TOYOTA MOTOR CORPORATION

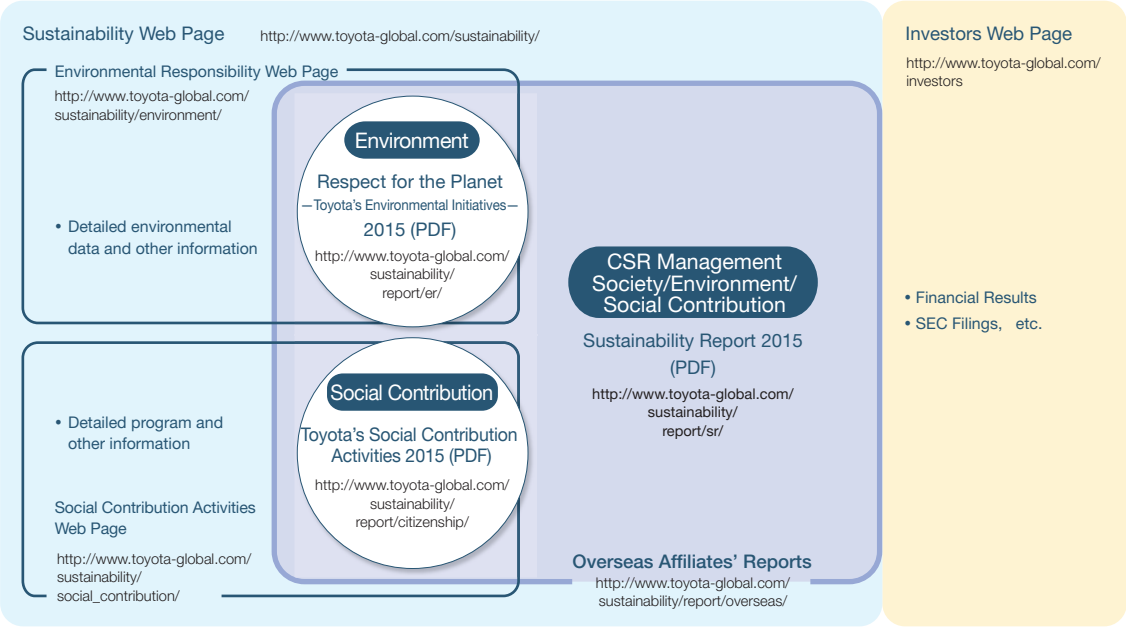
Sustainability Report 2015

Sustainability Report 2015

Editorial Policy

The Sustainability Report 2015 summarizes and reports on Toyota's CSR management and initiatives with a focus on initiatives undertaken mainly in FY2014 in PDF format (booklet form). Information on CSR initiatives is divided into chapters, including Society, Environment, Social Contribution Activities and Governance.

We have also made available "Respect for the Planet—Toyota's Environmental Initiatives—2015 (in PDF format)," and "Toyota's Social Contribution Activities 2015 (in PDF format)," excerpted from the Sustainability Report 2015. Detailed data concerning the environment and further information on social contribution activities are available on the Sustainability page of Toyota Motor Corporation's global website.



Period Covered

The period covered in the report's data is from April 2014 to March 2015. For major ongoing initiatives, the most recent status update in 2015 has been included.

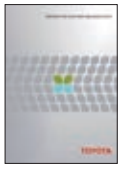
Scope of Report

Toyota Motor Corporation (TMC)'s own initiatives and examples of those of its domestic and overseas consolidated affiliates, and so on.

Overseas Affiliates' Reports

Reports are being issued in a total of 16 countries and regions (including Japan) in which Toyota overseas consolidated affiliates and other companies operate.

The information disclosed globally by these reports will cover about 88 percent of Toyota vehicles sold worldwide.


Argentina

Australia

Brazil

China

Europe

India

Indonesia

Malaysia
* Issued in the UMW Holding Report

New Zealand

North America

South Africa

The Philippines

Taiwan (Kuozui)

Taiwan (Hotai)

Thailand

Vietnam

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Message from the President

Firstly, I would like to express my sincere gratitude for your continued support and understanding.

Toyota's origins can be traced back to the founding principle of contributing to society by making automobiles. By also making serious endeavors to resolve social issues related to vehicles, we are seeking to realize the Toyota Global Vision. When putting these efforts into practice, we will diligently reinforce True Competitiveness in order to grow as steadily as a tree adding annual growth rings, and take on the Challenges for the Future as we boldly work to create new value.

Previous Fiscal Year's Initiatives to Realize Toyota Global Vision

■ Always Better Cars

Toyota launched the MIRAI fuel cell vehicle in 2014. We began developing fuel cell technology toward the creation of the Ultimate Eco-Car in 1992 to help solve environmental issues such as global warming. Our predecessors chose fuel cell technology as the best of a range of different technologies, and began work on developing it. Now after more than 20 years of overcoming numerous technical difficulties and maintaining continuous development even during times of tough social conditions, last year we were finally able to open the curtain on a new hydrogen-based society. Going forward, we will continue to take on the Challenges for the Future so that we can make Always Better Cars. We will also provide attractive products that customers will choose, as we work to help solve social issues, including initiatives to promote widespread adoption of active safety technologies and promotion of research and development of automated driving technologies.

■ Enriching Lives of Communities

Toyota cars are currently manufactured in 29 countries and sold in over 170 countries, so we feel an important responsibility to contribute to enriching the lives of every community where we do business. As an automobile manufacturer, Toyota has focused on the environment, traffic safety and other social issues. We have continued to conduct our social contribution activities while cooperating and building trusting relationships with local residents, non-profit organizations and experts. In 2014, we established the Toyota Mobility Foundation. We are utilizing the technologies and technical knowledge of Toyota as we work on issues related to mobility in the world in collaboration with universities, governments, non-profit organizations, research institutes and others.

■ Stable Base of Business

Developing people is the key for a stable business foundation. Toyota is building a framework that will reliably and continuously develop human resources capable of carrying on its business activities on a global scale. Two of these initiatives are our QC Circle activities with 50 years of history that support increased vitality of employees and the work environment, and our 2014 Employee Driving Project in Australia that refines our cars and employees on a *genchi genbutsu* (on-site, hands-on experience) basis. Such initiatives are contributing to sustainable growth while sharing the values of our employees across the world.

When Kiichiro Toyoda had a grand dream of developing an automobile industry in Japan, colleagues at the time were quick to respond, "Yes, let's do it!" Since it was founded, Toyota has been on a journey that has brought it to this point, all the while being fostered by business partners and others. Going forward as well, the support of stakeholders in many different fields is essential as we take on the challenge of realizing the mobility society of the future.

We will continue to strive to become a trusted, respected and valued company so that as many stakeholders as possible join us in our challenge with the words; "Yes, let's do it!"

We kindly request the continued support and understanding of all our stakeholders.

August 2015

Akio Toyoda
President, Member of the Board of Directors
Toyota Motor Corporation

Overview of Toyota Motor Corporation

Company Profile

Company Name		Toyota Motor Corporation
President and Representative Director		Akio Toyoda
Company Address	Head Office	1 Toyota-cho, Toyota City, Aichi Prefecture 471-8571, Japan
	Tokyo Head Office	1-4-18 Koraku, Bunkyo-ku, Tokyo 112-8701, Japan
	Nagoya Office	4-7-1 Meieki, Nakamura-ku, Nagoya City, Aichi Prefecture 450-8711, Japan
Date Founded		August 28, 1937
Capital		397.05 billion yen (as of May 2015)
Main Business Activities		Motor Vehicle Production and Sales
Number of Employees (Consolidated)		344,109 (as of March 31, 2015)
Number of Consolidated Subsidiaries		541 (as of March 31, 2015)
No. of Affil. Accounted for under the Equity Method		54 (as of March 31, 2015)

Global Expansion

Toyota respects the culture and customs of every nation and region and contributes to economic and social development through corporate activities in the communities.

No. of plants and manufacturing companies (as of December 2014)
No. of distributors (as of November 2015)
No. of R&D bases (as of December 2014)
No. of employees (as of March 2015)
* No. of employees counts Toyota employees on a consolidated basis

Non-automotive Business

Housing

Consolidating the Toyota Group's strengths, Toyota Home offers a wide variety of housing related services to meet different customer needs.

Financial Services

Toyota Financial Services provides financial services primarily for vehicle loans and leasing in more than 30 countries and regions worldwide.

e-TOYOTA Business

To support the lifestyles of car users, e-TOYOTA is providing new value that integrates IT systems and automobiles.

Marine

Incorporating technology and know-how from the Toyota Group, Toyota is creating appealing boats that are safe, comfortable and eco-friendly.

Biotechnology & Afforestation

Toyota is aiming to combine environmental conservation and economic growth through developing biotechnology, greenification and other technologies.

New Business Enterprises

With our technologies and venturous spirit, Toyota will continue to contribute to society by developing and promoting new business that meets the needs of society and the environment as quickly as possible.

Financial Information

The three key priorities of Toyota's financial strategy are growth, efficiency and stability. We believe that the balanced pursuit of these three priorities over the medium to long term will allow us to achieve steady and sustainable growth, as well as raise corporate value.

Based on the Toyota Global Vision, we have been endeavoring to establish a cycle of developing Always Better Cars that delight our customers and benefit society while fulfilling our duty to increase sales and consequently profits that are then reinvested in developing Always Better Cars. To support this cycle, all 340,000 global Toyota employees will work together to maintain and build on a strong earnings base, towards becoming a company that realizes sustainable growth.

Three Key Priorities of Toyota's Financial Strategy

Growth

Sustainable Growth through Continuous Forward-looking Investments

The automotive market is experiencing fierce competition globally amid ongoing changes such as the development of information and communications technologies in addition to responses to government policies around the world to increase use of eco cars, and initiatives to strengthen development of safety technologies.

Toyota is steadily making the investments required to strengthen true competitiveness for achieving "steady growth each year" including in the research and development that is the source of our product strengths, the capital expenditure that contributes to improving productivity, the IT investment that is changing the way we work, and the human resources development to support it all. We are also actively investing in new growth fields to achieve a future mobility society, including developing next-generation environmental technologies and practical application of advanced driving support technologies working in coordination with cutting-edge IT technologies and social infrastructure.

Efficiency

Improving Profitability and Capital Efficiency

Initiatives of the Toyota New Global Architecture (TNGA) are driving development efficiencies through an overall optimization approach and standardization after dramatically improving the basic performance and product strengths of cars. In regards to production, we are also optimizing investment and improving productivity by maximizing the use of existing plants and equipment, as well as adopting innovative production technologies based on the principles of "simple and slim" and "flexible." In addition to these activities, we are aiming to further strengthen income structures by implementing cost-cutting measures such as companywide value analysis (VA) activities, and efficient sales strategies.

Stability

Maintaining a Solid Financial Base

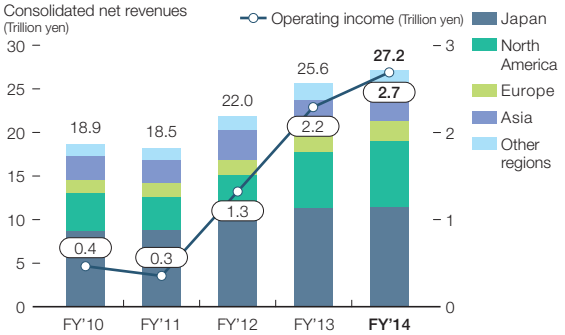
To ensure a solid financial base, Toyota secures sufficient liquidity and stable shareholders' equity. This allows us to maintain capital expenditure and R&D investment at levels conducive to future growth as well as to maintain working capital at a level sufficient for ongoing operations, even when business conditions are difficult due to such factors as steep increases in raw materials prices or volatility in foreign exchange rates. We will continuously refine and implement measures to improve business continuity planning in the event of a major disaster.

Amid expectations that the global automotive market will expand over the medium to long term, we believe that, in addition to putting crisis measures into place, maintaining adequate liquidity is essential to the implementation of forward-looking investment aimed at improving product appeal and the development of next-generation technologies as well as to the establishment of global production and sales structures. We will continue to pursue improvements in capital efficiency and cash flow.

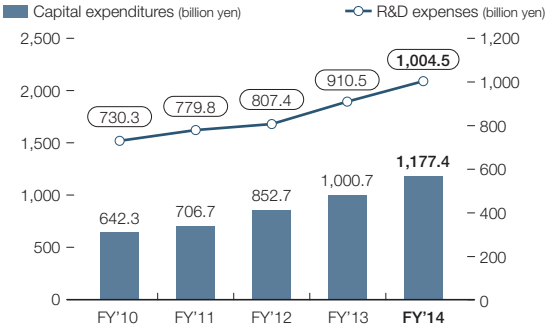
Consolidated basis	FY2014	FY2013	Compared to previous year
Net revenues	27,234.5 billion yen	25,691.9 billion yen	6.0%
Operating income	2,750.5 billion yen	2,292.1 billion yen	20.0%
Net income and ROE	2,173.3 billion yen (13.9%)	1,823.1 billion yen (13.7%)	19.2%
Capital expenditures*	1,177.4 billion yen	1,000.7 billion yen	17.6%
R&D expenses	1,004.5 billion yen	910.5 billion yen	10.3%
Vehicle production	8,930 thousand units	9,032 thousand units	-1.1%
Vehicle sales	8,972 thousand units	9,116 thousand units	-1.5%
Total assets	47,729.8 billion yen	41,437.4 billion yen	15.1%
Shareholders' equity	16,788.1 billion yen	14,469.1 billion yen	16.0%
Dividend per share	200 yen	165 yen	21.6%

* Excluding vehicles and equipment operating leases

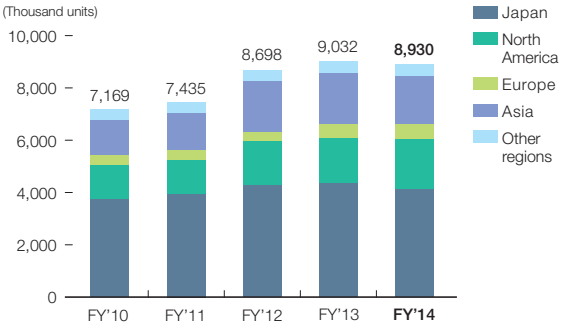
Consolidated Net Revenues and Operating Income



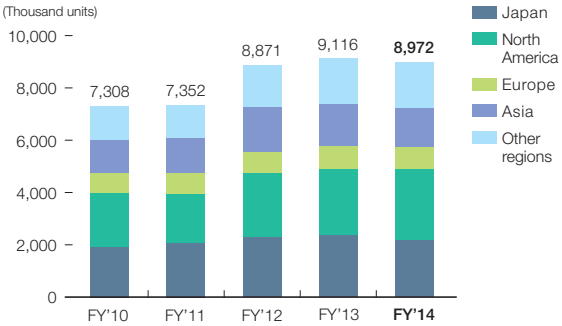
Capital Expenditures and R&D Expenses



Consolidated Vehicle Production



Consolidated Vehicle Sales



Corporate Principles

Guiding Principles at Toyota

Toyota adopted the Guiding Principles at Toyota in January 1992 (revised in April 1997) based on the recognition that strong policies are important for finding the way to proceed, especially when the environment surrounding us is drastically changing.

1. Honor the language and spirit of the law of every nation and undertake open and fair business activities to be a good corporate citizen of the world.
2. Respect the culture and customs of every nation and contribute to economic and social development through corporate activities in their respective communities.
3. Dedicate our business to providing clean and safe products and to enhancing the quality of life everywhere through all of our activities.
4. Create and develop advanced technologies and provide outstanding products and services that fulfill the needs of customers worldwide.
5. Foster a corporate culture that enhances both individual creativity and the value of teamwork, while honoring mutual trust and respect between labor and management.
6. Pursue growth through harmony with the global community via innovative management.
7. Work with business partners in research and manufacture to achieve stable, long-term growth and mutual benefits, while keeping ourselves open to new partnerships.

The Spirit of the Five Main Principles of Toyoda, Which Has Been Handed Down since Toyota's Foundation, Serves as the Basis of the Guiding Principles at Toyota

The Five Main Principles of Toyoda have been at the core of Toyota's management from its foundation to the present day. The principles are a statement of the ideas of Sakichi Toyoda, the founder of the Toyota Group, and serve as the basis of the Guiding Principles at Toyota. The principles were not originally in a fixed form, but as of the size of affiliated companies increased, it became necessary to codify the principles to ensure that all employees were thoroughly familiar with them. Risaburo Toyoda and Kiichiro Toyoda, who were present during the founding period of Toyota, formulated the Five Main Principles of Toyoda as the legacy of Sakichi for dissemination to the world. The principles were introduced on October 30, 1935, the sixth anniversary of Sakichi's death.

- Always be faithful to your duties, thereby contributing to the company and to the overall good.
- Always be studious and creative, striving to stay ahead of the times.
- Always be practical and avoid frivolousness.
- Always strive to build a homelike atmosphere at work that is warm and friendly.
- Always have respect for spiritual matters, and remember to be grateful at all times.

CSR Policy/Organization and Structure

Basic Philosophy regarding CSR

Seeking Harmony with People, Society, and the Global Environment, and Sustainable Development of Society through *Monozukuri* (Manufacturing)

Since its foundation, Toyota has continuously strived to contribute to the sustainable development of society through the manufacture and provision of innovative and quality products and services that lead the times. Motor vehicles greatly expand the freedom of mobility, but are also related to and affect a number of social and environmental issues. Always bearing this in mind, we listen carefully to our customers and neighbors in local communities to pursue our business, seeking harmony with people, society, and the global environment, as well as the sustainable development of society through *monozukuri*.

In the main line of our business, automobile manufacturing, we develop and introduce environmentally friendly vehicles in addition to mechanisms for active and passive safety. We also roll out new businesses in such areas as biotechnology, afforestation, energy etc. Furthermore, we pursue initiatives for social contributions that focus on “the environment,” “traffic safety,” and “education.” Such activities centering on automobile manufacturing are designed to help people in the wider community and bring them happiness—this is Toyota’s aspiration.

The basis of our rationale is our CSR Policy: Contribution towards Sustainable Development. Toyota aims to become a company that is admired and trusted by society by ensuring that all employees recognize and put into practice our CSR Policy. We also share it with our consolidated subsidiaries and take appropriate action. And we expect our business partners to support this initiative and act in accordance with it.

In addition, we participated in the formulation of and observe the standards outlined in the Charter of Corporate Behavior of the Nippon Keidanren (Japan Business Foundation), an alliance of leading Japanese corporations.

CSR Policy

In January 2005, Toyota Motor Corporation (TMC) announced the Contribution towards Sustainable Development, an interpretation of the Guiding Principles at Toyota that takes into consideration Toyota's relations with stakeholders. This was revised in August 2008 to become the CSR Policy: Contribution towards Sustainable Development to take into account subsequent environmental changes and heightened societal interest in CSR.

TMC has shared the statement with its consolidated subsidiaries and is taking other relevant action.

Preamble of CSR Policy: Contribution towards Sustainable Development

> We, Toyota Motor Corporation and our subsidiaries, take initiative to contribute to harmonious and sustainable development of society and the earth through all business activities that we carry out in each country and region, based on our Guiding Principles. We comply with local, national and international laws and regulations as well as the spirit thereof and we conduct our business operations with honesty and integrity. In order to contribute to sustainable development, we believe that management interacting with its stakeholders as described below is of considerable importance, and we will endeavor to build and maintain sound relationships with our stakeholders through open and fair communication. We expect our business partners to support this initiative and act in accordance with it.

CSR Policy: Contribution towards Sustainable Development Full Text

WEB http://www.toyota-global.com/sustainability/csr/csr/

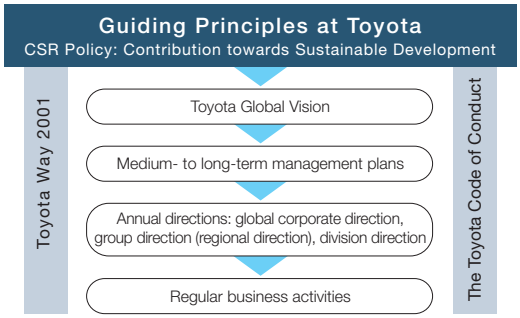
Relationship between CSR Policy, the Guiding Principles and Management Plan

In 2011, Toyota adopted "Toyota Global Vision," which is based on the Guiding Principles at Toyota. In order to achieve this vision, a medium- to long-term management plan was drafted and Toyota is working toward achieving the goals specified in the plan.

In addition, the Toyota Way 2001 and Toyota Code of Conduct contain the values and methods that employees should adopt in putting the Guiding Principles at Toyota into practice and serve as guides for day-to-day activities.

We also participated in the formulation of and observe the standards outlined in the Charter of Corporate Behavior of the Nippon Keidanren (Japan Business Federation), an alliance of Japanese leading corporations.

Positioning of the CSR Policy



Related Policies and Principles

Related Policies and Principles

WEB http://www.toyota-global.com/sustainability/csr/csr/

Toyota's CSR Organization and Structures

Toyota established the Corporate Planning Meeting and Corporate Governance Meeting as the bodies responsible for raising corporate value, and implements activities from a long-term, company-wide perspective.

Corporate Planning Meeting and Corporate Governance Meeting

In October 2007, Toyota established the CSR (Corporate Social Responsibility) Committee to coordinate and promote CSR activities. Through the CSR Committee, we have ensured legal compliance, conducted social contribution activities and promoted initiatives for environmental issues.

Since April 2015, organizational changes were made intended to incorporate CSR into management and to raise corporate value. Discussions previously held by the CSR Committee have been transferred to the Corporate Planning Meeting and Corporate Governance Meeting. With oversight of the Board of Directors, the Corporate Planning Meeting discusses growth strategies that incorporate the value that Toyota provides with regard to a variety of social issues, and promotes companywide CSR and corporate value enhancements integrated with management. The Corporate Governance Meeting assesses governance structures for realizing those strategies and supervises business operations. Through these initiatives, we are working to sustainably raise corporate value.

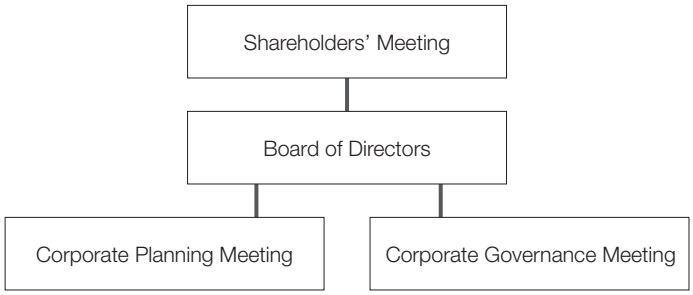
Corporate Planning Meeting

- Basic corporate policies for contributing to the sustainable development of society and the earth
- Global CSR policies and activities
- Sustainable growth strategies for corporate value enhancement
- Social contribution, environmental issues and other social issues

Corporate Governance Meeting

- Corporate ethics, compliance, and corporate governance
- Significant issues concerning risk management

Toyota’s CSR Structure (Corporate Value Enhancement)



Toyota Global Vision

The Toyota Global Vision announced in March 2011 is an articulation of what kind of company we want to be—a clear statement of what values we esteem, what kind of company we ought to be, and what actions we should take. It defines our values of "wanting Toyota to be a company that customers choose and that brings a smile to every customer who chooses it."

Backdrop and Progress

In the backdrop of this vision, there was the fall into the red after the Lehman Brothers collapse, as well as our reflection over a series of quality issues.

To unite all Toyota together to advance our efforts for the recovery of business performance, we came to realize the necessity of having a dream or a path to take that all people who work for Toyota could have in common. We also felt the importance of making that dream and that path known broadly to society and to all our customers.

Based on our ideal for Toyota, the members of our team gathered to discuss and finalize the vision.

This is a distillation of our resolve at Toyota for the future.

Rewarded with a smile

by exceeding your expectations

Toyota will lead the way to the future of mobility,
enriching lives around the world with the safest
and most responsible ways of moving people.
Through our commitment to quality,
constant innovation and respect for the planet,
we aim to exceed expectations
and be rewarded with a smile.
We will meet challenging goals
by engaging the talent and passion of people,
who believe there is always a better way.

Toyota Visionary Management

The visionary management that we have in mind is making Always Better Cars that exceed customer expectations, and Enriching Lives in Communities based on the shared values that have steered Toyota from the beginning, including the Guiding Principles at Toyota and the Toyota Way. In doing so, we are rewarded with smiles from customers and the public, leading to a Stable Base of Business. We aim to generate such virtuous cycles and achieve sustainable growth.

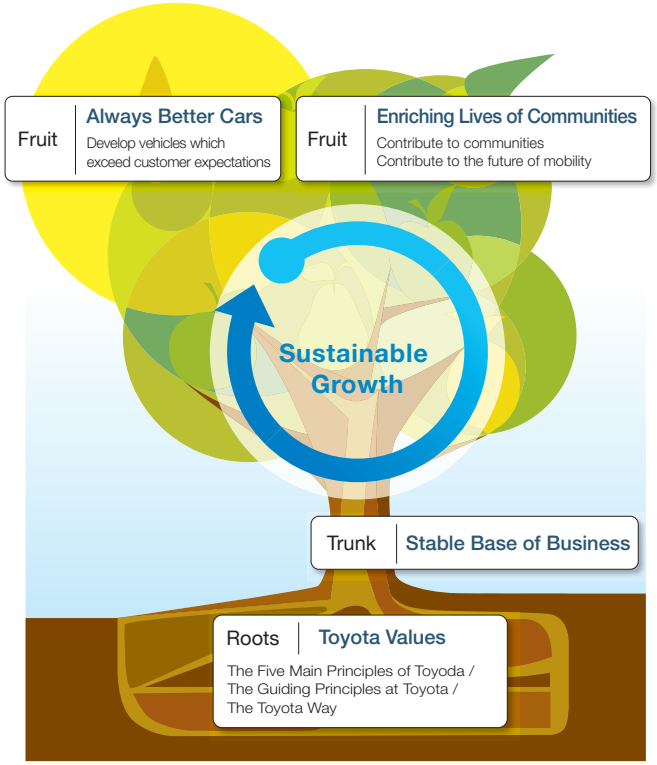
The Global Vision Tree Explained

We use a tree to represent the Toyota Global Vision.

The "roots" of the tree are the shared values that have steered Toyota from the beginning and that have underlain our *monozukuri* (manufacturing). They are values expressed in the Five Main Principles of Toyoda, in the Guiding Principles at Toyota, and in the Toyota Way, which are the basis of our business.

The "fruit" is our contribution to communities through making Always Better Cars that are chosen by customers and the public.

The "trunk" of the tree, the result of these efforts, strengthens and stabilizes our base of business when large numbers of customers choose our products.



WEB http://www.toyota-global.com/company/vision_philosophy/toyota_global_vision_2020.html

CSR Management Based on the Toyota Visionary Management Indices

Basic Philosophy

Process for Devising KPI Strategic Focus

After we drew up the Global Vision for Those We Serve, which describes how we embody the Toyota Global Vision, we commenced full-scale Key Performance Indicators (KPI) development. Based on the Priority CSR KPI, which were established after a process extending over two years, our CSR activities have been further enhanced from FY2012 involving the efforts of both external experts and Toyota executives.

Goals to Realize Toyota Global Vision

In order to realize the Toyota Global Vision, Toyota has set goals and established the Toyota Visionary Management Indices as KPI to assess the progress being made towards achieving those goals. Each responsible division is conducting self-evaluations and implementing PDCA to strengthen CSR activities.

* For further details on "Actual Results for the Previous Fiscal Year and Major Initiatives for the Current Fiscal Year," see each section.

	Global Vision for Those We Serve	Goals
Always Better Cars	1. Provide safe and reliable vehicles that inspire enthusiasm at affordable prices	Achieve the highest level of customer appraisal in terms of safety, quality and moving people
	2. Listen sincerely to customer voices and continue to reinvent ourselves through sufficient information disclosure and dialogue	Raise customer satisfaction concerning customer inquiries
Enriching Lives of Communities	3. Contribute for economic development of local communities with open stance to new suppliers and dealers and through sustainable growth based on mutually beneficial business relationships with dealers/distributors and suppliers	Suppliers: Promote local purchasing globally
		Dealers/distributors: Establish sales networks together to be rewarded with a smile
	4. Reduce environmental burdens through lifecycle by developing various eco-friendly vehicles and technologies and making them prevail	Eco-cars: Aim to improve global average fuel efficiency by 25 percent by FY2015 (compared with FY2005)
		Environmental impact: Aim to reduce CO_2 emissions from business activities by 34% by FY2015 (compared with FY2001; per unit produced globally)
	5. Be aware of responsibilities of developing and producing vehicles and contribute for realization of new mobility society free from traffic accidents and congestion	Engage in advanced/cutting-edge research for a new mobility society, and promote the practical application and popularization thereof
	6. As a good corporate citizen, respect the culture and customers of every nation and region and contribute to social development	Continue stable social contribution activities at an appropriate level as a good corporate citizen
Stable Base of Business	7. Create working environments for various employees to work proudly and with loyalty and confidence in fulfilling their potential, which realize their self-growth	Increase the ratio of employees who feel that their jobs are rewarding
	8. Ensure sustainable growth by fostering the virtuous circle Always Better Cars > Enriching Lives of Communities > Stable Base of Business	Establish a stable base of business

Always Better Cars

The Birth of MIRAI: History of Toyota's FCV Development

The Birth of MIRAI: History of Toyota's FCV Development

On December 15, 2014, Toyota launched the world's first mass-produced fuel cell vehicle (FCV), the MIRAI. After a development period of 22 years, this marked the dawn of the hydrogen-based society.

Around 1990, Toyota was exploring technology solutions to global warming and other environmental issues. Witnessing the progress of fuel cell (FC) research at the Toyota Central R&D Labs., Inc.,* a Toyota executive responsible for technology affairs was struck by its latent potential, and proposed that Toyota should develop the technology. At the time it was a field with little research activity worldwide, but development commenced in 1992 aimed at realizing the Ultimate Eco-Car.

At first the project was led by a small team of seven engineers, who nevertheless moved beyond their individual fields from design to prototype production. Consulting the few available fuel cell-related sources and reports in the literature, they pooled their specialist knowledge, gradually gaining insights through trial and error. In 1994, two years after starting, they completed the prototype—a Townace fitted with a fuel cell. Maintaining the same swift pace of development, they steadily improved performance from a maximum output of around 20 kW in the FCEV(1) of 1996 to 40 kW in the FCEV(2) of 1997, and 90 kW in the Toyota FCHV of 2002.

A range of possibilities were explored for fuel carrying, which is important in a fuel cell vehicle, from a metal hydride hydrogen tank system to methanol and gasoline conversion systems. The method finally adopted through a process of trial and error was the most environment-friendly and practical: a high-pressure hydrogen tank.

In 2005, a 70 MPa high-pressure hydrogen tank was successfully developed, and in 2006 low-temperature operation of a fuel cell vehicle was realized for the first time at minus 30 degrees Celsius. In 2008, a cruising range of approximately 830 km was reached.

MIRAI line-off ceremony

Toyota's FCV Development to Date

December 2014
Launch of MIRAI

2011
Next-generation fuel cell vehicle FCV-R premiered at the 42nd Tokyo Motor Show

2008
Launch of limited lease-sale of Toyota FCHV-adv fitted with evolved fuel cell system (cruising range 830 km)

- Successful operation at low temperature (-30 degrees Celsius) (2006)
- Development of hydrogen tank (70 MPa) (2005)
- Development of hydrogen tank (35 MPa) (2004)

2005
Launch of limited lease-sale of officially approved new Toyota FCHV

- Cruising range of 250 km reached (2001)

2002
Launch of world-first limited lease-sale of Toyota FCHV in Japan and U.S.A.

2001
Announcement of FCHV-3 fitted with fuel cells that dramatically boosted output

- Completion of prototype vehicle (1994)—a Townace fitted with a fuel cell

1996
Announcement of FCEV(1) fitted with fuel cells developed in house Paraded in Osaka

1992
Start of Development

These technological breakthroughs opened the way from the research stage onward to mass production. Subsequently, despite the harsh social environment following events such as the economic crisis triggered by the Lehman Brothers bankruptcy and the Great East Japan Earthquake, when the world showed waning interest in future-oriented projects, Toyota did not halt its progress. The limited lease-sale of the FCHV-adv in 2008 was followed in 2011 by the creation of the FCV-R concept model, whose highly practical features were a step toward market launch.

And finally in 2014, Toyota launched the long-awaited MIRAI, boasting a maximum output boosted to 114 kW, plus the world's highest power density of 3.1 kW/L, the world's first humidifier-free operation, and other cutting-edge technologies. Combining unbeatable environmental performance with exciting driving pleasure, the MIRAI has been fashioned as a car to open a new chapter of mobility.

Sometimes facing challenging situations because of conditions in society, changes in the economy, and other circumstances, the engineers pressed ahead with research and development with the conviction that it was "for the sake of the next 100 years." Collaborating with relevant bodies across a range of sectors, Toyota will continue to undertake challenging projects toward the creation of a new hydrogen-based society in harmony with the global environment.

For information on FCV-related initiatives, please also see Environment pp. 11-13–11-14

* Established in 1960 through funding from the member companies of the Toyota Group, it carries out research in a wide range of fields including the environment, energy, social systems, information, electronics, machinery, and materials

Toward Toyota's Ultimate Goal: The Complete Elimination of Traffic Casualties

Moritaka Yoshida
Senior Managing Officer, CSTO (Chief Safety Technology Officer)

Toyota's vision of Always Better Cars embraces a wide range of elements such as environment, design, and comfort, but the basis of our vehicle development remains an absolute commitment to safe cars that can be driven with confidence. Toyota's ultimate goal is the complete elimination of traffic casualties.

At present, traffic accident deaths in Japan have decreased to around 4,100 a year, but worldwide the yearly figure is approximately 1.24 million fatalities. For Toyota, with its global business reach, safety is therefore a field of technology requiring redoubled attention going forward.

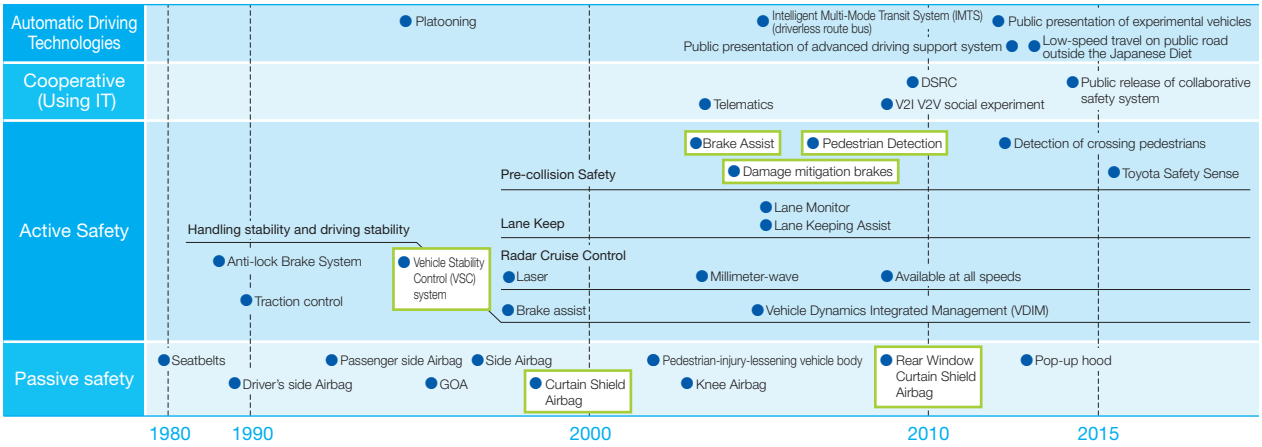
To achieve ongoing reductions in traffic casualties, the conditions and causes of actual accidents must be investigated and this information used to develop corresponding safety technologies that are effective. Toyota calls this "pursuing real-world safety," which is the policy approach of our technology development. The recently commercialized Toyota Safety Sense active safety package was developed with the aim of covering a wide range of accidents based on pursuing real-world safety. Its two types of sensor deliver outstanding detection performance and reliability in a package that also includes a number of safety functions. Additionally, its automatic braking has been designed to operate across a broad range of speeds. As widespread adoption is key to reducing casualties through safety technology, we want to make Toyota Safety Sense available globally at an affordable price to accelerate customer uptake.

Since the 1990s, Toyota has been researching automated driving technology, and has so far reached an advanced stage of technology allowing vehicle travel between given points without driver input. With improvement of safety as the prime goal, the development of automated driving technology is based on an approach of creating an advanced automated driving system equipped with multiple eyes which keeps constant watch on vehicle travel and avoids sources of danger when they arise. Going forward, having considered how the insights and technologies gained from automated driving research can be applied to vehicles in which an active driver is chiefly responsible for avoiding accident, we plan successive commercialization of an advanced driving support system.

Moreover, we believe that the linking of humans, vehicles and infrastructure through telecommunications technology will optimize the traffic system as a whole, leading to a mobility society that is safer, less congested, and lower in CO_2 emissions.Toyota is also an active participant in the Strategic Innovation Promotion Program (SIP) automated driving system, a project launched by the Japanese government in 2014 through which government and private-sector organizations are collaborating in research and development in automated driving, IT technologies, and related areas. Additionally, Toyota continues to engage in educational activities aimed at drivers and pedestrians, designed to improve traffic safety awareness. Toward realizing its ultimate goal of complete elimination of traffic casualties, an integrated approach embracing people, cars and the traffic environment is important. Toyota commits itself to continue steadily and clearly with these initiatives.

Please visit our website for the full-length interview with CSTO Moritaka Yoshida
Web http://www.toyota-global.com/sustainability/features/car/interview.html

History of Safety Technology Development



Global Spread of Safety System More Effective in Reducing Casualties

Market Launch of the Toyota Safety Sense Active Safety Package at a Price Designed to Encourage Widespread Adoption

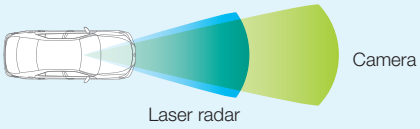
To provide as many customers as possible with a car that delivers high safety performance, Toyota has developed Toyota Safety Sense, a new active safety package designed to encourage the global spread of active safety technology. The package comes in two categories depending on vehicle type: Toyota Safety Sense C and Toyota Safety Sense P. They combine a number of active safety functions in one package, and provide collision avoidance assist and damage mitigation across the low to high speed range. The package for mid-sized to high-end vehicles is equipped with the world's highest level of active safety performance and is also applicable in accident scenarios involving pedestrians. Launched on the market at a price that gives foremost priority to widespread adoption, its rollout to almost all vehicle models and grades in Japan, North America, and Europe is scheduled for completion between 2015 and the end of 2017. In Japan, it was fitted for the first time in April 2015 on the Corolla Axio and Fielder. The aim is to roll it out to other regions too, taking due account of road conditions, laws, and other country-specific factors.

To Cover Toyota's Wide-ranging Lineup, the Package Comes in Two Categories for Different Vehicle Types

The most significant feature is danger detection using a combination of two different types of sensor

For compact cars
Toyota Safety Sense C

Single-lens camera + Laser radar



Distinctive Features

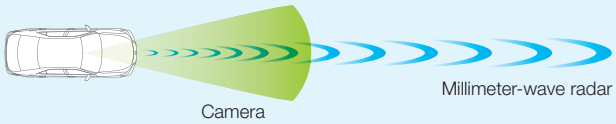
- Collision avoidance assist with high real-world safety effect active up to the high speed range
- Three active safety functions in one package

PCS — Collision Avoidance Assist
LDA — Lane Departure Warning
AHB — Nighttime Visibility Assist

PCS: Pre-collision System with collision avoidance assist
LDA: Lane Departure Alert
AHB: Automatic High Beam
PCS with pedestrian detection: Pre-collision System with collision avoidance assist and Pedestrian Detection Function

For mid-sized to high-end vehicles
Toyota Safety Sense P*

Single-lens camera + Millimeter-wave radar



Distinctive Features

- Pedestrian collision avoidance assist with world's highest level of performance
- Five active safety functions in one package

PCS — Collision Avoidance Assist
Pedestrian Detection PCS — Collision Avoidance Assist
LDA — Lane Departure Warning
Radar Cruise Control — Driving Assist
AHB — Nighttime Visibility Assist

* On Lexus Brand vehicles: Lexus Safety System+

Focus

Two Types of Sensor Adopted to Allow Accurate Shape and Distance Detection

In collision avoidance assist technology, the key is recognition technology to detect accident risk. To assess whether the car risks colliding with the vehicle in front or a pedestrian, shape of and distance to the object need to be accurately identified. The currently available sensors have their respective strengths and weaknesses; for instance, cameras are good at shape detection, but lasers and millimeter wave radar tend to provide more accurate distance detection. Combining these two types of sensor, one providing a wide "eagle's eye" view and the other able to measure distance like a bat, compensates for the weak points of each type leveraging the strengths.

Recognition Technology

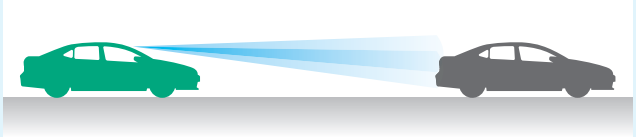
Shape detection + Distance detection ⇒ Collision assessment

	Laser/ Millimeter-wave radar	Single-lens camera
Shape detection	Weakness	Strength
Distance detection (accuracy)	High	Low

Pre-collision System (PCS) with Collision Avoidance Assist

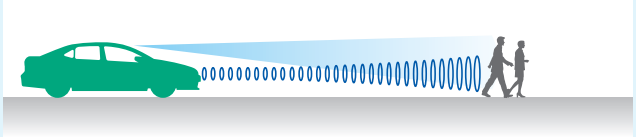
When it is judged that there is a high risk of collision with the preceding vehicle or another object, the driver is warned by an alarm sound and a visual display. If the brake has been operated, the Pre-collision Brake Assist is activated to increase braking force.

If the brake pedal is not operated, and the risk of collision is judged to be further increased, the pre-collision brake is activated to reduce collision speed. This assists collision avoidance or mitigates collision damage.



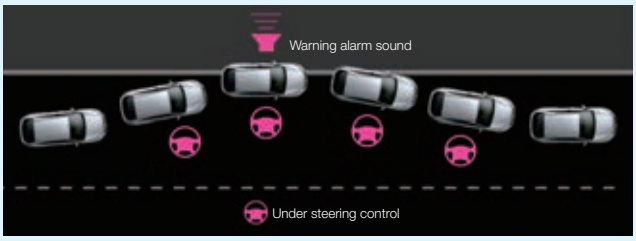
Pre-collision System with Collision Avoidance Assist and Pedestrian Detection Function

Information detected by millimeter-wave radar is supplemented by detection data from cameras to detect not only the preceding vehicle but even crossing pedestrians. This will contribute to reducing fatal accidents involving pedestrians, which are an important traffic safety issue.



Lane Departure Alert

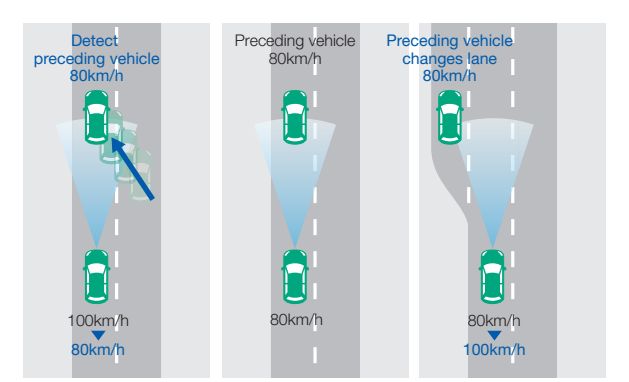
The camera performs detection of the white and yellow marker lines of the vehicle's lane, and when the risk of lane departure is detected, the driver is warned by an alarm sound and a visual display, assisting the avoidance of a collision caused by lane departure.



The system alerts the driver of risk of lane departure

Radar Cruise Control

The system adopts Radar Cruise Control, which uses millimeter-wave radar to detect the distance from the preceding vehicle, and adjusts vehicle speed within a preset speed range to match that of the preceding vehicle, thus maintaining a constant inter-vehicle distance while enabling vehicle following. Lane change by the preceding vehicle is detected by millimeter-wave radar and camera, realizing smoother acceleration and deceleration control.



Deceleration speed control | Follow-up cruising control | Acceleration speed control

Automatic High Beam

AHB detects the headlights of oncoming vehicles or tail lights of vehicles ahead, by camera. The system automatically switches between high beam and low beam to ensure excellent nighttime forward visibility while reducing glare for the drivers of other vehicles. This also contributes to the reduction of accidents involving pedestrians at night.

Focus

The Corolla Fitted with Toyota Safety Sense C Was Awarded the Highest Rank ASV+ in the JNCAP Preventive Safety Performance Assessment

The Corolla Fielder and Axio, which were fitted with the Toyota Safety Sense C in April 2015 at the time of a minor model change, were awarded the highest rank, ASV+ (Advanced Safety Vehicle +), in the JNCAP* preventive safety performance assessment, starting from FY2014. The two models became the first to achieve full marks in the FY2015 JNCAP preventive safety performance assessment, making them the vehicles with the highest such evaluation.

To make cars safer, Toyota has consistently adopted advanced onboard active safety systems to realize high levels of safety. The Crown launched in 2012 achieves this by actively adopting preventive safety systems including a pre-collision system with reinforced brake assist and pre-collision brake functions. In FY2014, the Camry, Harrier, Prius α, and the Lexus LS, IS, and NX also won strong evaluations, achieving the ASV+ rating in the JNCAP preventive safety performance assessment.

* Vehicle assessment presenting vehicle safety information that has been published since FY1995 by the Ministry of Land, Infrastructure, Transport and Tourism and the National Agency for Automotive Safety and Victims' Aid with the aim of promoting widespread adoption of safe vehicles

FY2015 ASV+ mark

Toward a Safer and More Convenient Traffic Environment Using Automated Driving Technologies

Toyota is engaged in research and development of automated driving technologies as a way of delivering safe and secure methods of transportation that respect the wishes of the driver, the key player in vehicle operation, and do not compromise the fun of driving. The technologies involved in automatically driven vehicles comprise functions that perform safe driving by monitoring all around the vehicle and functions that correct driving mistakes, which dramatically increases vehicle safety. Moreover, exchange of information between people and cars, cars and cars, and cars and infrastructure gives access to information that cannot be obtained by vehicle sensors. These automated driving technologies have great potential benefits, for instance in assisting driving in the aging society and in reducing traffic congestion. We are also moving forward with research into the human senses, which are important in automated driving technologies, from the perspective of collaboration between people and vehicles. This means observation and analysis to find out how people react when they are in a car fitted with automated driving technologies, and which human abilities the cars need to assist. In this way we are continuing research into automated driving technologies that center on people to make cars that assist drivers.

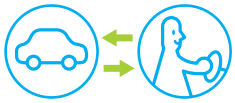
Since the latter half of the 1990s, we have been progressing with research and development of automated driving technologies at the research basis in Japan, the United States and Europe, working to develop systems adapted to local traffic conditions and accelerating the pace of development through coordination of the bases that leverages regional strengths. Using the findings of this research and development and related experiments, our goal is to support safe driving so that all drivers under whatever conditions can fully exercise their abilities and experience. This will contribute to the ultimate aspiration of the mobility society, which is the complete elimination of traffic casualties, and at the same time provide the Fun to Drive benefit of cars. In this way, we are working to make Always Better Cars.

Test driving of an experimental vehicle fitted with automated driving technologies at Toyota's Higashi-Fuji Technical Center

Test driving of an experimental vehicle fitted with automated driving technologies near our U.S. research base TRINA (Toyota Research Institute North America)

Diagram Outlining Automated Driving Technologies

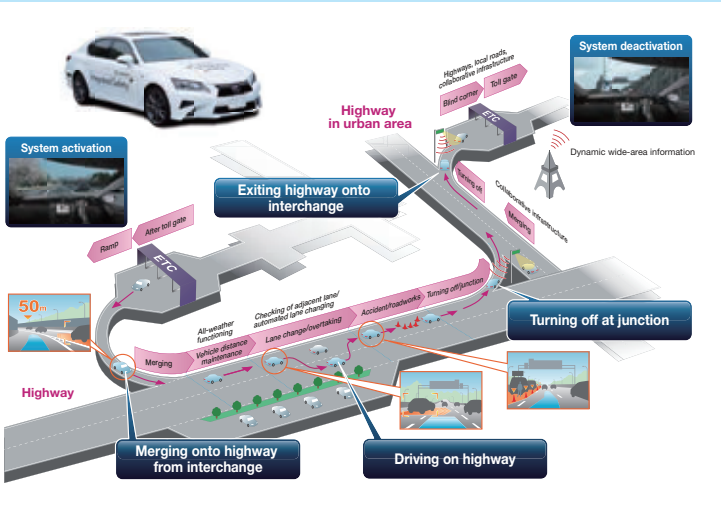
Automated Driving Technologies

Driving Intelligence	Telecommunication Technology	Interactive Intelligence (Collaboration between people and cars)
		
• Spatial recognition • Map utilization • Driving control • Vehicle core technologies	• ITS safe driving assist • Use of big data • Traffic flow optimization	• Monitoring of driver conditions • Communication of system status/prevention of overconfidence • Automatic/manual switching

Focus

Highway Test Drive of New Experimental Vehicle Fitted with Automated Driving System

As a further step forward for automated driving technologies, we developed a new experimental vehicle fitted with automated driving technologies with the goal of realizing travel on highways. This new experimental vehicle applies the technologies from the experimental automated vehicles so far presented publicly in the United States and features more practical hardware. This new experimental vehicle is being used to advance experimentation and technology development toward automated performance of operations essential to highway driving, including lane maintenance, speed adjustment, lane changing, overtaking, turning off, and merging.



For Safety Initiatives, please see pp. 04-01–04-07

Enriching Lives of Communities

Toyota's Social Contribution Activities

Toward the Goal of Enriching Lives of Communities

In addition to making social contributions through its primary business activities, Toyota has long taken initiatives to help solve social issues in areas such as the environment, traffic safety, and education. Furthermore, the Toyota Global Vision announced in March 2011 positioned enriching lives of communities as one of the main objectives of Toyota's business, in addition to making Always Better Cars. With a feeling of gratitude toward the people living there, Toyota is committed to enriching communities, and therefore is working hard to solve the issues present in them.

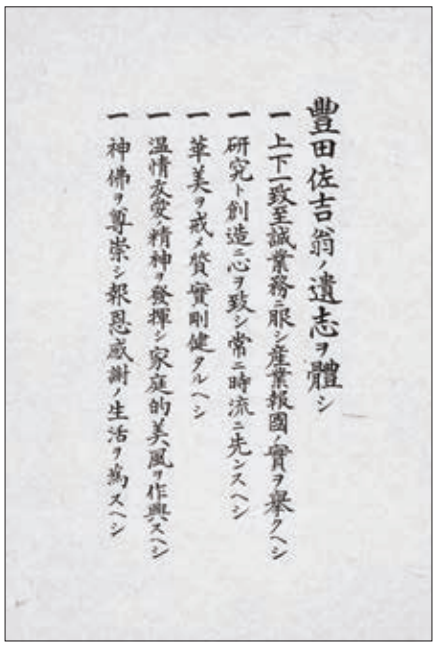
Additionally, the Toyota Mobility Foundation was established in August 2014 toward the development of a better mobile society, and began providing support to non-profit organizations, research institutions, and other organizations that engage in business or other activities with high social value.

Toward the goal of enriching lives of communities, Toyota will continue actively promoting social contribution activities that will bring a smile to as many customers as possible.

It All Started with Sakichi Toyoda's Hope for People's Happiness

Ninety years ago in 1925, Sakichi Toyoda, the father of Toyota Motor Corporation's founder, Kiichiro Toyoda, pledged one million yen (at the time) to the Imperial Institute of Invention and Innovation to encourage battery-related inventions because he wanted to support inventions that enrich people's lives. The impetus for his pledge was the first around-the-world flight successfully completed by a Douglas aircraft of the United States Army Air Service in 1924. Sakichi was said to be dreaming of inventing large-capacity batteries for mobile applications that would power automobiles and aircrafts. In the end, the invention of such batteries proved to be extremely difficult and none have yet been completed. Still, the progress that has since been made in this field has had a tremendous impact on industries and people's lives. Toyota's long history of social contribution activities can be traced back to Sakichi, who held a hope for people's happiness. After Sakichi's death, this spirit was handed down to Kiichiro and others who started the automotive industry in Japan, through the concepts of contributing to the development and welfare of the country and feelings of gratitude, and was later incorporated into the Five Main Principles of Toyoda, the Guiding Principles at Toyota, and the Toyota Global Vision. These precepts have been handed down to the present.

Sakichi Toyoda



豐田佐吉翁ノ遺志ヲ體シ
一 上下一致至誠業務ニ服シ産業報國ノ實ヲ擧クヘシ
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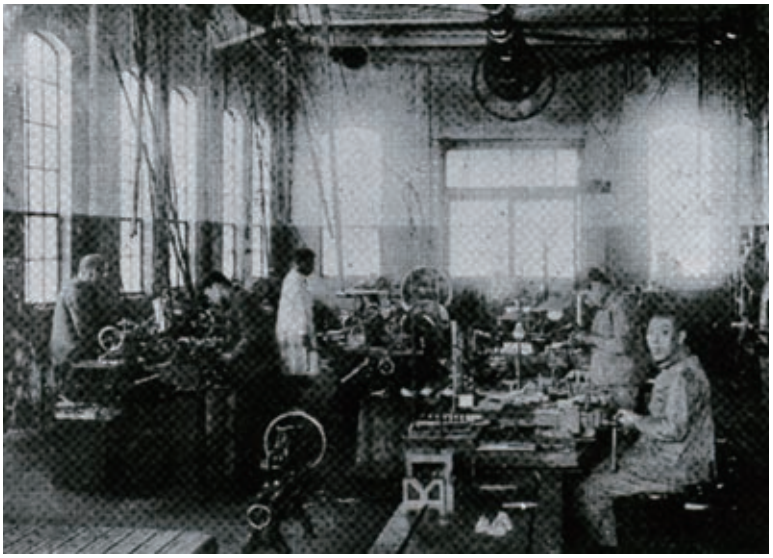
一 華美ヲ戒メ質實剛健タルヘシ
一 溫情友愛ノ精神ヲ發揮シ家庭的美風ヲ作興スヘシ
一 神佛ヲ尊崇シ報恩感謝ノ生活ヲ爲スヘシ

The Five Main Principles of Toyoda



Toyoda Research Laboratory at the Imperial Institute of Invention and Innovation, which was operated based on Sakichi's donation

Contribution to Create Enriched Communities

Social Trends and History of Toyota's Social Contribution Activities

Following the founding of the company, Toyota's community contribution activities consisted primarily of donations until the early 1970s. Meanwhile, the number of cars owned in Japan began to increase rapidly in the latter half of the 1960s, with the result that traffic accidents became a social problem. Against this background, Toyota in cooperation with its dealers started the Toyota Traffic Safety Campaign. Since the number of accidents involving young children was large, Toyota began a program called Traffic Safety Picture Book for them. Subsequently, as its car production volume grew and business size expanded, Toyota began taking social contribution activities on a full scale in order to fulfill its corporate social responsibility and repay its obligations to society.

In 1974, with the goal of helping people achieve happier lives, Toyota established the Toyota Foundation to support valuable research and programs that address issues in various fields, such as social welfare, education, and culture, from a global perspective according to the specific needs of the times. Then in 1981, Toyota established the Toyota Technological Institute, which was the culmination of the dream Kiichiro had when he founded the company. He had always believed that research and education were crucial for Japan to advance. The Toyota Technological Institute has been developing engineers who can lead international industries and helping society develop through manufacturing.

Note: Italics indicate global trends

Social trends (Japan)

Period of Rapid Growth—Pollution Problems

- Tokyo Olympics (1964)
- Japan's first highway opened (1964)

Oil Crisis

Family car era

Emissions regulations

- Car ownership in Japan exceeded 10 million units (1967)
- Japan's GNP ranked second in the world (1968)
- Number of traffic fatalities hit a record high of 16,765 people (1970)
- Osaka Expo (1970)

"First Traffic War"

Economic Bubble—Environmental Problems

- Japan and the U.S. agreed on voluntary export restrictions (1981)
- *Plaza Accord (1985)*
- *Montreal Protocol went into effect (1989)*
- Consumption tax was introduced (1989)
- JAMA established its Special Committee on Traffic Safety (1989)

Interest in corporate social contribution activities and mécénat activities increased

- Keidanren established its One Percent Club (1990)
- Association for Corporate Support of the Arts was established (1990)

"Second Traffic War"

Bursting of Economic Bubble

- Keidanren (Japan Business Federation) established its Charter of Corporate Behavior (1991)
- Keidanren established its Global Environment Charter (1991)
- Great Hanshin-Awaji Earthquake (1995)

First year of the era of volunteers

Toyota trend

Enhanced mass-production structure by building new plants in Japan

Expanded sales structure in Japan

- The cumulative total number of cars produced in Japan reached 5 million units (1969)
- The cumulative total number of cars produced in Japan reached 10 million units (1972)

Production overseas went full-scale

- Merger of Toyota Motor Co., Ltd. and Toyota Motor Sales Co., Ltd. (1982)
- Local production in North America commenced (1984)
- Lexus brand established in North America (1989)

Company-wide initiatives to tackle environmental problems

- The number of cars sold in Japan reached 2.5 million units/year (1990)
- Guiding Principles at Toyota (1992)
- Toyota Earth Charter (1992)
- Toyota Environmental Action Plan started (1993)

Year / Toyota's major social contribution activities

1960s through 1970s

- 1969 — **Toyota Traffic Safety Campaign started**; Toyota Summer School started
- 1974 — **The Toyota Foundation established**; Toyota Kuragaike Commemorative Hall opened
- 1975 — Toyota Safety School started
- 1976 — Toyopet Green Campaign started
- 1979 — Toyota Telephone Counseling for Kids opened (until 2009)

Social contribution activities began full-scale

Toyota Traffic Safety Campaign

1980s

- 1981 — **Toyota Community Concerts commenced**; **Toyota Technological Institute opened** (graduate school established in 1984, and Chicago campus in 2003)
- 1985 — **Toyota Youth Music Camp** (the current Toyota Youth Orchestra Camp) **started**
- 1986 — Toyota Music Library opened
- 1987 — Toyota Young Drivers Communication started (the current Toyota Drivers Communication)
- 1988 — Sakichi Toyoda Memorial House opened; White Road campaign in Thailand started
- 1989 — Corporate Citizenship Activity Committee established; Toyota Automobile Museum opened

Toyota Automobile Museum opened

1990s

- 1990 — Joined the One Percent Club
- 1991 — **Toyota Family Learning Program started in the U.S.**; Classic Car Festival started
- 1992 — **Forest of Toyota plan created**; Toyota Teach educational program in South Africa started
- 1993 — Toyota Volunteer Center established
- 1994 — Toyota Commemorative Museum of Industry and Technology opened
- 1995 — Basic Principles and Policies of Social Contribution Activities established
- 1996 — Toyota Lobby Concert commenced; Scientific Jack-in-the-Box! The Why/What Lecture commenced
- 1997 — Toyota Art Management Seminar commenced (until 2004); Toyota Able Art Forum commenced (until 2004); **The Forest of Toyota opened to the public**

Social contribution activities continued even after bursting of the economic bubble

Scientific Jack-in-the-Box! The Why/What Lecture

: Environment : Traffic Safety : Education : Society and Culture : Cultural and Exhibit Facilities : Other

Enriching Lives of Communities

Toyota's Social Contribution Activities

By the 1980s, Japan had undergone a period of high economic growth and people were beginning to seek richness of spirit. In order to promote regional culture through music, Toyota and its regional dealers started the Toyota Community Concerts, supporting amateur orchestras activities in various regions of Japan. These concerts have continued annually over a long period of time, along with the Toyota Youth Orchestra Camp started in 1985. (See p. 03-09)

In the 1990s when the level of interest in global environmental problems heightened, Toyota began taking various initiatives in the environmental field, such as developing the plan for the Forest of Toyota in 1992, that place importance on collaboration with local communities inside and outside Japan. Toyota has been implementing these initiatives as part of its environmental consciousness in its primary business as well as from the standpoint of being a good corporate citizen.

Additionally, in step with the globalization of Toyota's business, its overseas affiliates are proactively carrying out activities that address social issues in individual countries/regions and are rooted in local communities, focusing on the areas of the environment, traffic safety, and education, which are global priority areas for Toyota's social contribution activities. (See p. 03-11)

Note: Italics indicate global trends

Social trends (Japan)

Rise of Emerging Nations and Expanding Globalization | Further Globalization

Heightened interest level in global environmental problems

- The NPO Law (1998)··· NPO activities were expanded
- *World population exceeded 6 billion (1999)*
- *The Kyoto Protocol went into effect (2005)*
- Expo 2005 Aichi, Japan (2005)
- Nationwide operation of ETC systems commenced (2001)
- The first year of the era of CSR (2003)
- *Collapse of Lehman Brothers (2008)*
- Great East Japan Earthquake (2011)
- Japan won the right to host the Tokyo 2020 Olympic and Paralympic Games (2013)

Aging of population and declining birth rates

Younger generations moved away from cars

Toyota trend

Rapid expansion of globalization

- The Prius debuted (1997)
- The cumulative total number of cars produced in Japan exceeded 100 million units (1999)
- Local production in China commenced (2000)
- CSR Policy: Contribution toward Sustainable Development
- Lexus dealerships commenced operations in Japan (2005)
- Toyota recalls (2010)
- The cumulative total number of cars produced outside Japan exceeded 50 million units (2011)
- Toyota Global Vision announced (2011)
- Kokoro Hakobu Project (2011)
- The cumulative total number of hybrid vehicles sold exceeded 7 million units (2014)

Year

1990s | 2000s | 2010s

1997 | 1998 | 1999 | 2000 | 2001 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 | 2014 | 2015

Toyota's major social contribution activities

- Toyota Master Players orchestra concert series commenced
- Toyota Fureai Concert commenced (until 2003)
- Eco-no-Mori Seminar commenced (until 2005)
- Automobile Technical Training Course for Brazilian Residents in Japan commenced
- MEGA WEB opened
- Toyota Child Safety Communication commenced (until 2012)
- Toyota Environmental Activities Grant Program commenced
- Toyota Choreography Award established
- Desertification prevention activities commenced in China
- Toyota Children Meet Artists program commenced
- NetTAM arts website opened
- Toyota Shirakawa-Go Eco-Institute opened
- Toyota Safety Education Center "mobilitas" opened
- Principles and Policies of Social Contribution established
- Hands-on traffic safety education program started
- "Kodomobilitas," a road safety website, opened
- Toyota Study Assistance Fund started in China
- Corporate Citizenship Division established
- CSR Committee (Corporate Citizenship Activity Subcommittee) established
- Rainforest restoration activities started in the Philippines (until 2013)
- Toyota First Experience Program started
- Toyomori Project commenced and the Toyomori Institute of Sustainable Living opened
- The Table for Two program introduced
- Volunteer Activities to Support Great East Japan Earthquake Recovery started by Toyota Group companies
- Toyota Costa dos Corais (Coral Coast) Project commenced in Brazil
- AQUA SOCIAL FESI started
- **Toyota Mobility Foundation established**
- Toyota Female Engineer Development Foundation established
- Dream Class for the *MIRAI* (Future) in Toyota City started

The environment, traffic safety, and human resource development set as global priority areas

Desertification prevention activities in China

Activities That Have Been Enhanced Year after Year

Toyota carries out its social contribution activities in various areas, taking into account the social trends and issues of the times. Furthermore, many of these activities are planned and implemented through the hard work of Toyota's employees themselves and some have been going on for more than 30 years. The people involved continue to go through the process of *kaizen* year after year while listening to the voices of partners and customers, to respond to the changing expectations of society.

Examples of Activities

46 Years [Traffic Safety] Toyota Traffic Safety Campaign

Since 1969, Toyota has conducted its Traffic Safety Campaign every spring and autumn, cooperating with its dealers nationwide and acting in concert with Japan's National Traffic Safety Campaigns. This Campaign has continued for more than 40 years and includes such activities as presenting traffic safety education materials in the form of picture books and picture-story sets to kindergartens and nursery schools, and carrying out education activities to improve traffic safety awareness on a broad scale through events held in various regions.

Proposal by a grant applicant

Yakushima "Sato Eco" Project

Toyota safety mascot Kukku

Traffic safety picture books and picture-story sets

41 Years [Other] The Toyota Foundation

The Toyota Foundation was established in 1974 to provide grants for research and programs that address issues in various fields according to the specific needs of the times from a global perspective. A distinguishing characteristic of the Toyota Foundation is the fact it provides grants to a broad range of applicants, i.e., not only universities and research institutions, but also to individuals, non-profit organizations, and corporations. The Foundation currently conducts various support programs, focusing on aging populations, cultural diversification, and renewable energy.

24 Years [Education] Toyota Family Learning Program

Toyota Motor North America has been providing support to promote literacy programs all over the United States in partnership with the National Center for Families Learning (NCFL). Through this support, the Toyota Family Learning Program was launched to help Hispanic families and other immigrant families learn to read and write. Through its activities, NCFL provides parents and children opportunities to improve educationally and economically.

Environmental education program spotlighting flying squirrels

Dedicated interpreters guiding the visitors around the forest

Parent and child learning together to improve literacy

18 Years [Environment] Forest of Toyota

Toyota conducted forestry activities that introduced more sunlight and wind into the forest in order to restore natural environment with rich biodiversity, and made the Forest of Toyota open to the public in 1997. Toyota has rejuvenated the forest on the model of *Satoyama*, which means a forest in the interface between cities and nature that has been utilized by people, and is using it as a field for environmental education and more. The Forest of Toyota will continue to be maintained as a regional base that allows many people to touch nature close at hand.

Note: The number of years indicated is as of the end of FY2014

34 Years

[Society and Culture]

Support of Amateur Orchestras

(Toyota Community Concerts, Toyota Youth Orchestra Camp, Toyota Music Library)

In the 1980s, when the type of richness people sought started to shift from materialistic to spiritual, people began to desire the realization of a society offering richness of spirit through culture, arts, etc. Although words such as CSR and mécénat had not yet been heard back then, Toyota and its dealers all over Japan were looking for grassroots activities that would allow them to return something to local communities. That was when the Federation of Japan Amateur Orchestras Corp., which unifies amateur orchestras nationwide, came into the picture. Toyota and its dealers agreed with the Federation's proposed framework in which regional dealers would support the orchestras in their own towns and the objective of promoting regional culture through music that can touch people. The first Toyota Community Concert was held in Ibaraki Prefecture in August 1981.

Toyota Community Concerts
First concert: Ibaraki Symphony Orchestra (August 1981)

Four years later in 1985, the Toyota Youth Orchestra Camp was started to provide a platform for youths who wanted to spend more time, practice, and converse with other youths having the same ambition nationwide. The Camp is conducted each year, allowing young amateur orchestra members from Japan and overseas to gather together and fine-tune their music under the tutelage of leading professional musicians. A feature of the camp is that the participants bring the experiences they gain back to their home communities and make use of them in their local orchestra activities. The camp activities are managed under the motto "operations through our own efforts" and the passionate spirit of the young people who participated in the start-up phase is being passed down to new participants each year. Then, in 1986, the Toyota Music Library was opened, which rents out sheet music essential to orchestra activities.

These three activities have taken place for more than 30 years, supporting the activities of amateur orchestras. The membership of the Federation of Japan Amateur Orchestras Corp. has grown from 23 in the beginning to 140 orchestras currently. These orchestras visit and hold concerts at social service facilities, hospitals, and remote islands, which is difficult for professional orchestras to do, and their musicians have grown to become indispensable future leaders of local culture. People who were in their teens when the Orchestra Camp was established are now in their 40's, some of whom are now active as core members of regional orchestras or professional musicians. A virtuous circle has been created in which people who were previously students on the camp are now teaching there.

The 30th Toyota Youth Orchestra Camp
Special performance by Japan Youth Symphony Orchestra (March 2014 at Suntory Hall)

Mr. Atsushi Shirai (NHK Symphony Orchestra), serving as a violin instructor at the Toyota Youth Orchestra Camp, is a graduate of the Fourth Toyota Youth Orchestra Camp

Immediately following the Great East Japan Earthquake in 2011, many amateur orchestra members from all over Japan quickly responded to Toyota's call and rushed to the disaster-struck regions with their musical instruments to cheer up the people. In this way, the seeds that were sown in the 1980s have sprouted all over Japan, growing year after year to form thick trunks, becoming solidly rooted in communities, and continuing activities with Toyota to enrich lives of communities.

For further details on amateur orchestra support, also see Social Contribution Activities (pp. 12-20–12-21)

Messages from Partners

Toyota Maintaining Support Regardless of Its Business Conditions

Compared to Europe, Japan has a lot fewer professional orchestras and only a handful of people can get jobs as professional musicians. As a result, there are an extremely large number of so-called semi-professional musicians and nearly 2,000 orchestras nationwide in which these musicians find their purpose in life.

Toyota has long been a steadfast supporter of activities related to Japan's musical culture. I don't know of any other company that has supported the musical culture nationwide for this long. My impression of Toyota is that it is a company that is compassionate. It is a company that values bonds that can only be built through long-term support. I am really impressed with the Toyota sensibility that inspires it to provide unwavering support no matter how bad its business conditions are.

Mr. Shigeaki Saegusa
Music Director, Toyota Community Concerts
Composer and visiting professor at Tokyo College of Music

Toyota's Support Helping Raise Quality of Music and Linking It to Community Culture

Be it a conductor or musician, performing together with first-class musicians instantly raises the ability of an amateur orchestra. When the performance is finished, the ability regrettably falls, but not back to its previous level. The difference between the rise and fall of ability is the proof of growth, and repeating this process continues to increase the growth part little by little. Toyota has been steadfastly supporting the important part of this growth process itself, and its support has definitely led to quality improvement in amateur orchestras all over Japan. Holding concerts in communities which are difficult for professional orchestras is also the role of us amateurs, and Toyota's support in this area has definitely helped spread this concept to local communities.

Mr. Junji Ashiki
Chairman of the Federation of Japan Amateur Orchestras Corp.

Major Initiatives in Countries and Regions throughout the World

Along with its global business expansion, Toyota has been broadening its social contribution activities overseas, and its local affiliates are actively engaged in activities that address the societal needs of their local communities. Some of these activities are described below.

Environment
United Kingdom
Cooperation with the Royal Botanic Gardens, Kew

Education
China
Toyota Study Assistance Fund

Environment
South Korea
Toyota Weekend Farmers

Education
United States
Toyota Family Learning Program

Society and Culture
United States
Kaizen activities based on the Toyota Production System

Traffic Safety
Turkey
Activities to raise traffic safety awareness among children

Europe

Asia

Society and Culture
Philippines
Regular medical service in impoverished areas

North America

Traffic Safety
United States
TeenDrive365

Africa

South America

Education
South Africa
Toyota Teach

Traffic Safety
Thailand
White Road campaign

Society and Culture
Vietnam
Toyota Concert Tour Vietnam

Traffic Safety
Australia
Support of traffic safety activities by the Toyota Community Foundation

Environment
Brazil
Toyota Costa dos Corais (Coral Coast) Project

Contribution toward a New Mobile Society

Toyota Mobility Foundation

The Toyota Mobility Foundation was established in August 2014 to provide support to non-profit organizations globally, research institutions, and other organizations that engage in activities aimed at developing a better mobile society. Based on Toyota's founding principle of contributing to society through automobile manufacturing, the Foundation supports businesses and activities that link Always Better Cars that exceed customer expectation to Enriching Lives of Communities. To bring a smile to people now as well as in the future, Toyota utilizes knowledge and innovative methods developed through automobile manufacturing to tackle the issues in the world's mobility fields while collaborating with and sharing its beliefs with people in many organizations such as universities, governments, non-profit organizations, and research institutions.

TOYOTA Mobility Foundation

For details on the Project to eliminate traffic congestion in Bangkok, Thailand, a grant program, see Environment (p. 11-19)
For details on the Toyota Mobility Foundation, also see Social Contribution (p. 12-29)

Stable Base of Business

Monozukuri (Manufacturing) Is about Developing People

Carrying on the Founding Philosophy of "*Monozukuri* Is about Developing People"

As can be seen from the founding philosophy of "*Monozukuri* Is about Developing People," a culture of developing people has been handed down within Toyota until today. Developing people means passing on Toyota's values and communicating the Toyota way of thinking. By striving to achieve people-centric manufacturing and utilizing people's wisdom to make improvements day after day, we will be able to flexibly respond to the changes of the times. Toyota is building a framework that will reliably and continuously develop human resources capable of carrying on its business activities on a global scale. This framework includes, for example, Quality Control (QC) circle activities designed to increase the vitality of people and workplaces, and Driving Project in Australia, which is a new initiative for developing people toward sustainable growth. Toyota's corporate philosophy is to respect individual diversity and value the teamwork resulting from the amalgamation of the capabilities of these individuals. Toyota is committed to continue making Always Better Cars based on the foundation of sharing global values and benefiting society through these cars, which in turn should lead to a stable base of business. Our longest-lasting human resource development initiatives, which are at the core of our company, are described below.

QC Circle Activities Designed to Increase the Vitality of People and Workplaces

QC circles are formed primarily by employees in shop floor jobs, who actively engage in activities to identify and solve on-the-job problems at hand. Toyota marked the 50th anniversary of its QC circles in 2014. When participating in circle activities, members strive to work together to make improvements, unhampered by workplace reporting structures and with the determination to better the workplace together. Teamwork and a sense of mutual trust are created as a result, leading to a cheerful and fulfilling workplace.

In addition, while the personal growth and communication with other members achieved through the circles materialize in visible ways, recognizing each other's strengths creates motivation and also leads to respect for people. Furthermore, the teaching and learning that occur between all members, from veterans to beginners, help improve individual abilities. This is the improvement in the vitality of people and organizations that QC circle activities aim for.

As of March 2015, approximately 4,100 circles involving approximately 36,000 members were active in Japan, and approximately 13,000 circles involving approximately 99,000 members were active overseas.

QC Circle Activities

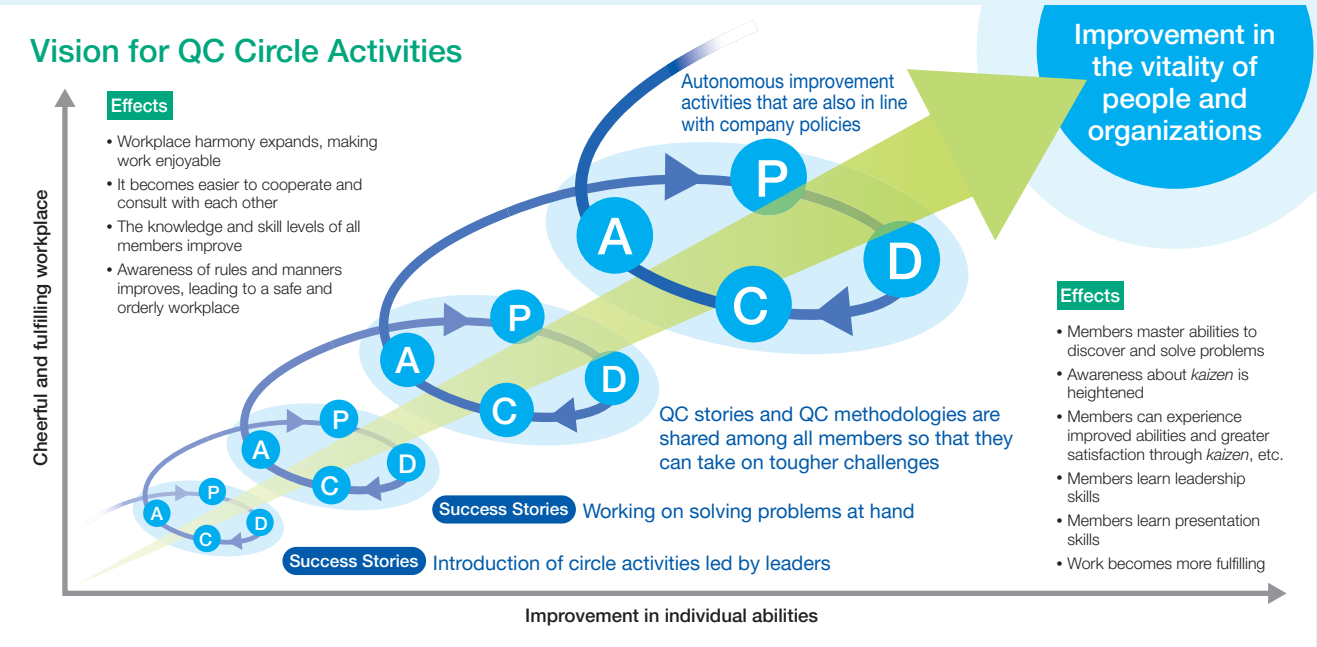
Activities in which members of a place brainstorm innovative solutions that are safe, easy (enjoyable), correct, and quick for workplace problems at hand

Environment and culture of teaching and learning → Individual abilities improve and members begin to proactively tackle their work

Developing self-driven people → As a result, members acquire abilities to respond to problems flexibly, leading to improved work quality

Teamwork and a sense of trust to be created through making improvements together → As a large number of such circles develop, they create a strong workplace structure, leading to higher quality and productivity and helping the company advance

Vision for QC Circle Activities



Progress of QC Circle Activities Which Have Been Supporting Toyota's Growth

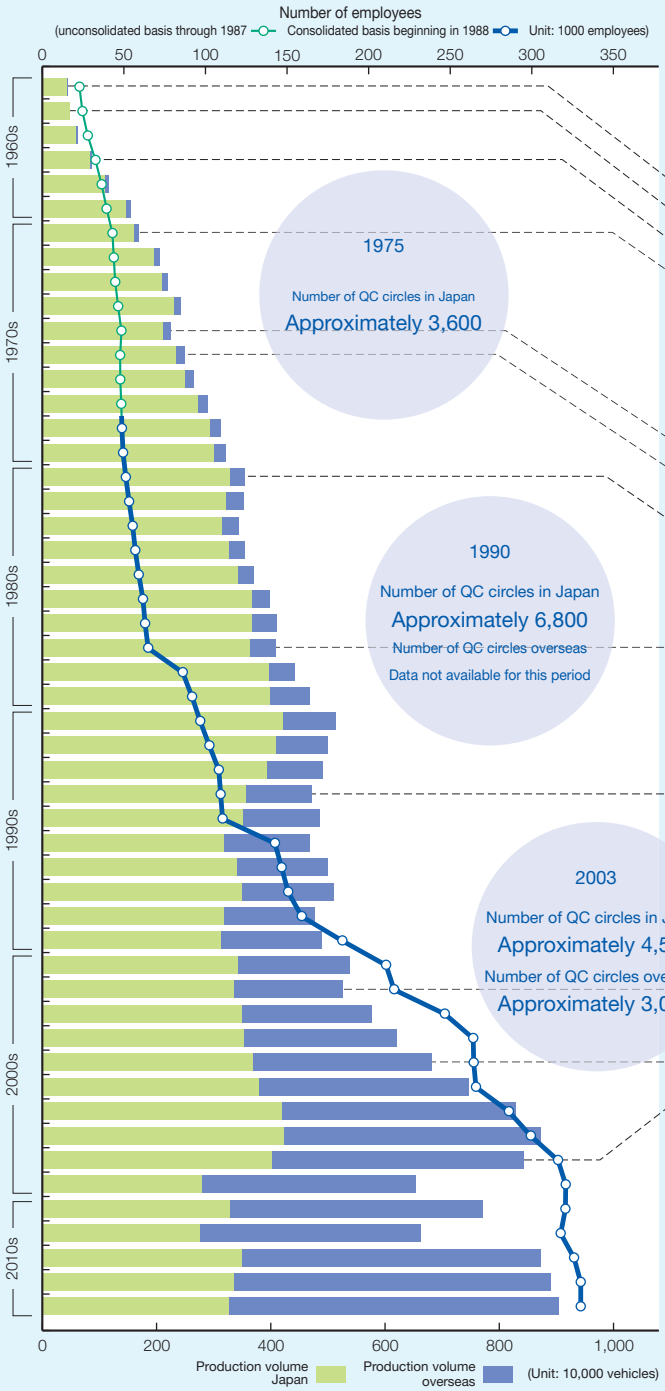
At Toyota, QC circle activities began in 1964 when circles were formed on a section-by-section basis, headed by a supervisor, foreman, or group leader. Subsequently, participation of frontline members invigorated the activities, and in 1975, activity areas were expanded to address not only quality improvement but also issues such as the safety, cost, and maintenance of individual workplaces.

By early 1990, some 30 years after their start, QC circle activities began to show many problems, coinciding with the harsh economic environment including the bursting of the economic bubble. These problems included low activity levels due to lack of guidance and support from managers and supervisors, and loss of relevance of previous circle activities due to changes in individual values.

Therefore, to achieve the original goal of QC circles, Toyota began to implement "new QC circle activities" with a focus on nurturing engaging activities with the participation of all employees, enhanced guidance and support from managers and supervisors, and provision of environments conducive to QC circle activities.

By 2000, as globalization of Toyota's business progressed, expansion of QC circle activities to overseas affiliates was accelerated as a means of implementing the Toyota Way: "Continuous Improvement" and "Respect for People." Toyota's QC circle activities, under the three themes "Return to our roots," "*Genchi genbutsu*" ("on-site hands-on experience") and "Global," are now being promoted at approximately 50 affiliates in 25 countries (affiliates that have participated in the Toyota Global Convention).

Trends in the Number of Employees and Production Volume, and Progress of QC Circle Activities (Major Events)



Introduction Phase (1962–1973)

QC circle activities were initiated to promote problem resolution that utilizes QC methodology

- 1962 QC meetings started
- 1964 QC circle activities started
- 1965 Toyota awarded the Deming Prize
- 1967 Activities conducted to completely eliminate defects
- 1970 Toyota awarded the Japan Quality Control Prize

Theme Expansion Phase (1974–1992)

The activity area was expanded from quality to include safety, cost, etc. to tackle workplace problems at hand

- 1974 QC Circle Activity Promotion Committee established
- 1975 Activity areas expanded (quality, maintenance, cost, and safety)
- 1980 QC Circle Toyota Prize established
- 1987 First QC Circle Networking Meeting by Overseas Production Affiliates held

Activity Environment Transformation Phase (1993–1999)

The original goals of the activities, i.e., improving individual abilities, creating cheerful workplaces, and improving workplace structure were re-clarified in order to develop engaging activities

- 1993 Expansion of New QC circle activities started

Global Implementation Phase (2000–)

To respond to the rapid expansion of overseas production, QC circle activities were globally implemented with the goal of participation by all employees

- 2001 Toyota Group QC Circle Subcommittee established
- 2004 G-QC circle activities started
- 2008 G-QC circle activities guidelines established

2014

Number of QC circles in Japan
Approximately **4,100**

Number of QC circles overseas
Approximately **13,000**

Global Implementation of QC Circle Activities

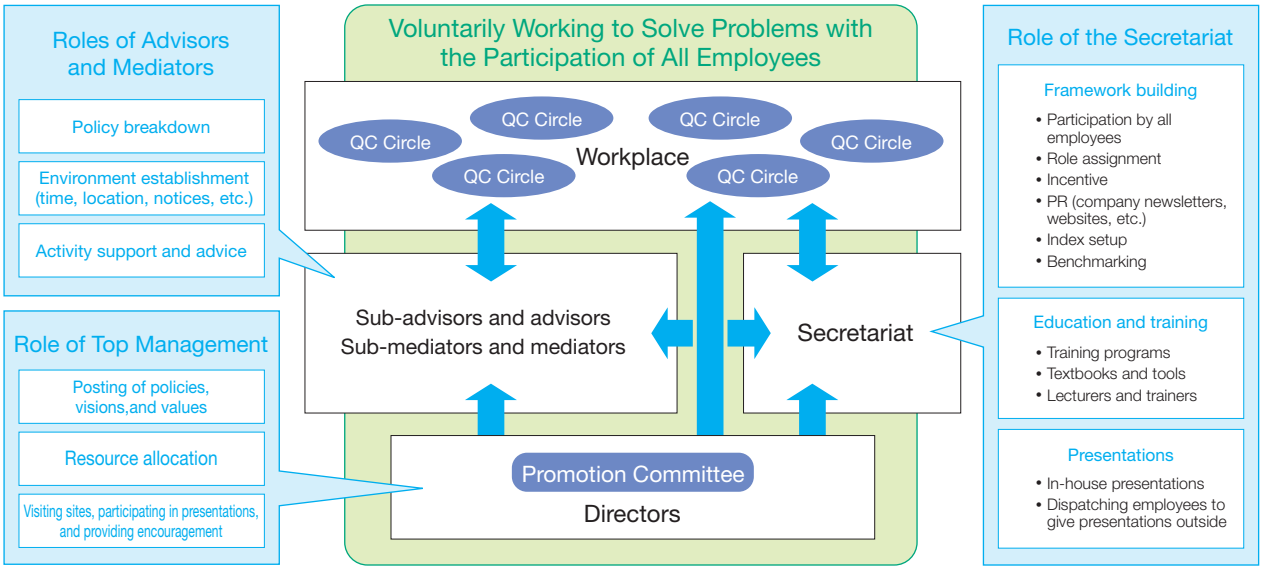
Many of Toyota's overseas affiliates began to introduce QC circle activities early on. Among them, the initiative taken at Toyota South Africa was the first case Toyota supported based on the Toyota Way 2001, which forms the basis of Toyota's philosophy and was communicated to all Toyota employees in 2001, including those of overseas affiliates. Toyota used the South African initiative as a model success story and accelerated its implementation at other affiliates.

The Head Office of TMC has been working to improve the level of understanding by the top management of individual affiliates, establish promotional and training structures, and build a framework to enable the Head Office of TMC to collaborate with Toyota regional headquarters as well as individual affiliates. TMC is currently implementing QC circle activities in the five overseas regions in cooperation with the regional headquarters.

Implementation Structure for QC Circle Activities

A QC circle usually consists of five to ten employees at an individual workplace. After considering the workplace problems at hand, members together select those issues that can be solved through the efforts of all the members and can help the members grow through these efforts. The general guideline is to first select issues that can be completed in 3 to 6 months and once the circle gains real experience, it takes on more challenging issues.

QC Circle Activity Implementation Structure



Focus QC Circle Activity Examples

(1) Section: Performance Evaluation and Engineering Div.
Circle Name: Shift
***Kaizen* Example: Eliminated difficulties in brake pad replacement work**

Circle members quantified the operational difficulties involved in brake pad replacement work, particularly in winter, using its own indexes, such as the difficulty of visual inspection and working efficiency with gloved hands. It then identified the most difficult tasks. In order to eliminate those work difficulties that could also lead to an accident, the circle members thoroughly studied the structure and principle of brakes, improving the work by completing a jig that incorporated a simple and creative mechanism.

(2) Section: Foundry Engineering Div.
Circle Name: Shinsengumi
***Kaizen* Example: Shortened the time required for changing die shapes from five days to one day**

In order to shorten the die manufacturing throughput, which had been an issue, the circle members worked on directly changing the shape of the shell core (the mold that corresponds to the hollow hole in casting) without changing the die. Although the members had never done such a task before, they identified the key points to address, which helped them shorten the time required for changing die shapes from five days to one day.

Practitioners of QC Circle Activities That Increase the Vitality of People and Workplaces through Participation by All Employees

Theme Leader: Kinuura Plant Transmission Manufacturing Div. 2
Asuka Sunouchi (center)

As we worked on solving the various problems in our workplace, circle activities that transcended role, age, and gender helped me learn the approach, knowledge, and reasoned conduct required of a circle leader.

Promo Secretariat (North American region): Toyota Motor Engineering & Manufacturing North America (TEMA) North American Production Support Center
Bob Jackson

I feel honored to have become the first regional master trainer* globally. I plan to continue promoting QC circle activities in North America to improve workplace teamwork and work satisfaction levels, as well as each individual's leadership and problem-solving abilities. For this purpose, we are providing manager trainings and affiliate trainer trainings.

*The roles of a regional master trainer include developing trainers at the individual affiliates in the North American region and holding manager trainings

Advisor: Shimoyama Plant Engine Manufacturing Div. 1
Masanori Izumi (center)

I try to offer consultation on problems and give advice according to circle level so that circle members can feel the joy of changing their workplaces through their activities. If I am too far removed from the circles, my advice will end up being taken as orders. I make it a point to communicate with the members daily.

Convention Held to Mark the 50th Year of Toyota QC Circle Activities

In October 2014, marking the 50th year of Toyota QC circle activities, the 25th Toyota Global QC Circle Convention was held, along with the 22nd Implementation Example Presentation, a commemorative ceremony, a commemorative lecture, and an exhibit of historical materials from past QC circle activities. Approximately 1,200 people from a total of 25 countries participated in the convention.

The display in the exhibit included materials used during the inauguration of QC circle activities, materials from seminars and presentations that were continuously carried out in various workplaces, and materials demonstrating the global expansion of QC circle activities. The exhibit succeeded in conveying the history of QC circle activities, their current status, and the sentiment of the many people involved. One participant commented, "The messages from our predecessors who practiced '*Monozukuri* Is about Developing People' taught me what it is that we should all continue to treasure."

Convention to mark the 50th year of Toyota QC circle activities

Roads Train the People who Make Toyota Cars—*Genchi genbutsu* Driving Project in Australia

Training People Who Will Make Toyota a Company Whose Car-loving Employees Create Cars and Help it Achieve Sustainable Growth

Toyota aims to be a company that grows sustainably, just as a tree steadily gains one growth ring per year. For that, it needs to make Always Better Cars and to develop the people who make Always Better Cars. In 2014, Toyota started its Driving Project in Australia as a new initiative to train the people for achieving such sustainable growth. The purpose of this project is to hone both cars and people's skills by having a total of 41 Toyota employees (not counting employees from Toyota's local subsidiary) who are in the engineering division in charge of vehicle development (in the field of testing) experience the extremely harsh driving in Australia, which has all types of road conditions found all over the world. Roads train the people who make Toyota cars.

Learning from the roads is one of the basics requirements for car making. This project was realized based on the idea of developing human resources, on a *genchi genbutsu* basis, which will enable us to continue discovering what is needed to make Always Better Cars by returning to this basic requirement and practicing it. The members got to know their cars and honed their car-making intuition through tough and stoic driving experiences which they then utilized to improve their individual abilities. Sharing the experiences gained from the project with more than 300,000 Toyota employees worldwide will deepen their interest in and passion for automobiles, which will be utilized in the next step for making Always Better Cars.

The concepts of challenge and *genchi genbutsu* are described in the Toyota Way 2001, which defines the values and methods all Toyota employees worldwide should adopt. Preparations are already underway for a new goal for this project, which offers the chance to sit behind the steering wheel and experience *genchi genbutsu*.

* For further information on the Toyota Way 2001, please visit the following webpage

WEB http://www.toyota-global.com/company/history_of_toyota/75years/data/conditions/philosophy/toyotaway2001.html

Driving across Australia in 72 Days, Where About 80% of Road Conditions Found around the World are Present

In 1957, the Toyota Crown entered and completed the Round Australia Rally for the first time. As Australia is considered the starting point for Toyota motorsports, it was selected as the first location that is a very appropriate place to start the project.

Digest

Team 1 9/3–9/20

On September 3, 2014, Team 1 left Melbourne, a city in the southeastern part of Australia, heading west. The team drove over a sand dune and the world's longest straight road, which extends for 146.6 km. Although the roads were straight, subtle changes caused the vehicle to shake, making it impossible to drive straight if the driver merely held the steering wheel lightly. Through this experience, the team members felt firsthand the importance of the ideal basic performance requirement for straight-driving stability. Additionally, passing another car at a constant speed of 110 km/h while remaining conscious of oncoming cars being driven at the same speed clearly demonstrated the need for a level of fast acceleration not needed in Japan.

Team 2 9/21–10/19

Team 2, which took over the project in Perth, a city in the southwestern part, had a 4-week trip schedule, the longest among the three teams. It drove through Darwin in the northern part and reached Alice Springs located roughly in the center of the continent. After driving on dirt roads, an enormous amount of fine sand dust unique to the region stuck to the air filter. The team had to face the reality that a filter capable of blocking fine particles had to be developed and the filter structure was improved in order to save users from trouble and reduce maintenance costs. When the team reached a no-speed-limit zone after crossing a 60-cm deep river inhabited by crocodiles, the drivers strove to push the car to the extreme in order to test its limits in this harsh environment.

Driving location	Australia
Schedule	2014 9/3–11/13 **72** days
Distance	Approximately **20,000** km
Members	The three teams were formed from **41** employees consisting primarily of test drivers in TMC's Vehicle Evaluation & Engineering Field.
Vehicles	A total of **13** vehicles Land Cruiser 70/200/Prado Hilux, 86, Camry, Corolla, and Prius

Team 3 10/20–11/13

On October 20, Team 3 responsible for driving the remaining distance in the project left the center of the continent, navigating along the eastern coast toward Melbourne, the starting point and goal of the project. Along the way, the team experienced a wide variety of dirt roads, including roads with white, hard surfaces; red, soft surfaces; and loose gravel, as well as roads whose surface conditions varied from state to state. The team members felt that, for a car to be loved by customers, it must have a good balance between performance and functions that thoughtfully addresses the whole gamut of road surfaces and environments. After experiencing horrible traffic congestion in Brisbane and Sydney, major cities on the east coast, the approximately 20,000-km project driven by the three teams safely reached the goal on November 13. The team members were able to reaffirm their pride in and responsibility for making cars.

Reflections on the Driving Project in Australia

Through the Driving Project in Australia, each member learned many lessons and experienced a lot. We tested our understanding that was based on conventional evaluation standards and knowledge on a genchi-genbutsu basis and returned to the starting point of learning from the roads themselves. Many members noticed anew that there were areas relevant to the development of cars that could not be addressed based on what is learned on a test course alone, such as customers' feelings and hardships. The members' driving experiences gained from the project have been shared with more than 300,000 Toyota employees worldwide and are being utilized in Toyota's next actions.

"We personally experienced what had only been head knowledge, considered it more deeply and understood it more pragmatically.
We will become engineers and technicians able to consider issues thoroughly and set our minds to them."

Project leader **Osamu Sadakata**
Executive General Manager,
Vehicle Evaluation & Engineering Field

TEAM 1

Team 1 Leader
Ryoichi Saiki
Product Evaluation & Engineering Div. (at that time)

Many times, we experienced road surfaces with severe undulation, bumpiness, or cant; gusty side winds; passing an oncoming "road train" at a relative speed of 200 km/h which causes tremendous wind pressure changes, and passing oncoming cars while dropping the wheels on one side of the vehicle to the shoulder. We keenly realized that straight-driving stability, i.e., the car's ability to be driven in a straight line while maintaining a constant speed even under such environments, is a basic performance requirement of a car, and the basis for safety and peace of mind. Furthermore, driving the world's longest straight road, which extends for 146 km, brought the team members realizations that cannot be learned on a test course: such as the difficulty of driving straight for an extended period and the importance of reducing road noise, which can lead to stress on a long-distance drive.

TEAM 2

Team 2 Leader
Seigo Matsubara
Product Evaluation & Engineering Div. (at that time)

I experienced a sense of violent, wave-like vibrations from unpaved road surfaces called "corrugation" that continued for hundreds of kilometers. It was as though both the driver and the cars were being put through an endurance test. The lesson I learned: "If you run into trouble out where the temperature exceeds 40°C, it can be potentially life-threatening. We can't betray the people who depend on our cars as their lifeline."

I used to think that people only cross rivers in cars under special circumstances. However, I learned that some people do this routinely as part of their daily life or leisure, and strongly realized that cars must be reliable enough not to stall.

TEAM 3

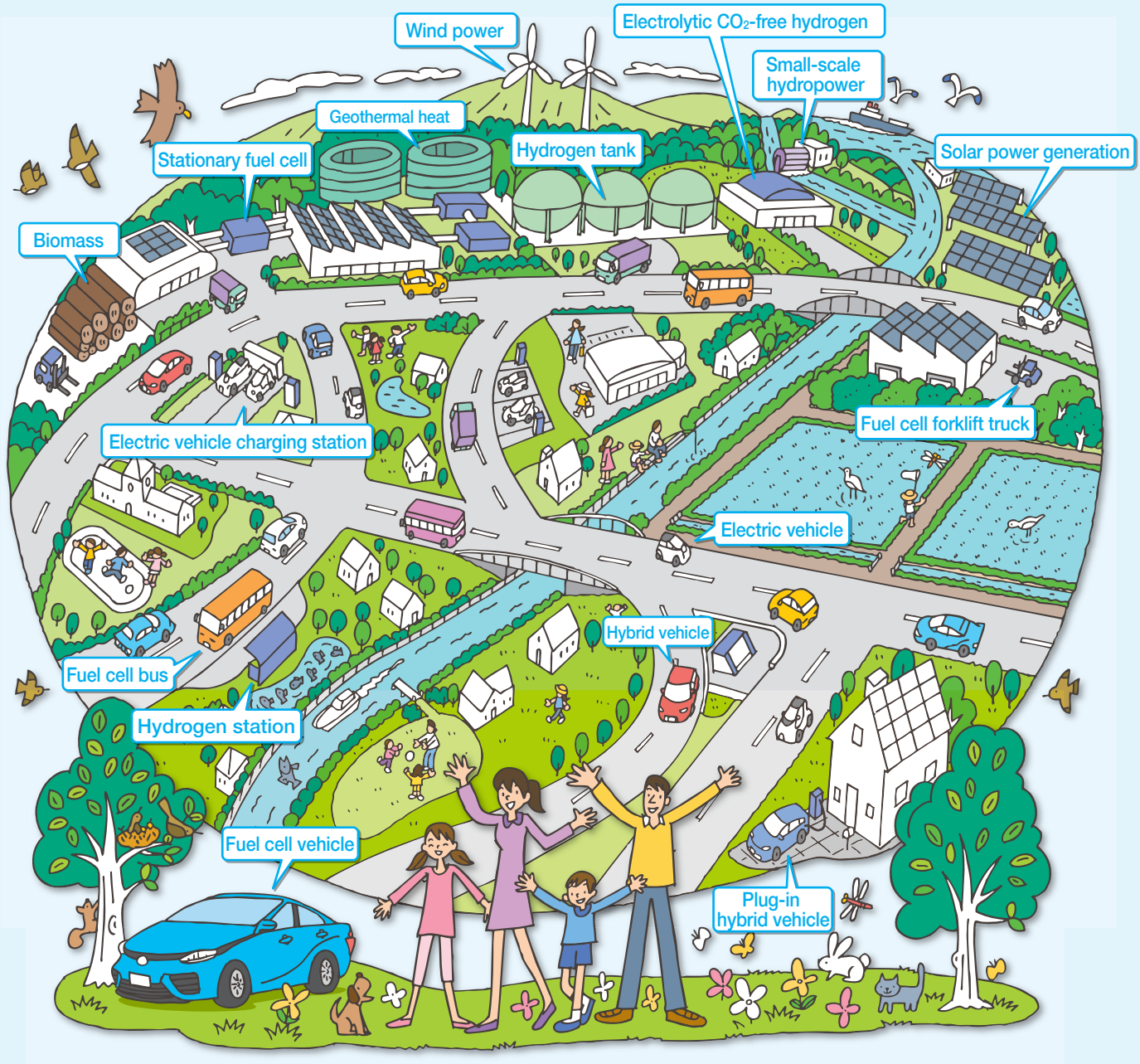
Team 3 Leader
Kenichi Kakutani
Product Evaluation & Engineering Div.

One of the two cars had a flat tire because of large jagged rocks, and changing the tire under the blazing sun was a tough job. I felt that more durable tires and a repair kit that would enable faster tire changes were needed. Seeing the large number of poor animals killed by cars in Australia where nature abounds made me seriously think anew about the need for coexistence between animals and cars. Also, since maneuvering the car to avoid the carcasses of these animals can also lead to an accident if the driver makes the slightest mistake, I recognized again the need for controlling the vehicle as tightly as within the width of a tire.

Voices of the Local Employees Who Participated in the Project (Toyota Motor Corporation Australia and Toyota Technical Center Australia)

- I used to think I understood the importance of *genchi genbutsu*, but I realized my understanding of driving applied only to limited areas and a limited number of people. Real-life experiences acquired by living customer's lives and the *genchi genbutsu* events we encountered in various places made me realize anew the gravity of our responsibility as a carmaker. I will never forget these invaluable experiences and hope to put them to use in developing the next Toyota car.
- Driving over sand is part of the daily routine for some in Australia. When I led the project members to an area where we drove over a famous Australian sand dune, I understood the importance of the performance, durability, and safety of cars, which are necessary to protect our lives and take us to our destinations safely. I also realized that we must continue to maintain the trust that customers living in Australia have in Toyota.

Challenge for Establishing a Future Society in Harmony with Nature



Toyota Environmental Challenge 2050

Challenge to Zero & Beyond

Aiming to Establish a Future Society in Harmony with Nature

Since its foundation, in 1937, Toyota has been consistently committed to the idea of contributing to society by manufacturing automobiles, and leading innovation through technology and creativity. This spirit of challenge that stands up to change has been handed down to us today through the company's DNA. Looking forward too, we would like to continuously contribute to society through our business activities and to carry on being a company that customers choose and that brings a smile to every customer.

We have considered the ideal form of a new mobility society and tackled serious environmental issues head-on, while positioning our contribution to the development of a sustainable society as a key challenge for management. The development of the world's first mass-produced hybrid vehicle, the Prius, and the fuel cell vehicle MIRAI, reflect this spirit of unprecedented challenge. We were able to overcome numerous difficulties and launch these cars due to the strong support we have received from many people.

Despite these energetic initiatives, the global environment remains in a critical situation. Extreme weather conditions attributed to climatic changes driven by greenhouse gases threaten our livelihood. Meanwhile, the seriousness of environmental issues is increasing over a wide area, with population growth, accompanied by water shortages and resource depletion, and degradation of biodiversity due to the fragmentation of ecosystems.

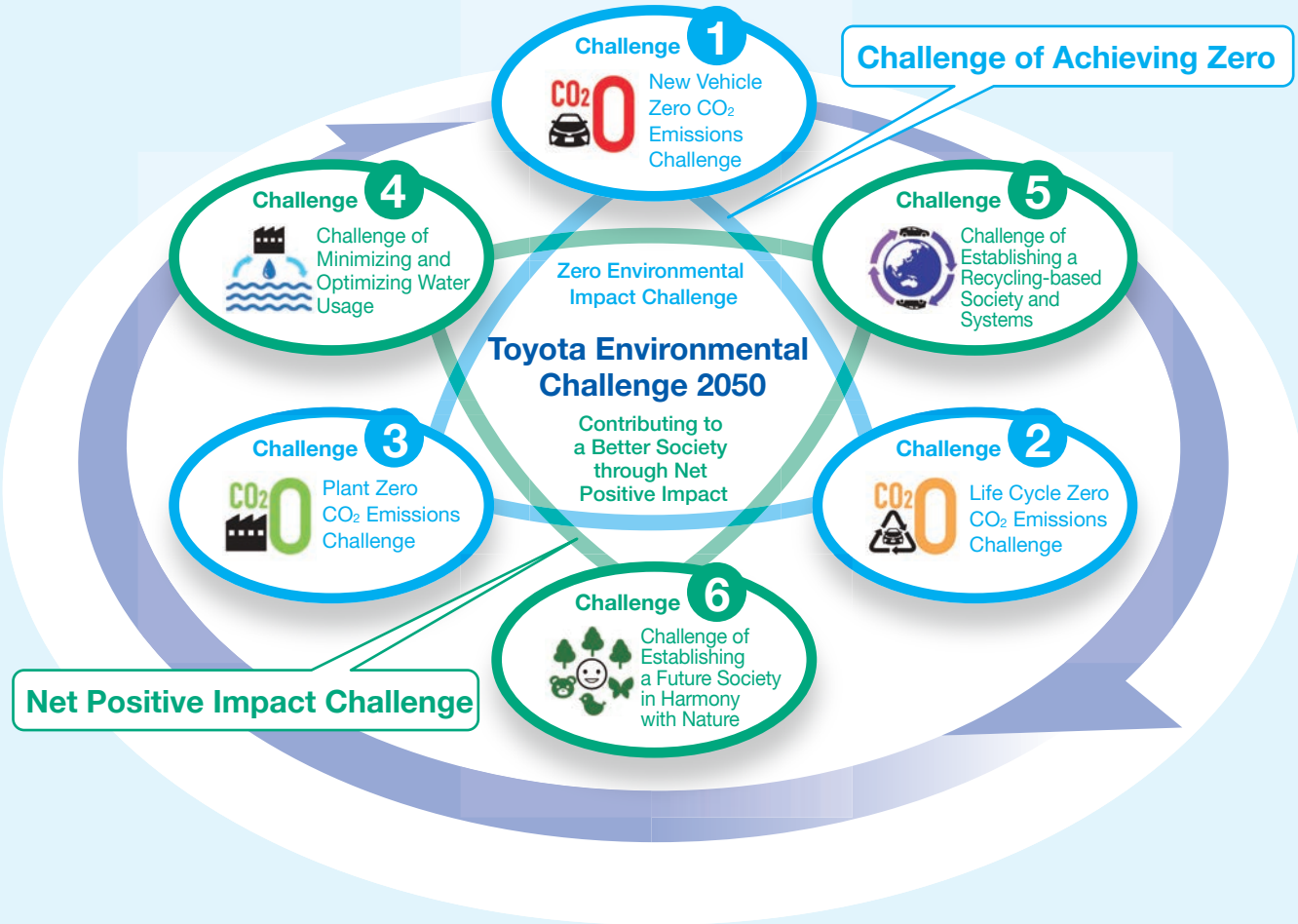
In response to the situation, we need to take on new challenges that consider the world 20 or 30 years in the future, in order to remain closely aligned with the global environment. This means not merely trying to reduce negative factors associated with automobiles as close to zero as possible, but at the same time, looking beyond zero, challenging ourselves in all-Toyota initiatives toward a net positive impact.

It also means a further strengthening of these initiatives in collaboration with all stakeholders who share our aspirations. We will consolidate new ideas, dynamism and technology to tackle together the realization of a truly sustainable society.

We have started to take on this new challenge aimed at a society where people, automobiles and nature coexist in harmony, providing a bright future for our children, with clear skies.

Six Challenges of Toyota

To move toward a net positive impact rather than just trying to reduce negative factors to zero, Toyota has set itself six challenges. All these challenges, whether in climate change or resource and water recycling, are beset with difficulties, however we are committed to continuing toward the year 2050 with steady initiatives in order to realize sustainable development together with society.



Challenge 1

New Vehicle Zero CO_2 Emissions Challenge

As if to demonstrate the fact of global warming, extreme weather patterns worldwide have been provoking successive disasters. If current conditions continue and increased measures are not taken to reduce greenhouse gases, it is estimated that by 2100 the world's average temperature will have risen by 3.7–4.8℃. It is further estimated that, to hold the temperature rise since before the Industrial Revolution to "below 2℃," we will not only have to reduce additional CO_2 emissions to zero, but will need to achieve an actual positive trend through absorption.* While the world is trying to move toward "below 2℃" scenario, Toyota has, under the "New Vehicle Zero CO_2 Challenge," decided to challenge itself to reduce vehicle CO_2 emissions by 90 percent in comparison with 2010 levels, by 2050. To realize this, in addition to mileage improvement of engine-driven vehicles, Toyota will promote the development of next-generation vehicles with low or zero CO_2 emissions—hybrid, plug-in hybrid, electric, and fuel cell vehicles and further accelerate the spread of these vehicles. When these eco-friendly vehicles come into widespread use, they can start making a contribution to society. Toyota will also cooperate with relevant stakeholders to provide possible support as an automobile manufacturer toward the provision of the infrastructure for widespread adoption of electric and fuel cell vehicles.

* 5th Assessment Report of IPCC Working Group III (2014)

Challenge 2

Life Cycle Zero CO_2 Emissions Challenge

By Lifecycle Zero CO_2 Emissions Challenge, we mean efforts to reduce to zero not simply the CO_2 emissions produced in traveling and manufacturing, but all CO_2 emissions including in the processes of materials production, and disposal and recycling of vehicles. For instance, there are some next-generation vehicles that do achieve reduced CO_2 emissions when driven, but actually cause increased CO_2 emissions at the material and vehicle production stages. Because of this, we will further promote environmentally friendly design such as by choosing appropriate materials. In this way, we are going to pursue "Always Better Cars." For example, we will develop and expand the use of materials with lower CO_2 emissions during production and will reduce the quantity of materials and number of parts used in a vehicle. We will also adopt more recycling and biological materials for vehicle production and enhance the initiative aimed at easy to dismantle design.

Challenge 3

Plant Zero CO_2 Emissions Challenge

Not only do vehicles emit CO_2 while traveling; CO_2 is also generated during their manufacture process. Reducing CO2 to restrain climate change is therefore also a challenge for the plants that manufacture automobiles. The two main pillars of our strategy to achieve zero CO_2 emissions at our plants are improvement of manufacturing technology and switching to different forms of energy. Taking first the manufacturing technology, we will carry out simplification and rationalization of the manufacturing process to shorten it and reduce the time, thus cutting CO_2 emissions. Improved efficiency in energy use can also reduce CO_2 emissions. We will further reduce CO_2 emissions in all process types, for instance by introducing mechanisms that do not use energy. Regarding the energy sources used, we will cut CO_2 emissions by adopting renewable energy sources such as solar and wind power, and by utilizing hydrogen energy.

Challenge 4

Challenge of Minimizing and Optimizing Water Usage

According to forecasts, the world's population will climb to 9.1 billion by 2050, demand for water will increase by 55 percent from current levels, and as a result, the percentage of the total population suffering water shortages will reach 40 percent. In automobile manufacturing, water is used in painting, forging and other processes. Therefore, even a small reduction of its impact on the water environment is important. Our two measures to achieve this are comprehensive reduction of the amount of water used and comprehensive water purification and returning it to the earth. So far, Toyota has implemented rainwater collection to reduce the amount of water used by production plants, filtering to increase the water recycling rate, and re-use of wastewater through recycling. The local water environment differs greatly depending on region. Going forward, we intend to roll out a range of measures globally to deal with the water environment in a way that is sensitive to local needs.

Challenge 5

Challenge of Establishing a Recycling-based Society and Systems

With the worldwide increase in population and the pressure for economic growth and convenient lifestyles, the consumption of resources is accelerating. If present trends continue, large-scale exploitation of natural resources will result in depletion, and appropriate disposal will be unable to keep pace with the increasing amounts of waste generated by mass consumption, resulting in environmental pollution. To improve resource efficiency toward an ideal resource-recycling based society (circular economy), initiatives are needed in four key areas: (1) utilization of eco-friendly materials; (2) making use of parts longer; (3) development of recycling technology; (4) making vehicles from the materials of end-of-life vehicles. These last two apply to the whole of the automotive industry. Toyota has been working for 40 years on the challenge of resource recycling, leading the world by developing world-first technologies and in terms of scale of operations. Going forward, by rolling out to the world the technology and systems evolved in Japan and developing them into the future, we will continue working on the challenge of establishing a recycling-based society.

Challenge 6

Challenge of Establishing a Future Society in Harmony with Nature

If humans and nature are to coexist into the future, we need to conserve forests and other rich natural systems in all regions. However, deforestation is progressing around the world, so that every year, forest equivalent to 14 percent of Japan's land area is lost. To realize our aim of "enriching lives of communities" in each region, the Toyota group companies have engaged in planting trees at plants, environmental conservation activities in their surrounding area, and environmental education. Going forward, the insights gathered so far will be used to promote activity at Group, region, and organization level. Among the variety of activities we are rolling out are the Toyota Green Wave Project, which aims to connect regions with green corridors; the Toyota Today for Tomorrow Project, providing assistance for environmental activities that connect to the world; and the Toyota ESD Project, contributing to environmental education that connects to the future. Our aim is to establish a society where humans and nature coexist in harmony.

Six Challenges and the Sixth Toyota Environmental Action Plan

Activities to be implemented in FY2016–2020 in order to meet the six challenges are outlined in the Sixth Toyota Environmental Action Plan. In formulating the plan, environmental activities were categorized according to the three priority themes of the Fifth Plan: "contribution to a low-carbon society," "contribution to a recycling-based society," and "environmental protection and contribution to a harmony with nature society." Embracing these three themes, Toyota will contribute to the sustainable development of society and the planet by ensuring harmony with the global environment in its *monozukuri* (manufacturing), *kurumazukuri* (car-making) and delivery of products and services.

Relationship between the Six Challenges and the Sixth Toyota Environmental Action Plan

Themes	Six Challenges	Sixth Toyota Environmental Action Plan	
		No.	Action Items
Low Carbon (Climate Change, CO_2)	(1) New Vehicle Zero CO_2 Emissions Challenge	1	Develop technologies to achieve the best fuel efficiency performance
		2	Promote development of next-generation vehicles that use electric power, and widespread use of them according to their features
	(2) Life Cycle Zero CO_2 Emissions Challenge	3	Promote environmental management in product development (Eco Vehicle Assessment System, Eco-VAS)
		4	Practical use development of catalyst technology-based CO_2 absorption/new material creation (artificial photosynthesis, etc.)
		5	Pursue increased transport efficiency and reduce CO_2 emissions in logistics activities
		6	Contribute to local communities through the expansion of local grid energy management technologies
		7	Promote an "integrated approach" to reduce CO_2 emissions in road transport sectors
	(3) Plant Zero CO_2 Emissions Challenge	8	CO_2 emission reduction in production activities
Recycling (Resources, Water)	(4) Challenge of Minimizing and Optimizing Water Usage	9	Reduce water consumption in production activities
	(5) Challenge of Establishing a Recycling-based Society and Systems	10	Reduce consumption of dwindling natural resources through use of renewable resources and recycled materials
		11	Achieve industry-leading level in easy to dismantle design for effective resource recycling
		12	Contribute worldwide by end-of-life vehicle treatment and recycling technology developed in Japan
		13	Overseas rollout of original recycling system for end-of-life vehicle resources
		14	Reduce waste and use resources efficiently in production activities
		15	Reduce packaging materials and use resources efficiently in logistics activities
Harmony with Nature	(6) Challenge of Establishing a Future Society in Harmony with Nature	16	Promote nature conservation activity "Connecting regional conservation activities with region and community"
		17	Boost grant program for environmental activities "Connecting nature & biodiversity conservation activity to the world"
		18	Boost contribution to environmental education "Connecting environmental activities to the future"
		19	Promote environmental contribution through biotechnology and afforestation business, automotive peripheral technology, and forest conservation activities
Environmental Management	Management	20	Promote strengthening of consolidated environmental management
		21	Reduce exhaust emissions to contribute to improvement of air quality in urban areas in each country and region
		22	Reduce VOC emissions in production activities
		23	Promote environmental activities in cooperation with business partners (suppliers)
		24	Promote environmental activities in cooperation with business partners (dealers and distributors)
		25	Further strengthen global employee education and awareness activities
		26	Enhance active disclosure of environmental information and communication

Society 04-10

Major Achievements in FY2014

The Alphard and Vellfire are

Equipped with the latest active and passive safety equipment

This includes Panoramic View Monitor, offering the world's first "see-through" viewing function, Toyota's first Intelligent Clearance Sonar and other examples of the latest safety equipment.

Sharing on quality situation and activities

Global CQO Meeting

Attended by the Chief Quality Officers (CQOs) of seven regions worldwide and the relevant corporate executives.

Toyota's approaches to conflict minerals issues

Survey of our over 7,000 Tier 1 Suppliers

To ascertain the status of conflict mineral utilization, a survey tracing the supply chain was carried out. A related support system was also put in place offering briefing sessions, survey support tools, and other resources.

Toyota launched the new telematics service

T-Connect

In addition to peace of mind and safety focused services, it now features Agent, a new function with an advanced interactive interface, providing greatly evolved capability to connect people and cars.

Human resources policy of respect for diversity:

Voluntary Action Plan for Promoting Women's Participation in the Workplace

Enhancing and strengthening support for work/childcare balance and career building to promote long-term employment and human resource development.

Toyota Investors Meeting 2015

for experiencing Toyota's present and future

What are the aims and directions of Toyota's efforts toward sustainable growth? We present our concepts through dialogs, a range of exhibitions, and test drives that offer an experience of next-generation mobility.

04-01 Initiatives for Improving Traffic Safety
05-01 Customer First and Quality First Measures
06-01 Creating the Future Society
07-01 Respect for Human Rights
08-01 Collaboration with Business Partners
09-01 Employees
10-01 Stakeholder Engagement

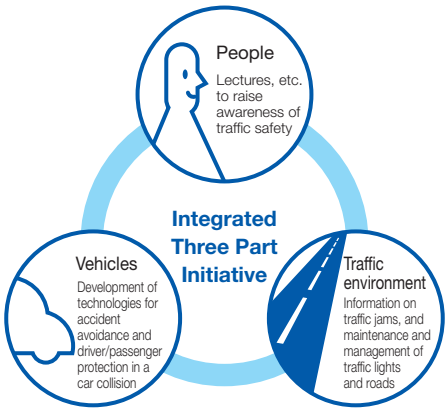
Initiatives for Improving Traffic Safety

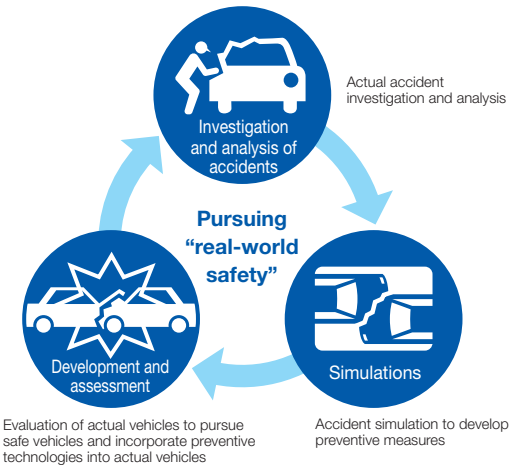
Basic Philosophy regarding Traffic Safety

According to a World Health Organization (WHO) survey, 1.24 million people worldwide die in traffic accidents each year, making them the eighth leading cause of death. While the number of deaths due to traffic accidents has been decreasing slightly in Japan, North America and Europe, it has been constantly increasing in emerging nations and regions where traffic safety education and transportation infrastructure have not kept up with increases in the number of cars on the road. On a global scale, traffic fatalities continue to increase constantly and are predicted to become the fifth leading cause of death by 2030 unless countermeasures are implemented.

Toward achieving Toyota's ultimate goal of complete elimination of traffic casualties, the development of safe vehicles is of course important, but it is also essential to educate people, namely drivers and pedestrians, regarding traffic safety and to create a safe traffic environment.

Toward achieving a safe mobility society, Toyota believes it is important to promote an Integrated Three Part Initiative, involving people, vehicles, and the traffic environment, as well as to pursue "real-world safety" by learning from actual accidents and incorporating that knowledge into vehicle development. Toyota has also defined its Integrated Safety Management Concept as the basic philosophy behind technologies toward achieving the elimination of traffic casualties and is moving forward with developing such technologies.

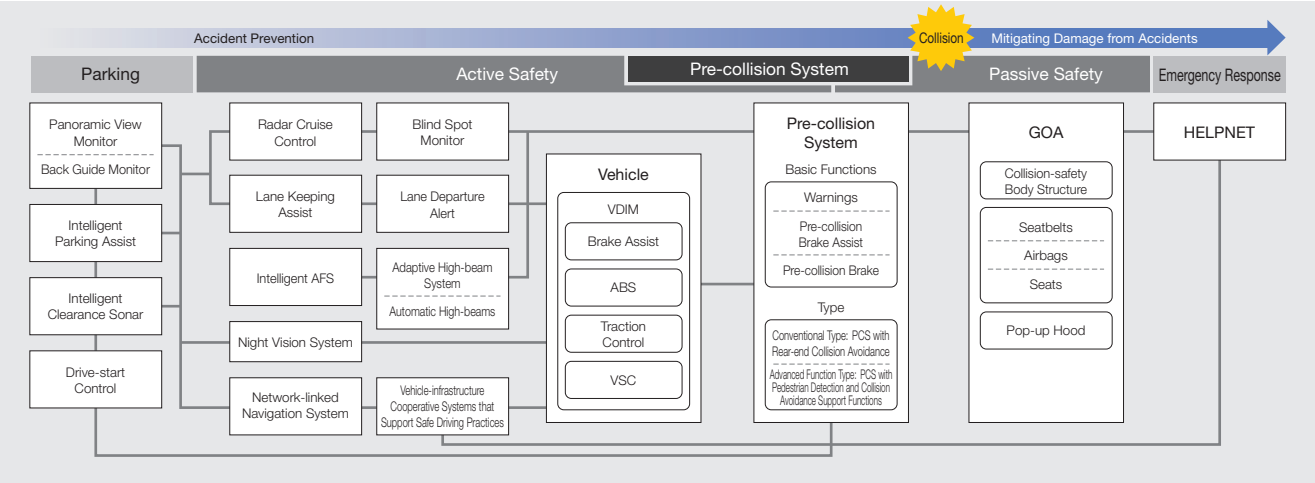




Integrated Safety Management Concept

Toyota's approach is to enhance the safety level through development of various safety systems that work together in a car rather than developing each separately. The scope of responses, which previously focused on the moments immediately before and after an accident, is widened to provide optimal driver support during every stage of driving from parking to normal operation, the pre- and post-crash timeframe, and post-accident rescue. The Integrated Safety Management Concept seeks to create safer cars by achieving this.

Integration of Individual Technologies and Systems

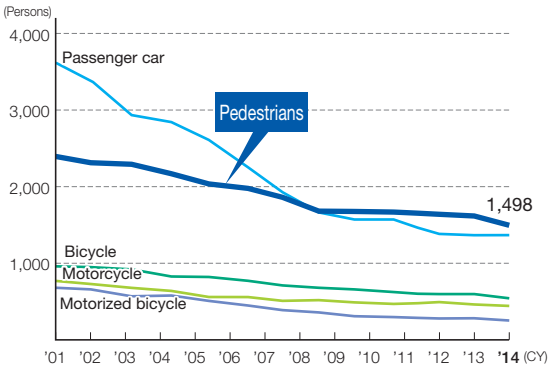


Traffic Accident Conditions and Toyota's Safety Technologies

There were 4,113 traffic fatalities in Japan in 2014, and the total number has been decreasing every year for some time. Fatal accidents involving pedestrians and elderly drivers aged 65 and older, however, are declining at a very slow rate. Taking measures toward achieving the complete elimination of traffic accidents has long been a priority issue.

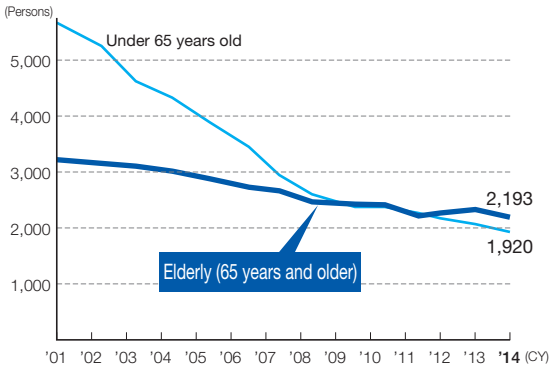
To address traffic accidents, Toyota seeks to provide optimal support for each driving scenario in accordance with the Integrated Safety Management Concept for manufacturing safe automobiles tailored to actual conditions. To achieve this, we are developing and putting into application not only safety systems that function independently, but also safety technologies that collaborate with one another to enhance safety even further.

Number of Traffic Fatalities by Accident Type



Source: 2014 Traffic accident statistics by the National Police Agency

Number of Traffic Fatalities of Elderly



Source: 2014 Traffic accident statistics by the National Police Agency

For example, there are instances where a driver in a parking lot or garage does not notice a nearby pedestrian, resulting in an accident. Toyota developed the Panoramic View Monitor, which can confirm the presence of pedestrians in a 360-degree field around the vehicle, to help drivers from failing to notice a pedestrian.

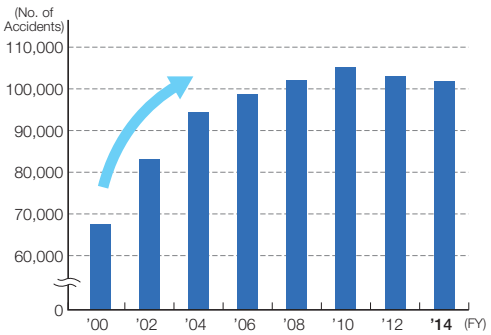
Also, the Pre-collision System (PCS) has undergone continuous technological development since their commercial launch in 2003, and in 2008 we developed the PCS with Pedestrian Detection. Further refinements were made, and Toyota launched automatic braking that can reduce vehicle speed by up to 30 km/h and Pre-collision Brake Assist, which can reduce vehicle speed by a maximum of 60 km/h. Thus, we are taking measures to address issues concerning pedestrians, a high-priority matter for reducing the number of traffic fatalities.

The number of accidents involving elderly drivers has been increasing in recent years. The recognition, judgment ability, and operational abilities required for driving decline with advancing age. Approximately half of accidents caused by elderly drivers occur at or near intersections, and half of these accidents are caused by a failure to confirm safety. In response to these types of accidents at intersections, we believe that Vehicle-infrastructure Cooperative Systems can be an effective means of preventing accidents. They provide the driver with information about vehicles and pedestrians approaching areas with poor visibility through vehicle-to-road infrastructure communications and vehicle-to-vehicle communications.

In addition, advanced driving support systems that use automated driving technology have substantial potential to reduce traffic casualties by compensating for driver errors and reducing driving burdens to avoid accidents.

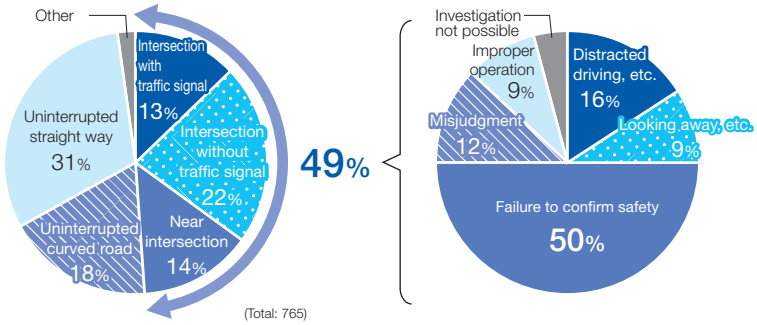
Toyota believes that accidents and other issues of the traffic environment can be addressed by greatly enhancing the safety of traffic systems overall, not simply of an automobile itself. To achieve this, Toyota is developing automated driving technologies that will enable everyone to move safely and freely.

Accidents in Which Elderly (65 and Older) Are the Primary Actor



Source: National Police Agency Traffic Bureau, Traffic Accident Statistics, 2014

Breakdown of Traffic Fatalities in Which Elderly (65 and Older) Are the Primary Actor and Causes of Accidents Occurring in Intersections



Source: 2011 ITARDA accident data

Actual Results for the Previous Fiscal Year and Major Initiatives for the Current Fiscal Year

	Major Initiatives during FY2014	Major Initiatives during FY2015
Safety	• Drafted a medium- to long-term safety technology scenario by anticipating future technological trends, laws and regulations, and assessments, and promoted the development of such technologies • Started up a conference that spans multiple departments and promoted activities to improve the quality of the Toyota Safety Sense packages • Created a technological public relations strategy, and explained Toyota's vision for its automated driving technologies and their status at the ITS World Congress and safety technology briefings • Developed an automated driving system and completed public road testing over a total distance of 8,500 km	• Develop a medium- to long-term safety technology scenario toward 2025 • Promote the Toyota Safety Sense packages in Japan, North America, and Europe to popularize safe automobiles • Accelerate development of automated driving technologies that can be applied to both general roads and highways • Promote planning and development of safety systems that incorporate the Toyota New Global Architecture (TNGA) concept

Major Initiatives during FY2014

Reducing Traffic Accidents through Intelligent Transport System Technologies

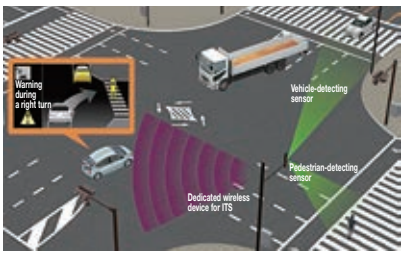
Commercialization of Telecommunication-based Safety Technologies and Cooperative Driving Support Systems in 2015

Cooperative driving support systems utilize road-to-vehicle and vehicle-to-vehicle communication at the dedicated ITS frequency (760 MHz). By capturing information that cannot be fully detected by sensors installed in vehicles, the systems complement autonomous systems and are therefore considered to be effective in further reducing the number of accidents.

Specifically, near intersections with poor visibility, the systems support safe driving, including alerting drivers, by acquiring information on oncoming cars and pedestrians detected by sensors installed on roads, as well as vehicle-to-vehicle proximity information based on vehicle-to-vehicle communication.

Toyota has also developed a Cooperative-adaptive Cruise Control technology that relies on vehicle-to-vehicle communication. By utilizing acceleration/deceleration information about the preceding vehicle acquired through vehicle-to-vehicle communication, in addition to detecting the distance to the preceding vehicle and its relative speed based on conventional millimeter-wave radar, the new radar cruise control technology is expected to be effective in improving tracking performance, reducing fuel consumption, and eliminating traffic congestion.

In 2015, Toyota commercially launched its cooperative driving support system, taking the first step toward its widespread adoption.

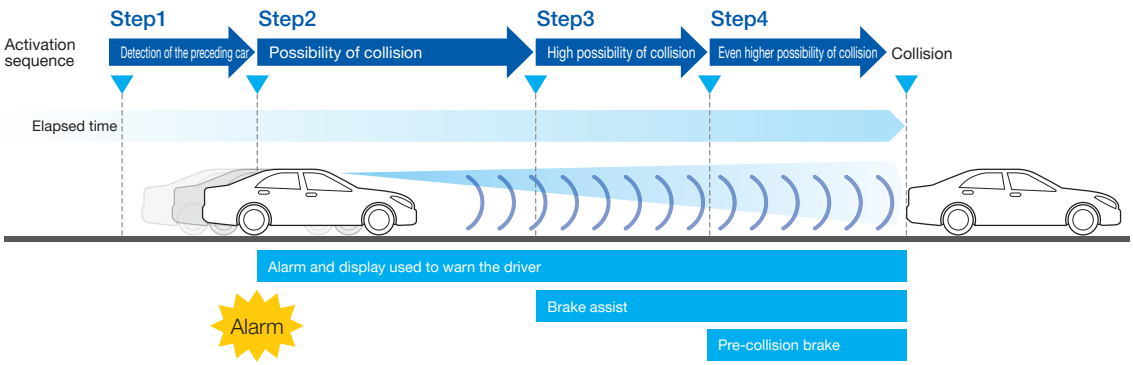


Warning issued during a right turn
(utilizing road-to-vehicle communication)

Active Safety (Preventing Accidents)

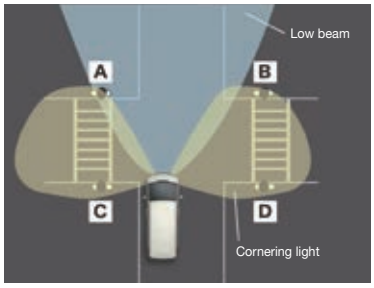
The pre-collision system detects an impending collision and helps reduce damage by preparing for it. When the system detects the possibility of collision, it sounds an alarm to prod the driver to operate the brake. If the possibility of collision further increases, the system activates the pre-collision brake to avoid the collision or reduce collision damage.

For further details on Toyota Safety Sense, see Special Feature 01 (pp. 03-02–03-03)



LED Cornering Lights to Enhance Visibility at Intersections

Toyota has started using LED cornering lights, safety devices that can contribute to pedestrian safety and helping prevent accidents at intersections, etc. When an equipped vehicle is being driven with its headlights on, LED cornering lights go on in conjunction with operation of the blinkers or steering wheel. When the vehicle is about to enter an intersection to turn left or right, the LED cornering lights help ensure the visibility of pedestrians and other obstacles. When the vehicle is travelling at 40 km/h or slower with its headlights on, an LED cornering light goes on if the blinker goes on or the steering wheel is turned by 80 degrees. Furthermore, when the shift lever is moved to the Park (P) position, both the left and right LED cornering lights go on simultaneously. As shown in the figure, LED cornering lights allow the driver of the vehicle to see all four corners of the intersection whether going straight or turning. LED cornering lights were installed in some grades of the Alphard and Vellfire, which underwent a full model change in January 2015.



Next-generation LED Array Adaptive High Beam System (LED Array AHS) That Provides Reliable Illumination during Nighttime Driving

The new LED Array Adaptive High Beam System (LED Array AHS) uses multiple independently controlled LEDs arranged in a single row, giving a wider range of illumination than earlier systems without dazzling the drivers of preceding and oncoming vehicles. For example, LED Array AHS can illuminate the gaps between preceding vehicles and oncoming vehicles, making it easier to detect pedestrians crossing the road. It also adapts the distribution of light to a wide range of driving circumstances: in an urban setting, for example, a wide area will be illuminated, whereas long-distance illumination is used during high-speed driving on highways.

The system also adjusts the distribution of light based on the operation of the steering wheel, improving visibility ahead of curves.

LED Array AHS combines these functions to provide reliable illumination during nighttime driving.

Area lit

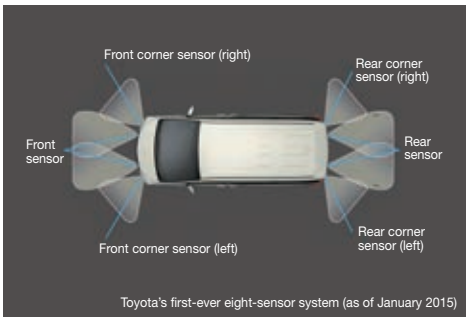
Parking Assist System

Toyota's First Intelligent Clearance Sonar (with Eight Sensors) to Help Avoid Collisions and Reduce Collision Damage

Toyota's existing clearance sonar helps to reduce contact with an obstacle by detecting obstacles the vehicle is at risk of colliding with, during a parking maneuver for example, indicating this information on the display and sounding an alarm. Toyota has added new functions to develop Intelligent Clearance Sonar, which helps avoid a collision during low-speed operation or reduces damage by softening a collision, regardless of whether the accelerator or brake pedal is being depressed or not.

The eight sensors installed on the front and rear of vehicles extend the detection distance and expand the detection range. If an obstacle such as a wall is detected ahead, the system reduces the engine or motor output and automatically applies the brakes if the distance to the object is further reduced.

Intelligent Clearance Sonar not only reduces damage caused by pedal misapplication as before, but also helps avoid collision with the preceding car or reduces collision damage during low-speed driving in parking lots or pulling into parking spaces.



Toyota's first-ever eight-sensor system (as of January 2015)

New Panoramic View Monitor Features World's First* See-through View Function

The Panoramic View Monitor is a safety check support system that displays an image of the vehicle's surroundings on the navigation system screen through operation with a switch. The system's Moving View, which displays video images as though looking down on the vehicle, has now been enhanced with See-through View, the world's first screen mode that makes it easier to detect obstacles. The new Panoramic View Monitor was installed in some grades of the Alphard and Vellfire, which underwent a full model change in January 2015.

See-through View gives a driver's-perspective view of the vehicle's surroundings as if the vehicle itself were transparent. Compared to Moving View, See-through View displays obstacles larger, making them easier to identify. The driver can check safety at the press of a button.

The Panoramic View Monitor also features a Cross Traffic Detection Function, which checks for people or vehicles that might appear from the side and alerts the driver of their presence before the vehicle starts moving.

See-through View

Moving View

*As of January 2015 (according to a survey by Toyota Motor Corporation)

World's First Intelligent Parking Assist 2, Featuring Automatic Steering Operation, Etc.

Intelligent Parking Assist 2 is an advanced safety system that uses ultrasonic sensors and a camera to detect parking spaces and automatically sets the targeted parking position. It has three new advanced functions in addition to the existing functions.

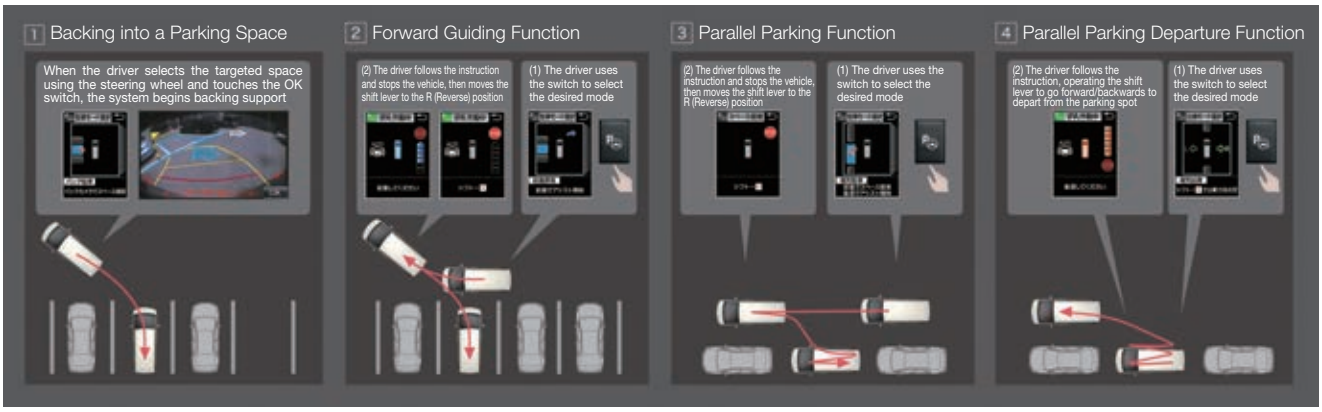
Collision avoidance and damage reduction support: By working with the Intelligent Clearance Sonar, the system uses automatic braking to avoid collisions and reduce collision damage.

Multi-point turn support: In tight parking situations requiring multi-point turns, the system automatically operates the steering wheel to help the driver safely and smoothly pull the vehicle into a parking space.

Parallel parking departure: As when pulling into a parking space, the system automatically operates the steering wheel to help the driver get out of a tight parallel parking space. For both the multi-point turn support and parallel parking departure functions, shifting, accelerating, and braking are performed by the driver.

Intelligent Parking Assist 2 was installed for the first time in the world* in some grades of the Alphard and Vellfire, which underwent a full model change in January 2015.

*As of January 2015 (according to a survey by Toyota Motor Corporation)



Traffic Safety Education Activities

Toyota has been conducting various traffic safety education activities continuously since the 1960s targeting a wide range of audiences including drivers and pedestrians. Activities have also been conducted by overseas affiliates.

For details, see: Social Contribution Activities (Traffic Safety: pp. 12-10–12-15)

Focus

Voxy/Noah/Esquire and Harrier Receive the Five-Star Award under the JNCAP New Overall Safety Performance Assessment Program

The Voxy/Noah/Esquire and Harrier received the highest Five-Star Award from the Japan New Car Assessment Program[1] (JNCAP) vehicle-safety evaluation tests in FY2014 under the new overall safety performance assessment program.

The two models are equipped with various safety technologies and features, such as an impact-absorbing body and high-rigidity cabin, as well as seven SRS airbags including an SRS driver-side knee airbag and SRS side and curtain shield airbags, providing a superb level of occupant protection. In addition, these models feature a vehicle body structure to lessen pedestrian injury, achieving high pedestrian protection performance. These features helped the models win the award.

In the past, the Lexus CT 200h, Corolla, and Crown also received the Five-Star Award. Of these, the Crown received the JNCAP Grand Prix award, scoring 189.7 points (out of 208 points), the highest score received since the new overall safety performance assessment structure was introduced in FY2011. Since this score has never been broken, the Crown continues to hold the Grand Prix award, which is given to the highest-scoring vehicle in the history of the award program.

Toyota and Lexus vehicles have been receiving high scores in car assessment programs throughout the world. For example, in 2014, eight models received the TSP+[2] rating and four models received the TSP rating according to vehicle assessment by the U.S. Insurance Institute for Highway Safety (IIHS). In addition, in the U.S. NCAP,[3] 14 models received the five-star rating.

[1] This joint program between Japan's Ministry of Land, Infrastructure, Transport and Tourism and the National Agency for Automotive Safety & Victim's Aid has been publishing vehicle safety information since FY1995 with the aim of promoting the spread of safe automobiles
[2] Top Safety Pick
[3] A vehicle assessment program administered by the United States National Highway Traffic Safety Administration

FY2014
Five-Star Award mark

Voxy

Harrier

Focus

Toyota's New $35 Million Commitment to U.S. Collaborative Safety Research Center

Toyota's Collaborative Safety Research Center (CSRC) was established with a 50-million dollar investment plan in January 2011 at the Toyota Technical Center (TTC) in the state of Michigan for the purpose of conducting joint research with U.S. academic and research institutes. By sharing outcomes with communities and industries, the Center hopes to contribute to realizing a safe automobile-based society in North America.

Past research projects have focused on active safety, reducing the risk of driving when not paying attention to the road ahead, and protecting vulnerable road users such as children and senior citizens. As of February 2015, a total of 15 of the 34 research projects launched with 17 partner institutions have been completed, and this current first phase of research is planned to conclude in FY2016.

Two typical research outcomes achieved during this first phase are a pedestrian crash test dummy jointly developed with other institutes for safety performance assessment tests of automatic emergency braking (AEB)[1] systems, and a distraction study of 5,600 teens and adult drivers. When the results of these CSRC projects were released publicly, they were also reported to the federal agencies to support the creation of regulations, and safety performance assessments.

In September 2014, CSRC announced a new financial commitment to continue its initiatives to research advanced automotive safety technologies with the goal of making tomorrow's driving safer and more reliable. This investment will support CSRC activities from 2017 through 2021, with a particular focus on automated- and connected-vehicle technologies, as it works toward the early realization of society's transition to safe future mobility.

CSRC remains committed to exploring the potential of the relationship between future mobility and broader, more complex social trends and concerns in the market such as the "Quantified Self"[2] associated with the potential rise in the latest wearable devices.[3]

Specific research to be conducted going forward will focus on new technologies and new challenges that will likely continue developing over a long period of time, including the development of human/machine interface (HMI) guidelines for automated and connected vehicle technologies, research on the user skills needed to operate these technologies safely, and the issues faced when conventional and automated vehicles travel on the same roads.

CSRC Director Chuck Gulash said: "CSRC hopes to pave the way for the safe introduction of the new automated- and connected-vehicle technologies expected to be more widely used in the future, not only by refining the technologies, but also by focusing on the drivers who will be using them—with the goal of realizing Toyota's ultimate hope of a society free of traffic casualties."

Chuck Gulash, Director of CSRC

Pedestrian mannequin developed jointly with the Transportation Active Safety Institute (TASI) to propose a method for use in the U.S. NCAP for evaluating pedestrian automatic emergency braking (AEB)

1. Pedestrian Automatic Emergency Braking (AEB): System for detecting obstacles ahead and automatically braking where there is the possibility of a collision
2. Quantified Self: A term currently used in the U.S. and other countries to refer to initiatives to acquire new knowledge by quantifying human actions and conditions using such things as sensors and information and communications devices
3. Latest wearable devices: Wristwatch-type, spectacle-type and other wearable information and communications devices and electronic devices

Customer First and Quality First Measures

Basic Philosophy regarding Customer First and Quality First

Quality is the result of collaboration among development, design, procurement, production, sales, after-sales service and other areas. It is necessary to make efforts in all of these areas in order to provide the quality that will satisfy customers.

At Toyota, quality includes product quality, sales and service quality, and the quality of the work performed by each employee that serves as the foundation supporting the other aspects of quality. We believe that the combination of these three constitutes quality and it is only when all three aspects of quality are secured that we can provide products and services that can gain the trust of customers. The origins of quality lie in the spirit of audit and improvement, and Toyota's unchanging *monozukuri* (manufacturing) pursues ever higher quality through continuous improvement based on repeated implementation of PDCA.

Since the occurrence of recall issues in 2010, Toyota has determined February 24 as "Toyota Restart Day," and employees are making even greater efforts to rebuild Toyota as a quality leader that exceeds customer expectations.

Since Toyota's foundation, each employee has strived to make improvements in his or her own work with a strong and constant awareness of issues and has sought to raise customer safety, security, and satisfaction through close collaboration with personnel in other fields so that we can put the principles of customer first and quality first into practice and continuously meet the expectations of customers and society.

Organization and Structure

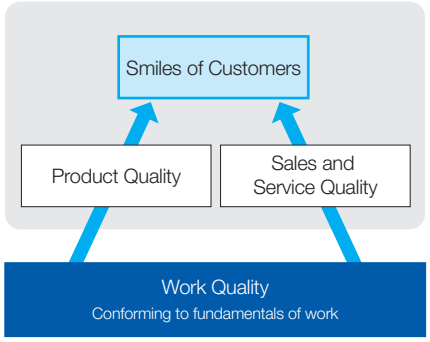
Toyota has set its quality function policy to rebuild Toyota as a quality leader that exceeds customer expectations and addresses various quality related issues with a focus on priority measures according to improvements specified in annual policies. The fundamentals of implementation are function management and policy management. Function management refers to setting companywide policy based on a function that assures quality and each division efficiently taking action in collaboration with other divisions.

Policy management refers to the formulation and implementation of action plans for achieving targets in each division based on the companywide policy. During the implementation phase, progress and results are reported through Quality Function Board and other forums and responses are carried out as needed.

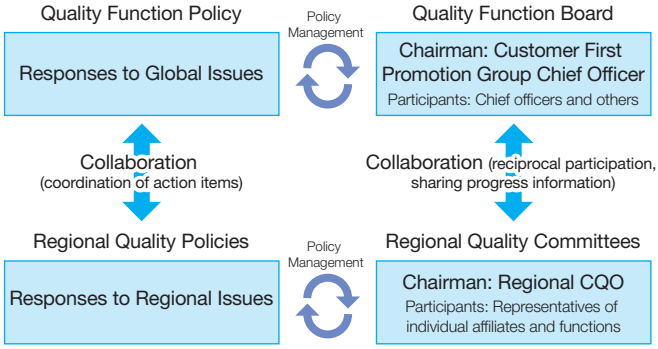
Toyota has appointed Chief Quality Officers (CQO) in Japan and other regions around the world to address regional issues and promote global collaboration.

In addition, the Customer First Promotion Group (CF Promotion Group) was established in 2012 to re-establish Toyota as a quality leader from the customer's perspective and reinforce internal organizational development with the aim of improving quality. The CF Promotion Group serves as a direct link between customers and the appropriate internal divisions, and encourages the practice of customer first.

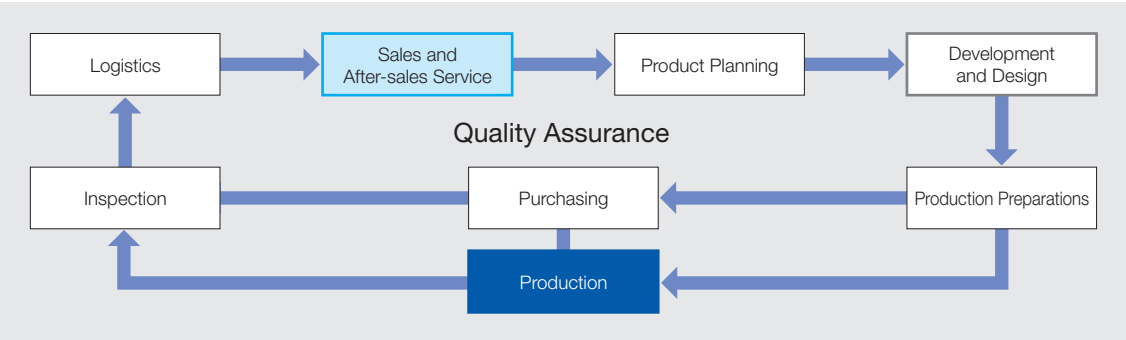
Definition of Quality



Global Implementation Structure of the Quality Conference (Basic Scheme)



Actual Results for the Previous Fiscal Year and Major Initiatives for the Current Fiscal Year



	Major Initiatives during FY2014	Major Initiatives during FY2015
Quality	Reinforced the fundamentals by reconfirming basic principles • Proposed and implemented measures for quality and human resource development through steady rollout of Quality Month activities, etc. • Held Global CQO Meeting and implemented regional quality activities led by CQO	Lay down of foundational culture and structures to raise the sensitivity of individual employees and keep the fundamentals of work • Steadily implement quality-related measures and reinforce overseas spread of quality education • Spread regional quality activities centered on CQO to all regions
Customer	• Presented customer opinions at the Customer's Month Exhibition and conducted training to experience customer feedback to ensure the spread of Customer First awareness among all employees	• Devise and implement measures that encourage individuals to reflect customer feedback in their conduct • Reflect customer feedback training in companywide grade-specific training for employees

Major Initiatives during FY2014

Sharing Information on the Current Status of Quality Measures Globally through the Global CQO Meeting

We have been holding a Global Chief Quality Officer (CQO) Meeting since 2013 as an opportunity for regional chief quality officers to meet at the same time. The purpose of the meeting is to globally share information concerning customer status in each region and on examples of quality improvement measures implemented in individual regions.

In May 2015, the CQO from North America, Europe, Africa, China, Asia, the Middle East, East Asia, Oceania, and Latin America and relevant officers from Toyota attended a Global CQO Meeting.

At the FY2015 Meeting, an overview was presented and information shared on the activities implemented by Toyota, and independently by the different regions, since the series of recall issues in 2010. Specifically, the Meeting agreed on a further strengthening of the initiatives for customer safety and security that have been ongoing since the Special Committee for Global Quality held in 2010, and a strengthening of the globally coordinated initiatives that have been implemented with higher sensitivity to the changing expectations of markets and customers.

Global CQO Meeting

Promotion of Awareness Activities and Creation of Structures to Maintain Focus on the Lessons Learned from the Series of Recall Issues.

February 24, the day of the U.S. Congressional hearings held to investigate the series of recall issues, is designated the “Toyota Restart Day.” In connection, we promote awareness activities and creation of structures to maintain focus on the lessons learned from the recall issues.

In 2015, we also marked this day with a series of companywide events including reflections on the recall issues, and lectures by directors. In addition, a range of independently organized events was held at headquarters, business fields, plants, and other corporate units in Japan and overseas.

These various events are an opportunity for all employees to reflect on the series of recall issues and take ownership of the work process by seeing it afresh from the customerls perspective, and to promote Customer First corporate culture.

Event Participants’ Comments

- I was able to find out what my work superiors think and to learn about their experiences, which brought things into focus and gave me new motivation.
- Talking to each other about work issues and our target profiles gave me a deeper commitment to my work.
- All the department’s staff talked together frankly about our work, which allowed us to identify issues and mark out our future direction.

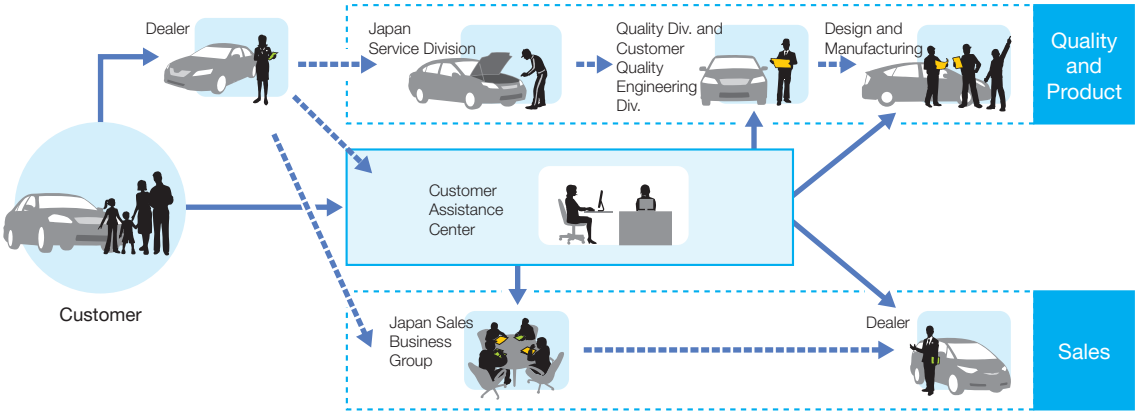
Employees in Europe discussing the recall issues

Applying Customer Feedback to the Creation of Better Products and Services

Toyota's principle of Customer First exists for the purpose of providing customers with products and services that earn their smiles. On this basis, Toyota hopes to offer cars with superior features in terms of environmental, safety and quality performance, while also offering the intrinsic appeal of cars, such as driving performance, at an affordable price.

Therefore, in order to make Always Better Cars, Toyota makes rigorous use of customer opinions gleaned from dealers and the Customer Assistance Center.

System for Implementing Customer Feedback



Focus

The Harrier is Relaunched in an Evolved Form in Response to Market Demand

The Harrier was due to be withdrawn from production in Japan in 2012. However, with its popularity in Japan showing no sign of waning, there were many requests from customers and dealers for it to be relaunched. In response to this strong demand from the market, we decided to re-release the Harrier as a dedicated model for the Japanese domestic market. Customer expectations around the relaunch of the Harrier were very high, and to deliver a new vehicle that exceeded them, staff collaborated across departmental boundaries to create a car that embodied the motto of "Always Better Cars." Many parts were shared from previous models so as to assure quality at an early stage. As a result, we succeeded in increasing product strength by enhancing the appeal of the Harrier in terms of style, performance, and equipment. At the development stage, each part received discerning attention from the customer's perspective to ensure a high level of product appeal. Each department grasped customer expectations of the Harrier from its particular standpoint and shared its insights with other departments. Through a distillation of these contributions, customer expectations were exceeded with the birth of an even better car—the Harrier.

Making generous use of new technology to build in innovation and advanced features, the Harrier also exudes an aura of high class. By always listening our customers, we commit to continuing to make Always Better Cars that bring true satisfaction.

Customer Comments on the Relaunched Harrier

- On the interior, the leather upholstery is unique and the genuine navigation system gives a sense of unity, while the exterior design is characterized by its lights and the sharpness of the front and rear. These contribute to a unique Harrier design that appeals to me because it is completely different to other cars.
- I bought the hybrid model, and it is very quiet not only when running on its motor, but also when running on the engine too. We have a young baby, but the cabin is too quiet for him to settle down, which surprised me.

Toyota Customer Assistance Center and Lexus Information Desk

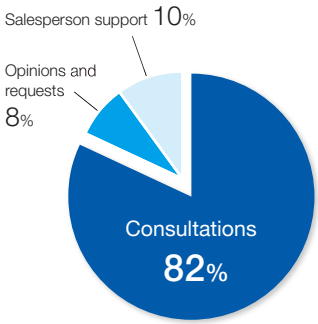
The Toyota Customer Assistance Center, and the Lexus Information Desk, offer toll-free phone consultation 365 days a year and accept brochure requests 24 hours a day in Japan. With this convenient customer-oriented system, Toyota offers speedy, appropriate and empathetic responses to customer inquiries, and listens to opinions and requests, based on the principle of Customer First. At the same time, Toyota undertakes initiatives to link this feedback to the creation of better products and services.

Furthermore, the Salesperson Support Desk has been established in order to support dealers in implementing the Customer First principle.

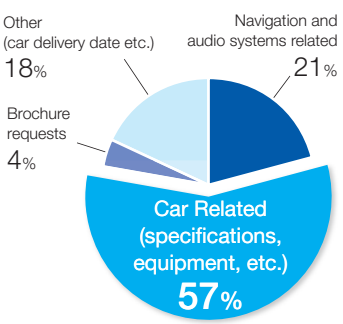
Toyota also conducts surveys of customers who use the telephone service via an automated response system, in an effort to make further improvements.

Number and Content of Calls Received by the Center and the Desk in FY2014

Number of calls received (306,000)



Content of calls received



Major Initiatives during FY2014

Ongoing Customer First Staff Education

To coincide with the designation of May as Consumer's Month by the Japanese government, Toyota has declared it Customer's Month, and undertakes initiatives aimed at spreading awareness of the Customer First principle throughout the company. During Customer's Month, Toyota holds customer feedback experience events, exhibitions, and lectures with the aim of encouraging a sense of ownership among employees so that they take action.

Customer feedback experience seminars make use of the Toyota intranet to distribute customer comments and opinions to all employees. Customer feedback exhibitions feature customer feedback from Japan and around the world as well as examples of actions being taken from the customer's perspective.

For lectures, Toyota invites representatives from other companies that better implement practice the Customer First principle so employees can study initiatives being undertaken at other companies.

In addition to these programs, throughout the year, Toyota conducts tours of its Customer Assistance Center and customer feedback experience training. Also, the Toyota Consumer Advisor Group, comprised of qualified consumer advisors able to make proposals from the customer's perspective, performs facility and vehicle evaluations, with the aim of promoting the permeation of the Customer First principle.

A customer feedback exhibit

Assisted Mobility Initiatives

Launch of the New Wheelchair-adapted Esquire and the Welchair, a Dedicated Wheelchair for the Welcab

According to the statistics of the Ministry of Internal Affairs and Communications, by 2025, the number of seniors aged 75 and over in the Japanese population will have increased 2.5 times compared to the year 2000. Government policy in response to this "super-aging" is to shift to home-based medical treatment and nursing care. As a result, there is growing need for assisted mobility options that are easy to use at home. The Esquire, launched in October 2014, features advanced development as an assisted mobility option combined with "normalization as an ordinary car."

Additionally, to respond to seniors and people with lower body disabilities, Toyota hopes to offer better opportunities for them to get around outside the home. We have launched Welchair, a dedicated wheelchair for our Welcab model. With the aim of providing all people with the freedom to travel in comfort, we will continue to pursue initiatives for the development and widespread adoption of relevant products.

Features of the New Esquire Wheelchair-adapted Vehicle

- The ramp, which previously stood upright, is now stowable in a flat position, providing the same cargo capacity as a standard vehicle
- To adapt to changes in the user's environment and requirements, there is an additional seat row provided to restore the vehicle to a standard layout when use with a wheelchair is no longer necessary
- To facilitate wheelchair access, air suspension is adopted for the rear to create a gentler angle for the ramp

Features of the Welchair Dedicated Wheelchair

- Reduced transmission of vibration to the upper body to lessen fatigue when boarding
- Lowered eyeline level to improve communication with other passengers
- Designed to prevent forward slide of the hips to ensure travel in a stable sitting posture

Adapted for two wheelchairs (type 1 wheelchair)
The Welchair dedicated wheelchair is available as a dealer option

Focus

Welcab Stations Allow Customers to Observe and Test Drive Vehicles and Seek Advice

Welcab Stations are dealer sales outlets where customers can experience Toyota's assisted mobility options, the Welcab series.

Both Welcab demonstration vehicles and Welcabs for test drive are available and consultants possessing specialized knowledge are always on duty. These outlets are barrier-free and equipped with wheelchair-accessible bathrooms and parking spaces for assisted mobility options, so that anyone can visit with peace of mind. Welcab Station consultants can help customers choose the right vehicle for seniors, people with physical disabilities, and those with difficulty getting in and out of cars. As of the end of May 2015, there are 216 Welcab Station sales outlets operated by 126 dealers in Japan.

Welcab station

Creating the Future Society

Basic Philosophy regarding Creating the Future Society

Helping Create the Future Mobility Society and Enriched Lifestyles

To help to realize the mobility society of the future, Toyota is working on a wide variety of initiatives, beyond just automobile manufacturing. Through collaboration with governments, local communities, corporations, and the academic world, Toyota is helping to realize a sustainable society for the greater happiness of all. These efforts take the form of initiatives such as building environmentally considerate communities where people can connect with each other more freely and developing robots that support enriched lifestyles.

Actual Results for the Previous Fiscal Year and Major Initiatives for the Current Fiscal Year

	Major Initiatives during FY2014	Major Initiatives during FY2015
Smart Mobility Society	(Future mobility society) ・Enhanced measures to promote utilization as part of Ha:mo verifications in Toyota City, including an increase in the number of stations and new corporate member installations ・Utilized equipment and systems for sharing Ha:mo in Toyota City verifications, and started verification tests of Ha:mo in Grenoble, France (Connectivity products and services) ・Promoted provision of new services, including the Apps service for adding applications to navigation systems and agent interactive voice communications enabled by the launch of T-Connect	(Future mobility society) ・Manage measures for promoting further utilization in Ha:mo verifications in Toyota City, and improve systems to enhance ease of use ・Progress steadily with verification tests of Ha:mo in Grenoble, France ・Progress steadily with verification tests in the Tokyo area (Connectivity products and services) ・Promote utilization of big data information, and development and commercialization of next-generation traffic systems ・Expand T-Connect services and functionality
Biotechnology & Afforestation	・Conducted R&D and fostered new businesses, in the fields of biomass utilization, contribution to the agriculture and livestock industries, and greenification (*Housaku Keikaku:* An agricultural IT management tool) ・Participated in and conducted trials, in the Advanced Model Agricultural Business Formation Trials conducted by the Ministry of Agriculture, Forestry and Fisheries (1) Adoption of *Housaku Keikaku* by nine rice production corporations (2) Enhancement of *Housaku Keikaku* functions (3) Promotion of on-site *kaizen*	・Conduct R&D and foster new businesses, in the fields of biomass utilization, contribution to the agriculture and livestock industries, and greenification (*Housaku Keikaku:* An agricultural IT management tool) ・Promote initiatives for second year of verifications in the Advanced Model Agricultural Business Formation Trials being conducted by the Ministry of Agriculture, Forestry and Fisheries ・Promote of initiatives with JA (Japan Agricultural Cooperatives) Aichi Group
Partner Robots	(Rehabilitation Aid Robots) ・Started introduction at medical institutions (Human Support Robot (HSR)) ・Developed of new HSR with improved functionality and safety, as well as operability in R&D and operational tests	(Rehabilitation Aid Robots) ・Be adopted by 34 medical institutions (Human Support Robot (HSR)) ・Establish the HSR Development Community, lease of HSRs to member institutions, and promote technological development by sharing R&D outcomes

Smart Mobility

Basic Philosophy regarding the Smart Mobility Society

Toyota is aiming to help to realize a future smart mobility society where cutting-edge ICT is utilized to interconnect cars, people and communities, and everyone feels secure and happy in all aspects of their lives from car transport to everyday activities. Toyota is committed to enriching the lives of communities, through initiatives in the four major areas of next-generation telematics that connect people, cooperative ITS that connects cars and road infrastructure, energy management that connects communities, and next-generation urban traffic systems that connect society.

Organization and Structure

Toyota is implementing measures to create a smart mobility society through collaboration among the IT & ITS Group, Business Development Group, and other related internal organizations. These efforts are divided into two segments: the ITS business, which promotes next-generation telematics and collaborative ITS, and the smart community business, which promotes next-generation urban transport and energy management. Decisions concerning planning and development of various products and services and their commercialization are made regarding individual topics at necessary conferences on all levels ranging from the operation level to the officer level.

Major Initiatives during FY2014

T-Connect

Connecting with people

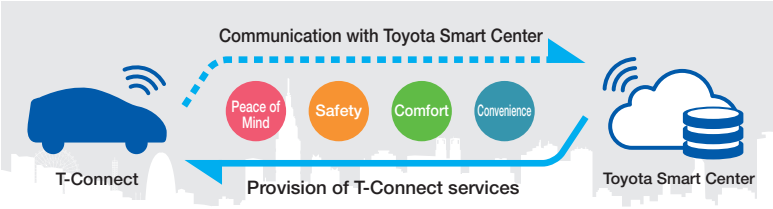
Connecting Navigation Systems Provide Safe, Secure, Convenient and Comfortable Services

Overview

Toyota launched the G-BOOK telematics service in 2002. Since then, it has worked to enhance connectivity functions, including initiatives to increase the speed and expand the capacity of DCMs,[1] adoption of HELPNET and security services in 2005 and automatic updates of navigation map through ICT in 2007. Since 2012, it has been moving the core functions to the cloud (Toyota Smart Center) and enhancing its telematics services in order to improve reliability of the center.

In 2013, it launched the Big Data Traffic Information Service, for local governments and companies, which utilizes the driving data from a total of 3.3 million vehicles with navigation systems that use G-BOOK. In 2014, Toyota revamped G-BOOK to launch the new T-Connect telematics service.

[1] Data Communication Module, which enables continuous communication



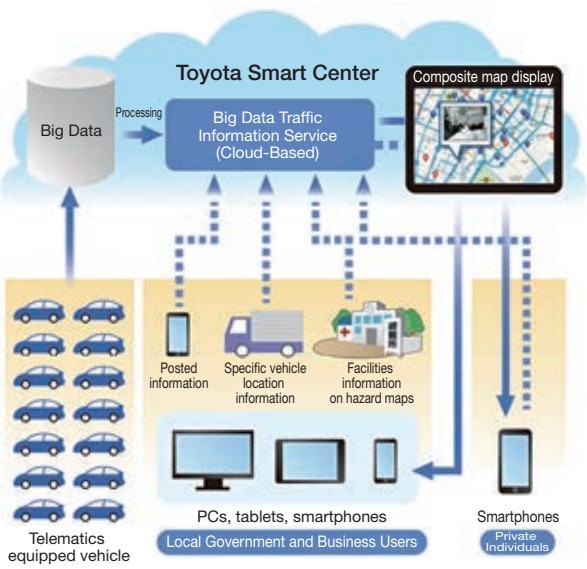
Progress in FY2014

In August 2014, Toyota launched the new T-Connect telematics service together with navigation systems that incorporate it.

In addition to safety- and security-focused services, T-Connect now features "Agent," a new function with an advanced interactive interface and greatly evolved capability to connect people and cars. "Apps" is a service for downloading applications, that link driving records and other vehicle data, to the navigation system. A range of applications are offered such as driving support, information and entertainment.

The Big Data Traffic Information Service provides local governments, universities and businesses with information such as Toyota's original T-probe traffic information,[2] route history and traffic volume maps. It is also used for improving traffic flows and for implementing response measures for traffic in disasters.

[2] Real-time traffic information includes vehicle location, driving speed and other information acquired through telematics services



Agent provides a predictive information service that uses data from route history to predict the car's destination and route without input of a destination. It provides guidance on relevant traffic congestion, traffic restrictions, weather conditions and other helpful route information to make the drive worry-free and comfortable.

Focus

Toyota's Big Data Traffic Information Service Contributes to Disaster Risk Information Services

PASCO Corp. is a company that collects, processes, and provides traffic information. Its disaster risk information service "DR-Info," launched in August 2014, utilizes Toyota's Big Data Traffic Information Service in its route history and traffic congestion information.

In a disaster, the traffic information provided by the service is displayed as route history road information on map. This enables route searches to a destination calculated on route histories, and utilizes processed statistical information based on vehicle location, traveling conditions and other information.

Next-generation Traffic Systems

Connecting with Society

Building a Stress-free Traffic Environment Where Everyone Can Travel Smoothly, Exactly as They Wish

Toyota City Low-carbon Society Verification Project

In 2010, Toyota City was selected by the Ministry of Economy, Trade and Industry as a Next-generation Energy and Social System Demonstration area. The city and Toyota have conducted demonstration tests for the creation of next-generation low carbon energy and social systems in cooperation with pioneering companies and organizations in fields including automobiles and energy. The Ha:mo ultra-compact electric vehicle sharing service, using 103 COMS vehicles and 4 i-ROAD vehicles suited to short distance urban travel, launched in 2013. The following quantitative results have been confirmed: membership by approximately 3,500 individuals and 118 corporate bodies, and a reduction of over 30 percent in carbon dioxide emissions (compared to use of cars). This is calculated from a combined 19.4 percent reduction in carbon dioxide emissions through a modal shift to utilization of ultra-compact electric vehicles and a reduction of 13 percent through utilization of multi-modal navigation.

The project conducted by the Ministry of Economy, Trade and Industry concluded in March 2015, but Toyota is continuing to conduct its own project with Ha:mo.

Ultra-compact Electric Vehicle Sharing Verification Project in Grenoble, France

With its strict environmental regulations, Grenoble has a traffic vision to reduce the impact of vehicle usage even if the population continues to grow. The city is searching for Last Mile Mobility in collaboration with public transportation systems, while planning to reduce the automobile's share of transport down to 20 percent from the current 55 percent.

Toyota and the City of Grenoble signed a memorandum of understanding in March 2013 to begin verification tests of an ultra-compact electric vehicle sharing system. In October 2014, a total of 70 ultra-compact electric vehicles, consisting of COMS and i-ROADs, were deployed and a three-year, full-scale verification test was launched under the service name Cité Lib by Ha:mo. With verification test partners including the City of Grenoble, its wider metropolitan area government and the EDF (Électricité de France) energy company, which all have a shared vision of future urban mobility, the project is being driven by a body of unique partners.

Personal Mobility Sharing Service Verification Test Launched in Tokyo in Collaboration with Park24 Co., Ltd.

Toyota collaborated with Park24 Co., Ltd. to launch Times Car PLUS TOYOTA i-ROAD Drive in April 2015 as a verification test for a new personal mobility sharing service. The sharing verification test combines Park24's Times Car PLUS car sharing service with Toyota's Ha:mo sharing system and the i-ROAD. It runs mainly in central Tokyo, where the public transportation system is highly developed, for six-months until the end of September 2015. With a focus on transport to commercial facilities and sightseeing spots, the test will verify the usefulness of the service using actual usage conditions and user feedback. Through verification tests, Toyota will create new value and services for the mobility of users and will contribute to building low-carbon, comfortable communities.

Energy Management

Connecting with Communities

Optimizing Energy Use for the Entire Community and Realizing Stress-free and Environmentally Considerate Living with a High Quality of Life

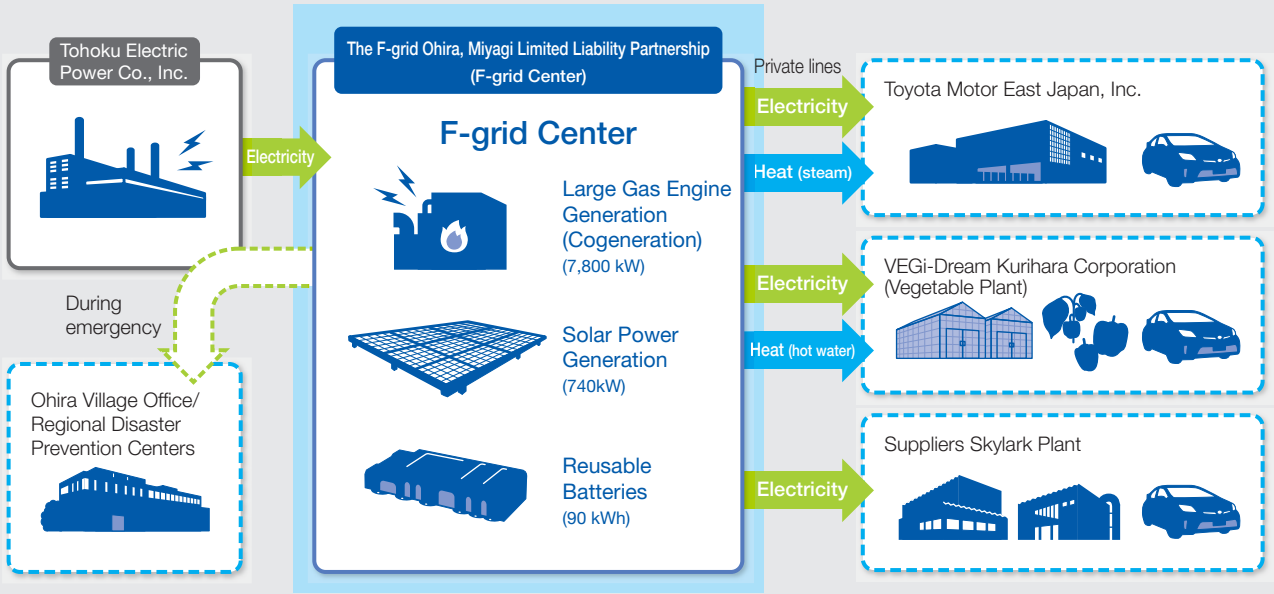
Connects homes, convenience stores, schools, and other regional facilities with cars, transportation infrastructure, and factories to maintain a balance of electric power supply and demand. The aim is to optimize energy use by communities and society as a whole.

Focus

Building Disaster-resilient Communities Where Regions and Factories Cooperate in Energy: F-grid

Following the Great East Japan Earthquake, Toyota has been working to solve energy problems (security, environmental impact, economic efficiency) and to support the Tohoku region by creating new smart communities centered on factories.

F-grid is a system that comprehensively manages the energy inside an industrial park where factories are located with the aim of developing low-carbon, competitive infrastructure. The F-grid Center distributes and stores in an optimum balance the electricity and heat generated by a large-scale gas engine and solar panels for use by nearby participating companies. By making energy consumption visible and averaging out the consumption, energy can be used stably and efficiently throughout the community. As of April 2015, energy is being supplied to a total of seven companies. In addition, during emergencies, the F-grid Center can perform disaster response and recovery functions and supply generated electric power to surrounding communities via an electric power company (planned for fall 2015).



For information on the Kansai International Airport (KIX) Hydrogen Grid Project, see Environment (p. 11-14)

Cooperative ITS

Connecting with Cars and Road Infrastructure

Toward Toyota's Ultimate Goal: The Complete Elimination of Traffic Casualties

Cooperation between road infrastructure, cars, and people can support safer driving through systems that enable cars to exchange information on their positions and speed and alert drivers at intersections with poor visibility. The public and private sectors are working in collaboration to put such systems into practical use.

For further details, see Initiatives for Improving Traffic Safety on page 04-03

Biotechnology and Afforestation

Basic Philosophy regarding Biotechnology and Afforestation Measures

To contribute to solving global problems such as global warming, energy issues and food shortages, Toyota established the Biotechnology and Afforestation Business Department and began research and development in January 1998. Toyota believes in the need for businesses that contribute to the environment, in new fields in addition to the automotive business.

In May 1999, Toyota Biotechnology and Afforestation Laboratory was established to lay the framework for research and development in the agricultural biotechnology field and to expedite Toyota's biotechnology business. In 2011, we compiled the principles of Biotechnology and Afforestation Business as Toyota Green Way, and we are tackling activities in various areas in line with the following three core visions.

The Direction and Vision

Principles of Biotechnology and Afforestation	**Toyota Green Way** The road that Toyota drives is a "Green Way"
Vision	• Contribute to the global natural environment through new business by developing excellent biotechnologies and afforestation-related technologies • Develop resource recycling-based businesses in response to problems such as food shortages; and air and water pollution • Develop afforestation businesses that contribute to the environment in response to problems such as global warming and the destruction of forests

Research and Development and Business Fields

We are conducting research and development and working to create new business in the fields of biomass utilization, contribution to the agriculture and livestock industries and greenification and afforestation.

Major Initiatives during FY2014

Biomass Utilization

Research and Development of Bio-fuels

Toyota is developing technologies to create bio-fuels from cellulose from agricultural waste and energy crops that do not compete with foods and feed to determine the direction of future automobile fuels. In particular, the company is conducting R&D with the aim of increasing the use of bioethanol as a substitute for gasoline.

Development of Cultivation Technologies for Napier Grass

On the island of Sumatra in Indonesia, a system for producing and procuring cheap biofuel raw materials is being developed using quick-growing Napier grass, which is grown between trees on unused land or on land unsuitable for food cultivation.

Agricultural IT Management Tools *Housaku Keikaku*

Toyota developed *Housaku Keikaku*, an agricultural IT management tool, and began providing the tool to rice grower networks. In 2014, nine rice growers in Aichi and Ishikawa Prefectures are now utilizing it.

The aim is to contribute to increases in agricultural productivity by applying the production control systems and process improvement expertise that Toyota has gained in automobile manufacturing.

Toyota has been participating in the Advanced Model Agricultural Business Formation Trials being conducted by the Ministry of Agriculture, Forestry and Fisheries since April 2014. We have jointly established the Rice-growing *Kaizen* Network consortium with Ishikawa Prefecture. In February 2015, it also collaborated with the JA (Japan Agricultural Cooperatives) Aichi Group to improve agricultural management training. Four cooperative-member farms in Aichi Prefecture were the first to introduce the tool from March, and there are plans to expand its use across the entire Aichi prefecture from 2016.

Example of Application of Production Management Systems and Process Improvement Expertise Gained in the Automobile Manufacturing

In harvesting and brown rice processes,* which are prone to losses and to difficulties sharing information among people in charge, *Housaku Keikaku* enables improvement of work efficiency by creating a system for planning the whole series of operations. It enables monitoring operations including the flow of materials, with signage and control boards, and the operating status of drying machines. It also enables integrated management of work performance and material costs for rice paddies having different contract types, work processes, and crops.

* Hulling heads of rice to produce brown rice

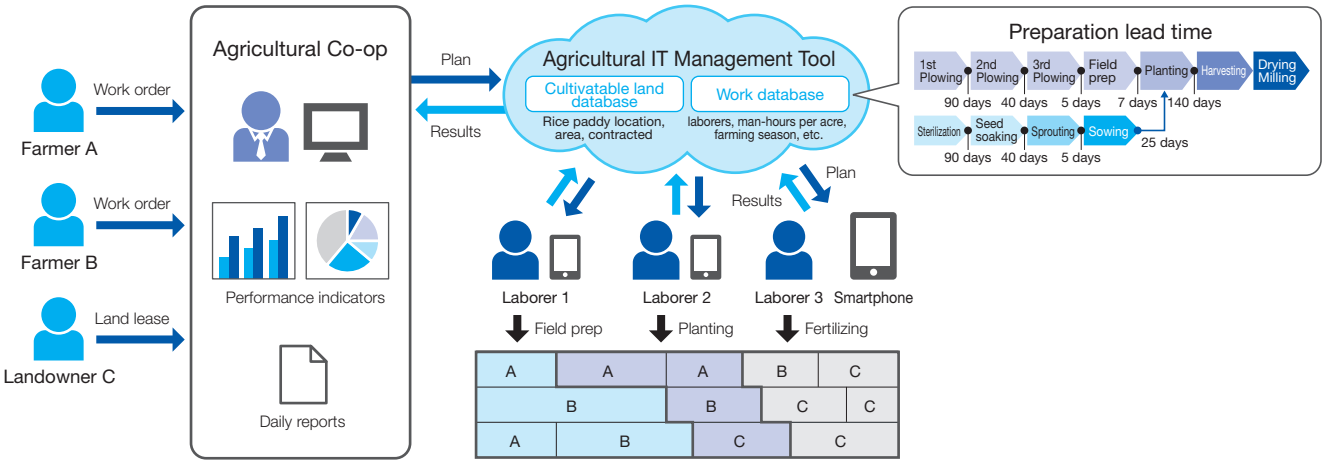
Example of Outcomes (Nabehachi Nousan)

- 30% reduction in material costs for raising seedlings
- 10% improvement in work efficiency in spring (raising seedlings, plowing, field prep, planting, etc.)
- 10% improvement in work efficiency in autumn (harvesting, drying, hulling, packaging)

Comments from *Housaku Keikaku* users

- "Now, it has been unnecessary to create paper maps every year for managing the work."
- "Creating daily reports is easier."
- "Both management and employees are able to understand the managed acreage and rice paddies accurately."
- "I don't have to take paper maps to the workplace."
- "Creating invoices (accounting procedures) for the agricultural cooperative and landowners is really easy."

Data and Work Flow



Support for Livestock Business

Affiliate Name: Toyota Roof Garden Co., Ltd.

Manufacture and sale of the resQ45 series of discharge composting deodorizers for livestock businesses.

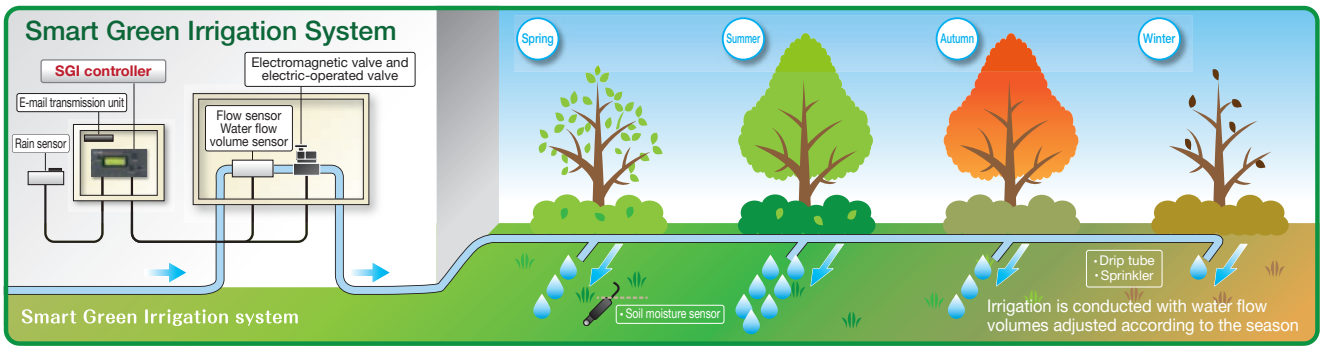
Greenification Business

Affiliate Name: Toyota Roof Garden Co., Ltd.

Toyota Roof Garden sells green products developed by Toyota with the goal of easing the urban heat-island effect. The company was established in 2001. Currently, its main business activities are as follows:

- Special green construction of rooftops, walls, and parking areas and sale of materials
- Sale of easy-care slow-growth Zoysia Grass (TM9)
- Sale of the Smart Green Irrigation System using year-round irrigation controllers

Example of a green wall



Greenification Business

Affiliate Name: Toyota Suntory Midorie (Shanghai) Co., Ltd.

Toyota and Suntory Midorie Limited established a joint venture company and began a greenification business in Shanghai in April 2012. The company is currently selling green materials systems mainly for indoor use. The company continues to develop its greenification business to contribute to environmental improvement in China.

A flower wall

New Lifestyle—Partner Robots

Basic Philosophy regarding Partner Robot Initiatives

Since Toyota's founding, its corporate philosophy has been to "contribute to the world and to people by enriching society through *monozukuri* (manufacturing)."

Based on this spirit, Toyota has been working to develop human-assisting partner robots to help enrich people's lives. Toyota will support people in four domains—nursing and healthcare support, personal mobility support, manufacturing support, and daily life support—and contribute to a more sustainable society and universal lifestyles.

Major Initiatives during FY2014

Development of Next-Generation Mobility "Winglet" Supporting Seamless Human Movement

To broaden the customer's range of mobility and realize a society where people can enjoy mobility with peace of mind, Toyota has developed the next-generation personal mobility vehicle Winglet. In June 2014, to promote wider familiarity with the Winglet, we started the "Winglet Challenge" test drive experience at the MEGA WEB (Koto-ku, Tokyo). As part of the project to promote Tokyo's waterfront as a meeting and event center, we installed a sharing station to promote Winglet sharing in the area. We have set up an associated trial operation at the MEGA WEB hall.

Winglet Challenge

Winglet

Start of Introduction to Medical Facilities of Rehabilitation Partner Robots

Based on the ideal of delivering the freedom of mobility to all people, Toyota is moving forward with the development of partner robots in collaboration with Fujita Health University (Toyoake City, Aichi Prefecture). In December 2014, we began the introduction to medical institutions of the Walk Training Assist and Balance Training Assist partner robots that provide rehabilitation aid to people with impaired walking or balance due to illness or injury. Starting with the Ukai Rehabilitation Hospital in Nagoya City, Aichi Prefecture, 23 Walk Training Assist robot sets and 21 Balance Training Assist robot sets are to be successively introduced at 34 medical facilities.

The aim of the current pilot testing program is to introduce robots with greatly improved user-friendliness in the practical rehabilitation environment to a large number of medical facilities, where they will be tested in a range of clinical situations to measure the change in the effectiveness of rehabilitation compared to before robot introduction. Based on the results of this testing, we will accelerate development towards practical application of the robots at the earliest possible date.

Walk Training Assist

Balance Training Assist

Comment from Joint Research Partner

Professor Eiichi Saito, Vice-President, Fujita Health University

Toyota Motor Corporation and Fujita Health University began joint research into rehabilitation robots in 2007. The project has successfully united our knowledge in rehabilitation medicine with Toyota manufacturing to produce high-quality products. We are almost ready to deliver robots that have practical uses. Mobility is a vital element of people's everyday life, and the concept of delivering the freedom of mobility to all people is crucially important in the super-aging society. It is of great social significance that Toyota is using vehicle and robot technologies to realize this ideal.

Establishment of Community Embracing Research Facilities and Other Organizations to Promote Technology Development toward Practical Application of the Human Support Robot

With the aim of early practical application of Human Support Robots (HSR) to support independent home living for people with disabilities, elderly people, and similar groups, Toyota has established the HSR Developers' Community with the cooperation of a number of research facilities and other organizations. Activities to promote technology development will begin in the autumn of 2015.

The partner organizations of the HSR developer community will use HSRs loaned to them by Toyota to advance with technology development to improve the functions of robots designed to provide assistance in everyday life to people with disabilities, elderly people, and similar groups. Software, expertise and other research and development results will be shared among the HSR Developers' Community and will allow the partner organizations to use them to accelerate technology development.

Toyota also plans to support the progress of pilot studies by the partner organizations, for instance by introducing them to other organizations willing to cooperate in testing the research and development results.

Distinctive Features of HSR

The HSR is equipped with an arm that retracts into the highly maneuverable lightweight and compact cylindrical body, enabling it to pick objects up off the floor, retrieve objects from shelves, and perform a variety of other tasks.

Since it was first announced in 2012, the HSR has undergone a number of improvements based on feedback from people with disabilities and healthcare workers. The new HSR that will be loaned to partner organizations for research purposes boasts a range of improvements in functionality, safety, and practical operability for the purposes of research and development and pilot testing.

New HSR

Focus

Robot Astronaut KIROBO Returns to Japan after Approximately 18 Months in Space

In the KIBO ROBOT PROJECT,* a joint research undertaking which aims to represent Japan's hopes for children, manufacturing, and the society of the near future, Toyota was responsible for providing voice recognition technology and natural language processing for the robot astronaut KIROBO.

From August 2013, KIROBO spent approximately 18 months on the International Space Station, where it participated successfully with JAXA astronaut Koichi Wakata in the world's first ever space-based conversation between a human and a robot. Since returning to Earth in February 2015, KIROBO has participated in home-coming report meetings and exchange events at science museums in seven regions of Japan. It was clear from the wide-eyed gazes of children as they asked their questions that this project has encouraged children's aspirations and served as an opportunity to communicate about Toyota's manufacturing and the Toyota vision. It has been decided that KIROBO will feature in school textbooks in science, technology, English and five other subjects in 2016, bringing the robot to the attention of a still wider audience of children.

Toyota is applying the insights gained in the KIBO ROBOT PROJECT to its work in the Toyota Heart Project which, under the theme "Inspiring the Heart, Inspiring You," researches new forms of communication between humans and objects that occur for instance when casual conversations are shared, or when endearing expressions or gestures are recognized.

* KIBO ROBOT PROJECT: A joint project between the University of Tokyo Research Center for Advanced Science and Technology (RCAST), Robo Garage, Dentsu, and Toyota Motor Corporation

KIROBO before its return to Earth

Home-coming report meeting at the National Museum of Emerging Science and Innovation

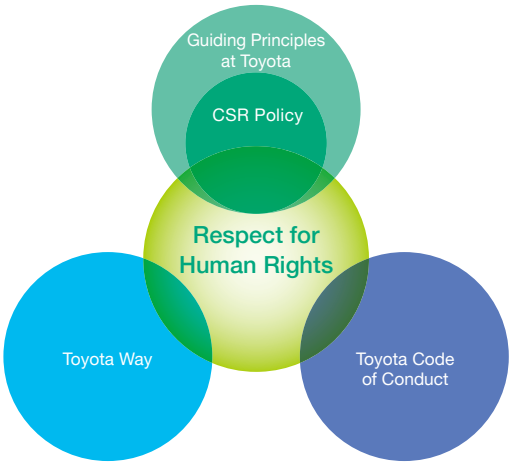
Respect for Human Rights

Basic Philosophy regarding Human Rights

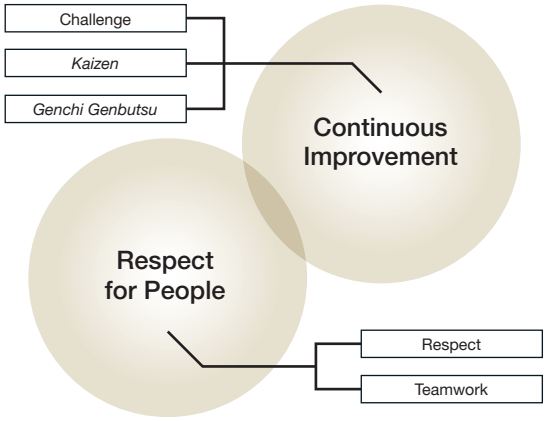
The Guiding Principles at Toyota and the Toyota Code of Conduct (established in 1998; revised in 2006), which consolidates Toyota's approach to putting these principles into practice, as well as the CSR Policy: Contribution towards Sustainable Development, which was drawn up in 2008, contain the concept of respecting and honoring the human rights and other rights of all the people involved in Toyota's business.

Further, of the two pillars of the Toyota Way—"Continuous Improvement" and "Respect for People"—"Respect for People" refers to respect for all stakeholders as well as respect for the character and abilities of employees as individuals and facilitating personal achievement by linking the personal growth of employees to company performance. Thus, putting the Toyota Way into practice means respecting human rights.

The Toyota Way is the moral foundation for sharing common values with all business units across the world. In addition, various measures are implemented so that employees can work with confidence, vigor, and enthusiasm. Efforts are also made to fully reflect and put into practice such concepts throughout Toyota's global business activities, which include subsidiaries and suppliers.



The Two Pillars and Five Keywords of the Toyota Way



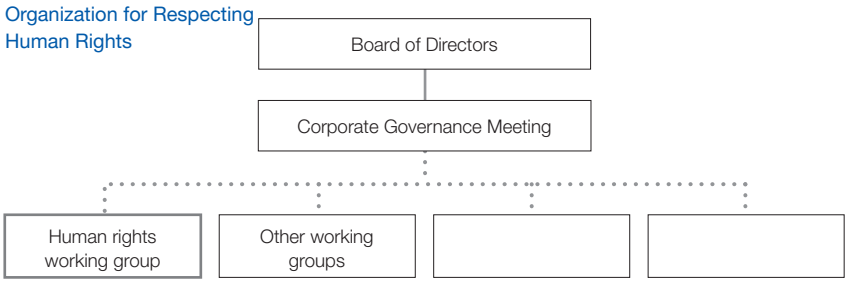
Organization and Structure

Toyota is responding to changes in circumstances such as heightened social demands concerning human rights by continuously enhancing and reviewing its corporate initiatives.

For example, in conjunction with the reinforcement of the due diligence concept and the introduction and revision of international norms based on this approach, a Human Rights Working Group was established in 2011 to incorporate various functions including corporate planning, overseas external affairs, audit, legal affairs, accounting, and human resources with the aim of researching various international norms and investigating measures that Toyota should take. Based on the Group's work, we continuously reinforce and review various CSR measures relating to human rights and labor.

Since April 2015, measures relating to human rights and labor have been discussed at the Corporate Governance Meeting, which has been set up in conjunction with organizational changes that are intended to incorporate CSR into management and raise corporate value throughout management overall. The Corporate Governance Meeting is a body that deliberates on governance with the aim of carrying out growth strategies that incorporate the value that Toyota provides with regard to a variety of social issues.

Organization for Respecting Human Rights

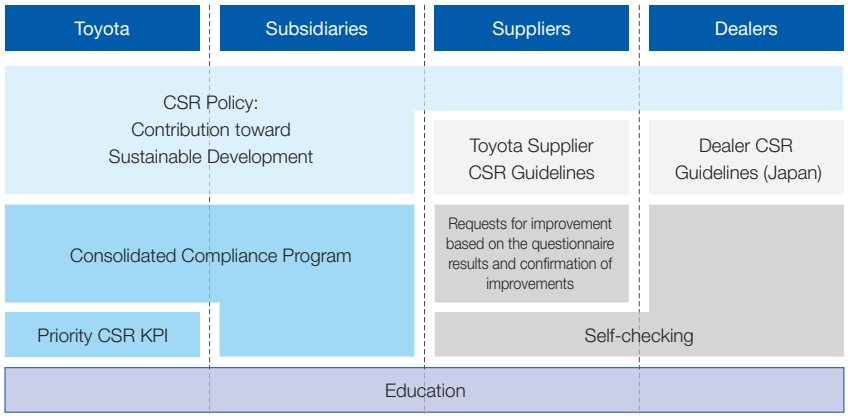


Members

Human Resources Div.
Global Audit Dept.
Accounting Div.
Legal Div.
Purchasing Planning & TNGA Promotion Div.
Overseas External Affairs Div.
Corporate Planning Div.

Major Initiatives

Toyota	Toyota established in-house priority CSR KPI to confirm whether business is being executed in line with the concept of respect for human rights, and follow-up is performed for the various functions each year.
Subsidiaries in Japan and Overseas	Toyota requests the implementation of self-checking for the Consolidated Compliance Program once a year at its subsidiaries in Japan and once every two years at overseas subsidiaries. As a part of this initiative, subsidiaries have been requested to propose and implement improvement measures addressing human rights and labor issues based on the results of self-checking. In 2014, self-checking were conducted at 197 subsidiaries in Japan.
Suppliers	Toyota established and distributed the Toyota Supplier CSR Guidelines in 2009, which clearly states Toyota's expectations of its suppliers and Toyota's policy of respect for human rights. Based on the guidelines, Toyota has requested each company to perform self-checking. Toyota revised the Toyota Supplier CSR Guidelines at the end of 2012, and adopted newly created questionnaire as a part of its efforts to enhance human rights and labor-related initiatives, and is now making requests for improvement as necessary and following-up to confirm that improvements are made.



Toyota's Approaches to Conflict Minerals Issues

Toyota is taking various measures to realize protection of human rights.

Civilians in certain regions around the world are being subjected to massacres, plunder, abduction, conscription of child soldiers, and other inhumane conduct as a result of armed conflict, thereby giving rise to international condemnation. In the Democratic Republic of the Congo (DRC), which is located in central Africa, the unlawful mining and smuggling of the country's abundant mineral resources is said to be a major source of funding for armed groups.

Toyota undertakes business with a strong awareness that violations of human rights, environmental degradation, unlawful mining, and other issues in these conflict regions as well as the issue of minerals that provide sources of funding to armed groups through such actions are major social issues concerning the supply chain.

Toyota has conducted a reasonable country of origin inquiry with due diligence for its products since May 2013. A report summing up the survey results for the period during January-December of 2014 was compiled in the 2014 Form SD and Conflict Minerals Report and submitted to the U.S. Securities and Exchange Commission on May 29, 2015.

We aim at procurement and usage that are free from conflict minerals originated in the DRC or an adjoining country and relating to illegal conduct including human rights infringement. For that purpose, Toyota will work together with parts suppliers, automotive industry organizations and other relevant organizations.

For further information on the 2014 Form SD and Conflict Minerals Report, please visit the following webpage

Web http://www.toyota-global.com/investors/ir_library/sec/pdf/form_sd_201505_final.pdf

Toyota's Policy on Conflict Minerals

Toyota has adopted Policies and Approaches to Conflict Minerals Issues—a set of guidelines the company is supposed to refer to in tackling conflict minerals issues. Based on the guidelines, Toyota is dealing with the issues. Meanwhile, the company revised the Toyota Supplier CSR Guidelines in 2012, asking its suppliers to engage in responsible material procurement.

Toyota's Policies and Approaches to Conflict Minerals Issues

We—Toyota Motor Corporation and its subsidiaries—promote obtainment of materials with full deliberation and care to avoid the procurement or usage of materials which are unlawful or which are obtained through unethical or otherwise unacceptable means.

We recognize that the issue of conflict minerals originated in the DRC or an adjoining country is one of the significant social issues among supply chains.

We aim at procurement and usage that are free from conflict minerals originated in the DRC or an adjoining country and relating to illegal conduct including human rights infringement. To realize such procurement and usage, we conduct inquiries tracing back through our supply chains and confirm if conflict minerals are used. And we take appropriate steps to discontinue procurement of materials that can cause social problems or finance armed groups if usage is detected. Based on mutually beneficial relationships, we ask our suppliers to understand our policies and approaches and to promote responsible material procurement.

Excerpt from the Toyota Supplier CSR Guidelines ("Responsible Material Procurement")

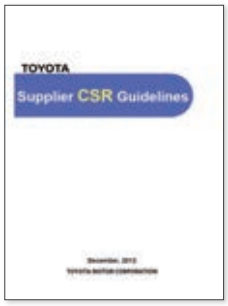
We obtain materials with full deliberation and care to avoid the procurement or usage of materials which are unlawful or which are obtained through unethical or otherwise unacceptable means (such as conflicts minerals*).

We expect suppliers to take appropriate steps to discontinue procurement of these materials if usage is detected.

* Minerals originating from the DRC or an adjoining country that have directly or indirectly contributed to the financing of armed groups

For further information on the Toyota Supplier CSR Guidelines, please visit the following webpage

Web http://www.toyota-global.com/sustainability/society/partners/supplier_csr_en.pdf



Toyota Supplier CSR Guidelines

Establishment of an In-house System, Industry-to-industry Collaboration, and Participation in Public-private Alliance for Responsible Minerals Trade (PPA)

In 2011, Toyota launched a cross sectional task force in charge of dealing with conflict minerals issues. Consisting of representatives from relevant departments within the company, the team, formally called the Conflict Minerals Task Force, has begun considering what actions are to be taken regarding conflict minerals. Also in 2011, Toyota set up a working group on conflict minerals jointly with the JAPIA.[1] The move represented the domestic automotive industry-wide efforts to cope with issues associated with conflict minerals.

In 2012, Toyota and its parts suppliers belonging to the JAPIA joined hands in conducting a trial-based survey on conflict minerals used in their products, kicking off their preparations for launching full-fledged investigation into the issues.

In 2013, the Japan Conflict-free Sourcing Working Group was established by automakers and companies belonging to the JEITA.[2] Main activities undertaken by the Japan Conflict-free Sourcing Working Group include the investigation of identity regarding firms engaging in smelting in conflicted areas and making visits to organizations representing smelters. The association has been also pressing for smelters to obtain a certificate confirming that minerals they use in their products are DRC conflict-free.

Toyota's efforts to work with other industry groups on the issue of conflict minerals are not limited to activities in Japan. Toyota has been working globally to deal with the issue. For example, the company has participated in a working group set up by the AIAG,[3] a U.S. group tasked with setting code of conduct for the auto industry. Toyota has been also cooperating with the CFSI[4] through activities of each working group.

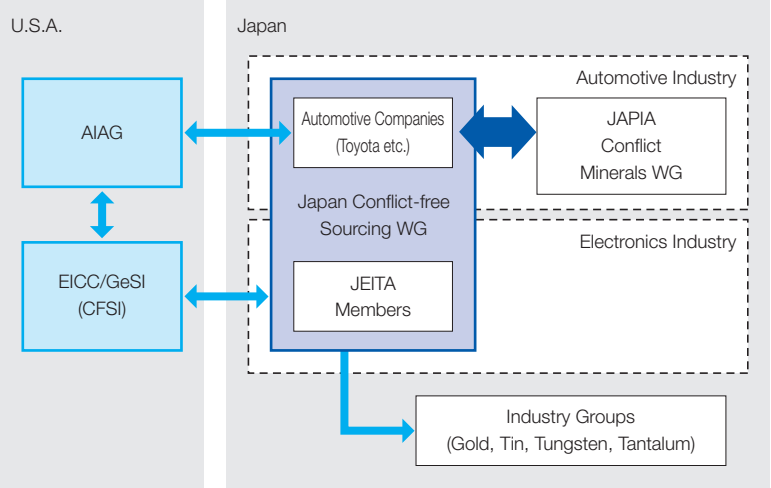
In addition, Toyota has participated in the Public-private Alliance for Responsible Minerals Trade (PPA[5]), a multi-sector initiative whose members include the U.S. government, industry organizations and citizen groups. The PPA encourages responsible minerals trade that is free from material procurement in certain areas marred by regional conflict, including the DRC or an adjoining country, and coordinates support to organizations engaged in the critical work to develop conflict free supply chains.

Toyota agrees with the spirit of the PPA's efforts, and considers resolving issues that may hinder the trading of legitimate mineral resources in those countries. For this purpose, it refrains from requesting suppliers to not use any minerals in the area, regardless of their relation to human rights violations. Based on that awareness, it believes promoting initiatives industry-wide for use of materials that are free from conflict at smelters who are upstream in the supply chain is one way to resolve human right infringement issues and ultimately develop a more civil society.

As a result of the industry-wide cooperation outlined above, the number of conflict-free smelters and refiners worldwide has been increased to 133 as of January 2015.[6] Toyota has confirmed that 121 out of those 133 conflict-free smelters were named by our suppliers in response to our request for the 2014 survey.

[1] Japan Auto Parts Industries Association (http://www.japia.or.jp/)
[2] Japan Electronics and Information Technology Industries Association (http://www.jeita.or.jp/)
[3] Automotive Industry Action Group (https://www.aiag.org/)
[4] Conflict-Free Sourcing Initiative (http://www.conflictfreesourcing.org/)
[5] The Public-private Alliance for Responsible Minerals Trade (http://www.resolv.org/site-ppa/)
[6] Toyota started analysis of the survey results in January 2015

Overview of Industry-to-industry Collaboration



Reasonable Country of Origin Inquiry

1. Details of Surveys Implemented in 2014

In May 2013, Toyota launched a full-scale reasonable country of origin inquiry. Since then, the survey has been conducted globally, covering its subsidiaries operating both in Japan and abroad. In 2014, Toyota, together with more than 20 overseas subsidiaries, carried out the survey for all kinds of business undertaken by Toyota, including automobiles and marine transportation equipment. More than 7,000 suppliers operating in Japan and overseas were asked to check if conflict minerals have made their way into the supply chains of their products.

Before the survey began, Toyota held a briefing session for suppliers while formulating a manual detailing how to fill in the survey sheet and developing a tool used to compile survey results. Also, Toyota supported a briefing session co-sponsored by JAPIA and JEITA. As we have been closely communicating with major Tier-1 suppliers, some of the feedback we received from them was integrated into conflict minerals survey-related materials, such as survey manuals, FAQs and other tools. Those materials are provided to suppliers free of charge, with the aim to provide support on the survey.

In addition, Toyota has been doing its due diligence regarding identification of the origin of minerals being used by its suppliers, and their distribution and production processes in line with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-affected and High-risk Areas.

Based on the risks identified through the due diligence, Toyota discussed with the management, then designed and implemented a strategy to respond to such risk, which were documented as a risk management plan.

Toyota Suppliers Meeting

2. Results of Surveys Implemented in 2014

The 2014 survey results were incorporated into Form SD and Conflict Minerals Report which have been filed to SEC.

Automobile supply chains are expansive and complex, and as a result, in many instances the 2014 survey was not able to identify smelters/refiners and mines in upstream portions of the supply chain.

For further information on the 2014 Form SD and Conflict Minerals Report, please visit the following webpage

Web http://www.toyota-global.com/investors/ir_library/sec/pdf/form_sd_201505_final.pdf

Details of Survey Results

Conflict minerals' country of origin	Because sufficient information to identify a portion of the smelters/refiners and the countries of origin of conflict minerals was not provided by its suppliers, Toyota was unable to determine any of its products to be DRC* conflict-free.
Facilities used to process conflict minerals	During the course of our due diligence on the source and chain of custody of the necessary conflict minerals, Toyota has collected information on some, but not all, of its smelters/refiners. Among those smelters/refiners, we found some of them processed minerals sourced in the DRC or an adjoining country. However, through our due diligence, we were unable to obtain sufficient information to determine whether those conflict minerals were from mines which financed or benefited any armed group.

* Democratic Republic of the Congo

Future Efforts

Toyota aims to become a company which does not use conflict minerals originating from the DRC or an adjoining country that were mined and sold under the control of armed forces to finance conflict and violation of human rights, as materials for their products. Toyota has pledged to become DRC conflict free in collaboration with suppliers. Toyota finds it necessary to establish the environment that enables implementation of due diligence. For that environment to be created, Toyota will gather information on due diligence. Toyota will therefore gather information on smelters and lobby to organizations of smelters, while working with industry and other groups.

Future Effort Details

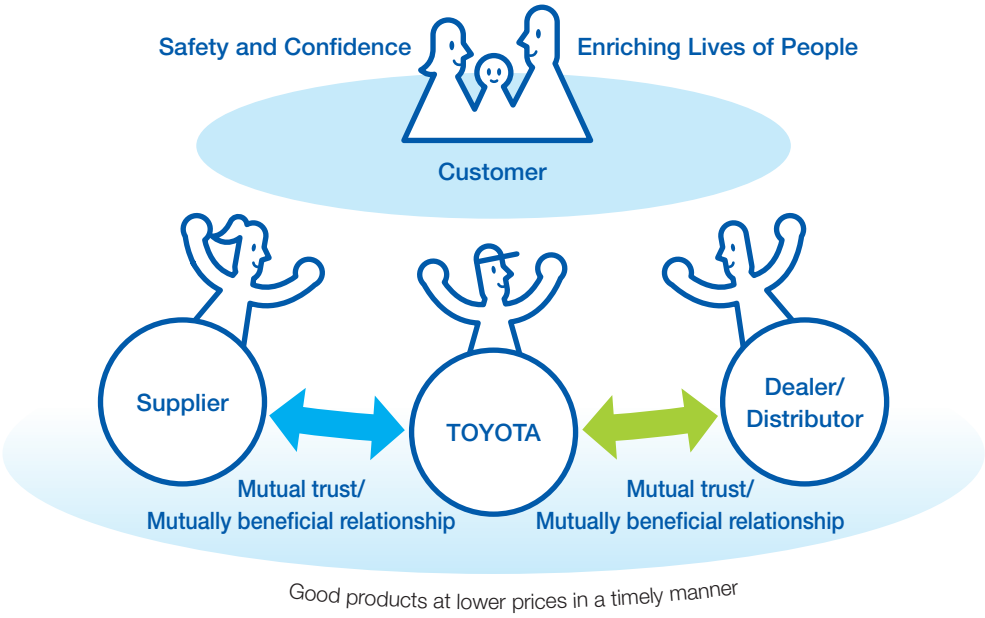
- Improve the reasonable country of origin inquiry (RCOI) survey and due diligence
- Improve the measures of the RCOI survey based on feedback from major Tier 1 suppliers
- Conduct awareness-raising activities for suppliers such as providing conflict minerals survey-related materials including guidance manuals, holding sessions on a regular basis in cooperation with JAPIA and continuing to communicate and exchange opinions with trade partners with direct business
- Encourage smelters/refiners to participate in the Conflict-free Smelter Program through the industry organizations such as AIAG and JAPIA
- Continue industry-wide cooperation such as contribution to CFSI through AIAG and participation in PPA
- Follow up with suppliers if there is room for improvement in terms of responsible material procurement, which is among those described in Toyota Supplier CSR Guidelines

Collaboration with Business Partners

Basic Philosophy regarding Business Partners

In order to contribute to society through *monozukuri* (manufacturing) and put into practice the principle of "Customer First," it is necessary to undertake various activities in a spirit of shared principles, cooperation, and collaboration with our business partners such as suppliers and dealers.

Toyota pursues open and fair business activities, and engages in ongoing CSR initiatives while enhancing cooperation with business partners to raise quality in terms of safety and customer confidence, and works to further raise customer satisfaction.



Excerpt from "CSR Policy: Contribution towards Sustainable Development"

- We respect our business partners such as suppliers and dealers and work with them through long-term relationships to realize mutual growth based on mutual trust.
- Whenever we seek a new business partner, we are open to any and all candidates, regardless of nationality or size, and evaluate them based on their overall strengths.
- We maintain fair and free competition in accordance with the letter and spirit of each country's competition laws.

Actual Results for the Previous Fiscal Year and Major Initiatives for the Current Fiscal Year

	Major Initiatives during FY2014	Major Initiatives during FY2015
Suppliers	• Continued initiatives to promote CSR measures in the supply chain • Addressed issues concerning human rights in the supply chain including the issue of conflict minerals	• Continue and reinforce the activities described to the left regarding the supply chain
Dealers	• Improved and shared integrated operations systems for dealers, to raise service quality and operational efficiency • Provided support to activities conducted by the Toyota National Dealers' Advisory Council such as self-auditing using checklists, etc. • Coordinated with dealers and promoted activities rooted in local communities such as the Toyota First Experience Program and AQUA SOCIAL FES	• Share integrated operations systems at all dealers • Provide information to dealers through CSR website • Propose and carry out social contribution activities from local perspectives

Collaboration with Suppliers

Since its establishment, Toyota has sought to work closely with its suppliers in its manufacturing activities. In good times and bad, Toyota and its suppliers have faced the same issues together and Toyota has built strong and close relationships with them according to the spirit of mutual benefit based on mutual trust. With the recent globalization of business activities Toyota will cherish these ties—including those with new partners—and will promote the Customer First Policy together with them.

Basic Philosophy regarding Purchasing

Toyota believes that the most important task in purchasing is to build close relationships in which Toyota and suppliers do business on an equal footing based on mutual respect, thus building firm bonds of trust and promoting mutual growth and development.

It is also important to contribute to the sustainable development of society and the sustainability of the earth by working with suppliers in various countries and regions to ensure legal compliance and respect for human rights, and to carry out initiatives that contribute to local communities and global society.

Toyota's global purchasing activities based on close cooperation revolve around the following three policies making up the Basic Purchasing Policies.

Basic Policies at Toyota Purchasing

1. Fair Competition Based on an Open-door Policy

Toyota is open to any and all suppliers, regardless of nationality, size, or whether they have done business with us before. Our choice of suppliers is purely on the basis of business considerations.

We evaluate the overall strengths of prospective suppliers, including their quality, technological capabilities, and reliability in delivering the required quantities on time.

In addition, we consider their operational approach and systems for tackling ongoing reform and efforts addressing social responsibilities, such as environmental issues.

2. Mutual Benefit Based on Mutual Trust

We believe in developing mutually beneficial, long-term relationships based on mutual trust. To foster that trust, we pursue close and wide-ranging communication with suppliers.

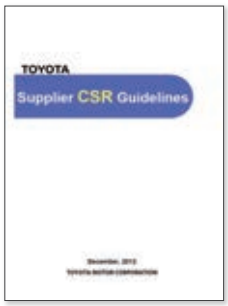
3. Contributing to Local Economic Vitality through Localization: Good Corporate Citizenship

Toyota is vigorously promoting local production in response to demand for automobiles in each region worldwide. For local production, we actively procure from local suppliers, including parts, materials, tools, equipment and others materials. In this way, we aim to contribute to the local society and act as a good corporate citizen.

Implementation of the Toyota Supplier CSR Guidelines

At Toyota, we believe it is important to engage in coordination with suppliers, and issued the Toyota Supplier CSR Guidelines in February 2009. Toyota suppliers are asked to implement their own independent CSR activities based on the Toyota Supplier CSR Guidelines, and in turn expand their individual CSR policies and guidelines to their own suppliers.

Furthermore, in December 2012, Toyota revised the guidelines to clearly indicate to companies in its supply chain its principles regarding human rights issues (strengthening of monitoring and corrective actions, and approaches towards conflict minerals) in order to enhance and strengthen the global scale of CSR initiatives.



Toyota Supplier CSR Guidelines

For further information on the Toyota Supplier CSR Guidelines, please visit the following webpage

WEB http://www.toyota-global.com/sustainability/society/partners/supplier_csr_en.pdf

Major Initiatives

Initiatives towards Respecting Human Rights in Supply Chains

Toyota developed the Toyota Supplier CSR Guidelines to its suppliers, clearly indicating its policy of respecting human rights and what it expects of its suppliers, and has expanded them. Furthermore, as part of efforts to strengthen its initiatives regarding human rights and labor issues, Toyota created a new questionnaire to assess the situation at each supplier. When necessary, Toyota asks the supplier to make improvements and follows up on improvement activities.

Approaches towards Conflict Minerals Issue

Based on its Policies and Approaches to Conflict Minerals Issues, Toyota strives to procure conflict-free raw materials that do not involve human rights infringements or other abuses. We conduct investigations that trace global supply chains and by taking measures to avoid use in cases where there are concerns that raw materials are being used as a source of funds for armed groups.

For further details, see Chapter 7: Respect for Human Rights on pages 07-03 to 07-05

Support for the CSR Activities of Suppliers

Toyota asks its suppliers to practice CSR and sponsors the CSR Study Meetings every year in order to support their CSR activities.

Toyota is also working to propagate knowledge about CSR in general and to raise awareness about various issues such as “Why CSR needs to be promoted” and “Why the entire supply chain must also be included.”

CSR Study Meeting

Main Initiatives during FY2014

Japan

CSR Study Meetings targeting some 1,200 persons from approximately 600 suppliers were conducted to address compliance (management of confidential information and compliance with competition laws) and human rights/labor issues (respect for human rights and labor management).

On the subject of respect for human rights, the meeting addressed the issue of protecting human rights in supply chains to promote better understanding of this issue.

Overseas

Toyota participates in the supplier CSR education program of the Automotive Industry Action Group (AIAG)* to support its overseas suppliers in their activities to promote CSR. In FY2014, Toyota participated in the development of the Supplier Responsibility Training Project, an e-learning program that enables suppliers to undergo training through the AIAG website, and will continue working to help raise awareness of CSR across its supply chains.

* An organization which lays down the code of conduct in the U.S. automobile industry (https://www.aiag.org/)

Suppliers' CSR Activities

Toyota suppliers also voluntarily engage in various activities to promote CSR.

CSR Lecture	Toyota's supplier associations, Kyohokai and Eihokai, jointly hold an annual CSR lecture with the aim of improving member companies' awareness and understanding of CSR and encouraging the implementation of CSR initiatives. In July 2014, a lecture entitled "The CSR Required Today" was given and specific case studies were presented.
CSR Workshop	Eihokai holds CSR workshops followed by CSR lectures and study meetings. In CSR workshops, the participants divide into sub-groups and exchange opinions on each theme. Through these activities, participants study the initiatives being taken by member companies in order to improve the level of CSR initiatives at all suppliers.
Volunteer Activities	As part of the initiative to promote CSR, Kyohokai and Eihokai jointly held volunteer-staffed goods collection drives (collecting unneeded cell phones, miswritten pre-paid postcards, unused postal stamps, etc.) to help people in the areas hit by the Great East Japan Earthquake. The proceeds from these collection drives were donated to the local government in the affected area (Iwate Prefecture).

CSR Lecture

CSR Workshop

Volunteer Welfare Council

Collaboration with Sales Networks

Basic Philosophy regarding Sales Networks

Dealers/distributors are the front line where Toyota's "Customer First" principle is to directly observed. Toyota and its dealers/distributors always work as one to enhance customer satisfaction based on a strong relationship of trust, close two-way communication, and the shared value of Toyota products and services.

Basic Philosophy regarding Dealers in Japan

Approximately 280 dealers have contracted directly with Toyota, and operate around 5,500 sales outlets including used car outlets. Based on the policy of "Customer First, Dealer Second, Manufacturer Third," Toyota believes that dealer success, which ultimately leads to Toyota's growth, can be achieved if Toyota supports and collaborates with dealers to meet customers' expectations and raise their level of satisfaction.

Organization and Structure

The Toyota National Dealers' Advisory Council (TNDAC) established the special CSR study group and created/issued the TNDAC CSR Guidelines in 2005. In 2006, Toyota dealers in Japan adopted the Toyota Dealers CSR Declaration to promote unified CSR activities involving all Toyota dealers in Japan. The TNDAC CSR Guidelines are based on the three pillars of Compliance, Environment, and Social Contribution, and are designed to help dealers improve the satisfaction level of various stakeholders, including customers. These guidelines also encourage the entire Toyota Group to work in concert to engage in CSR initiatives to become a presence that is respected and liked by people in communities.

Being on the frontline of contact with customers, dealers actively engage in CSR activities and Toyota supports these activities.

Specifically, in line with the decisions made at the CSR study group, each dealer has set up an internal CSR secretariat, a CSR Committee, and a basic CSR policy to promote CSR activities. Using a self-auditing tool called the "CSR Checklist" made up of nearly 400 items, dealers are consistently going through the Plan-Do-Check-Act cycle and reporting their activity results to TNDAC each year.

Toyota is sharing its know-how, including the checklist system, auditing method, and textbook creation, to support the CSR activities of its dealers.

Major Initiatives during FY2014

Overview of Toyota's Support for the CSR Activities of Japanese Dealers

In 2006, Toyota created the CSR Checklist to help each dealer consistently go through the Plan-Do-Check-Act cycle for CSR. Every year, Toyota dealers report improvements to TNDAC. In 2011, Toyota introduced a new system for the PDCA cycle and also began providing evaluation result feedback sheets to vehicle dealers and rental/leasing dealers.

Additionally, in response to the Toyota Dealers CSR Declaration issued at the 65th TNDAC General Meeting held in January 2006, Toyota set up a CSR Support Website designed to help dealers with their CSR activities. When it set up the Toyota Dealers Helpline, Toyota created the Helpline Leaflet and distributed copies to all staff members at dealers.

As for CSR-related education and promotion tools, Toyota has created and distributed various materials, such as CSR textbooks for staff, dealer compliance audit manuals, legal compliance leaflets, lecture DVDs, Helpline Report Digests, and a collection of initiatives rooted in and designed to help local communities. Toyota also cooperates with the CSR workshops and CSR lectures held by TNDAC, providing the necessary know-how and data.

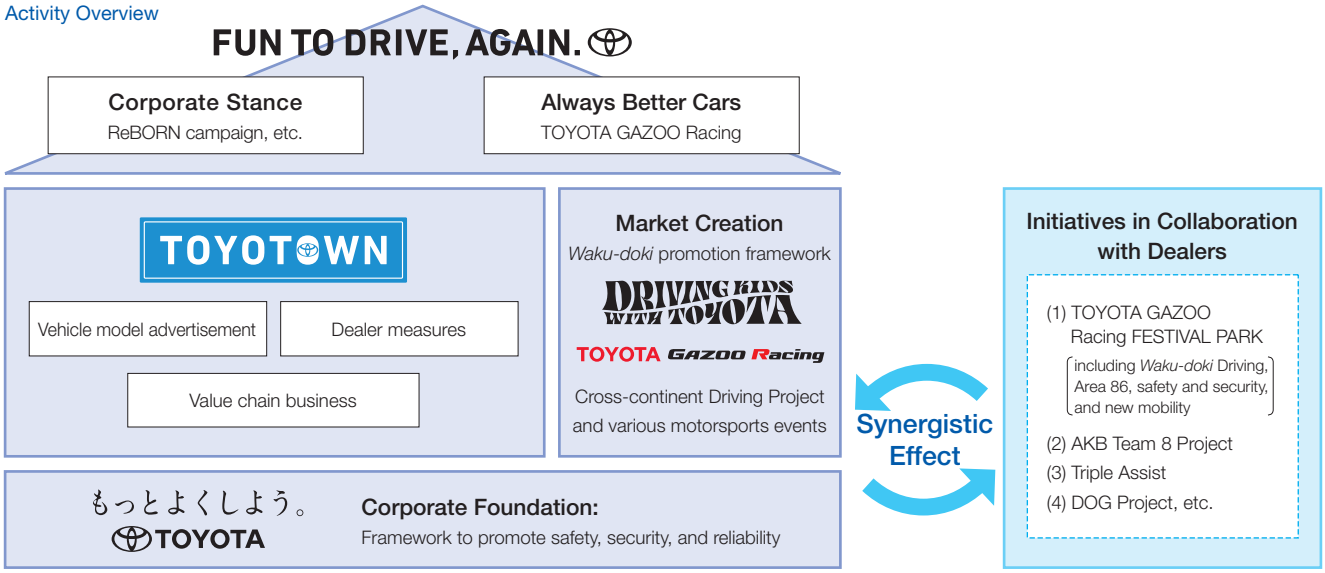
TNDAC's Major CSR Initiatives

Distribution of the CSR Checklist and the evaluation result feedback sheet	Operation of the Toyota Dealers Helpline Distribution of the Helpline Report Digest, various types of tools, and handouts	CSR workshop	CSR lecture

Overview of Activities Undertaken with Dealers

The marketing activities, jointly carried out by Toyota and all of its dealers, are based on promoting Toyota hybrid vehicles through the TOYOTOWN campaign, promoting the feeling of *waku-doki* (excitement and exhilaration) through the Driving Kids with Toyota program, and promoting safety, security, and reliability through the "Let's Make It Better, Toyota!" campaign. Toyota is utilizing these promotional frameworks while undertaking various activities in collaboration with dealers. By better communicating the appeal of cars to customers through activities rooted in each community, Toyota aims to create more fans and become the No. 1 company in town, cherished by its customers even more.

Activity Overview



Main Events and Measures

- TOYOTA GAZOO Racing PARK (formerly the Driving Kids Festival)
- Toyota First Experience Program
- Assisted-mobility car exhibit
- 86 fan get-together
- Motor-show-related events
- Other co-sponsored events
- GAZOO Racing activities, support of participatory motor sports, circuit-driving experience events, customized car show

TOYOTA GAZOO Racing Activities Increase Enjoyment by Car Enthusiasts and Fans

Overview

In April 2015, TOYOTA Racing and LEXUS RACING were integrated with GAZOO Racing to form TOYOTA GAZOO Racing, which undertakes motorsports activities that increase enjoyment by car enthusiasts and fans.

Firstly, these activities aim to make "Always Better Cars." In order to enhance the skills of human resources, refine cars, and make automobiles that exceed the expectations of car enthusiasts, Toyota is tackling the challenges of various motorsports including cross-continental driving projects and the 24 Hours Nürburgring endurance race in Germany and uses the experience gained from these events in the development of mass production cars.

Secondly, the activities are aimed at "promoting the joy of cars." Toyota conducts events providing experience, training, and competition throughout Japan in races and rallies in order to create the opportunity for participants to experience the joy of driving and to promote interaction among car fans. Examples of events held or sponsored by Toyota include *Waku-Doki* circuit events, which allow drivers to experience circuit driving in their own cars, and Sports Driving Lessons, as well as the 86/BRZ Race and the Netz Cup Vitz Race, which enable drivers to race in numbered cars, and the TRD Rally Challenge, which drivers can easily enter and compete.

Japan's largest car festival, the TOYOTA GAZOO Racing Festival, where participants can observe and experience vehicles ranging from racing cars to mass-market sports models on a circuit and the TOYOTA GAZOO Racing website are positioned as platforms for car enthusiasts and fans to talk about cars and enjoy car-related interaction.

Initiatives during FY2014

In addition to *Waku-doki* circuit events and Sports Driving Lessons, where participants can experience actual circuit driving, Toyota launched the Full Break/Slalom program, where participants can readily learn driving fundamentals, at Megaweb in Odaiba, Tokyo. More than 50 events in these series were held with more than 1,600 participants. In addition, during the year, a total of 669 vehicles entered the 86/BRZ Race, 501 vehicles entered the Netz Cup Vitz Race, and 339 vehicles entered the TRD Rally Challenge, expanding the circle of customers who enjoyed participatory motorsports.

Event Participants' Comments

Waku-doki circuit events

- I felt at ease because the instructor's advice was so thorough. I'm very satisfied with the rich content of the experience.
- I was able to learn the basic operations of the accelerator, brake, and steering wheel according to the behavior of the car.
- I didn't think my car was suitable for circuit driving, but it was really fun driving on the circuit.

86/BRZ Race

- This race is great because there are very few specification differences between the cars, allowing everyone from top-ranked professionals to amateurs to enjoy the race under the same conditions.

Professional drivers provide advice on circuit driving techniques during a *Waku-doki* circuit event

The Driving Kids Festival Redesigned into the TOYOTA GAZOO Racing Park

The two-day Driving Kids Festival in Fukushima was held in June 2014 in cooperation with Toyota dealers, rental/leasing dealers, and parts distributors in Fukushima Prefecture to increase car enthusiasts. The event was attended by 16,000 customers. Regional events held by individual dealers are also increasing, and these events are becoming established as regional revitalization programs.

Starting in the summer of 2015, the Driving Kids Festival was transformed into the TOYOTA GAZOO Racing Park by incorporating new motorsports elements. By co-hosting various motorsports events and adding new experience-based and participatory programs, the impact of the festival was increased. Toyota will continue collaborating with dealers throughout Japan to hold events with deep ties to local communities.

A father and child enjoy driving a racing kart

The Toyota First Experience Program, a Traveling Classroom at Elementary Schools All over Japan

Overview

The Toyota First Experience Program aims to nurture future car fans by providing children of the "virtual era" with opportunities to gain real-life experience through all five senses and to experience the global environment and economy up close. In cooperation with dealers, whose activities are rooted in local communities, the program conveys the appeal of cars to children while offering "classes by a corporation" as a way of contributing to local communities.

Targeting fourth and fifth graders, the program provides a fun, hands-on learning experience as part of integrated studies, science or social study classes. Actual vehicles are used to teach students about the workings of cars, their appeal, and their relationship to the environment and the economy. The fourth graders attend the First Car Experience Class while the fifth graders attend the Class to Fully Understand Cars. Real cars, scaled models, quizzes, and board games are all utilized in the classes.

Started in 2008, the program has so far offered classes to approximately 100,000 children in 1,944 schools. Many of the fourth graders in the First Car Experience Class said, "Cars are awesome!" and "I want to drive a car when I get older." The fifth graders in the Class to Fully Understand Cars said, "I was glad to learn about eco-cars and the initiatives that car companies are taking."

Initiatives during FY2014

The program held traveling classrooms for 20,388 pupils at 410 elementary schools all over Japan, and the number of dealers participating in the classroom program has also increased to 256. Questionnaires returned from the teachers indicated high levels of student satisfaction in the programs, with 97.5 percent of the fourth graders and 99.8 percent of the fifth graders rating it as "Generally good" or "Good."

Notable examples of creative initiatives taken by dealers include programs coordinated with associations of former employees, training sessions for newly hired employees, lessons having those who attended classes act as core members in supporting participation by other employees, and events having the store manager from the nearest dealer attend. As a result of these innovations, various examples of effective programs were created.

Event Participants' Comments

- The children had lively expressions when they were conducting experiments or thinking hard.
- The classroom materials were really excellent because they encouraged the children to actively use their eyes, hands, and brain to see, touch, and think.
- The games required thinking and were extremely enjoyable for the children, who have a lot of intellectual curiosity.

Quiz-based learning about cars and the environment

Web http://www.toyota.co.jp/gentaiken/ (Japanese only)

Nationwide Roll-out of Aqua Social FES (ASF) to Help Protect the Global Environment and Nature in Hometowns

Overview

As part of its branding campaign for the Aqua hybrid vehicle, since 2012 Toyota has been undertaking regional environmental protection and preservation initiatives with general public participation, taking water as the theme in line with the vehicle name. A wide variety of action programs have been held in all Japan's 47 prefectures, from Hokkaido to Okinawa.

Toyota is responsible for the overall planning, publicity, and implementation, while dealers hold the actual events independently or in collaboration with local communities. Regional NPOs and newspapers are in charge of developing and carrying out action programs. With operational support from local governments, a growing number of local voluntary events are also held through collaboration between dealers and university students, etc., or between dealers and local companies, using universities as operational headquarters.

Furthermore, the ASF is generating social ripple effects. For example, some local universities have certified the ASF as a program eligible for academic credit. In addition, prefectural governments are budgeting for environmental restoration expenses in response to participation by local government heads and ASF activities.

In April 2013, the ASF was awarded the Fifth Japan Marketing Grand Prize (by the Japan Marketing Association) for presenting co-growth marketing, which does not require a product purchase to participate and in which society, individuals, and corporations are linked in a relationship for mutual growth. Furthermore, in June of the same year, the ASF was awarded the Gold Prize at the Cannes Lions International Festival of Creativity, the most prestigious advertisement award in the world.

Initiatives during FY2014

As a new initiative regional dealers participated as ASF operations staff, and performed reception operations, giving directions in parking lots, and so on. The aims were to increase opportunities for dealer employees to interact with local residents and to create deeper ties between dealers and local communities. In FY2014, Toyota continued its efforts from FY2013 to enhance and improve ASF programs with the aim of encouraging participation by young people and issued and distributed the *ASF Original Rurubu* publication in cooperation with *Rurubu* leisure magazine.

Over a period of three years, ASF events were held 344 times and 34,215 people participated. A total of 3,731 dealer employees also participated. In questionnaires (multiple selections allowed) returned from participants, 90.0 percent indicated that their reason for participating was “The event looked like it would be fun to join,” 84.3 percent selected, “I wanted to do something to benefit the environment,” and 75.7 percent selected, “I felt it would allow me to experience a social contribution activity first hand.” In terms of program evaluation (multiple selections allowed), 93.3 percent of the participants selected, “I can identify with the ASF,” 72.0 percent selected, “I can identify with the brand,” and 62.6 percent selected, “I’m interested in the Aqua.”

Event Participants’ Comments

- I hadn’t known that Toyota was involved in these kinds of activities until I participated in this event. Now I have good feeling about Toyota.
- I enjoyed the opportunity to touch nature in my local environment. I want to become more interested in the nature around me.
- There was an astonishing amount of trash but a lot of people joined and were able to clean it up. It was fun! Thank you.

Group photo following an event

For further information, please visit the following webpage

Web http://aquafes.jp/ (Japanese only)

The Prius Cup, Designed to Strengthen the Ties between Dealers and Toyota and Increase Their Enthusiasm for Cars

Overview

In 2007, Toyota held the First Prius Cup as a platform for dealers and Toyota to socialize as well as to mutually reaffirm the joy and excitement of automobiles. This was a Prius-based eco-driving circuit race in which dealer teams and Toyota teams competed on fuel efficiency and service staff skills. In 2011 and 2013, the National Prius Cup was held for dealer teams that won their regional preliminaries to strengthen ties with local communities. Participatory events were held at race venues and dealers and Toyota worked together to provide opportunities to experience the *waku-doki* (excitement and exhilaration) of cars in order to increase the number of car enthusiasts.

Initiatives during FY2014

In FY2014, the third round of regional events was held following the two national events, and regional dealer teams and Toyota teams competed at high levels. For this third round of events, points were granted to teams that achieved the goals within the set time, and the scores were combined with service competitions to create an overall ranking. The events were highly challenging and competitive, with teams competing on fuel efficiency, time, and service skills. In addition, personnel who previously participated were prohibited from competing to increase participation by new staff members, and inclusion of women was required to expand understanding of and perspectives regarding the Prius Cup and eco-driving. Toyota is steadily expanding these activities each year by holding the Prius Cup overseas and within Toyota and holding original eco-driving events at various circuits.

Event Participants’ Comments

- This was truly a major car event. It was an opportunity for sales and service personnel to work together and generate team spirit towards achieving a common goal. We could to reconfirm the *waku-doki* of cars. I am looking forward to joining next time as well.

Racing vehicles taking off from the grid all together

Fun to Eco-drive Project

Overview

In October 2013, Toyota started the Fun to Eco-drive Project, designed as a fun way to help customers learn eco-driving techniques. The Project, which is also linked to the eco-driving initiatives being promoted by the Ministry of the Environment and the Japan Automobile Manufacturers Association, began offering eco test drives in FY2014 in preparation for a full-scale nationwide debut. Eco Drive Advice, a “Hybrid e-Service” for Toyota hybrid vehicles, contains know-how unique to Toyota that customers can experience at Toyota dealers nationwide (excluding some dealers and outlets).

Future Initiatives

Through joint initiatives designed for its dealers, such as the experience of eco-driving at the Prius Cup, Toyota aims to firmly establish activities that will support them in continuously communicating the fun and joy of eco-driving to customers.

Comments from Eco Test Drive Participants

- The EV-only acceleration was unexpectedly excellent.
- I had thought that driving a hybrid car would be difficult, but it turned out to be surprisingly simple.
- Driving a hybrid is a lot of fun once you learn the eco-driving tricks. I want to master them!
- I want to test-drive a hybrid again and get a higher score than last time.
- I already drive an eco car, but this was my first time learning eco-driving techniques. I’m happy to improve the fuel efficiency of my car.

エコドラ
FUN TO ECO-DRIVE.

Collaboration with Overseas Dealers and Distributors

Toyota’s approximately 170 distributors and 8,900 dealers located overseas serve as key partners in highlighting the attractiveness of Toyota vehicles to customers. They also engage in a variety of activities to advertise the value of products and cars to customers.

Focus

Technician Training Support Program Contributes to Automotive Industries

In June 2015, Toyota Motor Philippines School of Technology (TMP Tech) held a send-off ceremony for the first graduates of its Specialized Toyota Automotive Training Program (STATP).

The STATP is a technician training program conducted jointly by TMP Tech; Toyota Motor Philippines Corporation (TMP); and Abdul Latif Jameel Import & Distribution Co. Ltd. (ALJID), Toyota’s exclusive distributor in Saudi Arabia. The program provides advanced education and training on automotive technologies and repairing works. The 26 graduates who completed the two-year program took their first steps as diagnosis technicians for ALJID Group.

In Saudi Arabia, it is expected that demands for technicians will increase as a result of rapid growth of an automobile market, and that STATP will play an increasingly important role. TMP Tech will on goingly provide high-level technical trainings that enable Filipino youth to work as a member of TOYOTA.

Send-off ceremony for the first STATP graduates

Employees

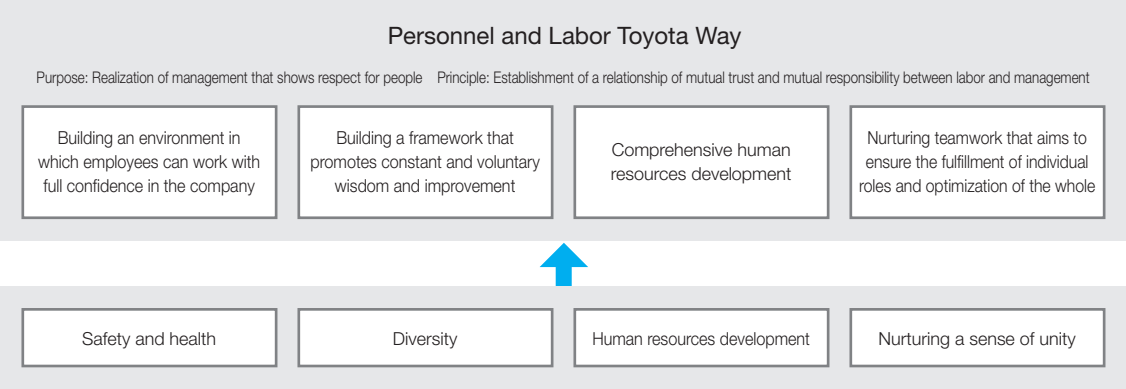
Basic Philosophy regarding Employees

Toyota's philosophy regarding its employees, who support its stable base of business, has been systematically organized as the Personnel and Labor Toyota Way. The goal of the Personnel and Labor Toyota Way is the realization of management that shows respect for people, that is, to enable all employees to exercise their abilities to think, be creative, and utilize their strengths to the maximum extent possible by providing them with opportunities to achieve social contribution and self-actualization through their work.

For this goal to be achieved, "a relationship of mutual trust and mutual responsibility between labor and management" is essential, in which the company gives the highest priority to ensuring stable employment for its employees and strives to improve labor conditions, while all employees execute their duties and responsibilities for the prosperity of the company.

This philosophy is shared by all Toyota affiliates around the world, and is reflected and implemented in management and various policies. Toyota believes that these initiatives will not only lead to the realization of management that shows respect for people, but also to customer satisfaction and social contribution.

Relationship between the Concept of the Personnel and Labor Toyota Way and Initiatives to Build a Work Environment in Which Employees Can Work in a Harmonious Manner

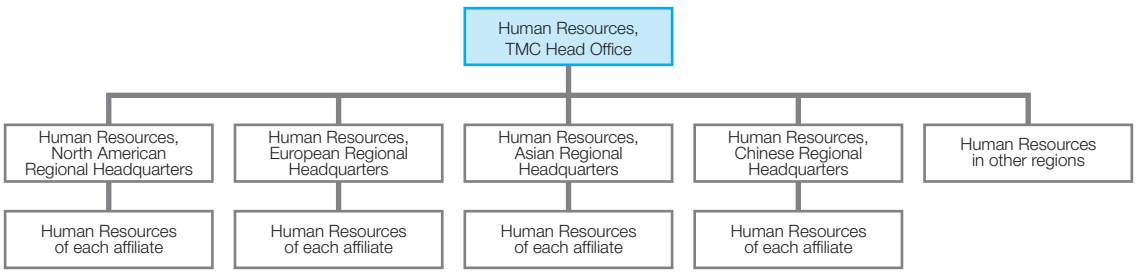


A relationship of mutual trust and mutual responsibility between labor and management

Toyota experienced labor disputes and personnel cuts during the management crisis of the 1950's. These difficult experiences led Toyota to conclude the Joint Declaration of Labor and Management in 1962. Since then, both parties have worked to nurture a relationship in which employees proactively cooperate to improve productivity, while the company works to maintain and improve working conditions. Further, by sharing information and enhancing employee awareness in times of crisis, Toyota has also created "a relationship of mutual trust and mutual responsibility between labor and management," and management based on which employees and management execute their duties and responsibilities for the prosperity of the company. This concept is the foundation of Toyota's labor-management relations. Now, 50 years after the conclusion of the Joint Declaration of Labor and Management, Toyota is striving to further strengthen the labor-management bond.

Organization and Structure

Every year, Toyota invites the personnel managers of its overseas affiliates to hold discussions on how to build a work environment in which employees can trust the company, how to build a framework that promotes constant and voluntary improvement, how to develop human resources, and how to work on nurturing teamwork, based on the Personnel and Labor Toyota Way.



Actual Results for the Previous Fiscal Year and Major Initiatives for the Current Fiscal Year

	Major Initiatives during FY2014	Major Initiatives during FY2015
Safety and health	• Established a culture that promotes interactive development of safety, and continued activities based on people, work, and workplace • Expanded the scope of protective instructions based on data analysis • Implemented and continued programs to enhance awareness of mental health and prevent problems	• Establish a culture that promotes interactive development of safety, and continue activities based on people, work, and workplace • Expand and reinforce protective instructions based on a pre-examination approach and data analysis • Implement and continue programs to enhance awareness of mental health and prevent problems
Human resources development	• Developed New Toyota On-the-Job Training • Reinforced training for executive candidates at overseas affiliates	• Establish On-the-Job Training in order to reinforce a culture of teaching and learning • Reinforce collaboration between training for executive candidates at overseas affiliates and individual human resources • Set up global training exercises
Diversity	• Conducted initiatives aimed at further promotion of women's participation in the workplace (a program to support a rapid return to work, establishment of the Toyota Female Engineer Development Foundation) • Made proposals for development of a working environment and frameworks for employees with a strong desire to continue working after retirement until the age of 65	• Steadily implement policies intended to further promote women's participation in the workplace • Continue developing frameworks for employees to improve their skills and continue working after retirement until the age of 65

Major Initiatives

Results of Employee Satisfaction Survey

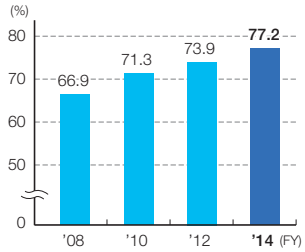
By providing its employees with opportunities to achieve social contribution and self-actualization through work, Toyota aims to enable all employees to exercise their abilities to think, be creative, and utilize their strengths to the maximum extent possible. Toyota conducts an employee satisfaction survey every other year to provide an index for measuring the results of these efforts and utilizes the analysis results for planning and implementing measures that will enable employees to work without worry.

The survey conducted in FY2013 of shop floor employees indicated a 69.2 percent satisfaction rate. The reasons given were "pay level" followed by "human relations at the workplace" and "work quality and level." The employee satisfaction survey conducted in FY2014 of administrative and engineering employees indicated a 77.2 percent satisfaction rate. The most common reason given was the "work quality and level" followed by "pay level" and "human relations at the workplace."

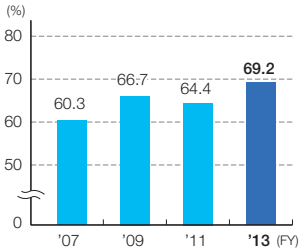
The FY2014 survey conducted overseas had an affirmative response rate of 76 percent for administrative and engineering employees and 72 percent for shop floor employees.

Results of Employee Satisfaction Survey (Japan)

Administrative and engineering employees

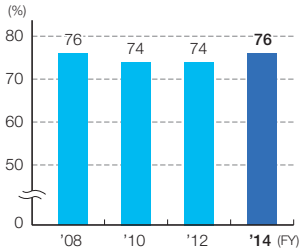


Shop floor employees

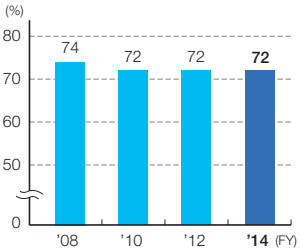


Results of Employee Satisfaction Survey (Overseas)

Administrative and engineering employees



Shop floor employees



Results of 2014 Employee Satisfaction Survey (Administrative and Engineering Employees): Reasons for Affirmative Responses

Items	Most common reason	Second most common reason	Third most common reason
Satisfaction with company life	Work quality and level	Pay level (salary, bonus)	Human relations at the workplace

Results of 2013 Employee Satisfaction Survey (Shop Floor Employees): Reasons for Affirmative Responses

Items	Most common reason	Second most common reason	Third most common reason
Satisfaction with company life	Pay level (salary, bonus)	Human relations at the workplace	Work quality and level

Focus

Joint Declaration of Labor and Management Was Signed with Labor Union at Toyota do Brasil

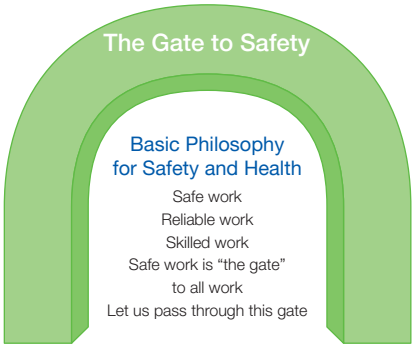
A Labor-Management Declaration was signed in March 2015 with the labor union at San Bernardo Plant, Toyota do Brasil. The plant began operating in 1959 as Toyota's first overseas production site, and friendly labor-management relations have been built over a long period. The aim of the declaration is to forge an even more competitive plant.

The declaration reaffirms cooperation between labor and management based on contributing to economic development through a prosperous automobile industry, mutual trust as the foundation of labor-management relations, and maintaining and improving corporate prosperity and working conditions through improved productivity.

March 2015 Labor-Management Declaration

Basic Philosophy regarding Safety and Health

Ensuring employee safety and health is one of Toyota's most important business activities and has a universal and timeless value. Upon assuming the position of General Safety and Health Supervisor in 1957, then Senior Managing Officer Eiji Toyoda explained his basic stance on safety and health: "Safe work is 'the gate' to all work. Let us pass through this gate." With this basic philosophy always in mind, Toyota is striving to create a dynamic working environment that is conducive to the mental and physical well-being of its employees.

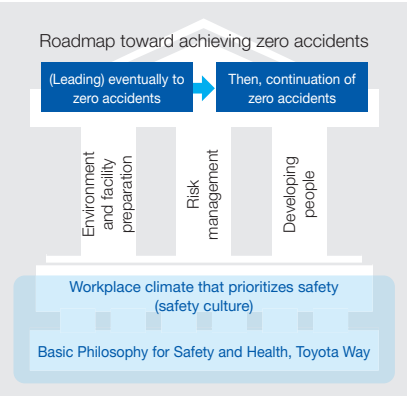


Major Initiatives during FY2014

Promotion of Three-pronged Approach to Safety and Health

In FY2014, "Building a culture that promotes interactive development of safety and health" remained part of the global corporate direction from the previous year. Toyota implemented initiatives to promote compliance with basic rules with executives and managers taking leadership roles and all personnel participating so that employees at every worksite are aware of the risks present and take preventive independent action as Toyota aims to make safety and health a custom and culture of the company. The global rate of lost-workday incidents, however, increased slightly from FY2013.

Three-pronged Approach to Safety

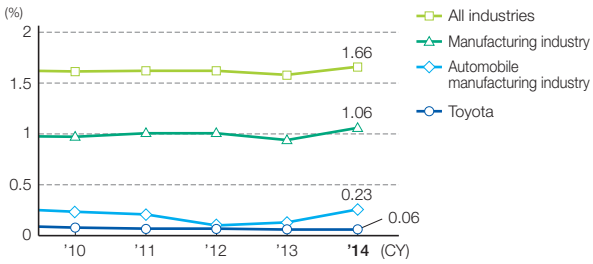


Developing people
Raising the ability of each employee to detect risks (education, OJT), activities undertaken with the participation of all employees

Risk management
Promotion of a safety management system

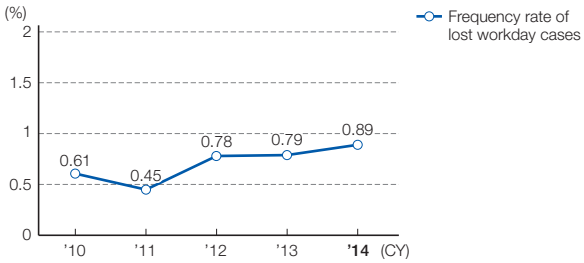
Environment and facility preparation
Provision of safe machines and a comfortable workplace environment

Frequency of Industrial Accidents (Frequency rate of lost workday cases: Japan)



Data source: All industries, management industry, and automobile manufacturing industry (2014 Survey on Industrial Accidents by the Ministry of Health, Labour and Welfare)

Frequency of Industrial Accidents (Frequency rate of lost workday cases: Global)



* From this year, global data including TMC were used, and as a result, past figures were revised

Global Safety Measures

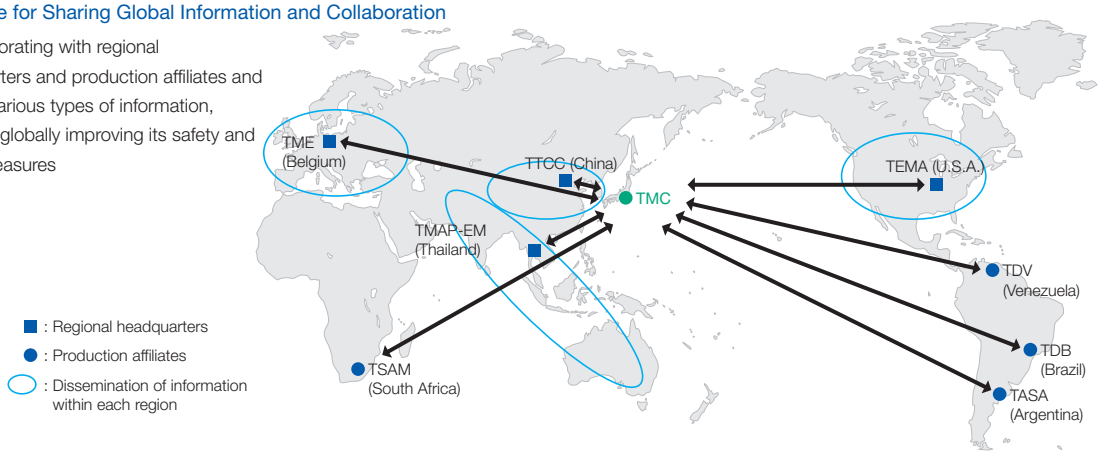
Toyota is promoting safety and health measures in overseas regions, primarily through regional headquarters. It is undertaking overseas expansion of a safety management system that is based on the results of the Occupational Safety and Health Management System (OSHMS) developed in Japan. Based on this concept, the individual regions are proceeding to build management systems that incorporate unique regional requirements, as well as checking the sharing status and mutual understanding of the content on a *genchi genbutsu* basis (on-site hands-on experience).

Toyota also holds an annual global safety conference, attended by managers responsible for safety and health in each region. By studying measures for handling common issues and sharing information on unique activities and best practices in each region, the conference participants raise the level of safety and health activities.

Global safety conference (held in Europe in 2014)

Structure for Sharing Global Information and Collaboration

By collaborating with regional headquarters and production affiliates and sharing various types of information, Toyota is globally improving its safety and health measures



Focus

Ensuring the Safety of all Employees and Visitors to Toyota

Toyota is promoting the creation of bright and orderly workplaces that expand employee perspectives by returning to the fundamentals of safety—the 4S* and communications. In FY2014, *genchi genbutsu* safety inspections were conducted at 12 plants in Japan with the participation of each plant's top managers. The inspections identified areas that needed improvement but had been overlooked during day-to-day activities such as supplier work areas, underground pits, and soiling of wiring and pipes. The plants make systematic improvements and are working to develop the human resources and systems necessary to maintain and manage an orderly work environment.

In addition, to enhance the safety training of new onsite workers, suppliers that perform maintenance work on plant sites are instructed that they must conduct safety training before employees enter the worksite. Going forward, Toyota will improve safety training not only of new workers who perform maintenance work on plant sites, but of all new works, and will implement similar measures globally.

A *genchi genbutsu* safety inspection is conducted at an underground pit

* *Seiri* (sorting), *Seiton* (tidy), *Seiso* (cleaning), and *Seiketsu* (sanitary)

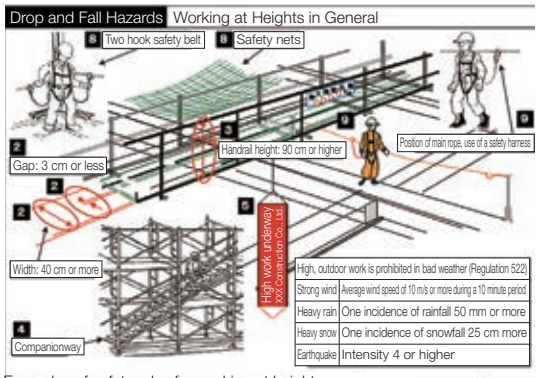
Preventing Work-related Accidents Involving Overseas Employees and Suppliers

Toyota categorizes work-related accidents with particularly high risk levels on the shop floor as "STOP6"[1] and is focusing on completely eliminating these types of accidents. For example, when a STOP6-related accident occurs in one region, Toyota identifies the causes and shares information on recurrence prevention and source-oriented measures globally in order to prevent similar accidents from occurring.

Crane-related accidents have occurred overseas. To prevent reoccurrences, in 2013 Toyota created a manual with videos to train employees on safe work procedures and in 2014 added a volume of safety points (collection of prohibited actions) to teach employees about the risks associated with improper work procedures and updated and redistributed the manual.

In addition, work-related accidents involving falling from a high place during construction have occurred, and in response, Toyota has steadily promoted the adoption and strict enforcement of basic safety rules including wearing safety equipment and installing work floors and safety nets. Toyota does not simply share these measures once, but also conducts *genchi genbutsu* (on-site hands-on experience) confirmations continuously to ensure that work is being performed in accordance with the manuals and rules.

[1] Includes the following six types of work-related accidents: entrapment in a machine, collision with a heavy object, collision with an industrial vehicle, falling from a high place, contact with electricity, and contact with a high-temperature object



Examples of safety rules for working at heights

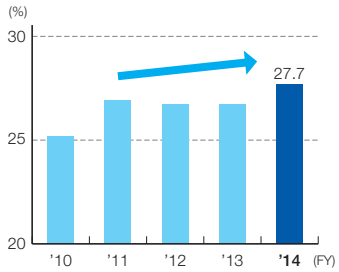
Building Up Good Health (Japan)

In FY2014, Toyota set a target of building the foundations to establish a culture of health and implemented measures centered on developing healthy people and healthy worksites and health improvement programs based on medical examinations. To address the development of healthy people and healthy worksites, Toyota used a "PDCA for Improving Health" worksheet at each workplace, implemented measures and supported the improvement of health at individual workplaces, for example, supporting physical exercise, and conducting dietary education lectures at workplaces. Toyota also granted worksite awards to workplaces that worked actively to improve health and took other measures to invigorate health improvement programs and create a culture of health.

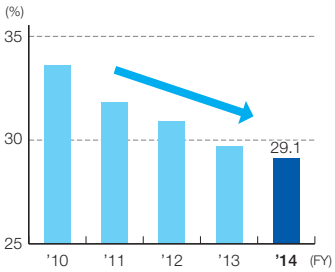
Programs regarding health improvement based on medical examinations focused on health BIP2[2] programs (BMI[3] reduction in anti-smoking measures) and included instructional meetings that provided guidance on preservation of health to an expanded scope of subjects and a weight reduction and smoking cessation lecture campaign. Compared to 2013, BMI increased, but the smoking rate was down. Toyota will continue these types of measures.

[2] Lifestyle habit improvement campaign that uses BMI and smoking rate as two indices as part of the Behavior Change Innovation Program
[3] The body mass index is a measure of body fat that is calculated based on the following formula: Weight (kg) / (Height (m) × Height (m)). The goal of Toyota's campaign for its employees is a BMI less than 24.2

Percent of Employees with a BMI of 24.2 or Less



Smoking Rate



Bolstering Mental Health Care (Japan)

In FY2014, Toyota conducted Self-care Training for new assistant managers and young employees to teach them methods of identifying issues and dealing with stress with the aim of preventing mental health problems. For young employees we conducted training on cognitive behavioral approaches. In addition, we also conducted training for beginner shop floor workers.

Line Care Training was conducted including psychological training for managers and communications training with a focus on listening for supervisors. Training to improve communication skills with a focus on listening was added to the program with the aim of fostering and caring for employees at workplaces and collaborating with other involved persons.

In addition, emphasis was placed on reviewing or furthering "assertiveness" training for individuals who took the listening course four years earlier. Guidelines of health consultations were established for industrial health personnel and efforts to standardize and systematize the details of consultations began in 2012. In addition, Toyota distributed the "Safe Support Book," enhancing measures to help affected employees smoothly return to work and offer attention to those employees following their return.

Listening course

Health Management of Overseas Personnel

In FY2014, we continued to provide health check-ups for personnel assigned overseas and provided email communications with advice from in-house physicians and nurses by making use of health follow-up sheets. In-house physicians routinely made rounds to check on health-related conditions at local sites, and healthcare information was provided to locally stationed staff via the Internet. Teleconferences were also regularly held with local contact personnel to exchange information.

Making rounds at an overseas healthcare facility

Focus

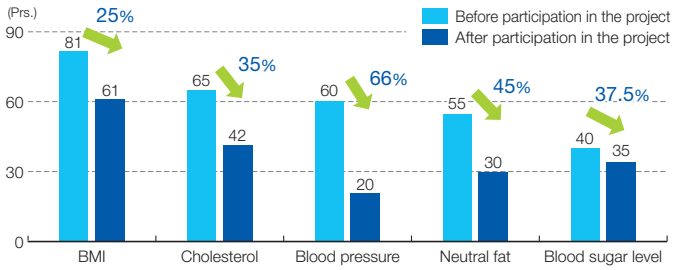
TMT Encourages Healthy Living to Reduce the Risk of Lifestyle-Related Disease among Employees

Toyota Motor Thailand Co., Ltd. (TMT) has been implementing the Bye Bye Lifestyle Diseases Project including 3E* Training since May 2013. The results of this project have been analyzed and used to reduce risks of diseases caused by lifestyle habits such as cardiac disease, diabetes, high cholesterol, and high blood pressure.

In 2013, 140 employees who were recognized by medical check-up as being at high risk participated in the program for six months. At the end of the six months, the program achieved steady results including major decreases in every category, and medical costs were down by 25 percent compared to before participation in the program.

* 3E: Eating (Nutrition control (low fat, low calories)), Emotion (Enhance mental health), Exercise (Exercise daily at least 30 minutes)

Post-Participation Data regarding 140 Employees Identified as being at High Risk from Physical Examinations



Participants are given guidance on nutritional management

A participant has blood taken and blood pressure checked

3E training (exercise)

Basic Philosophy regarding Development of Human Resources

The basis for human resource development is implementation of the Toyota Way. Toyota is working to develop human resources by implementing an educational program based on on-the-job training (OJT), which is crucial for the development and generational transfer of excellent *monozukuri* (manufacturing), with the five Toyota Way keywords as a fundamental basis.

Five Keywords of the Toyota Way

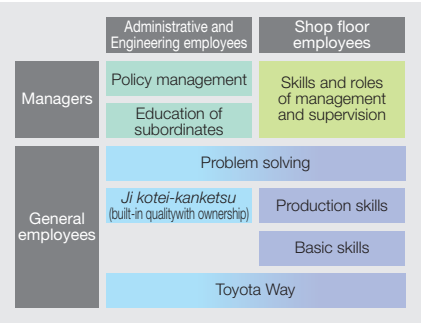
Challenge	*Kaizen*
Genchi Genbutsu	Respect
Teamwork	

Practice of the Toyota Way

So that the Toyota Way, which explains Toyota values and ways of thinking, can be understood and practiced by employees globally, we have organized and arranged job types and techniques into what we call "Global Contents."

These Global Contents are communicated to Toyota employees through training and OJT both in Japan and overseas.

List of Global Contents



Global Contents

Toyota Way	Values and ways of thinking that should be held by those working for Toyota
Toyota problem solving techniques	Techniques for improving current conditions in order to realize ideal working conditions
Ji kotei-kanketsu	How to work in order to continually produce the best output
Education of subordinates	Systems for training subordinates through one's daily work
Policy management	Managing items to be implemented to accomplish workplace missions and create new value
Basic skills	Minimum skills necessary for production line work
Production skills	• Knowledge regarding recognizing irregularities and crucial points • Trouble-shooting capability
Skills and roles of management and supervision	• Manager and supervisor skills for managing execution of standard operations • Group and team operational knowledge, etc. for managing irregularities

Major Initiatives during FY2014

Human Resource Development in the Workplace

In line with the Toyota Way, the foundation of human resource development at Toyota is on-the-job training (OJT) that emphasizes *genchi genbutsu*, and off-the-job training (OFFJT) opportunities for development are also created under the guidance of supervisors or superiors.

Toyota provides a globally-shared training program, where employees, following group training, spend approximately six months attempting problem solving during actual work duties.

ICT Program for Self-reliance of Affiliates and Contribution to Local Communities

In order to promote self-reliance in overseas affiliates, the Intra Company Transferee (ICT) program temporarily transfers employees of overseas affiliates to Toyota Motor Corporation for human resource development through OJT.

Transferees learn skills, know-how and the Toyota Way throughout their training periods which range from six months to three years. As of May 1 2015, a total of 463 transferees from 57 affiliates in 30 countries were working in Japan under the program.

Comment from an Intra Company Transferee

Hatairat Apichardstaporn
Division: Lighting System Design Dept., Body Design Div. 2
Original company: TMAP-EM (Thailand)
Dispatch period: Jul. 2014–Sep. 2015

I previously worked in lamp design for TMAP-EM and gained much new knowledge on LEDs in Japan. Electrical systems are complex, so it is important to fully understand the workflow and enhance communication skills with related divisions. At the production site, I was able to directly confirm processes. When a problem was found, I created sample parts and set the design processes based on those parts. This work gave me a true understanding of *genchi genbutsu*. In the future, I hope to share the knowledge that I gained in Japan with TMAP-EM team members and make full use of it.

Study Dispatch Program for Young Employees

The scale of existing activities to dispatch young employees to posts overseas has been expanded and a Study Dispatch Program has been conducted since 2014 to accelerate the development and enhance the skills of young employees.

Employees in their fourth year or later with the company are dispatched to overseas subsidiaries, overseas graduate programs (including MBA programs), or domestic affiliates to study for one to two years, acquire practical skills, deepen understanding of different cultures, and improve their language skills in the workplace. Toyota had previously been dispatching approximately 100 trainees to overseas subsidiaries each year, and with the creation of this program, the number has increased to 190 persons.

Ms. Kimura with colleagues from TME (Ms. Kimura is third from the right in the rear row)

Comment from a participant in the Study Dispatch Program who studied at an overseas affiliate

Fumika Kimura (Year hired: 2008)
Division: Certification & Engineering Dept., Regulation & Certification Div.
Dispatch company: TME (Belgium) R&D
Dispatch period: Jul. 2013—Jun. 2014

I was dispatched to TME in Belgium for one year starting in 2013 and studied the circumstances of regulatory certification in Europe while working with local staff members. I decided my research topic in consultation with my local supervisor before departing and investigated the topic for one year while communicating closely with local personnel. I traveled to many countries for both business and private trips and became aware of differences in automobile use environments by driving on the autobahn in Germany and experiencing rough road conditions in Iceland and Russia. There were many things that I wanted to study while in Belgium, and I felt that one year was too short.

Basic Philosophy regarding Diversity and Inclusion

For companies engaged in business around the world, it is important to promote activities of a diverse range of human resources while raising the skills of each individual employee. Toyota is establishing a corporate culture with abundant vitality by fostering human resources that include a diverse range of individuals.

Although the focus of respect for diversity varies in different countries and regions, Toyota strives to be a company with a working environment that promotes self-realization while respecting diversity of values and ideas among its employees.

Major Initiatives during FY2014

Measures to Promote Women's Participation in the Workplace

Toyota has positioned the promotion of diversity in the workplace as an important management strategy and is undertaking measures to enable a diverse workforce to work with enthusiasm and a sense of purpose. With regard to promoting women's participation in the workplace, Toyota takes measures to support a work-life balance such as developing work environments that enable women to continue working with confidence while performing childcare or nursing care for a family member.

Voluntary Action Plan for Promoting Women's Participation in the Workplace

Since Toyota Motor Corporation began hiring women for administrative and engineering positions on a major scale in 1992 as a part of its human resource measures to respect diversity, we have prioritized the expansion and reinforcement of measures to support the work-life balance from the perspectives of long-term employment and human resource development.

As a result of these efforts, the separation rate of women in administrative and engineering positions has dropped in the most recent 10 years (from 5.8 percent in FY2003 to 1.2 percent in FY2014), and the number of women in managerial positions has increased (from 16 in 2004 to 111 in 2015).

Toyota has shifted the focus of its activities to further promoting women's participation in the workplace and is currently implementing and reinforcing the following initiatives with objectives such as having women return to work quickly from maternity and childcare leave in order to minimize career development interruption and delay effects from taking long-term leave.

Major Initiatives

Hiring

- Increase the hiring rate of recent graduate women (administrative: 40%; engineering: 10%)
  Over the medium to long term, hiring of women in administrative and engineering positions was reinforced so that the rates of women working in such positions and in managerial positions equal the percentage of women in the respective labor markets (administrative: 40%; engineering: 10%)

Supporting a Balance Between Work and Childcare to Minimize Career Interruption

- Establish three in-house child care facilities and investigate further measures for childcare support
- Expand childcare leave (up to a maximum of two years)
- Expand reduced working hours and "working at home" programs (until children reach fourth grade of elementary school)
  * Introduce "working at home" until children reach one year old to support the early return to work
- Introduce child nursing care leave (until children reach fourth grade of elementary school)

Systematic and Comprehensive Development of Career Awareness from an Early Stage

- Preparation of individualized development plans that take into account the life events of each individual for women in administrative and engineering positions
- Support the development of networks among women in administrative and engineering positions through roundtable discussions and social network services
- Create the "Sodatete Net," a website for sharing information on maintaining a balance between work and childcare and on career development
- Hold pre-maternity leave seminars for employees and their supervisors and spouses
- Introduce the Pro Career Come Back Program for reemployment of employees who left the company because of transfer of a spouse, etc.
- Hold a social gathering with overseas female executives

Other

- Establish the Toyota Female Engineer Development Foundation
  Toyota Motor Corporation and group companies established the Toyota Female Engineer Development Foundation to provide scholarships to science and engineering students who enter universities and high schools, conduct on-demand classes at junior high schools and high schools (in collaboration with Aichi Prefecture), and other programs.

Target for Women's Participation in the Workplace

Through these efforts, Toyota seeks to increase the number of women in managerial positions in 2020 by three times the number in 2014, the year when the targets were set, and by five times in 2030.

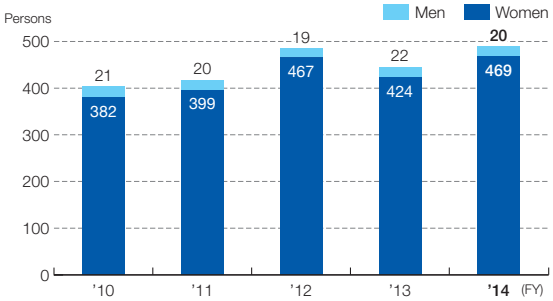
Overall Image of Initiatives to Promote Women's Participation in the Workplace (Administrative and Engineering Employees)

	Phase 1: Expansion of Programs	Phase 2: Focus on Retention	Phase 3: Shift to Promotion of Employment	
Changes	2002 Established programs promoting the employment and retention of women	2007 Expanded of programs to promote retention	2012 Shifted focus of development of working environment from supporting employees raising children to generating enthusiasm and motivation	2014 Expanded initiatives to promote women's participation in the workplace
Details	• Introduced shortened working hours and "working partially at home" programs • Expanded childcare leave (up to a maximum of two years) • Established on-site day care centers	• Expanded shortened working hours and "working partially at home" programs (until children reach fourth grade of elementary school) • Introduced child nursing care leave (until children reach fourth grade of elementary school) • Introduced the Pro Career Come Back Program for reemployment of employees who left the company because of transfer of a spouse, etc. • Opened the "Sodatete Net," a website for sharing information on maintaining a balance between work and childcare and on career development • Held a social gathering with overseas female executives • Prepared individualized career development plans for women in supervisory positions	• Shortened working hours program (with possible overtime) • Introduced seminars on supporting the work-life balance for employees who return to work after childcare leave • Introduced training for managerial employees	• Developing career awareness - Encouraged the preparation of career design sheets - Expanded the scope of female employees eligible for individualized career development plans - Supported the development of networks among women in administrative and engineering positions - Introduced pre-maternity leave seminars • Support for a Rapid Return to Work from Childcare Leave - Introduced an all-day "working at home" program • Established the Toyota Female Engineer Development Foundation

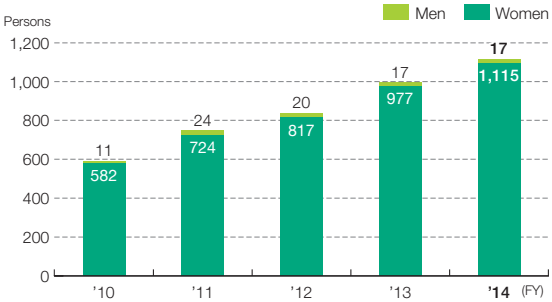
KPI					
Number of women in managerial positions	7	➡ 20	➡ 76	➡ 2015:111	
Separation rate of women in administrative and engineering positions	5.8%	➡ 4.2%	➡ 2.4%	➡ 1.2%	

Green: work-life balance support programs Blue: career support

Use of Child Care and Nursing Care Leave Programs



Use of Flexible Working Hours Program



Focus

Toyota Established the Female Engineer Development Foundation to Promote Women's Participation in the Workplace in Manufacturing Industries

Toyota Motor Corporation and nine group companies established the Female Engineer Development Foundation in December 2014 with the aim of contributing to the promotion of women's participation in the workplace in the automobile industry and in manufacturing businesses overall in Japan. There are expectations for social participation by women in both the public and private sectors, but the enrollment of women in the engineering divisions of universities, which play important roles in manufacturing industries, currently remains at about 10 percent, and the levels are even lower in the electrical and mechanical engineering fields. The Foundation intends to increase the number of women who want to study science and engineering and to support female students who can go on to be active in the world of manufacturing. Specific programs include career introduction activities that convey the appeals of manufacturing industries such as on-demand classes for high schools conducted by women engineers and activities to support female engineering students. In terms of development programs, the Foundation provides opportunities for internships at and facility tours of Toyota Group companies (companies participating in the Foundation), career consultations, and other support with the aim of supporting career development and provides economic support such as subsidies equal to the interest on student loans for up to six years including graduate school.

The Foundation began accepting applications in FY2015.

Toyota Female Engineer Development Foundation website

Web http://www.toyota-rikeijosei.or.jp/about/index.html

Focus

Use of Pro Career Come Back Program and "Working at Home" Program Support Balance Between Childcare and my Career as a Group Manager

Mari Saito
Group Manager,
Administration Dept.
Unit Management Div.

I had wanted to experience working overseas someday, and when my husband was transferred to the United States, I made use of the Pro Career Come Back Program and temporarily resigned. At the job that I found locally, however, in part because of the financial crisis that followed the Lehman Brothers bankruptcy, even though everyone was contributing to the company, employees performed their work with a cautious attitude and awareness of producing results through teamwork had weakened. I had worked in human resources at Toyota, and I was proud of the human resources work that produced an environment at Toyota where people could work with assurance, cooperate with one another, and support the exceptional teamwork seen at Toyota. It was during those three years working overseas that my perspectives on work changed the most. Later, when my husband returned to Japan, I resumed working at Toyota. At that time, I was expecting our child, but decided to return to work as soon as possible since I wanted to work in human resources at Toyota.

My child is now two years old, and I am busy taking care of my child while using the "working at home" program. My work is divided into attending meetings and so on at the office and preparing documents and other such work that I can do on my own at home. To ensure that I have time for my child, even if I have to go to the office on the weekend, I figure out ways to go in early and come home before noon. Toyota has various convenient programs available including the "working at home" program. In order to maintain a balance between work and childcare, it is important to think how to efficiently use limited time and achieve good results, make innovations, and put them into practice.

Major Initiatives of Nursing Care Policy (Japan)

Social attitudes regarding nursing care are changing, including review of benefit standards and amounts in conjunction with amendment of the Nursing Care Insurance Act in 2006 and a shortage of nursing care helpers.

Toyota has been expanding and improving company measures regarding nursing care since 2009 to reduce employee insecurity and burdens regarding nursing care and to create an environment in which employees can devote themselves to work with a sense of assurance. One example is holding nursing care lectures by outside experts such as licensed social welfare workers and nursing care workers since 2009 in order to enhance the provision of information. In FY2014, such lectures were given eight times with approximately 300 employees and their family members attending.

A nursing care lecture held in 2014

Major Initiatives in Nursing Care

Support for the Work-Life Balance	Provided Information	Nursing Care Services	Economic Support
• Nursing care leave and shortened working hours • Increase flexibility in working hours system (1) Change the units of time to apply systems such as shortened hours and so on (2) Change the working hour settings of the "working at home" program (3) Expand applicable periods for various work-life balance support programs (4) Establish a new nursing care leave program	• Create a consultation hotline regarding the Toyota Health Insurance Union • Publish pamphlets on nursing care • Hold nursing care lectures • Hold hands-on nursing care seminars	• Introduce a nursing care savings program • Form a partnership with a major nursing care service provider • Expand nursing care service providers • Introduce home care workers services	• Introduce nursing care insurance • Create parent nursing care insurance • Introduce a nursing care financing program

Promotion of Localization of Management at Overseas Affiliates

Toyota has been promoting the localization of management at overseas affiliates from a medium- to long-term perspective. The division of roles has been clearly defined—the head office determines "what has to be done" and overseas affiliates decide "how they will be done."

In principle, executives responsible for overseas operations (including chief officers) live at the respective overseas location and create a management system that has close ties with the local community. Appointment of local human resources is also being actively promoted and of eight regional headquarters, four are currently headed by chief officers who are not Japanese. As of July 2015, the number of foreign executives at Toyota Motor Corporation was eight (of which one is an outside memder of the Board of Directors).

Toyota will continue to actively foster and promote local personnel on the principle that this ensures the right resources will be in the right places, driving forward the localization of decision-making, operation and management posts. This should facilitate the timely understanding of customer and employee needs in each region, enabling us to make appropriate business decisions.

North America Region	James E. Lentz, Senior Managing Officer
Europe Region	Johan van Zyl, Managing Officer
Africa Region	Johan van Zyl, Managing Officer
Latin America & Caribbean Region	Steve St. Angelo, Managing Officer

Percentage of Local Employees Comprising Management at Overseas Affiliates

FY2010	FY2011	FY2012	FY2013	FY2014
52.1%	54.0%	60.1%	64.7%	62.9%

Job Placement Program for Over-60s (Japan)

Following the introduction of the Internal Re-employment Program for Retired Professionals in 1991, an Optional Re-employment Application System was launched in 2001 to outplace applicants to external affiliates and other sites, providing a framework for helping over-60s to continue working at either external or internal workplaces. Based on the revisions to the Law on Stabilization of Employment of Older Persons in FY2006 and again in FY2013, programs were updated to their present state, in order to expand re-employment opportunities. A review was also initiated at the same time to refine policies on shortening working hours in response to growing diversity in job preferences and so on.

Employment of Fixed-term Contract Employees (Japan)

When hiring fixed-term contract employees, appropriate hiring and contract renewals are conducted with maximum efforts focused on maintaining stable employment and improving their work capacity. With the full-time staff appointment system, fixed-term contract employees who have worked for Toyota for at least one year and have a recommendation from their workplace get the chance to take an examination for regular employment. This leads to increased motivation and vitality.

Fixed-term contract employees are also given the opportunity to re-try the examination in their third year. It is necessary to maintain strong technical skills in the workplace in order to achieve sustainable growth, and to this end, Toyota will continue actively working to hire fixed-term contract employees as full-time employees.

Number of full-time employees newly hired

FY2014 Hiring Results	FY2015 Hiring Plans
110 employees	300 employees

Employment of People with Disabilities (Japan)

Toyota believes that people with disabilities deserve the chance to become socially self-reliant and makes it a rule to provide them with opportunities to work together with non-challenged individuals. A number of such people are engaged in a range of roles at various workplaces.

As of June 2015, the number of people with disabilities employed was 1,116, accounting for 2.14 percent of the entire workforce (including special-purpose subsidiaries) which is above the legal requirement of 2.0 percent. Efforts are under way to create an even more employee-friendly working environment, including hosting an internal sign language workshop, deploying counselors to provide all kinds of support, and spreading good workplace examples across the organization.

Increasing Employment Opportunities and Enhancing Support for People with Disabilities: Toyota Loops

Toyota Loops Corporation began operation in April 2009 with 28 people with disabilities and received certification from the Minister of Health, Labour and Welfare as a special-purpose subsidiary of Toyota Motor Corporation in October of that year.

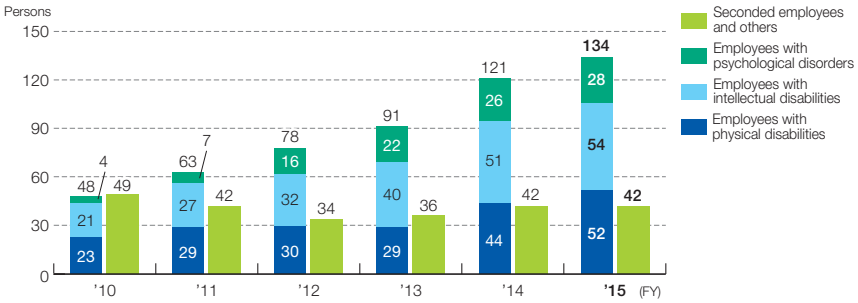
Toyota Loops primarily handles Toyota's internal printing and mail services on an outsourcing basis, in addition to issuing visitor or employee identification cards, issuing asset number labels, and running consigned shredder operations. Toyota Loops has also begun efforts to receive new outsourced work, such as nursing assistance at the Toyota Memorial Hospital and data erasing of discarded PCs.

An office in Tokyo was opened in April 2014, and as of April 2015, Toyota Loops employed a total of 134 persons with disabilities. As employment has increased, the company has endeavored to create working environments where all employees can work comfortably through measures such as increasing the number of support staff, providing regular counseling by a clinical psychologist, reinforcing other support programs, and actively exchanging information with social welfare organizations, governmental bodies, and local communities.

Mami Suzuki, a competitor in the Abilympics, a national technical skills competition for people with disabilities held in Aichi Prefecture in November 2014, won second place in the Office Assistant division for the second consecutive year. Her win is extremely encouraging to other employees, who are working hard daily toward winning future national technical skills competitions.

Mami Suzuki of Toyota Loops Corporation, second place winner in the Office Assistant division for the second consecutive year at the 2014 Abilympics

Number of Employees with Disabilities



* Employees at end of FY2010–FY2014; figures for FY2015 are as of April 1

Comment from a Stakeholder

Shingo Kawai
Director of Midorigaoka Cosmos Facility
Cosmos Toyota Non-Profit Organization

Toyota's active efforts to increase employment opportunities for persons with disabilities are broadly known, and Toyota Loops is a presence that increases employment of persons who in the past had difficulty finding jobs. The existence of Toyota Loops and seniors, who act as role models, provides substantial incentives to users of Cosmos Toyota to work and maintains motivation. Even individuals who were initially very insecure about working are filled with confidence when they leave the facility and gain employment, indicating the degree of empowerment that society provides. An employee of Cosmos Toyota was seconded to Toyota Loops from April 2013 to December 2014 to provide specific advice regarding appropriate consideration tailored to individual disabilities.

Working environments for persons with disabilities are improving, but there are still many potential issues. I believe that the development of new awareness and mutual understanding through working by both employers and employees will provide the opportunities to overcome those issues.

Former clients of Midorigaoka Cosmos currently employed by Toyota Loops

About Cosmos Toyota: This facility is a non-profit organization established by parents with children with disabilities in Toyota City, Aichi Prefecture in 2008. Midorigaoka Cosmos is a facility that performs job search support and day care functions. Six former clients of Midorigaoka Cosmos currently work for Toyota Loops.

Basic Philosophy regarding Creating Happy Workplaces

In order to strengthen its human resource base, which supports Toyota's growth, the company has created a positive working environment in which employees can work with confidence, vigor and enthusiasm. Toyota strives to foster employees' pride and loyalty to the company, workplace and colleagues by encouraging a culture of teamwork through communication and friendly competition.

Major Initiatives

"We Love Toyota Campaign" and "Hure! Hure! Ekiden" Foster a Sense of Unity within Toyota

In order to develop employee interest in the company's operations and products based on the notion of "All Toyota" and to deepen loyalty, an internal campaign called We Love Toyota has been carried out since FY2009.

As a part of these activities, We Love Toyota seminars were held April and May 2015. Approximately 400 participants attended including corporate executives. Teamwork and ties between participants were deepened by forming teams consisting of members who had never met before and discussing the joy of driving through the "Internal Prius Cup."

Some 4,000 employees in 488 teams representing divisions and overseas affiliates competed in the 68th Toyota Relay Race Competition, held in December 2014. More than 30,000 people came and cheered on the competitors, enhancing the sense of unity within Toyota.

Participants at a We Love Toyota seminar conducted in April 2015

The 68th Hure! Hure! Ekiden, held in December 2014

Athletic Clubs Generate Excitement

Toyota has 35 athletic clubs including clubs for advanced athletes competing to enter national championships on behalf of the company and clubs for employees who engage in both sports and a job function. The clubs are a source of pride for all employees, and employees feel motivated and encouraged to see their workplace colleagues competing enthusiastically.

In FY2014, the Red Terriers, the women's softball club, won the Japan Softball League Championship, the baseball club won the Japan Amateur Baseball Association Championship, and the long-distance running club won the All Japan Corporate Team Ekiden Championship.

The women's softball club that won the Japan Softball League Championship

The baseball club won the Japan Amateur Baseball Association Championship

The long-distance running club won the All Japan Corporate Team Ekiden Championship

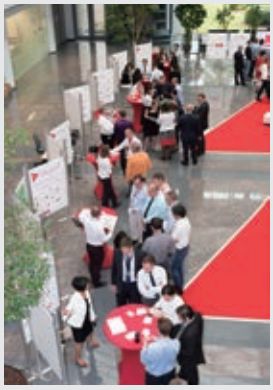
Focus

Employee-Driven Program Name Changed from NMD Action to Toyota Fast Fwd, Promotes Work and Worksite Reforms

NMD Action was launched in 2012. An Employee driven movement, NMD Action has been plotting a cultural recovery plan for TME following the various crises between 2008 and 2011.

Three years on, confidence and engagement among Employees is much improved. However, with around 40 different nationalities and languages, the pathway towards a single, collaborative and creative European Company culture is long.

The second phase of NMD Action activities concludes with a "Roadshow" in June 2015. The Roadshow is an interactive presentation and celebration of our achievements for all Employees. Each group, as listed below, will share its story and success over 2 days.



The two-day Roadshow

Voluntary Action Items

TME Mission	Seeking a re-definition that is meaningful and inspiration to us all
Working with a Smile	Seeking to make TME a great place to work (happy people are productive people)
Communication	Promoting effective communication for good teamwork and collaboration
Knowledge Management	Continuing the roll out of our AKARI system (information/file-sharing system utilizing the cloud)
Innovation	Providing an evaluation, development and sponsorship framework for members' ideas
Cross-functional Collaboration	Working together across functions to achieve outstanding and innovative results
Talent Management	Promoting best practice career planning across TME
Learning Management	Fostering learning by line management coaching on the job
New Management Behaviors	Defining the behaviors to be adopted by management and members to deliver our creative culture and business goals

The next phase of activity will focus fully on the subject of New Management Behaviors. In order to reflect the rapid progress we are making, this phase will be named Toyota Fast Fwd.

Toyota Fast Fwd will focus on the subject of management behaviors. We have conducted a survey among all Employees with two aims :

(1) To identify where there are gaps between current management behaviors and those that are necessary to reach our goal of collaborative and creative culture.

(2) To establish the Management activities that

(a) take up most time, and (b) create the most value

Using the Roadshow and our Toyota Fast Fwd follow up, we will find the hidden best practices within TME that provide solutions to the survey findings.

Toyota Fast Fwd will continue to motivate the cultural progress in order to deliver TME's Mission as defined by NMD Action.

Stakeholder Engagement

Basic Philosophy regarding Stakeholder Engagement

In the preamble of its CSR Policy, Toyota declares that it will engage in stakeholder-oriented management in order to contribute to sustainable development and strive to maintain and develop sound relationships with stakeholders through open and fair communications.

Specifically, Toyota's relevant divisions and offices all over the world act as the main contacts to hold dialogues with major stakeholders. They communicate Toyota's philosophy and also help deepen mutual understanding.

Implementation Status of Stakeholder Engagement

Stakeholder		Communication methods	Frequency	Description	Incorporation into corporate activities
Customers	Based on our "Customer First" philosophy, we take measures to incorporate the comments and opinions of customers in better products and services	Toyota Customer Assistance Center	As needed	Responding to customer opinions using telephone and e-mail forms	Improving customer satisfaction activities
		Official website, product website	As needed	Disseminating company information and business details, providing FAQ, etc.	Improving customer satisfaction activities
		Information dissemination through various types of social media	As needed	Disseminating company information and business details	Disseminating information in response to customer demand
Employees	Bilateral communications to build teamwork and foster a sense of unity based on a labor-management relationship founded on mutual trust and responsibility	Joint labor-management roundtable conferences/Labor-management meetings	Several times a year	Discussions/negotiations, opinion exchanges and mutual understanding regarding labor-management issues	Strengthening labor-management relationships
		Employee satisfaction survey	Once or twice every two years	Surveying employees satisfaction regarding workplace culture and company life	Improving workplace culture, and evaluating and planning various labor-management and personnel policies
Business Partners	Close communication to achieve a mutually beneficial relationship based on mutual trust	Conferences, seminars, and events with dealers	As needed	Sharing corporate policies	Building closer, mutually beneficial relationships based on mutual trust
		General conference of suppliers	Once a year	Sharing purchasing policies	
Shareholders	Timely and appropriate disclosure of operating results and financial condition to shareholders and investors, and constructive dialogues toward sustained growth and corporate value enhancement	Shareholders' Meeting	Once a year	Unconsolidated and consolidated financial statements, audit and supervisory board reports, and deliberation and decisions on resolutions	Improving management quality through constructive dialogues
		Meeting for individual investors	As needed	President's presentation, interviews, panel Q&A sessions, exhibits, test drives, etc. to encourage individual investors to become interested in Toyota	
		Financial results announcement	Four times a year	Briefings and telephone conferences to explain Toyota's financial status, business plans, and business environment, etc.	
		Face-to-face meetings with institutional investors	As needed	Meetings to explain Toyota's financial status, business plans, and business environment, etc. to investors and analysts	
		Briefings on specific business initiatives	As needed	Meetings to explain individual themes, such as regional businesses, technologies, and products	
		Investor information website	As needed	Providing corporate information, including management policies, financial results, and business details	
Global Society/ Local Communities	Dialogue with various stakeholders to build good relationships with local communities and to solve global social and environmental issues	Roundtable conferences with local residents	Several times a year	Introducing Toyota's activities to local leaders and exchanging opinions on a plant-by-plant basis	Promoting mutual understanding and forming stable local communities
		Inviting local communities to Toyota's events and participating in local events	As needed	Social gatherings with local residents	
		Participating in joint projects between public and private sectors	As needed	Cooperating in progressive initiatives such as verification tests	Improving advanced technologies and recognizing/resolving social issues
		Participating in economic and industry organizations	As needed	Participating in the planning and implementation phases of various organizations' policies	Introducing policies to improve the vitality of the nation industries
		Participating in collaborative activities with NGOs and NPOs	As needed	Social contribution activities throughout the world	Recognizing social needs in individual regions

Additionally, Toyota maintains communication with external experts in order to examine, for example, the direction of its sustainability-related initiatives.

In 2014, Toyota received the following opinions about its CSR activities and the Sustainability Report from external CSR experts:

- I appreciate the fact that, in addition to automobiles themselves, Toyota includes in its view the impact it has on its business environment, as indicated by its words “contributing to society by making automobiles” and “resolving social issues related to vehicles.” In the future, I hope Toyota will consider initiatives that address a broader scope of social issues.
- Toyota seems to be very intent on changing the world with its technologies and hardware as indicated by its motto of Always Better Cars. However, Toyota needs to recognize that societal needs come first and it must use its technologies to satisfy these needs. The assumption that making “Always Better Cars” will lead to “Enriching the Lives of Communities” is not particularly convincing. I would like Toyota to clarify what kind of enriched lives and communities it is trying to create.
- In Europe and North America, the presence of NGOs, shareholders, and industry unions is strong, and their opinions have always influenced the way corporations are managed. In comparison, Japanese companies have strongly felt it improper to be pulled every which way influenced by outside opinions and had some difficulties especially during the introduction of CSR. However, its quality problems must have made Toyota realize anew the importance of staying engaged with the outside. It is important for Toyota to continue to incorporate outside opinions into its management policies through stakeholder engagement.

Toyota will continue to further strengthen stakeholder engagement through dialogue, to earnestly address society’s expectations as well as the issues discovered through these dialogues, and to utilize them in our future initiatives.

For further details on stakeholder dialogues, please visit the following website

Web http://www.toyota-global.com/sustainability/society/stakeholder/dialogue.html

For further details on Toyota’s initiatives for enhancing its CSR abilities, please visit the following website

Web http://www.toyota-global.com/sustainability/society/stakeholder/initiative.html

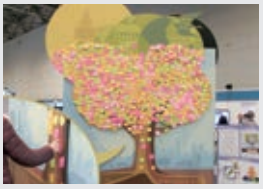
Focus

Toyota Investors Meeting 2015 for Experiencing Toyota’s Present and Future

On March 29, 2015, we held the Toyota Investors Meeting 2015, an event for seriously contemplating society 100 years from now. More than 3,500 people attended, including individual investors and university students who will carry Japan into the next generation.

The event featured a presentation by President Akio Toyoda, a special interview by freelance TV caster Maoko Kotani as a guest, and a Q&A session in which directors in charge and chief engineers answered various questions presented by members of the audience. In addition, various exhibits were held, related to Toyota’s history and the skills/technologies and human resources that support *monozukuri* (manufacturing), as well as test drives of the MIRAI fuel cell vehicle and other next-generation mobility.

Interview by Ms. Kotani


Vision Tree on which visitors wrote their dreams

Test drive of the MIRAI fuel cell vehicle

Always Better Cars Zone (Sheet metal work demonstration)

Customer Comments

- Please make fun cars for a bright driving future!
- I’m looking forward to seeing how cars will evolve in the future.
- The MIRAI is wonderful. It creates bigger dreams.
- I want a car that can travel in the ocean and in the sky.
- I want a car that is a lot simpler to operate.
- What I want is the realization of a safe and secure automobile society without traffic accidents.
- Please keep making cars that defy common perceptions.

Environment 11

Major Achievements in FY2014

Japan automobile manufacturing industry's first

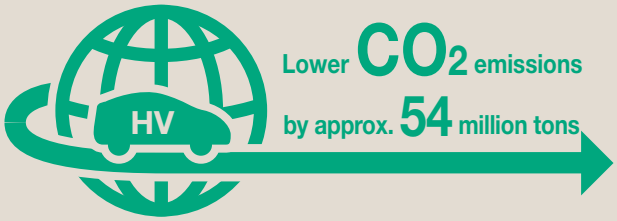
ISO 50001 External Certification

Toyota's energy management system is based on international ISO 50001 standards for more efficient CO_2 reduction. Toyota has proposed and supported efficient measures.

Worldwide hybrid sales

Exceed 7.65 Million Units

Toyota hybrid vehicles produced 54 million fewer tons of CO_2 emissions than comparable gasoline-powered vehicles, and saved 20 million kiloliters of gasoline.

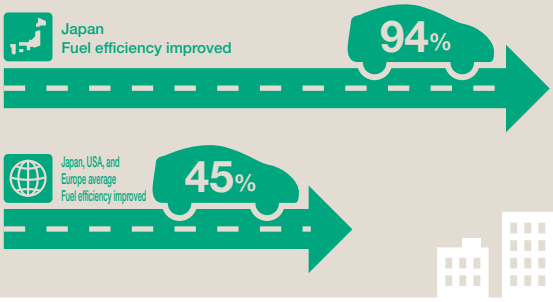


Average fuel efficiency compared to FY1997

Japan up 94%

Japan, USA, and Europe average up 45%

Hybrid vehicles rose as a percentage of all Toyota vehicles. Toyota also improved fuel efficiency for other vehicles. The combined average fuel efficiency index of passenger cars improved.



Fuel cell vehicle

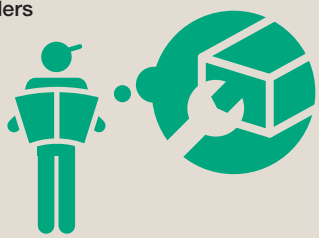
MIRAI was launched and received the Grand Prize for the Global Environment Award

MIRAI is an eco car with high potential to contribute to the realization of a sustainable mobility society. Toyota has received positive response to allowing royalty-free use of patent licenses in an effort to popularize FCVs.

Created the Manual for Proper Disposal, Collection and Recycling of FCVs

for automobile dismantlers

Toyota has provided a system to safely and efficiently conduct appropriate disposal or resource recovery of used batteries, hydrogen tanks, etc.



Widely promoting locally rooted environmental programs

Toyota Shirakawa-Go Eco-Institute 10th Anniversary

The Institute has welcomed 155,000 guests since 2005. Moving forward it will expand the nature-based experience, under a new approach of encouraging mutual learning.

11-01 Environmental Management
11-10 Contribution to a Low Carbon Society
11-22 Contribution to a Recycling-based Society
11-29 Environmental Protection and Contribution to a Harmony with Nature Society
11-37 Appendix

Environmental Management

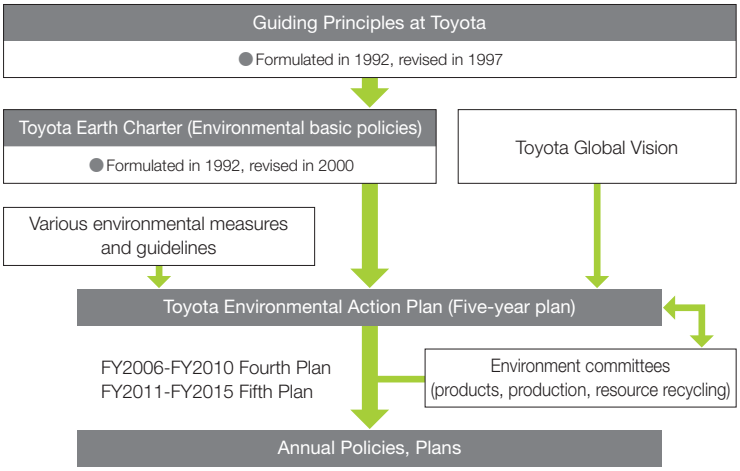
Environmental Philosophy, Policies and the Toyota Environmental Action Plan

Toyota's philosophy and policies on the environment are based on the Guiding Principles at Toyota, which were established in 1992 and revised in 1997. Policies for environmental initiatives were formulated as the Toyota Earth Charter in 1992 and then revised in 2000. This Charter is shared among 556 Toyota consolidated affiliates around the world.

The Toyota Global Vision announced in 2011 stresses the importance of "respect for the planet." Based on the above philosophy and policies, Toyota will aim to realize a 25 percent improvement in global average fuel efficiency by FY2015, compared to FY2005, as well as launch new and fully redesigned hybrid vehicle models in 21 vehicle series by the end of 2015.

Toyota will also proceed with the development of a wide range of technologies, including plug-in hybrids (PHVs), electric vehicles (EVs) and fuel cell vehicles (FCVs), so that customers can choose the type of eco-car best suited to their applications.

Toyota Environmental Action Plan System



Toyota Earth Charter

I. Basic Policy

1. **Contribution toward a prosperous 21st century society**
   Contribute toward a prosperous 21st century society. Aim for growth that is in harmony with the environment and set as a challenge the achievement of zero emissions throughout all areas of business activities.
2. **Pursuit of environmental technologies**
   Pursue all possible environmental technologies, developing and establishing new technologies to enable the environment and economy to coexist harmoniously.
3. **Voluntary actions**
   Develop a voluntary improvement plan, based on thorough preventive measures and compliance with laws, which addresses environmental issues on the global, national and regional scales and promotes continuous implementation.
4. **Working in cooperation with society**
   Build close and cooperative relationships with a wide spectrum of individuals and organizations involved in environmental preservation, including governments, local municipalities, related companies and industries.

II. Action Guidelines

1. **Always be concerned about the environment**
   Take on the challenge of achieving zero emissions at all stages, i.e., production, utilization and disposal.
   (1) Develop and provide products with top-level environmental performance
   (2) Pursue production activities that do not generate waste
   (3) Implement thorough preventive measures
   (4) Promote businesses that contribute toward environmental improvement
2. **Business partners are partners in creating a better environment**
   Cooperate with associated companies.
3. **As a member of society**
   Actively participate in social actions.
   (1) Participate in the creation of a recycling-based society
   (2) Support government environmental policies
   (3) Contribute also to non-profit activities
4. **Toward better understanding**
   Actively disclose information and promote environmental awareness.

III. Organization in Charge

Promotion by the Corporate Planning Meeting which consists of top management

The Fifth Toyota Environmental Action Plan

The Fifth Toyota Environmental Action Plan sets the future direction of Toyota's environmental activities, outlines the company's ideal form and defines the action plan and goals for the five-year period starting in FY2011. In developing the plan, Toyota streamlined actions from two points of view: environmental risks and business opportunities (such as penetration of eco-cars) in corporate operations and environmental initiatives expected of a company toward the decade between 2020 and 2030. The company positioned these issues under the three priority themes: of (1) contribution to a low-carbon society, (2) contribution to a recycling-based society and (3) environmental protection and contribution to a harmony with nature society. Embracing these themes, Toyota will contribute to the sustainable development of society and the world through *monozukuri* (manufacturing), *kurumazukuri* (car-making), and products and services that are in harmony with the global environment.

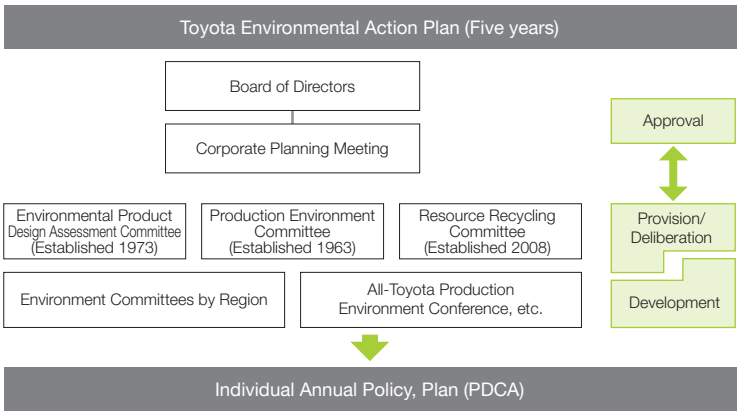
For the 24 targeted items, actions were pursued almost as planned and goals were achieved with the following results.
For further information on the FY2014 Review, please visit the following webpage

WEB http://www.toyota-global.com/sustainability/environment/data/data19.html

Promotion Structure and Framework

Since April 2015, environmental management has been discussed at the Corporate Planning Meeting, which has been set up in conjunction with organizational changes that are intended to incorporate CSR into management and raise corporate value throughout management overall. The Corporate Planning Meeting has considered growth strategies that incorporate the value that Toyota provides with regard to a variety of social issues. Through the following three existing committees—the Environmental Product Design Assessment Committee, the Production Environment Committee, and the Resource Recycling Committee—issues and response policies in all areas are investigated, and all relevant divisions are liaised with to promote companywide initiatives.

Organization Framework
(As of June 30, 2015)



Promotion of Global Environmental Management

Toyota positions the environment as a key management issue and has formed and promoted activities through a promotion structure for global environment management. From the standpoint of "more Toyota people should take the initiative in concern for the environment," the scope of our programs covers not only consolidated subsidiaries, but also voluntarily participating non-consolidated affiliate companies and production companies, for a total of 556 firms. This total covers almost 100 percent of the number of vehicles produced and approximately 90 percent of the number of vehicles sold.

Promotion Structure for Global Environmental Management

Scope of Companies Subject to Consolidated EMS

Toyota's consolidated environmental management system (EMS) covers a total of 556 companies. This includes not only all financially consolidated subsidiaries, but also major production companies, overseas distributors and other companies not subject to consolidated accounting.

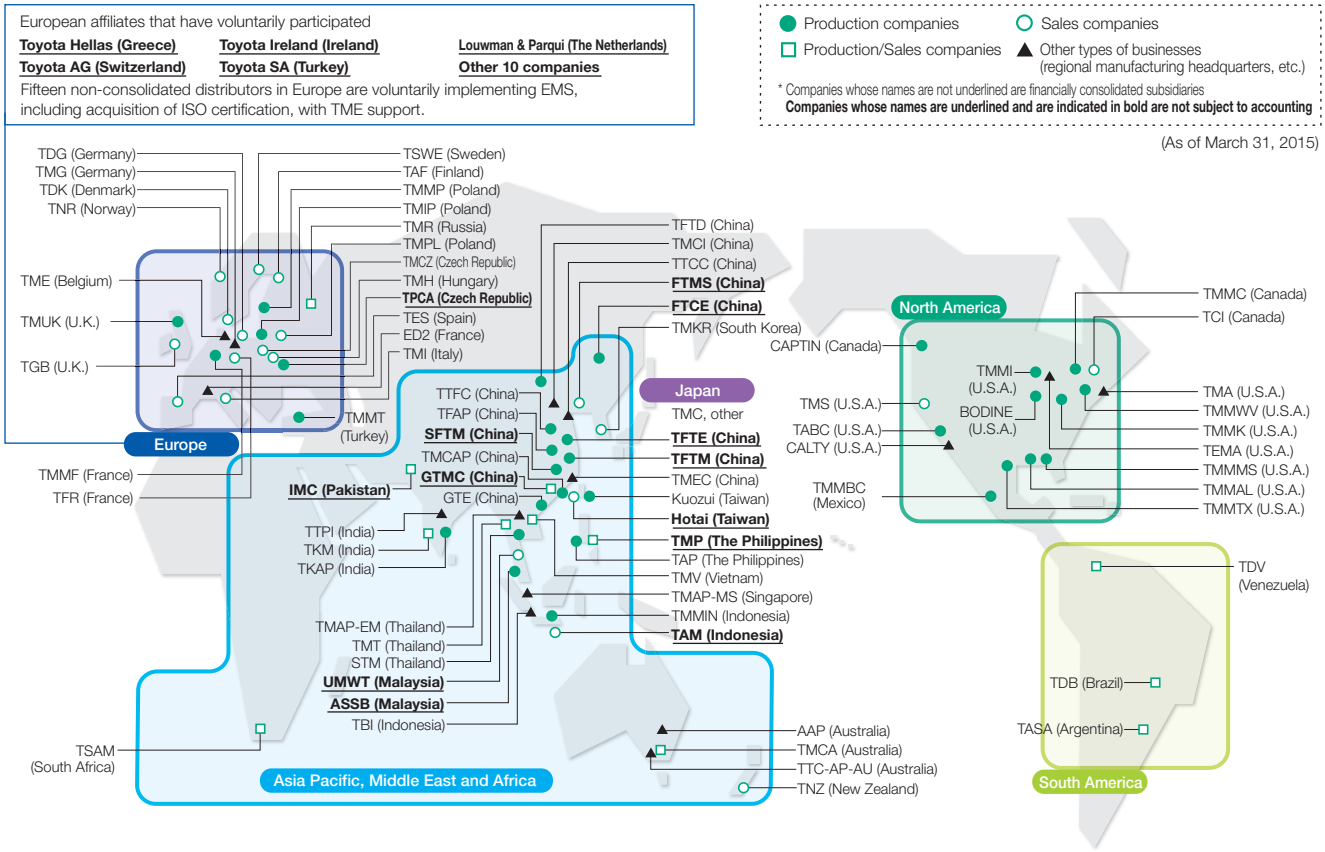
Specifically, companies subject to consolidated EMS fall into the following four major categories: (1) 164 subsidiaries which are financially consolidated and under the direct control of Toyota Motor Corporation (TMC); (2) 51 major production companies and overseas distributors that are not subject to consolidated accounting; (3) one organization from other types of businesses; (4) 340 subsidiaries that are financially consolidated and under the indirect control of TMC (managed via consolidated subsidiaries).

Organization/Structure

1. Jointly adopt the Toyota Earth Charter and draft individual environmental policies
2. In production, set quantitative goals and follow up on those goals
3. In sales, create an environmental management system, carry out environmental communication and other initiatives
4. Implement top level environmental responses based on actual conditions in each country and region

* TMC's requirements to companies not subject to consolidated accounting may vary according to region and the nature of business

Main Companies Subject to Consolidated EMS



Main Companies Subject to Consolidated Environmental Management System (EMS) in Japan (Alphabetical order)

(As of March 31, 2015)

Production Companies

Group 1	Group 2	Group 3	Group 4	Group 5
·Consolidated subsidiaries ·Automotive production companies and others ·TMC secondary companies	·Companies not subject to consolidated accounting ·Main parts manufacturers ·Body manufacturers, etc.	·Consolidated subsidiaries ·Parts manufacturers	·Consolidated subsidiaries ·Various other products production companies	·Companies not subject to consolidated accounting ·Parts manufacturers
Daihatsu Motor Co., Ltd. Gifu Auto Body Co., Ltd. Hino Motors, Ltd. Toyota Auto Body Co., Ltd. Toyota Motor East Japan, Inc. Toyota Motor Hokkaido, Inc. Toyota Motor Kyushu, Inc.	Aichi Steel Corporation Aisan Industry Co., Ltd. Aisin AI Co., Ltd. Aisin AW Co., Ltd. Aisin Seiki Co., Ltd. Aisin Takaoka Co., Ltd. Denso Corporation JTEKT Corporation Tokai Rika Co., Ltd. Toyoda Gosei Co., Ltd. Toyota Boshoku Corporation Toyota Industries Corporation Toyota Tsusho Corporation	Cataler Corporation Central Motor Wheel Co., Ltd. Kyoho Machine Works, Ltd. Primearth EV Energy Co., Ltd. Toyota Home Co., Ltd. Yutaka Seimitsu Kogyo, Ltd.	Admatechs Co., Ltd. Japan Chemical Industries Co., Ltd. Shintec Hozumi Co., Ltd. Toyota Turbine and Systems Inc.	Chuoh Pack Industry Co., Ltd. Chuo Spring Co., Ltd. Fine Sinter Co., Ltd. FTS Co., Ltd. Koito Manufacturing Co., Ltd. Kyowa Leather Cloth Co., Ltd. Taiho Kogyo Co., Ltd. Toyoda Iron Works Co., Ltd. Trinity Industrial Corporation Tsuda Industries Co., Ltd.
All-Toyota Production Environment Conference Members		All-Toyota Production Environment Meeting Members		

Logistics Companies

·Consolidated subsidiaries
·Finished vehicle distribution
·Parts distribution

Aichi Rikuun Co., Ltd.
Tobishima Logistics Service, Inc.
Toyofuji Shipping Co., Ltd.
Toyota Transportation Co., Ltd.

All-Toyota Logistics Environment Conference Members

Sales Companies

Tokyo Toyopet Motor Sales Co., Ltd.
Toyota Tokyo Parts Distributor Co., Ltd.
Toyota Tokyo Rental & Leasing Co., Ltd.

Total 32 companies

Other Businesses

TACTI Corporation
Toyota Central R&D Labs., Inc.
Toyota Enterprises Inc.
Toyota Modellista International Corporation
Toyota Technocraft Co., Ltd.
and others

Total 46 companies

*Including one company not subject to consolidated accounting

Major Initiatives during FY2014

Management: Strengthen and Further Promote Consolidated Environmental Management

Action Policies and Results of Major Affiliates Implementing Consolidated Environmental Management in FY2014

		FY2014 Action Policies and Activity Results			FY2015 Action Policies	
		Action Policy	Goals	Activity Results	Action Policy	Goals
Overall		●Promote environmental management through strengthened cooperation with each region	●Achieve goals in all areas	●Strengthened consolidated environmental management ●Held environment meetings in Japan and overseas ●Held Global ECO. Award ●Distributed collections of improvement activities and environmental near misses to Toyota affiliates ●Promoted activities under the Fifth Toyota Environmental Action Plan	●Continue to promote environmental management through strengthened cooperation with each region ●Promote activities under the Fifth Toyota Environmental Action Plan ●Establish goals for 2020 (Sixth Toyota Environmental Action Plan) ●Plan direction of future environmental strategy	●Achieve goals in all areas ●Formulation of roadmap
Production (84 companies)	Japan (40 companies) Overseas (44 companies[1])	●All companies to implement initiatives toward achieving FY2014 goals ●Strengthen activities to prevent recurrence of non-compliance and complaints	●Achieve goals in Japan and in all regions ●Zero non-compliance and complaints	●All companies implemented systematic measures and almost all goals were achieved ●Proactive preventive measures were implemented, but there were cases of minor non-compliance (4 instances[2] of non-compliance and 0 complaints)	●Promote sustainable plant activities ●Enhance prevention activities to achieve zero non-compliance and complaints	●Achieve FY2014 goals in Japan and in all regions ●Zero non-compliance and complaints
Sales (79 companies)	Japan (32 companies)	●Provide support to the Toyota National Dealers' Advisory Council for acquisition of third-party certification of its environmental management system	●Increase the number of dealers that acquire EMS[3] certification	●Provided support for the acquisition of EMS certification; increased the number of dealers that acquired EMS certification	●Continue providing support for the acquisition of EMS certification	●Increase the number of dealers that acquire EMS certification
	Overseas (47 companies[1])	●Overseas dealers to promote environmental risk audits through DERAP[4]	●Achieve goals Percentage of dealers 80% or more	●Achieve goals Percentage of dealers: 89%	●Continue implementation	●Achieve goals Percentage of dealers: 80% or more (including new participating distributors and dealers)

The 65 other Toyota Group companies in Japan and overseas are implementing individual activities on their own initiative

[1] Includes the 12 production/sales companies
[2] 4 in Japan and 0 overseas
[3] Environmental Management System
[4] Dealer Environmental Risk Audit Program

Global ECO. Award

Background and Purpose

The Global ECO. Award began in 2006 for the purpose of promoting improvement activities of overseas affiliates and encouraging the *yokoten* (sharing) of the best improvement practices among affiliates worldwide. The process originally consisted of each affiliate selecting their best improvement practices for recognition by Toyota.

In 2011, to make the Global ECO. Award even better and to increase interest in the activities, the process was changed to screening of teams selected in each region in order to select teams with excellent practices, and then those teams present their practices in Japan for selection of the final winners.

In addition, the Award for Affiliates with the Best Performance was established to recognize the affiliate with the greatest outcomes from the improvement activities. This award was presented for the third time in 2014.

Award Categories

Category	Award for On-site *Kaizen* Activity	Award for Affiliates with the Best Performance
Field	・Production/Production Affiliate (Plant) ・Logistics/Administration, Production and Logistics Affiliate	・Production/ Production Affiliate (Plant)

FY2014 Initiatives

Award for On-site *Kaizen* Activity

In FY2014, five finalists out of 12 teams selected from six regions around the world were invited to give their presentations in Japan. In a very close race, the Toyota Motor Manufacturing France S.A.S. (TMMF) team won the Platinum Award. The finalists and their presentations were: TMMF with achieving high wastewater recycling ratio in pursuit of the "Zero purchased industrial water" goal; TMMK with reducing the amount of oil by adopting the oil misting for electrode shaping machines which leads to a reduction in the energy use; CAPTIN with reducing the use of energy in its aluminum wheel casting process; GTMC with reducing waste by decreasing the amount of wastewater sludge it generates; and TMMIN with improving logistic efficiency via integration of delivery routes. These practices served as examples of excellent achievements through tremendous efforts to resolve very important issues each affiliate encountered.

At the award ceremony, Shigeki Terashi, who was the Senior Managing Officer and Executive in charge of the Environmental Affairs Division, commented that "Despite the tougher global circumstances for environmental management, further efforts to expand Toyota's capabilities, such as via global *kaizen* initiatives, are required in order to keep demonstrating Toyota's uniqueness to the world. Under such circumstances, I urge you continue working on initiatives as *kaizen* leaders while supporting the growth of your junior colleagues," expressing his respect and encouragement to the teams.

On-site *Kaizen* Recipients	
Platinum Award	TMMF (France)
Gold Award	TMMK (U.S.A.) CAPTIN (Canada) GTMC (China) TMMIN (Indonesia)

Affiliate Award Recipients	
Platinum Award	TMMBC (Mexico) TMP (The Philippines) TKAP (India)

Then Senior Managing Officer Shigeki Terashi with TMMF members, winners of the Platinum Award

Status of ISO 14001 Certification

Production, and production/sales companies both in Japan and overseas have been working to renew their ISO 14001 certification and striving daily to maintain and improve their environmental management systems.

Number of ISO Certified Toyota Group Companies in Japan and Overseas

	Production companies	Production/ Sales companies	Sales companies/ Other businesses
Japan	39	–	10
Overseas	32	12	19

Focus

Toward Enhanced Energy Management, Acquisition of Automobile Manufacturing Industry's First ISO 50001 External Certification in Japan

Global warming is becoming ever more severe, and in the midst of a changing environment, Toyota is also expected to make further efforts to reduce CO_2 emissions. Toyota has introduced an energy management system based on international ISO 50001 standards as a measure for more efficient CO_2 reduction and has acquired external certification. The chair of the Manufacturing Environment Committee, that considers the company's CO_2 emissions company-wide, set a major policy aimed at creating a non-regressing mechanism for greater CO_2 reductions, with strong leadership in minimization of energy use, incorporating strengths of the ISO 50001 not found in the ISO 14001. Based on this, a working team was formed to create this mechanism, holding deeper discussions on methods to enhance Toyota's original energy management continuously.

In concrete terms, the mechanism consists of an energy management team led by a company-wide energy management office, which strongly promotes improvement of energy management, builds a system that helps the PDCA cycle run reliably, standardizes measurement classifications, promotes efforts to make energy data more transparent, and endeavors to propose and support efficient countermeasures. Toyota will expand the results and know-how gained through this effort, sharing them with its plants and production engineering divisions, promoting further energy reduction activities, and accelerating its efforts toward zero emissions.

ISO50001 Certification issuance ceremony

Management: Promote Environmental Management in Product Development through Eco-VAS

LCA of New and Fully Redesigned Models in All Six Vehicle Series

Purpose

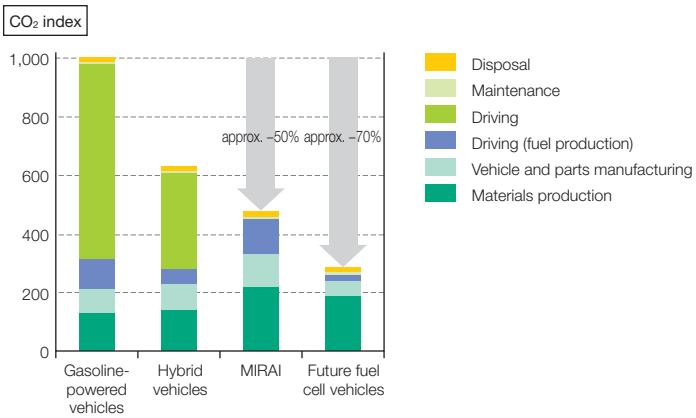
The Eco-Vehicle Assessment System (Eco-VAS) is a comprehensive environmental impact assessment system that allows systematic assessment of a vehicle's impact on the environment over the entire lifecycle from vehicle production and use to disposal stages. Toyota uses Eco-VAS to conduct lifecycle assessment (LCA) of a vehicle's total environmental impact from the materials manufacturing, vehicle manufacturing, driving and maintenance stages through to the disposal stage.

Since the system allows targets to be set from the initial stages of development to achieve steady improvements in environmental performance, Toyota's chief engineer establishes targets and scenarios to achieve them in relation to environmental performance criteria in the planning and development stage, and then follows up at points throughout the development process to ensure that targets are steadily being met.

Progress in FY2014

Toyota conducted LCA on new and fully redesigned models of six vehicle series (Esquire, MIRAI, Alphard, Vellfire, Lexus RC, Lexus NX).

LCA for the MIRAI



The MIRAI has the potential to achieve much lower life-time environmental burden compared to gasoline-powered and hybrid vehicles, depending on its hydrogen production techniques. Significant reduction can be achieved if an efficient means of hydrogen production using renewable energy sources becomes available in the future.

Toyota uses a comprehensive evaluation technique called "LCA" (Life Cycle Assessment), whereby a vehicle's impact on the environment are measured at all stages, from resource extraction to disposal and recycling. Evaluations are based on the assumption that each vehicle travels 100,000 km over a 10-year period under the JC08 test cycle.

LCA results are shown as an index. The environmental burden of the hydrogen used by a fuel cell vehicle differs according to the production method. Current emission figures of "Driving (fuel production)" for fuel cell vehicles are calculated based on the assumption that they use hydrogen obtained as a by-product of the sodium hydroxide production process.

The result of MIRAI's Comparative Life Cycle Assessment (comparison of Gasoline, Hybrid and MIRAI) was certified by TÜV Rheinland, in accordance with ISO14040/14044 standards.

Continue Activities Focusing on Planting Trees at Plants

Purpose

Since 2007, Toyota has been pursuing sustainable plant activities, positioning the Prius-producing Tsutsumi Plant as a model plant, to bring the concept of sustainability into *monozukuri*. With the concept of "a plant that fully utilizes natural resources while operating in harmony with the natural environment," efforts are underway towards reducing energy consumption, switching energy sources, enhancing communication with local communities, and protecting ecosystems.

Concept Underlying Sustainable Plant Activities

Aiming to become a plant that fully utilizes natural resources while operating in harmony with the natural environment

Reducing energy consumption:
Development and introduction of low CO_2-emitting production technologies and *kaizen* activities

Switching energy sources:
Utilization of renewable energy (solar, etc.)

Community involvement and ecosystem conservation:
"Green for Tomorrow"—tree planting activity at plants

Activities to increase employee environmental awareness

Progress in FY2014

Tree planting activities have been held at the Teiho Plant, TMEC (China), the Kinuura Plant and the Honsha Plant as part of afforestation activities at plant sites. About 9,000 tree seedlings were planted by 1,500 participants, including employees and their families and local residents.

Starting from the Tsutsumi Plant in 2008, Toyota Motor Corporation has reached its original goal of holding tree planting activities at all 12 of its manufacturing plants. It has planted a total of 110,000 trees in Japan and 745,000 overseas.

Tsutsumi Plant Total trees planted: 52,060	Kinuura Plant Total trees planted: 8,250	Kamigo Plant Total trees planted: 1,503
Takaoka Plant Total trees planted: 2,430	Shimoyama Plant Total trees planted: 5,000	Hirose Plant Total trees planted: 3,360
Tahara Plant Total trees planted: 5,240	Miyoshi Plant Total trees planted: 670	Teiho Plant Total trees planted: 3,160
Motomachi Plant Total trees planted: 13,628	Myochi Plant Total trees planted: 3,876	Honsha Plant Total trees planted: 632

Focus

Forestation Project at the R&D Center in China

Tree-planting was conducted at the R&D Center of Toyota Motor Engineering & Manufacturing (China) Co., Ltd. (TMEC) in Changshu City, Jiangsu Province on April 13, 2015. There was a huge turnout of about 900 participants, including center employees, Changshu government officials and students from nearby elementary schools and universities. They all worked together, carefully planting about 7,000 trees one by one. After the planting, participants were invited to the facilities, deepening their understanding of TMEC.

Tree planting at TMEC on April 13

Focus

San Bernardo Reborn Project

The San Bernardo Plant of Toyota do Brasil LTDA. (TDB), located in the suburbs of Sao Paulo, is Toyota's oldest overseas plant, established in 1958. The San Bernardo Project is an initiative to revitalize this plant, the origin of TDB. This project is built upon four pillars: Eco Company; Innovative Company; Competitive Company; and Friendly Company. On this basis, TDB aims to become the most eco-friendly company in Brazil through implementation of the sustainability projects below and by actively making important environmental commitments.

Reborn Project ceremony

- Obtaining 100% of its electricity from renewable sources
- Reusing rainwater (already partially implemented) and recycling industrial water (scheduled for 2017)
- Promoting zero landfill waste and waste reduction
- Establishing greenery/green belts in the plant site that are in harmony with the local environment
- Encouraging other stakeholders (dealers and suppliers) to take environmental preservation actions

Management: Promote Environmental Activities in Cooperation with Business Partners

Promoting Dealer Environmental Initiatives

At CSR workshops held by the Toyota National Dealers' Advisory Council (TNDAC), all Toyota dealers have come together to promote voluntary activities based on the Toyota Dealer CSR Guidelines set forth in 2005. To further promote these initiatives, they called for increased acquisition of third-party certification of environmental management systems to accelerate the development of people and the creation of environmentally-friendly dealerships, and to bolster the level of trust from customers. As part of such efforts, a dozen Toyota dealers acquired certification under "Eco-Action 21 (EA21)" guidelines issued by the Ministry of Environment to encourage and evaluate environmental activities of all businesses, institutions, schools, and public facilities. They received their certificates at the presentation event arranged by the EA21 Secretariat and were registered as EA21-certified organizations.

Award ceremony for Toyota Corolla Aichi

Number of Overseas Dealers Who Achieved DERAP Goals Increases

Toyota continues the Dealer Environmental Risk Audit Program (DERAP) to reduce environmental risks at overseas dealer service shops. These audits are aimed at establishing a framework to deal with five fundamental environmental requirements including the proper management of waste and treatment of wastewater.

In FY2014, 60 distributors and 3,464 dealers from 57 countries worldwide participated in the program, representing an increase of 5 distributors and 126 dealers compared to FY2013. Of that total number, 89 percent of participating dealers satisfied the five requirements. From the global perspective, there are still many Toyota distributors and dealers not participating, so Toyota will continue to encourage even greater participation going forward, and to support those participating companies in their activities.

Focus

Recycling of Wastewater and Rainwater at Toyota South Africa Motors (TSAM) Dealers

Amid an increasing water scarcity problem developing in South Africa year by year, laws and regulations on water use are under review. Under these circumstances, TSAM has been encouraging the affiliated dealers to implement water recycling activities since 2008. Some dealers have already installed five water storage tanks or solar-powered water purification system, which enable to store 100,000 liters of water allowing them to wash vehicles for up to 200 days by recycling discharged water and rain water. TSAM recognizes excellent dealer's great contributions to the environmental activities every year to motivate them in the region and addresses enhancement of their environmental activity level.

Recycling of wastewater and rainwater at some dealers

Management: Legal Compliance Activities

Achieving Zero Non-compliance and Complaints

In FY2014, we were able to achieve zero non-compliance and complaints for the first time in four years.

One major activity was the creation of a *Collection of Focal Points for Facilities and Management toward Complete Elimination of Wastewater Non-compliance* based on the non-compliance near misses and near complaints* that had occurred in the past 10 years. We distributed this throughout the Toyota Group, utilizing it for prevention activities in educational platforms such as the Environmental Month and wastewater treatment seminars. With remote facilities that are difficult to monitor constantly, such as employee dormitories, company-owned employee housing, and recreational facilities, employees responsible for environmental issues at Toyota headquarters visit and check these facilities all over Japan, identifying potential risks and implementing risk-reduction measures.

* Non-compliance near misses and near complaints: Cases that pose high potential risks although they did not result in incidents

Reporting and Storing Electrical Devices Containing PCBs

Since FY2005, Toyota has been using outside subcontractors to process electrical devices containing polychlorinated biphenyl (PCB). To date, 4,918 transformers and condensers have already been processed. The remaining 329 units will continue to be handled on an outsourcing basis in FY2015 and beyond.

Groundwater-related Measures

In 1997, Toyota completed the implementation of measures to prevent outflow of groundwater at six production plants. Toyota is continuing groundwater remediation using pump and aeration treatment and reports on the levels of trichloroethylene to the government as well as to local councils in the surrounding communities.

Trichloroethylene Levels

Plant	Levels in Groundwater
Head Office	Less than 0.002–1.06
Motomachi	Less than 0.002–0.19
Kamigo	Less than 0.002–0.16
Takaoka	Less than 0.002–0.36
Miyoshi	Less than 0.002–0.15
Tsutsumi	Less than 0.002–0.36

Environmental standards: 0.03
Unit: mg/L

Note 1: Measurements are taken at all Toyota Motor Corporation plants
Note 2: Has not been detected in plants other than those listed
Note 3: The level has a range since each plant includes multiple measurement points

Management: Eco-factory Activities

Eco-factory Activities Implemented at Eight Plants

Toyota continues with eco-factory activities for plants being newly constructed and being enhanced in capacity to ensure that its factories set the highest worldwide standards for environmental consideration and sustainability. Activities include on-site verification of environmental solutions incorporated into each phase—namely planning, engineering, trial production and full-scale operation—and, should a failure be discovered, the problem is corrected and environmental measures are reliably incorporated.

Progress in FY2014

Eco-factory activities were continued at a total of eight plants in North America, Indonesia, Thailand, Brazil, and China.

Eco-factory Activities

	North America		Indonesia	Thailand	Brazil	China		
	TMMMS	TMMAL	TMMIN new engine plant	STM Plant No.2	TDB new engine plant	SFTM Chang-chun New Plant	TMCAP	GTE
Planning stage								
Audits of facility specifications								
On-site audit								
Compliance and risk evaluation			16	15	16		15	15
Performance evaluation (CO_2, VOC, etc.)			17		17		16	

: Capability enhancement projects (from FY2012)
: Implementation completed in FY2014
: Implementation completed by FY2013
Numbers indicate planned year of implementation

Focus: Examples of Plant Environmental Protection Activities

Efforts to Reduce CO_2 Emissions at Miyoshi Plant

The Miyoshi Plant manufactures drive-line components, including drive shafts and propeller shafts, as well as cold-forged and sintered engine parts. Initiatives established to reduce energy usage through equipment consolidation[1] and process step reduction are described below.

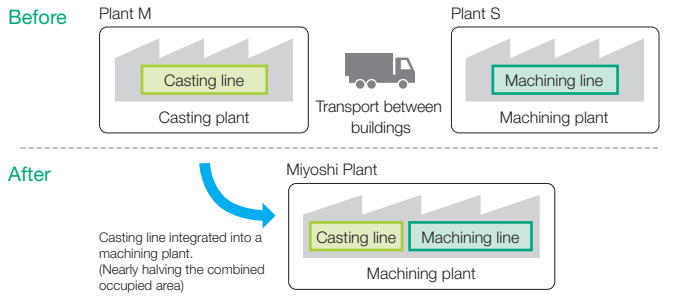
In the heat treatment process, which uses a lot of energy, we successfully reduced the number of carburizing furnaces from 10 to 8 by standardizing the types of quenching oils and implementing an innovative measure to increase the number of component pallets that can be accommodated. We expect to further reduce the number of carburizing furnaces to six by the end of FY2015. Likewise, on the propeller shaft production line, we are consolidating equipment according to production fluctuations.

On the turbocharger production line, which commenced manufacturing in 2014, we connected the casting line, which was previously housed in a separate building, directly to the machining line by improving the work method and adopting compact equipment. As a result, we reduced energy consumption in both the production and logistic processes.

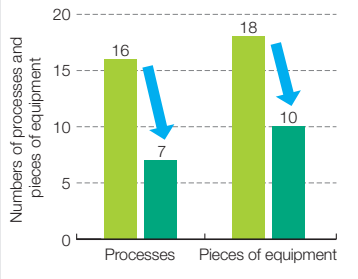
Meanwhile, on the drive shaft production line, we began operating an innovative line[2] in April 2015 with the goal of reducing parts costs. We almost halved the process steps and pieces of equipment by improving the processing method and consolidating processes, and as a result, expect to reduce annual CO_2 emissions by approximately 30 tons.

[1] Consolidation: Grouping together multiple lines and pieces of equipment with low operation rates according to production fluctuations, in order to improve operation rates
[2] Innovative line: Production line designed to reduce cost by incorporating revolutionary machining technologies, with the goal of improving cost competitiveness

Integration of casting and machining processes in the turbocharger production line



Reduction in the processes and of equipment through the adoption of innovative lines



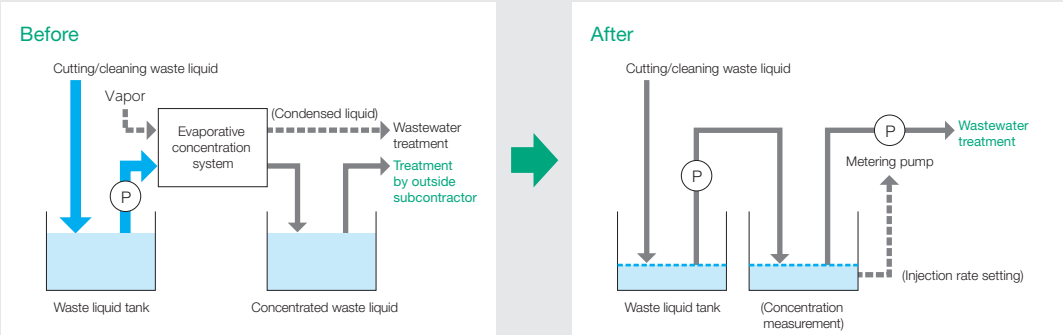
Efforts to Reduce Waste Volume at Shimoyama Plant

The Shimoyama Plant which assembles engines and produces exhaust system parts, is proactively promoting *kaizen* in its daily waste-reduction activities. An initiative to reduce the volume of concentrated waste liquid that must be processed outside the plant has produced tangible results in recent years and is described below.

Until recently, because the generated volume of cutting/cleaning liquid discarded after machining was so large, waste liquid could not be treated in-house due to the capacity of the wastewater treatment facility, requiring the liquid to be first reduced in volume by approximately 90% by an evaporative concentration system then sent to an outside subcontractor for processing (thus generating waste).

In FY2013, the Shimoyama Plant began a trial to determine whether the waste liquid could be processed in the in-house wastewater treatment facility. By measuring the volume of original liquid and the Chemical Oxygen Demand (COD) of the waste liquid, using a metering pump to control the injection rate to a constant level, and also extending the service life of the coolant, we managed to reduce the volume of waste liquid generated. Our in-house treatment facility has enabled us to directly process waste liquid and this method has formally adopted since April 2014.

As a result, we eliminated operation of the evaporative concentration system, thereby reducing steam and energy usage.



Contribution to a Low Carbon Society

Basic Approach to a Low Carbon Society

The Intergovernmental Panel on Climate Change (IPCC) published its latest Fifth Assessment Report in installments between September 2013 and April 2014, covering scientific assessments, climate change-related impacts, adaptation and vulnerability, and measures to mitigate climate change.

The report states that (1) warming of the climate system is unequivocal, (2) it is virtually certain that the upper ocean has warmed, and (3) it is extremely likely that human activities have been the main cause of the observed warming since the mid-20th century. The impact of global warming is not limited to increases in average temperatures but, as shown in the diagrams, also includes a range of potential risks associated with climate change globally.

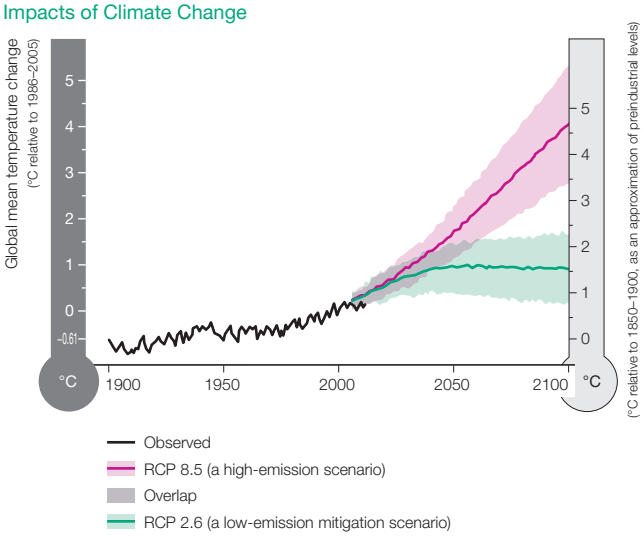
Examples of such weather events are increased frequency of heavy precipitation events and increased maximum wind velocity associated with tropical cyclone activity. Evidence of change is already being felt in Japan, such as sudden downpours causing extensive damage, and record amounts of heavy precipitation.

When floods and other natural disasters occur, caused by typhoons and heavy rain thought to be the result of climate change, they have the potential to cause damage or delays to Toyota's business operations, including the procurement of raw materials, parts and other materials for the manufacture of Toyota products in the main markets where Toyota manufactures, distributes and sells products.

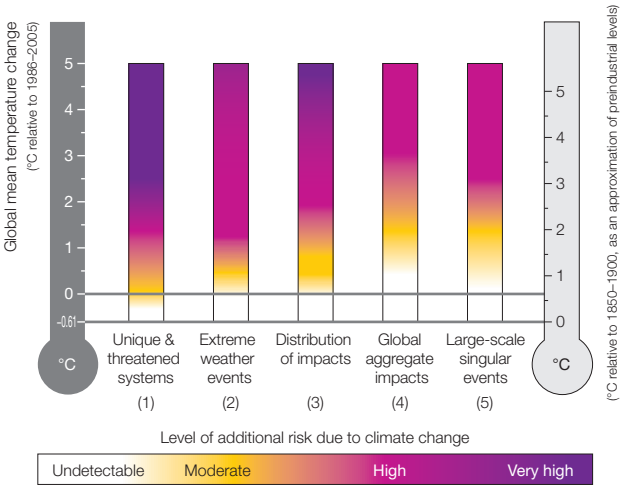
Climate change also increases the occurrence of droughts and it impacts biological diversity and agricultural production. To prevent such a situation, the entire world must commit to building a low carbon society with a lower level of CO_2 emissions.

Toyota positions taking action to reduce further global warming as a top priority management issue, and is working to reduce greenhouse gas emissions at all stages of the vehicle lifecycle, including development, design, production, logistics, and sales, as well as in all of Toyota's business areas.

Impacts of Climate Change



Source: (Ministry of the Environment, Japan) IPCC, 2014: Summary for Policymakers.
Climate Change 2014: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change



Example of potential risks:

(1) Impacts on vulnerable systems (Arctic-sea-ice and coral-reef systems)
(2) Events such as extreme precipitation, extreme heat and coastal flooding
(3) Uneven distribution of impacts in each country and region
(4) Impacts on biodiversity and the overall global economy
(5) Large-scale and irreversible changes (sea level rises due to loss of the Greenland ice sheet, and ecosystem changes)

Toyota's Basic Stance regarding Issues Related to Energy, Climate Change and Global Warming

Development and Design

- Development of next-generation vehicles focusing on fuel efficiency improvements, and hybrid and plug-in hybrid vehicles

Production

- Promote activities to reduce CO_2 emissions through development and introduction of innovative low CO_2-emitting production technologies, and daily improvement activities
- Utilize renewable energies considering characteristics of each country and/or region
- Management of GHG emissions from sources other than energy sources

Logistics

- Promote CO_2 reduction activities by further improving transport efficiency

Sales

- Conform to the Energy Savings Act and reduce per-unit energy at the annual rate of 1%

Major Initiatives during FY2014

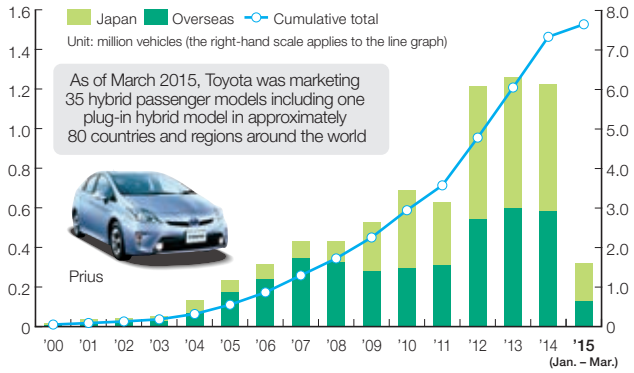
Promoting Development of Next-Generation Cars and Widespread Use of Their Features

Worldwide Sales of Toyota Hybrids Top 7.65 Million Units

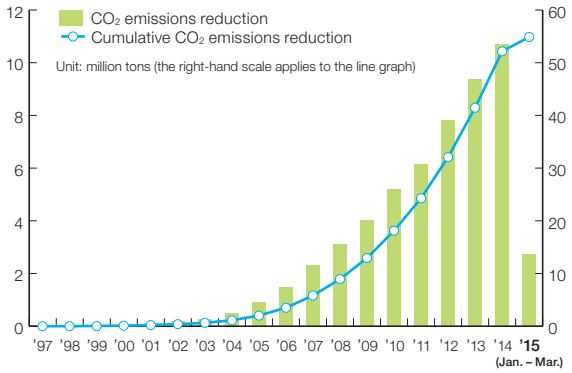
Since launching the Prius—the world's first mass-produced hybrid passenger vehicle—in December 1997, Toyota has received tremendous support from consumers, with cumulative global sales reaching 7.65 million units as of March 31, 2015.

Toyota calculates that as of that date, Toyota hybrid vehicles have resulted in approximately 54 million fewer tons of CO_2 emissions than would have been emitted by gasoline-powered vehicles of similar size and driving performance, and have saved approximately 20 million kiloliters of gasoline compared to the amount used by gasoline-powered vehicles of similar size.

Cumulative Sales of Hybrid Vehicles



CO_2 emissions reduction effects of Toyota hybrid vehicles (Toyota calculations)

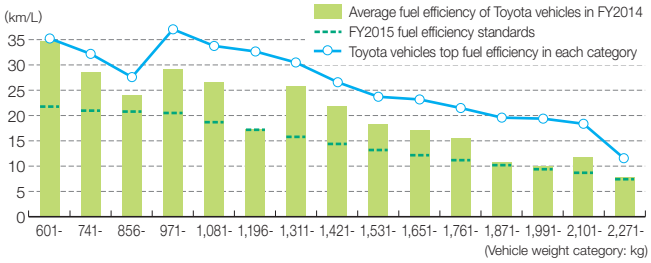


Development and Design: Develop Technologies to Achieve the Best Fuel Efficiency Performance and Meet Standards in Each Country and Region

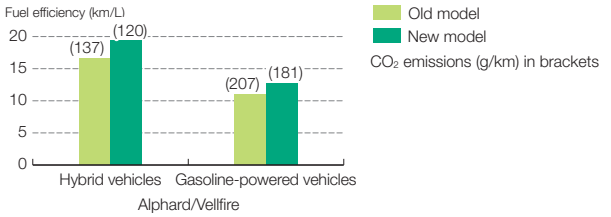
FY2015 Fuel Efficiency Standards Cleared by All 15 Vehicle Weight Categories

- In FY2014, vehicles met the FY2015 fuel efficiency standards in all 15 vehicle weight categories
- In FY2014, new vehicles and fully redesigned models of five vehicle series met the FY2015 fuel efficiency standards
- Of the vehicles manufactured by Toyota in FY2014, 91 percent achieved the fuel efficiency standards for gasoline-powered passenger vehicles

Achievement of Fuel Efficiency Standards and Actual Fuel Efficiency of Toyota Vehicles in FY2014



Fuel Efficiency Comparison between Selected Old and New Models



Achievement of FY2015 Fuel Efficiency Standards in FY2014

Weight category (vehicle weight: kg)	Fuel efficiency standards (km/L)	FY2014 average fuel efficiency (km/L)	New vehicles and fully redesigned models that met the standards in FY2014
601–740	21.8	34.8	
741–855	21.0	28.5	
856–970	20.8	24.1	
971–1,080	20.5	29.2	
1,081–1,195	18.7	26.6	
1,196–1,310	17.2	17.4	
1,311–1,420	15.8	25.9	
1,421–1,530	14.4	21.9	
1,531–1,650	13.2	18.4	Esquire, Esquire HV
1,651–1,760	12.2	17.2	Esquire, RC300h, NX300h, NX200t
1,761–1,870	11.1	15.6	NX300h, NX200t
1,871–1,990	10.2	10.9	NX300h, Alphard, Vellfire
1,991–2,100	9.4	9.9	Alphard*, Alphard HV, Vellfire*, Vellfire HV
2,101–2,270	8.7	11.8	Alphard, Alphard HV, Vellfire, Vellfire HV
2,271–	7.4	7.8	

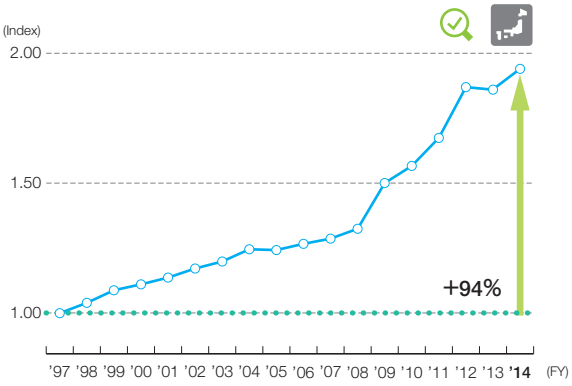
Note 1: The models indicated by an asterisk (*) generally meet the standards, but certain types and specifications may not
Note 2: ▭ indicates a category that has achieved the fuel efficiency standards
Note 3: Vehicles that achieved the efficiency standards before FY2013 are not included
Note 4: All fuel efficiency values are averages for vehicles that have specification values under the Japanese Ministry of Land, Infrastructure, Transport and Tourism's JC08 test cycle

Increase in Average Fuel Efficiency

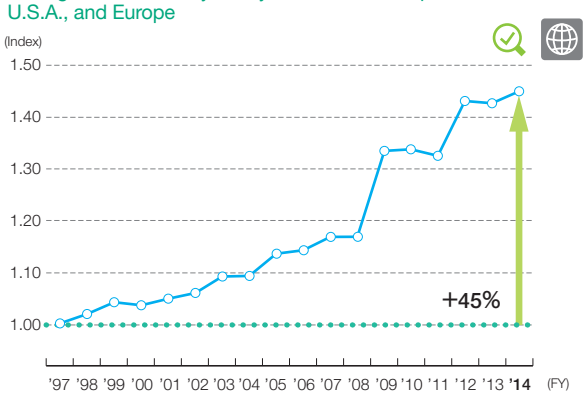
In FY2014, Toyota worked to promote its hybrid technologies, positioning them as the core technologies necessary for developing various types of eco-cars.

In Japan, Toyota launched hybrid versions of the Esquire, Alphard, Vellfire, Lexus RC, and Lexus NX. The number of hybrid vehicles as a percentage of all Toyota vehicles has been increasing, greatly contributing to improvements in Toyota's average fuel efficiency. Toyota also took other fuel efficiency improvement measures, such as improving the powertrain efficiency of vehicles equipped with conventional engines. As a result, the combined average fuel efficiency index of passenger cars in Japan, the United States, and Europe saw steady improvement.

Average Fuel Efficiency of Toyota Vehicles in Japan



Average Fuel Efficiency of Toyota Vehicles in Japan, U.S.A., and Europe



Focus

Development of Direct-injection Turbo Engines with Drastically Improved Thermal Efficiency and Powerful Acceleration

To help reduce fossil fuel consumption, Toyota is also working to improve the fuel efficiency of vehicles with conventional powertrains, which still account for the majority of vehicles sold.

It developed a new 1.2-liter direct-injection turbo engine, which achieves both drastically improved thermal efficiency and superb driving performance capable of powerful acceleration, and installed it in the Auris launched in April 2015. To develop the new turbo engine, Toyota added its supercharging technology to the technologies it has nurtured for developing engines specific to hybrid vehicles as well as conventional engines, creating a supercharged engine with world-leading thermal efficiency. Furthermore, a 2.0-liter engine with high thermal and fuel efficiency is installed in the Lexus NX, launched in July 2014. By adding a supercharged engine that also achieves superb driving performance to the group of these engines with high thermal and fuel efficiency, Toyota has expanded its portfolio of environment-friendly vehicles that meet the diverse needs of consumers. These engines with high thermal and fuel efficiency were first installed in the Passo and Vitz launched in 2014 and have already been installed in a total of eight models as of April 2015. Toyota plans to add six more models by the end of FY2015 to market a total of 14 models globally.

Auris

Technologies Used in the Supercharged Gasoline Engine with High Thermal and Fuel Efficiency

		Technology used in HVs	Technology refined with previous model engines	Technology incorporated as supercharging (New technologies)
Improved combustion	Rapid combustion		●	●
	Higher compression ratio	●	●	
Loss reduction	Reduced pumping loss			
	• Atkinson cycle	●		●
	• Supercharged			●
	Low friction	●	●	

Focus

Aiming to be a Pioneer in the Realization of a Hydrogen Energy Society with Popularization of FCVs

The MIRAI, the world's first mass-produced fuel cell vehicle (FCV), made its market debut in December 2014 as the groundbreaker in the realization of a hydrogen energy society for the next 100 years of the automobile. It features high energy efficiency, with a cruising range equivalent to that of gasoline-powered vehicles, a short charging time, and emits only water during operation. The MIRAI comes with environmental technology with such a high potential that it can be called the "ultimate eco-car." Not only does it have excellent environmental performance, but it is furnished with the finest features, including a futuristic design that clearly identifies it as an FCV, and it provides an enjoyable, quiet and comfortable ride, making drivers want to keep driving. Toyota has globally popularized eco-cars since the launch of the Prius, with its pioneering hybrid technology; striving to contribute to the global environment. Now, Toyota is introducing the FCV MIRAI to the market, aiming to popularize this vehicle for the next 100 years of the automobile. The MIRAI is scheduled to be launched in the U.S. and Europe from autumn 2015.

Accelerating Infrastructure Expansion

As of mid-April 2015, 19 hydrogen fuelling stations are in operation and the government is allocating the budget to expand to 76 stations. While requests have been made for further expansion of infrastructure, the production of the MIRAI, equipped with the latest technologies, is slow, as they are carefully built to ensure each vehicle meets Toyota's strict standard, thus limiting the number of MIRAI manufactured. The FCV and its infrastructure coexist in harmony as a flower and a bee, supportive of each other. Therefore, as an automobile manufacturer, Toyota is prioritizing the marketing of the FCV, creating a favorable environment for infrastructure providers to operate their business. The expansion of hydrogen station installation has been rapidly accelerated compared with six months ago. Moving forward, Toyota hopes and believes that synergy between infrastructure providers and vehicle manufacturers increases and creates a win-win situation to establish a hydrogen-based society through our mutual relationship.

Installing FC stack and tanks

MIRAI during production

MIRAI undergoing inspection

MIRAI Receives the 24th Grand Prize for the Global Environment Award

The Grand Prize for the Global Environment Award is sponsored by the Fujisankei Communications Group and was established in 1992 to honor efforts in industrial circles, aiming at encouraging the coexistence of industrial development and environmental protection. Toyota's fuel cell vehicle (FCV), the MIRAI, received the Grand Prix Prize at the 24th Grand Prize for the Global Environment Award. The award recognized how the MIRAI contributed toward diversification of automotive fuels with its high potential as an eco-car. The prize also acknowledged its contribution to the realization of a sustainable mobility society with Toyota providing free licensing of its exclusively held fuel cell-related patents to encourage the popularization of FCVs.

At the award ceremony on April 9, 2015, Toyota Chairman Takeshi Uchiyamada commented, "With our motto 'For the next 100 years,' we created the MIRAI for our children who are our future, hoping that they will adore this vehicle."

"Global Environment Award" ceremony

Focus

New Fuel Cell Bus to Service Route in Toyota City

Toyota Motor Corporation and Hino Motors, Ltd. have developed a new Toyota Fuel Cell System (TFCS) equipped bus as a step towards commercial operation of fuel cell buses. The new bus has serviced bus routes in Toyota City, Aichi Prefecture from January 2015. The TFCS integrates the fuel cell and hybrid vehicle technologies developed for the MIRAI fuel cell vehicle. The new fuel cell bus is equipped with eight high-pressure hydrogen tanks as well as two fuel cell stacks and two motors to provide increased output. The bus also features an external power supply system that was enhanced through rigorous verification testing beginning in November 2013. Verification testing is part of the public fuel cell bus road trials and emergency external power supply testing that began in FY2010. Toyota and Hino will verify the feasibility and effectiveness of the fuel cell bus through testing involving commercial operation on regular routes on public roads and will feed back the results into R&D.

Focus

Hydrogen Grid Project at Kansai International Airport

This large scale project aims to demonstrate Japan's first introduction of hydrogen energy to airport facilities, with the support of the Ministry of Environment, taking advantage of the system of Comprehensive Special Zones for International Competitiveness.

The project introduces fuel cell (FC) forklifts, maintains a hydrogen refill facility, and establishes a system that serves as a model for the future full-scale hydrogen energy society during its three year period from FY2014 to FY2016.

The New Kansai International Airport Co., Ltd. will promote the practical use of hydrogen energy as part of the Smart Island Vision, with Toyota Industries Corporation to develop and provide FC forklifts, Iwatani Corporation to build and provide hydrogen infrastructure, and Toyota Motor Corporation to provide technologies including fuel cells.

In February 2015, the first phase of the demonstration was commenced at the international cargo area with one FC forklift. Practical FC forklifts equipped with fuel cell technologies installed in the MIRAI are planned to be deployed during FY2015.

The first phase of the demonstration beginning from FY2015 starts with a small-scale high-pressure hydrogen gas station. The full introduction of FC forklifts will take place in the latter half of 2016 in line with the development of a large-scale liquid hydrogen station.

The FCV MIRAI has joined this Hydrogen Grid Project and is already in operation. This MIRAI is also expected to serve as an airport maintenance vehicle to perform tasks such as runway checks and aviation lighting checks.

Small-scale high-pressure hydrogen gas station
(Photo provided courtesy of New Kansai International Airport Co., Ltd.)

Focus

Responses to Scope 3

Scope 3 is a new standard established to encourage corporations to visualize and account for indirect greenhouse gas emissions from the value chain that occur outside their own company and consolidated companies (purchased goods and services, transportation, business travel, employee commuting, use of sold products, etc.).

Toyota has assessed emissions from 14 of the 15 categories.

Details of the 15 Categories Specified in Scope 3

Value Chain	Category	Item	Assessment
Upstream	1	Purchased goods and services	✓
	2	Capital goods	✓
	3	Fuel- and energy-related activities (not included in scope 1 or scope 2)	✓
	4	Upstream transportation and distribution	✓
	5	Waste generated in operations	✓
	6	Business travel	✓
	7	Employee commuting	✓
	8	Upstream leased assets	✓
Downstream	9	Downstream transportation and distribution	✓
	10	Processing of sold products	✓
	11	Use of sold products	✓
	12	End-of-life treatment of sold products	✓
	13	Downstream leased assets	✓
	14	Franchises	-
	15	Investments	✓

Note: “Franchises” is not applicable

Continuing to Conduct Activities Aimed at Reducing CO_2 Emissions in Production Activities

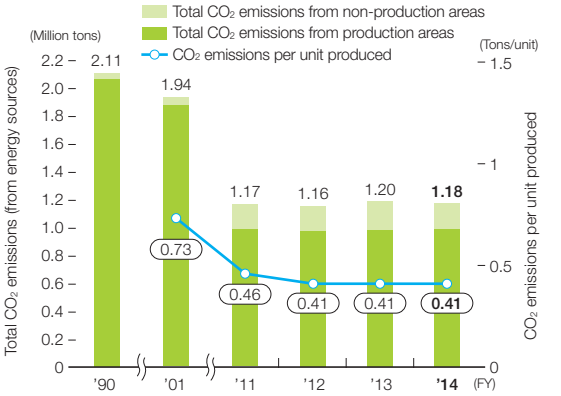
Toyota Motor Corporation (TMC) has set CO_2 emissions reduction goals that include both production bases and non-production bases such as offices.

In FY2014, installation of efficient air-conditioning units and chillers resulted in annual CO_2 emissions of 1.18 million tons (44 percent lower than the FY1990 level), and 0.41 tons of CO_2 emissions per unit produced.

To achieve Toyota's global five-year plan targets, we are promoting reduction of CO_2 emissions, with the adoption of innovative technologies at the launch of new plants and production lines. For example, at the new Changchun plant of Sichuan FAW Toyota Motor Co., Ltd. (China), innovative technology has been introduced, including simplification of the line, and the three-wet paint process. Other initiatives include implementation of steamless and airless processes.

As a result, in FY2014, the CO_2 emissions per unit produced were 0.75 tons (0.5 percent lower than the FY2013 level) and annual CO_2 emissions were 7.79 million tons (0.6 percent lower than the FY2013 level).

Trends in Total CO_2 Emissions (from Energy Sources) and CO_2 Emissions per Unit Produced at TMC

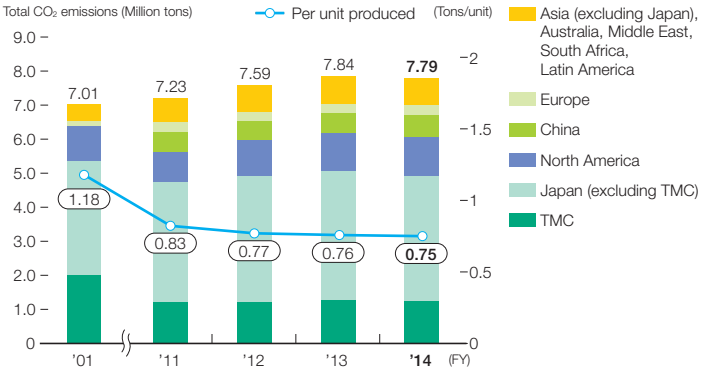


Note 1: For facilities in non-production areas for which FY1990 emissions data is not available, the oldest subsequent data available is used for the graph

Note 2: Until FY2011, the total CO_2 emissions volume included emissions from production and non-production divisions (excluding the Toyota Biotechnology & Afforestation Laboratory and employee benefit facilities) Beginning in FY2012, the Laboratory was included as a non-production division

Note 3: The CO_2 emissions were calculated using the Nippon Keidanren's FY1990 CO_2 conversion coefficient. For more information on the conversion coefficient, please visit the webpage below: http://www.toyota-global.com/sustainability/environment/data/data28.html

Trends in Global CO_2 Emissions (from Energy Sources) and CO_2 Emissions per Unit Produced (Stationary Sources such as Plants and Offices)



*TMC and 120 companies (consolidated subsidiaries and other companies in Japan and overseas)

Japan: Companies listed in Groups 1-5 on page 11-03 (including sub-subsidiaries; excluding Toyota Tsusho)

Overseas: Production companies and production/sales companies listed on page 11-03 (excluding TMCAP in China)

Note 1: Companies for which FY2001 emissions volumes could not be determined, the oldest subsequent data is used

Note 2: The CO_2 emissions were calculated using the Greenhouse Gas (GHG) Protocol CO_2 conversion coefficient. For more information on the conversion coefficient, please visit the webpage below: http://www.toyota-global.com/sustainability/environment/data/data28.html

Calorific Energy Use Ratio at TMC

Promoting the Use of Renewable Energy

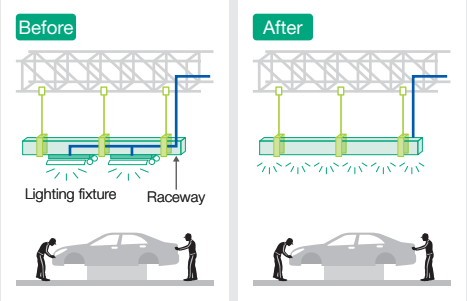
In March 2008, the Toyota Tsutsumi Plant installed a photovoltaic system rated at 2,000 kW (sufficient to provide power for some 500 households). During FY2014, the system generated 1,903 MWh of electricity.

Focus: Example of Improvement in Energy Saving

Development of Low-cost LED Lights

LED lights are environmentally superior products because they save energy and do not contain mercury. However, since they are more expensive than fluorescent bulbs, it takes longer to recoup the initial investment at plants. Therefore, Toyota worked with an LED lighting fixture maker to develop products that utilizing the LED's flexibility in shape.

Integrating the newly developed LED lights into plant raceways has made installation easier and has reduced the initial investment. We plan to install the new LED lights when a production process is renewed.

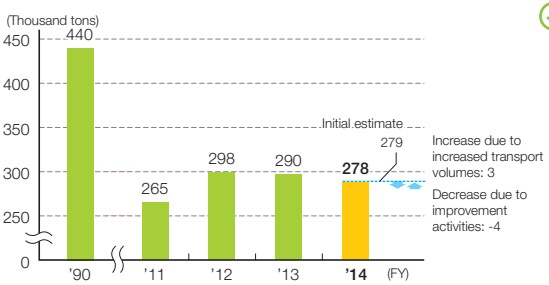


Production and Logistics: Pursue Increased Transport Efficiency and Reduce CO_2 Emissions in Logistics Activities

Continuing to Conduct Activities Aimed at Reducing CO_2 Emissions

In FY2014, Toyota Motor Corporation (TMC) implemented various initiatives, including activities to increase the loading efficiency of trucks, modal shifts, and ongoing fuel-efficiency improvement activities with logistics partners. Through these activities, CO_2 emissions were reduced by 4,000 tons more than the initial estimate, but changes including an increase in long-haul transportation resulted in total CO_2 emissions of 278,000 tons. CO_2 emissions per ton-kilometer (the transport of one ton of goods over a distance of one kilometer) were 109.6 g-CO_2/tkm.

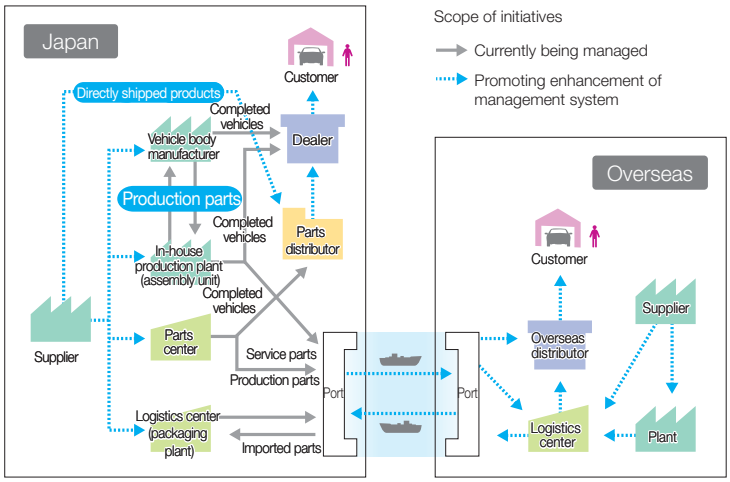
Trends in CO_2 Emissions from TMC Logistics Operations (Japan)



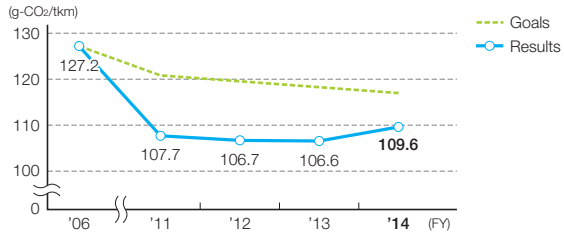
Note 1: Past figures have been revised retroactively due to changes made from FY2014 to the calculation method for some production parts and service parts (CO_2 emitted during transport of special shipment products has been excluded)

Note 2: The CO_2 conversion coefficient was calculated based on the "Guidelines on Disclosure of CO_2 Emissions from Transportation & Distribution (version 3.0)" issued by the Japanese Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism, etc. For more information on the conversion coefficient, please visit the webpage below:
http://www.toyota-global.com/sustainability/environment/data/data28.html

Scope of CO_2 Emissions Calculations from TMC Logistics Operations



Trends in CO_2 Emissions per Ton-kilometer from TMC Logistics Operations (Japan)



Note: For transport of production parts in Kyushu, past figures have been revised retroactively due to changes made from FY2014 to the unit calculation method

Results of Activities to Reduce CO_2 Emissions

Improvement item	Product	Details of activity	Reduction volume (thousand tons)
Reduction in total transport distance	Completed vehicles	Shifting from domestic vessels to oceangoing vessels and from land transport to sea transport, etc.	2.5
	Production parts	Reduction in the number of special shipments from Toyota Kyushu in conjunction with the switch to one-shift operation, joint shipments, etc.	0.6
	Service parts	Improved handling of empty pallets, increased loading efficiency, etc.	0.4
Total			3.5

Assessment of CO_2 Emissions and Implementation of Reduction Activities Worldwide

In FY2007, Toyota began assessment of CO_2 emissions from overseas worksites. Since FY2013, reduction targets were set for each country/region and activities are being implemented based on annually disclosed global guidelines.

Toyota is also making preparations for disclosing the volume of CO_2 emitted from overseas worksites in FY2016 (to be disclosed from FY2017 report).

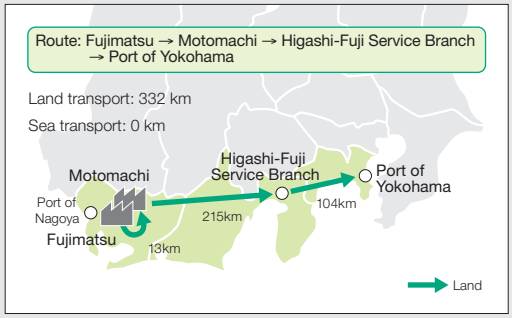
Focus: Example of Reductions in CO_2 Emissions in the Logistics Area

Reassessment of Transport Mode Utilizing the Yokosuka Yard

Vehicles produced in the Toyota District to be sold by dealers in Tokyo used to be temporarily stored at the Higashi-Fuji Service Branch. The Yokosuka Yard became available in January 2015, and some of these vehicles were moved there from February. As a result, some of the vehicles that were previously shipped on land via the Higashi-Fuji Service Branch were switched to marine transport, leaving the Port of Nagoya and arriving at the Port of Yokohama.

This change reduced the annual CO_2 emissions by 384 tons, and as a secondary effect, increased effective utilization of the crowded space at the Port of Yokohama.

Before



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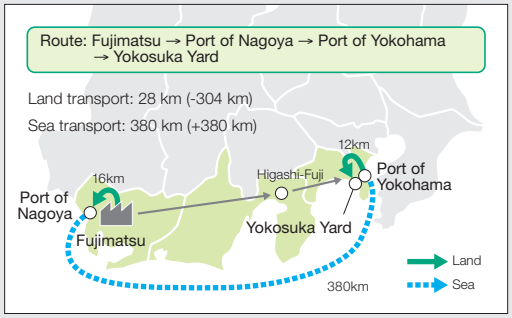
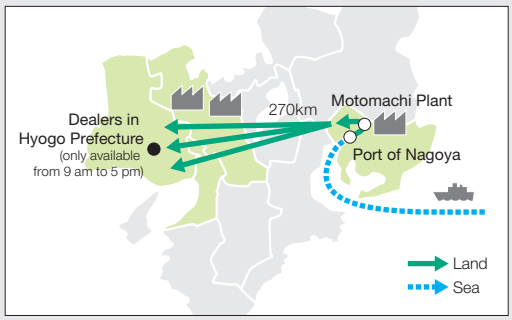


Change in the Relay Point for Vehicles to be Sold by Dealers in Kansai

Vehicles to be sold by dealers in Kansai used to be shipped via the Motomachi Plant, including those produced at distant plants and unloaded at the Port of Nagoya. This shipment method did not always work for dealers, which only accept vehicles between 9:00 am and 5:00 pm and not on holidays (Tuesdays).

To improve the transport operation by shortening the previous shipment route that went from the Port of Nagoya via the Motomachi Plant, we secured a yard that could accept shipments around the clock at the Kobe Port Island, which is close to dealers in Kansai. This allows vehicles to be shipped directly from the Port of Nagoya to this yard. This improvement shortened the shipment route, thereby reducing annual CO_2 emissions by 78 tons.

Before



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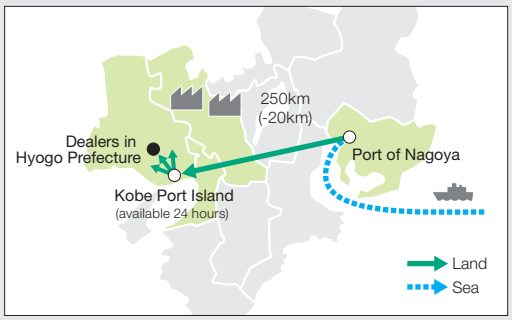
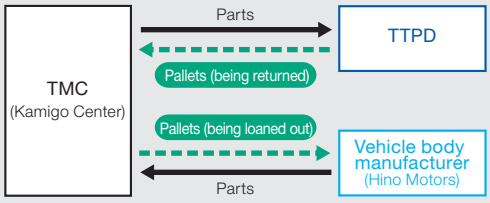


Simplification of Empty Pallet Shipment Routes

The Kamigo Center used to ship parts to and receive empty pallets from the Toyota Tokyo Parts Distribution Co., Ltd. (TTPD) while receiving parts from and lending empty pallets to Hino Motors, Ltd. As a result, two locations were using shipping services, respectively, only to return empty pallets. Therefore, with cooperation from both TTPD and Hino Motors, the two shipment routes were consolidated into one, and TTPD began shipping its empty pallets directly to Hino Motors in September 2014. This simplification is expected to reduce CO_2 emissions from shipments by 3.9 tons each month.

Before



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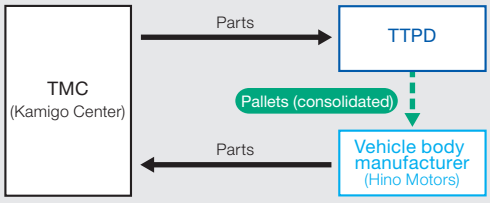


Defining the Future Mobility Society through WBCSD

The World Business Council for Sustainable Development (WBCSD), headquartered in Geneva, is made up of approximately 200 member companies from a wide range of industries all over the world. It carries out surveys and offers advice based on the three pillars of economic growth, environmental protection and social development in its aim of sustainable development. Following its founding in linkage with the Rio de Janeiro Earth Summit of 1992, the WBCSD has devised an environmental management system (ISO 14000) and the concept of eco-efficiency, and is considered to be a leading business advocate on sustainable development.

As a member since the establishment of the organization, Toyota has taken part in a variety of projects such as the Sustainable Mobility Project. Fifteen participating companies including Toyota launched the WBCSD Sustainable Mobility Project 2.0 (SMP 2.0) in 2013. Six model cities from around the world including a city in Thailand were selected, and roadmaps for sustainable mobility are being created in collaboration with various stakeholders.

World Business Council for Sustainable Development

Focus

Toyota Motor Foundation to Provide Grant to WBCSD Project to Mitigate Traffic Congestion in Bangkok, Thailand

Bangkok is one of the six cities in the WBCSD Sustainable Mobility Project 2.0 (SMP 2.0). Toyota, in cooperation with the Thai Ministry of Transport, the Bangkok Metropolitan Administration, the Royal Thai Police, Thai businesses, and SMP 2.0 member companies has been launched with the aim of alleviating traffic congestion by building a multi-modal society, which will link public transportation, cars, and people 5 to 15 years in the future when Bangkok's elevated railways and subways are greatly expanded.

The project aims to formulate a feasible roadmap through a large-scale social experiment concerning reforming the behavior patterns of municipal residents and transportation management, first focusing on Sathorn Road, one of Bangkok's most congested roads, then applying the outcomes across the city. The project has been selected as a grant recipient of the Toyota Mobility Foundation, a general incorporated foundation established in August 2014 whose aim is to globally assist non-profit organizations, research institutions, and other organizations that are working to develop a better mobile society, in collaboration with Chulalongkorn University. They are striving to create a model that will contribute to alleviating traffic congestion, through the cooperation of the private sector, government and citizens.

- Target: Sathon District, Bangkok City, Thailand
- Grant period: April 2015 to December 2016
- Grant amount (expected): 110 million Thai baht (equivalent to 400 million Japanese yen)
- Major initiatives
  - Develop a sustainable operation scheme for a shuttle bus system and a Park & Ride program to help control transportation demand
  - Encourage people to change their behavioral patterns, develop an information system that makes the benefits of transportation means diversification visible
  - Run traffic simulations to identify traffic bottlenecks and evaluate countermeasures
  - Optimize traffic signal cycles in collaboration with the local police

Morning traffic congestion in Sathon District, Thailand

For further details on the Toyota Mobility Foundation, see Special Feature 02: Toyota's Social Contribution (p. 03-11)

Focus

Yellowstone National Park Shifting to Sustainable Power

At the Lamar Buffalo Ranch Field Campus in Yellowstone National Park, an innovative distributed energy system is now online that combines solar power generation with reclaimed Camry Hybrid battery packs. Announced in June 2014, the partnership between Toyota, Indy Power Systems, Sharp USA, Patriot Solar, the US National Park Service, and the Yellowstone Park Foundation is an innovative effort to extend the useful life of hybrid vehicle batteries while providing sustainable power generation for one of the most remote, pristine areas in the United States.

Power generated by solar panels will be stored in 208 Camry Hybrid nickel-metal hydride battery packs collected from Toyota dealers all over the U.S. In 2016, micro-hydro turbine systems are scheduled to be integrated into the power mix. Hybrid batteries typically reach the end of their usable life in automobile-grade applications with significant remaining power storage capacity. Between Toyota's robust hybrid battery recycling program and the Yellowstone project's actions to extend the useful life of batteries, the useful life of these batteries is expected to be nearly doubled.

Solar panels

Reclaimed Camry Hybrid nickel-metal hydride battery packs

Focus

Karawang Plant in Indonesia Wins a First Place ASEAN Energy Award in the Large Industry Category

The Karawang Plant of PT Toyota Motor Manufacturing Indonesia (TMMIN) won first place in the Large Industry Category of the ASEAN Energy Award 2014 given to plants that excel in the energy conservation field. The award ceremony was held in Laos in September 2014. The Karawang Plant was nominated as the Indonesian representative for the ASEAN Award after winning first place in Indonesia in the Energy Conservation Category in 2013. The Plant reduced its energy use per vehicle by 43% and its total CO_2 emissions by 805,000 tons in the 4-year period from 2009 to 2013.

Award ceremony in Laos

The Plant aims to continuously maintain and further strengthen its energy conservation activities through improvement activities and sharing of its practices with other affiliates.

Key Points and Activities Recognized for the Award

Sustainability	• Involvement of top management and all employees in energy-saving activities • Awareness-building through in-house environmental education, energy patrols, etc.
Replicability	• Practices and management measures, such as visualization of energy savings activities and implementation of the PDCA cycle • Reduction in natural gas usage through the use of solar cells for lighting and the utilization of waste heat, and use of renewable energy
Originality	• Utilization of rainwater using water-collecting wells • Reduction in power consumption by changing the installation angle of air-conditioning outdoor units

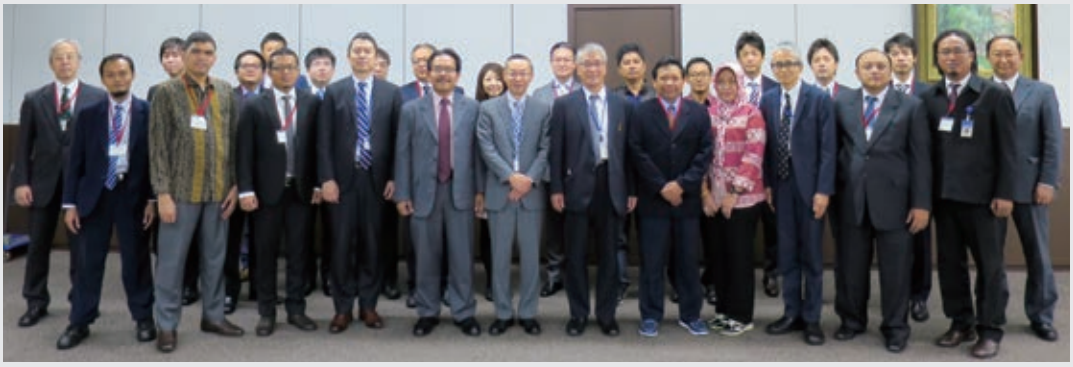
Focus

Verification Project to Popularize Natural Gas Vehicles in Indonesia

Indonesian government policy is aimed at promoting expanded use of natural gas in the transportation sector. To achieve this goal, the government needs to introduce reliable cars that run on compressed natural gas (CNG), ensure the stable supply of high-quality gas fuels, and achieve economic benefits and convenience for users.

To resolve these issues, Japan's New Energy and Industrial Technology Development Organization (NEDO), which is cooperating with the Indonesian government, has subcontracted its Verification Project for Maintaining and Verifying a Sustainable Environment, Including Infrastructure Development for Popularizing CNG Vehicles to Toyota Tsusho Corporation, Toho Gas Engineering Co., Ltd., Hino Motors, Ltd. and Toyota Motor Corporation. The project will last for three years from 2015 to 2018 with plans to proceed in the following three main areas: constructing and managing CNG stations in the central area of Jakarta and industrial parks located in the outskirts of Jakarta, studying the feasibility of using CNG in the transport trucks that operate between industrial parks and official government vehicles, and supporting the introduction of CNG specifications and vehicle safety standards.

By supporting systems and designs that will help popularize CNG vehicles in Indonesia, and spreading safe and high-quality fuel supply systems, this project is expected to help build a better automobile society.



At a workshop held in April 2015

Contribution to a Recycling-based Society

Basic Approach to a Recycling-based Society

The Earth's resources are limited, yet consumption continues to grow as populations increase, emerging nations grow economically and living standards improve.

Of the mineral resources required to produce industrial products, there are concerns in particular about the potential near-future depletion of some of the unevenly distributed rare metals and other resources essential for the production of auto parts, with price volatility linked to social trends. Additionally, the increasing production of agricultural produce accompanying population growth is driving up water usage, which some say is the No. 1 strategic resource of the twenty-first century. In emerging nations, population growth in particular is causing shortages of safe water supplies.

The other side of the resources problem is the issue of waste. Proceeding with source reduction measures to make more effective use of resources can reduce waste. Currently however, there is a shortage of treatment plants, while illegal dumping, transboundary movement of hazardous waste and other issues are occurring, and countries around the world are therefore facing a range of problems. Various initiatives are required to solve this waste problem, including the 3Rs (Reduce, Reuse, and Recycle) initiative for resources, and appropriate disposal of waste.

Since the 1970s, Toyota has been taking initiatives toward developing methods of effectively recycling the earth's limited resources embedded in end-of-life vehicles, rather than simply discarding them. These initiatives have now expanded to include not only the disposal stage, but also the vehicle design stage and the entire vehicle lifecycle, and have resulted in the building of a vehicle-to-vehicle recycling value chain, a model recycling-based social system in Japan. Furthermore, in response to the recent expansion in sales of its hybrid vehicles, Toyota has already developed several world-first initiatives, including establishing a battery-to-battery recycling network for end-of-life batteries—which are expected to increase in volume in the future—and a vehicle-to-vehicle recycling system and efficient dismantling technologies for the magnets containing neodymium, dysprosium and other rare-earth metals. In this way, Toyota will continue promoting cutting-edge initiatives in the field of resource recycling as well.

Major Producing Countries of Non-Ferrous Metals

Resource	Major resource producing countries (2014)						Total share of top 3 countries
	1st		2nd		3rd		
Rare Earth	China	85%	United States	6%	India	3%	94%
Vanadium	China	53%	South Africa	27%	Russia	19%	99%
Platinum	South Africa	68%	Russia	16%	Zimbabwe	7%	91%
Tungsten	China	83%	Russia	4%	Canada	3%	90%
Molybdenum	China	38%	United States	25%	Chile	15%	77%
Lithium	Australia	36%	Chile	36%	China	14%	86%
Indium*	China	51%	South Korea	18%	Japan	9%	78%
Cobalt	DR Congo	50%	China	6%	Canada	6%	63%
Manganese	South Africa	26%	China	18%	Australia	17%	61%
Nickel	Philippines	18%	Russia	11%	Indonesia	10%	39%

* Indium is not measured as the amount of mineral ore production, but as the amount of unprocessed indium produced as a by-product

Source: U.S. Geological Survey, Mineral Commodity Summaries, 2015

Medium- to Long-term 3Rs (Reduce, Reuse, and Recycle) Initiative Focused on End-of-life Vehicles

Stage 1 Past

Became the first automaker in the world to begin taking actions in preparation for the era of automobile mass production and disposal

- 1970 Established Toyota Metal Co., Ltd., an end-of-life vehicles shredding company (first in the world)
- 1973 Established Toyota Chemical Engineering Co., Ltd. to process and recycle lubricants and other materials used at Toyota production plants
- 1985 Established Toyotsu Recycle Corporation, a collection company for catalytic converters (recovery of precious metals) used in vehicles

Stage 2 Present

Proposing a model social system by constructing a value chain

Disposal stage
Compliance with End-of-Life Vehicle Recycling Law
Recycling of rare metals and earths

Design and development stages
Ecological Plastic
Easy to Dismantle Mark

Toyota Recycling Vision

Sales stage
Bumper recycling
Used parts sales system

Production and logistics stages
Simplification of packaging containers and switch to returnable containers

Stage 3 Leading the Way to the Future

Evolving the 3Rs initiative for rare metals, etc. and spreading it from Japan to the rest of the world

- 2010 Started the world's first "battery-to-battery" business to recover nickel and other metals from end-of-life batteries
- 2012 Started recycling the rare earth magnets from end-of-life hybrid motors
- 2013 Started reusing batteries from end-of-life hybrid vehicles as stationary storage batteries and providing them to Toyota dealers (first in the world)
- 2014 Started vehicle-to-vehicle recycling of copper resources in wiring harnesses

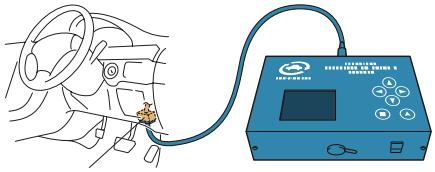
Major Initiatives during FY2014

Design and Development: Further Promotion of Design for Recycling to Encourage Effective Use of Resources

Incorporating Initiatives to Improve Vehicle Dismantlability into Designs

To promote resource recycling for end-of-life vehicles, Toyota has developed structural designs that make it easy to dismantle and separate parts, based on surveys of actual conditions at dismantling companies, and is actively adopting these designs for new models.

In response to the establishment of ISO standards for simultaneous disposition of airbags in June 2012, Toyota began adopting ISO standards in all its new models and vehicles undergoing complete redesign, starting with the Voxy/Noah launched in January 2014, thereby improving work efficiency.



While the position of the dedicated connector differs depending on the model, the standardized OBD connector located inside the dashboard can now be used for simultaneous activation of airbags

Development and Utilization of Plant-derived Ecological Plastic

Toyota has developed Ecological Plastic,* a plastic derived from plant material, for the world's first automotive application.

As a result, Toyota successfully used Ecological Plastic to cover 80 percent of the total interior surface area of the new SAI model launched in August 2013. Toyota also used recycled plastic materials extensively in the SAI, thereby achieving the goal of its Toyota Recycle Vision—establish a technology that enables 20 percent usage of ecological plastics and recycled resin materials in resin parts by 2015—ahead of schedule.

* This type of plastic is derived from plants that absorb CO_2 while growing. Its usage eliminates the CO_2 emitted during petroleum resource drilling and helps reduce the usage of petroleum resources.

Ecological Plastic Parts Used in the SAI

Material type	Plant-derived raw material	Applications
Injection-molding material	Polylactic acid (PLA)	Toolbox, cowl side trim, door scuff plate, finish plate
Base material	Polylactic acid (PLA) and kenaf fiber	Door trim ornament
Foam	Polyol derived from castor oil	Driver's seat cushion pad
Covering material	Plant-derived polyester	Ceiling, front pillar garnish, center pillar garnish, rear pillar garnish, sun visor
	Polylactic acid (PLA)	Trunk door trim, trunk trim, front/side/mat, rear light service hole cover
	Plant-derived polyethylene terephthalate (PET)	Seat covering, floor carpet, package tray trim

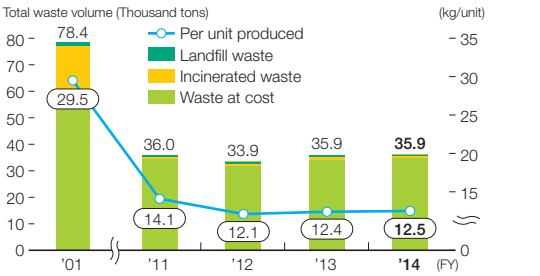
Production and Logistics: Reduce the Waste Volume and Use Resources Effectively in Production and Logistics Stages

Continuing to Conduct Activities Aimed at Reducing Waste Volume

In FY2014, Toyota Motor Corporation (TMC) continued implementing waste reduction measures such as sludge volume reduction. The total waste volume was 35,900 tons (down by 0.2 percent from the FY2013 level). On the other hand, because of a decrease in the number of vehicles produced in Japan (by 1.1 percent from the FY2013 level), the waste volume per unit produced was 12.5 kg (up by 0.9 percent from the FY2013 level).

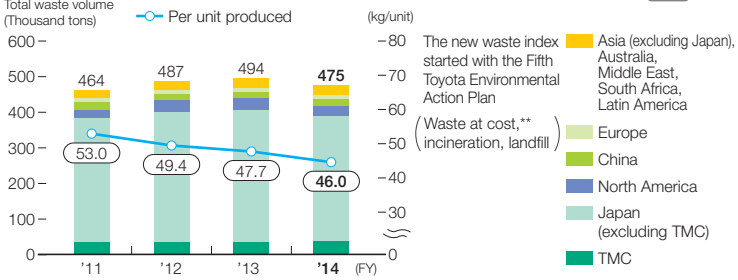
On the global level, Toyota is engaging in ongoing waste reduction activities, in coordination with diligent cost cutting. As a result, in FY2014, waste volume per unit produced was 46.0 kg (down by 3.7 percent from the FY2013 level) and the total volume of waste was 475,000 tons (down by 3.8 percent from the FY2013 level).

Total Waste Volume and Waste Volume per Unit Produced at TMC



Note 1: The total waste volume includes both production and non-production divisions (excluding employee benefit facilities)
Note 2: The total waste volume in production divisions covers the waste generated as a result of production activities
Note 3: Waste at cost: Waste that is recycled for a fee

Global Waste Volumes and Waste Volume per Unit Produced



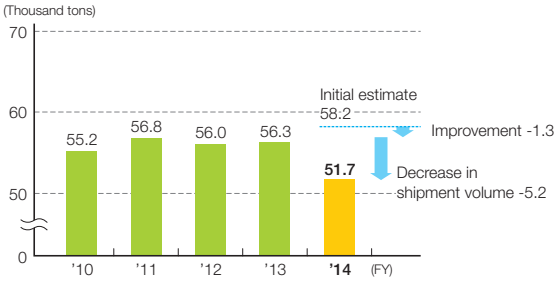
* TMC and 120 companies (consolidated subsidiaries and other companies in Japan and overseas)
Japan: Companies listed in Groups 1-5 on page 11-03 (including sub-subsidiaries; excluding Toyota Tsusho)
Overseas: Production companies and production/sales companies listed on page 11-03 (excluding TMCAP in China)
** Waste at cost: Waste that is recycled for a fee

Continuing to Conduct Activities Aimed at Reducing Packaging and Wrapping Material Use

In order to reduce the use of packaging and wrapping materials, Toyota Motor Corporation (TMC) continued implementing measures that included simplifying wrapping specifications and expanding the use of returnable shipping containers. As a result of these measures, usage decreased by 1,300 tons. Together with the impact of a decrease in shipment volume and other factors, total usage was reduced to 51,700 tons. Usage of packaging and wrapping material per shipment unit was 6.98 kg/m³.

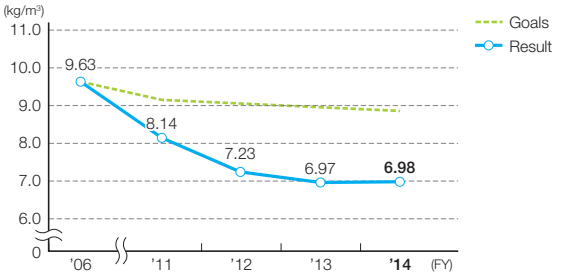
In FY2008, TMC began implementing measures to grasp the usage volume of packaging and wrapping material at affiliates worldwide. Assessments for all regions, excluding North America, have almost been completed. Because it has been difficult to assess the usage at suppliers in North America, TMC is currently reviewing the assessment method.

Usage of Packaging and Wrapping Materials by TMC (Japan)



Note: Past figures have been revised retroactively due to changes made from FY2014 to the calculation method, excluding packaging materials used for special shipment products

Usage of Packaging and Wrapping Material per Shipment Unit by TMC (Japan)



Note: Errors in previously published totals data have been corrected retroactively

Results of Activities to Reduce Usage of Packaging and Wrapping Material

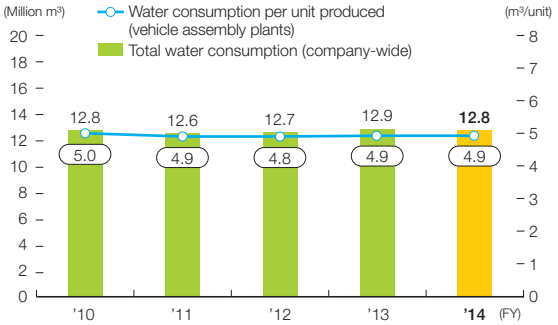
Improvement item	Products	Main details of activity	Reduction volume (thousand tons)
Simplification of specifications	Service parts	Increasing lean specifications for wrapping	0.7
		Changing packaging specifications, reuse etc.	0.1
	Production parts	Improvement of parts quantity per box, simplification of packaging specifications	0.2
Use of returnable containers	Service parts	Expanding the use of returnable containers	0.1
	Production parts	Expanding the use of returnable containers	0.2
Total			1.3

Continuing to Conduct Activities Aimed at Reducing Water Consumption

TMC continued activities to reduce water consumption in FY2014, for example, reducing steam usage in production processes. As a result, total water consumption was 12.8 million m³ (a decrease of 0.9 percent from FY2013). Water consumption per unit produced was 4.9 m³, a decrease of 1.0 percent from FY2013.

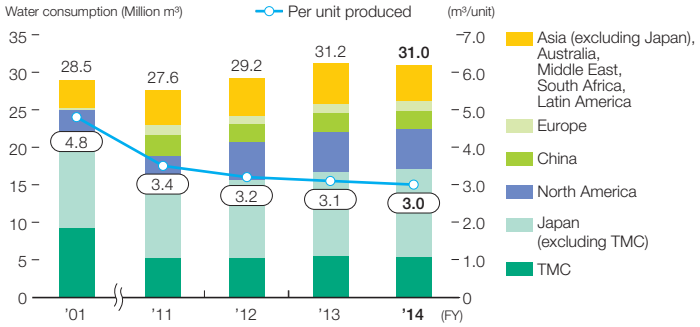
On the global level, Toyota is engaging in steady water conservation activities in response to the situation with the water environment in each country and region. As a result of initiatives including promotion of water recycling particularly in regions with scarce water resources, water consumption per unit produced was 3.0 m³ (a decrease of 2.9 percent from FY2013) and total water consumption was 31.0 million m³ (a decrease of 1.2 percent from FY2013).

Total Water Consumption and Consumption per Unit Produced at TMC



Note 1: The total water consumption includes both production and non-production divisions (excluding employee benefit facilities)
Note 2: Water consumption per unit produced indicates the consumption per unit produced at vehicle assembly plants

Global Water Consumption at Vehicle Assembly Plants and Consumption per Unit Produced



Note 1: TMC's assembly plants and 37 companies (consolidated subsidiaries and other companies in Japan and overseas)
Note 2: Companies added to the scope of calculation in FY2013

Sales and Recycling: Strengthen Measures to Promote the Effective Use of Resources

Steady Progress in Recycling at Dealers and Parts Distributors

Promoting the Collection and Recycling of Damaged and Removed Parts

Toyota dealers and parts distributors nationwide are promoting recycling as much as possible in their use stage of vehicles through initiatives including the collection of damaged and removed parts such as bumpers and lead from wheel balance weights, using tanker trucks in order to reduce drums for transporting oil and promoting the sales of used parts.

Before commercially launching the FCV MIRAI in December 2014, Toyota had established conditions that would enable automobile dismantlers to safely and effectively process and recycle its end-of-life batteries, hydrogen tanks, etc. As part of this process, Toyota created the *Manual for Proper Disposal, Collection and Recycling of FCVs*.

Manual for Proper Disposal, Collection and Recycling of FCVs

Focus

Supporting Dismantlers in Parallel with Development of Technologies for Properly Processing FCV Hydrogen Tanks

In addition to thoroughly explaining the process to automobile dismantlers by providing them with the *Manual for Proper Disposal, Collection and Recycling of FCVs*, Toyota is developing technologies for properly processing FCV hydrogen tanks. For now, to support the market, Toyota has formed teams that assist dismantlers, bringing provisional dismantling tools and teaching dismantlers all the necessary technical steps, from removing the hydrogen gas to pulverizing gas containers.

Promoting the Recycling of End-of-life Batteries

Since launching the Prius—the world's first mass-produced hybrid passenger vehicle—in December 1997, Toyota has built its own recovery network to collect end-of-life hybrid vehicle (HV) batteries to be recycled. As of March 31, 2015, Toyota has collected approximately 42,000 end-of-life HV batteries and is recycling all of them.

HV batteries contain precious resources such as nickel, cobalt, and rare earth elements. Toyota is developing the world's first vehicle-to-vehicle recycling technologies to enable these precious resources to be reused in new batteries.

Because it is expected that tens of thousands of end-of-life HV batteries will be generated by the middle of the 2020s, Toyota has also developed the world's first technologies for reusing those HV batteries. The batteries are reused as replacement batteries or as stationary storage batteries in photovoltaic power generation systems.

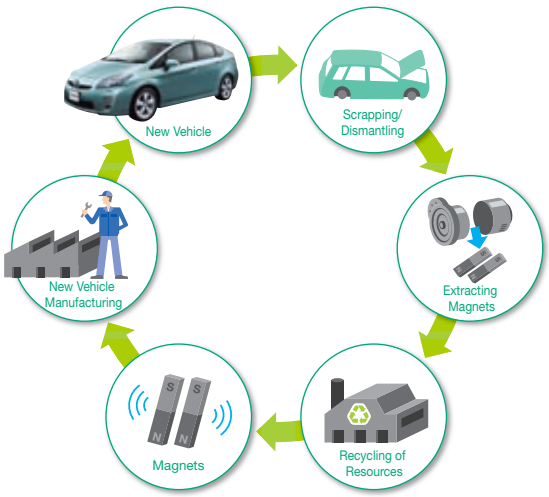
Toyota further plans to promote the skillful reuse of batteries from end-of-life vehicles as part of measures to utilize renewable energy in an environmentally considerate manner. When even these reused batteries finally reach the end of their use cycle, their metal parts are recycled into new batteries again.

Recovery of Neodymium and Dysprosium from HV Motors

Neodymium and dysprosium, two types of rare-earth elements, are used to make magnets. Toyota is working on the research and development of a motor that uses as little as possible of these rare-earth elements and is also developing vehicle-to-vehicle recycling technologies. It is collaborating with magnet manufacturers to launch a world-first recycling system for extracting neodymium and dysprosium from end-of-life HV motors to be reprocessed back into new magnets.

In FY2012 and FY2013, Toyota affiliates Toyota Metal Co., Ltd. and Toyotsu Recycle Corporation received support from the New Energy and Industrial Technology Development Organization to conduct a verification project. They have now installed equipment for separating magnets from motors and have developed related recycling technologies. Since February 2012, a total of 17 tons of magnets had been collected.

Toyota's Goal of Vehicle-to-Vehicle Magnet Recycling



Vehicle-to-Vehicle Recycling of Copper Resources in Wiring Harnesses

Copper is used in power transmission and other wiring, but roughly 40 years' worth of mineable copper resources remain worldwide and demand for wiring in emerging nations is increasing. In addition, large amounts of copper are used in the motors of hybrid and other next-generation vehicles, which are expected to become increasingly popular going forward.

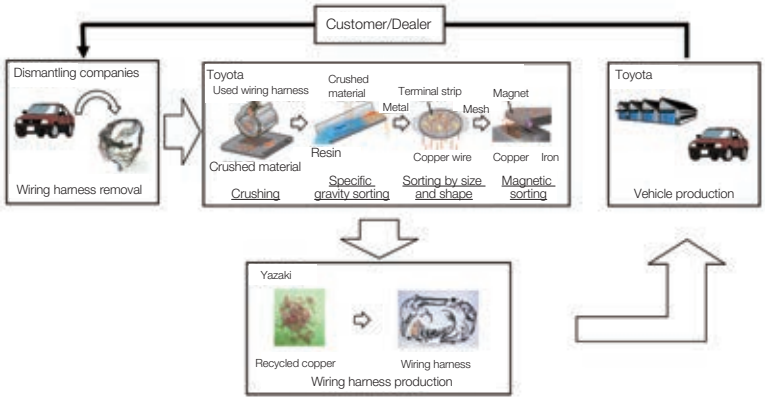
For these reasons, recycling the copper used in wiring harnesses has become a critical issue for the automotive industry. Toyota has therefore collaborated with Yazaki Corporation, Toyota Tsusho Corporation and seven of Toyota Tsusho's dismantling partners in the Chubu region of Japan to develop vehicle-to-vehicle recycling technologies.

In 2011 Toyota developed the world's first mechanical sorting method that can prevent contamination from minute impurities. Trial production involving small amounts of recycled copper began at Toyota's Honsha Plant in 2013, with the prospect of being able to stably produce copper with a purity of 99.96 percent being evident in March 2014. Since April 2013, a cumulative total of 80 tons of wiring harness has been collected.

The Seven Dismantling Companies in the Chubu Region of Japan (in random order)

Company name	Location
New Iwata Corporation	Ichinomiya City, Aichi Prefecture
Johoku Jidosya Kogyo Co., Ltd.	Kasugai City, Aichi Prefecture
Auto Recycle Sanri	Toyota City, Aichi Prefecture
Morita Sharyo Corporation	Handa City, Aichi Prefecture
Yamauchi Shouten Co., Ltd.	Inazawa City, Aichi Prefecture
Kobayashi-shouten Inc.	Tsu City, Mie Prefecture
Marudai Sangyo Corporation	Ina City, Nagano Prefecture

Flow of Vehicle-to-Vehicle Recycling

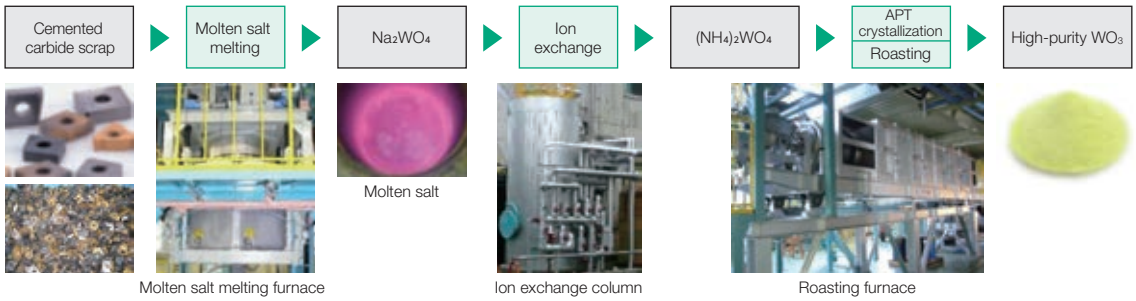


Tungsten Recycling

In order to reduce the impact automobiles have on the environment, the entire Toyota Group has been actively developing recycling technologies and building a collection system. More recently, the Group has been working on recycling nickel-metal hydride batteries used in hybrid vehicles, as well as rare metals.

Additionally, in an effort to recycle rare metals used in products other than vehicles, Toyota collaborated with Sumitomo Electric Industries, Ltd. in 2010 to establish a business venture involving a system for recycling tungsten, which is used in cemented carbide tools, etc. One hundred percent of the tungsten used in Japan is imported and 80 percent of cutting tips of cemented carbide tools use tungsten. By sorting and collecting end-of-life cemented carbide tools generated at Toyota plants, the venture recovers and re-uses 100 percent of the tungsten they contain. By the end of March 2015, approximately 116 tons of tungsten had been recycled.

Tungsten Recycling Flow

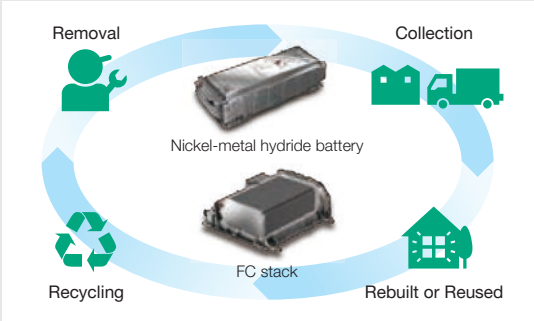


Focus

Established FC Stack Collection and Recycling Framework to Recycle Rare Metals

The FC stack installed in the MIRAI uses rare metals such as platinum. Therefore, in conjunction with the launch of the MIRAI in December 2014, Toyota established the world's first FC stack collection/recycling framework, thereby expanding the resource recycling circle.

FC Stack Collection and Recycling Framework



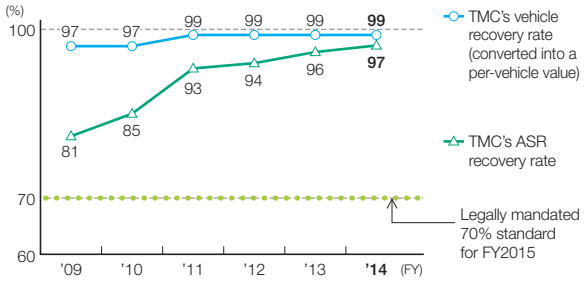
Ensuring Compliance with the End-of-life Vehicle Recycling Law in Japan

Toyota has been steadily working with dismantling and recycling companies to ensure compliance with the Japanese End-of-life Vehicle (ELV) Recycling Law that went into effect in January 2005. Toyota collects and treats CFCs/HFCs, recycles/recovers airbags and automobile shredder residue (ASR[1]) from end-of-life vehicles.

In FY2014, the ASR recovery rate was 97 percent and the vehicle recycling rate[2] converted into a per-vehicle value, reached 99 percent.

[1] Residue after vehicles are shredded
[2] Calculated by adding to the percentage recycled and recovered up to the dismantling and shredding processes (approximately 83%, quoted from the April 2003 joint council report) the remaining ASR rate of 17% × ASR recovering rate of 97%

Toyota Motor Corporation's (TMC) Vehicle Recovery Rate[2] and ASR Recovery Rate in Japan



Compliance with End-of-life Vehicle Recycling Laws Overseas

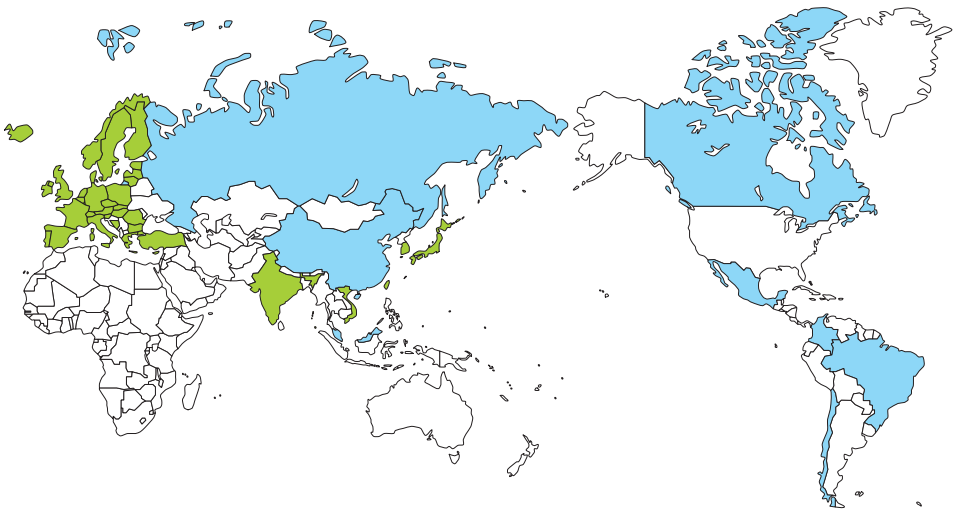
All EU member states have established vehicle recycling laws based on the EU ELV Directive enacted in 2000, and as of January 2007 automakers started to take back end-of-life vehicles (ELVs) in most member states. In cooperation with Toyota Motor Europe (TME) and distributors in Europe, TMC completed the construction of ELV collection networks in 28 EU member states.

In China, the Recycling Working Group, under the Toyota China Environment Committee, is working closely with local affiliates to promote compliance activities with local automobile recycling laws through measures such as ascertaining regulatory trends and surveying local infrastructure conditions. At the end of February 2014, a plant was opened in Beijing with 32 percent investment by Toyota Tsusho Group, with the goal of becoming a model dismantling plant for ELVs in China. It processed approximately 10,000 vehicles in FY2014. In the future, similar plants are planned for other areas of China in step with progress in the establishment of applicable laws in Chinese society, such as enforcement of automobile recycling laws.

Legislation Status

Status	Country/Region	Legend
Enacted	EU, EFTA*, Japan, Taiwan, South Korea, Turkey, India, and Vietnam	
Under study	Russia, Malaysia, Singapore, China, Canada, Mexico, Brazil, Chile, and Colombia	

* Switzerland, Norway, Iceland, and Liechtenstein



Focus

Toyota Motor Manufacturing France (TMMF): In Pursuit of Zero Purchased Industrial Water

A Continuous Effort to Reduce Purchased Industrial Water

Industrial water is used for all production processes in vehicle manufacturing. Next to energy and waste, it is one of the biggest environmental impacts the automotive industry has. TMMF, home of the new generation Yaris and Yaris Hybrid, serves as an overseas model for "sustainable plant" activities with regard to purchased industrial water use for vehicle production.

A couple of years ago, TMMF took a close look at how much they could reduce water consumption without affecting vehicle quality. Thanks to strong collaboration within the different shops at the plant, they reduced industrial purchased water from 3,000 liter/vehicle to 1,689 liter/vehicle.

Then, the teams at TMMF started wondering if some of the wastewater could be recycled instead of using fresh industrial water. So they embarked into looking at the quality of the discharge water and seeing how it could be recycled. By changing some processes this led to a further reduction achieving 1,362 liters.

TMMF

Collecting Rainwater in Pursuit of Zero Purchased Industrial Water

In the spirit of continuous improvement, TMMF next looked into using rainwater instead of industrial water. Averaging 172 days of rain, they thought it would make sense to capture some of this rain. By investing in a rainwater collector, purchased industrial water fell to 789 liter/vehicle.

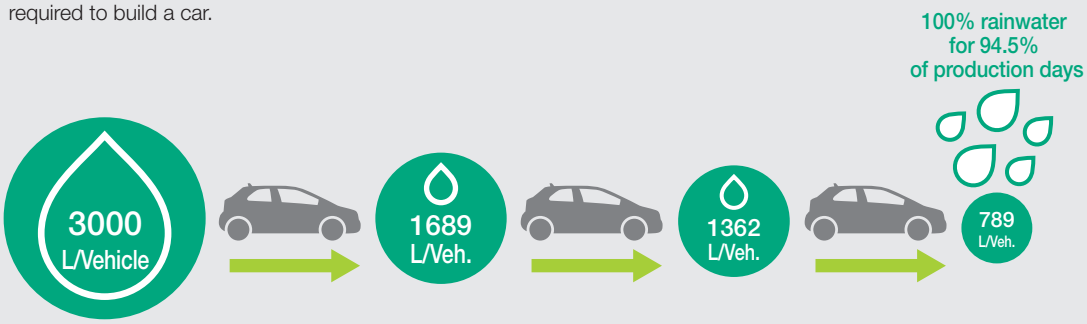
With this, TMMF had already positioned itself as a benchmark for Toyota Manufacturing worldwide with regard to water use. However, TMMF still wanted to pursue their ultimate goal: "Zero Purchased Industrial Water" for vehicle production. Having had excellent experience with the first rainwater collector, TMMF invested in a second water collector, but this was still not enough.

The only way to challenge Zero Purchased Industrial Water was to further increase wastewater recycling. However, in 2014, recycling levels went down, due to one of the wastewater quality parameters being constantly above normal. In true Toyota Way style, a systematic analysis was done to find the root cause of this, the relevant shops worked together to bring the quality parameters back to normal in order to increase the recycling rates. Proudly, TMMF had an amazing result of only 12 days of purchased industrial water. That is to say that no purchased industrial water was necessary for 94.5% of the total production days.

For this journey and its outstanding achievement for water management in 2014, Toyota Motor Corporation awarded TMMF the Platinum Award for On-site *Kaizen* Activity.

TMMF continues to work hard to further reduce the water required to build a car.

TMMF members, winners of the Platinum Award for On-site *Kaizen* Activity



Environmental Protection and Contribution to a Harmony with Nature Society

Basic Approach to Environmental Protection and Contribution to a Harmony with Nature Society

Modern society is built upon the bedrock of our natural environment, cultivated by and inherited from our ancestors. To be able to pass this beautiful, rich natural environment to our children, we must do all we can to solve air pollution and other issues. We must also protect the biodiversity cultivated in our natural environment, formed and evolved over our long history.

Toyota is implementing various environmental protection measures, including measures to reduce exhaust gas emissions and manage the usage of chemical substances. It is also aware of the critical need for nature and biodiversity conservation, and is engaged in contributing to a society in harmony with nature through its automotive business and social contribution activities.

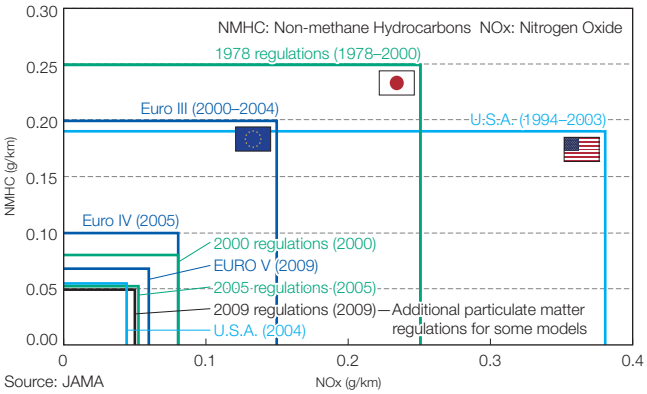
Although Toyota has continued to improve the air pollution situation in Japan and has greatly reduced exhaust gas emissions from vehicles, the company is still working hard to develop low-emission technologies, which it is expanding globally, and to reduce Volatile Organic Compounds (VOCs).

In relation to Substances of Concern (SOCs) Toyota is continuing to reduce the release of chemical substances, covered by the Pollutant Release and Transfer Reister Law (PRTR Law), from its plants. Additionally, in cooperation with its supply chain, Toyota is working to reduce the amount of SOCs contained in its products.

In line with guidelines compiled in 2008, Toyota is implementing concrete initiatives for biodiversity.

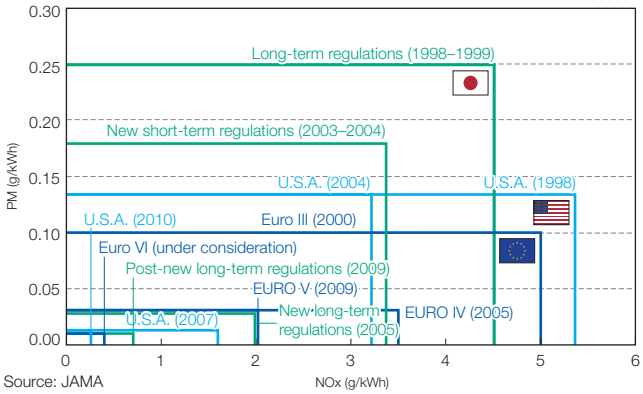
With full awareness of the history of local residents, communities and nature, and with their interaction with businesses, Toyota is promoting community contribution activities in order to help build prosperous local communities.

Emission Regulations for Gasoline-Powered Passenger Cars: Japan/U.S.A./EU Comparisons



Source: JAMA

Heavy-Duty Diesel Vehicle Emission Regulations: Japan/U.S.A./EU Comparisons



Source: JAMA

Toyota's Basic Stance toward Managing Usage of Chemical Substances

Production

Primary and secondary materials used in vehicle production

- Air Pollution Control Law
- Water Pollution Control Law
- PRTR Law, etc.

Products

Substances in products and parts

- European ELV[1] Directive and REACH[2] Regulation (SOC standards)
- JAMA voluntary commitments (Four SOCs: lead, mercury, cadmium and hexavalent chrome) etc.

Sales

Substances related to after-sales service

- Body paint
- Long-life Coolant (LLC), etc.

[1] End of Life Vehicles
[2] Registration, Evaluation, Authorisation and Restriction of Chemicals

Major Initiatives during FY2014

Development and Design: Reducing Vehicle Exhaust Emissions to Improve Urban Air Quality

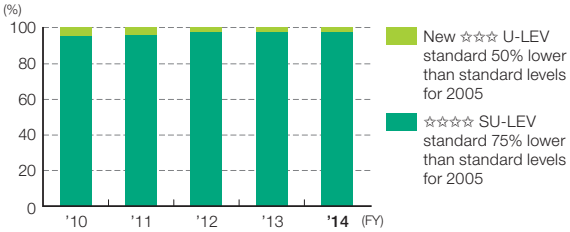
Vehicles that Meet Japanese LEV Emission Standards

In FY2014, almost 100 percent of Toyota vehicles produced were certified as meeting the Ultra-Low Emission Vehicle (U-LEV) or higher standards by the Japanese Ministry of Land, Infrastructure, Transport and Tourism.

Percentage of Total Production in FY2014 that Qualifies as LEVs Based on 2005 Exhaust Emissions Standards

Classification	Reduction level	Percentage of total production
New☆☆☆ U-LEV standard	50% lower than standard levels for 2005	2.4%
☆☆☆☆ SU-LEV standard	75% lower than standard levels for 2005	97.4%

Low-Emission Vehicles as a Percentage of Total Production in Japan



FY2014 Vehicles that Meet Japanese LEV Emissions Standards

Low-emissions level	★★★★ SU-LEV	★★★ U-LEV
Vehicle series	**No. of models**	**No. of models**
Esquire	3	0
Lexus RC	3	0
Lexus NX	4	0
Alphard	5	0
Vellfire	5	0
Total	20	0

Focus

Helping Emerging Nations in Asia Achieve Sustainable Development by Assessing the Actual Level of Their Worsening Air Pollution

As the economy of emerging nations in Asia has grown rapidly, air pollution there has become serious. In many cases, one of the causes is the fact that these nations have not sufficiently understood the actual level of air pollution and its sources, which is necessary if effective and rational air pollution countermeasures are to be developed. Therefore, Toyota Motor Corporation, in cooperation with IIASA,[1] and Toyota Central R&D Labs, started the Toyota Ozone Project (TOP) in 2008, targeting China and India. In 2013, the project was expanded in scope to include Thailand and Indonesia, continuing its activities under a new name, the Toyota Clean Air Project (TCAP).

The key steps in studying the atmosphere are: (1) collecting data such as energy usage, (2) building an emissions inventory,[2] (3) running atmosphere simulations, and (4) considering and evaluating air pollution countermeasures. IIASA and Toyota Central R&D Labs have been transferring their expertise on building emissions inventory and simulation technologies, respectively, to research institutions in the individual countries. Technological assistance for China ended in FY2014. The project activities will continue in the future with a focus on Thailand and Indonesia.

[1] International Institute of Applied Systems Analysis
[2] Database that organizes the volume of air pollutants and their sources, as well as their spatial and temporal distribution

Development and Design: Strengthen the Management of Chemical Substances Contained in Products

Management and Reduction of Four Key SOCs

All of Toyota's production affiliates in Japan and overseas are completely eliminating the use of the four key substances of concern (lead, mercury, cadmium, and hexavalent chrome). In October 2013, the United Nations adopted the Minamata Convention on Mercury, which bans the manufacture and import/export of products containing mercury as a rule beginning in 2020. However, mercury has already been eliminated from automobiles.

Status of Initiatives to Eliminate the Usage of the Four Key SOCs

Four key SOCs	All production affiliates in Japan	Major overseas plants
Lead, mercury, cadmium and hexavalent chrome	Eliminated*	Eliminated*

* Excluding uses exempt under laws and regulations in each location

Ensuring Compliance with REACH and Other Global Regulations on Chemical Substances

Following the World Summit on Sustainable Development, held in Johannesburg in 2002, and adoption of the Strategic Approach to International Chemicals Management (SAICM), there have been an increasing number of chemical substance management regulations being implemented globally. The international trend in regulations on chemical substances is changing from one of hazard management, which focuses only on the toxicity of individual substances, to one of risk management, which takes into consideration the degree of impact on people, plants and animals. For this reason, it is now necessary to also consider in what sort of situation the chemical substances are being used. In addition to the Japanese Chemical Substances Control Law, and the European ELV Directive[1] and REACH Regulation,[2] North America and Asia are introducing their own regulations on chemical substances.

These regulations require corporations to collect information on the chemical substance content of their products and manage their supply chains. Toyota has built and is operating a chemical substance management framework in cooperation with its suppliers.

In FY2014, in view of the European REACH Regulation, Toyota strengthened its system for determining whether a substance included in the Authorization List is being used and disclosed pertinent information. It also worked to reduce the use of the substances included in the Authorization List in its vehicle parts.

[1] European directive on end-of-life vehicles
[2] European regulation on registration, evaluation, authorization and restriction of chemicals

Toyota Green Purchasing Guidelines Published around the World

Production and Logistics: Reduce Substances of Concern (SOC) in Production Activities

Reduction of VOC Emissions in Body Painting Processes

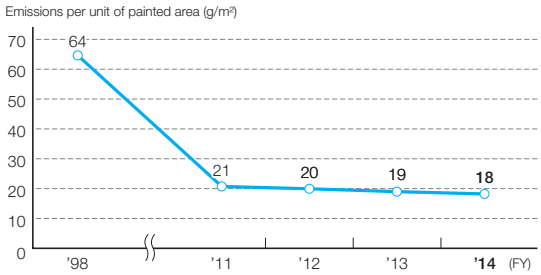
Purpose of Activities

Volatile Organic Compounds (VOCs) are one of the causes of photochemical oxidation, the cause of photochemical smog. Toyota Motor Corporation (TMC) is promoting initiatives to reduce VOCs emitted in the painting process.

Progress in FY2014

TMC has continued its efforts to limit the use of solvents in washing processes and to recapture a larger percentage of solvent, while also actively switching to water-borne paints. As a result, it has reduced total VOC emissions from TMC body paint lines to 18 g/m².

Trends in VOC Emissions Volume in TMC Vehicle Body Painting Processes (Average for All Lines)



Promoting Measures in Accordance with the Toyota Biodiversity Guidelines

Purpose of Activities

Biodiversity delivers many benefits in the way of blessings from nature. However, some sources say approximately 40,000 species are becoming extinct annually, possibly due to overexploitation of rare species and destruction of ecosystems, including forests, posing a major threat to global biodiversity. In 1992, the United Nations Conference on Environment and Development, informally known as The Earth Summit, was held in Rio de Janeiro, Brazil, where two conventions were adopted addressing important global environmental issues: The Convention on Biological Diversity and The United Nations Framework Convention on Climate Change. In 2010, the Conference of the Parties to the Convention on Biological Diversity (COP10) was held in Nagoya city, Aichi prefecture, where parties agreed on a number of issues such as the Aichi Biodiversity Targets, common targets to halt the loss of biodiversity, and the Nagoya Protocol, providing a framework for access to genetic resources and the fair and equitable sharing of benefits arising from their utilization.

Ahead of the COP10 conference, Toyota formulated the Biodiversity Guidelines in March 2008, based on Toyota Guiding Principles, as part of activities aimed at realizing a sustainable global environment and society. The Guidelines specify our fundamental approach to support biodiversity through three initiatives: contribution through technology; collaboration and cooperation with society; and information disclosure. Based on the Guidelines, Toyota is to conduct and coordinate a range of activities towards realization of real biodiversity.

Progress in FY2014

In FY2014, Toyota continued to steadily implement existing initiatives with a focus on considering future-oriented initiatives, such as a long-term environmental vision and the Sixth Toyota Environmental Action Plan, and participating in the World Conference on Education for Sustainable Development (ESD) held by the United Nations Educational, Scientific and Cultural Organization (UNESCO), in November 2014.

Presentations at the Eco-Products Exhibition

May 2014	As in 2013, the Toyota Environmental Activities Grant Program meeting was held to exchange project results. Six environmental organizations were chosen among grantees, with major focus on environmental education and human resource development, to present their activities in anticipation of the ESD World Conference in November 2014. Individual consultations on grant application were also offered.
August 2014	Staff members of overseas affiliates who are in charge of working in harmony with nature are invited to Toyota Shirakawa-Go Eco-Institute from North and Latin America, Europe, Asia and other regions to exchange their views on global initiatives towards harmony with nature and further intra-group collaboration for the Sixth Toyota Environmental Action Plan.
November 2014	The three-day UNESCO ESD conference was held in Nagoya city, Aichi prefecture from November 10 to 12. Approximately 1,000 people from all over the world attended the conference to review the UN's past 10 years (2005–2014) of ESD activities and discuss measures to be taken starting in 2015. The Aichi-Nagoya Declaration was unanimously adopted. Toyota's activities included: exhibiting a fuel cell vehicle (FCV) at the conference venue, offering tours of the Motomachi Plant and the Forest of Toyota, collaborating with the Keidanren Committee on Nature Conservation to install an exhibit in the Keidanren booth and hold Keidanren seminars at the conference venue, and participating in seminars given by grantees of the Toyota Environmental Activities Grant Program.
December 2014	Toyota set up an exhibition booth with a presentation space at the Eco-Products Exhibition. Staff from the Forest of Toyota and the Toyota Shirakawa-Go Eco-Institute provided information on Toyota's environmental activities such as the environmental education program, and organized quiz events for around 460 attendees during the three-day event.
May 2015	The first session of the All-Toyota Working-in-Harmony-with-Nature Working Group was held on May 29. The responsible staff from approximately 20 Toyota Group companies discussed measures to strengthen collaboration, such as sharing the Toyota Biodiversity Guidelines and forming an ecosystem network in Aichi prefecture.

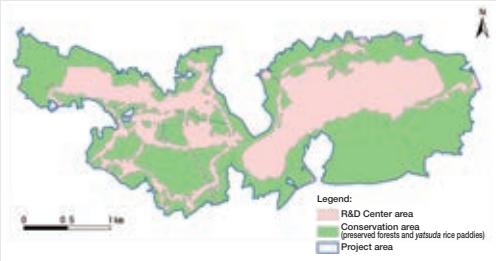
Main Examples of Toyota's Biodiversity Conservation Activities

Classification	Action Item	Details
Contribution through technology	Measures to help prevent further global warming	• Improved fuel efficiency on a global scale • Reduced CO_2 emissions in production and logistics activities
	Measures to reduce atmospheric pollution	• Reduced emissions of vehicle exhaust gases • Reduced VOC emissions
	Promotion of resources recycling	• Recycling of rare metals and rare earth elements • Expanded the use of recyclable materials
	Afforestation activities at plant sites	• Planted native vegetation types in Toyota plants in Japan and overseas
	Reforestation	• Developed optimal forest thinning techniques (Mie prefecture)
	Initiatives for new Toyota R&D Center site	• Engaged in conservation of habitats for rare animals and plants • Undertook environmental improvements around *yatsuda* rice paddies • Conducted maintenance of *satoyama*
Collaboration and cooperation with society	Environmental education and the protection of rare species	• Education for Sustainable Development at Toyota Shirakawa-Go Eco-Institute and Forest of Toyota • Hosted a tour of the Forest of Toyota for participants of the ESD World Conference
	Toyota Environmental Activities Grant Program	• Awarded grants to projects tackling biodiversity and/or global warming issues • Introduction of this program at environment-related events (ESD World Conference, etc.) and establishment of a small-scale grant framework in order to raise awareness and promote applications • Reportage on assistance cases in specialized environmental journals to promote the activities of support organizations
	Initiatives for new Toyota R&D Center	• Provided information to be used for local governments' environmental measures
Information disclosure via reports and the Internet	Reports and website	• Disclosed information on Toyota's environmental initiatives in the report "Respect for the Planet—Toyota's Environmental Initiatives" and on the Toyota website
	Strengthened communication with relevant organizations	• Implemented Toyota's environmental education programs and other activities at the Eco-Products Exhibition • Provided information on hands-on nature programs of the Shirakawa-Go Eco-Institute at the Junior Eco-clubs' All-Japan Festival
	Initiatives for new Toyota R&D Center	• Published reports on survey findings in academic journals and gave presentations at academic conferences

Focus: Initiative for Conserving Biodiversity

Initiatives at the New Toyota R&D Center Promoting Harmony with the Natural Environment and Local Communities

In order to develop sustainable next-generation mobility, Toyota is proceeding with plans to construct a new R&D facility in Toyota City and Okazaki City. In pursuing this project, Toyota set out to build a technical center that operates in harmony with both the natural environment and local communities. About 60 percent of the total project site will be preserved as areas for the regeneration of forest and restoration of *yatsuda* rice paddies, and their management. Toyota is also actively sharing information that includes the status of these initiatives and the knowledge gained through them.



Site map of the new R&D Center

Progress in FY2014-(1): Wild Bird Conservation Activities—Owls Using Installed Nest Boxes

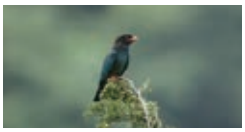
The declining number of wild birds has long been a problem of great concern and one of its causes has been the lack of tree hollows that birds can use for nesting. While many wild birds nest in tree hollows, the number of forests with large mature trees that are thick enough for hollows to form is on the decline. As a result, the nesting environment for these wild birds is considered insufficient.

Although the conservation area at the new Toyota R&D Center includes a site aimed at maintaining mature trees, it will take many years until these trees grow enough to have hollows. Therefore, as a part of wild bird conservation efforts, Toyota has been installing nest boxes as an alternative to natural hollows. In FY2012, we established a joint program with a conservation group, selecting four species of endangered birds in the area (Mandarin Duck (*Aix galericulata*), Ural Owl (*Strix uralensis*), Oriental Dollarbird (*Eurystomus orientalis*) and Eurasian Treecreeper (*Certhia familiaris*)) as the targets of our conservation efforts using nest boxes. We have been building and installing nest boxes that match the types of tree hollows utilized by each of these species. In FY2014, two pairs of Ural Owls began using nest boxes and safe fledging was confirmed. We plan to continue this activity to help conserve the wild birds in the region.

Nest box for Ural Owls and fledgling

Species targeted for conservation and reasons for their selection

Mandarin Duck
Despite the dwindling nesting habitat in the region, some individuals have been confirmed to inhabit the area surrounding the R&D Center site



Oriental Dollarbird
Although the number of breeding occurrences in the region has been extremely small, some individuals have been confirmed to inhabit the R&D Center site

Ural Owl
Despite the dwindling nesting habitat in the region, some individuals have been confirmed to inhabit the R&D Center site

Eurasian Treecreeper
Although the number of breeding occurrences has been extremely small in the region, some individuals have been confirmed to inhabit the R&D Center site

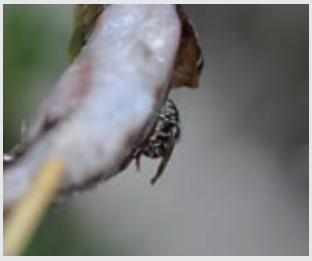
Photo courtesy of Aichi Public Enterprise Bureau

Progress in FY2014-(2): Local Junior High School Students Participate in Survey of Wasps

Wasps (*Vespula*) are prey for the crested honey buzzard, a bird of prey that is an indicator species in the *satoyama* environment surrounding the new Toyota R&D Center site. In addition, wasp pupae (locally called "*hebo*") have also been traditionally harvested and eaten in the region. With the assistance of local junior high school students and the cooperation of the Toyota Forestry Association, we set out in FY2014 to survey wasps, in order to conserve the indicator species and preserve a local cultural tradition.

In the survey, a piece of chicken tender or raw fish attached to the tip of a bamboo pole was used as bait, and participants recorded the types of wasps that landed on baits, the number of individual wasps spotted at site, and the time they were spotted flying. The participants also got to experience *hebo* hunting, in which a wasp is allowed to carry off marked bait so that the hunters can locate its nest. The junior high school students who participated in the survey offered comments such as, "I was surprised how easy it is to catch a wasp" and "I was afraid of the wasps in the beginning, but came to like it." The principal of the junior high school eagerly stated, "I hope we will continue to collaborate with each other in many ways." This joint survey will be continuously carried out in the future as part of an environmental learning program, creating summaries of the changes that occur over time and the habitat situation, which will be utilized as data for environmental conservation.

Survey of Wasps


Wasp (*Vespula shidai*) lured to a piece of raw fish

Toyota Shirakawa-Go Eco-Institute Widely Promotes Locally Rooted Environmental Education Programs that Value Nature's Wisdom

The Toyota Shirakawa-Go Eco-Institute, located in the World Heritage site Shirakawa-Go, was opened in April 2005 with the goal of promoting environmental education. The institute is managed in collaboration with the Shirakawa Village and environmental NGOs. With the aim of promoting harmonious coexistence with nature and local communities, the institute is enhancing and widely promoting locally rooted environmental programs.

Progress in FY2014: Program Enhancement to Provide First-Class Education and Emotional Experiences

Situated in a rich natural environment below Hakusan (Mount Haku), the Toyota Shirakawa-Go Eco-Institute offers hands-on nature programs to the children who are our future and to the Shirakawa Village's many visitors. It also conducts ecological wildlife surveys and engages in forest conservation activities. The number of people who stayed overnight in FY2014 reached its highest ever figure of 14,651. Since the institute opened in 2005, it has welcomed a total of 155,000 guests and received feedback that their stays provided them an opportunity to think about coexistence with nature and environment.

On June14, 2015, a commemorative ceremony was held to mark the 10th anniversary of its opening. The ceremony was attended by invited guests from the local community of Shirakawa Village and representatives from Toyota and other organizations, who were thanked for their day-to-day understanding and support of the institute's activity. Additionally, Director of the Institute, Toshiyuki Yamada, newly appointed in April 2015, spoke of the institute's journey over the last 10 years and the direction of its activities for the coming 10 years.

For the next 10 years, the Institute will seek to further enhance and expand its hands-on nature program to provide "First-class education and emotional experiences," a basic concept revised in 2013 to embrace increasing environmental awareness and needs of local community. Around the newly adopted theme of "shared education" in other words, growing and learning together toward the harmonious coexistence the institute will seek to move beyond its previous goal of creating opportunities to think about coexistence with nature, to provide opportunities and education to enable individuals to understand and take action toward coexistence on their own initiative. To this end the Institute strengthens its programs in hands-on environmental education as part of initiatives to step up to a new level of social contribution activity.

Key phrase of the last 10 years: Coexistence

Achievements: (1) Implementation of environmental education in the natural environment of Shirakawa Village
(2) Coexistence with the local community
(3) Operation of an environmental institute providing satisfying experiences to both children and adults

Key phrase for the next 10 years: Toward coexistence through shared education

Shared education which leads to the realization of harmonious coexistence

For children	For adults
Shared education for personal development	Spiritual relaxation and physical vitality
Genuine quality education that complements school education	Achieve a true sense of physical well-being through guided nature trails
Keywords: Hands-on experience/challenge/awareness Camps	Keywords: Emotional experience/enjoyment/lifestyle Long trails

A place for simultaneous realization

Hands-on experience of nature

Key Phrase Trail walking for adults. Forest play helps kids grow stronger.

Main Programs for the Future

Developing strength of character, spirit of adventure, and team spirit

Children's Camps

Children's camps consist of four different programs. The Eco-Institute Forest Camp teaches the outdoor skills of handling knives, ropes, and fire and develops creativity and resourcefulness. In the Hidden Land of Sleeping Dinosaurs Camp, children search for fossils under the guidance of experts to develop a sense of intellectual adventure. In the Togetherness Camp, children stay in a thatched-roof *gassho-zukuri* house which they build themselves, and, through contact with others, develop a sense of gratitude and consideration and a spirit of mutual help. In the Spring Forest Snow Camp, children from the city learn to develop a spirit of challenge.

Togetherness Camp

Experiencing natural wilderness and traditional culture

Shirakawa-Go and Hakusan Trekking

The Eco-Institute is surrounded by many places where trekking offers the opportunity for encounters with natural wilderness, from the World Heritage site of Shirakawa-Go to the sacred site of Hakusan. From complete beginners to experienced mountain walkers, the Institute offers trekking courses adapted to ability and preference, as well as history and culture encounter programs that tour the *gassho-zukuri* villages of the Shirakawa-Go district. The Hakusan climb for experienced walkers is a program accompanied by a certified guide from the Japan Mountain Guides Association that stretches over three days and two nights and includes an overnight stay in a mountain hut, providing a sense of achievement, spiritual relaxation, and physical well-being.

Snow trekking

Rich experiences of nature including the precious resource of primeval beech forest

Hakusan National Park and Oshirakawa

The area around Hakusan is designated a national park, and the area known as Oshirakawa on the slopes of the mountain, although not particularly well known, has one of the area's richest natural environments. With its primeval forest, including beech and Mongolian oak trees several hundred years in age, and the sights of Lake Hakusui and the majestic Shiramizu waterfall, it offers encounters with untouched, untamed nature that provide spiritual relaxation and a lesson in the importance of the natural environment.

Oshirakawa/Lake Hakusui

Toyota Environmental Activities Grant Program

Outline and Purpose of Program

The Toyota Environmental Activities Grant Program was inaugurated in 2000, commemorating Toyota's receipt of the prestigious Global 500 Award, to further demonstrate Toyota's responsibility for the environment and sustainable development. Since then, as part of its social contribution activities, Toyota has been conducting the Grant Program to support environmental activities implemented by NPOs and other non-profit private groups.

Scope of Grant Projects

In the belief that "*monozukuri* is about developing people," Toyota is supporting the activities of non-profit organizations that promote projects to foster individuals seeking solutions of environmental issues, and to contribute to practical problem-solving for those issues (grant themes: biodiversity conservation and global warming).

Examples of Grant Recipient Projects in FY2014

Taiwan

Green Holiday in Taiwan: International Exchange Volunteer Program to Protect Swallows

Wild Bird Society of Japan

The swallow, which migrates between Japan and Southeast Asia, is a much-loved symbol of good fortune in Taiwan too. For the swallow, Taiwan is a breeding ground, a migration staging post, and an overwintering ground. Taiwan's cities are surrounded by richly verdant agricultural landscapes of the kind that were once a common sight everywhere in Japan. But here too, residential and other development has brought progressive environmental change in recent years.

Green Holiday in Taiwan is a volunteer program open to the general public in Japan. Participants join with Taiwanese NGOs and children to engage in wetland preservation activities while at the same time observing swallows. As well as promoting international cooperation to protect swallows, the program aims to preserve the biodiversity of wetlands and other familiar environments under the symbol of the swallow.

Removing duckweed to create a friendlier habitat for dragonflies and other insects that swallows feed on

Japan

Basic Research on the Raccoon, a Non-native Species that Threatens the Biodiversity of Woodland around Shrines, and Educational Activities to Promote Solutions

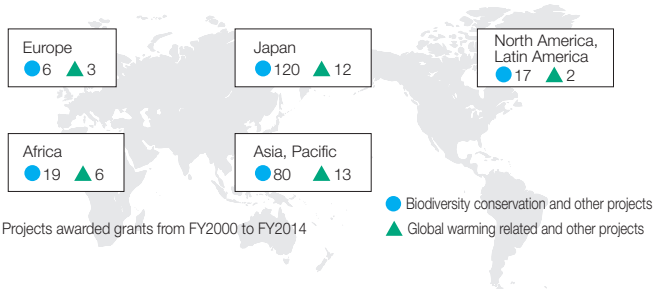
Kansai Wildlife Research Association

Although it is a non-native species, the raccoon has been found to be reproducing naturally at various sites throughout Japan, causing serious damage to agricultural crops. There is also concern over its impact on the reproductive environment of other animals, notably because it preys on unique native species. In many of the afflicted areas, however, the actual situation of the raccoon and methods of dealing with it are not understood. The conduct of a nationwide survey and the establishment of a counterstrategy are therefore urgently required. To establish the facts about the raccoon population, particularly in the vicinity of shrines and temples, and the extent of the damage, this project created a basic database and carried out analysis using a geographic information system (GIS).

The results of this multifaceted survey of the raccoon population and the relevant documentation have been presented at seminars and symposia. They have also been made available to a wide public through website presentation, offering possible solutions to the raccoon problem that is damaging the biodiversity of woodland around shrines.

Raccoons that have made their home among the rafters of a shrine building

Breakdown of Toyota Environmental Activities Grant Program Grant Recipient Projects (Totals*)



* Projects awarded grants from FY2000 to FY2014

Assistance Provided to Date

Over the 15 years since the Grant Program was established in 2000, it has provided support to 278 projects in 52 countries and regions worldwide

Country/region of implementation	Asia (excluding Japan), Pacific	North America, Latin America	Africa	Europe	Japan	Total
FY2014	7	0	1	2	11	21
Cumulative total*	93	19	25	9	132	278

* FY2000–FY2014

Focus

Help in Protecting the Hooded Grebe in Argentina's Patagonia National Park

The Endangered Hooded Grebe

As an initiative to conserve biodiversity, Toyota Argentina S.A. (TASA) collaborated in a project to protect the hooded grebe, a species peculiar to Argentina that faces the threat of extinction.

Collaborating in the project, which contributed to promoting biodiversity and environmental conservation, furthers the aims of Toyota's environmental policy. This is because preserving the hooded grebe can be expected to help promote ecosystems and foster environmental awareness in the region. Among the other benefits expected from the project are that it will help preserve the quality of the ecosystem through nature-friendly farming techniques by improving awareness of the hooded grebe among students and farmers in the region, and that it will make this region, which contains the Patagonia National Park, one of the world's most appealing tourist destinations.

The northwestern part of Santa Cruz Province where the survey was conducted

Hilux Vehicles Provided for Scientific Survey

Designated a national park in 2014, the Patagonia National Park, where the survey was conducted, is situated in the northwestern part of Santa Cruz Province to the south of Lake Buenos Aires and the town of Los Antiguos. The park forms a plateau at an altitude of over 1,000m, reaching a height of over 2,500m at its western edge, and is home to many rare species. The number of hooded grebe is estimated at around 700–800 individuals.

TASA provided two Hilux for a scientific survey conducted by Argentinean Birds-Ornithological Society of Argentina in February 2015, which included an evaluation of the threat of extinction and an investigation to decide the best location for regeneration of the species.

Participating in the survey were 10 members of the press with 2 television cameras, and reports on the survey were featured on television, in magazines and newspapers, and elsewhere in the media.

Hooded grebe

A Hilux travels across a plateau

Appendix

Status of Major Environmental Data in Japan for FY2014

Area	Item	Key indicator (unit)	FY1990	FY1995	FY1998	FY2001	FY2012	FY2013	FY2014	Related pages
Product	Exhaust gases	Percentage of total production that achieves emission levels 50% lower than 2005 gasoline standards	—	—	—	—	2.3%	2.4%	2.4%	11-30
		Percentage of total production that achieves emission levels 75% lower than 2005 gasoline standards	—	—	—	—	97.4%	97.2%	97.4%	
	Clean-energy vehicles	Number of units sold [units]	—	—	—	—	658,585	718,541	646,258	—
		Electric vehicles [units]	—	—	—	—	19	0	0	
		Hybrid vehicles [units]	—	—	—	—	658,517	718,497	646,250	
		CNG vehicles [units]	—	—	—	—	49	44	8	
	Average fuel efficiency by weight category [km/L] (gasoline-powered passenger vehicles)	JC08 test-drive mode 601—740 kg	—	—	—	—	30.0	32.4	34.8	11-11
		741—855 kg					26.2	27.7	28.5	
		856—970 kg					20.9	20.9	24.1	
		971—1,080 kg					27.1	26.9	29.2	
		1,081—1,195 kg					24.4	25.1	26.6	
		1,196—1,310 kg					16.7	17.2	17.4	
		1,311—1,420 kg					25.9	25.9	25.9	
		1,421—1,530 kg					21.6	21.4	21.9	
		1,531—1,650 kg					14.7	16.0	18.4	
		1,651—1,760 kg					14.4	18.0	17.2	
		1,761—1,870 kg					11.7	12.8	15.6	
		1,871—1,990 kg					10.9	10.7	10.9	
		1,991—2,100 kg					10.7	9.8	9.9	
		2,101—2,270 kg					14.0	12.5	11.8	
		2,271 kg—					8.2	7.9	7.8	
Production	CO_2 (Note 1)	Total emissions volume [calculated in CO_2 equivalent in million tons]	2.11 (Note 3)	—	—	—	1.16	1.20	1.18	11-16
		Emissions volume per unit produced [calculated in CO_2 equivalent in tons/unit]	—	—	—	—	0.41	0.41	0.41	
	Substances of concern	VOC emissions volume per body area [g/m²]	—	—	64	—	20	19	18	11-31
	Waste (Note 2)	Volume of waste per unit produced [kg/unit]	—	—	—	29.5	12.1	12.4	12.5	11-23
Re-cycling	Recycling rate	Vehicle recycling/recovery rate [%]	—	—	—	—	99	99	99	11-27

Note 1: Since non-production bases were also brought under the scope of the reduction goals in FY2005, figures include company-wide emissions from FY1990
Note 2: Zero landfill waste was achieved in FY2000 and has been maintained ever since
Note 3: Total figure for the period from January to December 1990

For information on indices other than in the environmental data listed above, please visit the following webpage

WEB http://www.toyota-global.com/sustainability/environment/data/

Environmental Accounting

Environmental accounting at Toyota is based on a classification of environmental costs into "environmental investments"[1] and "maintenance costs."[2] Toyota also calculates the economic effects and eco-efficiency of its activities.

For details on the effects of measures implemented to reduce environmental impact, please see the section "Status of Major Environmental Data in Japan for FY2014" on page 11-37.

[1] Environmental costs, such as those for research and development of environmentally considerate products, whose effects are judged to extend beyond the current term into the future
[2] Environmental costs other than environmental investments

Environmental Costs

Calculation scope: Toyota Motor Corporation (unconsolidated)

Actual Results Based on Toyota's Format

(Unit: billion yen)

Classification	Item		Details	FY2012	FY2013	FY2014
Environmental investments	Research and development			270.6	303.2	353.5
	Recycling-related			0.7	0.7	0.7
	Other (social contribution, ISO certification, education and training, etc.)[3]			0.7	0.3	0.5
	Plant and equipment investment[4]	Plant and equipment investment primarily for environmental action	Prevention of global warming	0.2	0.2	0.4
			Waste processing	0.0	0.1	0.0
			Pollution prevention, etc.	0.8	0.6	1.6
				1.0	0.9	2.0
		Expenses for environmental action included in normal plant and equipment investment		7.9	7.2	10.6
	Subtotal for environmental investments			280.9	312.3	367.3
Maintenance costs	Expenses related to environmental measures		Waste processing	1.9	2.0	2.0
			Waste water treatment	0.3	0.5	0.4
			Atmospheric pollution and odor abatement	0.9	1.0	1.3
			Global environmental preservation	0.7	0.6	0.9
	Awareness-building		Advertising, public relations, etc.	16.9	27.2	28.6
	Professional environmental staff		Personnel	2.0	2.1	2.2
	Environmental restoration		Vehicle recalls	4.6	0.0	0.0
			Soil and groundwater remediation	0.3	0.2	0.2
	Subtotal for maintenance costs			27.6	33.6	35.6
Total (as a percentage of net sales)				308.5 (3.2%)	345.9 (3.1%)	402.9 (3.6%)

FY2014 Actual Results Based on the Ministry of the Environment's Format

(Unit: billion yen)

Classification		Toyota Investment	Toyota Costs	5 body manufacturers[5] Investment	5 body manufacturers[5] Costs
1. Business area costs	(1) Pollution prevention	0.6	1.7	0.9	2.4
	(2) Global environmental conservation	11.7	0.9	2.6	0.6
	(3) Resource circulation	0.0	2.0	0.3	1.8
2. Upstream/downstream costs	Amount allocated to recycling related and industry organizations	0.0	0.8	0.0	0.1
3. Administration costs	Environmental advertisements, environmental report publication, professional environmental staff, etc.	0.0	31.0	0.1	2.1
4. Research and development costs	R&D for reducing substances of concern	0.0	353.5	0.3	35.2
5. Social activity costs	Contribution to environmental preservation organizations, etc.	0.0	0.2	0.0	0.0
6. Environmental remediation costs	Soil and groundwater remediation, etc.	0.3	0.2	0.1	0.1
Total		12.6	390.3	4.3	42.3
		402.9		46.6	

[3] The numbers for past years have been corrected to reflect a change in the calculation method made in FY2014
[4] Depreciation expenses of investments in plant and equipment are not included in these costs
Reference: FY2014 total R&D expenses: 886.2 billion yen; total investment in plant and equipment: 231.1 billion yen
[5] Five body manufacturers: Toyota Motor East Japan, Inc., Daihatsu Motor, Toyota Auto Body, Hino Motors, and Toyota Motor Kyushu (Calculations made on the basis of standards used by each company)

FY2014 Actual Results for Overseas Affiliates

(Unit: billion yen)

	Investment	Costs	Total
TMT (Thailand)	1.5	0.5	2.0
Kuozui Motors (Taiwan)	0.6	0.9	1.5

Economic Effects

Actual Effects

(Unit: billion yen)

	FY2012	FY2013	FY2014	FY2014 results for the 5 body manufacturers
Reduction in energy costs through energy saving measures	1.3	1.0	0.5	1.3
Reduction in waste processing costs	0.0	-0.2	0.1	0.0
Sales of recyclable goods	4.4	5.8	5.2	7.2
Other (income from environment related technologies, etc.)	9.5	9.8	10.1	0.0
Total	15.2	16.4	15.9	8.5

Customer Benefits: Reduction in Gasoline Consumption Due to a Switch to Hybrid Vehicles

(Unit: billion yen)

	FY2013	FY2014	Cumulative reduction since the launch of the first generation Prius in December 1997
Japan	233.5	237.9	1,040.7
Worldwide	685.6	667.4	3,257.7

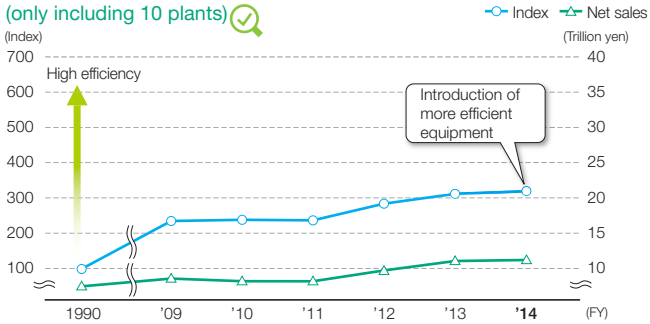
Calculation Method for Customer Benefits in Japan in FY2014

- Cumulative: Difference in average annual fuel efficiency[6] × number of vehicles owned in the particular fiscal year[7] x average annual distance traveled[8] × average gasoline price in FY2014[9]
- Fiscal year: (Difference in average annual fuel efficiency × number of vehicles owned in the particular fiscal year x average annual distance traveled × average gasoline price in FY2014)—customer benefits to FY2013

[6] Difference in fuel efficiency between hybrid vehicles on the road in the particular fiscal year and corresponding models of gasoline-powered vehicles. Fuel efficiency value based on the JC08 Japanese test mode was converted into actual fuel efficiency
[7] Of the total number of hybrid vehicles sold each year, the number of vehicles owned by each customer as estimated by Toyota based on the average vehicle age
[8] Average annual distance traveled by passenger cars according to the Japanese Ministry of Land, Infrastructure, Transport and Tourism's "Automobile Transportation Statistics": 10,000 km
[9] National average gasoline price (including consumption tax) in FY2014, according to the Oil Information Center of The Institute of Energy Economics, Japan: 158.1 yen

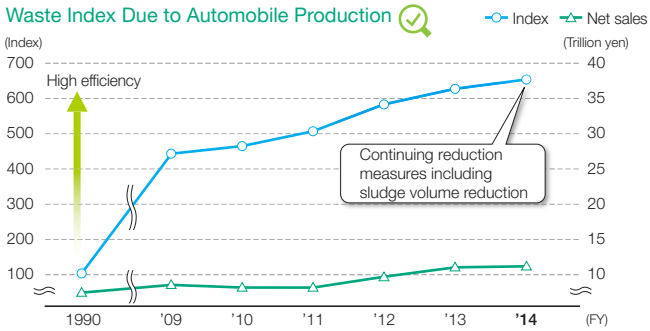
Eco-efficiency (Net Sales/Environmental Impact)

CO_2 Emissions Index Due to Automobile Production (only including 10 plants)



* The CO_2 emission index shown in the graph above is the ratio of net sales to the volume of CO_2 emissions, with a value of 100 assigned to the FY1990 level

Waste Index Due to Automobile Production



* The "waste index" shown in the graph above is the ratio of net sales to the volume of waste generated, with a value of 100 assigned to the FY1990 level

Social Contribution Activities 12

Major Achievements in FY2014

Established

Toyota Mobility Foundation
toward building a better mobility society

The foundation provides grants, with the aim of developing and providing more convenient and comfortable transportation means, introducing traffic systems designed to eliminate traffic congestion, and promoting research and awareness-raising activities related to traffic safety.

Toyota Mobility Foundation logo

Toyota Youth Orchestra Camp received the

Mécénat Award 2014

In recognition of its contribution over a period of 30 years to nurturing human resources as leaders of local music culture, the program received the Award granted by the Director of Cultural Affairs as part of the 2014 Japan Mécénat Awards organized by the Association for Corporate Support of the Arts.

Great East Japan Earthquake recovery through

Voluntary Programs and Employee Volunteering

Toyota supported recovery by organizing voluntary programs (such as Toyota Community Concerts, and Scientific Jack-in-the-Box! The Why/What Lecture) in Iwate, Miyagi, and Fukushima Prefectures, and dispatching employee volunteers to the Kesen district of Iwate Prefecture.

Expanded Traffic Safety Promotion Activities abroad

Toyota Safety Driving Program in Vietnam

Under the Instructor Training Program, advisors are sent from Toyota Motor Corporation to Vietnam to directly help instructor candidates improve their safe driving skills and traffic safety mindset.

Start of WOODAY Hands-on Program in Toyota Mie Miyagawa Forest

This hands-on program aims to communicate the joys of the forest from a range of perspectives. Themes are selected relating to the forestry industry, rural livelihoods, and other aspects, and relevant activities are organized to promote understanding of forestry and timber.

Hands-on Work Experience Program for children started at Toyota Kaikan Museum

The program aims to demonstrate to children the joys, challenges, and sense of achievement that working life can bring. Both the children and the employees who mentor them are pointed toward new discoveries.

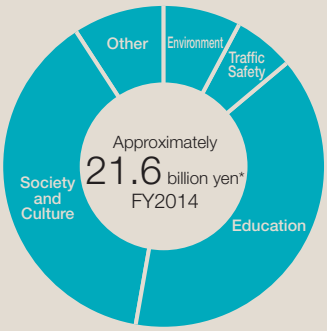
Wide-ranging response to social needs

Toyota Foundation celebrates its 40th Anniversary

With the philosophy of promoting an increase in human happiness, the Foundation tackles important issues. Seeing its 40th anniversary as a new point of departure, the Foundation aims to move forward as an organization that can more proactively contribute to society.

40th Anniversary

FY2014 Expenditure for Social Contribution Activities



*Toyota and major subsidiaries on a consolidated basis. Results for overseas affiliates are converted to Japanese yen based on the average exchange rate for FY2014.

Social Contribution Activities

Basic Philosophy regarding Social Contribution Activities

Toyota Has Maintained Its Founding Principle of Contributing to Society and Undertaking Active Measures in a Wide Range of Fields with the Goal of Enriching the Lives of Communities

Toyota conducts social contribution activities around the world for the developing of thriving societies and their continuous development with the aim of being a good corporate citizen that is respected by society.

Toyota has a long history of social contribution activities that can be traced back to Sakichi Toyoda. It all began when in 1925, 90 years ago, Sakichi, in his desire to support inventions that would enrich people's lives, pledged one million yen (at the time) to the Imperial Invention Institute to encourage revolutionary battery-related inventions. This spirit was handed down to Kiichiro Toyoda, the founder of Toyota Motor Corporation, and the Five Main Principles of Toyoda, which espouse contributing to the development and welfare of the country and feelings of gratitude, were formulated in 1935 in accordance with his dying request. The precepts have been handed down in an unbroken line to the present.

Since its foundation, Toyota has sought to contribute to the development of society based on the fundamental principle of creating a thriving society through manufacturing and car making. The Corporate Citizenship Activity Committee was established in 1989 under the leadership of the president, and the CSR Principles were adopted in 1995 and revised in April 2005. Toyota has established systems for the steady implementation of CSR programs and is undertaking collaboration on a global scale.

In the 1960s and 1970s, the focus of activities was on measures to improve traffic environments including research and proposals on traffic policy and traffic safety educational programs. In the 1990s, in addition to traffic safety programs, Toyota also conducted programs in Japan to support science and technology, promote culture, and address environmental issues. Toyota also expanded the scope of its CSR activities globally to include education and the environment. In 1998, we set the environment, traffic safety, and human resource development as three global priority fields, and in Japan supplemented their fields with the arts and culture and a society in harmony with nature, undertaking active CSR measures by using our resources including technology and expertise. In November 2009, the CSR Committee consolidated the arts, culture, and a society in harmony with nature into society and culture. Also, emphasis was placed on support for volunteerism and sustaining automotive culture and manufacturing culture.

The Toyota Global Vision announced in March 2011 incorporates our commitment to pursuing Always Better Cars that exceed customer expectations and enriching the lives of communities to make people's lives better. The global development of Toyota's business is supported by numerous customers and stakeholders, and it is precisely for this reason that we believe it is essential that we work to enrich the lives of communities and promote social contribution activities by addressing the social issues of each region and country where our business has benefited as a member of the community. Some of these initiatives are introduced here in the Social Contribution Activities Section.

The Guiding Principles at Toyota and the Basic Principles and Policies of Social Contribution Activities

The Basic Principles and Policies of Social Contribution Activities are positioned below the Guiding Principles at Toyota and the explanatory Contribution towards Sustainable Development are intended to clarify the objectives of Toyota's stance concerning social contribution activities as well as the scope of those activities. The central theme of the principles is "creating a prosperous society and achieving sustainable development." This fundamental notion is shared throughout Toyota globally.

Guiding Principles (Abstract)

1. Honor the language and spirit of the law of every nation and undertake open and fair business activities to be a good corporate citizen of the world
2. Respect the culture and customs of every nation and contribute to economic and social development through corporate activities in their respective communities

CSR Policy: Contribution towards Sustainable Development (Abstract)

Wherever we do business, we actively promote and engage, both individually and with partners, in philanthropic activities that help strengthen communities and contribute to the enrichment of society

Principles of Social Contribution Activities

Purpose	We in the Toyota Group will undertake social contribution activities to contribute to sustainable social vital
Stance	We will maximize the benefits of our social contribution activities by working with partners; by using our resources effectively; and by concentrating on initiatives that address real social needs, including the need for fostering human resources
Employee participation	We will support independent social contribution activities that our employees undertake as members of the community
Information disclosure	We will disclose information about our social contribution activities, aiming to promote the development and improvement of societies
Global perspective	We will adopt a global perspective on social contribution activities while adapting our activities to needs and circumstances in each nation and region where we operate

Social Contribution Activity Initiative Fields (Focus Areas)

All Toyota affiliates conduct independent social contribution activities centered on three focus fields—environment, traffic safety and education—with other fields added in accordance with local societal needs. In Japan, support of the "society and culture" has been added to the three focus fields. Emphasis is also placed on employee volunteer activities, with programs promoted through utilization of Toyota's expertise and resources.

Furthermore, as we aim to contribute to society through *monozukuri* (manufacturing), we will put our efforts into carrying on automobile and manufacturing culture.

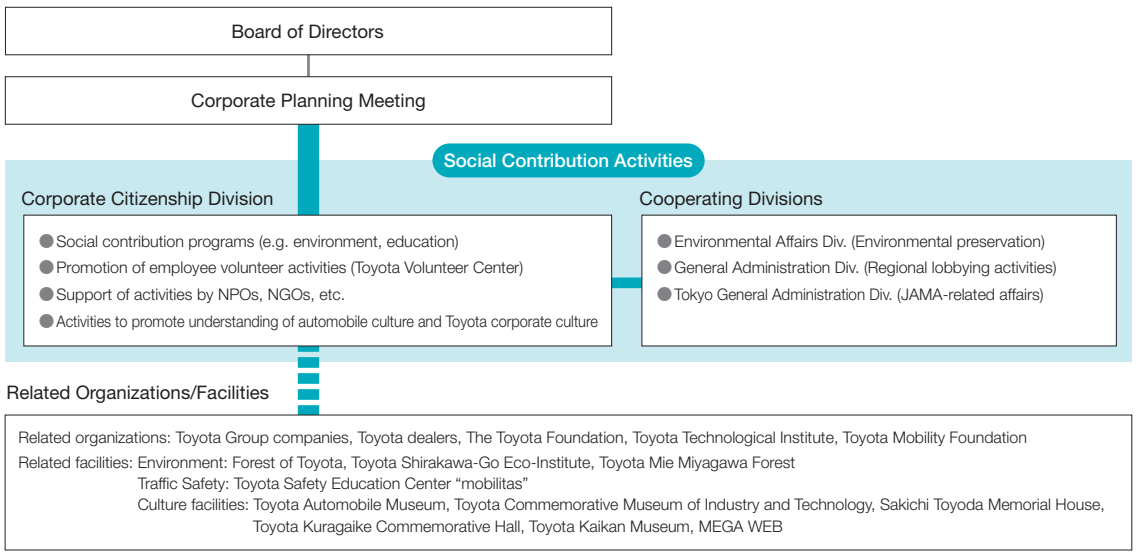
Organization and Structure

[Japan] Domestic Implementation Structure Centered on Corporate Citizenship Division

In 1989, Toyota established the Corporate Citizenship Activity Committee chaired by the company president and comprised of relevant directors. It was renamed the CSR Committee in October 2007 after taking on several new functions previously carried out by other internal organizations. The Corporate Citizenship Division, a specialized division for corporate social contribution activities, plays a lead role in deploying activities.

Since April 2015, social contribution activities have been discussed at the Corporate Planning Meeting, which has been set up in conjunction with organizational changes that are intended to incorporate CSR into management and raise corporate value throughout management overall. The Corporate Planning Meeting has considered growth strategies that incorporate the value that Toyota provides with regard to a variety of social issues.

Domestic Implementation Structures



[Overseas] Implementation Structure Centered on Toyota Regional Headquarters

Toyota and Toyota regional headquarters in North America, Europe, Asia and China have formed a network to strengthen their promotional efforts. The regional headquarters conduct promotional activities within their regions while maintaining close communications with Toyota.

Overseas Implementation Structure

U.S.A.	The Philanthropy Executive Council under North American Executive Committee is responsible for leading philanthropy strategy and ongoing decision making as needed
Europe	The Toyota Fund for Europe Board held on average twice a year is responsible for setting direction on social contribution activities, as well as for selection and approval of projects proposed to TME[1]
Asia	Regional social contribution meetings are led by TMAP[2] to consider the deployment and direction of activities within the region
China	TMCI[3] promotes activities in China based on local needs and in collaboration with related affiliates

[1] Toyota Motor Europe
[2] Toyota Motor Asia Pacific
[3] Toyota Motor (China) Investment

Actual Results for the Previous Fiscal Year and Major Initiatives for the Current Fiscal Year

		Major Initiatives for FY2014	Major Initiatives for FY2015
Social Contribution		・Established the Toyota Mobility Foundation toward building a better mobility society ・The Toyota Youth Orchestra Camp, which marked its 30th year, received the Mécénat Award 2014 given by the Director of the Agency for Cultural Affairs ・Promoted activities in fields including environment, traffic safety, human resource development, society and culture	・Develop grants by the Toyota Mobility Foundation toward building a better mobility society ・Enhance cooperation aimed at expansion of activities which leverage Toyota's global expertise ・Participate in the "Dream class for the *Mirai* (Future) in Toyota City" as one initiative in preparation for the Tokyo 2020 Olympic and Paralympic Games
	Restoration Support in areas affected by the Great East Japan Earthquake	・Held voluntary programs (such as Toyota Community Concerts, and Scientific Jack-in-the-Box! The Why/What Lecture) in Iwate, Miyagi, and Fukushima Prefectures, and dispatched employee volunteers to the Kesen district of Iwate Prefecture	・Continue restoration support activities, such as holding voluntary programs in disaster-struck areas and dispatching employee volunteers

Environment

Basic Philosophy regarding Environmental Measures

With regard to the environment, one of the priority areas of social contribution activities, Toyota actively undertakes environmental education, support for environmental programs, and reforestation to support the sustainable development of thriving societies. Considering that forests are the basis of a sustainable society because of their public functions such as absorbing carbon dioxide, recharging water sources, and protecting biodiversity, Toyota has positioned the forests that it owns as valuable environmental infrastructure that must be protected and undertakes appropriate management and continuous ownership and preservation.

Starting with the adoption of the Forest of Toyota Plan in 1992, Toyota has implemented activities in Japan and overseas with an emphasis on collaboration with society and regions, and employees have undertaken independent regional environmental preservation through volunteer activities.

Project Examples

Forest of Toyota: Helping to Realize a Sustainable Society through Forestry Activities

Japan

Forest of Toyota, located in the suburb of Toyota City in Aichi Prefecture, used to be *satoyama*, which refers to forests in the interface between cities and nature that have been utilized by people.

It had been neglected because fewer people relied on *satoyama* for their livelihood, such as for firewood. In 1992, Toyota drew up the Forest of Toyota plan and conducted forestry activities that introduced sunlight and wind into the forest in order to restore a natural environment with rich biodiversity. A model forest was established in 1997 and made open to the public.

The accumulated data from monitoring the effects of forestry work over 10 years starting in 1998 has been made publicly accessible online. Know-how gained through the monitoring has been utilized to review methods of *satoyama* forestry and for environmental education programs.

At the Forest of Toyota, not only can visitors stroll around, but also hands-on nature programs for local elementary children and various nature activities are implemented. Every year, around 7,000 school children participate in Forest of Toyota nature programs, and the number of visitors by the end of FY2014 topped 138,000.

Nature program targeting local elementary school children

Toyota Shirakawa-Go Eco-Institute: Valuing Nature's Wisdom, Expanding Environmental Programs Rooted in the Community

Japan

The institute opened in the World Heritage site Shirakawa-Go in 2005 with the goal of providing opportunities for many more people to gain a deeper understanding of the environment. Visitors learn the importance of nature through hands-on environmental education programs including walking tours of the forest guided by "interpreters" in the morning, at night and sometimes in the snow.

In 2011, it received the Minister's Prize in the Ministry of Environment's 2nd Contest for Corporate Activities on Biodiversity, and in 2014, the cumulative number of visitors topped 155,000.

Toyota Shirakawa-Go Eco-Institute

Toyomori Human Development Program: Project to Restore the Relationship between Cities and Rural Areas

Japan

Toyota City, the Support Center for Sustainable Regional Design (an NPO), and Toyota Motor Corporation have been running a joint project called "Toyomori," which focuses on human resource development. It aims to foster people who can create new business and lives utilizing local natural resources by touching on rural areas and lives of the people in Toyota City, where 70 percent of the area is forest.

Fifth-term Toyomori Nariwai Juku entrance ceremony

A core element of the Toyomori project, opened in May 2009 to teach people about forestry resources, food, and agriculture in rural areas, as well as their arts and culture, in a one-to-two-year course of fieldwork and coursework. As of March 2015, the program had been conducted four times with approximately 90 people completing it. Among the course participants are individuals who started businesses, who moved from cities to local rural areas and started activities to disseminate information on nature and their lives, people who live in a city but conduct agricultural tasks, and are involved with traditional festivals with local residents.

Fieldwork for learning about the local area

In May 2015, 31 fifth-term students selected through public applications entered the program and began one year of activities based in the Asahi district of Toyota City, an area that is experiencing depopulation and aging of the population. Recognized as a socially responsible business approach contributing to local revitalization in association with a variety of entities by the Ministry of Economy, Trade and Industry, the program was introduced in the ministry's Social Business Case Book in March 2011.

In November 2013, the program won the Selection Committee Chairman's Prize of the Alright! Nippon Awards for city and rural village mutual benefit and exchange projects sponsored by the Ministry of Agriculture, Forestry, and Fisheries and other organizations. Then, the program was also selected in April 2014 as a finalist of the Second Nikkei Social Initiative Award, a prize presented to outstanding social businesses that use business methods to address various social issues, and was highly evaluated.

Forestry Volunteer Activities: Initiative to Develop Rich and Beautiful Forests

Japan

Volunteers gathered in Asuke Town, Toyota City, Aichi Prefecture with a commitment to conserving local forests, and started forest maintenance activities such as cutting underbrush and pruning in 2000. Their activities have expanded, and in 2008, the internal volunteer circle "Forest Keepers" was formulated and made an agreement with Toyota City to work on forestry activities in city-owned forests.

Thinning operations that keep forests in a healthy condition also immerse the participants in nature and contribute to their health and well-being. Another initiative, a woodcraft workshop utilizing timber from forest thinning, has been conducted for local residents.

Tree thinning by volunteers

Children who attended the woodcraft workshop

Toyota Mie Miyagawa Forest Project: Establishing a Model Forest with the Aim of Revitalizing Japan's Forestry Industry

Japan

Toyota acquired 1,702 ha of mountainous forest in Odai Town, Taki District, Mie Prefecture in 2007 and began efforts to restore the forest, which was largely a man-made forest consisting of cedar and cypress. Large number of cedar and cypress trees were planted in Japan's forests during the post-war period, but the domestic forestry industry declined as a result of slumping demand for Japanese timber, and today, many forests have been abandoned without maintenance and are over-dense. The Toyota Mie Miyagawa Forest was also excessively dense, so work began with an emphasis on maintenance of areas where thinning was lagging. The aim was to create a forest that could benefit the public in ways such as recharging water sources and preventing landslide disasters. Furthermore, to make timber production more efficient, we are tackling various forestry-related issues, such as maintenance cost reduction and forest management based on accurate resource data. Toyota Mie Miyagawa Forest obtained Forest Stewardship Council®* certification in 2010.

A dark, unmaintained forest

The forest, brighter after thinning

Toyota has been holding a hands-on program called "Wooday" since 2014, which provides adults and children an opportunity to learn about forests while enjoying them, to more widely publicize the importance of these forest preservation activities and the connection between forests and people. This program is run jointly with Miyagawa Sinsengumi, an NPO active in the town of Odai, and the Osugidani Nature School.

* A nonprofit international membership organization that operates the Forest Certification System, established by environmental groups, forestry companies, groups of native peoples, etc.

Enjoyable hands-on program for both adults and children

Volunteering to Preserve Loggerhead Turtle Spawning Beach: Volunteer Activities Help Preserve Sandy Beach for Loggerhead Turtle Spawning

Japan

Omotehama beach on the Atsumi Peninsula in Aichi Prefecture is known as a haven for spawning loggerhead turtles, but has suffered increasing erosion due to factors such a decrease in the amount of earth and sand deposited by the Tenryu River. Its ecosystem is now in jeopardy. Since 2011, once a year in spring, employees from Tahara Plant near the beach and the Head Office turn out with their families and work in cooperation with a local NPO, "Omotehama Network," to build hedges out of bamboo to serve as windbreaks and reduce erosion. They also clean the beach to prepare for the loggerhead turtles' arrival for spawning, which starts in May.

Volunteers with completed sand arresting hedges in the background

Toyota Environmental Activities Grant Program: Supporting Research, Other Activities Related to Global Warming Countermeasures and Biodiversity Conservation

Japan

Toyota received a Global 500 Award from the United Nations Environment Programme (UNEP) in 1999, after the organization evaluated the effect of the world's first mass-produced, mass-marketed hybrid vehicle, the Toyota Prius, and the implementation of our Environmental Management System. To commemorate this, since FY2000, Toyota has been soliciting proposals, selecting, and providing subsidies to the activities of non-profit organizations and other groups that undertake projects that contribute to the development of the next generation of human resources who will be responsible for environmental preservation in the future and to practical solutions to environmental issues. From FY2000 through FY2014, the program has supported 278 projects in 52 countries worldwide.

Raising seedlings at an elementary school (tree-planting effort and human resource development toward local natural resource renewal in Cambodia: Japan International Volunteer Center, an NPO)

Environmental Conservation at Office Sites and in the Areas Surrounding Them

Belgium

Toyota Motor Europe (TME) has been engaged in environmental conservation activities at its office sites and surrounding areas since 2008.

During the six years from 2008 to 2013, a volunteer initiative called "Greenways Project" was conducted by TME employees and their family members. Volunteers cleaned and planted trees along 9 km of public roads from the TME Headquarters in Brussels to the Technical Center located in the suburbs. Every year, around 100 volunteers have taken part in the project, which collected 6,650 liters of trash and planted 6,500 trees over eight years.

In 2014, TME also began an initiative to protect and promote biodiversity at its headquarters and technical center. First, a baseline survey was conducted at the sites, finding a total of 200 species of plants, invertebrates, fungi, birds, and mammals. In 2015, as the first step toward promoting biodiversity, insect hotels were set up. In June, the Green Month, insects were found living in two insect hotels for the first time.

Greenways Project

Insect hotel at the TME headquarters site

Toyota Costa dos Corais (Coral Coast) Project: Contributing to Conservation of Coastal Ecosystem

Brazil

Covering 11 municipalities in the northeastern Brazilian states of Alagoas and Pernambuco is Costa dos Corais, the largest marine protected area in the country and second largest in the world. Established in 1997 by the Brazilian government, with more than 413,000 hectares of protected area. However, preservation activities in the area have been insufficient and the ecosystem of the area is at risk.

The investment of Toyota do Brasil Foundation (TBF)—formed in April 2009 by Toyota do Brasil—in the project since 2011 makes possible the effective protection of the coral reefs and mangroves, and all flora and fauna existing in this unique ecosystem, including the manatee, the most endangered aquatic mammal in Brazil. To date, more than 40 manatees have been returned to their natural habitat.

In addition, the Toyota Costa dos Corais project also promotes scholarships for students in the region, encourages scientific research and knowledge cultivation by local universities and invests in the empowerment of local communities towards the development of economic activities compatible with environmental conservation. The project encourages environmental preservation activities by local residents, and by working with local volunteers, more than three tons of garbage have been collected from the seashore so far.

In 2014, TBF is marking the fifth anniversary of its establishment by conducting a stakeholder trip and providing information concerning the project to its many stakeholders.

Participants in the project to return manatees to their natural habitat

Helping Prevent Desertification for 14 Years

China

Toyota has been implementing an initiative to stop desertification in Xiaobazi Township, Fengning Manchu Autonomous County, Hebei Province, China since 2001 in collaboration with partners such as the Chinese Academy of Sciences. The initiative's measures were aimed at combating desertification while improving the lives of local residents and protecting the environment. The 10-year program ended in 2011 with trees planted on 3,000 hectares. Toyota established a training center and developed a system for sustainable tree-planting activities, and then transferred both the center and system to the local community.

In 2011, management of the program was transferred to Toyota Motor (China) Investment, a local affiliate, which has been implementing such initiatives as tree planting by employee volunteers.

Xiaobazi Township at the start of the project (in 2001)

Xiaobazi township in 2009

Toyota China Youth Environmental Protection Aid Program: Backing Projects Inspired by Young People

China

Toyota Motor (China) Investment has been working with the Central Committee of the Communist Youth League of China and the All-China Youth Federation to solicit proposals for and support environmental preservation activities by youth from around China under the Toyota China Youth Environmental Protection Aid Program.

The program's theme is "Everyone's world, everyone's responsibility." Proposals are solicited regarding environmental education, ecosystem restoration, pollution prevention and resource conservation, and a screening committee of environmental preservation experts select 10 proposals based on benefits, efficiency, originality, and other criteria. The winning groups receive financial support for their proposals and their representatives are invited to attend training sessions in Japan.

In 2013, the Power of Seeds Environmental Preservation Program, which allows for easy participation, was launched to foster interest in environmental preservation among the general public. Ideas that lead to environmental preservation are collected on a website and through a micro-blog and calls are made for new techniques to make environmental preservation a more immediate presence.

Appealing to pedestrians to comply with traffic signals in order to reduce emissions by mitigating traffic congestion

Toyota Weekend Farmers: Promoting Environmental Awareness through Cultivating and Growing Vegetables

Korea

The Toyota Weekend Farmers program started by Toyota Motor Korea (TMKR) in 2012 is a hands-on environmental awareness-raising activity for 25 families selected from Toyota vehicle owner applicants. Each family is assigned a field of approximately 16.5 m^2, where they grow a wide variety of vegetables from spring to autumn using organic cultivation methods. On the last Saturday of each month, TMKR employees also participate to learn methods of managing vegetable gardens and to harvest potatoes and tomatoes, making the program a forum for people to enjoy contact with nature and with each other. In November every year, Chinese cabbage is harvested and made into kimchee for donation to a homeless support center called "Anna House." In 2014, 850 heads of Chinese cabbage were utilized.

Making kimchee from the harvested vegetables

Stop Global Warming: Supporting Municipalities and School Students in Their Activities to Help Prevent Global Warming

Thailand

Since 2005, as a social contribution initiative, Toyota Motor Thailand (TMT) has worked with Thai environmental NGOs to promote awareness of global warming and support sustainable global warming prevention activities. The effort named "Stop Global Warming," is a contest targeting municipalities and school students.

Local residents and school students who participate in this contest learn about the mechanism of global warming and its impact, as well as actions that can help mitigate global warming, such as trash reduction and recycling, energy conservation, tree planting, and smart use of transportation. They also implement measures they designed themselves.

By 2014, the 10th year of the program, a total of 194 municipalities and 248 schools had participated, with the total number of projects reaching 2,387. Additionally, TMT established global warming learning centers in three locations. The volume of greenhouse gas emissions reduced through this program was more than 14,000 tons in CO_2 equivalent.

Environmental Initiative Contest
Stop Global Warming

Joint Initiative with Kew Gardens to Nurture Biodiversity

United Kingdom

Ever since the Toyota Motor Manufacturing UK (TMUK) plant was built in Derbyshire, United Kingdom, in the 1990s, a wide variety of flora and fauna have established themselves at the plant site. Therefore, in 2004, TMUK established an on-site wildlife reserve in partnership with the Derbyshire Wildlife Trust to maintain and promote the ecological value of these self-sustaining areas.

TMUK also established a partnership with the Royal Botanic Gardens, Kew, with the aim of creating sustainable habitats suitable for reproduction of the flora and fauna. To allow the animals and plants living both inside and outside the site to move in either direction and establish themselves easily, TMUK turned the routes surrounding the plant buildings into green belts, thereby establishing an ecological network (green grid) for the local area. This initiative is not transitory in nature, since TMUK plans to continue enhancing the habitats and to maintain and manage their current state which has been brought close to that of a natural environment.

Biodiversity has vastly improved through the green grid. Regular monitoring shows that the number of bee species increased from only one to six within one year, with the number of individuals increasing from 2 to 25. The number of butterfly species also increased from 4 to 10, with more than 100 individuals confirmed.

Before partnership with Royal Botanic Gardens, Kew

Present plant site, which is close to a natural environment

Annual National Mayor's Challenge for Water Conservation: Promoting Environmental Awareness through “My Water Pledge”

United States

Toyota Motor Sales, U.S.A. has been supporting the Wyland Foundation’s Annual National Mayor’s Challenge for Water Conservation for four years. Residents who wish to participate in the challenge go to the website www.mywaterpledge.com and pledge which actions they will take for water resource conservation, CO_2 emissions reduction, etc. They can immediately discover the impact that each action will have over one year, leading to increasing environmental awareness. April, when Earth Day falls, is designated as a challenge month, and cities compete with each other on the basis of the percentage of residents who pledge. Participants of the city with the highest participation rate are entered into a draw to win hybrid vehicles and environment-related prizes. Initially, the program was a grassroots movement with only a handful of cities participating, but now mayors of more than 130 cities are calling on their residents to pledge. More than 32,000 people from all over the United States have pledged, including residents of cities that do not yet participate.

Participant being presented with a hybrid vehicle

Traffic Safety

Basic Philosophy regarding Traffic Safety Measures

Toyota is addressing traffic safety through integration of people, cars, and the traffic environment with the aim of completely eliminating traffic casualties. As a part of these efforts, Toyota has been conducting educational activities since the 1960s, targeting people such as drivers and pedestrians, to raise awareness of traffic safety and has continuously implementing various programs for a wide range of people. Such programs are also being newly conducted in overseas affiliates.

Project Examples

Toyota Traffic Safety Campaign: Conducted Every Spring and Autumn in Concert with Japan's National Traffic Safety Campaigns

Japan

The growing number of traffic accidents was recognized as a social problem in 1960's. To help reduce the number, Toyota, Toyota dealers and other affiliated companies started the Toyota Traffic Safety Campaign in 1969. This year marks Toyota's 47th year holding this event, to coincide with national traffic safety campaigns.

Toyota donates traffic safety picture books and story cards to children entering kindergartens and nursery schools nationwide to provide road safety education and mitigate road accidents involving small children. These educational materials show children the danger of running onto the road and help them to learn how to cross the road correctly. The picture books also have a section for parents, which includes statistics on accidents involving small children and shows parents the advantages of using child restraint systems. Approximately 2.55 million picture books and 48,000 story cards were published in FY2014. More than 120 million picture books and 1.3 million story cards have been published to date.

In consideration of the higher rates of road accidents in twilight hours compared to other times of the day, Toyota calls attention to this statistic and promotes the wearing of reflectors.

Picture book donation ceremony

Traffic safety educational materials (picture books and story cards)

Toyota Driver Communication: Safe Driving Seminars Aimed at Raising Traffic Safety Awareness

Japan

Toyota has its own safe-driving program, which is conducted for drivers at companies and other organizations.

The program, which includes actual driving, helps drivers to learn correct driving postures, how a vehicle moves, and how to use safety equipment. The drivers are also instructed about being more aware of their surroundings from a safety viewpoint.

The program was launched in 1987 with the goal of reducing the number of traffic accidents involving younger drivers. Since then, both target age groups and venues have extended, and programs are held year-round at Toyota Safety Education Center "mobilitas" (located at Fuji Speedway), MEGA WEB, Toyota Driving School Tokyo, Toyota Driving School Gunma, and Chubu Nippon Driver School. In FY2014, around 13,000 people attended the safe driving program, bringing the cumulative total to over 80,000.

At "mobilitas," the expansive facilities and various road surfaces are used to their fullest to allow drivers to experience the effectiveness of and proper techniques for using safety equipment, and they safely experience how a car acts when it goes beyond the skid point.

Toyota Safety Education Center "mobilitas"

The "mobilitas" program allows drivers to experience "dangerous" situations in a safe environment

Hands-on Traffic Safety Events: Traffic Safety Education through a Wide Range of Hands-on Activities Offered Wherever People Gather

Japan

Aiming to provide traffic-safety educational programs that take root in communities, Toyota ties up with local government organizations nationwide as well as private companies to present hands-on traffic safety events. These events constitute an effective program for raising safety awareness. In FY2014, we set up traffic safety stands at the Shizuoka Prefecture People's Fair and other public events.

Among the activities offered were a Visual Field Training Experience that provided the opportunity to experience the world through the eyes of a child or elderly person: a Reflective Material Demonstration that allowed visitors to see for themselves the effectiveness of reflective materials at night, and a Reflective Keyring Workshop, where visitors made their own original reflective object to carry on themselves.

Event held at the Classic Car Festival at Nagakute

Toyota Safety School: Teaching Traffic Safety to Local Children

Japan

Every year, Toyota Safety School, which takes place at the Toyota Kaikan Museum and Toyota Safety Education Center "mobilitas," invites children from kindergartens and nursery schools located near Toyota City, Aichi Prefecture and Oyama-cho, Shizuoka Prefecture.

At the Toyota Kaikan Museum, participating children enjoy learning about traffic-safety rules through performances, traffic safety skits, quizzes and other events. They also view a helpful video and are encouraged to think about the dangers around them. During street-crossing practice, children practice crossing the street with a traffic light while making sure it is safe to cross. At mobilitas, a dedicated traffic safety facility, full-sized vehicles are used to re-create actual traffic environments to help educate children, along with their guardians, such habits as how to cross at the crossing, the meaning of traffic signals, and the dangers of running into the street.

This program has been conducted at 3,541 kindergartens and nursery schools since its inception in 1975 and has been attended by 252,997 kindergarten and nursery school children, as well as 14,544 of their guardians, thus becoming an intrinsic community activity.

Instruction from Anzen (safety) Man

How to cross the street ("mobilitas")

Development of Traffic Safety Education Tools: Pikkari Reflective Screen and Visual Field Learning Board

Japan

Traffic safety is difficult to teach just by verbal repetition, so Toyota has developed educational tools to provide hands-on experiences that are simple to follow and easily grasped.

In recent years, many elderly people have been involved in traffic accidents while walking at night, underlining the growing need for people to wear reflective materials that shine in vehicle headlamps or other light sources. We devised the Pikkari Reflective Screen in 2014. When people look at the screen through a pair of goggles with a lamp attached, it shows clearly the effectiveness of reflective materials and the different visibility of different colors, reinforcing the importance of wearing reflective materials.

Children and elderly pedestrians sometimes become accident victims due to their narrow visual fields that prevent them from seeing cars. Our solution was to devise the Visual Field Learning Board. People can check the angle of their field of vision by looking at the other side through the board, whereby they experience a child or elderly person's narrow field of vision, underlining the importance of checking right and left when using a crossing, when driving, or in other traffic situations.

Pikkari Reflective Screen

Visual Field Learning Board

Toyota and You: Supporting Road Safety Education for Young People

Argentina

Statistics in Argentina show that young drivers with less than two years of experience are involved in a disproportionately high percentage of car accidents. The response of Toyota Argentina S.A. (TASA) to this alarming fact was to develop a free three-hour program called "Toyota and You." Targeted at teenage drivers and their parents, it aims to highlight the critical relationship between level of concentration and speed of reaction to hazards. The program has been in operation since 2008.

The participants learn safe driving habits and the importance of basic techniques, and how much a simple act such as drinking a beverage or talking on a cell phone while driving can diminish their responsiveness in braking and steering. In other sequences, they can practice driving on dry and wet surfaces and drive on a slalom course, all under the supervision of professional drivers.

Parents also learn the fundamentals of road safety, and experience the importance of wearing a seatbelt aboard a collision simulator. Children and parents reunite at the end of the session to discuss what they learned. Every family group receives a "contract" checklist of safety pledges at the completion of the program.

Meanwhile, in "Toyota and You Kid," a new an educational program for children aged between five and nine, drama is used to teach awareness of driver and pedestrian safety. To date, the program has reached more than 7,500 children.

Toyota and You Kids

Children learning traffic safety through the fun of drama

Support for Traffic Safety Activities by Toyota Community Foundation

Australia

The Toyota Community Foundation (TCF) was established in 2011 to consolidate Toyota Australia's social contribution activities. As part of its grant activities to support traffic safety, four years ago TCF became a major partner of the non-profit organization Road Safety Education (RSE).

Active since 2001, RSE works to contribute to the advancement of a safe traffic environment and the reduction of traffic accident casualties. With the declared aspiration of being the leading player in traffic safety education for young people in Australia, it also holds practical and highly effective traffic safety awareness workshops for students aged between 16 and 18. This is an important age when the car begins to figure more significantly in young people's lives, as they start to drive themselves or ride as passengers with novice drivers.

One of the workshops is a one-day program, in which participants experience braking at different driving speeds, study driving techniques useful in everyday situations, hear talks from traffic accident victims and bereaved family members, and hear advice from experts on how to ensure their own safety and that of people around them. Through the partnership with TCF, every year more than 50,000 high school students take part in the program. Additionally, surveys drawing on Toyota's technologies, networks, expertise, and other corporate resources are being used to help extend the program throughout Australia and improve its continuity.

During the one-day experience program

Students checking for tire wear

Traffic Safety Education for Children

Cambodia

Traffic accidents in Cambodia are a challenging social problem. In 2014, Toyota (Cambodia) Co., Ltd. started holding traffic safety education events for 5- to 15-year-old children. The first event was held on a weekend in August at a large shopping mall, and was attended by around 50 people. Experts from Cambodian non-governmental organizations in the field of traffic safety gave lectures and showed animated films, traffic police explained the meaning of road signs, and there were game sessions to test understanding, allowing the children to acquire traffic awareness in a fun atmosphere. The second event was held in September at the same location for children of the same age group. These events were successful in raising traffic safety awareness not only among the participating children, but also members of the public visiting the shopping mall.

Children having fun as they learn about traffic safety

Driving Schools Opened in Collaboration with Dealers

India

Toyota Kirloskar Motor is collaborating with dealers to open a series of Toyota Driving Schools in India to promote compliance with traffic regulations, traffic safety, eco-driving, and other aspects of good driving practice.

In March 2015, the first school was opened at a dealership in southern India. Most traffic accidents in India are caused by poorly developed safe driving techniques. Toyota hopes to contribute to reducing traffic accidents through its initiative. The schools offer two programs designed to enable participants to drive with confidence in a safe and enjoyable manner: the Start Program helps beginners to get accustomed to driving, while the Smart Program is for experienced drivers to refine their skills. At each stage of the training, an overall evaluation and feedback are provided—a feature that distinguishes this program from those offered by other schools. Five further schools are due to open by the end of FY2015.

Simulator using a real car

Toyota driving school logo

Safe Driving Education for Airport Taxi Drivers

India

Every year in January, India holds a Road Safety Week, in which a wide variety of educational activities take place nationwide. As part of this program, Toyota Kirloskar Motor held training sessions for around 1,280 airport taxi drivers on safe and eco-friendly driving. Health checkups and eye tests were also offered. As a result, 306 drivers were found to have eyesight problems and were issued with spectacles free of charge. Four drivers were found to require electrocardiogram testing and were referred to hospitals.

Eye tests in progress

Traffic Safety Educational Activities through Hands-on Events, Social Media, and Other Channels

China

China has seen a rapid rise in car ownership. However, this has resulted in frequent congestion, traffic accidents and other issues, especially in major cities. The need has therefore arisen for an improvement in traffic safety awareness and traffic etiquette among drivers and pedestrians.

Toyota Motor (China) Investment (TMCI) has responded since 2005 by organizing hands-on traffic safety events in Beijing, Shanghai, Guangzhou, Chengdu and other major cities, which have so far attracted around 30,000 participants.

In 2014, to bring its campaign to the attention of a larger audience, TMCI began devising stories, comic strips, and animated films illustrating simple lessons in traffic safety and traffic etiquette, which it posted on newly created social networking sites and video-sharing websites. For children, the same kind of comic strips are issued in booklet form.

At one of the hands-on events

Original animated film

White Road Campaign: Nationwide Rollout of Traffic Safety Education Program for Children

Thailand

Toyota Motor Thailand (TMT) has promoted a traffic safety campaign called “White Road” (connotes “safe road” in Thai) since 1988. As part of that, it opened White Road Theme Parks in Bangkok and elsewhere. These popular parks have courses where children aged 4 to 12 can enjoy learning about traffic safety. In 2005, TMT started a traffic safety campaign featuring mascots called “Milky Way and the Gang” for elementary school students, and distributes animated films to schools nationwide. In all, 2.27 million children have benefited from these programs.

Starting in 2011, TMT, in cooperation with Toyota dealers, has conducted traffic safety campaigns at 77 locations nationwide, targeting young people, beginner drivers, and other groups, to raise traffic safety awareness. Furthermore, from 2013, TMT started a new program to instruct trainers of all the dealers in Thailand about safe driving, in cooperation with Thailand’s Department of Land Transport. The program is five days long (in theory and in practice) and the instructors include TMT TPA (Transportation Administrator) drivers and Department of Land Transport instructors.

TMT set itself a goal to pass safe driving knowledge to dealer trainers, who will then share their knowledge to their employees, customers and eventually to their communities by conducting their own safe driving. Much of the knowledge used in this course refers to TMC’s “mobilitas.”

TMT’s activities are conducted with the cooperation of Thailand’s Ministry of Education, traffic police, Ministry of Transport, Bangkok Metropolitan Administration, and the Thailand Traffic Safety Network. Its long standing initiatives have been acclaimed by the Thai government.

At White Road traffic park

At a dealer training event

Activities to Raise Children's Traffic Safety Awareness

Turkey

Traffic accidents are a major social problem in Turkey, resulting in injuries and deaths of many children.

To raise children's traffic safety awareness through early childhood education, since 2005, Toyota Motor Manufacturing Turkey (TMMT) has participated in the National Traffic Safety Week event in Sakarya Province, where TMMT is headquartered. As part of this event, TMMT holds a children's painting contest with a traffic safety theme, to help raise children's traffic safety awareness and to nurture their creativity. TMMT employees help to run the contest as volunteers.

TMMT has also held a Traffic Safety School since 2010, using animation to teach second graders about traffic rules and proper seatbelt use. The class includes a hands-on program whereby students experience nighttime visibility. So far, over 6,500 children have taken these classes.

Award ceremony for the painting contest

Children learning road signs through games

TeenDrive365: Promoting Traffic Safety Education for Teens

United States

Automobile crashes are the leading cause of death for teenagers in the United States, with the first year a teenager gets their driver's license in particular the most dangerous. Based on these facts, Toyota Motor Sales, U.S.A. is conducting TeenDrive365, a driving safety initiative that encourages teens to learn safe driving with the help of their families.

TeenDrive365 provides information, videos, and other content to spark discussion between teens and parents about safe driving, and also hosts events at dealerships and high schools. Here, participants can learn about the dangers that can occur during driving, and acquire knowledge and skills necessary to avoid accidents.

TeenDrive365 event

Toyota Safety Driving Program: Safety Driving Instructor Training Program

Vietnam

In January 2015, Toyota Motor Vietnam, Co., Ltd. (TMV) and Vietnam Traffic Police (VTP) signed a Memorandum of Understanding (MOU) to implement the Toyota Safety Driving Training Program.

The Toyota Safety Driving Training Program is the first "training for trainers" program. It selects a total of eight candidates from VTP officers and TMV employees, with the aim of cultivating a team of core instructors through one-year training. Advisors are sent from Toyota Motor Corporation to Vietnam to directly help instructor candidates improve their safe driving skills and traffic safety mindset.

The trained instructors are expected to hold driving seminars, etc. to help reduce traffic accidents in Vietnam in the future.

Training scene in Hanoi, Vietnam

Instructor candidates attending the training program

Education

Basic Philosophy regarding Education, Human Resource Development Programs

In the area of education, human resource development, Toyota provides support for the human resources that will become the leaders of tomorrow in accordance with our principle that "*Monozukuri* is about Developing People."

By respecting the culture and practices of each country and region and engaging in business activities with close community ties, we are working to create an enriching society while promoting measures that support labor and education, instill sensitivity, and convey the importance of manufacturing to achieve the sustainable development of such a society.

Project Examples

Toyota Children Meet Artists Program: Workshop-Style Classes that Enhance Sensitivity and Cultivate Dreams

Japan

Toyota hopes children, who will be the leaders of tomorrow, can discover their own individuality and accept the individuality of others so that they can contribute to building a prosperous society. Conducted in cooperation with the NPO Artist's Studio in a School (ASIAS), this educational program has been carried out throughout Japan since 2004. Dancers and contemporary artists visit schools and work with teachers to create workshop-style classes that emphasize the learning process through hands-on activities involving music and movement. In addition, these workshops are a means for educators and other adults to pick up hints for new educational activities.

So far, more than 79 workshops have been held in 14 areas around the nation, and more than 6,700 children have attended.

Copycat Dancing Workshops at an elementary school

Giant Cardboard Sumo Wrestlers

Scientific Jack-in-the-Box! Why/What Lectures: Spurring Interest in Science and Technology and Foster Dreams

Japan

Toyota has been addressing the problem of youth moving away from the sciences by holding a scientific workshop program for children annually since 1996. Interested Toyota Engineering Society* members serve as instructors of free lectures held at science and other museums and Toyota related facilities nationwide.

The lecture curricula are all original Toyota programs, including "vehicle aerodynamics" and "electric power recovery vehicles." The programs aim to elicit children's creative thinking as well as develop interest in "making things."

So far, over 380 of these lectures have been held in 45 of Japan's prefectures and some 29,200 children have participated.

Making air flows visible using a simple wind tunnel

* Toyota Engineering Society: A voluntary organization created to enhance the technical skills and talents of members, promote friendship and contribute to the development of technological fields in various business areas. There are approximately 30,000 members.

Automobile Technical Training Course for Brazilian Residents in Japan

Japan

This course was created in 1999 as a part of Toyota's social contribution programs in response to a 1998 request from Fernando Guimarães Reis, then the Brazilian Ambassador to Japan for cooperation with the education of the children of Brazilian citizens living in Japan.

A full-time, one-year automobile maintenance skills course (with maximum capacity of 20 students) conducted in Portuguese was created at the Toyota Technical College Nagoya to support employment after the students return to Brazil. The course is taught by Brazilian instructors and is tailored to local automotive conditions in Brazil. Over 16 years, approximately 310 students have completed the course. Many of the students have returned to Brazil, where they use the knowledge and skills they acquired to contribute to the development of the automobile industry in their home country.

Both teaching and practical training are conducted in Portuguese

The Brazilian ambassador to Japan encourages students

Toyota Technological Institute: Cultivating International Industrial Leaders

Japan

As a part of Toyota's social contribution activities, Toyota Technological Institute (TTI) was established in 1981 with the founding philosophy of "Always be studious and creative, striving to stay ahead of the times" as stated in the precepts of the founder Sakichi Toyoda. TTI has been training highly creative engineers proficient in practical development skills through small-group instruction (one teacher to about 10 students) and a curriculum rich in experiments and hands-on training, maintaining a 100% student employment rate.

In 2003, TTI collaborated with the University of Chicago to open the postgraduate-level Toyota Technological Institute at Chicago (TTI-C), which conducts research exchange in the field of information science and high-quality international education.

In 2011, to coincide with the 30th anniversary of its opening, the institute started planning the renewal of its campus on its existing site. Construction began in 2014 with a target completion date of 2019.

Toyota Technical Institute

Toyota Technological Institute at Chicago

Toyota Study Assistance Fund: Providing High-Achieving Students with Wide-Ranging Support

China

Toyota and the China Soong Ching Ling Foundation (CSCLF) jointly established the Toyota Study Assistance Fund in 2006 to support high-achieving Chinese students who face financial hurdles to entering universities or pursuing graduate degrees. Every year, ten students from each of the selected universities, in inland regions of China, receive four-year scholarships.

Other enrichment programs such as leadership training are also provided, students are invited to Japan to tour Toyota dealers, and other facilities, and support for student job-search activities is also offered.

The program, which began with 20 universities, was extended for an additional three years in 2014. The scope was expanded to 26 universities and an online community was created for students, graduates, CSCLF, and Toyota to create networking opportunities.

Inland regions of China are expected to undergo further economic development. The support for students who will become the leaders of tomorrow is expected to reach some 2,600 persons over the 11-year period from 2006 to 2017.

Interview training for students entering the job market

Exchange between Chinese and Japanese students during a trip to Japan

Toyota Teach: Supporting Stronger Local Communities

South Africa

In 1992, Toyota South Africa Motors and The Toyota South Africa Foundation established the Toyota Teach Primary School Project aimed at elementary schoolchildren in a former township and rural areas where educational has historically been poor. The project's main objective is to provide children with the primary-level education they should normally receive, to which end it supports teachers' understanding and teaching ability in mathematics, natural science and technology, languages, and child psychology, thereby promoting improved academic achievement among pupils. The program also places emphasis on management of school finances and healthy child development, and provides educational psychologists as advisors.

As part of the program, workshops in mathematics, natural science and technology, and languages are offered to schools and teachers who are unable to provide teaching in the full range of school subjects or in accordance with official policy. These are used in order to provide a curriculum in accordance with the educational guidelines laid down by the Department of Education and to grasp the actual situation. Additionally, to achieve all-round improvement in the functions the school is able to manage, support is provided to school governors and managers.

Moreover, in order to stay abreast of the latest trends and advances in education, the program develops curriculum structures and cultivates educational specialists. Toward a general improvement in school operation, mentors visit schools, where they recommend measures to deal with issues and check on the state of progress.

Toyota Teach has so far provided support to around 400 schools, 1,500 teachers and 210,000 elementary school children.

Mentors visit schools, where they recommend measures to deal with issues and check on the state of progress

Mentors participating in a science workshop

Toyota Family Learning Program: Contributing to the Development of U.S. Society

United States

Since 1991, Toyota Motor North America has committed over 46 million dollars to promote the Toyota Family Learning Program in partnership with the National Center for Families Learning (NCFL) across the United States. This program is now implemented in over 266 locations in 54 cities in 31 states.

Toyota Motor North America provides funding for the first three years of the program at each location. Based on this funding, cities and communities build their own local funding collaborations to sustain operation of their programs on a long-term basis.

The basic tenet of the program is to help the entire family learn together to address important societal issues, such as safety, environmental protection, finance, current education systems, traffic, and health.

Toyota Family Learning Program

Focus

Dream Class for the *MIRAI* (Future) in Toyota City: Teaching Children the Importance of Teamwork and Having Dreams

In May 2015, Toyota became a sponsor for the JFA Kokoro Project, implemented jointly by the Japan Football Association and Toyota City. Lessons began in 51 classes at 22 elementary schools in Toyota City.

Under the name "Dream Class for the *MIRAI* (Future) in Toyota City," athletes belonging to Toyota Motor's athletics clubs along with athletes from JFA act as "dream teachers." Athletes from each sports area visit their local elementary schools and play games with the children that involve physical activity in the gymnasium and hold classroom conversations using a Dream Curve.* Children are thus taught the power of having dreams and the importance of hard work and teamwork. Young Toyota employees are also sent to the schools to support the lessons as volunteers.

* A chart showing the difficulties dream teachers faced in pursuing their dreams, how they overcame these difficulties, and what they learned

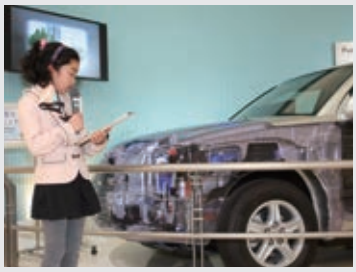
Athletes from Toyota Motor's athletics clubs expressing their aspirations as dream teachers at the press conference

Employee volunteers participating in a game requiring teamwork

Focus

Work Experience Program to Nurture Children's Dream and Goals

As part of its career education initiative, Toyota started to hold its Work Experience Program at Toyota Kaikan Museum in 2014 aiming to help elementary and junior high school students consider the meaning of work. In the first year, children experienced jobs such as guide or shopkeeper to learn how to welcome visitors. In the second year, children also experienced jobs such as quality inspector or production engineer to figure out how high quality casting and molding parts are made. Employees conveyed to the students what was important in performing their work. After completing their work, children made comments such as "I learned the significance of always being conscious about customers" and "This was a very good experience for me because I want to work for Toyota in the future." At the conclusion of the program, the children received their salary in imaginary currency and eagerly spent it shopping at the gift shop of the museum.



A student experiencing what it is like to be an exhibit guide

Society and Culture

Basic Philosophy regarding Social and Cultural Programs

Toyota set the environment, traffic safety, and human resource development as global priority areas for its social contribution activities, and in Japan society and culture has been added for maximum utilization of Toyota's expertise and resources for the implementation of programs. Support is provided primarily in two areas with the aim of creating an enriching society. With regard to the arts and culture, Toyota supports music, theater, and other programs with an emphasis on promoting local culture, supporting youth, and expanding perspectives. In the social sphere, Toyota supports mécénat programs, social welfare, and autonomous lifestyles through communication and the pursuit of mutual benefit with local communities in order to create a society where various people respect and support each other.

Project Examples

Toyota Community Concert: Contributing to Promotion of Regional Culture through Music

Japan

Toyota and its domestic sales companies, along with the Federation of Japan Amateur Orchestras Corp., support concerts by amateur orchestras in various communities all over Japan. The concerts, which include challenging performances by community orchestras as they play with professional conductors or soloists as well as concerts performed in social welfare facilities and hospitals in communities that have few opportunities to hear live music, are enjoyed by all including classical music aficionados and first time concert-goers. Since the program was launched in 1981, a total of 1,505 concerts have been held throughout Japan with some 1.21 million people attending. The Toyota Music Library, which provides free loans of orchestra sheet music, opened in 1986 and has been used by a wide range of groups from school orchestras to community orchestras.

Challenge Concert
The challenge of performing Puccini's opera "Tosca"
(November 2014, Fukuoka Prefecture)

Toyota Youth Orchestra Camp: Supporting Future Leaders of Local Culture

Japan

The Toyota Youth Orchestra Camp is a four-day music camp conducted each year since 1985 in collaboration with the Federation of Japan Amateur Orchestras to foster youth through music. Leading professional musicians are invited to serve as instructors, and participating youth who gather from around Japan are taught performance skills under the motto "operations through our own efforts." A feature of the camp is that the participants bring the experiences they gain back to their home communities and make use of them in their local orchestra activities. The camp is organized in two-year units, and at the end of the second year, the participants give performances to show the results. In March 2015, under the direction of Masahiko Enkoji (Resident Conductor, Nagoya Philharmonic Orchestra), the orchestra's first camp in Okinawa Prefecture was held, and the pre-concert on the third day was attended by many local residents.

The cumulative number of camp participants has now reached over 5,500. In recognition of its contribution to nurturing human resources as leaders of local music culture, the program received the Award Granted by the Commissioner for Cultural Affairs as part of the 2014 Japan Mécénat Awards organized by the Association for Corporate Support of the Arts.

Full orchestra rehearsal
(Tedako Hall, Urasoe City, Okinawa Prefecture)

Toyota Master Players, Wien: Providing Quality Time to Enjoy World-class Music

Japan

These concerts feature some 30 members of the world famous Vienna Philharmonic Orchestra and Vienna State Opera with the aim to provide fans to enjoy first-rate music at affordable prices, and to help nurture a rich spirit through music. The concerts began in 2000, and have played about 89 concerts so far. More than 150,000 people have attended them.

To further the appeal of the concerts, especially to younger people, several new programs were started in 2007. They include Welcome Seat (free invitations), open rehearsals, Fureai Concerts (concerts held at elementary schools) and more.

Scene from the concert
©Ayumi Kakamu

Scene from a Fureai Concert
©Ayumi Kakamu

Toyota Lobby Concert: Concert at the Tokyo Head Office Building—Good Music for Our Neighbors

Japan

Toyota holds concerts in the lobby of the Tokyo Head Office building so neighbors and people at nearby social service facilities can hear high-quality music. Since 1995, two concerts have been held each year, with a cumulative total of 14,000 people attending 38 concerts.

With the assistance of artists who share the concert's objectives, the featured music runs the gamut from classical to popular music. The events are presented mainly by employee volunteers working closely with the community.

People who attend are asked to bring used postage stamps and PET bottle caps, which the Toyota Volunteer Center collects to help fund education for children in Laos and Thailand and provide medical supplies to emerging countries.

Toyota Lobby Concert

Toyota Choreography Award: Discovering the Next Generation of Choreographers

Japan

The Toyota Choreography Award, established in 2001 in conjunction with the Setagaya Public Theater, seeks to discover and cultivate the next generation of choreographers. The winner of the "Next-generation Choreography Award" is given the opportunity to present their work at the Setagaya Public Theatre in Tokyo and a residency program in Kanazawa (space for rehearsals and lodging while creating a new work is provided). The event has been held nine times so far, and a total of 64 groups (73 people) have been selected as finalists.

This program was honored by the Association for Corporate Support of the Arts, Japan in 2003.

In addition, Toyota has offered the gymnasium at the Head Office in Tokyo as a rehearsal room at no charge since 1999.

Mikiko Kawamura, winner of the Choreographer of the Next Generation Grand Prize and the Audience Award in 2014
©bozzo

Net TAM: An Arts Management Site

Japan

This comprehensive Arts Management information site was established in 2004 as an archive of the Toyota Art Management Seminars and as a source for a variety of information related to arts management, in collaboration with the Association for Corporate Support of the Arts, Japan. Net TAM aims to promote and heighten awareness of arts management to encourage and develop community-based arts activities all over Japan, as well as to develop human resources engaged in arts and culture. To achieve this mission, Net TAM provides a wide range of information such as job listings, commentaries, web lectures, BBS, references, and useful links, in addition to a directory of arts management programs, which have been held 53 times in 32 areas nationwide over the eight-year period from 1996 to 2004. The site is used by many people, with approximately 500,000 page views each month.

In 2013, the Arts Management concept was expanded to society, and activities that support persons involved in the arts have been commended, with this program honored by the Association for Corporate Support of the Arts, Japan in 2013.

Web http://www.nettam.jp/en/

Net TAM's logo

Providing Regular Medical Service in Impoverished Areas

Philippines

In cooperation with medical hospitals, dental associations, pharmaceutical companies and local governments, the Toyota Motor Philippines Foundation (TMPF) in 1992 began a project to provide annual medical care and dental work to local constituents of its host communities, who would otherwise have no access to healthcare. TMPF finances the project and two pharmaceutical companies provide medicines at a discount. In addition, around 250 volunteers comprising Toyota employees, researchers, doctors and nurses from medical hospitals, dentists from dental associations, and pharmaceutical staff actively take part in the project. Two diagnostic vans provided by TMPF provide vital services such as X-rays and various laboratory tests. Patients are treated for a range of illnesses, from colds to disorders requiring minor surgery. Those with serious illnesses are referred to specialized hospitals.

To date, the program has already accommodated over 100,000 constituents.

Provision of regular medical service

Toyota Production System Support Center: Improving Activities of Corporations and Other Organizations Based on Sharing TPS

United States

The Toyota Production System Support Center (TSSC) was founded in Lexington (later moved to Erlanger), Kentucky, in 1992 with "contributing to society by sharing Toyota Production System (TPS) and helping to improve North American industries, especially manufacturing," as one of its missions. Not limited to Toyota suppliers, TSSC shares TPS knowhow with North American companies and organizations that are truly interested in learning and implementing TPS. Since its foundation, TSSC has helped implement TPS at more than 260 companies and organizations. More than 3,900 people have participated in the workshop.

In April 2011, TSSC became a nonprofit corporation, and it is actively making efforts to support more public service and nonprofit organizations. In healthcare, TSSC helped reduce wait times at emergency rooms as well as inventory in stock rooms. It has also expanded its support of nonprofit organizations such as food banks. With the philosophy of TPS, TSSC aims to support more companies and organizations through development of people.

Before improvement

After improvement

Supporting Free Surgery Project

Venezuela

A project in Venezuela called "Rotaplast" provides free surgery to people suffering from cleft lip and palate anomalies. Surgeons from all over the world come to Venezuela and perform surgeries at a hospital in Cumaná, the capitol of the state of Sucre where the Toyota de Venezuela (TDV) plant is located. Although many volunteers also take part in the project, inviting surgeons from all over the world requires financial support. The project is being supported mainly by sponsors, but often runs short of funds.

Since 2010, TDV, the local dealer association, and Toyota Services de Venezuela, a financing company, have supported the program's activities through financial support and participation of employee volunteers. In 2014, 275 patients came to the hospital and a total of 156 surgeries were performed on 122 patients requiring surgery. In the future, TDV plans to strengthen its collaboration with the Toyota affiliates, the local Rotary Club, and the city government in supporting the program.

Number of employee volunteer participants

2010	10
2011	55
2012	71
2013	71
2014	88
Total	295

Smiling patient with employee volunteers

Interpreting the doctor's diagnosis to the parent

Toyota Concert Tour Vietnam: Charity Concerts by National Symphony Orchestra

Vietnam

Since 1998, Toyota Motor Vietnam (TMV) and the Toyota Vietnam Foundation have sponsored the Toyota Concert Tour Vietnam in association with the Vietnam National Symphony Orchestra every July and August, offering Vietnamese music lovers the chance to experience live classical music. Performances are held at opera houses or theaters in major cities including Hanoi and Ho Chi Minh City, popularizing classical music all over the nation and supporting the orchestra in its effort to reach world-class standards. The concerts include solo performances by renowned musicians and even give lucky audience members the chance to conduct the orchestra for part of the performance. In 2015, which marks the 20th anniversary of TMV's establishment, the number of cities where the concerts will be held is being increased from three to four in order to allow more people to enjoy the music.

All proceeds from concert ticket sales are used to fund the "Toyota Scholarship for Young Vietnamese Music Students."

Toyota Concert Tour Vietnam

Natural Disaster Relief in Japan and Overseas

Japan and Overseas

When disaster strikes in Japan or around the world, Toyota responds swiftly to support the afflicted people and areas, providing vehicles to support disaster relief efforts and making donations to relief organizations such as the Japan Red Cross, Central Community Chest of Japan and Japan Platform.

Supporting Employees' Volunteer Activities

Basic Philosophy regarding Support for Volunteerism

In accordance with its fundamental principle of contributing to economic and social development through corporate activities with close community ties, Toyota supports volunteer activities by employees undertaken on their own initiative and seeks to establish communities where people respect and support one another. We plan and implement volunteer programs that will lead to solutions to various challenges that local communities are facing with emphasis on the environment, natural disasters, and social welfare.

Project Examples

Toyota Volunteer Center: Supporting Volunteer Activities that Provide Opportunities for Employees to Address Community Issues

Japan

The Toyota Volunteer Center, established within the company in 1993, works with all plants and offices to support volunteer activities targeting employees (including their family members and retirees). Currently, the center plans and conducts activities that address various issues surrounding communities in four key fields: environment, disaster relief, social services, and sports.

The center encourages many employees who say "I am interested in volunteering, but have no chance to get involved," to participate in its original programs and other activities held by local organizations. It also issues a newsletter that provides a broad overview of employee volunteer activities.

More recently, the Toyota Volunteer Center has been actively assisting with human resource development inside Toyota, in addition to supporting volunteer activities. It incorporates volunteer experiences at elementary schools and hospitals in Toyota City into training targeting new hires and young employees.

Volunteer experience at the Toyota Memorial Hospital, targeting new hires

Great East Japan Earthquake Recovery Support Volunteer: Support of Recovery from the Great East Japan Earthquake by Employee Volunteers from Toyota Group Companies

Japan

Employees from 16 Toyota Group companies have engaged in continuous recovery support volunteer activities in the Kesen district (Ofunato City, Rikuzentakata City, and Sumita Town) of Iwate Prefecture since June 2011, three months after the Great East Japan Earthquake, with the aim of returning people of the afflicted area to their normal lives at the earliest possible time.

In 2011 and 2012, activities were coordinated by local disaster volunteer centers, and volunteers assisted in removing debris and setting up temporary housing. Since 2013, the volunteers have performed maintenance, grass mowing, and other day-to-day activities in temporary housing areas and cooperated with local governments, tourism associations, and non-profit organizations to support local festivals, workshops for children, and other events, engaging in closer contact with local residents and promoting interpersonal exchanges.

Over the course of four years, programs were conducted a total of 37 times with the participation of 647 employee volunteers. As a result of their repeated visits to the Kesen district, the participants have established strong ties with local residents. Through these activities, the Toyota Group and individual Group companies have conducted independent support programs and made donations, fostering a spirit of generosity.

Removing driftage and debris in Rikuzentakata City, Iwate Prefecture

"Table For Two" Program to Support School Lunches in Africa

Japan

In a move to support hunger relief efforts in Africa and promote healthy eating among employees at the same time, Toyota began assisting the "Table For Two" program run by the authorized NPO "Table For Two International" in June 2011. A total of 20 yen—10 yen from the employee and 10 yen from the company—is donated to provide one school lunch to a child in Africa when an employee orders a reduced-calorie lunch in one of the company cafeterias on every Wednesday.

This program provides a casual opportunity for employees to take part in a social contribution activity and helps boost their volunteer-related awareness. In FY2014, the donated amount reached approximately 2.80 million yen (sufficient for providing 140,000 school lunches). Introduction of the program into the cafeterias of all plants and offices was completed in May 2015.

Having meals at a company cafeteria to help provide school lunches to children in Africa

Volunteer Activities at "Anna House" Homeless Support Center

Korea

Employees of Toyota Motor Korea (TMKR) and Lexus dealers participate in volunteer activities at Anna House, a facility in suburban Seoul that assists the homeless population. Anna House provides free meals for 400-450 homeless people every day, and TMKR and Lexus dealer employees help cook and serve meals on a rotating basis once or twice a month. Dealers in other regions are also participating in similar volunteer activities at local facilities. Non-governmental organizations that assist the homeless praise the enthusiasm of the volunteers from Toyota and Lexus.

Employees participating in volunteer activities

Promoting Community Contribution through Volunteer Activities with "Team Toyota"

United States

Toyota's manufacturing operations in the United States have promoted volunteer activities among employees, their families and friends since the first facilities were established more than 3 decades ago. Through company-sponsored volunteer activities, employees team up with organizations that need assistance, creating a precious asset for communities.

In recent years, and as new plants have been added, many of the manufacturing affiliates have begun recognizing team members' volunteer efforts. One recognition program provides a budget from which each team member can designate Toyota funding to charitable organizations of choice, based on the number of volunteer hours performed by the team member during the year. Last fiscal year, more than 465 team members at corporate offices of Toyota Motor Engineering and Manufacturing North America (TEMA), alone, volunteered 13,000 hours through their Team Toyota Volunteer Program. TEMA team members designated more than $41,000 of Toyota funding to local charitable organizations that assist those in need.

Another recognition program, implemented at many U.S. manufacturing affiliates, acknowledges "top volunteers" annually. Team members who have had a special impact on the local community are selected as "Community Star (volunteers of the year)." Toyota honors these volunteers through donations directly to the organizations for which these team members volunteer. Each year, TEMA awards $18,000 to local agencies in Kentucky and Michigan. Executives and management support team members, events and the local communities by participating in volunteer events.

Volunteers planting vegetation

Cultural and Exhibit Facilities

Basic Philosophy regarding Cultural and Exhibit Facilities

A Toyota car was successfully completed following repeated efforts and improvements in the 1930s through the passionate desire of Kiichiro Toyoda and others to build car in Japan, and Toyota Motor Co., Ltd. was established in 1937. From its foundation to the present, the ideas of Sakichi Toyoda, which were organized by Kiichiro Toyoda as the Five Main Principles of Toyoda, have been at the core of Toyota's management. The precepts include the ideas of contributing to society through manufacturing and leading the times through research and creativity and have been maintained to the current day.

To create an enriching future for people and cars, Toyota puts considerable effort into preserving the founding spirit and concepts in the form of automotive and manufacturing culture.

Project Examples

Toyota Automobile Museum

Japan

The Toyota Automobile Museum was built in April 1989 in commemoration of Toyota Motor Corporation's 50th anniversary and has a permanent display of about 140 classic cars collected from all over the world. Its main feature is the original vehicles preserved in working condition. The museum not only holds original exhibits several times a year, but also hosts a classic car festival, workshops, Backyard Tour, and other various events.

41-100 Yokomichi, Nagakute City, Aichi Prefecture

Web http://www.toyota.co.jp/Museum/english/

Toyota Commemorative Museum of Industry and Technology

Japan

The Toyota Commemorative Museum of Industry and Technology was established in June 1994 in a building that dates back to the origins of the Toyota Group. Located on the site of the former Toyoda Spinning & Weaving Co., Ltd. main plant, the museum is a cultural center created for the purpose of broadly conveying the importance of the spirit of being studious and creative as well as *monozukuri*. The museum introduces textile machinery and the history of automotive technology as well as the history of the Toyota Group, with demonstrations using real machines and video presentations.

1-35, Noritake Shinmachi 4-chome, Nishi-ku, Nagoya City, Aichi Prefect

Web http://www.tcmit.org/english/

Toyota Kuragaike Commemorative Hall

Japan

The Toyota Kuragaike Commemorative Hall was built in September 1974 in commemoration of the manufacturing of Toyota's 10 millionth vehicle. It introduces the great dreams and passionate days of Toyota founder Kiichiro Toyoda and his colleagues with the history of the company's founding through videos, photos, vehicles and other items.

A vacation home used by Kiichiro Toyoda during his lifetime was relocated and restored on the hall grounds, reminding visitors of earlier times.

250 Ikeda-cho Minami, Toyota City, Aichi Prefecture

Web http://www.toyota.co.jp/en/about_toyota/facility/kuragaike/

Sakichi Toyoda Memorial House

Japan

Sakichi Toyoda, who was born in this area in 1867, not only explored the creation of the automatic loom, but Sakichi's visions led to the expansion of Japanese industry including the automotive business. Displays include a restoration of the home where he was born, the loom he invented and other precious items.

113-2 Yamaguchi, Kosai City, Shizuoka Prefecture

Web http://www.toyota-global.com/company/profile/facilities/sakichi_toyoda_memorial_house.html

Toyota Kaikan Museum

Japan

Established in 1977, the Toyota Kaikan Museum is located at the company's headquarters. It displays state-of-the-art environmental and safety technologies, high-quality automobile manufacturing under the Toyota Production System and new Toyota and Lexus models. A Toyota Partner Robot is also on hand to entertain visitors with a short violin performance. Plant tours are available Monday to Friday (reservation required).

1 Toyota-cho, Toyota City, Aichi Prefecture

Web http://www.toyota.co.jp/en/about_toyota/facility/toyota_kaikan/

MEGA WEB

Japan

A car-themed park where visitors can see, ride, and feel cars in the waterfront subcenter district of Tokyo.

MEGA WEB includes the Toyota City Showcase, a display area with information on Toyota's global environmental and safety programs, motorsports, and other activities, as well as Toyota vehicles from Japan and overseas. In addition, MEGA WEB features the History Garage, a display of historical vehicles from Japan, America, and Europe; the Ride Studio, an indoor driving course where even children without driver's licenses can experience the joy of driving while learning traffic rules; and Ride One, a course that allows participants to test drive various vehicles including cars sold in Japan. Other attractions include a kart course and hands-on events for receiving and distributing information on car culture.

1-3-12 Aomi, Koto-ku, Tokyo

Web http://www.megaweb.gr.jp/about/english.html

Other

The Toyota Foundation

Japan and Overseas

The Toyota Foundation was established in 1974 to support research and programs that address issues in various fields according to the specific needs of the times from a global perspective. After undergoing various changes during the 40 years since its establishment, the Foundation currently conducts a variety of support programs. Its domestic programs aim to utilize local resources to create jobs and develop new leaders in order to invigorate local communities in Japan. Its international programs focus on measures relating to aging populations, cultural diversification, and renewable energy, which are issues common to Southeast Asian and East Asian countries including Japan, assessing the current status and issues and making policy suggestions based on that assessment. The Foundation's research assistance programs support research that aims to create new value that will form the foundation of future societies.

To help build a better society, the Toyota Foundation going forward will support programs that will truly be beneficial to society and advance measures for the many issues that will arise in modern society as it undergoes rapid change.

As of the end of FY2014, the Foundation's endowment was approximately 41.9 billion yen and has provided some 7,800 grants totaling about 17.5 billion yen.

Web http://www.toyotafound.or.jp/english/index.html

All participants reading aloud the Nagoya Message at the end of the Multicultural Coexistence Forum in Nagoya

Presentation on supported domestic projects Dialogue between Mr. Takashi Uchiyama and Ms. Natsuko Hagiwara

Focus

Words of Appreciation from an Organization that Received Support more than 30 Years ago: Providing an Opportunity for the Foundation to Reflect on Its Activities

The Toyota Foundation has been supporting and providing financial assistance to research and business projects that address the needs of the times in wide-ranging fields. Shokaen Mizunoki Dormitory is one of the organizations the Foundation helped twice in the 1980s, assisting with the cost of painting supplies and the expenses associated with holding exhibits (painting shows and publishing of illustrated books). The Dormitory is located in Kyoto, serving people with intellectual disabilities. In 1964, a painting class was started at the Dormitory by Mr. Chuichi Nishigaki, a Japanese-style painter. This art education class was initially started as part of a program to provide education in aesthetic sensibility to people with serious intellectual disabilities. When appropriate teaching by Mr. Nishigaki began to show positive results, the Toyota Foundation started providing support. What was especially worthy of note was the high level of the paintings produced by the students, some of which were critically acclaimed globally and later accepted into juried art exhibits, for example. These works can now be viewed at the Mizunoki Art Museum, established in 2012 with the primary objective of showcasing artwork produced by people with intellectual disabilities in particular. Recently, Shokaen, the social welfare service corporation managing the grant recipient Mizunoki, sent the Foundation words of appreciation, also informing it about the creation of a digital archive of the painting activities that have taken place at Mizunoki over more than 50 years. To the Foundation, a grant recipient is a partner who can materialize the Foundation's founding philosophy of "contributing to the realization of a human-oriented society for the sake of greater human happiness" at the working level. Feedback we receive from grant recipients is always valuable and encouraging. Thus, we feel that these words of appreciation received from a grant recipient of more than 30 years ago have given the Toyota Foundation an opportunity to reflect on its activities as it continues working to achieve the future it wants to help create.

For further details on the Mizunoki Art Museum, please visit the following website

Web http://www.mizunoki-museum.org/greeting/

Exhibit at the Mizunoki Art Museum

Words of Appreciation from a Grant Recipient

Jiro Saitou, Director of Shokaen

Mr. Nishigaki said that, back when the painting class began, he had sensed bright prospects in the powerful lines and brilliant colors drawn by the participants with serious intellectual disabilities who were holding crayons in their hands for the first time in their lives. When he focused on simply teaching the students expressive techniques, he felt definite positive reactions from the students. Just when he was looking for ways to enhance their activities to an artistic level, he was able to receive a grant from the Toyota Foundation. After Mr. Nishigaki began giving professional-level training to the students, their works instantly received critical acclaim globally, and the works began to be installed even in museums in Switzerland specializing in l'art brut. After Mr. Nishigaki passed away, we re-considered the ideal path for the painting class and established the Mizunoki Art Museum in 2012 in order to utilize the wonderful works left behind. For our museum, the fact that we were fortunate enough to receive a grant from the Toyota Foundation back then became the foundation for what we have today, and for that I would like to express our sincere appreciation once more.

Toyota Mobility Foundation

Japan and Overseas

The Toyota Mobility Foundation was established in August 2014 to partner with non-profit organizations, research institutions, and other organizations to apply Toyota's technological, safety and environmental expertise to mobility issues around the world. This includes addressing urban transportation challenges, expanding personal mobility for all people and inspiring the next generation of mobility solutions.

TOYOTA Mobility Foundation

Toyota Mobility Foundation logo

Vision

A truly mobile society that will help people live better lives no matter where they are

Mission

To enable more people to go more places by sharing our knowledge, partnering with others, and using our innovative spirit to build a more joyful mobile society

Project name	Project description	Grant recipient	Duration	Grant amount
Project to alleviate traffic congestion in Bangkok (Thailand)	To manage and alleviate traffic issues without restrictive regulations requires a multifaceted approach that supports government efforts by creating ride-sharing and other programs	Chulalongkorn University	1 year and 9 months	Approximately 400 million yen
Project to promote multi-modal transportation means in Da Nang (Vietnam)	To diversify modes of transportation and alleviate future congestion in Da Nang, whose population and traffic are expected to increase exponentially	Da Nang City Citizens' Committee	3 years	Approximately 340 million yen

For further details on the project to eliminate traffic congestion in Bangkok, Thailand, see Environment (p. 11-19)

Web http://www.toyota-mf.org

Female Engineer Development Foundation

Japan

Toyota Motor Corporation and nine group companies established the Female Engineer Development Foundation in December 2014 with the aim of contributing to the promotion of women's participation in the automobile industry and the entire manufacturing industry in Japan. The Foundation intends to increase the number of women who want to study science and engineering and to support female students who can go on to be active in the world of manufacturing.

For further details on the Toyota Female Engineer Development Foundation, see Employees (p. 09-09)

Corporate Governance

Basic Philosophy regarding Corporate Governance

Toyota is continuously working to increase transparency in global management to achieve long-term and stable corporate value enhancement, by building favorable relationships with all stakeholders through communication and by fulfilling social responsibility.

In March 2011, Toyota announced the "Toyota Global Vision" and commenced "Visionary Management." This is based on Toyota's values that have guided Toyota since its founding, such as "The Toyoda Precepts," the "Guiding Principles at Toyota" and the "Toyota Way," which aim to exceed customer expectations by manufacturing Always Better Cars and enriching the lives of societies, and to be rewarded with a smile that ultimately leads to the stable base of business.

Organization and Structure

Execution of Duties and Supervision

Toyota's management structure towards "fulfillment of the Toyota Global Vision" is based on the structure introduced in April 2011. Toyota has reduced the Board of Directors and decision-making layers, and has endeavored to swiftly communicate the views of customers and information from operations on-ground to management and facilitate rapid management decision making.

In April 2013, Toyota made organizational changes with the aim of further increasing the speed of decision-making by clarifying responsibilities for operations and earnings, specifically by dividing the automotive business into the following four units—Lexus International, which covers the Lexus business; Toyota No. 1 and Toyota No. 2, which unify regional operations; and Unit Center, which covers engine, transmission and other "unit"-related operations—in order to realize organizational change that supports operations and earnings responsibility of each unit.

Additionally, in order to achieve sustainable growth through the continuous manufacturing of even-better cars that exceed customer expectations around the world, the TNGA Planning Division, an organization directly under Toyota's top management, was established in order to rapidly promote the implementation of the "Toyota New Global Architecture (TNGA)."

In April 2015, with the aim of enhancing operational oversight and further increasing the speed of decision-making and execution of operations, the responsibility for executive vice presidents was changed to making decisions regarding management from a medium- to long-term perspective and supervising execution of operations, with executives at senior managing officer level and below now responsible for execution of operations, such as business units, regional operations and key functions.

System regarding Members of the Board of Directors

With respect to the system regarding members of the Board of Directors, Toyota has comprehensively considered and appointed the right person for the right position to make appropriate and prompt decision-making. Toyota believes that it is important to elect individuals that comprehend and engage in the manufacturing of Always Better Cars and problem solving based on the actual situation on-site (*Genchi Genbutsu*) that Toyota emphasizes, and contribute to sustainable growth into the future. Toyota is examining a proposal to have an "Executive Appointment Meeting," which is comprised of the Chairman, President, Executive Vice President in charge of Human Resources and Outside Member of the Board of Directors, recommend appointment of Members of the Board of Directors to the Board of Directors.

At the 109th Ordinary General Shareholders' Meeting held in June 2013, three Outside Members of the Board of Directors were appointed in order to further reflect the opinions of those from outside the company in management's decision-making process. Toyota considers the appointment of Outside Members of the Board of Directors as independent officer in accordance with requirements for Outside Members of the Board of Directors set forth in the Companies Act and independence standards established by the relevant financial instruments exchanges. Toyota's Outside Members of the Board of Directors advise it in its management decision-making process based on their broad experiences and insight in their respective fields of expertise, independently from management structure.

Furthermore, Toyota appointed the first foreign executive vice president in FY2015. At senior managing officer level and below, officers from group companies and foreign officers have been appointed. Toyota has built a diverse management structure with the right person for the right position.

System regarding Audit & Supervisory Board Members

Toyota has adopted an Audit & Supervisory Board system. Six Audit & Supervisory Board Members (including three Outside Audit & Supervisory Board Members) play a role in Toyota's corporate governance efforts by undertaking audits in accordance with the audit policies and plans determined by the Audit & Supervisory Board. In appointing Audit & Supervisory Board Members, Toyota has appointed individuals who have broad experiences and insight in their respective fields of expertise and can advise management from a fair and neutral perspective, as well as audit the execution of business. Toyota is examining a proposal to have an "Executive Appointment Meeting," which is comprised of the Chairman, President, Executive Vice President in charge of Human Resources and Outside Member of the Board of Directors, recommend appointment of Audit & Supervisory Board Members to the Audit & Supervisory Board.

Toyota has appointed three Outside Audit & Supervisory Board Members. Toyota considers the appointment of Outside Audit & Supervisory Board Members in accordance with requirements for Outside Audit & Supervisory Board Members set forth in the Companies Act and independence standards established by the relevant financial instruments exchanges.

Remuneration for Members of the Board of Directors and Audit & Supervisory Board Members

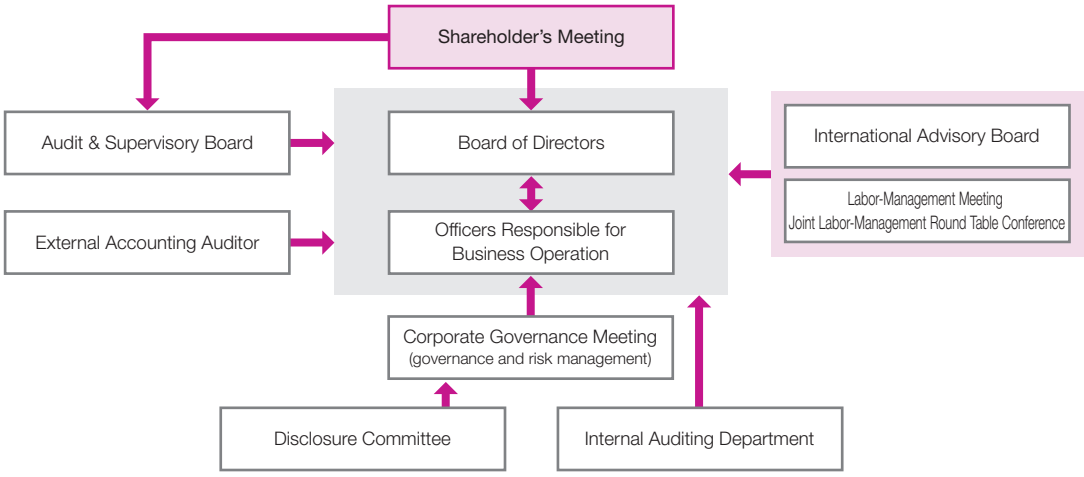
Remuneration for Members of the Board of Directors consists of fixed monthly payment and variable bonus. Toyota's remuneration structure ensures a link with company performance, reflecting job responsibilities and performance of individuals. Level of remuneration is considered based on countries of origin. Bonus is determined based on consolidated operating income of each year, comprehensively taking into account dividends, level of bonus for employees, trends of other companies, medium- to long-term business performance and amounts paid in the past. With respect to remuneration for Outside Members of the Board of Directors, bonus will not be paid in light of their role of monitoring and supervising management from an independent position. Toyota is examining a proposal to have an "Executive Compensation Meeting," which is comprised of the Chairman, President, Executive Vice President in charge of Human Resources and Outside Member of the Board of Directors, recommend to the Board of Directors remuneration for Members of the Board of Directors.

Remuneration for Audit & Supervisory Board Members consists only of fixed monthly payment and bonus is not paid. By making the compensation structure less susceptible to business performance, independence from management is ensured. Remuneration for Audit & Supervisory Board Members is determined upon consultation among Audit & Supervisory Board Members within the scope of remuneration determined by the resolution at the Ordinary General Shareholders' Meeting.

IAB

Toyota has an "International Advisory Board" consisting of advisors from each region overseas, and, as appropriate, receives advice on a wide range of management issues from a global perspective. In addition, Toyota deliberates on and monitors management and corporate activities based on views of various stakeholders through a wide variety of bodies for deliberations, including the "Labor-Management Meeting, the Joint Labor-Management Round Table Conference."

Corporate Governance Organizational Diagram



Actual Results for the Previous Fiscal Year and Major Initiatives for the Current Fiscal Year

	Major Activities in FY2014	Major Activities in FY2015
Corporate Governance	・Defined a comprehensive system that includes growth strategy, corporate governance, and risk management toward long-term and stable corporate value enhancement ・Identified tasks and proposed actions ahead of the revision of the Companies Act (May 2015) and the introduction of the Corporate Governance Code (June 2015) ・Strengthened roles of officers and those below and proposed alteration of the role of executive vice-presidents for speedier decision-making	・Strengthen structures for more effective decision-making in Executives' Meeting/policy management by senior executives and delegation of authority ・Establish management structures and strengthen information disclosure in conjunction with the revision of the Companies Act (May) and the introduction of the Corporate Governance Code (June) ・Promote to management positions of human resources from Toyota Group companies and overseas affiliates, with the right person for the right position

Basic Policy regarding the System to Secure the Appropriateness of Business

TMC, together with its subsidiaries, has created and maintained a sound corporate climate based on the "Guiding Principles at Toyota" and the "Toyota Code of Conduct." TMC integrates the principles of problem identification and continuous improvement into its business operation process and makes continuous efforts to train employees who will put these principles into practice.

Accordingly, TMC has developed its basic policy regarding the following items as stipulated in the Companies Act:

(1) System to ensure that the Members of the Board of Directors execute their responsibilities in compliance with relevant laws and regulations and the Articles of Incorporation

1) TMC will ensure that Members of the Board of Directors act in compliance with relevant laws and regulations and the Articles of Incorporation, based on the Code of Ethics and other explanatory documents that include necessary legal information, presented on occasions such as trainings for new Members of the Board of Directors.
2) TMC will make decisions regarding business operations after comprehensive discussions at the Board of Directors' meeting and other meetings of various cross-sectional decision-making bodies. Matters to be decided are properly submitted and discussed at the meetings of those decision-making bodies in accordance with the relevant rules.
3) TMC will appropriately discuss significant matters and measures relating to issues such as corporate ethics, compliance and risk management at the Corporate Governance Meeting and other meetings.

(2) System to retain and manage information relating to the execution of the duties of Members of the Board of Directors

Information relating to exercising duties by Members of the Board of Directors shall be appropriately retained and managed by each division in charge pursuant to the relevant internal rules and laws and regulations.

(3) Rules and systems related to the management of risk of loss

1) TMC will properly manage the capital fund through its budgeting system and other forms of control, conduct business operations, and manage the budget, based on the authorities and responsibilities in accordance with the "Ringi" system (effective consensus-building and approval system) and other systems. Significant matters will be properly submitted and discussed at the Board of Directors' meeting and other meetings of various bodies in accordance with the standards stipulated in the relevant rules.
2) TMC will ensure accurate financial reporting by issuing documentation on the financial flow and the control system, etc., and by properly and promptly disclosing information through the Disclosure Committee.
3) TMC will manage various risks relating to safety, quality, the environment, etc. and compliance by establishing coordinated systems with all regions, establishing rules or preparing and delivering manuals and by other means, as necessary through each relevant division.
4) As a precaution against events such as natural disasters, TMC will prepare manuals, conduct emergency drills, arrange risk diversification and insurance, etc. as needed.

(4) System to ensure that Members of the Board of Directors exercise their duties efficiently

1) TMC will manage consistent policies by specifying the policies at each level of the organization based on the medium- to long-term management policies and the Company's policies for each fiscal term.
2) The Members of the Board of Directors will promptly determine the management policies based on precise on-the-spot information and, in accordance with Toyota's advantageous "field-oriented" approach, appoint and delegate a high level of authority to officers who take responsibility for business operations in each region, function, and process. The responsible officers will proactively compose relevant business plans under their leadership and execute them in a swift and timely manner in order to carry out Toyota's management policies. The Members of the Board of Directors will supervise the execution of duties by the responsible officers.
3) TMC, from time to time, will make opportunities to listen to the opinions of various stakeholders, including external experts in each region, and reflect those opinions in TMC's management and corporate activities.

(5) System to ensure that employees conduct business in compliance with relevant laws and regulations and the Articles of Incorporation

1) TMC will clarify the responsibilities of each organization unit and maintain a basis to ensure continuous improvements in the system.
2) TMC will continuously review the legal compliance and risk management framework to ensure effectiveness. For this purpose, each organization unit shall confirm the effectiveness by conducting self-checks, among others, and report the result to the Corporate Governance Meeting and other meetings.
3) TMC will promptly obtain information regarding legal compliance and corporate ethics and respond to problems and questions related to compliance through its Compliance Hotline that TMC established outside the company, as well as through other channels.

(6) System to ensure the appropriateness of business operations of the corporation and the business group consisting of the parent company and subsidiaries

To share Toyota's management principles, TMC will expand the "Guiding Principles at Toyota" and the "Toyota Code of Conduct" to its subsidiaries, and develop and maintain a sound environment of internal controls for the business group by also promoting its management principles through exchanges of personnel. In addition, TMC will manage its subsidiaries in a comprehensive manner appropriate to their positioning by clarifying the roles of the division responsible for the subsidiaries' financing and management and the roles of the division responsible for the subsidiaries' business activities. Those divisions will confirm the appropriateness and legality of the operations of the subsidiaries by exchanging information with those subsidiaries, periodically and as needed.

1 System concerning a report to the corporation on matters relating to the execution of the duties of Members of the Board of Directors, etc. of subsidiaries

TMC will require prior consent of TMC or a report to TMC on important managerial matters of subsidiaries based on the internal rules agreed between TMC and its subsidiaries. The important managerial matters of subsidiaries will be discussed at TMC's Board of Directors' meeting and other meetings in accordance with the standards stipulated in the relevant rules relating to submission of matters to such meetings.

2 Rules and systems related to the management of risk of loss at subsidiaries

TMC will require its subsidiaries to establish a system to implement initiatives related to the management of risk, such as finance, safety, quality, environment, and natural disasters, and require them to immediately report to TMC on significant risks. TMC will discuss significant matters and measures at the Corporate Governance Meeting and other meetings in accordance with the standards stipulated in the relevant rules relating to submission of matters to such meetings.

3 System to ensure that Members of the Board of Directors, etc. of subsidiaries exercise their duties efficiently

TMC will require Members of the Board of Directors of its subsidiaries to promptly determine the management policies based on precise on-the-ground information, determine responsibilities, implement appropriate delegation of authority based on the responsibilities, and efficiently conduct business.

4 System to ensure that the Members of Board of Directors, etc. and employees of subsidiaries conduct business in compliance with relevant laws and regulations and the Articles of Incorporation

TMC will require its subsidiaries to establish a system concerning compliance. TMC will periodically confirm its status and report the result to TMC's Corporate Governance Meeting and other meetings. TMC will promptly obtain information regarding legal compliance and corporate ethics of its subsidiaries and respond to problems and questions related to compliance of its subsidiaries through the whistleblower offices established by its subsidiaries and through the whistleblower office that TMC has established outside the company and cover its subsidiaries in Japan and other channels.

(7) System concerning employees who assist the Audit & Supervisory Board Members when required; system concerning independence of the said employees from Members of Board of Directors; and system to ensure the effectiveness of instructions from the Audit & Supervisory Board Members to the said employees

TMC has established the Audit & Supervisory Board Office and has assigned a number of full-time staff to support this function. The said employees must follow the directions and orders from the Audit & Supervisory Board Members, and any changes in its personnel will require prior consent of the Audit & Supervisory Board or a full-time Audit & Supervisory Board Member selected by the Audit & Supervisory Board.

(8) System concerning a report to Audit & Supervisory Board Members and system to ensure that a person who has made the said report does not receive unfair treatment due to the making of said report

1) Members of the Board of Directors, from time to time, will properly report to the Audit & Supervisory Board Members Many major business operations through the divisions in charge. If any fact that may cause significant damage to TMC and its subsidiaries is discovered, they will report the matter to the Audit & Supervisory Board Members immediately.
2) Members of the Board of Directors, Senior Managing Officers, Managing Officers, and employees will report on the business upon requests by the Audit & Supervisory Board Members periodically and as needed, and Members of the Board of Directors, etc. of subsidiaries will report as necessary. In addition, Members of the Board of Directors, Senior Managing Officers, Managing Officers, and employees will report to Audit & Supervisory Board Members on the significant matters that have been reported to the whistleblower offices established by TMC or its subsidiaries.
3) TMC will maintain internal rules stipulating that a person who has made a report to the Audit & Supervisory Board Members will not receive unfair treatment due to the making of said report.

(9) Policies on prepaid expenses for the execution of the duties of the Audit & Supervisory Board Members, on expenses for procedures for repayment and the execution of other relevant duties, or on debt processing

Regarding the expenses necessary for the Audit & Supervisory Board Members to execute their duties, TMC will take appropriate budgetary steps to secure the amount that the Audit & Supervisory Board Members deem necessary. TMC will also pay for expenses that become necessary as a result of circumstances that were not expected at the time of the taking of budgetary steps.

(10) Other systems to ensure that the Audit & Supervisory Board Members conducted audits effectively

TMC will ensure that the Audit & Supervisory Board Members attend major Executives' Meetings, inspect important Company documents, and make opportunities to exchange information between the Audit & Supervisory Board Members and Accounting Auditor periodically and as needed, as well as appoint external experts.

For further information on the 2015 Corporte Governance Report, please visit the webpage

Web http://www.toyota-global.com/investors/ir_library/cg/pdf/corporate_governance_reports_e.pdf

Compliance

Basic Philosophy regarding Compliance

The Guiding Principles at Toyota states that Toyota will "honor the language and spirit of the law of every nation and undertake open and fair corporate activities to be a good citizen of the world." It is through this process that Toyota seeks to fulfill the responsibilities expected of it, which leads to compliance. In accordance with its Basic Approach to Internal Controls, Toyota is promoting initiatives centered on the construction of frameworks such as those for adopting and implementing the Code of Conduct and human resource development through education and other means. Toyota has also established consultation hotlines to ensure that no issue is overlooked and detailed responses can be made.

Toyota Code of Conduct

The Toyota Code of Conduct (adopted in 1998 and revised in March 2006) organizes fundamental concepts and sets forth concrete guidelines for all Toyota personnel so that we can put the Guiding Principles at Toyota into practice and carry out our social responsibilities.

A booklet containing a copy of the Toyota Code of Conduct is distributed to all employees to put into practice at work and in society.

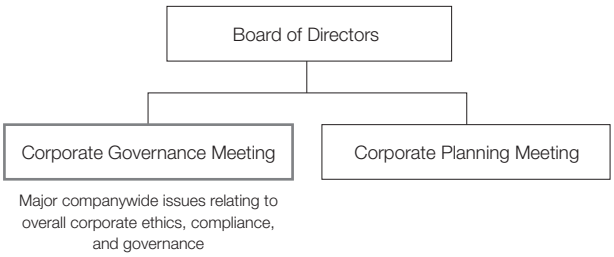
For further information on the Toyota Code of Conduct, please visit the following webpage

Web http://www.toyota-global.com/company/vision_philosophy/toyota_code_of_conduct.html

Organization and Structure

Since April 2015, the promotion of compliance has been discussed at the Corporate Governance Meeting which has been set up in conjunction with organizational changes that are intended to incorporate CSR into management and raise corporate value throughout management overall. The Corporate Governance Meeting is a body that deliberates on governance with the aim of carrying out growth strategies that incorporate the value that Toyota provides with regard to a variety of social issues.

Organizational Diagram



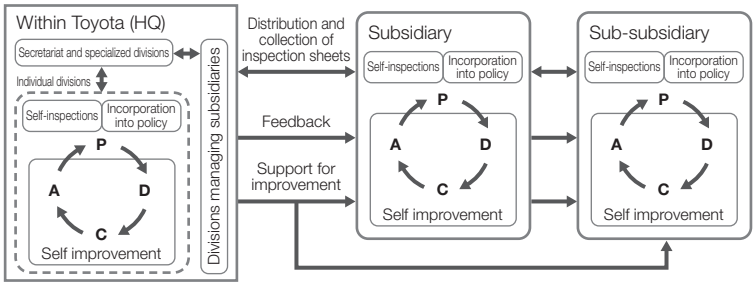
Checking Activities to Enhance Compliance

In FY2008, Toyota started checking activities to enhance its compliance structure. In FY2009, Toyota also started the checking of subsidiaries in addition to internal checking. These activities are being implemented annually with improvements. The results of the activities were reported to the Corporate Governance Meeting, and Toyota continues to push ahead with improvements based on the results.

By incorporating areas that need improvement into action plans for each fiscal year, we are able to undertake continuous measures without interruption.

We also make visits to subsidiaries and take action to determine actual conditions and provide suitable support.

Activity Diagram



Education and Training to Ensure Thorough Compliance

To ensure that awareness of compliance issues extends throughout the company, Toyota conducts education and training programs for directors, newly-appointed departmental general managers and newly-recruited employees in addition to company-wide e-learning programs.

In addition to standard legal areas including labor law, antimonopoly law, and subcontracting law, we conduct business compliance seminars on copyrights, confidentiality controls, product liability, and other topics. Approximately 1,800 persons attended these seminars in FY2014. Toyota also conducts on-demand seminars at individual divisions on a wide range of topics based on the specific needs of each division.

Main Past Educational Themes

- Contracts
- Act against Unjustifiable Premiums and Misleading Representations
- Intellectual Property (trademarks)
- Confidentiality Control
- Labor
- Antimonopoly Law
- Insider Trading Regulations
- Product Liability Act
- Anti-bribery
- Export Operations Management
- Subcontracting Law
- Copyright
- Act on the Protection of Personal Information
- Taxation
- Safety and Health, Etc.

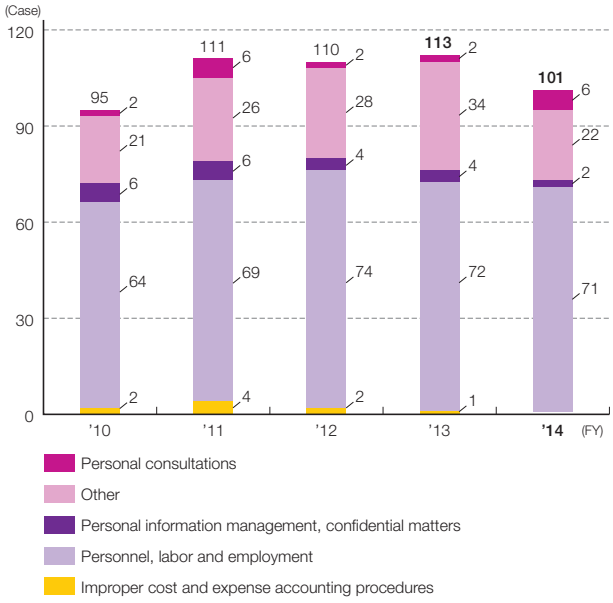
Corruption Prevention Measures

In response to the global expansion of its business and rising societal demands, Toyota adopted the Anti-Bribery Guidelines in 2012 to completely eliminate corruption. Toyota is strengthening its preventive measures and working to prevent corruption by raising awareness and spreading the anti-corruption message through internal training and education and informing business partners of its anti-corruption stance. Furthermore, Toyota has been incorporating anti-bribery into its checking activities since 2013, and has been promoting improvement activities towards reinforcing its anti-bribery systems at Toyota as well as its subsidiaries.

The Compliance Hotline

Toyota has established a number of hotlines for swift and appropriate resolution of issues related to compliance, gender harassment, working conditions, and mental and physical health. The Compliance Hotline allows employees to have consultations concerning these compliance-related issues and has been set up at an outside law firm (subcontractor). Upon request, the content of consultations is conveyed anonymously to a secretariat within Toyota and the details are investigated with scrupulous care to ensure that the identity of the employee having the consultation is not revealed. If the results of the investigation indicate a compliance-related issue, a response is immediately implemented.

Content and No. of Consultations with the Compliance Hotline



Risk Management

Basic Philosophy regarding Risk Management

In response to the series of recall issues in 2010, Toyota has been reinforcing its risk management systems. A Risk Management Meeting (now renamed Corporate Governance Meeting) was established in June 2010 and risk managers were appointed as part of global measures to take preventive action across the range of risk occurring in business activities.

Organization and Structure

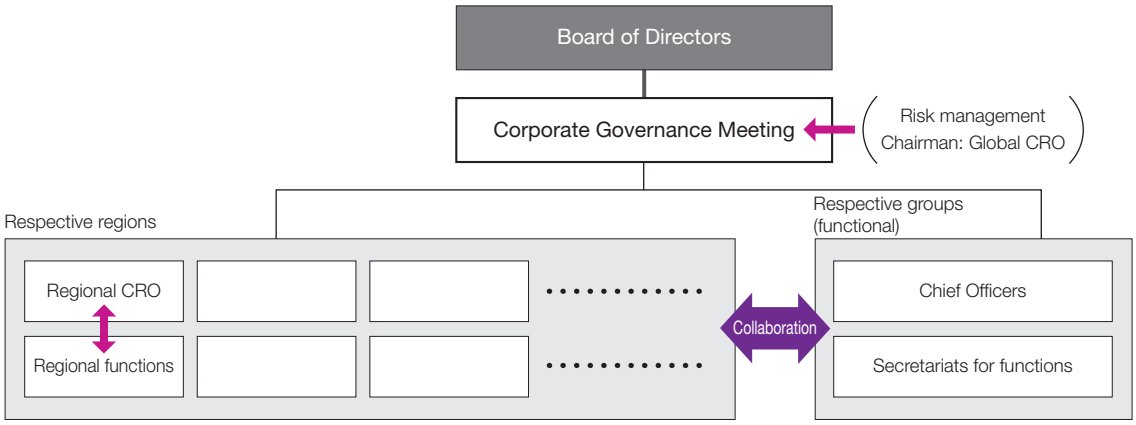
Appointment of Risk Management Personnel

Toyota appointed a Global Chief Risk Management Officer (CRO) to head global risk management and established a structure under the Global CRO to monitor risks on a daily basis. This makes it possible to respond immediately in the event of an emergency. Regional CROs are appointed under the Global CRO to oversee individual regions, and each region has its own risk management structure. The chief officer and secretariats of each functional division are assigned to be responsible for managing risks relating their specific functions and cooperate with regional risk managers.

Promotion by Corporate Governance Meeting

Since April 2015, the promotion of risk management has been discussed at the Corporate Governance Meeting which has been set up in conjunction with organizational changes that are intended to incorporate CSR into management and raise corporate value throughout management overall. The Corporate Governance Meeting is a body that deliberates on governance with the aim of carrying out growth strategies that incorporate the value that Toyota provides with regard to a variety of social issues.

Two of the five yearly meetings of the Corporate Governance Meeting are attended by the CRO of each region and all Senior Managing Officers and Chief Officers. This enables the meeting to comprehensively identify risks to business activities and initiate preventive action. At the meeting, improvements and reinforcements to the risk management system of each region are confirmed and serious risks are reported along with all current risk items. Reports are also made on the status of initiatives against imminent serious risks and other risks with global implications.



Initiatives for Information Security

Basic Philosophy regarding Information Security

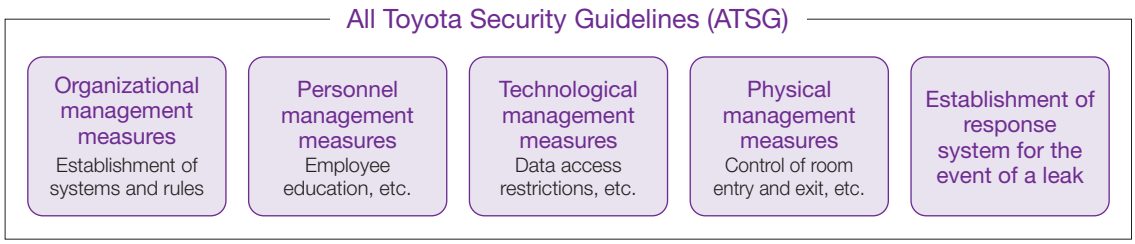
With advancement and diversification of information and communications technology in recent times, the growing risk of information leaks due to cyber attacks and other threats has made corporate information security an increasingly important concern. Consequently, Toyota is taking a range of measures against information leaks based on a risk management approach of minimizing risk or excluding it in advance.

Organization and Structure

Implementation of Information Security at Toyota and its Subsidiaries and Affiliates

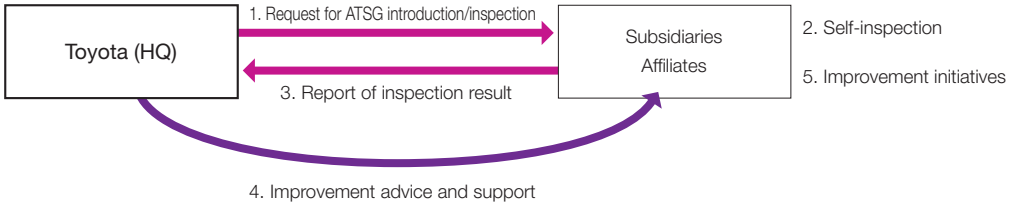
Toyota has established the All Toyota Security Guidelines (ATSG), a set of precautions on information security covering Toyota and its subsidiaries and affiliates that seeks to prevent information leaks and unauthorized access from outside, such as cyber attacks.

The ATSG establishes measures in organizational, personnel, technological, and physical management and also stipulates a response system for the event of an information leak occurring. We work to ensure information security from multiple approaches.



Under the ATSG, an annual inspection of the status of information security initiatives at each company is conducted to maintain and continuously improve information security.

Structure for ATSG Implementation at Subsidiaries and Affiliates



Employee Education

The Toyota Code of Conduct determines regulations for the utilization and management of assets and confidential materials, and it is disseminated to all employees.

In accordance with the Toyota Code of Conduct, continuous education (new recruit education, compliance lectures, e-learning, etc.) is provided to ensure compliance with information security-related legislation such as the Act on the Protection of Personal Information and internal regulations. In this way, we work to improve employee awareness of information security.

Business Continuity Management at Toyota

Basic Philosophy and Background regarding Business Continuity Management

Although Toyota was not directly affected by recent large-scale disasters such as the Great East Japan Earthquake and the Thailand floods, our production operations were brought to a halt which caused inconvenience to customers in sales and services. The Toyota Group Companies' main functions are concentrated in areas likely to be affected in the event of a Nankai Trough earthquake, and the risk to our operations from such an event is therefore rising. Damage to Toyota's or other Group companies' facilities would be likely to severely impact production and other activities. We are preparing for an emergency situation by formulating a business continuity plan (BCP), that aims at early recovery with limited resources.

As it aims to enrich the lives of communities, Toyota works on recovery after disaster along with the following Basic Guidelines:

Toyota's Basic Guidelines
Priorities following a disaster

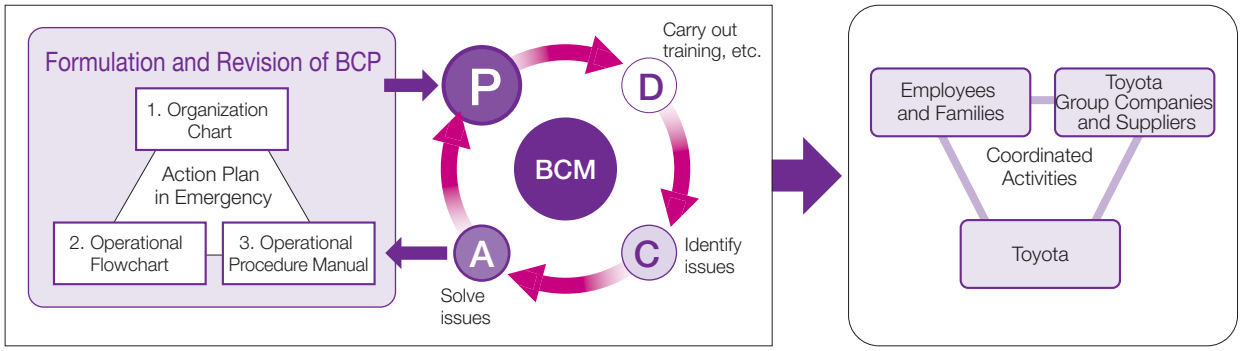
Humanitarian Aid and Early Recovery of Disaster-affected Areas (Communities)

To improve the feasibility of the Basic Guidelines, which give priority to regional recovery following a disaster, and to help build disaster-resilient communities, Toyota has concluded disaster support agreements with local governments (October 2013: Toyota City; February 2014: Miyoshi City; March 2015: Tahara City; August 2015: Susono City).

Details of Aid: (1) Rescue and relief in the wake of the disaster, (2) Provision of temporary evacuation facilities to accommodate local people affected by the disaster, (3) Provision of food, drinking water, and daily necessities for distribution through local governments, (4) Cargo handling assistance at municipal relief supply facilities, (5) Provision of land necessary for restoration of local infrastructure (water supply and drainage, roads, etc.), (6) Employee participation in local recovery activities. The humanitarian support and regional recovery assistance are to be provided in collaboration with local government. Toyota is establishing relevant implementation structures by incorporating the necessary provisions in its business continuity plan (BCP) and preparing for emergencies.

Business Continuity Management (BCM) at Toyota

BCM activities are delivered through coordination between employees and their families, the Toyota Group companies and their suppliers, and Toyota. Additionally, each division and function at Toyota has formulated a recovery-oriented BCP (organization chart, operational flowchart, and operational procedure manual). Using this in training and exercises, the PDCA cycle is implemented and continuous improvement is undertaken to constantly raise the practical effectiveness of the plan. Through this process of formulation and review of the BCP, we aim to develop human resources with the ability to respond to an incident and to build, as a routine task, a system of risk-resilient organizational structures, workplaces, and individuals.



Focus

Building a Disaster-resilient Supply Chain Together with Suppliers

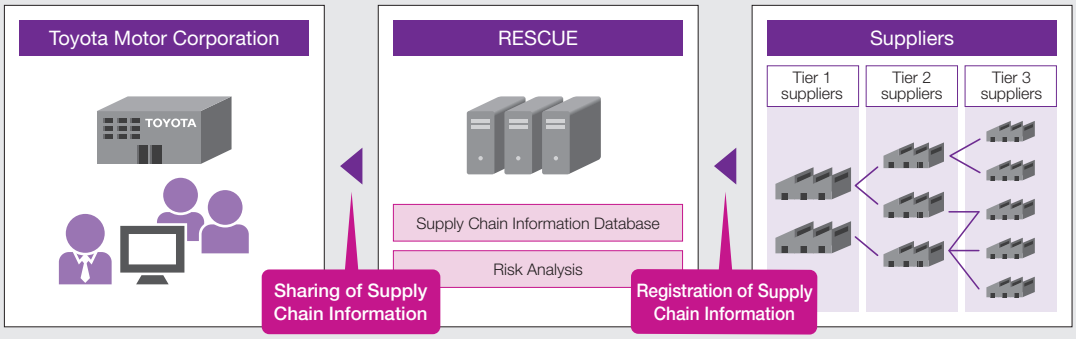
Toyota has provided recovery support in accordance with the following priorities: (1) Humanitarian aid; (2) Recovery of the disaster-affected area; (3) Restoration of Toyota's operations and production. Since the Great East Japan Earthquake, with the aim of prompt initial action and early recovery, we have united with suppliers in each country and region to build a disaster-resilient supply chain by sharing supply chain information and setting up measures of preparedness.

In sharing supply chain information in Japan, we receive highly confidential information from suppliers to build up a database known as the RESCUE* system based on the concept of protecting Japanese *monozukuri* (manufacturing). Under strict compliance with its duty of confidentiality, Toyota conducts regular training with suppliers that could be usefully applied in the event of a disaster. Moreover, this system has been standardized and shared with other companies along with case studies of its application through the Japan Automobile Manufacturers Association, helping thus to lay the foundations of a disaster-resilient supply chain.

Toyota is implementing equivalent initiatives with suppliers in each country and region overseas.

* REinforce Supply Chain Under Emergency

RESCUE system storing supply chain information



CSR Achievement Data

CSR activity results for the past three years are listed in the table below.

Data List (fiscal year-end)

: KPI Strategic Focus

Area	Items			Unit	FY2012	FY2013	FY2014
Always Better Cars	Overall	Vehicle sales (consolidated)[1]		Thousand vehicles	8,871	9,116	8,930
			Those sold in Japan		2,279	2,365	2,154
		R&D expenses		Billion yen	807.4	910.5	1,004.5
		No. of Welcabs sold (Japan)		Vehicles	17,922	16,452	16,810
		Market share of Welcab (Japan)		%	71.0	67.0	66.9
		No. of Welcab models (Japan)		Models	29	28	28
	Quality	J.D. Power (US) Initial Quality Study (IQS) ranking No. 1		Segments	5	2	1
		Good Design Award (Japan)		—	Porte/Spade (Best 100), Aqua	i-Road (Gold Prize, Best 100)	Harrier, Voxy/Noah
		No. of calls to customer call centers (Japan)		Thousand calls	420	362	306
		Call response rate at customer call centers (Japan)		%	94.4	93.9	92.4
	Safety	No. of models with NCAP 5-star safety rating[2]	Japan (collision)	Models	2	3	5
			Japan (prevention: ASV+)		—	—	7
			U.S.A.		5	12	14
			Europe		7	10	11
			China		8	9	10
		U.S. IIHS Top Safety Pick models[3]	TSP		—	2	4
			TSP+		—	—	8
		No. of vehicles with units capable of providing and gathering traffic information (Japan)	No. of shipped vehicles fitted with VICS (cumulative)	Thousand vehicles	10,300	11,300	13,200
			No. of vehicles registered as G-BOOK users (cumulative)		3,280	3,820	4,200
	Environment (products)	Annual sales of hybrid vehicles (worldwide)[4]		Thousand vehicles	1,219	1,279	1,266
		Cumulative sales of hybrid vehicles (worldwide)[4]			4,794	6,073	7,339
		Cumulative CO_2 emissions reduction effect of hybrid vehicles (worldwide)		Million tons	34 (as of Mar. 31, 2013)	41 (as of Dec. 31, 2013)	54 (as of Mar. 31, 2015)
Enriching lives of communities	Environment: Contribution to a low-carbon society	Passenger car average fuel consumption (Japan, U.S.A., Europe)		Index with 1997=1 base value	1.43	1.42	1.45
		Global CO_2 emissions (from energy sources)[5]		Million tons	7.59	7.84	7.79
		CO_2 emissions per unit produced[5]		Tons/vehicle	0.77	0.76	0.75
		CO_2 emissions from TMC logistics operations in Japan (unconsolidated)		Million tons	0.302	0.295	0.278
	Environment: Contribution to a recycling-based society	Total waste volume at TMC (unconsolidated)		Thousand tons	33.9	35.9	35.9
		Waste volume per unit produced at TMC (unconsolidated)		kg/vehicle	12.1	12.4	12.5
		Water consumption at vehicle assembly plants[5]		Million m^3	29.2	31.2	31.0
		Water consumption at vehicle assembly plants per unit produced[5]		m^3/vehicle	3.2	3.1	3.0
		Recycling/recovery rate (unconsolidated)	ASR	%	94	96	97
			Airbag		94	94	94
		Vehicle recycling/recovery rate (unconsolidated)		%	99	99	99
	Environment: Environmental protection and contribution to a harmony with nature society	Total production that qualifies as U-LEVs based on 2005 Exhaust Emissions Standards (Japan)		%	2.3	2.4	2.4
		Total production that qualifies as SU-LEVs based on 2005 Exhaust Emissions Standards (Japan)			97.4	97.2	97.4
		VOC emissions from TMC vehicle body painting processes (average for all lines) (unconsolidated)		g/m^2	20.0	19.0	18.0
	Environment: Environmental management	No. of violations of environmental laws and regulations (unconsolidated)		No. of violations	0	1	0
	Dealers/ distributors and suppliers	No. of parts suppliers (worldwide total)		Companies	2,686	2,949	3,148
		No. of parts suppliers (overseas total)			2,242	2,505	2,682
		No. of non-Japanese parts suppliers			1,157	1,296	1,321
		No. of dealers (total outside Japan)		Dealerships	8,725	8,948	9,395
		No. of countries/regions sold to		—	176	176	178
	Social contribution activities	Total expenses for social contribution activities[5]		Billion yen	13.7	22.3	21.6
		No. of Toyota Community Concert participants (Japan)		No. of visitors	35,600	38,100	37,400
		No. of Why/What Lecture participants (Japan)			1,119	1,084	1,138
		No. of visitors to the Forest of Toyota (Japan)			12,101	12,807	13,035
		The number of distribution of traffic safety educational materials (picture books)		Million parts	2.44	2.54	2.55
		Toyota Environmental Activities Grant Programs		No. of programs (cumulative)	233	257	278
Stable base of business	Employees	No. of foreign executives at TMC (unconsolidated)		Persons	7	7	7
		Local employees comprising management at overseas affiliates		%	60.1	64.7	62.9
		Non-Japanese CEOs/COOs in major overseas subsidiaries		%	46	46	58
		Female managers (unconsolidated)	Assistant manager or higher	%	2.6	2.6	3.3
			Project manager or higher		0.9	1.1	1.2
		Employment ratio of people with disabilities (including TMC and one special-purpose subsidiaries)[7]		%	2.08	2.12	2.14
		Employment of people with disabilities (including TMC and one special-purpose subsidiaries)[7]		Persons	1,081	1,107	1,116
		No. of employees using the childcare and nursing care leave program (unconsolidated)		Persons	486	446	489
			Male		19	22	20
			Female		467	424	469

Area	Items				Unit	FY2012	FY2013	FY2014
Stable base of business	Employees	No. of employees using the flexible working hours system (unconsolidated)			Persons	837	994	1,132
			Male			20	17	17
			Female			817	977	1,115
	Employees (unconsolidated)	Frequency rate of lost workday cases			—	0.07	0.06	0.06
		Excessive BMI rate			%	26.7	26.7	27.7
		Smoking rate			%	30.9	29.7	29.1
		Full-time employees			Persons	68,617	68,223	67,905
			Male			61,185	60,831	60,474
			Female			7,432	7,392	7,431
		Average age			Years	38.4	38.7	39.2
			Male			39.2	39.4	39.6
			Female			32.1	32.8	33.5
		Average years of service			Years	17.3	17.6	17.8
			Male			18.1	18.3	18.5
			Female			11.1	11.8	12.5
		Newly hired employees			Persons	1,141	1,193	1,489
			Male			1,018	1,071	1,289
			Female			123	122	200
			Administrative			81	89	127
				Male		60	65	63
				Female		21	24	64
			Engineering			511	530	540
				Male		476	498	485
				Female		35	32	55
			Shop floor			549	574	822
				Male		482	508	741
				Female		67	66	81
		Re-employed retirees				679	817	884
		Employees who feel their own growth (Japan)			%	74.8	76.5	77.2
		Employees who feel their own growth (overseas)				72.0	—	74.0
		Employees who are satisfied with company life (Japan) Administrative and engineering				73.9	—	77.2
		Employees who are satisfied with company life (Japan) Shop floor				64.4 (FY2011)	69.2	—
		Employees who are satisfied with company life (overseas) Administrative and engineering				74.0	—	76.0
		Employees who are satisfied with company life (overseas) Shop floor				72.0	—	72.0
	Financial information (Consolidated)	Net revenues			Billion yen	22,064.1	25,691.9	27,234.5
			Japan			12,821.0	14,297.4	14,403.8
			North America			6,284.4	8,117.0	9,677.5
			Europe			2,083.1	2,724.9	2,848.2
			Asia			4,385.4	4,877.6	4,981.2
			Other			2,094.2	2,336.6	2,449.2
		Operating income (Operating income ratio: %)			Billion yen	1,320.8 (6.0)	2,292.1 (8.9)	2,750.5 (10.1)
			Japan			576.3	1,510.1	1,571.4
			North America			221.9	326.0	584.5
			Europe			8.6	58.2	81.1
			Asia			376.0	395.7	421.7
			Other			133.7	42.5	111.5
		Net income			Billion yen	962.1	1,823.1	2,173.3
		Shareholders' equity				12,148.0	14,469.1	16,788.1
		Total assets				35,483.3	41,437.4	47,729.8
		Net assets				12,772.8	15,219.0	17,647.3
		ROE			%	8.5	13.7	13.9
		Dividend per share			Yen	90	165	200
		Capital expenditures			Billion yen	852.7	1,000.7	1,177.4
		Vehicle production			Thousand vehicles	8,698	9,032	8,929
	Global Expansion	No. of plants and manufacturing companies		Japan	Plants and manufacturing companies	16	16	16
				North America		11	11	11
				Europe		8	9	10
				Asia		24	23	24
				Other		9	9	9
		No. of distributors[6]		North America	Distributors	5	5	5
				Europe		31	30	29
				Asia		16	16	16
				Other		116	117	117
	Governance (unconsolidated)	Outside Directors			Persons	3	3	3
		No. of consultations made to the Compliance Hotline			Consultations	110	113	101
	CSR evaluation	FTSE4Good Index (listed)				○	○	○

[1] Including Daihatsu and Hino
[2] Assessment methods for NCAP (Japan) changed in 2014
[3] Assessment methods for US IIHS Top Safety Pick changed in 2013
[4] No. of hybrid vehicles sold is number of vehicles sold each year, not each fiscal year
[5] Toyota and consolidated subsidiaries in Japan and overseas (consolidated base differs by item)
[6] No. of dealers, countries/regions sold to, and distributors are as of November 2015
[7] No. of people with disabilities employed and their employment ratio are as of June each year

ISO 26000 Comparison

Initiatives described in the report are defined as below according to ISO 26000's seven core subjects and issues.

Core Subjects in ISO 26000	Issues	Toyota's Efforts	Page
Organizational Governance	1. Organizational Governance	Society	
		CSR Policy/Organization and Structure	02-01 – 02-02
		Toyota Global Vision	02-03
		CSR Management Based on the Toyota Visionary Management Indices	02-04
		Corporate Governance	13-01 – 13-04
		Compliance	14-01 – 14-02
		Risk Management	15-01 – 15-04
Human Rights	2. Due diligence 3. Human rights risk situations 4. Avoidance of complicity 5. Resolving grievances 6. Discrimination and vulnerable groups 7. Civil and political rights 8. Economic, social and cultural rights 9. Fundamental principles and rights at work	Society	
		Respect for Human Rights	07-01 – 07-05
		Collaboration with Business Partners	08-01 – 08-10
		Employees	09-01 – 09-14
		Compliance	14-01 – 14-02
Labor Practices	10.Employment and employment relationships 11.Conditions of work and social protection 12.Social dialogue 13.Health and safety at work 14.Human development and training in the workplace	Society	
		Special Feature 03 Stable Base of Business	03-12 – 03-17
		Employees	09-01 – 09-14
The Environment	15.Prevention of pollution 16.Sustainable resource use 17.Climate change mitigation and adaptation 18.Protection of the environment, biodiversity and restoration of natural habitats	Environment	
		Contribution to a Low Carbon Society	11-10 – 11-21
		Contribution to a Recycling-based Society	11-22 – 11-28
		Environmental Protection and Contribution to a Harmony with Nature Society	11-29 – 11-36
Fair Operating Practices	19.Anti-corruption 20.Responsible political involvement 21.Fair competition 22.Promoting social responsibility in the value chain 23.Respect for property rights	Society	
		Collaboration with Business Partners	08-01 – 08-10
		Compliance	14-01 – 14-02
Consumer Issues	24.Fair marketing, factual and unbiased information and fair contractual practices 25.Protecting consumers' health and safety 26.Sustainable consumption 27.Consumer service, support, and complaint and dispute resolution 28.Consumer data protection and privacy 29.Access to essential services 30.Education and awareness	Society	
		Special Feature 01—Always Better Cars	03-01 – 03-05
		Special Feature 02—Enriching Lives of Communities	03-06 – 03-11
		Initiatives for Improving Traffic Safety	04-01 – 04-07
		Customer First and Quality First Measures	05-01 – 05-05
		Collaboration with Business Partners	08-01 – 08-10
		Compliance	14-01 – 14-02
		Environment	
		Contribution to a Low Carbon Society	11-10 – 11-21
		Contribution to a Recycling-based Society	11-22 – 11-28
		Social Contribution Activities	
		Environment	12-04 – 12-09
		Traffic Safety	12-10 – 12-15
		Education	12-16 – 12-19
		Society and Culture	12-20 – 12-23
Community Involvement and Development	31.Community involvement 32.Education and culture 33.Employment creation and skills development 34.Technology development and access 35.Wealth and income creation 36.Health 37.Social investment	Society	
		Special Feature 02—Enriching Lives of Communities	03-06 – 03-11
		Initiatives for Improving Traffic Safety	
		Creating the Future Society	04-01 – 04-07 06-01 – 06-09
		Social Contribution Activities	
		Environment	12-04 – 12-09
		Traffic Safety	12-10 – 12-15
		Education	12-16 – 12-19
		Society and Culture	12-20 – 12-23
		Volunteer activities	12-24 – 12-26

CSR Policy Comparison with ISO 26000 Issues

CSR Policy: Contribution towards Sustainable Development	ISO 26000 Ref. No.
Preamble	
We, TOYOTA MOTOR CORPORATION and our subsidiaries, take initiative to contribute to harmonious and sustainable development of society and the earth through all business activities that we carry out in each country and region, based on our Guiding Principles. We comply with local, national and international laws and regulations as well as the spirit thereof and we conduct our business operations with honesty and integrity. In order to contribute to sustainable development, we believe that management interacting with its stakeholders as described below is important, and we will endeavor to build and maintain sound relationships with our stakeholders through open and fair communication. We expect our business partners to support this initiative and act in accordance with it.	1 2 4 22 23 24
Customers	
■ Based on our philosophy of "Customer First," we develop and provide innovative, safe and outstanding high quality products and services that meet a wide variety of customers' demands to enrich the lives of people around the world. (Guiding Principles 3 and 4)	25, 27 29, 30
■ We will endeavor to protect the personal information of customers and everyone else we are engaged in business with, in accordance with the letter and spirit of each country's privacy laws. (Guiding Principles 1)	24, 28
Employees	
■ We respect our employees and believe that the success of our business is led by each individual's creativity and good teamwork. We stimulate personal growth for our employees. (Guiding Principles 5)	14
■ We support equal employment opportunities, diversity and inclusion for our employees and do not discriminate against them. (Guiding Principles 5)	5, 6, 10
■ We strive to provide fair working conditions and to maintain a safe and healthy working environment for all our employees. (Guiding Principles 5)	11, 13
■ We respect and honor the human rights of people involved in our business and, in particular, do not use or tolerate any form of forced or child labor. (Guiding Principles 5)	3, 4, 9
■ Through communication and dialogue with our employees, we build and share the value "Mutual Trust and Mutual Responsibility" and work together for the success of our employees and the company. We recognize our employees' right to freely associate, or not to associate, complying with the laws of the countries in which we operate. (Guiding Principles 5)	5, 7 8, 12
■ Management takes a leadership role in fostering a corporate culture, and implementing policies, that promote ethical behavior. (Guiding Principles 1 and 5)	19, 20
Business Partners	
■ We respect our business partners such as suppliers and dealers and work with them through long-term relationships to realize mutual growth based on mutual trust. (Guiding Principles 7)	21
■ Whenever we seek a new business partner, we are open to any and all candidates, regardless of nationality or size, and evaluate them based on their overall strengths. (Guiding Principles 7)	37
■ We maintain fair and free competition in accordance with the letter and spirit of each country's competition laws. (Guiding Principles 1 and 7)	21
Shareholders	
■ We strive to raise corporate value while achieving a stable and long-term growth for the benefit of our shareholders. (Guiding Principles 6)	—
■ We provide our shareholders and investors with timely and fair disclosure of our operating results and financial condition. (Guiding Principles 1 and 6)	1
Global Society/Local Communities	
Environment ■ We aim for growth that is in harmony with the environment by seeking to minimize the environmental impact of our business operations, such as by working to reduce the effect of our vehicles and operations on climate change and biodiversity. We strive to develop, establish and promote technologies enabling the environment and economy to coexist harmoniously, and to build close and cooperative relationships with a wide spectrum of individuals and organizations involved in environmental preservation. (Guiding Principles 3)	15, 16 17, 18
Community ■ We implement our philosophy of "respect for people" by honoring the culture, customs, history and laws of each country. (Guiding Principles 2)	2, 7, 8
■ We constantly search for safer, cleaner and superior technologies that satisfy the evolving needs of society for sustainable mobility. (Guiding Principles 3 and 4)	26, 34
■ We do not tolerate bribery of or by any business partner, government agency or public authority and maintain honest and fair relationships with government agencies and public authorities. (Guiding Principles 1)	19, 20
Social Contribution ■ Wherever we do business, we actively promote and engage, both individually and with partners, in social contribution activities that help strengthen communities and contribute to the enrichment of society. (Guiding Principles 2)	31, 32 33, 35 36, 37

Independent Practitioner's Assurance of the "Environment" Section

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(TRANSLATION)

Independent Practitioner's Assurance Report

August 7, 2015

Mr. Akio Toyoda,
President,
Toyota Motor Corporation

Hiroshi Inanaga
Chief Executive Officer
Deloitte Tohmatsu Evaluation and Certification Organization Co., Ltd.
3-3-1, Marunouchi, Chiyoda-ku, Tokyo

We have undertaken a limited assurance engagement of the quantitative environmental information (the "quantitative environmental information") indicated with the verification logo (🔍) for the year ended March 31, 2015 included in the "Sustainability Report 2015" (the "Report") of Toyota Motor Corporation (the "Company").

The Company's Responsibility

The Company is responsible for the preparation of the quantitative environmental information in accordance with the calculation and reporting standard adopted by the Company (as described in the footnotes of graphs and tables, etc., included in the quantitative environmental information in the Report). CO_2 quantification is subject to inherent uncertainty for reasons such as incomplete scientific knowledge used to determine emissions factors and numerical data.

Our Independence and Quality Control

We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior. We apply International Standard on Quality Control 1, *Quality Control for Firms that Perform Audits and Reviews of Financial Statements, and Other Assurance and Related Services Engagements*, and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Our Responsibility

Our responsibility is to express a limited assurance conclusion on the quantitative environmental information based on the procedures we have performed and the evidence we have obtained. We conducted our limited assurance engagement in accordance with the International Standard on Assurance Engagements ("ISAE") 3000, *Assurance Engagements Other than Audits or Reviews of Historical Financial Information*, issued by the International Auditing and Assurance Standards Board ("IAASB"), ISAE 3410, *Assurance Engagements on Greenhouse Gas Statements*, issued by the IAASB and *the Proposed Environmental Report Review Standard*, issued by the Japanese Ministry of the Environment.

The procedures we performed were based on our professional judgment and included inquiries, observation of processes performed, inspection of documents, analytical procedures, evaluating the appropriateness of quantification methods and reporting policies, and agreeing or reconciling with underlying records. These procedures also included the following:

- Evaluating whether the Company's methods for estimates are appropriate and had been consistently applied. However, our procedures did not include testing the data on which the estimates are based or reperforming the estimates.
- Undertaking site visits to assess the completeness of the data, data collection methods, source data and relevant assumptions applicable to the sites.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement.

Limited Assurance Conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Company's quantitative environmental information is not prepared, in all material respects, in accordance with the calculation and reporting standard adopted by the Company.

The above represents a translation, for convenience only, of the original Independent Practitioner's Assurance report issued in the Japanese language.

Member of
Deloitte Touche Tohmatsu Limited

Toyota has participated in activities of the WBCSD (World Business Council for Sustainable Development) as a member of this organization.
WBCSD engages in advocacy activities aimed at realizing sustainable development based on the three pillars of economic growth, environmental protection and social development.

World Business Council for Sustainable Development

+ Education for Sustainable Development

Cover design: The tree on the cover represents the Toyota Global Vision and illustrates what kind of company Toyota wants to be: the firm roots stand for Toyota's shared values, the fruit for always better cars and enriching lives of communities, and the trunk for the stable base of business. The firm roots produce fruit and allow the trunk to grow thick and strong, ensuring the next crop of fruit. This virtuous circle reflects Toyota's vision to be a company achieving sustainable growth.

TOYOTA MOTOR CORPORATION
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