of greenhouse gases within the domestic Yokohama Rubber Group had exceeded our national reduction target as per Kyoto Protocol; 15.5% reduction which is the average of four years from the fiscal year of 2008 to fiscal year of 2011 in terms of actual emission coefficient*2, whereas a reduction of 19.2% for adjusted emission coefficient*3 by comparison with our benchmark year*1.

*1 benchmark year: basically it is the year 1990 except HFC, PFC, and SF₆ that are set as year 1995 in accordance with Kyoto Protocol.

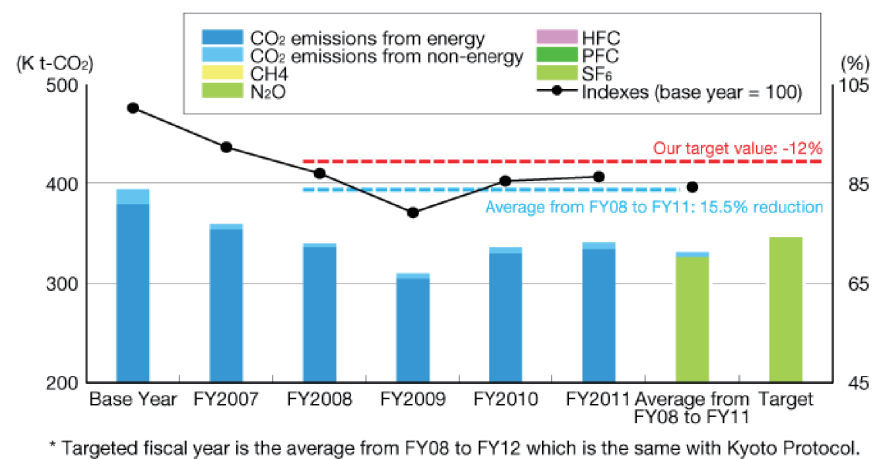
*2 actual emission coefficient: the amount of CO₂ emissions in order for the electricity company to generate 1kWh of electrical power

*3 adjusted emission coefficient: coefficient by reflecting Kyoto mechanism credits onto actual emission coefficient

* Calculation method of greenhouse gas (GHG): we are complying with the "Manual for Greenhouse Gas Emission Volume Calculation and its Reporting" issued by Ministry of the Environment and Ministry of Economy, Trade and Industry. Incidentally, as for the calculation method of GHG through purchased electrical power in fiscal year 2010 and April to December fiscal year 2011, we are deploying emission coefficients and adjusted emission coefficients per appointed electricity company as announced by the Minister of the Environment.

* The accounting period for the fiscal year of 2011 is from April to December. As such, data for the generated amount from January to March 2011 (fiscal year of 2010) has been added to this to provide a tally for the full calendar year.

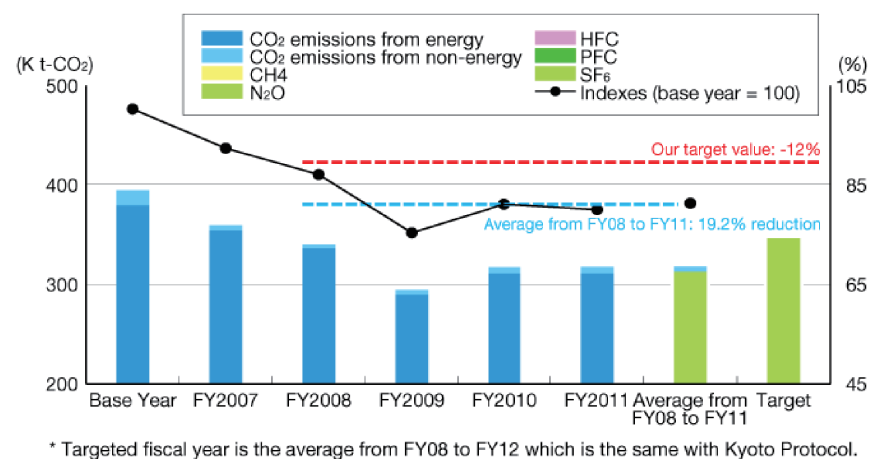
Domestic Yokohama Rubber Group's Total Greenhouse Gas Emission and Comparison with Benchmark Year (actual emission coefficient)



Breakdown per Substance of Greenhouse Gas Emission Volume in FY2011

	%
	FY2011
CO ₂ emissions from energy	98.14
CO ₂ emissions from non-energy	1.76
CH ₄	0.02
N ₂ O	0.08
HFC	0
PFC	0.001
SF ₆	0
Total Greenhouse gas	100

Domestic Yokohama Rubber Group's Total Greenhouse Gas Emission and Comparison with Benchmark Year (adjusted emission coefficient)

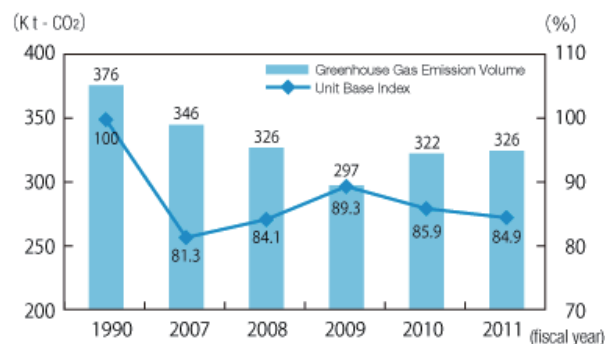


	%
	FY2011
CO ₂ emissions from energy	97.99
CO ₂ emissions from non-energy	1.89
CH ₄	0.02
N ₂ O	0.09

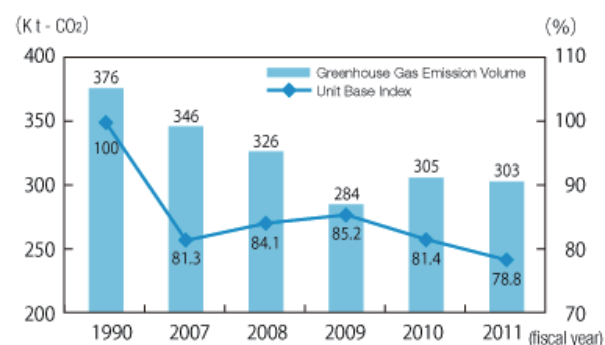
HFC	0
PFC	0.001
SF ₆	0
Total Greenhouse gas	100

The unit base per production amount in our domestic operation sites has improved by 1.2% compared to the fiscal year of 2010 as it resulted in 15.7% reduction compared to the benchmark year of actual emission coefficient. Meanwhile the adjusted emission coefficient has resulted in 21.2% reduction which is 3.3 of improvement compared to fiscal year of 2010.

Our Domestic Production Sites' Greenhouse Gas Emission Volume and Unit Base Index of Production Amount (Actual Emission Coefficient)



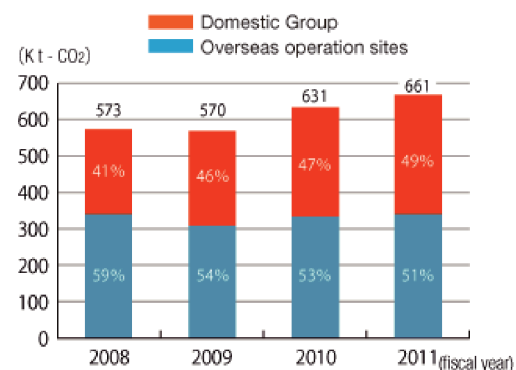
Our Domestic Production Sites' Greenhouse Gas Emission Volume and Unit Base Index of Production Amount (Adjusted Emission Coefficient)



Our greenhouse gas emission volume in our entire group company both in domestic and overseas in the fiscal year 2011 resulted in 661,000 tons-CO₂; the breakdown is 51% for Japan and 49% for overseas.

As for our overseas production sites in the fiscal year of 2010, we have expanded one of our operation sites which is natural rubber processing plant.

Emission Volume of Greenhouse Gas both by Domestic and Overseas Group Companies



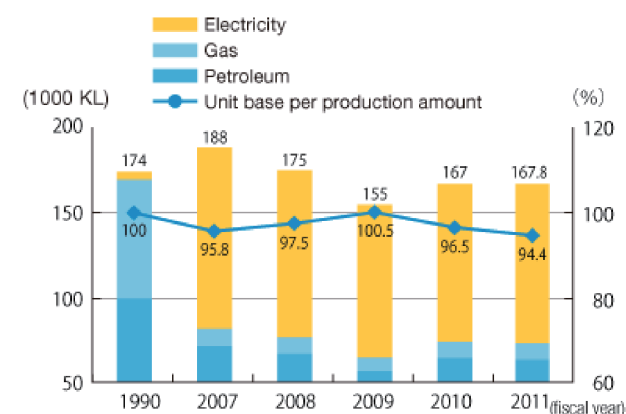
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Addressing on Energy Saving by our Domestic Operation Sites

In the fiscal year of 2010, in order for our Global Warming Countermeasures Committee to go about fundamental technical innovation, we have practically started considering energy saving activities from the specification stage by newly forming two subcommittees from Technical Groups both from Tire and MB Groups. As for the energy base unit from our domestic operation sites in fiscal year of 2011, we were able to improve by

2.2% compared to the fiscal year of 2010 because of the recovery of production amount and the effect of our energy saving activities.

Our Domestic Operation Sites' Energy Consumption Volume and Base Unit Index of Production amount



* The accounting period for the fiscal year of 2011 is from April to December. As such, data for the generated amount from January to March 2011 (fiscal year of 2010) has been added to this to provide a tally for the full calendar year.

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To meet trial emission trading scheme

We decided to take part in the trial emission trading scheme with our ten domestic production sites, and achieved to meet our target of the fiscal year of 2010. Our performance was inspected by the third party verification institution and examined by the jurisdiction bureau and executive office.

The purpose of our participation was to verify our structured mechanism to count GHG emissions. Our mechanism was proven to be fine.

Although the emission allowance was provided to us, we do not intend to trade (sell) our allowance, because the trade does not affect global CO₂ emission volume.

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Addressing on CO₂ Emission Volume and Logistics during Transportation

Since Yokohama Rubber is classified as Known Shipper, we are conducting our reduction measures by establishing an aggregation system to manage CO₂ emission volume, energy consumption, and so on within the limit of property rights set forth by the law such as products, half-finished products, industrial waste, and so forth.

In order to address these, we are developing various reduction activities by targeting 1% improvement of the unit base per energy consumption every year; as for CO₂ emission volume, we are targeting a 25% reduction (compared to the fiscal year of 2006) by the fiscal year of 2020 as a long-term goal.

■ Addressing on Tires Group

1) Advancement of modal shift

- Increasing adoption of ferries to transport tire products to the particular areas (Sapporo, Fukuoka, Sendai)
- Expansion of rail road routes

2) Addressing on effective transportation

- Improvement of loading efficiencies at factory and distribution center shipments, and increasing size of transportation vehicles
- Reduction of unnecessary transportations introducing proper volume of inventories and placement of transportation bases.

■ Addressing on MB (multiple business) Group

Advancement of modal shift

- Expansion of rail road routes in remote transportation

CO₂ emission volume for a year from January to December 2011 amounted to 24,800 tons, reduced by 12% compared to the fiscal year of 2006.

Unit base of the energy improved by 3.2%, which fell short of the initial target improvement of 5% compared to the fiscal year of 2006, owing to the change of transportation routes by the impact of the Great East Japan Earthquake and the decrease of ferry transportations.

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Streamlining of Transport Energy

As Yokohama Rubber Group's effort to reduce CO₂ emission volume and unit base of the energy in the fiscal year of 2011, we have made effort to promote expansion of modal shift, utilization of domestic vessel, and reduction of the transportation amount of industrial waste.

As for the expansion of modal shift, our Tire Group has increased by 3% for using freight ferries for product transportation to certain areas within the country (Sapporo, Fukuoka, and Sendai); meanwhile our MB Group has increased by 2% for freight with JR (Japan Railway) and freight ferries.

As for utilization of domestic vessels for the transportation of tire products, we made use of domestic vessels to transport snow tires from the Chubu region to Sendai; as for reduction of the transportation amount of industrial waste, we were able to reduce the transportation amount by 8% compared to the fiscal year of 2009 by working together with the Tire and MB Production Environmental Task Force.

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Case Introduction

Approach Cases in the Fiscal Year of 2011

We conducted various energy saving activities as we describe as follows.

As a result of those activities, we were able to reduce energy volume by about 3,900kl annually.

■ Implementation of Regenerative Energy

We implemented some regenerative energy; we adopted a solar energy system of 10kW class for Hiratsuka Factory and 70kW class for our overseas plant in China in the fiscal year of 2010.

We are planning to introduce more regenerative energy system, but there was no case of implementation in fiscal year of 2011.

Solar Energy System Installed at our Hiratsuka Factory in Japan



Solar Energy System Installed at our overseas Plant in China



■ Improvement on Energy Saving Sites through Lagging Material by Deploying Silicon Series Heat-Resistant Materials

Since 2007 at our Mie Plant, we have started to install some lagging materials to cover steam pipework called "Improvement at the sites – humble energy saving activities with minimal cost involved".

At our Shinshiro Plant, their plant-wide improvement effort on energy saving is going on by incorporating their own ideas by each workplace.

The total number of installation at our entire production sites has resulted in more than 64,000 sheets.



■ Expansion of Energy Saving Sites through Lagging Material by Deploying Heat-Resistant Materials

Since 2007, we have propelled energy saving activities to prevent heat release installing some lagging materials to cover steam pipework.

In 2011, we expanded the coverage and installed large sized machines. We measured on sites, had hard time to form them, which brought deep emotion to us when we completed.

Before installment



After installment



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■ Lagging Materials Made by our "Heat Tech Ladies"

We hardly encounter the size available from general lagging materials in the market which is catered to the size of each pipework of our facilities. The steps for production and installation of lagging materials will start from (1) measurement at the sites and actual materials → (2) cut thermal-insulation materials → (3) cut covering materials → (4) sewing operation by using sewing machines → and finally move on to (5) the installation of lagging materials at the sites. Compared to lagging materials available in the market, internal sewing operations reduce costs to a fifth, which is a great way of saving our costs.

Those operation works from (1) to (4) are done by a group of 4 ladies who primarily possess advanced technique of sewing machine operation called "Heat Tech Ladies" who are making various lagging materials with optimum sizes. The picture below is one of the ladies from "Heat Tech Ladies" who is skilfully operating sewing machine to make lagging material.

Operation Scene by Using Industrial Sewing Machine



■ Installation of Lagging Materials

It is essential for lagging materials to be easily dismantled for facility inspection and maintenance.

In the past, thermal covers, etc. would crack when being dismantled during facility inspection and maintenance,

and are quite cumbersome to re-install; this is why we used to leave some of them as they are without installing any lagging materials. We have therefore made installation and dismantling work easy during facility inspection and dismantling by making use of Velcro tape.

Appearance of Lagging Materials and Installation Work

Temperature Control

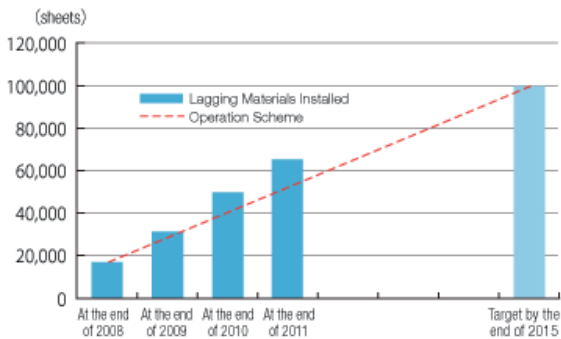


Pipework



Achievements of the Number of Lagging Materials and Target

Installation Work



As of 31 December, 2011, we had installed about 64,000 sheets of thermal mat in our entire corporation.

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Effect Estimation through Installation of Lagging Material

Setting flange size of 15A* as our primary size for effect calculation, our standard effect calculation is where the surface temperature under 180℃ will isolate the heat to 60℃ on the surface of lagging materials. The thermal effect of the entire corporation is estimated to be the reduction of approximately 2,560t-CO₂ with 64,000 sheets of lagging materials being installed based on 15A which is our primary size for conversion.



*15A refers to the pipework length under JIS standard. The primary size will be 21.7mm as outer diameter with 68.1mm² as cross-sectional area.

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Energy Saving Efforts at our Headquarters

Yokohama Rubber considers it is important to act for GHG reduction applied not just for our operation sites but to the entire group's buildings and offices to fortify our activities. Also, we endorsed the EEB Manifest (energy

savings at buildings/offices) required by World Business Council for Sustainable Development (WBCSD) which we participate in to realize sustainable development; as a starter, we are proceeding with our activities by setting up the below-mentioned targeted values for our headquarters buildings being set forth by our Global Warming Countermeasures Committee in February, 2011.

1. Setting fiscal year of 2009 as benchmark year, we will reduce GHG emissions by 25% in 2020.
2. In order to achieve this, we will facilitate various hardware aspects such as energy saving activities and measures by getting everybody involved, installing high-efficient lightening such as LED lighting, improvement on air-conditioning facilities, heat insulation construction of the premises, energy savings for OA machines, upgrading power machines into top-runner products and more.
3. Manage the progress of various activities on a regular basis by managerial levels

We have achieved 32.6% reduction with the GHG emission volume at our headquarters building in the fiscal year of 2011, compared to the benchmark year which is the fiscal year of 2009.

■ Green drapes

We reared morning glories and bitter gourds outside of the office windows at each production site in Japan. The grown features of these plants after our effort of soiling and watering look like green drapes. The green drapes had an effect of cooling down inside the rooms, smoothing our soul while working.

Green drapes outside



Green drapes inside



■ Conversion of boiler fuels to gas in Onomichi Plant

In 2011, we converted a part of boiler fuels from A type heave oils to town gases. We plan to reduce CO₂ emission volume by 2,700 tons per year converting all boiler fuels to town gases.

Boiler equipment



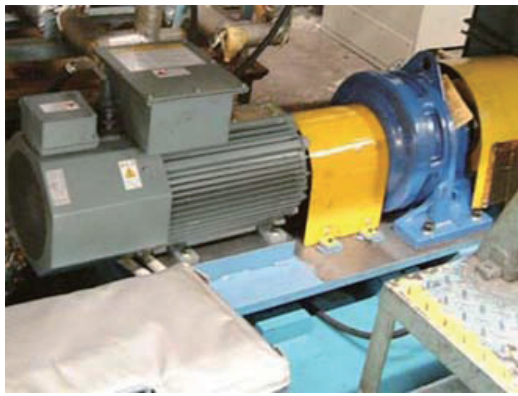
Town gas meter



■ Adoption of highly efficient motors

We could achieve 50% of energy saving effect by renewing highly efficient motors with the proper motor capacities in our production facilities.

Highly efficient motor equipment



■ Our activities in energy saving's month

We have carried a slogan that "Targeting to zero energy of no use when we do not operate production facilities" at our factories.

We started preparations three months prior to our energy saving's month in February. Our energy savings efforts working with production department, equipment maintenance department and administration department collected pieces of energy saving devices, which eventually ended up with substantial outcome.

Energy saving drill in the company



■ Cases of energy savings with equipment

1. Renewal to highly efficient lighting equipment and expanded adoption of LED lamps
2. Renewal to highly efficient heat pump air conditioners
3. Renewal to highly efficient power transformer
4. Increasing adoption of power inverters in fan pumps
5. Introduction of sprinkler systems for outdoor units of air conditioners
6. Adoption of eco-venders
7. Decrease of compressed air pressure in factories

■ Cases of energy savings with administration

1. Continuation and expansion of light down in the office
2. Implementation of coolbiz (cool business attire) from June 1 to September 30, warmbiz (warm business attire) from December 1 to March 31
3. Thorough light out when moving from desk and switching off of stand by office equipment electricity when going home
4. Operation of save energy patrol by the heads of departments in our energy saving month of February
5. Improvement of energy savings awareness by visualizing electricity consumption in offices
6. Expansion of energy savings arranging the improvement cases in database
7. Energy savings activities through reviewing manufacturing process (shortening the processing time, etc.)

■ Cases of dealing with electricity usage restrictions (15% reduction) within the area of TEPCO service

1. Cutting down on lighting
2. Introduction of power generators, engine compressors
3. Continuous monitoring of electricity used
4. Full operation of CGS (co-generation system) to maximize electricity generation
5. Reduction of pressure on industrial water
6. Stop equipment during the time zone of peak electricity consumption during the day
7. Alteration of holidays
8. Stagger office hours

[Message from The President](#)
[Up Close](#)
[Activity Report in the Fiscal Year of 2011](#)
[Site Data](#)
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[Company Overview / CSR Management](#)

[Yokohama Rubber CSR Web site](#) > [Activity Report in the Fiscal Year of 2011](#) > [Environmental Preservation](#) > Utilization of Natural Resources / Reduction of Industrial Waste

Environmental Preservation

Utilization of Natural Resources / Reduction of Industrial Waste

[Guidelines](#)
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Guidelines

Reduction Target of Industrial Waste

In our domestic operation sites, we have worked to achieve our target of Phase II (35% reduction compared to fiscal year of 1996) as our first priority.

Our Target for Zero-Emission

We have been working so that more of our operation sites can achieve total zero-emissions within our group both in our domestic and overseas operation sites.

Achievements

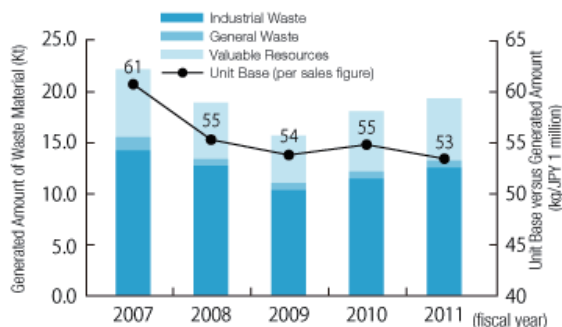
Our Addressing the Reduction of Industrial Waste

Generated Amount of Waste Materials and its Unit Base

The generated amount of waste materials*1 in the fiscal year of 2011 resulted in 14,720 tons, a 9% increase compared to the fiscal year of 2009; we were unable to achieve the target (35% reduction compared to fiscal year of 1996) of the period of Phase II (from fiscal year of 2009 to fiscal year of 2011). We were able to reduce the unit base of the generated amount of waste materials (per net sales) by 2.5% compared to the fiscal year of 2010, but the total generated amount of waste materials increased over the fiscal year of 2010. In phase III (2012 to 2014), which will begin in the fiscal year of 2012, we will continue with efforts to achieve the targets that were not achieved during phase II. In this regard, our primary focus in the fiscal year of 2012 will continue to be on minimizing product scrap.

*1 Refers to any waste materials as a result of normal production activities including everything such as industrial waste, general waste, and valuable resources. Incidentally other than that, there were 1,926 tons of waste generated by the disposal of some facilities that are excluded from our target management in the fiscal year of 2011.

Changes in Generated Amount of Waste Material and its Unit Base



Activity Report in the Fiscal Year of 2011

▶ Corporate Governance and Compliance

▼ Environmental Preservation

Environmental Management

Environmentally-Friendly Products

Reduction of Greenhouse Gas Emission

Utilization of Natural Resources / Reduction of Industrial Waste

Management of Chemicals and Emission Provision onto Water, Air, and Soil

Biological Diversity

▶ Together with our Customers

▶ Together with our Employees

▶ Together with our Business Partners

▶ Together with our Shareholders and Investors

▶ Together with our Society

*This indicates the amount generated during the accounting years from 2007 to 2010 (April to March period). The accounting period for the fiscal year of 2011 is from April to December. As such, data for the generated amount from January to March 2011 (fiscal year of 2010) has been added to this to provide a tally for the full calendar year.

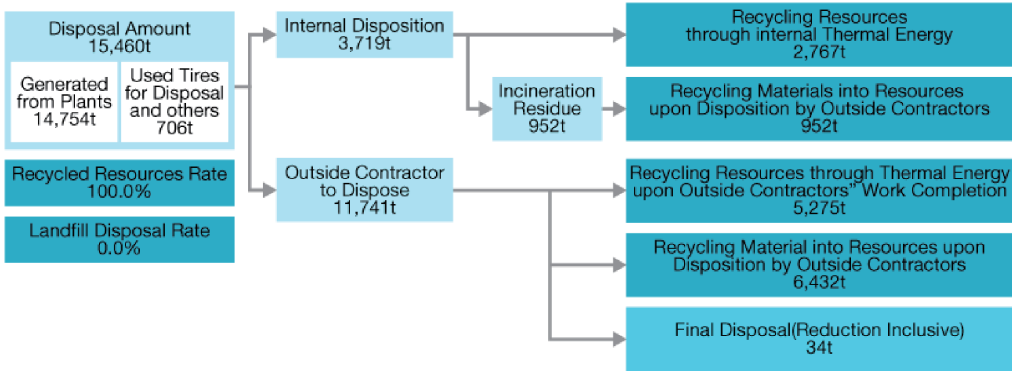
Fiscal year of 2011 (April to December)
Generated amount of industrial waste: 9,592 tons; general waste: 528 tons; valuable resources: 4,600 tons; unit base of generated amount: 53.35 kg / million yen
Fiscal year of 2010 (January to March 2011)
Industrial waste: 2,899 tons; general waste: 135 tons; valuable resources: 1,508 tons

■ Achievement of 100% Recycled Resources from Industrial Waste of our Domestic Operation Sites

Since Yokohama Rubber has achieved Total Zero-Emissions*2 in all our domestic operation sites in March 2006, we have been working on "100% recycled resources*3 from our industrial waste". As a result, we were able to achieve our target of "recycling 100% of our industrial waste into resources" in all our domestic operation sites in the fiscal year of 2009. We maintained this in the fiscal year of 2011 as well; we will continue to do likewise from the fiscal year of 2012 onwards.

*2 Definition of total zero-emissions: not generating any direct landfill disposal at all.
*3 Definition of 100% recycling resources is not to leave any disposal (= direct landfill disposal + incineration amount of the materials without any useful purposes) until the end.

Flowchart of Industrial Waste Disposal (FY2011) *From April to December



■ Promotion of Zero-Emissions

We are promoting activities aimed at achieving complete zero-emissions status at our overseas production sites in order to promote environmental activities that are consistent with our approach taken in Japan. As a result of these efforts, thus far five of our production sites in Asia have achieved complete zero-emissions status. Although no additional productions sites achieved complete zero-emissions status in the fiscal year of 2011, we investigated issues primarily at our production sites in the United States and promoted initiatives aimed at attaining this status. In the fiscal year of 2012, we will continue with our efforts to increase the number of production sites that have achieved the status of complete zero-emissions.

■ Management of Proper Disposition with Waste Disposal Contractors

In order to prevent any case of unlawful disposal such as unauthorized dumping, every year we are conducting onsite audits based on Yokohama Rubber's own auditing standard. We have conducted 87 cases of audits in the fiscal year of 2011 in total. As a result, we were able to confirm that all our contractors are handling our disposal in the proper manner.

■ Storage and Disposal of PCB-Containing Waste

We are properly storing and disposing of used machines that contain PCB such as transformers or condensers in accordance with our national legislation (Law Concerning Special Measures against PCB Waste). In the fiscal year of 2011, we had completed the disposition of 64 machines in total that contain PCB in Mie Plants. From fiscal year of 2012 onwards, as for our machines that contain PCB registered in advance, we will continue to store them properly and wait for the notification of availability for disposal.

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Consideration towards Raw Materials for Product

■ Proactively Utilizing Non-Fossil Raw Materials

We are promoting the use of non-fossil fuel derived raw materials in order to expand our use of natural resources. As part of this effort, we have significantly increased the amount of silica used to manufacture our tires.

■ Increasing the Ratio of Regenerated Rubber Used

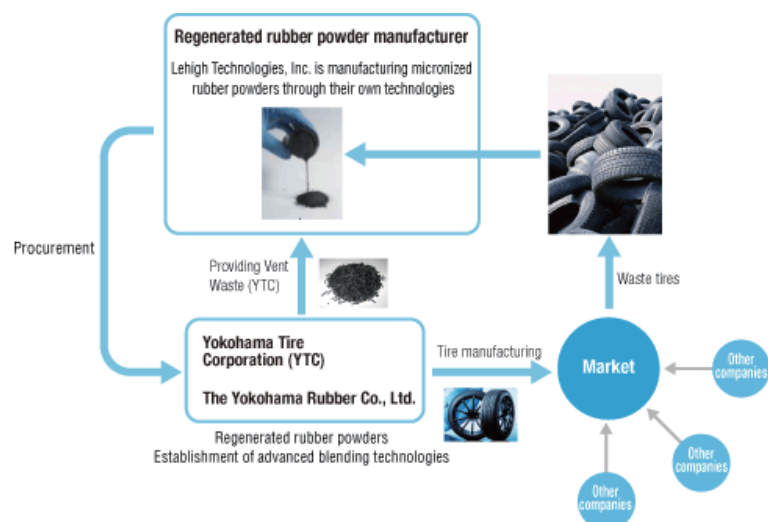
The Yokohama Rubber Group is actively working to effectively utilize recycled raw materials and increase the use of various forms of regenerated rubber in its tires.

Regenerated rubber powder is recycled rubber in a powdery state created by pulverizing waste tires, which are typically used mainly for heat. This regenerated raw material greatly contributes to resource conservation and resource recycling. Conventionally, it has been difficult to use regenerated rubber powder in tire applications because the particle size has been large, leading to a weaker physical property when combined with rubber. However, Yokohama Rubber has established a compounding technology that improves this physical property by blending rubber with finely ground regenerated rubber powder. We began mass producing tires with this blend of rubber and regenerated rubber powder in February 2009. Over the last three years we have expanded our use of regenerated rubber powder and as a result increased the ratio of regenerated rubber used in our tires by 2.2 times compared to 2008.

Following its use in Japan and the United States, today we are utilizing regenerated rubber powder at our production sites around the world in various compounds found in PC, TB and OR tread liners manufactured at our plants in the Philippines, Thailand and Vietnam.

Since first using regenerated rubber powder in the United States in 2006, the Yokohama Rubber Group now uses an amount equivalent to 357,000 waste tires, as calculated by a major regenerated rubber powder manufacturer. This is equivalent to saving some 28,000kl of crude oil and 89.8 million kWh of electricity. This also means that we have been able to reduce some 10,528 tons of CO₂ emissions into our atmosphere. Moving forward, we will continue to promote the manufacture of tires with regenerated rubber powder at our new or expanding overseas production sites as part of our commitment to effectively utilize recycled raw materials on a worldwide scale.

Resources Circulation by Using Regenerated Rubber Powder



Environmental Impact Reduction Effect from the Use of Regenerated Rubber*1

Helping Tire Companies Create the Greenest Tires Possible



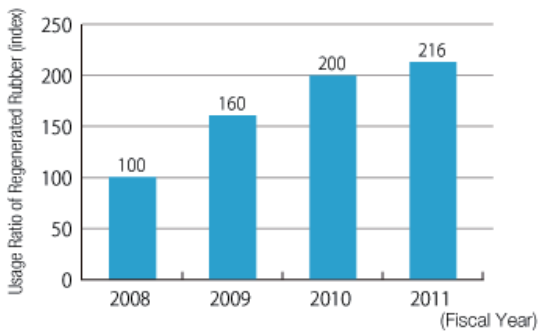
Dates

Cumulative:
January 2006 to
December 31, 2011

4th Quarter 2011

Product	Waste Description	Landfill Avoidance
Pinvents & Rubber Powder (Salem, VA plant)	Yokohama Closed-Loop	357,178 tires* *passenger tire equivalents
Rubber Powder (Japan)	End-of-Life Tire	
Oil Saved	28,000 kℓ	
Energy Saved	89,800,000 kWh	
CO ₂ Emissions Saved	10,528 t	

Changes in Usage Ratio of Regenerated Rubber*2

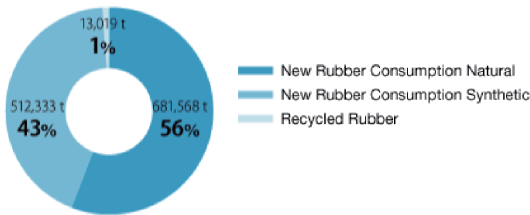


*1: Data provided by Lehigh Technologies
*2: Ratio of new rubber consumption based on results of acceptance inspections

Ratio of Recycled Raw Materials being Used

In 2011, the usage ratio of recycled rubber for production operations of tire products was 1% of the entire tire industry.

Consumption Figure of Raw Materials for Automobile Tires and Tubes in 2011



Source: data from the website of Japan Automobile Tyre Manufactures Association

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Addressing Cases in the Fiscal Year of 2011

Addressing by our Retread Tire Business
Expansion of the Usage of Recycled Tires through Regeneration

All Yokohama Rubber's tire products for trucks and buses are designed to deploy retread tires. Currently, Yokohama Tire East Japan Retread Co., Ltd. and Sanyo Retread Co., Ltd. are expanding this business by replacing the ditched parts of used tires (tread part) with new ones, followed by providing them to their customers.
Currently the ratio of regenerated tires is about 21.3% of the tires for trucks and buses (source from Council of Regenerated Tires in Japan) but in the midst of growing demand for retread tire as recycled resources, we are trying to expand their sizes and attend to more diversified needs.

Reuse of Used Vulcanized Bladder as Raw Materials

In 2007, we successfully commenced our internal mass production of used vulcanized bladder*2; this is the very first case in our industry by establishing technologies for mass production of recycled rubbers to be reused as raw materials of tire products. Since recycled rubbers being produced through twin axis screw extruders which we deployed for treatment facilities are able to produce raw materials for rubber with relatively higher quality compared to conventional technologies, the great feature is they can be used as raw materials of tire products, etc. without compromising their quality.
In the fiscal year of 2011, we reused about 70% of the bladder rubber that was generated, and the usage amount increased by about 50% compared to the previous year. As for tire products, we are using them mainly for tires for passenger cars and part of the tire parts for trucks and buses. Also, regenerated rubbers available in the market are to be used more widely other than tire products such as a part of raw materials of industrial rubber products like conveyor belts; we are also considering their deployment for the tires of construction vehicles. We will continue to expand their usage by applying them to tire products and rubber products from now on.

* Refers to sub-material made of rubber to be used during vulcanization process of tire manufacturing; it will be blown like a balloon to press tires from inside onto the mold.

Bladder



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Consideration towards Water Source

■ Total Water Usage, Usage of Reused and Recycled Water, and Water Circulation Rate

In the fiscal year of 2011, total water usage in our domestic operation sites resulted in 85,430,000 m³; the breakdown is 7,799 m³ for the usage amount of reuse and regeneration and 7,440,000 m³ for water withdrawal amount; the water circulation rate was as good as 91.3%.

The accounting period for the fiscal year of 2011 is from April to December. Data from January to March 2011 has been added to this to provide a tally for the full calendar year.

■ Total Water Withdrawal Amount

In the fiscal year of 2011, our total water withdrawal amount from water source resulted in 9,270,000 m³ both in our domestic and overseas operation sites. The breakdown is 7,440,000 m³ from domestic operation sites and 1,530,000 m³ from overseas operation sites.

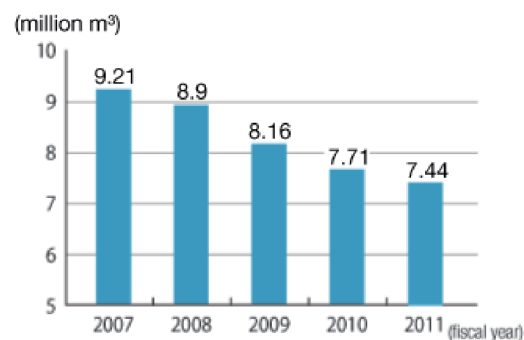
■ Addressing to Reduce Water Withdrawal by our Domestic Operation Sites

In the fiscal year of 2011, with anticipation of the recovery of production quantity we developed our activities by targeting 1.3% (100,000 m³) increase from 7,710,000 m³, which is the result in the fiscal year of 2010; consequently, we were able to achieve our target with 7,440,000 m³, which is a decrease of 5%. The breakdown of water withdrawal from water source in the fiscal year 2012 was 530,000 m³ for clean water, 1,170,000 m³ for river water withdrawal, 70,000 m³ for industrial water, and 5,789,000 m³ for well water withdrawal.

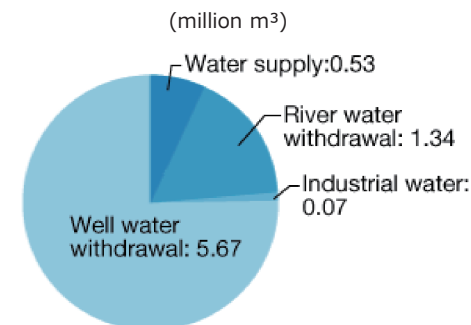
○ Primary Actions for Water Resource Preservation

1. Usage of the circulated facility cooling water
2. Collection of steam condensate from vulcanization process
3. Conduct overflow prevention of our reservoir tanks
4. Conduct water leak prevention measure of underground piping
5. Ensuring of daily inspection and patrol and repairing leaking points

Changes in Water Withdrawal Amount at our Domestic Operation Sites



Breakdown of Water Withdrawal Amount from Water Source in the Fiscal Year of 2011

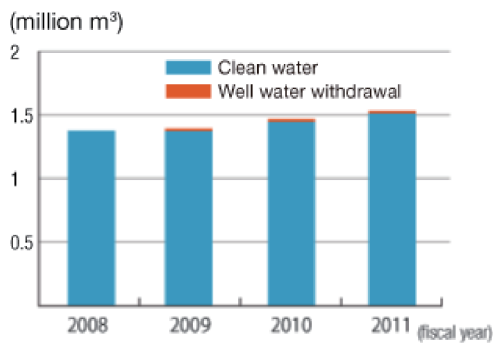


■ Addressing to Reduce Water Withdrawal by our Overseas Operation Sites

In the fiscal year of 2011, with anticipation of the increase of production quantity we developed our activities by targeting a 10% (150,000 m³) increase from 1,470,000 m³, which is the result in the fiscal year of 2010;

consequently, we were able to achieve our target with 1,530,000 m³, which is a decrease of 5%. The breakdown of water withdrawal from water source in the fiscal year 2011 was 1,529,000 m³ for clean water and 1,000 m³ for well water withdrawal.

Changes in Water Withdrawal Amount at our Overseas Operation Sites



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Environmental Preservation

Management of Chemicals and Emission Provision onto Water, Air, and Soil

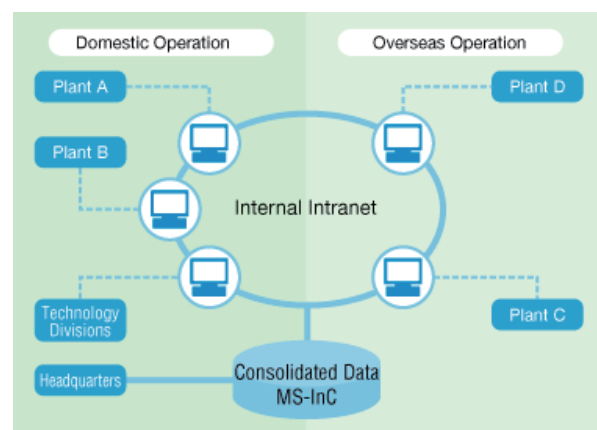
[Guidelines and Supporting Systems](#)
[Achievements \(Initiatives\)](#)

Guidelines and Supporting Systems

Establishment of Chemical Control Supporting System

In order to structure exhaustive measurements as to chemical control both in domestic and overseas operation sites and cross-sectional chemical control supporting system, we have established our corporate-wide management tool common for the entire company (raw materials, sub-materials, and parts) and consolidated management system as to information on purchased items. We are trying to make further improvements on our database by adding our data earned from our consolidated management onto our internal chemical data's consolidated management system called "MS-InC". Also, through this database, we are controlling materials contained within our sub-materials that are used both by domestic and overseas operation sites.

Overview Diagram of MS-InC



As for our overseas operation sites, they are trying to structure their supporting system for non-containing guarantees of environmentally burdening materials (SOC) for their purchased sub-materials and parts (establishment of the non-containing evidence of SOC and development in MS-InC) in order to ensure of proper chemical control. For example, we were able to complete the examination at our overseas operation sites (6 sites) by going about our understandings of various issues on SOC management through self-evaluation and related activities for improvement which had started from the fiscal year of 2010. From now on, we will conduct the same measures for the balance of our overseas operation sites, aiming to complete this by March 2013. By doing so, we can work on the establishment of the system to maintain and improve the same level of SOC management of our domestic operation sites by applying it likewise to our overseas operation sites.

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Achievements (Initiatives)

Reduction in Water Discharged and Enforcement of Water Quality Control

Activity Report in the Fiscal Year of 2011

▶ Corporate Governance and Compliance

▼ Environmental Preservation

Environmental Management

Environmentally-Friendly Products

Reduction of Greenhouse Gas Emission

Utilization of Natural Resources / Reduction of Industrial Waste

Management of Chemicals and Emission Provision onto Water, Air, and Soil

Biological Diversity

▶ Together with our Customers

▶ Together with our Employees

▶ Together with our Business Partners

▶ Together with our Shareholders and Investors

▶ Together with our Society

As for water quality control of discharging water, we are trying to enforce our management system by setting up our "Voluntary Set Parameter Value" which is stricter than the parameter set by the law.

From fiscal year of 2011, we have newly started its operation by setting up a definition of environmental accidents, environmental troubles, any major environmental near-accidents, and environmental near-accidents. "Environmental Accident" refers to any incident that was picked up by media such as newspapers.

There was no incident of "Environmental Accident" in the fiscal year of 2011.

In any event where a level slightly exceeding the parameter set by the law is observed it is defined as "Environmental Trouble", whereas a "Major Environmental Near-Accident" refers the level of parameter exceeding our voluntary set value; we would immediately act on any corrective measures to conduct cross-sectional development to each operation site.

Environmental troubles that occurred in the fiscal year of 2011 include a leakage of water-soluble paint at some plants, resulting in a slight overage of pH and oil content readings in sewerage reference values. This was reported to authorities and cleaned up using proper means. However, there were no environmental troubles leading to significant damage outside the company.

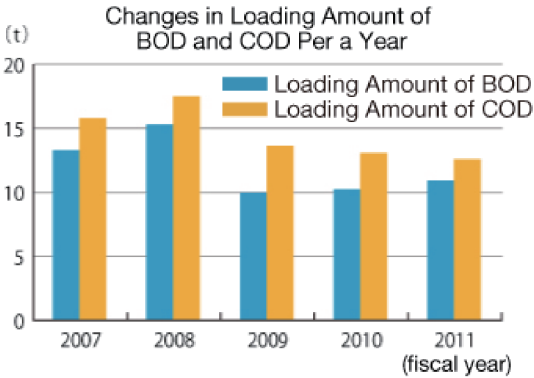
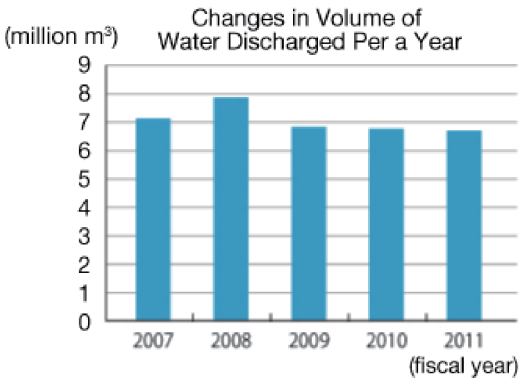
During the 2011 accounting period from April to December there was only one water quality related environmental trouble, which involved the leakage of water-soluble paint. However, when adding the last quarter of the previous reporting period (January to March 2011), there were a total of three environmental troubles.

As for reduction of discharge water, in accordance with our reduction measures for water usage, we were able to reduce our water discharge by 51,000 m³ compared to the fiscal year of 2010.

Our Mie Plant is discharging water into the Hinokijiri River, our Mishima Plant into the Goten River, our Shinshiro Plant into the Noda River, our Shinshiro-Minami Plant into the Kuroda River, and our Ibaraki Plant into the Sonobe River. The average parameter of each plant was relatively low at 2.2mg/l for BOD density whereas 2.8mg/l for COD density; there was no impact on the river at a 10.9 tons BOD loading amount and a 12.6 tons COD loading amount.

■ Definition of Terminologies

- Environmental Accidents
 1. An accident that causes significant damage outside the company and was covered in the newspaper or other news media.
 2. An accident that results in a government cease and desist order, such as improvement order or suspension of use order.
- Environmental Trouble
 1. A situation that results government warning or instruction.
 2. A situation where the company failed to meet a pollution regulation requirement.
 3. A situation where an environmental pollutant such as carbon, waste oil or solvent is leaked or emitted into the environment from a factory, resulting in minor pollution.
 4. A situation deemed as an environmental trouble by the company’s environmental officer (General Manager of the CSR & Environmental Affairs Department).
- Major Environmental Near-Accident
 1. A near-accident in which environmental pollution was not caused outside the business site, but a liquid pollutant leaked or was at risk of leaking into the drainage canal or the street gutter connected to the drainage canal.
 2. A situation deemed as a major environmental near-accident by the company or site’s environmental manager because it has been identified as an emergency situation in advance after it exceeded the predetermined environmental impact score set for each site.
- Environmental Near-Accident
 1. A minor leakage of a liquid pollutant or scattering of a powdered pollutant not considered as an environmental accident, environmental trouble or major environmental near-accident above.
 2. A situation where the leakage of a liquid pollutant or scattering of a powdered pollutant was about to occur or was anticipated to occur.



Enforcement on Atmosphere Control

We are trying to enforce our management system by setting up our voluntary set parameter values in order to comply with various regulated values.

Since our fiscal year of 2010, we have newly commenced this operation by setting definitions of environmental accidents, environmental trouble, any major environmental near-accidents, and near environmental accidents. In the fiscal year of 2011 we made further changes to the definitions of these terms. We now consider cases that exceed voluntary set parameter values to be a major environmental near-accident and have established a policy to take corrective measures.

Incidentally, there were five exceeding cases of voluntary set parameter values in the fiscal year of 2011.

Also, we reviewed our voluntary set parameter values at some of our plants.

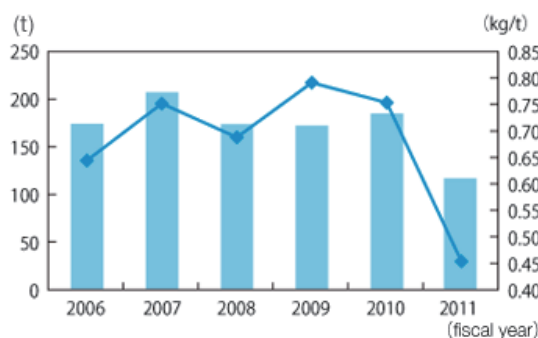
During the 2011 accounting period from April to December there was only one case where a voluntary set parameter value was exceeded. However, when adding the last quarter of the previous reporting period (January to March 2011), there were a total of five major environmental near-accidents.

■ Discharging Volume of NOx and SOx, plus Production Quantity per Base Unit

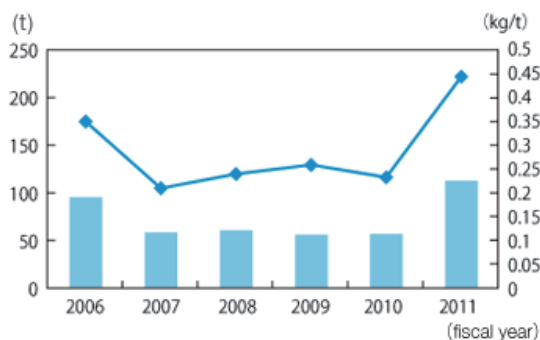
We carefully manage the concentration of our NOx and SOx emissions to fully comply with parameters set by the law, and there was no case where we exceeded our voluntary set parameter value.

In the fiscal year of 2011, we were able to reduce our NOx emissions compared to the fiscal year of 2010, but SOx emissions increased year-on-year. In addition, the reason for the increase in SOx emissions was a higher analysis value of SOx concentration seen in regular measurements.

Loading Amount of NOx Emission and its Unit Base



Loading Amount of SOx Emission and its Unit Base



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Emission of Ozone-Depleting Substances

We used to deploy as a metal cleanser chlorofluorocarbon-141b (HCFC-141b), which is controlled under Montreal Protocol as ozone-depleting substance; as such we had completely abolished using it effective from September 2007 by making some improvements with our cleansing methods. Since then, we no longer use or emit any ozone-depleting substances anymore.

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Our Measurements on Contaminated Soil

We are regularly conducting water quality inspections by installing a shallow well for observation purposes in seven of our domestic operation sites (for our Nagano Plant, we are conducting direct soil analysis as they are located high in the water vein, whereas for our Onomichi Plant, we are conducting the analysis of leachate as they are located on the land reclaimed from the sea). In the fiscal year of 2011 as well, we have cleared all the standards as to controlled substance according to soil contamination measurement law. Also, even though our Hiratsuka Factory had exceeded the standard on chlorine-organic solvents in the past, currently they are still continuing with the cleansing treatment through aeration; now their density of underground water is below standard for the underground water environment.

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Our Measurements for Dioxide

Our Mie Plant has a waste incinerator is equipped and they are regularly conducting measurement of its density once a year.

They have cleared the regulated parameter in the fiscal year of 2011 as well.

Result of Measurement for Dioxide at our Mie Plant

Office Names Facility Names	Items	Regulated Parameters	Value of FY2011	Legal Names
Mie Plant	Gas Emission (ng-TEQ/m ³ N)	10	0.0010	Act on Special Measures against Dioxins
Incinerator	Water Discharge (pg-TEQ/L)	10	0.0010	
	Residue in the Incinerator (ng-TEQ/g)	3	0	
	Scattered Ash (ng-TEQ/g)	3	0.18	

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Measurement for Legal Regulations

■ Measures on Revised Chemical Substance Control Law in Japan

In lieu of the revision of the Japanese Chemical Substance Control Law*1, it became compulsory to register any chemical substance being manufactured or imported at more than one ton annually. As part of our efforts to comply with this change, we plan to make our filing on the quantity and application of chemical substances being imported by the end of June.

*1 The Japanese Chemical Substance Control Law refers to legislation related to the control over screening and manufacturing of chemical substances (from 2011 we have commenced our registration of existing chemical substances).

■ Our Measures for Chemical Substances under European Directives

We are currently addressing as to our measures on REACH/CLP mainly by our REACH Sub-Committee which is a cross-sectional organization to comply with the REACH Directive*2 and CLP Directive*3 in the EU.

As for chemical substances subject to registration under the REACH Directive (two kinds), we completed their registration in November 2010. Meanwhile, some of the approved substances such as DEHP (diethylhexyl phthalate) and BBP (butyl benzyl phthalate) were also subject to replacement in the light of their risk management aspect; we have completed their replacement with alternative substances excluding certain specifications. Also, we are conducting surveys to ensure our supply chain suppliers intend to register required substances stipulated under the REACH Directive per each raw material, by following up to make sure they have been duly registered according to the survey result. From now on as well, we will work together with our suppliers to ensure our compliance with the REACH Directive.

Additionally, we are investigating the amount of SVHC*4 contained in our products and are taking regular measures to comply with disclosure requirements.

As for our measures for the CLP Regulation, we have completed our registration for required substances by compiling distribution quantity, purpose of usage, and substance information related to any contained chemical therein (CAS number, content percentage, etc.) as per product number being sold in Europe.

*2 The REACH Directive refers to regulations as to registration, evaluation, approval, and control over chemical substances in Europe

*3 The CLP Regulation refers to regulations as to classification, labelling, and package as to substance and blended materials in Europe.

*4 SVHC: An acronym for substance of very high concern as defined in Article 57 of the REACH Regulation.

■ Our Measures for ELV (Heavy Metals) Directives

By working together with our suppliers, we have been trying to procure raw materials, sub-materials, and parts which do not contain any heavy metals such as lead, hexavalent chromium, cadmium, and mercury, major chemical substances (SOC); ultimately, we intend to totally abolish the usage of these.

Continuing from fiscal year of 2007, in the fiscal year of 2011 we have completed the process of non-containing guarantee of those four substances for our newly deploying brands. Also, we are trying to strengthen our SOC management supporting system under the operation of our internal management standard towards both of our domestic and overseas operation sites.

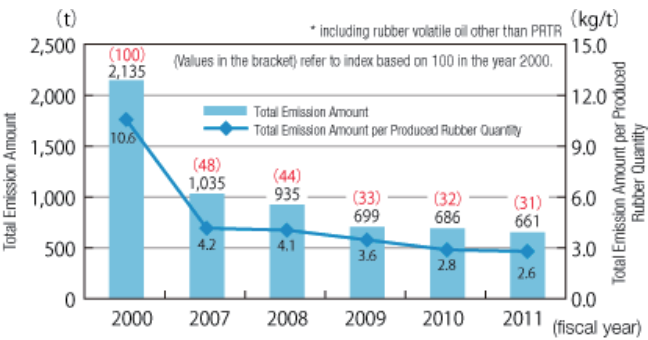
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Reduction of VOCs

As a result of our effort to reduce volatile organic solvent (VOCs) which is the major substance as to emission amount, we were successfully able to reduce by 3.7% compared to the previous fiscal year while 2.7% of production increase in the fiscal year 2011. This is because of our deployment and operation of solvent collection facilities, plus our operation to collect a part of VOCs which we used to emit in the atmosphere in the

past; we will continue to promote the reduction of emission amounts from now on.

Total Amount of VOCs Emission and Base Unit of Production Quantity



The bars above refer to the total emission amount (emission amount + shifted amount) expressed by the unit [ton].
The line above refers to the emission amount per produced rubber quantity expressed by the unit [kg/ton].

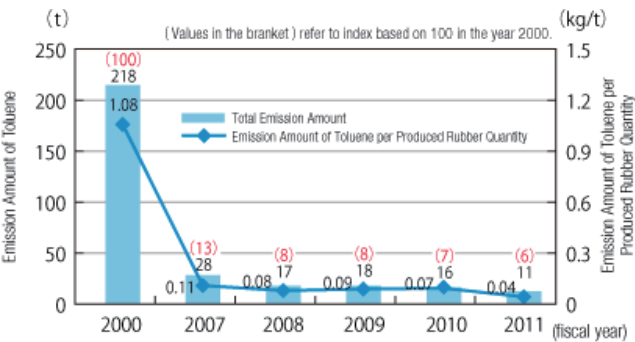
- Calculation formula of unit base = total emission amount / produced rubber quantity
- Including rubber volatile oil other than PRTR (Pollutant Release and Transfer Register)
- Total Emission Amount = Emission Amount + Amount to be Disposed as Industrial Waste (equivalent to shifting portion under PRTR)

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Reduction of Chemical Substance under PRTR*

In the fiscal year of 2011, the total of emissions and shifting amount of chemical substances under PRTR was 157.5 tons, which was a reduction by 56.0% compared to the fiscal year of 2000. Especially toluene, which used to be the majority of our emissions to the atmosphere, was reduced by 95.0% compared to the fiscal year of 2000.

Emission Amount of Toluene and Production Amount per Base Unit



* PRTR refers to a system to register emission and shifting amount of chemical substance. This is a system to understand the source and emission amount of any toxic chemical substances followed by announcing them to the public.

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Environmental Preservation

Biological Diversity

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Guidelines

Formulation of Guidelines on Biodiversity

The "Basic Law on Biodiversity" was announced and became effective in June 2008, followed by the "Biodiversity Declaration – Action Guidelines and its Guidance" by the Japan Business Federation, and the "Guidelines of Public Participation on Biodiversity" that announced by the Ministry of the Environment in Japan in the following year of 2009. Since Yokohama Rubber is in the same line of those concepts, we have established "Yokohama Rubber's Guidelines on Biodiversity" in order to facilitate corporate-wide approaches on biodiversity.

Basic Guidelines

We are running our business by heavily relying on the grace given by nature. We should pass on this rich nature to our future generations by addressing the preservation of biodiversity and utilization of sustainable biological resources through our business activities, whilst recognizing the fact that the "linking diversified lives equals to biodiversity", which is the basis of this grace, has been dwindling rapidly on a global scale lately.

Action Guidelines

1. Recognition as a Management Issue

Since Yokohama Rubber is directly using biological resources and conducting business activities that may affect biodiversity, we recognize the importance and risks towards the grace of nature. Therefore we will address the preservation of biodiversity from a long-term perspective.

2. Participation by All Employees

We will raise the awareness of our employees in regards to the grace of nature. All our employees will contribute to the preservation of biodiversity both at work and their local communities.

3. Determine the Effect on Biodiversity and its Reduction

We will determine the effect that our business activities may have on biodiversity, and shall thereby try to avoid or minimize such effect.

4. Preservation of Biodiversity through the Supply Chain

In order to preserve biodiversity, by understanding that it is important to be considerate as early as the stage of resource extraction, we shall contribute to the preservation of biodiversity at resource mining sites through cooperation with relevant personnel of the supply chain.

5. Sustainable Usage of Biological Resources

We will work on any sustainable usage of biological resources by gathering knowledge with regards to biodiversity, and also through technological development, innovation of design and production, or approaches to biodiversity in the value chain.

6. Information Sharing and Communication

We will work on the information gathering or social requirement as to preservation of biodiversity; we shall thereby disclose our activities and achievements proactively to facilitate dialogue and tie-ups with our stakeholders, such as customers, local communities, NGOs, and the government.

Activity Report in the Fiscal Year of 2011

▶ Corporate Governance and Compliance

▼ Environmental Preservation

Environmental Management

Environmentally-Friendly Products

Reduction of Greenhouse Gas Emission

Utilization of Natural Resources / Reduction of Industrial Waste

Management of Chemicals and Emission Provision onto Water, Air, and Soil

Biological Diversity

▶ Together with our Customers

▶ Together with our Employees

▶ Together with our Business Partners

▶ Together with our Shareholders and Investors

▶ Together with our Society

Addressing the Preservation of Biodiversity

Yokohama Rubber has started our preliminary exploration of the surrounding area of our offices (15 offices in domestic and 15 offices in overseas) in order to ensure that none of our activities are affecting biodiversity in those areas. During this exploration work, we intended to check whether there is rich nature near our offices, then shortlisted some as adjacent to areas with richer nature. From now on, we are considering proceeding with our necessary approaches by studying the effect on biodiversity of such surrounding areas, followed by making our objectives clear. From April 2011, we have started our exploration of the current situation for the midstream and downstream of Miyagawa River, and on the riverside of Hinokijiri River. We are planning to conduct explorations three times in total by December 2011.

Our company is currently in the middle of the "YOKOHAMA Forever Forest" Project which is to plant about 500,000 trees in our operation sites both domestically and overseas based on the potential natural vegetation. This is done together with our residents in local communities under the guidance of Dr. Miyawaki, Professor Emeritus at Yokohama National University, by 2017 to commemorate our company's 100th anniversary of establishment. In order to confirm whether this "YOKOHAMA Forever Forest" project is generating richer forests in terms of biodiversity as well, some of our offices have started exploration of the birds inhabiting the forest. Also, our company is conducting business activities by utilizing biological resources, metal and mining resources primarily as natural rubber. Among them, natural rubber is produced in the farms of South East Asia which is considered to be impacting the biodiversity of those areas. The majority of those rubber farms are small-scale and usually run as a family business; we are procuring from them through processing companies or several intermediary distribution companies. As such, it is not easy for our company to get involved with those farms that belong to the top of supply chain to contribute to the preservation of biodiversity, but we would like to do our best as far as our authority can prevail from a long-term and global perspective in order to contribute to the preservation of biodiversity.

■ Current Status of Protected Areas and Surrounding Areas

We have conducted our explorations at our operation sites (15 from domestic, another 15 from overseas) to see whether they are adjacent to the areas rich in biodiversity. Our exploration method is as follows: first we conducted a visual exploration of the environment near our offices by using Google Map and aerial photos from Google Earth, followed by individual exploration for those offices with rich nature (eg. greenery, river) to a certain degree. The current status of the environment adjacent to our offices per location (outcome of simplified exploration) is as follows. You may wish to refer to the description below as for the classification type.

1. Mie Plant

Our Mie Plant is located alongside the Miyagawa River. The Classification Type of Environmental Standard as to contaminated water quality for the Miyagawa River is the most stringent Classification Type AA, applicable to water area requiring preservation of the natural environment. Mud flats and seaweed beds still remain in the outlet area; this is a place extremely rich in nature where loggerhead turtles may lay eggs or little terns may breed; both are endangered species under RED by the Ministry of the Environment in Japan. Its upstream possesses the forest of Ise Shrine. In order to review our consideration towards biodiversity there, we have conducted another exploration by inviting some experts of that field. We conducted it first by confirming what kind of consideration is needed. Before our first exploration took place, we reported to the governmental agencies such as the prefectural government and city hall, followed by conducting briefing sessions towards local associations of forest, fishery, and local residents.



2. Shinshiro Plant, Shinshiro - Minami Plant

Our Shinshiro Plants are located alongside the Toyokawa River. The Toyokawa River is a medium-sized river with the Hokusetsu Mountainous Region as its source with numerous rapid flows and brinks in its upstream; you can even find species of catfish inhabiting it (under RED by the Ministry of the Environment in Japan, and also specified as a National Natural Treasure). The Classification Type of Environmental Standard of the Toyokawa River is under Classification Type either AA or A which is applicable to water areas requiring preservation of the natural environment. From the Furi Dam in the upstream as far as the downstream is classified as Biology B.



3. Nagano Plant

Our Nagano Plant is located alongside the midstream of the Tenryu River. It is located in Inadani Valley, the central point between the Central Alps and Southern Alps; adjacent greenery can be utilized as a stopping point for birds flying from both Alps. The Tenryu Koshibu Water System Prefectural Park and Nobeyama Natural Park are both in the area, which is a Local Environmental Preservation Area. The area of the midstream of the Tenryu River is designated as Classification Type A for Environmental Standard.

4. Yokohama Tire East Japan Retread Co., Ltd. – Hokkaido Plant

Their adjacent "Utonai Lake and Surrounding Wetland" was the first wet bog designated by the Wild Bird Society of Japan in 1981 as Sanctuary, also being designated as a National Beasts and Birds Preservation Area in 1982, followed by being designated as a registered wetland under "the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention)" in 1991. Currently, four Rangers are stationed full-time from the Wild Bird Society of Japan.

"Utonai Lake" is a fresh water lake 9 km in circumference, 275 ha in area, 0.6 m in average depth; its entire area for preservation including the surrounding wetland is approximately 510 ha. It is a lagoon visited by more than 20,000 winter birds flying in spring and fall, such as Geese, Ducks, and Swans. Other than those birds, there are also some animal inhabitants like Red Fox, Yezo Deer, chipmunks and more. This is also a place where Bean Geese, species under RED by the Ministry of the Environment in Japan, fly in to visit. Incidentally, the upstream of the Yufutsu River is designated as Classification Type AA.

5. SAS Rubber Company (SAS)

Located by facing the Mentor Marsh State Nature Preserve; Lake Erie which is one of the Great Lakes, and also the Headlands Beach State Park via Grand River about two kilometers distance apart.

6. Y. T. Rubber Co. Ltd. (YTRC)

Y.T. Rubber is surrounded by rubber tree plantations that are mainly operated as small farming businesses. Rubber plantations are a cultivated ecosystem that fosters biological diversity in much the same way as a rice paddy would in Japan. Natural rubber in Thailand has great potential for playing a role in biological preservation in the country.

Description as to Classification Type of Environmental Standard with Regards to Living Environment Preservation in the River

There are six Classification Types designated by the Ministry of the Environment in Japan as to environment standards with regards to living environment preservation in the river from AA, A, B, C, D, to E. For example, the description of AA and A is as follows.

		BOD (Biochemical Oxygen Demand)	DO (Dissolved Oxygen)
AA	In accordance with the First Grade of Tap Water, Nature Environment Preservation, plus any items stipulated under category A or below.	1mg/l or less	7.5mg/l or more

A	In accordance with the items under Second Grade of Tap Water, First Grade for Fishery, and Water Bathing.	2mg/l or less	7.5mg/l or more
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Also, as environmental standard in the light of adaptability of the inhabitants of water creatures in the river, there are four classification types which are Biology A, Biology Special A, Biology B, and Biology Special B. For example, the descriptions for Biology A, Biology Special A, and Biology B are as follows.

Biology A	Water area inhabited by water creatures that relatively prefer low temperature regions such as char, salmon, salmon trout, and so on, and their accompanying microorganisms.
Biology Special A	Among water areas of Biology A, water area needing special preservation as egg-laying sites (farm) or nursing ground for baby fish of water creatures indicated in Biology A thereof.
Biology B	Water area inhabited by water creatures that relatively prefer high temperature regions such as carp, gibel, and so on and their accompanying microorganisms.

■ Features of Value Chain of Rubber Manufacturing Industry

As we utilize numerous kinds of raw materials (major categories: natural rubber, synthetic rubber, carbon, various blending agents, fibres, and metals), our supply chain is spreading all over the world, mainly overseas. The greatest impact to be made on biodiversity is "natural rubber" and "metals". Natural rubber is being produced from the farms that are being established by developing the areas rich in biodiversity of Southeast Asia. Metals are being extracted in the mines from developing countries.

■ Supply Chain of Natural Rubber

Regions of Southeast Asia where natural rubber is being produced (Thailand, Malaysia, Indonesia, and so on) are rich in biodiversity; but at the same time they almost match with "Biodiversity Hotspots", i.e. areas with high risk of destruction; it requires consideration towards nature preservation when conducting development and procurement in those areas.

The supply chain of natural rubber consists of (1) farms, (2) processing companies, (3) several intermediary distribution companies, (4) trading companies, and so on; the majority of the capital for establishment of such farms comes from local conglomerates or English companies from Malaysia. The structure of the farms is Small Holders (tenant farming) in Thailand, and mainly plantations in Indonesia and Malaysia; this type is currently spreading into Laos, Myanmar, and so on as well.

The majority of the processing companies and intermediary companies upstream consist of local capital mainly held by Chinese Immigrants. Due to their stringent concern for interests it is very difficult for foreign capital to intervene; it is therefore not easy to secure traceability of raw materials or apply development of our CSR procurement.

■ Bird Watching Initiative at the Hiratsuka Plant

The Hiratsuka Plant has been involved in tree planting activities as part of the Yokohama Forever Forest Project since 2007.

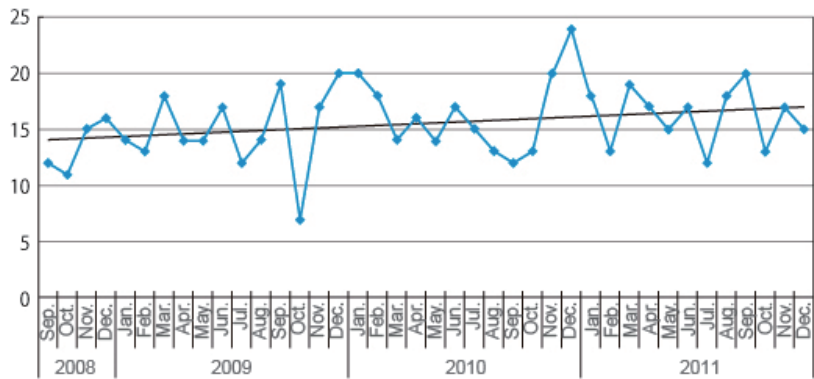
Beginning in 2008, the Hiratsuka Plant began monitoring changes in wildfowl that visited these newly grown forests. These activities involve monthly bird watching events led by employee members of the Hiratsuka Bird Watching Club.

Bird watching events are also presided over by members of Komatan, a bird watching club active in the Hiratsuka and Oiso areas. From March 2012, the Hiratsuka Plant became a corporate member of the Wild Bird Society of Japan as part of an effort to expand the scope of its activities.





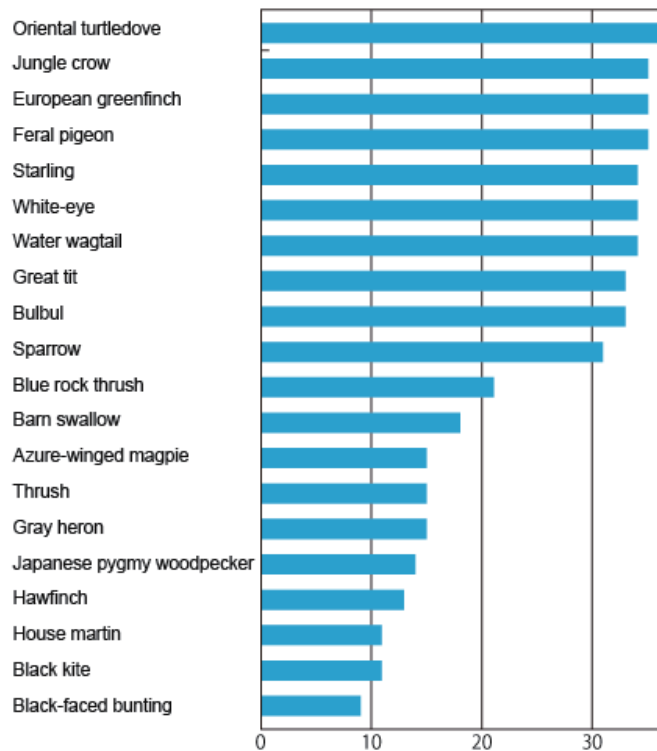
Number of birds spotted



Overall there has been an increase in the number of birds spotted. This number was small in the winter of 2011 compared to other years, but overall the number of birds spotted throughout Japan was small during this period.

Top 20 bird species spotted (Sept. 2008 to Aug. 2011)

Bird Watching Initiative at the Hiratsuka Plant



36th bird watching event shows that oriental turtledoves can be spotted at each event

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Initiatives in the Fiscal Year of 2012

Starting in the fiscal year of 2011 we have been moving forward with greater initiatives to better manage the water quality of effluent released into rivers.

As part of our initiatives in the fiscal year of 2012, we conducted a biological diversity survey in the Miyagawa River watershed near our Mie Plant. In addition to conventional water quality management, we began a biological diversity initiative that surveys the ecosystem for aquatic organisms, river flora and wildfowl.

Production sites besides the Mie Plant are also continuing to take part in clean-up activities held on local rivers together with people from the local community.

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○ Together with our Customers

Guidelines

Fundamental Policy on Customer Satisfaction

We contribute to society by planning, designing, producing, and selling attractive products for the satisfaction of our customers while maintaining a quality assurance system in all of our processes, including service. To this end, we will conduct systematic activities to ensure that all the basic steps in our quality assurance activities function properly.

Establishment of CSR Council and Consistent Company-wide Quality Assurance Activities

In 2012, we changed to our CSR and environmental promotion framework, the CSR Council is now also responsible for deliberating quality assurance initiatives for the entire company, in order to implement the activities throughout the company.

In order to achieve this, we plan, design, produce and sell the attractive products that satisfy our customers, while enhancing our quality assurance system at all process by adopting the company-wide guidelines.

▶ Assurance of the Safe Tire Products

▶ Assurance of the Safe MB Products

▶ Communication with our Customers (in order to select our products correctly)

○ Activity Report in the Fiscal Year of 2011

▶ Corporate Governance and Compliance

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▼ Together with our Customers

Assurance of the Safe Tire Products

Assurance of the Safe MB Products

Communication with our Customers (in order to select our product correctly)

▶ Together with our Employees

▶ Together with our Business Partners

▶ Together with our Shareholders and Investors

▶ Together with our Society

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Assurance of the Safe Tire Products

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Guidelines

Basic Notion of the Activities for Quality Assurance

The basic notion of our quality assurance activities at the Tire Group is expressed by our Tire Group President under the "Quality Guidelines" in our quality manual in accordance with Yokohama Rubber's Corporate Philosophy; "We will enrich people's lives and contribute to their happiness and wellbeing by devoting our wholehearted energies and advanced technologies." We are continually working on our daily operation with quality assurance based on these quality guidelines.

Quality Guidelines

1. We will continually provide quality products so that our customers from all over the world can purchase with confidence followed by their sense of satisfaction. We will thereby grow as a corporation and contribute to society by maintaining proper profits through not just customer satisfaction, but also winning their sense of trust afterwards.
2. We will continue to make improvements on our activities of the entire process of Tire Group in order to meet our customers' requirements, as well as to comply with the entire regulations related to all the products we provide, plus any requirements of the quality management of ISO9001 and ISO/TS16949 by aiming for the establishment of even better corporate structures.
3. In order to realize these quality guidelines, each division will set forth their own quality targets, review their status, followed by ensuring their achievements.
4. We will get all our relevant directors and employees thoroughly familiarized with these quality guidelines.

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Achievements

Our Approaches for Quality Assurance

Our Approaches for Customer Service

We swiftly share the product information given by our customers to the respective sections in our company. We always develop our business activities to meet our customers' expectations, promptly solving issues indicated by our customers coordinating with our related sections.

Flow Chart of our Customer Feedback and its Notification

Activity Report in the Fiscal Year of 2011

▶ Corporate Governance and Compliance

▶ Environmental Preservation

▼ Together with our Customers

Assurance of the Safe Tire Products

Assurance of the Safe MB Products

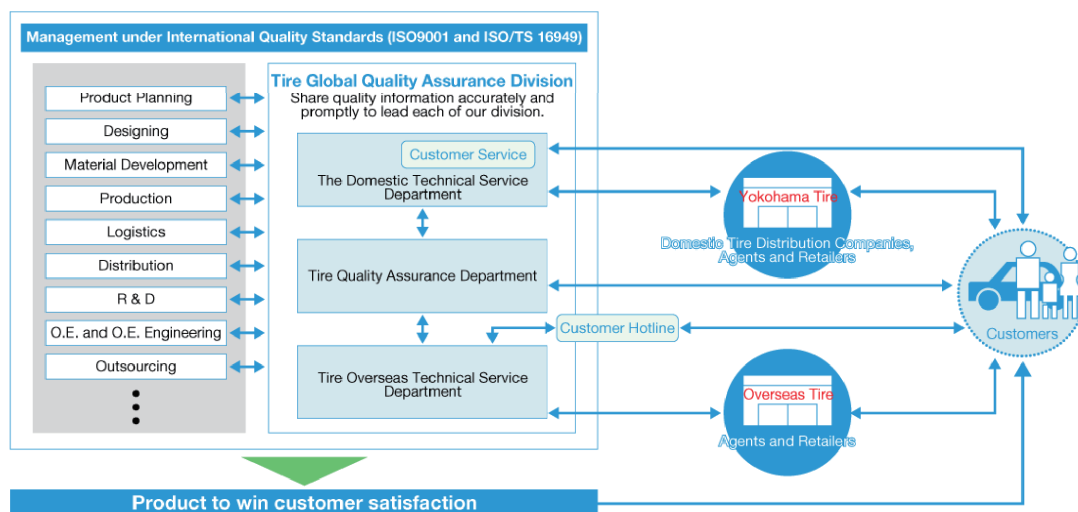
Communication with our Customers (in order to select our product correctly)

▶ Together with our Employees

▶ Together with our Business Partners

▶ Together with our Shareholders and Investors

▶ Together with our Society



Thin arrows in the diagram refer to information flow; the thick arrows refer to the providing flow.

■ Activities for Quality Assurance

1. Approaches for ISO9001/TS16949 (Establishment of Quality Management System)

The basis of the supporting system of quality assurance in automobile industry is to comply with ISO/TS16949. This is the quality management system standard required by major automobile industry which is a prerequisite in order for us to develop our various businesses on a global scale. So far, our three domestic plants, plus four plants overseas in which tires for passenger cars, trucks, and buses have obtained preceding certifications are manufactured; we are about to expand this on a global stage.

Also, we are proactively facilitating so that our managerial level of supervisors of each division can obtain qualification as internal auditor; we have newly registered 195 personnel in the fiscal year of 2012 through our various training sessions and seminars.

Status of Certification Obtaining as to International Quality Standards (the Latest Year/Month for Renewal)

		ISO9001	ISO/TS16949
Domestic	Mishima Plant	Jan. 2010	Jan. 2010
	Shinshiro Plant	Jan. 2010	Jan. 2010
	Mie Plant	Jan. 2010	Jan. 2010
	Onomichi Plant	Jan. 2010	—
Overseas	Yokohama Tire Corporation	Dec. 2009	—
	Yokohama Tire Philippines Inc.	May. 2008	July. 2010
	Hangzhou Yokohama Tire Co., Ltd.	Oct. 2009	Oct. 2009
	Yokohama Tire Manufacturing (Thailand) Co., Ltd. *	Aug. 2009	Aug. 2009
	Suzhou Yokohama Tire Co., Ltd.	Apr. 2009	—

* Obtained at 2 plants; tires for passenger car plus tires for trucks and busses

2. Improvement of the Support System of Quality Assurance from the Perspective of our Customers

In order to improve our supporting system of quality assurance, we are trying to leverage the level of our quality system aiming for the solution for any issues being identified from our customers' perspective through our internal quality audit.

3. Conducting Quality Examination by our Top Executives

We believe that any activities on quality improvement can be achieved only through high awareness of our top executives including our President in order to motivate our workers at our various operation sites; further actions for improvement could even accelerate and fortify it. Therefore our company is conducting "Quality Examination by our Top Executives" to examine annually each of our plants and divisions by our management team.

4. Improvement on the Performance Level by Plant Supervisors

In order to fortify our strength at operation sites, our Tire Global Quality Assurance Division is continually conducting Enlightenment and Training Programs by focusing on the quality of each hierarchy, primarily

plant supervisors, to improve our overall quality level at all our plants.

5. Quality Assurance Activities Related to Development Operation

We are striving to deliver products with quality assurance by conducting Design Reviews to evaluate achievements for each step from product planning, designing, to production. Also we follow up with our customers how much they are satisfied after sales, followed by feedback to our development operation team in order to develop and provide even better products all the time.

6. Safety Assurance through the Entire Life Cycle of Tires

In order for our customers to continue to use our safe products comfortably, we handle promptly in the event of any incident that may cause inconvenience to our customers such as product recall by notifying to our customers as soon as possible.

Incidentally, there is no incident to cause our customers inconvenient in the fiscal of 2011.

We will continue to make various efforts in order to provide safe products so that our customers can continue to feel comfortable with our products.

Our Approaches for our Domestic Tire Service

■ Basic Notion of the Activities for Domestic Services

The basic guidelines as to quality of our Tire Group are set forth in our "Quality Guidelines". Tire Domestic Technical Service is always developing service activities from our customers' perspective in order for them to duly satisfy with our products and establish a sense of trust according to those guidelines.

■ Supporting System of our Services

In order to facilitate obtaining highly-accurate market information and prompt action in case of any defect of our products, our supporting systems are already in place as follows:

- We have placed our personnel from the Tire Domestic Technical Service Department in six cities nationwide in Japan (Sapporo, Sendai, Tokyo, Nagoya, Osaka, and Fukuoka).
- We have formed our service network by operating our qualification system (YFS = YOKOHAMA FIELD SERVICE)* applicable to our regional distribution companies and sales offices in Japan (357 nationwide).
- We are holding seminars and reporting sessions for our regional distribution companies and sales offices to introduce our new products, develop our service guidelines, and share some market information.

* Qualification system (YFS = YOKOHAMA FIELD SERVICE) refers to our system to grant qualifications to eligible personnel as to product knowledge, judgement over products upon customer complaints and so on upon training and testing at our seminar organized by the Tire Domestic Technical Service Department. There are 677 individuals who possess this qualification at the point of fiscal year of 2011.

■ Obtaining Market Information and Application to our Products

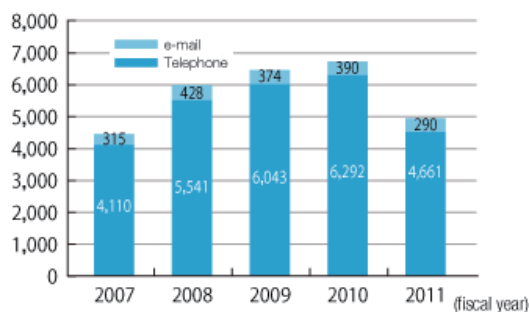
We have our framework in place to obtain and analyse customer feedback and market evaluation, develop them internally, and apply them into our next products in order to provide products to ensure we win continual customer satisfaction.

1. Obtaining Market Information

Our personnel from Tire Domestic Technical Service Department are conducting hearings from our customers and surveys of actual tires based on the information from our distribution companies. The gathered information will be developed internally as Technical Correspondence to improve the strength of our products and apply it into our next products as well. 629 pieces of correspondence were issued in the fiscal year of 2011, in contrast to 673 in the fiscal year of 2010.

2. Development of Gathered Information at our Customer Service

Changes in the Number of Cases Directed to our Customer Service



*The number in 2011 is from April to December.

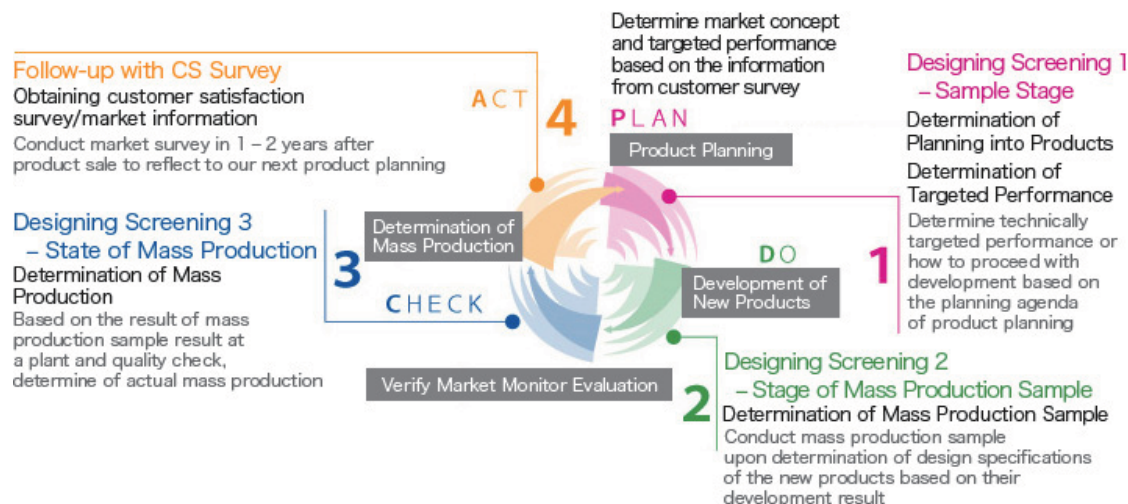
Our Customer Service team stationed in our headquarters is handling customer inquiries as to tires including obtaining information such as market evaluation or complaints as to our products. They are dealing directly with

our customers through telephone or e-mail, followed by developing such precious information gathered throughout the company in a prompt manner. This is to help improve our product performance, catalogue, and our homepage. Also, we gather and analyze information from our customers, or for any information related to quality issue, followed by reporting internally to apply them into our next product.

3. Holding Reporting Sessions for Customer Satisfaction (CS Reporting Session) of our New Products

We are obtaining and analyzing market evaluations as to our new products by holding CS Reporting Sessions together with our Development Division to apply such information into our next products. We held such sessions seven times in the fiscal year of 2011(March to December).

Flow Chart of our Market Adaptability Verification



■ Market Enlightenment Activities – Customer Seminar

We are conducting various activities that will lead to customer satisfaction; as we hope that we could draw more interest and attention from many of our customers into tires by enlightening them with proper usage of tires. We have conducted such Customer Seminars 78 times in the fiscal year of 2011.

○ Filling Operation of Tire Air – Special Seminar

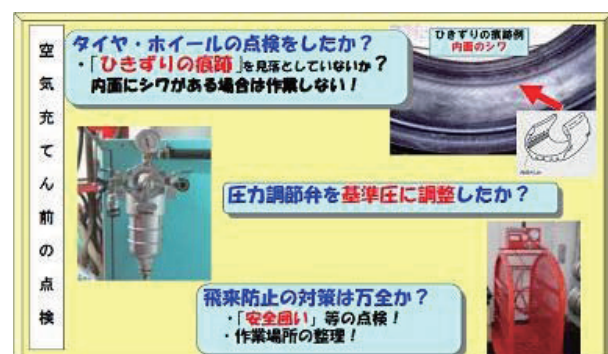
It is required by law to conduct special seminars and so on under Ordinance on Industrial Safety and Hygiene (Ministerial Order by Department of Labor) towards the workers who are involved in the filling operation of tire air.

Yokohama Rubber is conducting various seminars in accordance with our regulations conducted by our personnel of Tire Domestic Technical Service Department or employees at our distribution companies who are qualified as a lecturer for Filling Operation of Tire Air – Special Seminar mainly for our valued customers from Tire Distributors and Transporting Companies.

○ Seminars for Drivers (Mainly our Valued Customers from Bus Companies and Transporting Companies)

We are conducting various seminars as to basic knowledge of tires plus daily inspection and maintenance work in order for professional drivers, i.e. our valued customers who deal with precious passengers and cargoes, to keep making improvements with their safety driving, economical driving, and quality transportation. These days since we have noticed that many of our valued professional drivers are more inclined to be concerned about environmental issues and various approaches on cost cutting, we are bringing up the relativity of tire and fuel efficiency as well.

Sample of the Materials from Filling Operation of Tire Air - Special Seminar





Approaches of Overseas Tire Service

■ Basic Notion of Overseas Service Activities

To embody our company's basic guidelines into our service activities, we set forth that "we will always conduct service activities from our customers' perspective by aiming to become a corporation with extremely high in customer satisfaction and market position" as our basic guidelines.

■ Execution of Market Adaptability Verification for Product Development

We are conducting the below-mentioned activities in each step from the stage of product planning to after service.

1. Prior to Market Launching: Market adaptability verification of new products through utilization of market monitor
2. After Marketing Launching: Obtain market quality information and conduct customer satisfaction survey
3. Planning Stage: Propose objectives of new products based on market information

You may wish to refer to [Our Approaches for our Domestic Tire Service](#) for the Flow Chart of our Market Adaptability Verification.

■ Expansion of our Service Network that Covers All over the World

We are conducting the below-mentioned measures in order for our customers located all over the world to be able to use our products with a great level of satisfaction as we expand our service network that covers all over the world.

1. We have placed our Technical Service Personnel in each of our regional offices in North America, China, Europe, Asia, Central and South America, and Africa.
2. We have established the network by technical staff from each distribution companies and agencies under our regional offices. This is to provide our technical service to each country all over the world excluding Japan.
3. Obtain highly accurate information as to product usage and requirements from our products for each region and country.

■ Training for service engineers

○ Establishment of the Tire Service Training Center in Thailand

October 2011 saw the inception of the Company's tire service training center in Thailand as part of wider efforts to reinforce the training of Yokohama Rubber service engineers around the world.

Service engineers engage in technical services such as the collecting of market and quality information as well as technical information initiatives designed to further increase customer satisfaction. This tire training center is a facility for producing service engineers capable of engaging in practical service provision, as much as possible from the perspective of customers. As training content without precedent, a hands-on training program has been added that uses a test course for experiencing actual tire and vehicle properties. Through this kind of training, service engineers all over the world are able to participate in practical training content based on identical training programs. This effort is designed to additionally enhance the technical service capabilities around the world and to further increase the customer trust and confidence in the Yokohama brand.

Training for service engineers



○ Training surrounding vehicle tires for construction and industrial use

For service engineers in Asia (Indonesia, Thailand, and Malaysia) engaged in sales and technical services surrounding vehicle tires for construction and industrial use such as on construction sites and in mining operations, in July 2011 the tire production plant in Onomichi was the location of highly specialized training session covering the range from manufacturing processes to design methods and knowledge, as well as analysis techniques using actual tires as study materials. Through this kind of training the Company continues in its efforts to enable system engineers to provide the high technical service levels that match and satisfy the requirements of customers for vehicle tires for construction and industrial use.

Training surrounding vehicle tires for construction and industrial use



○ Training surrounding tires for motor sports

In May 2011, service engineers from around the world received motor sports hands-on training at three actual racing locations in Thailand and in Guangzhou and Macau in China. Training in practical skills related to basic on-site safety considerations and actions, methods for measuring the temperature of tires after racing to gain information for optimal specifications selection, and specialist knowledge and methods necessary for dealing with conceivable problems, among other matters.

The experience and knowledge communicated through this training enable service engineers to provide technical services for motor sports tires, and by swiftly responding and meeting customers' expectations further strengthen the trust and confidence of customers in the products of the Company.

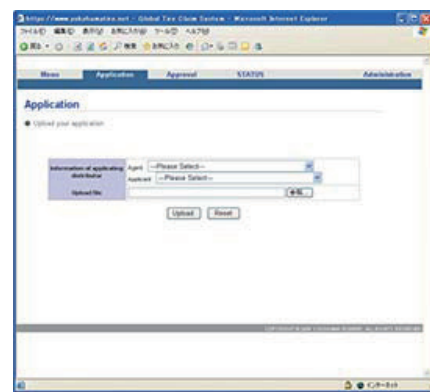
Motor sport training



■ Quality information aggregation system

The quality information aggregation system initiated in 2010 is currently in use in 25 countries (as of December 2011). Information collected through this system serves to further enhance the manufacture of the products of the Company.

Web-based information aggregation system



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Assurance of the Safe MB Products

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Guidelines

Basic Notion of the Activities for Quality Assurance

Our MB Group sets forth its mid and long term guidelines as to "raise customer credibility by continually providing high quality products all the time". We are trying to facilitate to enforce our quality assurance supporting system in mid and long term by ensuring safety for not just our primary customer mainly manufacturers, but subsequent secondary, tertiary users, and every consumer's life being surrounded by products from our MB Group, followed by granting them with peace of mind.

■ MB Group – Mid and Long Term Approach Guidelines as to Quality Assurance

We will raise customer credibility by continually providing high quality products all the time.

In order to gain customer credibility, we will ensure:

1. Customer-centric systematic quality management and product development
2. Effectuation of quality control system and continuation of autonomous quality improvement activities
 - (1) Attainment of zero complaints outflow
 - (2) Operation of quality management system in consideration of QCD (quality, cost, delivery), (introduction of the system in new locations, businesses at ease)
3. Preparation of crisis management system and continuous correspondence to it
4. Continuation of customer-centric technical service activities
5. Global development of above mentioned guidelines

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Achievements

Our Approach for Quality Assurance

■ Work Operations by our MB Group

Our MB Group is dealing with various commodities for mainly hoses and couplings, industrial products, adhesives and sealants, and aerospace products. Our mainstay products are industrial rubber products such as various hoses and conveyer belts, adhesives, various sealing materials, fuel tanks for aircraft, lavatory units and more; our major customers are the manufacturers of automobiles, construction equipment, air frames, vehicles, industrial facilities, public corporations, and construction companies. Our products will be delivered to our customers through our distribution companies and agencies. In addition to those B-to-B products, we are manufacturing various B-to-C products as well, such as golf goods.

As for those products, we will ensure safety assurance through incoming goods inspections for raw materials to use, half-finished goods inspections such as blended rubber materials, product inspections for final products; we are also trying to secure quality with their design by conducting designing screening from the stage of product planning, the stage of designing, and the stage of process designing.

Activity Report in the Fiscal Year of 2011

▶ Corporate Governance and Compliance

▶ Environmental Preservation

▼ Together with our Customers

Assurance of the Safe Tire Products

Assurance of the Safe MB Products

Communication with our Customers (in order to select our product correctly)

▶ Together with our Employees

▶ Together with our Business Partners

▶ Together with our Shareholders and Investors

▶ Together with our Society

■ Lecture classes related to customers' correspondence in our company

In "Industrial Technology & Sales Department" which was launched in June 2009, experienced engineers with products knowledge related to industrial materials, HAMATITE, hose plumbing stay at each representative sales company. They develop activities to hold lecture classes for products knowledge and handlings to develop human resources and enhance communication at the sales companies and locations, aiming at smooth correspondence to our customers.

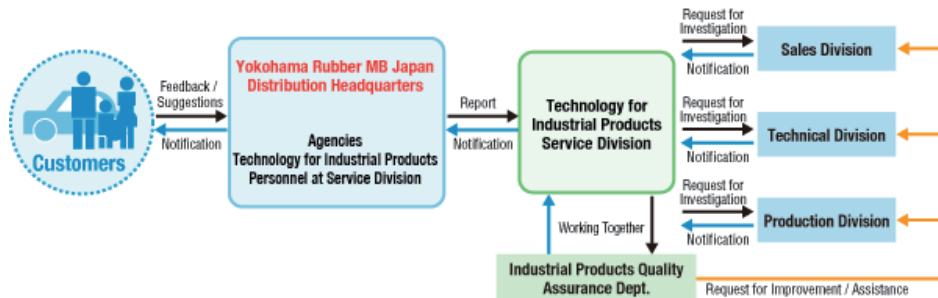
43 lecture classes were held in fiscal year 2011 (from April to December)



■ Approaches for our Customers

New company "Yokohama Rubber MB Japan" was launched in October 2010, Integrating a part of function in MB sales companies and industrial products marketing department of our head office. With this, we integrated marketing power of sales companies which were close to our customers and back up function of manufacturers, we plan to introduce system development with a feeling of identification and swift decision making. We deploy a staff member from quality assurance department of a manufacturing company, who improves consciousness of product quality of our staff during the course of lecture related to product quality to our sales staff members, and are working to continuously provide our customers with safe and high quality products.

Flow Chart of our Customer Feedback and its Process



■ Our Internal Activities for Quality Assurance

1. Risk Management – Dealing with Customers

We are operating under, and revising the requirements of the "Measurement Action for the Market" in emergency situations in order to act promptly and accurately for various business practices of diversified product lines of our MB Group by making clear about actions and supporting system for our MB products' safety issues. Also, in the event of any quality issues or complaints in the market over our products already delivered to our customers, not just we act promptly to solve the problems, but also we take actions to avoid any recurrence. As for preventive measure for recurrence, we will verify its validity by conducting quality audit on a regular basis whilst checking whether corrective measures are duly conducted.

Also, we have our framework called the "Meeting for Product Improvement" where relevant divisions get together to lead to product improvement based on quality information in the market not to allow any quality issue to occur. We are aiming for the improvement on CS by relevant divisions to get together through this framework. There was no case of violation on product safety in the fiscal year of 2011.

2. Activities on Quality Improvement – Framework to be in place to maintain customer credibility

Our MB Group has formed their activities on quality improvement by reflecting their mid and long term guidelines to facilitate their activities.

1. We are continually making improvements based on the verification of international quality management systems such as "ISO/TS-" per sector. Our Industrial Products Business Group has obtained this certification by establishing quality assurance supporting system with more clear regulations and structures as to their operational responsibility at our Technology, Production, and Sales Division; upon integration and organizational shifting based on their functions as Industrial Products, Adhesives and Sealants, and Hoses

and Couplings Businesses. We continuously acquire certification "ISO/TS" at our overseas production bases as well.

Acquisition of "ISO9001, ISO/TS16949" at our production sites in Japan and overseas (year and month of the latest update)

	Production sites		ISO9001	ISO/TS16949
Domestic	Ibaraki Plant		January 2012	January 2012
	Nagano Plant		January 2012	January 2012
	Hiratsuka East Plant		January 2012	January 2012
	Hamatite Nakahara Plant		January 2012	-
	Hamatite Ibaraki Plant		January 2012	-
	Plant of Industrial Material		January 2012	-
Overseas	YH AMERICA INC.	KENTUCKY HOSES DIV.	-	January 2010
		KENTUCKY HAMATITE DIV.	-	February 2010
		SOUTH CAROLINA HOSES DIV.	-	August 2012 (scheduled)
	SAS RUBBER COMPANY	HOSES DIV.	January 2011	-
		INDUSTRIAL DIV.	August 2010	-
	SHANDONG YOKOHAMA RUBBER INDUSTRIAL PRODUCTS CO., LTD.		August 2011	-
	YOKOHAMA HOSES & COUPLING (HANGZHOU) CO., LTD.		March 2009	-
	YOKOHAMA HAMATITE (HANGZHOU) CO., LTD.		October 2010	-
	SC KINGFLEX CORPORATION		March 2011	-
	YOKOHAMA RUBBER (THAILAND) CO., LTD.	HOSES DIV.	April 2009	April 2009
		HAMATITE DIV.	April 2009	-

2. Our internal audit and examination activities have been conducted throughout all the plants, technical divisions, and overseas operation sites of MB Group; we are trying to facilitate to raise awareness of quality and activities for improvement including "Quality Examination by our Top Executives" conducted by our Directors. Also, for the purpose of fortifying our quality framework, we are promoting the obtainment of qualifications as internal auditor; about 270 employees have obtained this qualification at the point of March 2012.



3. Fortification of Global Quality Assurance Supporting System

MB Group has overseas operation sites; 2 in North America, 3 in China, 1 in Taiwan, and 1 in Thailand. We are expanding our activities by aiming for our universally common quality standard by summarizing various rules on quality assurance activities, by making clear about the authorities on responsibilities between overseas operation sites and relevant domestic divisions from product planning to quality assurance supporting system after sale. Enlightenment materials for quality for both expatriate staff and local staff are duly utilized in all our operation sites.



■ Supporting System for Customer Complaints by Working with YAA

Our Aerospace Division is producing a Lavatory Module (a unit for washroom) for 737 passenger aircraft to be manufactured by Boeing in the USA. They are manufactured in our Aerospace Products Plants in our Hiratsuka Factory; only Lavatory Modules which have passed our final inspection will be shipped out to the USA. Lavatory Modules which have been installed in the passenger cabin of 737 passenger craft by Boeing in the USA will be subject to appearance checks and various performance tests (turning on the lights, fire alarms, water for hand-washing, etc.); a Non-Conformance Tag would be issued as a countermeasure for the problems in the event of any irregularities being detected at this stage.

Our Quality Assurance Department is always monitoring Boeing's website (exclusive site for Yokohama Rubber); we would immediately contact via e-mail to our personnel of quality assurance of YAA (YOKOHAMA AEROSPACE AMERICA, INC.) to request to find out the situation along with investigation at Boeing. Based on the discussion at YAA, investigation result, internal discussion, and its investigation result, we are trying to improve Yokohama Rubber's credibility by filing an appeal to Boeing if necessary.

YAA is also working as a marketing front of spare parts of Lavatory Modules, and contribute to improvement of product quality and customer satisfaction, communicating with Boeing and many airlines which operate 737 passenger aircrafts, and absorbing complaints and demand from the airlines and passengers ,and coordinating them liaising the information to Yokohama Rubber.

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○ Communication with our Customers (in order to select our product correctly)

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Guidelines

Our Basic Stance and Attitude

Yokohama Rubber's Corporate Code of Conduct, that "we will win customer satisfaction and credibility through developing and providing socially valid products and services with meticulous consideration for safety", comprises Yokohama Rubber's strong intention to deliver correct product information to our customers as per described below.

Our Ideas towards Advertisement and Rules to Comply

We are paying attention all the time as to how our advertisement and promotion styles ought to be in order for more people to understand our products, services, and corporate activities as much as possible. We are trying to disseminate the latest information accurately and in a timely manner through our home page or press releases to all our stakeholders. Especially, our website consists of two structures; one is the homepage to provide information on entire Yokohama Rubber Group's business including Yokohama Rubber and our Affiliated, another one is the homepage by mainly focusing on providing product information such as domestic tires for mending, hoses and couplings, adhesives and sealants, industrial products, aerospace, golf products and more. Also as a member of the Tire Fair Trade Council, we are striving in various advertising and promotion activities in accordance with applicable regulations by regularly attending and cooperating with the respective committees in charge of various levels derived by formulating the regulations of the said Council along with its actions, and also, by conducting status surveys in the market to make sure that members are strictly complying with the notion of fair competition. There is no case to violate the regulations in the fiscal of 2011. The same notion for advertisements can be applied to our overseas offices as well.

Attending to Customer Inquiries

Product inquiries can be made through [Homepage](#) in addition to via telephone. We will try to attend to your inquiry as soon as possible from our relevant department.

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Achievements

Product Labeling

Japan Automobile Tyre Manufacturers Association has established a Grading System by integrating the "performance on rolling resistance" of tires and "wet grip performance" as an effort in order to facilitate the promotion of low fuel consumption tires; not just to define as low fuel consumption tires for those tires meeting certain parameters, but also that they have a labelling system (display method) in place to provide correct information for our customers started from January 2010. Incidentally, there was no case of violation as to information provided on performance through labelling in the fiscal year of 2011.

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▶ Corporate Governance and Compliance

▶ Environmental Preservation

▼ Together with our Customers

Assurance of the Safe Tire Products

Assurance of the Safe MB Products

Communication with our Customers (in order to select our product correctly)

▶ Together with our Employees

▶ Together with our Business Partners

▶ Together with our Shareholders and Investors

▶ Together with our Society

One of the Examples of the Label



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Together with our Employees

Guidelines

Guidelines about "People"

We will create an environment in accordance with our management policy of creating a workplace to value, improve, and energize people, where each of our ever-diversifying personnel can equip themselves with the necessary skills and perform by utilizing their capabilities to the fullest. Also, we aim to create a workplace where our employees can realize a work-life balance.

We will continue to raise the awareness of our personnel so that they can perform on the global stage and are capable to deliver the business strategy of GD100 and various technical strategies.

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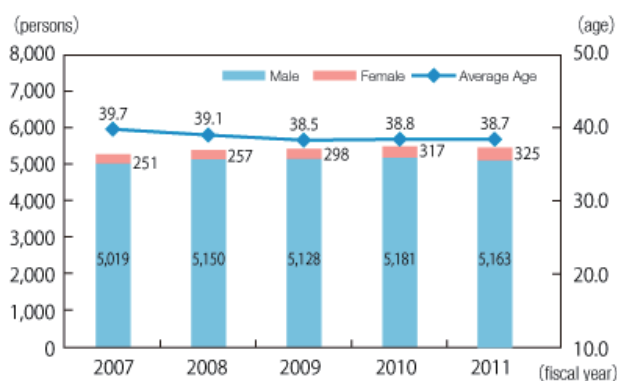


○ Employment

Achievements

Status of Employment

Number of Employees per Gender and Average Age



Yokohama Rubber Group's Number of Employees per Region

(unit)

		FY2007	FY2008	FY2009	FY2010	FY2011
Overseas	Japan	10,110	10,311	10,531	10,472	10,422
	North America	1,907	1,821	1,932	2,040	2,150
	Asia	4,018	4,565	5,024	5,730	6,384
	Europe	64	75	79	223	316
Total		16,099	16,772	17,566	18,465	19,272

* Consolidated Number of Employees: number includes personnel of our affiliates

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Stable Employment

■ Stable Employment of Fresh Graduates and Mid-Career Employment Depends on our Business Strategies

We are employing a stable number of fresh graduates from a long-term perspective. Also, we are employing professionals with relevant experience (mid-career employment) depending on our business operation needs.

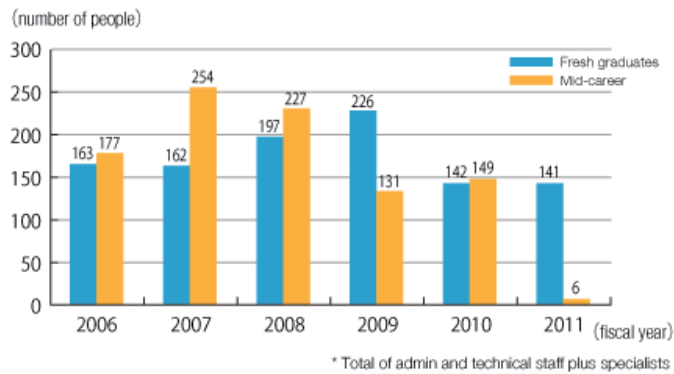
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Employment

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Changes in the Number of Hiring



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Employee Benefits and Welfare

Yokohama Rubber has various types of Employee Benefit packages in place so that our employees can continue to work and live comfortably. As for accommodations, we provide a dormitory for single employees who have met certain criteria; also, we provide company apartments for those who relocate together with their family members, whereas we provide housing allowance for those who are with family members but have no history of relocation. Also, all our offices have a canteen for employees where healthy and affordable meals are provided; company canteens are used as a place for communication and mingling such as for social gathering at night time under the theme of local gourmet dishes. Temporary or contract workers are also allowed to use company canteens. Other than that, we are also supporting a part of employees' lives such as group insurance covering the entire employees of the domestic Yokohama Rubber Group.

■ Retirement Allowance System

Our pension consists of a one-time retirement lump sum grant and defined contribution pension; the ratio is about 60% and 40%, respectively. The one-time retirement lump sum refers to a one-off payment only without subsequent pension receivable.

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Status of Labor-Management Relationship

We have established a Labor-management consultation system in a wide spectrum such as employment, work conditions and employee benefits under the recognition that company growth and employees' stable life are common goals both by Labor and management. Our Labor-Management Council consists of the Central Labor-Management Council and Local Labor-Management Council located in each office, and various types of Labor-management committees to conduct discussion by reviewing various important issues. Specific items with regards to any changes in work operation shall be usually discussed in the committee meeting to be held one month in advance.

Ratio of Union Members/Non-Union Members (as of December 2011) (unit: person)

Union Members	4,944
Non-Union Members	544
Total	5,488

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Workplace with Safety and Health

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Guidelines

Basic Guidelines

Safety and sanitation are the basis of all our activities.

We aim to prevent any occupational injuries, create a pleasant workplace and overall health for our workers under the strong leadership of our managers and supervisors, along with our entire group's employees' cooperation of this matter.

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Supporting System of Safety and Health Management

We formed the "Safety and Health Sub-Committee" per division and workplace and the "Office-Wide Safety and Health Committee (legally stipulated)" per office under our Central Committee of Safety and Health, which consists of one representative out of about 200 persons (0.5%). Activities on safety and health are an important approach common in companies and unions. Through interaction with the Japan Rubber Manufacturers Association and Japan Rubber Workers Union Confederation to share safety information with other companies and other union confederation members, we are also trying to facilitate those by labor and management sides getting together. We also share our activities with our subcontractors by having them join their respective committees. As for our various overseas offices, they have their own supporting system in place according to the prevailing law under their country's governance.

Our Supporting System of Safety and Health Management

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Enlightenment and Training

Work-Life Balance

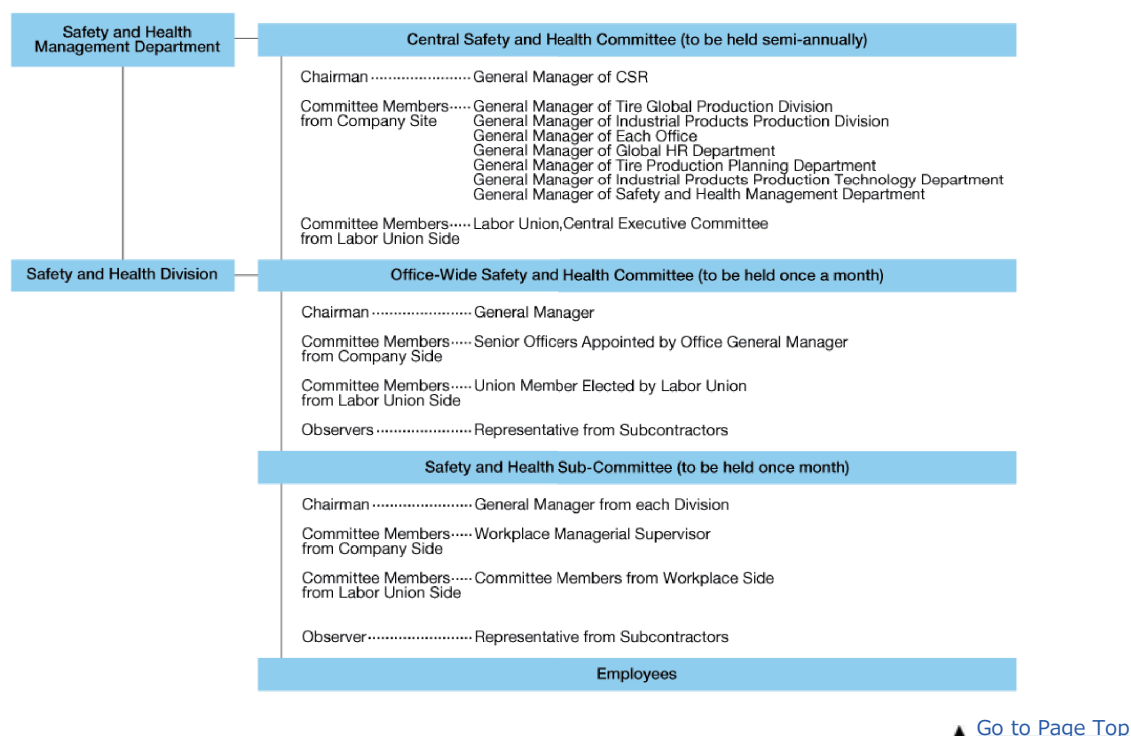
Diversity in human resources

Human Rights

▶ Together with our Business Partners

▶ Together with our Shareholders and Investors

▶ Together with our Society



Achievements

Status of the Occurrence of Occupational Disasters

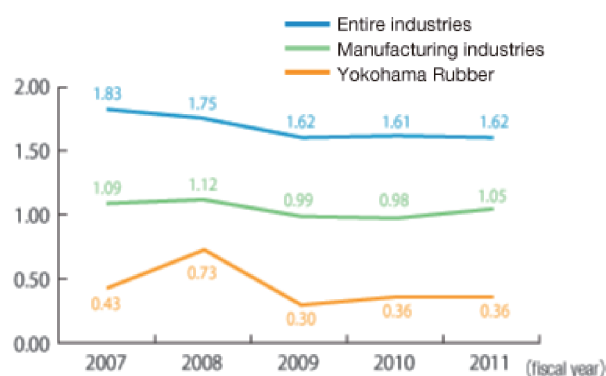
In our domestic operations, the percentage of workers' leave in the fiscal year of 2011 was 0.36, the same as the previous fiscal year at 0.36. The total number of leave arising from disaster is five; one out of these incidents were owing to work operation without following the troubleshooting procedures of the equipment. In order to prevent such accidents, we will continue to improve the situation by raising awareness of safety such as proactively stimulating various activities at each workplace. Examples include visualizing our activities by using a safety activities board. From now on, we will continue to make improvements to leverage our awareness levels by identifying potential risks as well.

* Percentage of workers' leave = (number of the case of occupational disaster / total work hours) x 100 million hours

* Every piece of data is an aggregated value per year (from January to December)

* All industries (excluding general construction industry), manufacturing industries are based on "Survey on Recent Occupational Accidents"; statistics announced by Ministry of Health, labor and Welfare

Frequency of Occupational Accidents (Percentage of Workers' Leave)



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Six Pillars of Approaches Aiming For Safety Workplace

Yokohama Rubber Group is conducting six pillars of approaches in our domestic operation sites in order to fortify safety and accident prevention even further. Also, we have conducted "Corporate-Wide Convention for Safety and Accident Prevention" for entire domestic operation sites grouped together, pledging to "aim for a workplace environment without any existence of risks" as an entire corporation as a team by sharing various activities with regards to safety and health, plus accident prevention from each operation site.

In our overseas offices, each of our operation sites is conducting their own convention for safety and accident prevention to promote various approaches towards safety.

1. Establishment of Occupational Health Safety Management System (OSHMS)

Out of the strong intention by our management to aim for the establishment of organization systems or management systems in order for our operation sides to duly fulfill to bring about total zero risks, we are trying to get each of our offices to obtain the certification of Occupational Health Safety Management System (OSHMS); as a result, five of our offices were able to obtain in the fiscal year of 2011.

Also, in order for us to keep making improvements by understanding each office's strengths and weaknesses, we are conducting internal audits for safety both in domestic and overseas offices by setting up our auditing items all in common in our entire corporation.

2. Making our Facilities Safer

We have taken measures by utilizing the method of risk assessment that can be "pre-emptive management" of accident prevention, conducting identification and evaluation of any potential risks in our existing facilities, followed by prioritizing them. Also by gathering our workers' ideas, we are creating repair tools and facilitating automation of the facilities so that they can still be processed without workers acting when trouble occurs; this is how we aim to create various facilities that ensure safety and comfort.

3. Further Enlightenment for Safety

We are trying to train our workers for good sensibility; who can foresee risks in any potential incident. We are conducting KYT (Kiken [Risk] Yochi [foresee] Training) which is to be done by every worker every day, along with sampling and improvement for Hiyari Hatto (a near accident) incident that are voluntary activities to be attended by everybody. We are also conducting training at Taikan Dojo (training through actual experience for accident prevention). Also, we have facilitated enlightenment on safety by focusing on communication like supervisor interacting with a worker one-by-one whilst understanding the meaning of each operation until they can have autonomy to conduct safe operations on their own. Through those approaches, we are trying to share and utilize our activities for accident prevention towards all entire workers in all our premises.



4. Creating Comfortable Workplaces

We have been proceeding with facility maintenance, improvement on work method, maintenance management in order to maintain comfortable work sites by conducting measurement of the work environment. Also, using 5S as a basis (Seiri [tidiness], Seiton [being organized], Seisou [cleanliness], Seiketsu [hygiene], and Shitsuke [discipline]), we are trying to facilitate efficient manufacturing such as required products when needed, and at required quantity only.

5. Promoting Workers' Mental and Physical Health

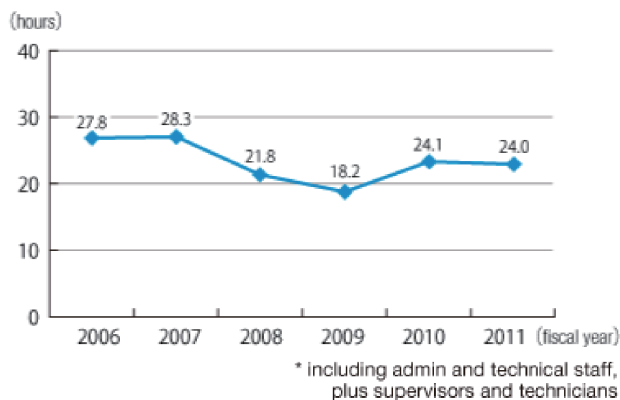
In order to prevent overworking or health hazard that comes from overstress, we are monitoring workers' working hours, also, we are providing counseling session or making improvement of work operation for our workers who engage in long hours. Also, we have set up our company's preventative management and placed a counseling care as our activities for workers' mental health. Furthermore, we are conducting special health screening as well; we have started giving medical guidance for those who are subject to special medical guidance.

○ Establishment of Measurement as to Working Long Hours and No Overtime Work Days

We are trying to shorten working hours by specifying the days for workers to go home without any overtime work; this is determined by our each office.

Also, when the special provisions as to Overtime Work Agreement were to be applied, both labor and management sides verify the legitimacy in advance, make sure such overtime work cannot be habitual from now on; we are also conducting a hearing session along with future improvement plans.

Changes of our Average Overtime Work Hours



○ How to Deal with our Personnel who are Working Long Hours

We are conducting counseling by our company doctor or giving guidance according to the working hours based on our guidelines by properly managing workers' hours spent in the premises and their actual working hours.

○ Measurement for Workers' Mental Health

We are providing various counseling sessions by psychiatrist, specialized counselor, or counseling on the phone; we are also conducting consultation by company doctor to prevent any health hazard arise from overworking.

○ Counseling Support System and Program to Assist Workers to Return to Work

As for returning work for those workers on a long leave associated with mental health, we are trying to have them return by planning as follows; upon conducting hearing session with him or her in person, checking with his/her doctor-in-charge, company doctor, and company, followed by reviewing its method, timing, or any restriction for work. Even after their return, we are still conducting 3-party counseling by himself/herself, company doctor, and company to release any restrictions on work gradually; we are following up until it there are totally no restrictions with him/her at all.

6. Prevention of Traffic Accidents

All our offices are continually conducting traffic accident prevention activities by fortifying supporting system, functions, and activities to prevent traffic accidents especially through standing on the side of the road in traffic by holding a placard during rush hours. Also, we are conducting enlightenment activities under the cooperation with local police or agency related to traffic safety.

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Enlightenment and Training

Achievements

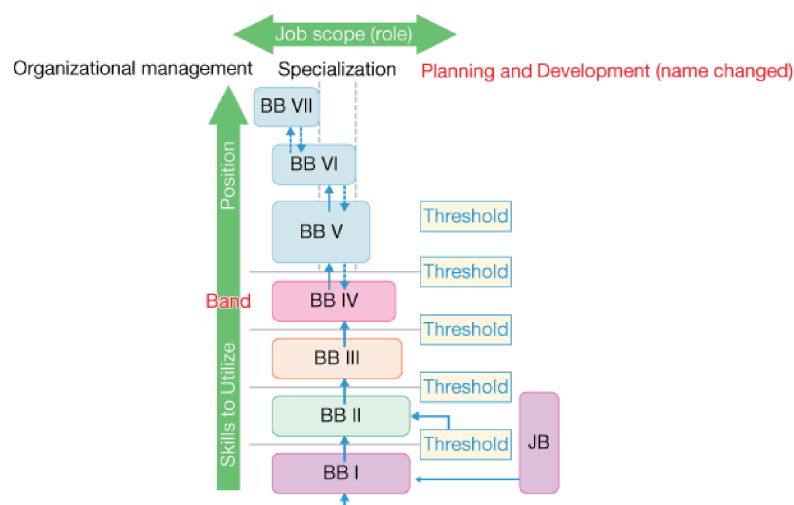
Guidelines on Training our Personnel

We are fully supporting aforementioned notion based on the idea that it is growth of every single one of our employee that will lead to our company's growth. We have an enlightenment system in place to train "professional personnel" with a strong desire for achievement and wide spectrum, and those who fulfill their performance by influencing people around them.

Training of the Candidates as Core Personnel

We are trying to develop our personnel's individual skills such as required mind-set, capabilities, and development of various skills to expand our businesses on a global scale, as well as leadership skills per hierarchy, problem solving skills related to workplace, presentation, and negotiation. Our new Human Resources System called GLOBAL which has been implemented in 2010 is focusing on personnel training for those who are able to perform on a global stage. For example, we have set up seven hierarchies from new entry level to divisional General Manager; each threshold must be cleared in order to go up to the next level. The threshold comprises of performance evaluation, work experience (total number of work rotation), compulsory training, and language skills; this way, relevant personnel can acquire necessary skills as a candidate so he/she can perform on the global stage by clearing each threshold one-by-one.

Overview of GLOBAL, our New Human Resource System



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Our Various Personnel Training Program

■ Brother System for Fresh Graduates

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This is our system for senior employees to take care of our fresh graduates both for their work and personal lives for the next two years from their commencement. This system has been around for as long as 20 years already; initially it started as a system to give man-to-man training by seniors to nurture young technicians, now it has been spread to the entire fresh graduates under comprehensive work position (main career track).

■ **"Advanced Specialist" and "Technical Masters" to Accumulate and Inherit our Technologies and Skills**

We are certifying our personnel as "Advanced Specialists" with a top level of specialization in a technology area those who have contributed greatly among them and those who are necessary to fortify our businesses so that they can focus on their activities on technology. Also, we are certifying from our personnel as "Technical Masters" those who are able to train juniors by utilizing their specialized skills and knowledge among our employees in the technical fields in order to inherit our technology to the new generation. We have certified 22 Advanced Specialists and 25 Technical Masters at the point of Dcember2012.

■ **Conducting Overseas Training for Fresh Graduates**

Starting from the fiscal year of 2009, we have been providing training for all our fresh graduates under comprehensive work position in our overseas group offices for about two months plus in order to have them enhance their sensibility towards different cultures through hands-on experience of diversified culture while they are young.

■ **Voices from Training Attendees**

- Trainee, female (Training site: China, July to August 2011)
Spending time with associates from group companies in countries with different cultures and value preferences gave me a keen notion of the importance not only of language study but also of communication. Another experience was that once one understands how cultures are not the same one is able to accept many of the things that are different.
- Trainee, male (Training site: Thailand, July to August 2011)
While mingling and working with local staff in a country with a different culture, communication worked just fine also without knowing the language by using gestures, numbers, and symbols. As the mutual feeling of distance gave way, making oneself understood started taking less time. The experienced taught me the importance of communication.
- Trainee, male (Training site: Philippines, July to August 2011)
Kaizen activities with local shop-floor staff who spoke no English were a serious challenge. But the communication through the work each day generated a shared feeling of purpose and direction which dramatically reduced the sense of distance. It helped me understand the importance of communication also when one does not speak the language.
- Trainee, male (Training site: U.S., July to August 2011)
In the U.S. the interest that people take in sports such as baseball and basket ball is much higher than in Japan, and sports marketing ranks highly in formulating sales policies. I felt a gap with Japan's culture and value preferences and also felt that I would like to know more about other countries in the world.

■ **Enlightenment for Company Expatriates and their Family Members**

Amid global expansion of our businesses, currently about 100 employees are working overseas and their number is on the rise every year. Starting from the fiscal year of 2009, we are providing overseas pre-relocation seminars to enlighten them with mainly how to proceed with work operation in different cultures. The seminar consists of any necessary formalities, safety lecture per destination region (necessary knowledge as to status of their public order and ensure safety), language training, and information on schooling for their dependent family members.

■ **Group-Wide Development Activities to Eliminate Redundancy**

To encourage our production sites to utilize own creative ideas, we are expanding group-wide development activities (activities to eliminate redundancy) to aim for efficient usage of time, materials, space, stocks, and so on by all our production divisions including our overseas subsidiaries. The number of the cases where such improvement plans are executed is as follows.

Achievements in FY2011 (number of the cases where improvement plans are completed)

Total	465 cases
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■ **Incentive to Obtain Official Certifications**

We have an incentive system for our employees to obtain official certifications which are advanced levels which may not be easy to obtain but yet are essential for our company growth; the company is thereby trying to encourage our personnel to obtain as many as possible.

Certification	Incentive Amount	Number of Achievement Cases			
		2008	2009	2010	2011
Radiation Protection Supervisor	JPY 100,000	0	1	0	1
Certified Measurer	JPY 100,000	1	0	2	0
Special Class Boiler Expert	JPY 100,000	0	1	0	0
Qualified Energy Manager	JPY 60,000	5	5	0	1
Class-1 Health Supervisor	JPY 20,000	4	6	1	7
High Pressure Gas Production Safety Manager	JPY 20,000	5	2	1	1
Class-2 Boiler Expert	JPY 20,000	1	1	1	4
Operations chief of radiography with X-rays	JPY 20,000	1	2	1	1
Class-3 Electrical Chief Engineer	JPY 20,000	0	0	0	1
Manager in Charge of Pollution Control	JPY 20,000	1	0	0	0

■ Personal Information Sharing for Training (Personal Folders)

We have our personal folders in place which are open to both comprehensive work positions and administrative staff so that the staff him/herself or their supervisors can view through their PC for their employment history, training history, language skills, and so on. This is meant as an assistant tool to set up their future training plans by verifying their background.

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Human Resource Evaluation System Aiming for Personal Growth (C2S)

C2S is an acronym of Challenge & Communication System; this has been in place for active interaction between organization and individuals by realizing fair remuneration through objective human resource information as much as possible. Every half year supervisors have a discussion with their subordinates where employees will set their challenges to address upon hearing action suggestion as to their challenges and roles. There will be another dialogue in the end of the term to verify their achievements and growth, followed by supervisor's evaluation. Individual employees will grow through pertinent guidance and advice from their supervisors. C2S is subject to all the personnel in comprehensive work position in YRC unit.

Implementation Ratio of C2S (comprehensive work position/all the personnel): 29.2%

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Work-Life Balance

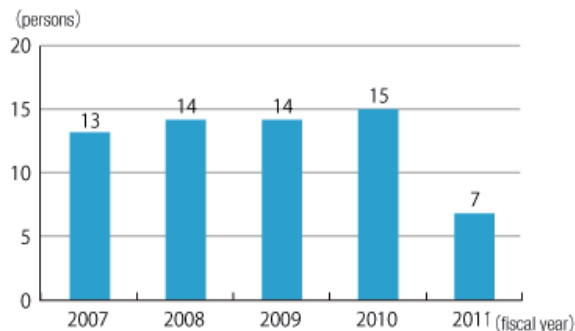
Achievements

Support through our Systems

Childcare Leave System

Since 1992, we have been supporting our employees with a child less than 1 year old (up to 1 year and 6 months if certain criteria are met) by establishing some regulations for childcare leave.

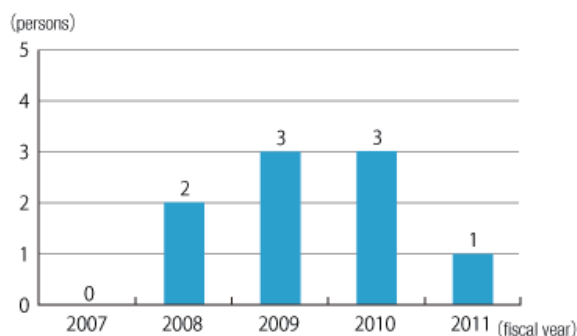
Changes in the Number of Employees who have Taken Childcare Leave (unit: person)



Family-Care Leave System

Since 1994 we have deployed a system to support our employees with family members who need nursing care on a steady basis. Also, we are expanding the range for "nursing leave for children" (5 days/annually) which is to take care of the children who became ill, until their children graduate from primary school.

Changes in the Number of Employees who have Taken Nursing Leave for Children (unit: person)



Shorter Working Hour Scheme

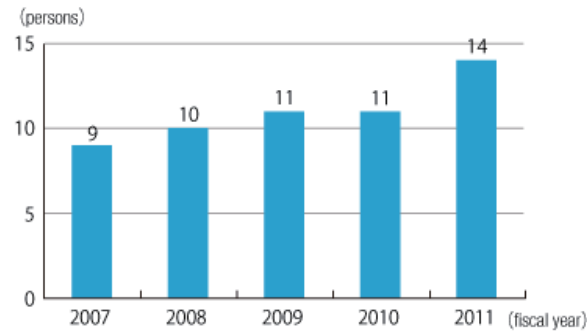
Employees may utilize our a shorter working hour scheme for those who have pre-school children or any family members who need nursing care upon the relevant employees' request. Also, we have a staggered working

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hour system for those who have children with in the third year of primary school or younger.
Furthermore, since fiscal year of 2010 we have deployed a system for employees those who wish, located in the assigned area only without having relocation for the next two years.

Changes in the Number of Employees who have Taken Shorter Work Hour Scheme (unit: person)



■ Volunteer Leave System

Since 2008, we have established our volunteer leave system up to five days annually to provide the environment for our employees so that they can get involved with some volunteer activities rather easily. In the fiscal year of 2011, 44 personnel took the leave to support the affected areas of the Great East Japan Earthquake.

■ Leave System for Jury

We have established a jury-leave system since fiscal year of 2009.

■ Child-birth leave and child-care leave

So far male employees have been entitled to take a paid two-day child-birth leave and an unpaid one-year child-care leave. The amendment on April 1, 2001, to up to ten days of leave until the child is one year old marks not only an increase in the number of leave days but also the number of leave takers has gone up by a wide margin. Compared with 2010, the total days of leave taken have increased from 193 to 615 and the number of leave takers increase from 104 to 120.

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Assistance through Various Seminars

■ Second Life Seminar

We are holding seminars for our employees in their 50's to assist their lives during employment and their plans after retirement as much as possible; this is being held under co-organization by labor and management sides every year. The seminar consists of Yokohama Rubber's pension plan, briefing over re-employment system, purpose to set up their life plans, pension scheme, know-how on fund operation, and so on by bringing up some actual cases. Since the seminar contents may be peculiar depends on their region, this is organized and conducted by each of our offices.

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Diversity in human resources

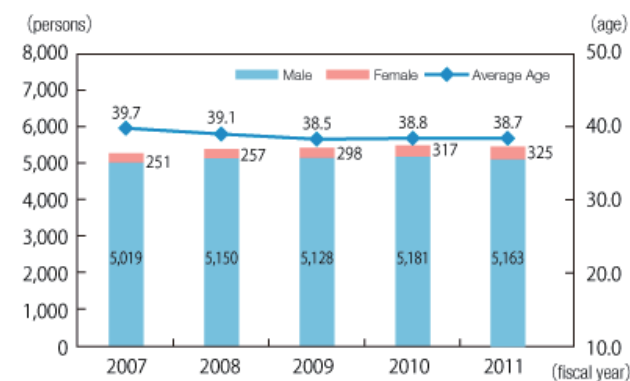
Achievements

In order to continue to survive in the global business world by achieving our various goals as set forth in GD100, we need to facilitate utilizing our personnel with diversified value more than ever before. We will continue to make efforts to create workplaces so that all our employees including foreigners, female workers, and disabled persons can work together as a team with passion and enthusiasm.

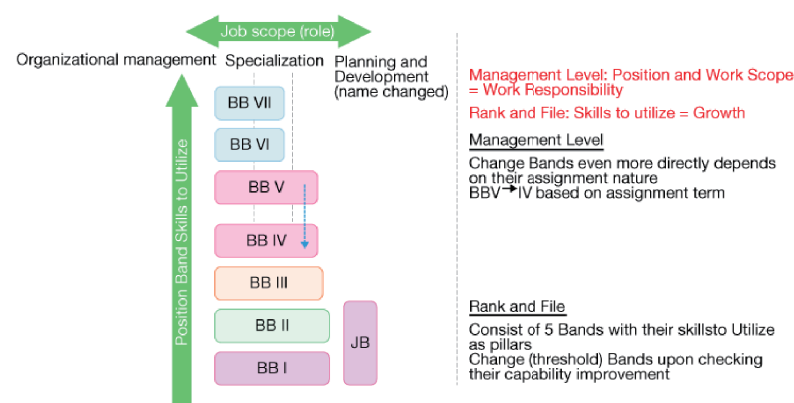
Diversified hiring of general-career-path employees

Hiring decisions of the Company do not consider nationality or gender. The Company's human resources system GLOBAL, introduced in July 2010, has significantly widened the regulations for changing from clerical to general-career-path employee with the objective of providing ambitious and capable employees with the opportunity to take a proactive work approach. In April 2011 the system was used by 41 employees who changed their career path. Notably, the Company has no gender gap in basic work compensation. Moreover, as of the end of fiscal year 2011, the Company (non-consolidated) had 35 foreign employees in Japan, four of them in managerial positions.

Number of male and female employees and average age



Our Human Resource System GLOBAL



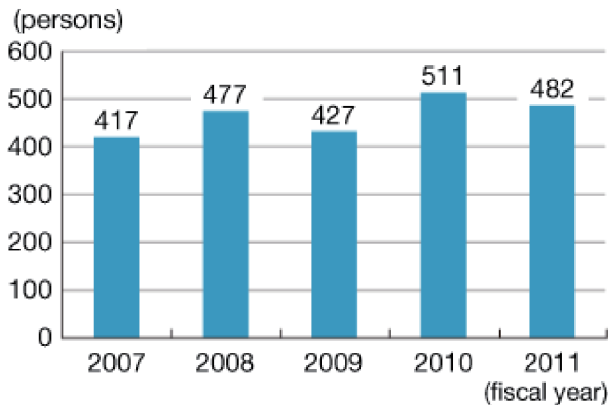
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Utilization of Re-Employment for 60 years old or above

At the end of December 2011, the Company had about 482 employees re-hired under the "Partner Program" introduced in 2006 for re-hiring after reaching mandatory retirement at age sixty. To be eligible, applicants must (1) be willing to work; (2) satisfy certain assessment standards; and (3) have taken a recent health examination certifying that nothing stands in the way of resuming employment, among other conditions. In fiscal year 2011, 82% of mandatory retirees used the program. They are working at the Company as an active force with high skill levels who pass on their technical knowledge to junior staff. Notably, the Company promotes also regulations providing for short work hours so as to preserve post-retirement employment and to provide work flexibility.

Change in the Number of Re-Employment

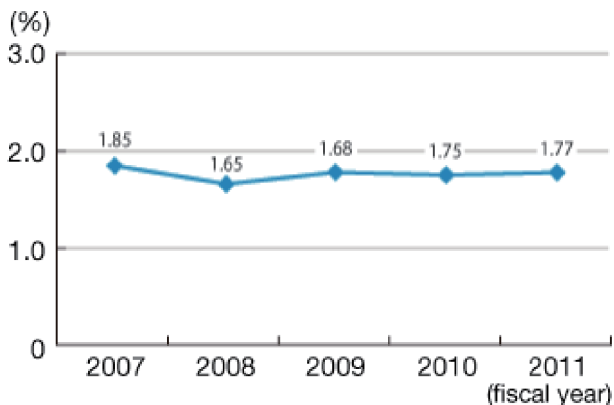


Employment of staff with disabilities

To date, the Company has been hiring at its operating sites at regular intervals graduates with disabilities, centered on work content within the scope of existing job duties that is manageable regardless of a disability. In order to widen the scope of hiring employees with disabilities, the Company started to develop new business operations. Thus, in the period from April 2011 to March 2012 the Company took on eleven staff out of whom two were hired in April 2012. Regrettably, in fiscal year 2011 (April 2011 to March 2012) the employment ratio could not be reached. Nonetheless, as a result of these efforts, the employment ratio at the parent company reached 1.94% on a monthly basis in April 2012.

Moreover, in March 2012, in order to offer work places to an increased number of hires with disabilities, the Company launched operations at Yokohama Peer Support Co., Ltd., established for the employment of persons with disabilities. Subsequently, on May 31 the entity acquired recognition as a Special Provision Subsidiary under the Act for the Promotion of Employment of Persons with Disabilities (Disabled Persons Employment Promotion Act). In order to promote the employment of persons with disabilities, the Company and domestic group companies will continue to create work places where staff members with a diversity of backgrounds are able to proactively apply their capabilities.

Changes in the Employment Ratio of people with disabilities



Establishment of Yokohama Peer Support Co., Ltd. and comments from workers

Yokohama Peer Support Co., Ltd. was established in December 9, 2011, with the aim to obtain recognition as a Special Provision Subsidiary for the employment of persons with disabilities. Hiring commenced in January 2012 centered on persons with hypophrenia. Operations at the Hiratsuka plant (Hiratsuka city, Kanagawa prefecture) started in March. As of the end of May, fifteen persons with disabilities were in employment. Activities involve mainly cleaning of the plant premises, greening work including planting, and mail dispatch, among others. For the future it is planned to extend operations to Company headquarters and production sites in Japan with a view to raise the number of employees with disabilities to around thirty. Comments from two employees who started working this March are quoted below.

Ayako Kokubun



I joined because I can use my previous experience and can commute from home, and based on a recommendation from the employment center. Although I joined only recently I feel at ease that I can get along well with my colleagues. It is important for me that I can work in an environment that has such an open atmosphere.

Hiroaki Ito



At my previous company I had a long 90-minute commute and I switched to here when I heard about the start of operations at Peer Support. I have previous work experience in examining and sorting products, and it looks like I can use it also in my work here. Of late people passing by while we are doing our cleaning work have started greeting us. If it changes how people feel if their surroundings are cleaned, to me it is rewarding.



Cleaning the greenery on the plant premises

**General Manager, Hiratsuka Factory
Keizaburou Abe / General control division,
Eirin Nonaka**



Currently, operations involve fifteen additional new hires and fifteen staff (including three with disabilities) who transferred from a different subsidiary, for a total of thirty staff. Since we have only just started, I expect there will be problems on the way, but Yokohama Peer Support draws much strength from meeting its responsibilities to the community and from having consideration for others. Things will be just fine if we can spread these notions across all of Yokohama Rubber.

Board director Kazutoshi Morimoto, General control division Yoshinao Yamashita

How we are going to expand the scope of this program, that is the main point. A close look at each plant tells me there are jobs for each of us that we will be able to do. I would like to aggregate that work and get started on it, taking into consideration our capabilities. In the future, probably we will need to increase the scope further.

■ YPS corporate philosophy

We promise to work in a brightly, cheerfully, lively and safely.

- Greet others and respond to others' greeting in a firm and cheerful manner.
- Engage in mutual support and say thank you.
- Avoid rushing and hurrying, adhere to the rules, and practice work place safety.

■ YPS Greetings for Business

Good Morning
Your goodwill is greatly appreciated.

Thank you for your support.
Excuse me please.

Thank you.
I am sorry.
Your goodwill is greatly appreciated.

I am leaving for the day. Have a good evening.
Have a good evening.

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Human Rights

Achievements

Respecting Human Rights and Legal Compliance

■ Compliance Card

We are ensuring a sense of respect for human rights by distributing cards with descriptions herein for all our domestic employees that reads; "We (Yokohama Rubber and Group Companies) will act based on the following eight pillars of principles, regardless of being inside or outside of the country, respecting all kinds of human rights, complying with related legislations, international rules, and their spirits, in order to create a sustainable society by applying good common sense all the time."

As for our overseas offices, each subsidiary has their own code of conduct catered to their region based on these principles.

1. Provide socially useful products and services, followed by securing customer satisfaction and credibility
2. Fair, transparent, and free competition with proper trading
3. Fair disclosure of company information
4. Realize employees' comfort and affluence
5. Proactive approach for environmental issues
6. As "good corporate citizens"
7. Protection and management of company assets and information
8. Contribute to each country or region by complying with their prevailing laws

■ Countermeasures for Sexual Harassment

We have set forth our basic guidelines as to workplace without any form of sexual harassment; we have placed it on our "Human Resources Corner" of our internal intranet with its supporting system such as where to contact for counseling and to lodge complaints. There were 11 cases reported to our Compliance Hotline (Whistle-Blowing System) as to harassment and we have settled all the cases in the proper manner in the fiscal of 2011.

■ Countermeasure for Power Harassment

We have set forth our tips to solve any form of power harassment; we have placed it on the "Human Resources Corner" of our internal intranet with its supporting system such as where to contact for counseling and handling complaints.

Also, we have conducted a seminar at all of our offices to prevent power harassment targeted at our managerial positions based on our guides and actual cases where 92 managers have attended for 120-minute-long lecture in the fiscal year of 2011.

■ Survey of Labor Laws and Labor Practices at our Group Companies

Every year, we are conducting a survey with regards to labor conditions or CSR on human resources at our group companies both in domestic and overseas to ensure they comply with the prevailing legislations.

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Together with our Business Partners

Together with our Business Partners

Guidelines

Yokohama Rubber Group is aiming for co-development under fair and equal trading as our basis, by establishing the sense of trust to realize our co-existence and co-prosperity. Especially, we will proceed with our activities to establish our credibility; for example by developing our CSR activities to our business partners, green procurement, and co-research as examples.

Basic Guidelines of Yokohama Rubber's Procurement

In order to realize GD100, we will conduct our procurement activities in accordance with the below- mentioned guidelines:

Basic Guidelines

●Procure optimum raw materials, equipment, and construction.

In order to provide better products, we will continue to procure optimum raw materials, materials, and construction

●Trading with fairness and impartiality

We will conduct fair and equal trading based on the notion of free competition.
Also, we source all our business partners from all over the world through global perspective.

●Reasonable selection of our partners

As for the selection of our partners, we will determine them based on economical reasonability under consideration of comprehensive perspectives; their quality, price, stable supply, ability for technology development, and environmental friendliness.

●Partnership

We will establish an equal and fair cooperative relationship through healthy trading with our business partners; we will enhance mutual understandings and credibility to achieve growth with one another.

●Compliance

During our procurement activities, we will abide by all the related regulations and social standards in addition to not disclosing any confidential information we came to know during trading.
Also, we will try not to conduct any misleading behavior by reflecting onto our socially accepted ideas.

●Harmony with the environment

We will try to purchase raw materials with a lesser burden to the earth environment.

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In Order to Establish Credibility with Business Partners

Green Environment

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Due to the globalization of its business, the Yokohama Rubber Group promotes the use of locally sourced raw materials in consideration of quality and cost. These activities enable us to avoid supplier risk by diversifying our procurement sources and to reduce logistics as well as inventory costs. This also helps us to contribute to the development of local industries and build good relationships with our local suppliers. Suzhou Yokohama Tire Co., Ltd. and Hangzhou Yokohama Tire Co., Ltd. of China have teamed up to increase the percentage of raw materials being sourced locally through joint procurement involving their procurement, technological and production departments. Going forward, we will strive to further increase the percentage of raw materials being procured locally China as well as investigate and identify new local suppliers at our newest overseas sites in Russia and India raise the percentage of locally sourced raw materials.

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Together with our Business Partners

Development of CSR to our Business Partners

Achievements

We are trying to establish a reliable relationship one another based on fair and equal trading; we will continue to ensure our co-existence and co-prosperity and leverage our service levels as a partner through our various CSR activities.

Workshops together with Suppliers and the "Purchasing Code of Conducts"

We have held workshop about the requirement of CSR for inner staff and outside supplier in order to deepen their understanding of CSR in our domestic sites. Also we hold workshops for overseas staff in charge of purchasing. In the fiscal year of 2011, we established the "Purchasing Code of Conducts", and started to enlighten our staffs in charge of purchasing.

In domestic business site, aiming at the concrete outcome of our CSR activities, we will advance the install of the "Purchasing Code of Conducts" through workshops with suppliers in fiscal 2012. Also, in overseas business sites, we will conduct education for all staff in charge of purchasing for holding the same workshop with suppliers as in domestic, and establish the system and structure to progress CSR activities in each business site. Through the studies of compliance with laws and biodiversity, etc., we will deepen our understanding of CSR together with our partners.

Workshop at Hiratsuka Factory and Mishima Plant



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Together with our Business Partners

In Order to Establish Credibility with Business Partners (Fair and Equal Selection of Partners)

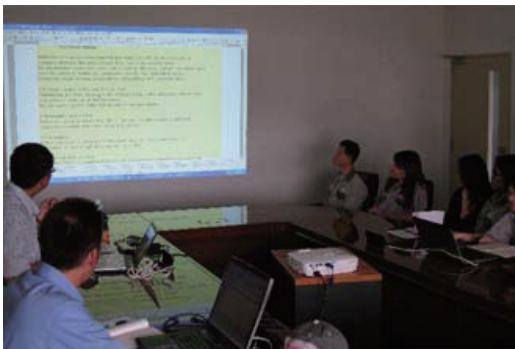
Achievements

Fair and Equal Selection of Business Partners

We select our business partners based on the notion of "open trade, fair and equal free competition". We are proactively recruiting new business partners by fully utilizing such methods as obtaining quotations from multiple companies, determination of the supplier through auction, and so on.

Purchasing Code of Conduct Formulated and in Practice

In 2011, we prepared a new set of ethics on purchasing that defines matters that must be considered in the selection of fair and equal trade in our Fundamental Procurement Policy as well as shows ethical problems that must be avoided. Together with our fundamental policy, this set of ethics was formulated into the Purchasing Code of Conduct. This code of conduct was distributed to all of our business sites, including those outside of Japan, in order to once again reaffirm the proper mindset required of purchasing officers and to provide further training on our stance regarding this matter.



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Compliance and Guidance towards Overseas Plants

We are trying to enhance the above-mentioned by reviewing the contents on a regular basis to meet the requirements of TS16949 (quality standards mainly for automobile industry), proper procurement operation and law-abiding, and to prevent any fraudulent activities. Also, we issue Basic Requirements of Material Procurement by incorporating the preceding items for our overseas plants in order to guide them with their proper work operations.

■ Compliance with Subcontracting Law and Supervision of Procurement Operation

We conduct internal training for personnel in charge of materials and subcontracting as to Subcontracting Law, followed by having them attend external seminars for Subcontracting Law on a regular basis. Our Global Procurement Division pays a visit to all the Material and Subcontracting Division in our offices regularly, to ensure there is no case of breach against any items under Subcontracting Law by conducting operational audit,

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in order to maintain our law-abiding stance.

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Joint Research with our Business Partners

Currently, we are proactively working together with ZEON Corporation, a manufacturer of environmentally friendly products, especially synthetic rubber which is optimum material for fuel efficient tire or lightweight tire, and a synthetic rubber manufacturer to develop steel code, in addition to Tokyo Rope Manufacturing Co., Ltd., a manufacturer of steel code. Also, we are conducting joint research together with Songkran University in Thailand, one of the major production sites, to utilize resources at the production site of natural rubber and to contribute to the improvement of work conditions of rubber farmers there.

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Together with our Business Partners

Green Environment

Achievements

Yokohama Rubber has been working on the development and usage of raw materials to contribute to the environment under the cooperation of our business partners with preservation of forest resources, control global warming, usage of recycled raw materials, and expansion of non-petroleum raw materials as the main themes.

Preservation of Forest Resources

In order to preserve forest resources, we have abolished wooden pallets or wooden crates which we used to deploy massively in the past. We have almost completed switching all of them into recyclable metal pallets or plastic pallets. As for imported raw materials, we used to have some problems with extra costs incurred by using used pallets for re-export but this issue was closed at the last half of fiscal year 2009. These days we are trying to apply the same approaches at our overseas operation sites.

Also as for the paper made of wood as raw material, we were able to significantly reduce the amount of importing by addressing the company-wide reduction effort on paper usage.

The amount of our paper purchase from April 2011 to March 2012 resulted 66.1% in comparison to that in fiscal year 2006. As for the type of paper to use, we purchase paper classified as eco-friendly as the first priority.

Changes in Amount of Purchased Paper

Fiscal Year	2006	2007	2008	2009	2010	2011 (from April 2011 to March 2012)
Purchased Amount (JPY1000)	10,458	10,108	9,206	8,245	7,083	6,906
Comparison with FY2006	100%	97%	88%	79%	68%	66.1%

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Control Global Warming

We are currently working on the development of resin for air-conditioning for automobiles by collaborating with downstream automobile manufacturers and upstream raw material manufacturers. This is in accordance with the scheme to switch to CFC 134a with high in coefficient for global warming into CFC with lesser coefficient for global warming. Also in terms of the transportation of raw materials, we contribute to the reduction of CO₂ emissions by trying to have our overseas plants procure their raw materials from local suppliers to reduce CO₂ through logistics operations.

Development of Resin for AC Hose to Cope with New CFC

Since CFC 134a, which is a cooling medium for the hose of air-conditioning for automobiles, has a high coefficient for global warming, it will be switched to 1234f, which has a lesser coefficient for global warming. We are also in the middle of the development of the hose of air-conditioning for automobiles by using resin; whilst proceeding under collaboration with resin manufacturers as a conventional nylon-kind resin low in durability which requires some development into a new type of resin.

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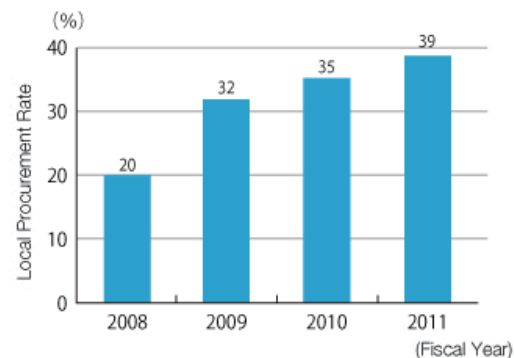
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■ Reduction of CO₂ Emission through Transportation (Facilitation of Local Procurement)

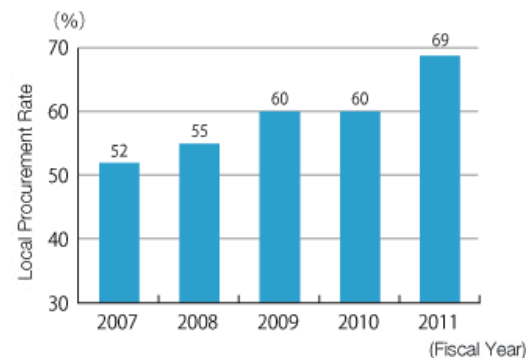
Our plants in China made a big improvement in terms of local procurement. Also, our plants in the USA used to import some of the raw materials from Japan due to being unable to arrange them locally, but now they are able to purchase them from the local market.

○ Changes in Local Procurement in China

Changes in Local Procurement in our Suzhou Plant



Changes in Local Procurement in our Hangzhou Plant



* The accounting period for the fiscal year of 2011 is from April to December. As such, data for the generated amount from January to March 2011 (fiscal year of 2010) has been added to this to provide a tally for the full calendar year.

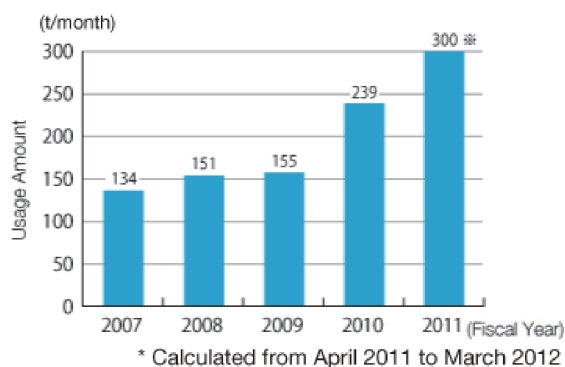
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Expansion of Recycled Raw Materials

In the past, recycled rubber used to be widely deployed as recycled raw materials for tires. However, blending this recycled rubber deteriorates their physicality, so the applicable range of their parts was quite limited; we had some limitations as to its usage. Also, as for rubber powder generally available in the market, it is likewise with recycled rubber; it used to greatly deteriorate the physicality and was unable to be used for tires. Yokohama Rubber had signed the Agreement of Co-Development with Lehigh Technologies, Inc. in the USA with "Micronized Rubber Powders" to undertake further fining down of rubber powders to go about research on the usage of rubber powder for tires.

As a result, if rubber powder is micronized, its physical property decreases very little. It was understood that the manufacturing cost (mainly electricity) of Lehigh Technologies would not increase so much. As a result micronized powder from rubber was enabled to be arranged into various kinds of compounds, which led to increase the usage of the recycled materials substantially. We anticipate the further expansion in the future.

Changes in Usage of Recycled Raw Materials (Recycled Rubber and Rubber Powders)



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Be Away with Petroleum-Based Raw Materials

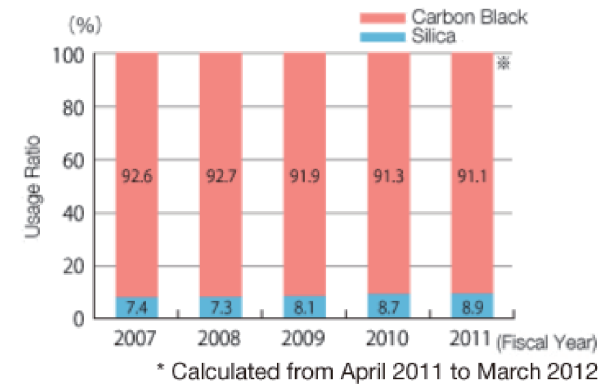
In order to phase out from raw materials being dependent on petroleum as soon as possible, we are currently in the midst of development under collaboration with our business partners to develop non-petroleum-based raw materials as our main raw materials.

■ Switching from Carbon Black into Silica

Carbon black is the essential raw material for rubber; it is manufactured through imperfect combustion of petroleum-based oil or charcoal-based (tar-based) oil, as such it is not considered as high in extraction rate. At

the same time, silica's basic raw material is from sand, which is almost unlimited in supply; the good thing about silica is to limit the usage of petroleum-based resources but its negative aspect is it is fairly expensive and not easily being blended with rubber. We are thus able to overcome this problem by selecting Silane Coupling Agent and development of blending machines; upgrading to the preceding methods is currently taking place gradually.

Changes in our Purchasing Amount of Carbon Black and Silica



■ Usage of Plant-Based Oil

In the past, petroleum-based oil was the mainstream as the oil for rubber. Plant-based oil was unable to be used due to its poor compatibility with synthetic rubber such as natural rubber or SBR. Under collaboration with our business partners, we were able to develop orange oil which is high in compatibility with the preceding rubber types; we are now able to use it as high grip oil.

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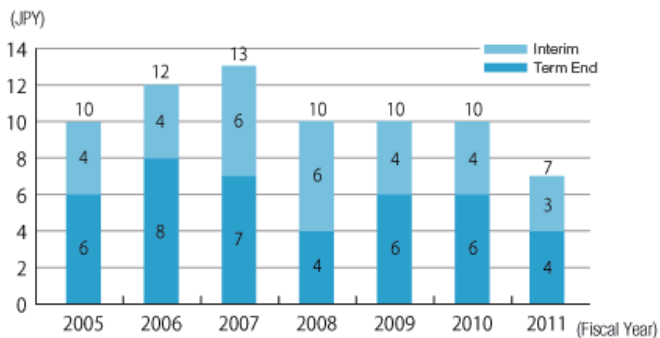
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Guidelines

Guidelines as to Dividends

We are in the stance of applying necessary internal reserves in order to achieve our future business development and enhance our management quality; our fundamental guidelines are to maintain a stable amount of dividends.

Changes in Dividends per Share



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▶ In Order to Hear from our Shareholders

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Development of our Proactive IR Activities

Achievements

Holding Briefing Sessions as to Financial Closing

We are holding briefing sessions as to financial closing for security analysts and corporate investors. Since the last half of the fiscal year of 2006, we have been conducting such briefing sessions at the timing of each financial closing per quarter.

In March 2012, we conducted questionnaires with some security analysts about our briefing sessions as to financial closing. It was indicated that while there is still room for improvement in the time allocation, they were satisfied with the presentations and the Questions and Answers. Though the reflection of shareholders' wishes and ideas, we will continue to engage in appropriate information disclosures.

Information Disclosure on our IR Homepage

We have upgraded our [Exclusive Homepage](#) for our shareholders and investors, where a variety of IR information, i.e. not just Messages from our Presidents, Information Related to Financial Closing, or Mid-Term Management Plans, but also Introduction of our Businesses, Explanation over Various Tables Related to Finance, can be found.

Distribution of IR Information Tools

In addition to our distribution of Interim and Term-End Financial Reports to our shareholders and investors, we are issuing our Annual Report (Report on Financial Closing in English) as well. Also, we create our Annual Report in a Japanese version and all the contents therein can be found in our homepage. From the fiscal year of 2008 onwards, in order to provide the material of briefing sessions for our shareholders and investors in an even more timely manner, we are currently providing such information on our homepage in PDF format.

Conducting of Individual Meetings

We also conduct individual meetings with our security analysts and corporate investors.

Conducting of General Meeting for Shareholders

During our annual General Meeting for Shareholders, we are trying to provide our business reports for our shareholders by continuing to make improvements to present it in a straightforward manner.

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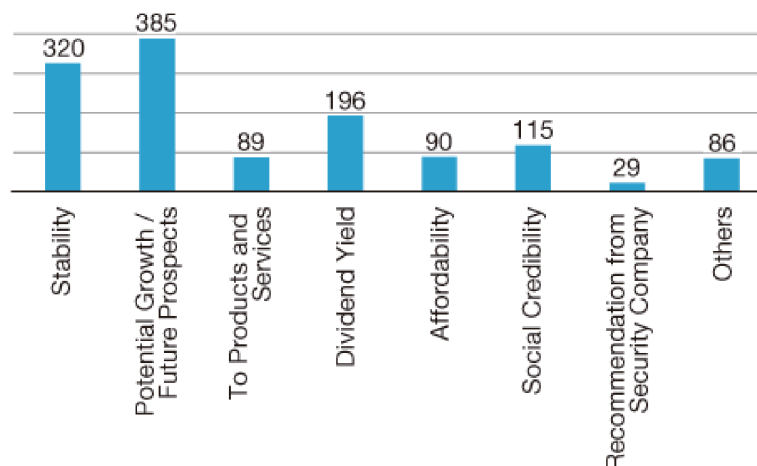
In Order to Hear from our Shareholders

Achievements

Conducting Questionnaires with our Shareholders

We are conducting annual questionnaires with our shareholders at the same time as the issuance of our Term End Financial Report in order to hear from them later on. We started this from the fiscal year of 2004 and have conducted seven times in total so far. In the fiscal year of 2011, we were able to hear from 751 respondents as to their Motivation of the Purchase of our Shares and Information Usable for some Improvement in the Future. Based on the opinions and requests received, we have been playing a video in a visual form so that they can have a clearer picture as to our information on performance, activities, and products. Also, we have made some improvements mainly on our structure of Term End Financial Reports to present it in a more straightforward manner. We will hereby continue to utilize such information to keep improving our IR activities.

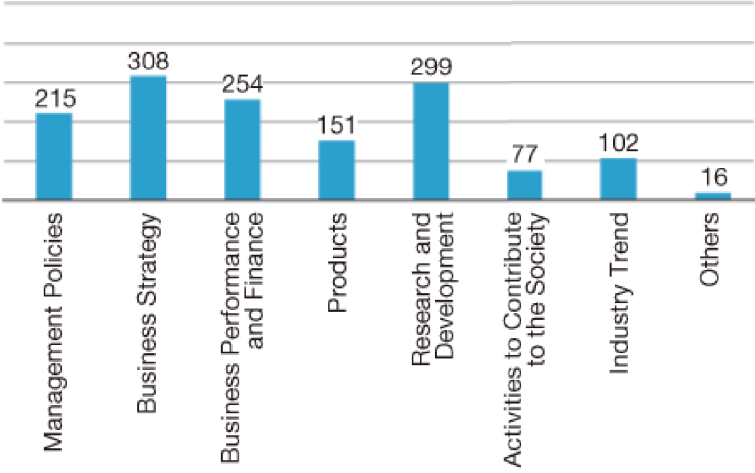
Motivation of the Purchase of our Shares (Multiple Replies)



Information Usable for some Improvements in the Future (Multiple Replies)

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Together with our Society

Guidelines

Basic Stance

We will continue to enhance mutual understandings and credibility by reflecting our stakeholders' feedback onto our corporate activities by conducting two-way communication with both of our internal and external stakeholders while providing information in a timely manner. The communication with local communities at the locations of individual operating sites is described in the section on "[Site Data](#)."

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How we Handled External Complaints

Achievements

How we Handled External Complaints

Yokohama Rubber has reviewed our complaint handling procedure manual to handle any complaint at our domestic operation sites in order to cope with the same quality and the same level, and also try to get as accurate information as possible.

Also, we will verify the situation upon receipt of any complaint by visiting the person who provided such information. We shall thereby notify the result after conducting relevant countermeasures in a proper manner. We are applying numerous measures in order to achieve zero complaints from our local residents.

For fiscal 2011, we have continued the pollution source control sources and environmental patrols. As a result, three cases were recorded (one each for odor, air (soot scattering), and other causes (umbrella establishing contact with tree)), compared with the target of eight or less.

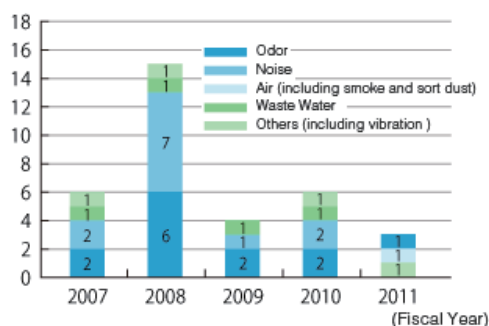
In the fiscal year of 2012 we aim at six or less cases per year. As for the measure against odor, we plan to increase additional facilities overseas. Moreover, As for the measure against noise and vibration, we will continue the pollution source control.

* The accounting period for the fiscal year of 2011 is from April to December. Data from January to March 2011 has been added to this to provide a tally for the full calendar year.

The Number of Complaints against our Operation Sites and their Measures

Items	Our Goals (by FY2017)	Achievement of FY2011	Evaluation	FY2012 target
Complaints from Outside	0	Achieved with 3 cases (target was 8 cases or less)	Passed	6 case or less of complaints

Changes in the Number of Complaints



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How we Handled External Complaints

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Evaluation from the Society

Achievements

Evaluation from the Society in the fiscal year of 2011

We were assessed as follows by the public from January 2011 to February 2012

1. "BlueEarth-1", a flagship of fuel-efficient tire, was awarded the environmental award on the tire business fair in France

BlueEarth-1 which is the flagship tire of the BlueEarth fuel-efficient tire brand was selected as the environment award of Pneu Expo Innovations Trophy at the tire business specialist trade fair PNEU EXPO held from February 7 to 9, 2012, in France.

The PNEU EXPO is the largest tire business fair where all of tire related companies and organizations, and specialists across the range of manufacture, import, supplies, service, systems, and media, etc. participate. The Pneu Expo Innovations Trophy comprises the three categories of 1. Environmental Actions, 2. Shop Equipment Innovations, and 3. Service Innovations, and commends particular excellence found in any one of these categories. We were announced as a winner of the Environmental Actions which honors activities, products, and services that contribute to the protection of the environment. We were presented with this honor because BlueEarth-1 was recognized for its excellent fuel economy performance and its ability to reduce impact on people and society, while the company was recognized for its long-standing development of fuel efficient tires.

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2. "BlueEarth", a next-generation environmental tire concept, and "ZEN 903ZW", a studless tire for trucks and buses, were selected together as the Fiscal Year 2011 Good Design Award.

On October 3, 2012, the BlueEarth next-generation environment tire concept and the ZEN 903ZW studless tire for trucks and buses were honored with the Fiscal Year 2011 Good Design Award.

BlueEarth marks the Company's next-generation environmental tire concept which combines outstanding environmental properties with universal design considerations for product performance that is light on people and communities. Based on this concept, the Company has been advancing tire development for secondary markets and for new vehicles. The application of various new technologies resulted in less stress involved in driving and tire maintenance while achieving high-level fuel efficiency and safety performance. Moreover, by reducing the external noise from passing vehicles, the burden on surrounding residential environments could be lowered. This development approach from an innovative perspective and radically new technology combined with beautiful design were highly appreciated.

"ZEN 903ZW" offers further enhanced performance on wet ground and on snow required of studless tires. As environmental performance features common to the ZEN series, product development pursued 1. reusability (resource recycling and reconstitution) as retread tires through improved casings (the basic tire structure), long life through improved wear resistance performance (resource conservation), and 3. fuel efficiency through reduced roll resistance (resource preservation and prevention of environmental warming). The award honors the Company's development approach, which contributes to a sustainable society through reducing, reusing, and recycling ("3R") as well as outstanding product performance.

The Good Design Award relates to the comprehensive design assessment system incepted in 1998 by the Japan Institute of Design Promotion (now the Japan Institute of Design Promotion, Public Interest Incorporated

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Other Social Activities

Foundation) and is the successor to the Good Design Product Election System established in 1957 by the Ministry of International Trade and Industry (now the Ministry of Economy, Trade and Industry). Many Japanese and foreign firms and organization participate in this contest, which attracted 3,162 entries this year.

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3. Chairman Award of the "Resource Recycling Technology and Systems Award" in the second consecutive year

The Company's efforts to contribute to resource preservation were honored with the Clean Japan Center "Chairman Award" of the Fiscal Year 2011 Resource Recycling Technology and Systems Award sponsored by the Clean Japan Center (CJC). The object of recognition was the "Reduction of the amount of rubber used in inner liners of pneumatic tires." The ceremony took place on October 31, 2012, at the Chiyoda Ward Uchisaiwai Hall (Chiyoda ward, Tokyo). In the year earlier, the Chairman Award of the Fiscal Year 2010 Resource Recycling Technology and Systems Award honored the Company twofold for the "Reduction in industrial waste through the recycling of spent vulcanized bladders" and the "Development and propagation of e-can containers as a countermeasure to industrial waste generation for 2-component type sealant materials." The Company is pleased to receive the award in the second consecutive year.

Inner liners are glued to the inside of tires as a material to suppress the natural air leakage. "AIRTEX Advanced Liner," an inner liner developed by the Company, is made of a new material that combines the low permeability of resin with the flexibility of rubber, with one-fifth the thickness of earlier products. This reduces the quantity of rubber and contributes to a lighter tire. Notably, "AIRTEX Advanced Liner" was announced as the winner of "the 22nd Award of the Society of Rubber Science and Technology, Japan" in June 2010, and "the Commendation for Science and Technology (Development) of the Minister of Education, Culture, Sports, Science and Technology" in May 2011 received.

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4. Commendation for Science and Technology (Development) of the Minister of Education, Culture, Sports, Science and Technology awarded two employees for the development of tire fuel-efficiency improving inner liner technology

Two employees were awarded the Fiscal Year 2011 Commendation for Science and Technology (Development) of the Minister of Education, Culture, Sports, Science and Technology for the development of tire inner liner technology development. This technologies brings to bear the respective properties of rubber and resin to form a new-type inner liner material which substantially reduces the amount of air leakage from tires and thereby contribute to raising vehicles' fuel efficiency.

Description of the award

■ Topic: Development of inner lining using rubber and resin polymer alloy

■ Awardees:

Yuichi Hara

Group leader, R&D Group No. 2, R&D Dept., Research & Development Center

Yoshiaki Hashimura

Group leader, R&D Group No. 3, R&D Dept., Research & Development Center

■ Technical information:

Inner liners are glued to the inside of tires to mitigate air leakage. Tires' natural air leakage reduces air pressure, which increases rolling resistance with adverse effects on fuel efficiency. The inner liner developed by Yokohama Rubber uses a new material with a high-dimensional balance between the low permeability of resin and the flexibility of rubber. The result is substantially lower air leakage. Moreover, with just one-fifth the thickness of conventional liners, the new product offers a reduced air leakage and lower tire weight. The award comes not only in acknowledgment of improved fuel efficiency from lower roll resistance and lighter weight, but recognizes also the conservation of resources. The inner liner came to market in 2009 under the name AIRTEX Advanced Liner.

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Other Social Activities

Participation of Various Initiatives both Domestically and Overseas

■ United Nations Global Compact

Yokohama Rubber approved and signed the initiative of the "Global Compact" advocated by the United Nations in May 2012. Yokohama Rubber and its affiliates will support, observe, and practice the ten principles of corporate social responsibility related to human rights, labor standards, the environment, and the prevention of corruption which the Global Compact requires companies

■ United Nations World Food Programme

Yokohama Rubber endorses the United Nations World Food Program (WFP) in undertaking to eradicate hunger and poverty and supports the activities of the WFP as a trustee.

■ Challenge 25 Campaign

Yokohama Rubber has been participating and acting in accordance with "Challenge 25", a national program to help prevent global warming that has been developing since January 14, 2010.

■ Japan Business Federation's "Biodiversity Declaration" - Facilitation Partners

Yokohama Rubber is in accordance with the idea of "Japan Business Federation's Biodiversity Declaration" and their facilitation partners since 2009 to develop various approaches for "preservation of biodiversity". Basic policies and action guidelines have been set forth as "Yokohama Rubber's Guidelines on Biodiversity" thereto.

■ Japan Business Federation's "Implementation Scheme for a Low Carbon Society"

Yokohama Rubber is in accordance with, and participating in various activities for Japan Business Federation's "Implementation Scheme for a Low Carbon Society" under the vision of "Japanese industries playing a role as core functions with their technological strength in order to achieve our target which is to halve the greenhouse gas emission of the world in 2050".

■ WBCSD (World Business Council for Sustainable Development)

WBCSD refers to the unified association consists of top executives from global corporations in order to perform their leadership in their industry, have lively discussion, and propose policies with regards to the environment and sustainable development. Yokohama Rubber is participating in the Tire Industry Project which is to conduct surveys pertaining to possible impact on the environment and health to be made by tires, and to promote various activities to save energies in the buildings and offices.

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