TOYOTA MOTOR CORPORATION

Sustainability Report 2007

Towards a New Future for People, Society and the Planet

Sustainability Report 2007 A New Future for People, Society and the Planet

Toyota Motor Corporation (TMC) is pleased to publish the Sustainability Report 2007 — A New Future for People, Society, and the Planet, a report on our business activities from the perspective of achieving harmonious relationships with society and the earth.

In accordance with the Fourth Toyota Environmental Action Plan, which began in FY2006, the section on environmental aspects is divided into chapters that address four main topics—energy/global warming, recycling of resources, substances of concern, and atmospheric quality—and environmental management conducted to promote initiatives in each area. The section on social aspects explains activities undertaken during FY2006 with respect to each category of stakeholder and explains in detail the background, development, history, and approaches to those activities. The report also incorporates information on best practices by overseas affiliates in both the environmental and social sections as well as the comments and opinions of various stakeholders. We have also added a page of past initiatives to enhance understanding of Toyota's prior activities.

In order to make further improvements and enhance the quality of future reports, a questionnaire is included at the end of the report. We look forward to receiving your frank comments and thoughts.

Environmental Aspects | Social Aspects | Economic Aspects

Sustainability Report 2007
A New Future for People, Society and the Planet

http://www.toyota.co.jp/SR/en07repo/

Annual Report

http://www.toyota.co.jp/en/ir/library/annual/index.html

1) Period covered:

The period covered in the data is from April 2006 to March 2007, and major developments are described as of June 2007.

2) Scope of report

Environmental Aspects: TMC's initiatives on an unconsolidated basis, and examples of activities by overseas consolidated subsidiaries, as well as the progress of consolidated environmental management both in Japan and overseas.
Social Aspects: TMC's initiatives on an unconsolidated basis, and examples of activities by overseas consolidated subsidiaries.
Economic Aspects: A summary of the TMC Annual Report.

3) Sustainability Report 2007 Supplement

Toyota Motor Corporation Site Data

Includes detailed information concerning environmental activities at individual plants and other sites.

http://www.toyota.co.jp/SR/en07plantdata/

Reports by Overseas Affiliates

With the publication of a report by Brazil in 2006, twelve countries and regions, including Japan, now publish local environmental reports. The regions in which reports are issued account for about 86% of Toyota vehicles sold throughout the world.

North America
Canada

Taiwan

Australia

Europe

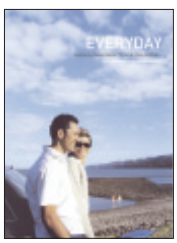
Thailand

India

Argentina

South Africa

The Philippines



New Zealand

Brazil

Please see P. 88 for URLs of overseas reports

Cover: Cumulative worldwide sales of Toyota hybrid vehicles between December 1997 and the end of May 2007, including the Prius, the world's first mass-produced hybrid passenger car, topped one million units.

Contents

This mark indicates the website where more information can be found

Expanding Initiatives Under the Banner of "Achieving Sustainability"

Toyota Motor Corporation will celebrate the 70th anniversary of its establishment in November of this year. I would like to take this opportunity to express my sincere thanks to our various stakeholders around the world, including customers and business partners, for their longstanding support. I do not believe, however, that Toyota's continued existence is guaranteed. Corporations are not permanent entities, and only those businesses that can accurately anticipate changes in the business environment and respond appropriately will survive.

One of the greatest changes in the business environment in recent years is the heightened expectations towards corporate social responsibility resulting from global environmental issues. Awareness is rising concerning such issues as global warming, resource depletion, and atmospheric pollution, and there are strong demands for businesses to develop harmonious relationships with society and the global environment. As such, achieving harmony with society and the environment is also a top priority for automakers, leading the various automakers to become engaged in fierce competition with a focus on the development of environmental technologies.

Since its foundation, Toyota has conducted business with "contributing to the development of a prosperous society through the manufacture of automobiles" as a guiding principle. When I became president two years ago, I called on all employees to work with me in returning to our origins and asking earnestly whether Toyota is truly contributing to society and whether we are doing everything we should be doing. On the occasion of Toyota's 70th anniversary, we will reinforce our measures designed to return to our core principle, which is to "repay the earth and society through technological innovation (and contribute to enhancing the quality of life everywhere)."

The main concept of these measures is achieving sustainability in three areas–research and development, production, and social contribution.

First, based on the conviction that the automobile has no future without responses to environmental, energy, and safety issues, we will enhance our measures regarding technology development to achieve a motorized society that is in harmony with the environment, that is, to achieve "sustainable mobility."

Next, in the area of production, Toyota has begun a "sustainable plant initiative" aiming to create plants that both make use of nature yet exist in harmony with the natural environment.

Third, in order to contribute to a prosperous society, we will implement social contribution activities to develop the skills of personnel and create systems that will firmly take root in society, based on the concept of "activities contributing to sustainable development of people and society."

For future success as a company, and to be able to contribute to a prosperous society, we must realize stable and sustainable growth over the long-term. I have consistently impressed upon everyone at Toyota that without quality improvement there cannot be growth. Contributing to society and the global environment through manufacturing requires strengthening our overall performance levels, including the development of human resources that support initiatives in the areas of quality, production cost, safety, and the environment. We will continue to solidify our position while reinforcing our foundation for long-term, stable growth.

We will undertake these activities while asking ourselves and honestly answering whether Toyota is truly contributing positively to society and the global environment. As always, in this matter I look forward to your continued support.

August 2007

Katsuaki Watanabe
President, Toyota Motor Corporation
Chairman, Toyota Environment Committee

Major Initiatives in FY2006

The Sustainability Report 2007 describes the main activities carried out by Toyota in FY2006 in the areas of the environment and corporate social responsibility (CSR). Concerning our corporate principles, the report sets forth the fundamental concepts that guide our CSR activities and corporate governance.

With regard to environmental aspects, we started implementation of the Fourth Toyota Environmental Action Plan, which adopts as its main themes energy and global warming, recycling of resources, substances of concern, and atmospheric quality.

With respect to social activities, we are conducting Customer First (CF) activities with a focus on quality, implementing human resource development, strengthening respect for diversity among employees, carrying out CSR activities in collaboration with business partners, and undertaking safety measures based on the Integrated Safety Management Concept. Our social contribution activities focus on the areas of the environment, traffic safety and education.

By issuing the "Sustainability Report 2007—Towards a New Future for People, Society, and the Planet," we hope to increase understanding of Toyota's activities while expressing our desire to achieve harmony with society and the global environment.

I look forward to receiving your honest comments and opinions.

August 2007

Mitsuo Kinoshita
Executive Vice President
Member of the Board in charge of
CSR & Environmental Affairs

Mitsuo Kinoshita

Corporate Philosophy

Seeking Harmony between People, Society and the Global Environment, and Sustainable Development of Society

Since its foundation, Toyota has continuously strived to contribute to the sustainable development of society through the manufacturing and provision of products and services that lead the times. The foundations of these endeavors are the Guiding Principles at Toyota and an explanation paper entitled Contribution towards Sustainable Development that interprets the Guiding Principles at Toyota. TMC established the dedicated CSR Department within the CSR & Environmental Affairs Division in January 2007 as a specialized organization for promoting corporate social responsibility (CSR) activities, and is continuing its efforts to be a company with vitality and dignity that is trusted around the world.

Guiding Principles at Toyota

The Guiding Principles at Toyota (adopted in 1992 and revised in 1997) reflect the kind of company that Toyota seeks to be in light of the unique management philosophy, values, and methods that it has embraced since its foundation. TMC, together with its consolidated subsidiaries, hopes to contribute to sustainable development through its corporate activities based on understanding and sharing of the Guiding Principles at Toyota.

Contribution towards Sustainable Development

In January 2005, Toyota adopted and announced the Contribution towards Sustainable Development, to explain in greater detail the Guiding Principles at Toyota. This statement is intended to clarify Toyota's basic policies on social contribution activities to all internal and external stakeholders. TMC has shared the statement with its consolidated subsidiaries and will take relevant action.

Guiding Principles at Toyota

(Adopted January 1992, revised April 1997)

1. Honor the language and spirit of the law of every nation and undertake open and fair corporate 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 the communities
3. Dedicate ourselves to providing clean and safe products and to enhancing the quality of life everywhere through all 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 individual creativity and teamwork value, while honoring mutual trust and respect between labor and management
6. Pursue growth in harmony with the global community through innovative management
7. Work with business partners in research and creation to achieve stable, long-term growth and mutual benefits, while keeping ourselves open to new partnerships

Overview of the Contribution towards Sustainable Development

Preamble		Ensure compliance with local, national and international laws and regulations, conduct business operations with honesty and integrity, based on open and fair communication
Customers		Customer First policy, provision of innovative, safe and outstanding high quality products and services, protection of personal information of customers
Employees		Respect and honor human rights, support equal employment opportunities and diversity, eliminate discrimination, do not use or tolerate any form of forced or child labor, provide fair working conditions, maintain a safe and healthy working environment, enhance communication and dialogue with employees, build relations based on mutual trust and responsibility
Business Partners		Work to realize mutual growth based on mutual trust, an open door policy and fair and free competition
Shareholders		Enhance corporate value while achieving stable and long-term growth
Global Society/ Local Communities	Environment	Achieve growth that is in harmony with the environment throughout all areas of business activities, develop, establish and promote technologies enabling the environment and economy to coexist harmoniously
	Community	Engage in activities based on the philosophy of "respect for people" by honoring the culture, customs, history and laws of each country, do not tolerate bribery of or by any business partner, government agency or public authority, achieve sustainable mobility
	Philanthropy	Promote and engage, both individually and with partners, in philanthropic activities that help strengthen communities and contribute to the enrichment of society

Toyota's CSR Activities to Date

Based on the Guiding Principles at Toyota and the Contribution towards Sustainable Development, Toyota conducts activities directed towards each stakeholder group in compliance with both the letter and the spirit of domestic, foreign, and international law through its business activities (its core business of manufacturing, as well as new businesses and responses to social issues) in each region and country where it conducts business. In FY2006, Toyota placed particular emphasis on increasing external dissemination of information concerning its CSR activities through publication of the Sustainability Report (with expanded content and a name change from the Environmental & Social Report) and a redesigned website (with expanded environmental and social contribution activities coverage).

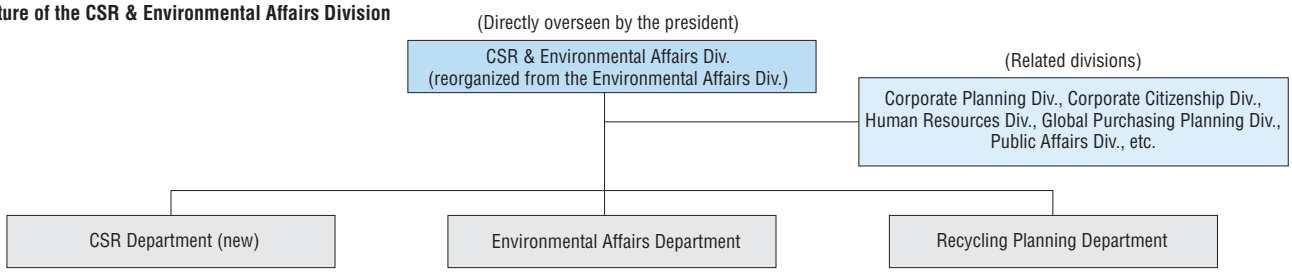
Example of Toyota's CSR Activities to Date

		- 2004	2005	2006
General		• Adopted the Guiding Principles at Toyota (1992) • Published the Environmental Report (1998) • Adopted the Toyota Way 2001 (2001) • Held the first Toyota Stakeholder Dialogue (2001) • Established a Compliance Hotline (2003) • Implemented activities to ensure thorough compliance with laws and regulations (2004)	• Announced Toyota's Fundamental CSR policy "Contribution towards Sustainable Development"	• Issued the Sustainability Report 2006 • Redesigned the Toyota website (with expanded environmental and social coverage) • Revised the Toyota Code of Conduct (former version adopted in 1998) • Implemented company-wide activities to re-assess the system to ensure compliance with laws and regulations
Customers		• Created Personal Information Protection Guidelines (2003) • Initiated year-round operation of the Customer Assistance Center (2004)	• Established the Customer Quality Engineering Division • Established the Customer Contact Point Regarding the Handling of Personal Information	• Promoted implementation of Customer First (CF) activities
Employees		• Rolled out the Diversity Project (2002) • Opened an on-site childcare center (2002)	• Introduced an extended maternity leave system • Introduced the Professional Career Re-employment Program	• "80,000-Person Workplace Communications Inspection Activities" • Introduced the system for re-employment of people aged 60 years and older
Business Partners		• Adopted the Environmental Purchasing Guidelines (1999) • Kyohokai[1], Eihokai[2], joint lecture meeting on the topic of CSR (2004) 1. A voluntary organization of parts suppliers 2. A voluntary organization of facilities and logistics suppliers	• Conducted voluntary audits based on a check sheet for substances of concern • Incorporated CSR items in Lexus dealers' basic agreements	• Revised the "TOYOTA Green Purchasing Guidelines" • Held supplier compliance briefings • Incorporated CSR items in supplier basic agreements (e.g. basic agreements for parts purchase, etc.) • Incorporated CSR items in Toyota dealer basic agreements (agreements renewed in January 2007)
	Dealers	• Distributed the Toyota Dealers Association Policy regarding the Automobile Recycling Law (2004)	• Adopted the Toyota Japanese Dealer Environmental Guidelines	• CSR Declaration by Toyota National Dealers' Advisory Council (TNDAC)
Shareholders		• Listed on the NY/London stock exchange (1999)	• Raised dividend payout ratio	• Announced forecasts for consolidated financial results for the following fiscal year
Global Society/ Local Communities	Environment	• Started implementation of the Third Toyota Environmental Action Plan (2001)	• Promoted consolidated environmental management both in Japan and overseas	• Started implementation of the Fourth Toyota Environmental Action Plan
	Community	• Issued the WBCSD's Sustainable Mobility Project report (2004)	• Participated in EXPO 2005, Aichi, Japan	• Launched the WBCSD's "Mobility for Development" working group
	Philanthropy	• Established the Toyota Volunteer Center (1993) • Launched the Toyota Environmental Activities Grant Program (2000) • Began Anti-desertification Afforestation Project in Hebei Province, China (2001)	• Established the Toyota Shirakawa-Go Eco-Institute • Issued *Neighbors* (a collection of Toyota social contribution activities) • Completed construction of the TOYOTA Safety Education Center "mobilitas"	• Established the Corporate Citizenship Division

Dedicated CSR Organizations Created

TMC established the dedicated CSR Department within the CSR & Environmental Affairs Division (reorganized from the Environmental Affairs Division and directly overseen by the president) in January 2007 as an organization to reinforce CSR activities and expand and improve the external dissemination of related information. The CSR Department coordinates inter-departmental activities through the adoption of CSR policies and sets the company-wide direction for CSR activities. The department also disseminates CSR-related information, manages global CSR activities, and conducts communications with stakeholders.

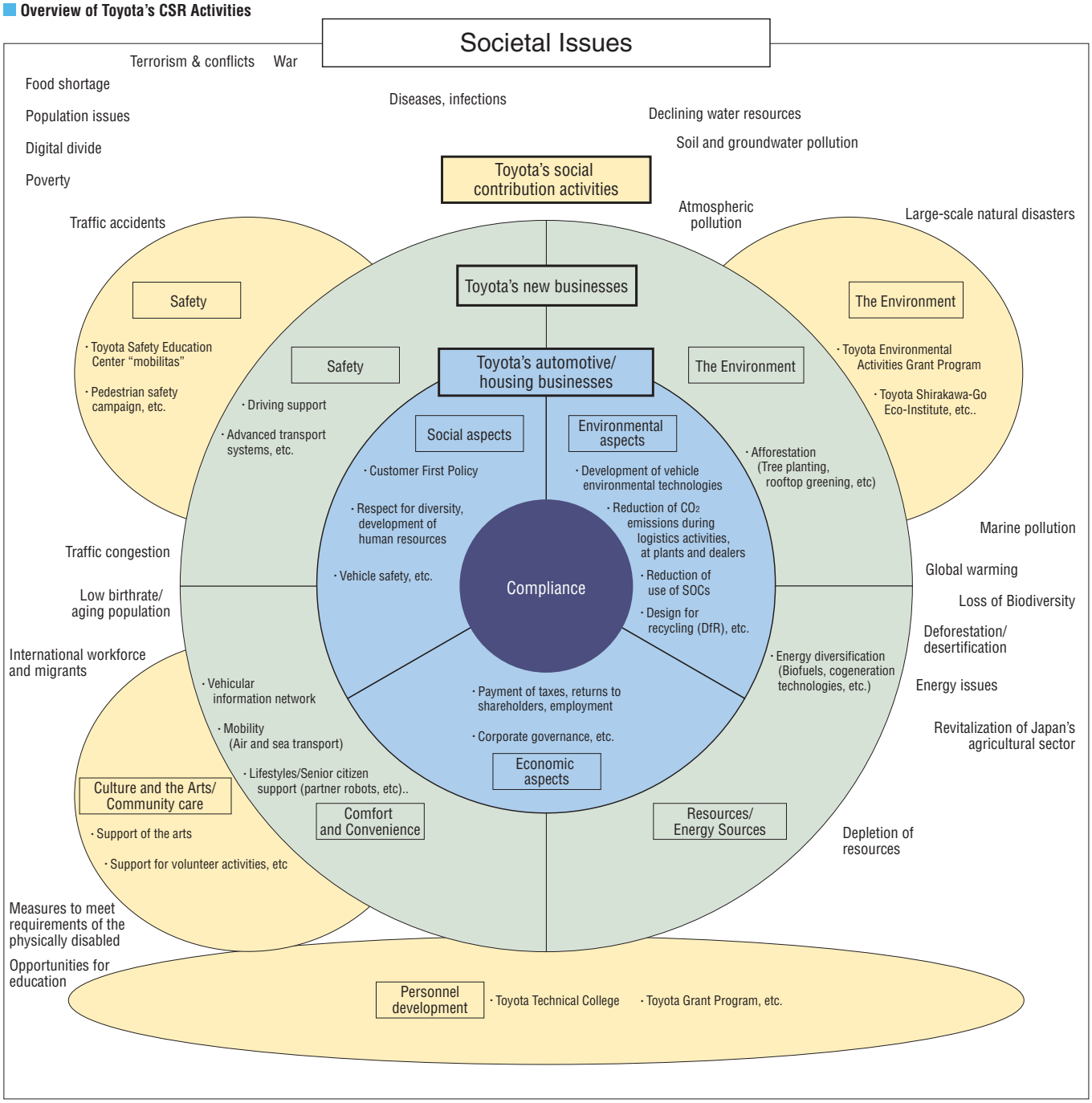
Structure of the CSR & Environmental Affairs Division



Direction of Toyota's CSR Activities

A range of initiatives is being advanced in an effort to address environmental and social issues around the world, with the ultimate goal of achieving sustainable development. In expanding its global operations, Toyota believes that achieving harmony with local communities throughout the world is important above all else. As a global company, Toyota will contribute to achieving sustainable development through all its business activities in each country and region of the world in accordance with the Guiding Principles at Toyota and in compliance with domestic, overseas, and international laws and regulations, both in letter and in spirit. To achieve this, Toyota will implement management that emphasizes all stakeholders through the automotive, housing and new businesses, and initiatives to address social issues and maintain and develop healthy relationships with those stakeholders through open and fair communications.

Overview of Toyota's CSR Activities



Corporate Governance

Achieving Stable, Long-term Growth as a Global Enterprise

Toyota's top management priority is to steadily increase corporate value over the long term. Further, our fundamental management philosophy is to remain a trusted corporate citizen in international society through open and fair business activities that honor the language and spirit of the law of every nation. In order to put that philosophy into practice, Toyota builds favorable relationships with all of its stakeholders, including customers, business partners, local communities, shareholders, and employees. Toyota is convinced that providing products that fully cater to customer needs is essential to achieve stable, long-term growth and is taking concrete measures to reinforce corporate governance.

Toyota's Basic Approach to Corporate Governance

Specifically, Toyota has introduced a unique management system focused on prompt decision making for developing our global strategy and speeding up operations. Furthermore, Toyota has a range of long-standing in-house committees and councils responsible for monitoring and discussing management and corporate activities from the viewpoints of various stakeholders to ensure heightened transparency and the fulfillment of social obligations.

Toyota has a unique corporate culture that places emphasis on problem solving and preventative measures, such as problem solving based on the actual situaton on the site and highlighting issues by immediately flagging and sharing them. In other words, because Toyota's approach is to build in quality through manufacturing processes, enhancing the quality of everyday operations strengthens governance. Toyota's management team and employees conduct operations and make decisions founded on that common system of checks and balances and on high ethical standards.

Systems for Ensuring Appropriate Management

Toyota introduced its current management system in 2003. The current system has a new non-board position of Managing Officer and reduced number of directors. With respect to various operational functions across the entire company, the Chief Officers, who are directors, serve as the highest authorities of their specific operational functions while non-board Managing Officers implement the actual operations. The distinctive feature of this system is that based on Toyota's philosophy of emphasizing developments on the site, the Chief Officers serve as the link between management and on-site operations, instead of focusing exclusively on management. As a result, this system enables the management to make decisions directly with on-site operations, by reflecting on-site personnel opinions on management strategy and swiftly implementing management decisions into actual operations.

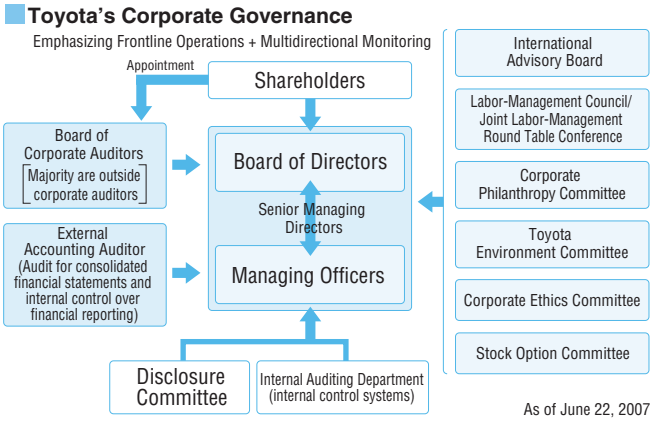
To monitor the management, Toyota has adopted an auditor system that is based on the Japanese Corporation Act. In order to increase transparency of corporate activities, four of Toyota's seven corporate auditors are outside corporate auditors. Corporate auditors support the company's corporate governance efforts by undertaking audits in accordance with the audit policies and plans determined by the Board of Corporate Auditors.

As a system to ensure appropriate management, Toyota has convened meetings of its International Advisory Board (IAB) annually since 1996. The IAB consists of approximately ten distinguished advisors from overseas with backgrounds in a wide range of fields, including politics, economics, the environment, and business. Through the IAB, Toyota receives advice on a diversity of business issues from a global perspective.

In addition, Toyota has a wide variety of conferences and committees for deliberations and the monitoring of management and corporate activities that reflect the views of a range of stakeholders, including the Labor-Management Council, the Joint Labor-Management Round Table Conference, the Corporate Philanthropy Committee, the Toyota Environment Committee, the Corporate Ethics Committee and the Stock Option Committee.

An internal control system has been developed under the following basic policies organized in May 2006.

Toyota's Corporate Governance



As of June 22, 2007

Basic Approach to Internal Controls

(1) Legal compliance by Directors	• Ensure that Directors will act in compliance with relevant laws and regulations, and with the Articles of Incorporation, through measures such as the Code of Ethics and an orientation program
(2) Retention and management of information relating to the execution of responsibilities by Directors	• Retain and manage information appropriately in accordance with relevant laws and regulations
(3) Regulations and other systems related to the management of risk of losses	• Prepare an accurate financial report, and make proper and timely disclosure of information through the Disclosure Committee • Manage compliance regarding various risks related to safety, quality control and other issues at the relevant division
(4) Efficiency of execution of responsibilities by Directors	• Policies are managed for consistency based on medium to long term management policies and on the company's policies
(5) Legal compliance by employees	• Periodically review legal compliance and risk management, and report to the Corporate Ethics Committee
(6) Appropriateness of the business operations of the group	• Develop and maintain an environment of internal controls for the group by sharing the guiding principles and the code of conduct
(7) Employees assisting the Corporate Auditors	• Establish the Corporate Auditors Department and assign a number of full-time staff to support this function
(8) Independence of employees described in the preceding item (7)	• Any changes in personnel in the Corporate Auditors Department require the prior consent of the Board of Auditors, or of a full-time Auditor
(9) Report to Corporate Auditors	• Report periodically and from time to time on matters concerning the execution of significant operations, and immediately in the case where facts that may cause significant damage to the company are discovered
(10) Ensure the efficient execution of audits by the Auditors	• Ensure attendance of Corporate Auditors at major board meetings, inspection of important company documents, information exchange with independent auditors and appointment of external experts with specialized knowledge

Compliance

Initiatives Promoted Steadily in Day-to-Day Activities with Societal Norms and Corporate Ethics in Mind

For Toyota, compliance does not mean simply observing laws; it means respecting societal norms and corporate ethics, complying with the expectations of diverse stakeholders, and engaging in fair corporate activities. The first clause of the Guiding Principles at Toyota, "Honor the language and spirit of the law of every nation" codifies this thinking. Establishing compliance requires steady and earnest efforts in the performance of day-to-day operations. Toyota is promoting compliance through the construction of frameworks such as the Corporate Ethics Committee and other internal organizations, and the development of human resources to raise individual awareness of compliance.

Corporate Ethics Committee

The Corporate Ethics Committee was established in 1991 to serve as the core organization for establishing compliance. The Committee, which includes all executive management from the executive vice president level and higher as well as corporate auditors (including outside auditors), discusses key matters relating to corporate ethics, compliance and risk management, and responds to those issues. Conclusions of the Committee are announced at an Executive Meeting and directors and managing officers disseminate information to the divisions they oversee.

Meetings were held six times in FY2006 to discuss issues such as responses to the U.S. Sarbanes-Oxley Act, development of internal control systems, and activities to re-assess compliance with laws and regulations.

Toyota Code of Conduct

The Toyota Code of Conduct (adopted in 1998 as the Code of Conduct for Toyota Employees and revised in March 2006) organizes the basic attitudes necessary for people working at Toyota to put the Guiding Principles at Toyota into practice and to fulfill social responsibilities, and indicates specific points to keep in mind.

In August 2006, TMC distributed to all employees a pocket edition of the Toyota Code of Conduct entitled *Watashi ga Tsukuru Toyota Kodo Shishin* (conduct guidelines for each employee to personally put into practice the Toyota Code of Conduct). The pocket code is a tool to help employees maintain proper awareness as employees of Toyota, to consider independently the conduct in which they should engage, and to carry out that conduct.

Toyota Code of Conduct

Action Guidelines for *Watashi ga Tsukuru Toyota Kodo Shishin*

Principal 1: Toyota and Employees	• We will treat all people with respect and consideration. We will not tolerate discrimination and harassment (including sexual or other harassment). • We will comply with social standards and not engage in improper or dishonest conduct.
Principal 2: Our Activities Within Toyota	• We will follow all applicable Japanese and foreign laws and rules in all our work activities and act in good faith. • We will protect the assets, information, and intellectual property of Toyota and third parties and manage confidential information properly.
Principal 3: Toyota (Employees) and Society	• We will always feel a sense of gratitude towards customers, shareholders, local communities and other stakeholders and will always act in good faith. • We will engage in open and honest communication with all stakeholders.

The Compliance Hotline

TMC contracted an outside law firm to establish a Compliance Hotline that allows employees to consult in private in the event they have any questions or doubts concerning issues of compliance. TMC is working to increase awareness of this hotline among employees by including information in the pocket edition of the Toyota Code of Conduct and by posting information about the hotline in employee cafeterias to promote its use.

The content of consultations is conveyed anonymously to a secretariat within TMC and the facts confirmed, and the details are investigated with scrupulous care to ensure that the identity of the consulting employee is not revealed. If the results of the investigation indicate a compliance related issue, a response is immediately implemented. The content of consultations are reported to the president and corporate auditors every month.

Education and Training to Ensure Thorough Compliance

To ensure that awareness of compliance extends from senior managers to all other employees TMC conducts on-the-job training and managerial training.

In FY2006, a number of programs, including business law seminars, seminars on risk management in the Tokyo region, legal seminars for transferees and new employees of the Japan Sales Operations Group and Purchasing Group, compliance training sessions for employees of the Quality Division and Customer Quality Engineering Division, and compliance training for new employees, new general managers, and executives were conducted. TMC also gave legal affairs lectures to support relevant education initiatives by subsidiaries and dispatched trainers for legal affairs education programs by subsidiaries and affiliates.

Highlights in FY2006

Environmental Aspects

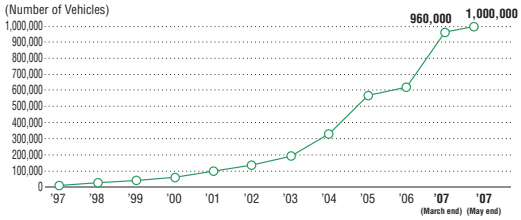
Sustainability Report 2007

Energy/Global Warming

Toyota is taking a comprehensive approach to energy and global warming issues by promoting measures to reduce CO_2 emissions both in the development and design stages as well as during production and logistics, while also taking action to improve traffic flows, and promote reforestation.

- Cumulative sales of hybrid vehicles top one million units (as of the end of May 2007) 14
- The goal to reduce CO_2 emissions from stationary emission sources was achieved 15
- The CO_2 emissions reduction goal in the area of logistics was achieved by implementing measures such as including a shift to a mode of transport with low CO_2 emissions per unit, and a reduction in the total distance traveled 16

Cumulative Number of Hybrid Toyota Vehicles Sold Worldwide



Recycling of Resources

In order to improve resource productivity, Toyota is promoting the effective utilization of resources, reducing water consumption, and encouraging the development of designs for recycling.

- Reduction goals were set for the volume of waste not processed within Toyota 19
- In response to automobile recycling laws in Japan and overseas, Toyota steadily implemented measures to properly collect, recycle/recover and treat airbags, ASR and CFCs/HFCs 21 22
- To further enhance ASR recycling/recovery technologies, Toyota began verification testing of technologies to separate resin from ASR 22

Recycling/Recovery of the Three Specified Items (FY2006 results)

		Results		Results
No. of vehicles collected for ASR		957,000	Funds paid from JARC*	8,092 million yen
No. of vehicles collected for airbag recovery		186,000		
No. of vehicles collected for CFC/HFC recovery		713,000	Expense for recycling/ recovery and treatment	8,434 million yen
Recycling/ recovery rate	ASR	66%		
	Airbags	94%	Balance	-342 million yen

*Japan Automobile Recycling Promotion Center

Substances of Concern

Toyota is managing substances of concern in its company-wide system, under a basic policy of implementing thorough measures to totally eliminate the four substances of concern from all vehicles, and is taking actions globally, in the areas of both products and production.

- Toyota launched the LS460 and Corolla, that completely eliminate the usage of the four substances of concern 24
- The goal to reduce the discharge volume of substances subject to PRTR was achieved 24

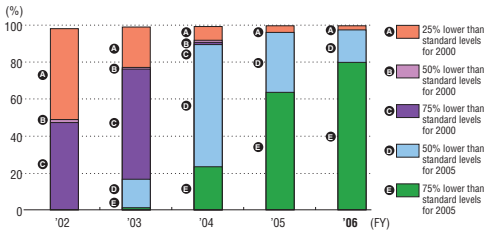
Corolla Axio

Atmospheric Quality

Toyota has specified the reduction of exhaust and VOC emissions as action items, and in the area of products, is developing low emissions technologies and introducing low emissions vehicles according to the local conditions in various countries.
In the area of production, Toyota is promoting the introduction of water-borne paints.

- The number of vehicles that meet or surpass the Ultra Low-Emission Vehicle level (50% or 75% lower than the 2005 Exhaust Emissions Standards) reached 97.7% of total production 26
- Toyota introduced water-borne paints in body painting lines of all plants. Average VOC emissions on all vehicle body painting lines was reduced to 27g/m^2 27

Low-Emission Vehicles as a Percentage of Total Production

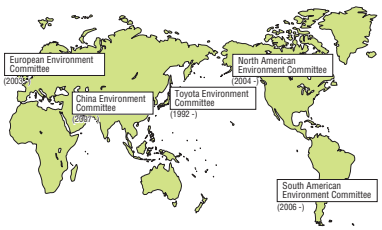


Environmental Management

In the first year of implementation of the Fourth Toyota Environmental Action Plan, Toyota began steady action in line with the plan.

- The China Environment Committee was established in March 2007, to create a five-committee structure worldwide 29
- Eco-Factory activities were conducted on an ongoing basis 32
- The first Global Environment Awards were presented 34

Promotion Structure for Global Environmental Management



Housing Business

In the first year of the Environmental Action Plan 2010, Toyota began steady action towards achieving the goals outlined in the plan.

- Toyota began marketing the Sincé Smart Stage mew series of homes with improved insulation performance and other enhanced features, based on a new concept of "healthy homes" 40

The Sincé Smart Stage mew series launched in 2007

Energy/Global Warming

Reducing Energy Consumption and CO_2 Emissions

Global energy consumption and CO_2 emissions, said to be a cause of global warming, have been steadily increasing since the Industrial Revolution. The resulting climate changes and the adverse affects this is having on ecosystems and human living environments is cause for concern. Since approximately 20% of the world's total CO_2 emissions from energy sources is generated by the transportation sector, reducing CO_2 emissions is an extremely important issue that the automobile industry must address.

Toyota considers responses to help prevent global warming to be a priority management issue and is implementing measures to reduce CO_2 emissions by restricting energy consumption in all areas of business activities, and all stages of vehicle development and design, production, logistics and sales. Under the Fourth Toyota Environmental Action Plan, Toyota has adopted and is actively implementing six action items, including the further reduction of CO_2 emissions in Toyota's global operations.

Management	**Further reduce CO_2 emissions in Toyota's global operations**
Development and Design	**Promote the development of technologies to achieve the best fuel efficiency performance in each country and region**
Development and Design	**Promote the development of clean-energy vehicles, and encourage their effective introduction to ensure wider market acceptance**
Development and Design	**Develop technologies to respond to the diversification of energy and fuel sources**
Development and Design	**Promote initiatives to improve traffic flows using a variety of networking technologies**
Production and Logistics	**Reduce CO_2 emissions in the production and logistics activities of each country and region**

Management — Further reduce CO_2 emissions in Toyota's global operations

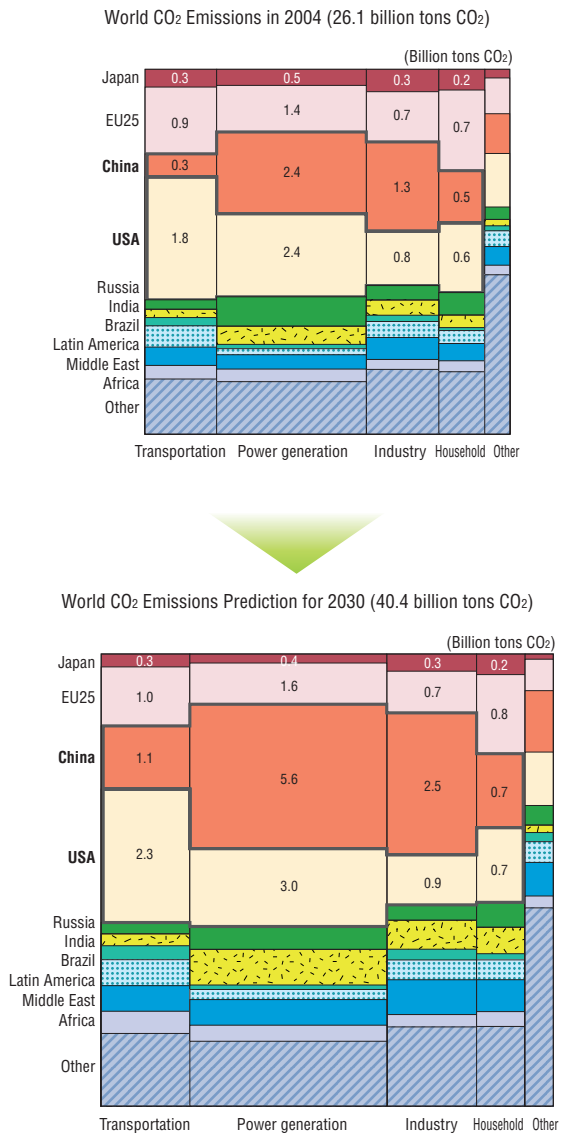
Study of Medium- to Long-term Environmental Technology Strategies

IEA (International Energy Agency) data suggests that global CO_2 emissions volumes will increase approximately 1.5 fold to 40.4 billion tons by 2030 compared to 26.1 billion tons in 2004. By country, China and the US will account for a major portion of global CO_2 emissions, while by sector, the transportation, power generation and industrial sectors have high emissions ratios. To reduce CO_2 emissions in the transportation sector, comprehensive measures are required, including efforts by automakers to improve fuel efficiency as well as environmentally sound driving practices by users, traffic environment-related measures to help ease traffic congestion, and the supply of low-carbon fuel.

In 2005, Toyota established a cross-divisional structure to study the development of medium- to long-term environmental technology strategies that address issues related to energy, reduction of CO_2 emissions, and improvement of air quality in all areas. Implementation of these strategies is then promoted in areas such as technology development and product launch.

Toyota is also promoting initiatives to help prevent global warming in non-automotive fields, such as improvement of traffic flows using IT and Intelligent Transport Systems (ITS), and enhancing absorption of atmospheric CO_2 through afforestation.

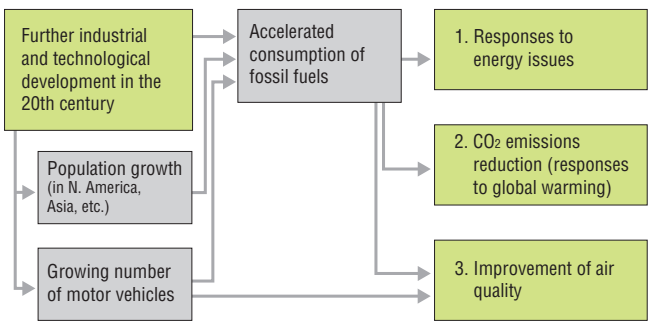
World CO_2 Emissions in 2004 and World CO_2 Emissions Prediction for 2030



The above graph has been created by Toyota based on IEA WEO 2006 data. The vertical axis denotes the ratio of emissions by each country/region within a given industry; the horizontal axis denotes the ratio of total emissions held by each industry.

Source: World Energy Outlook, OECD/IEA, (2006), (Annex A), (PP.491-525), as translated by TMC

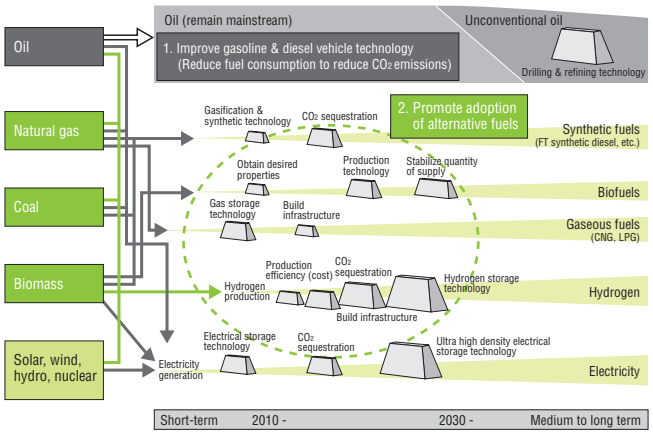
Awareness of Issues Centered on Global Warming and Energy Sources for Vehicle Powertrains



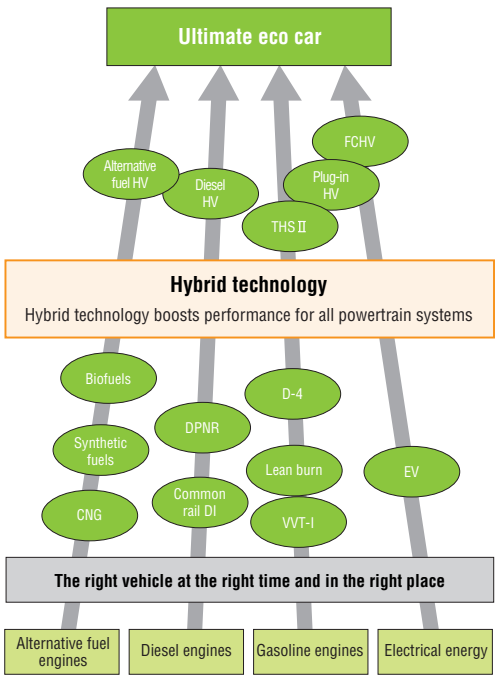
Responses to Automobile Fuel Diversification

In June 2006, Toyota held the Environmental Forum and made public the "Toyota Powertrain Technology for Sustainable Mobility." The report describes Toyota's efforts and clarifies the tasks that lie ahead from the perspectives of reducing CO_2 emissions and improving air quality, in respect to the diversification of automobile fuels. In addition to more efficient utilization of fuels derived mainly from fossil fuels (fuel efficient improvements), Toyota is also engaged in responding to the wide range of diversifying fuels, focusing on clean energy sources such as biofuels, hydrogen and electricity. As part of these efforts, Toyota has re-clarified the role of hybrid technology as a future key technology for use with a variety of different fuel sources. Discerning the energy supply situation and the way cars are used in each country and region, Toyota is implementing a strategy of introducing "the right vehicle at the right time in the right place."

Toyota's Approach to Automotive Fuel Diversification



Toward the Ultimate Eco Car



Development and Design — Promote the development of technologies to achieve the best fuel efficiency performance in each country and region

All six Toyota vehicle series that were new or underwent complete redesign in FY2006 cleared the 2010 Fuel Efficiency Standards. Toyota has achieved the 2010 Fuel Efficiency Standards in all vehicle weight categories. The number of gasoline-powered passenger vehicles meeting the 2010 Fuel Efficiency Standards reached 88% of total production.

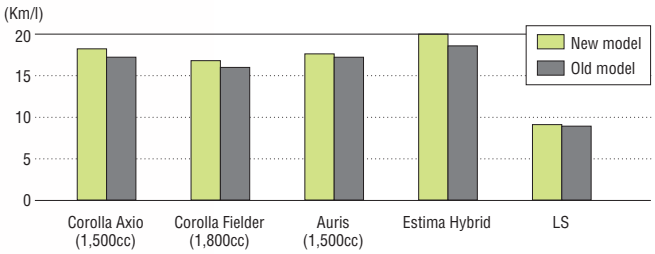
Increasing the Number of Vehicles with Fuel Efficient Engines

The newly developed V8, direct-injection engine 1UR-FSE installed in the Lexus LS460 launched in FY2006 adopts both the D-4S fuel system, for optimally controlling the dual-injector system according to operating conditions; and the electric motor-driven VVT-iE (Variable Valve Timing-intelligent by Electric motor) connected to the air intake system. The VVT-iE provides optimal valve timing control over a wider operating range than a conventional hydraulic VVT, thereby achieving improved fuel efficiency.

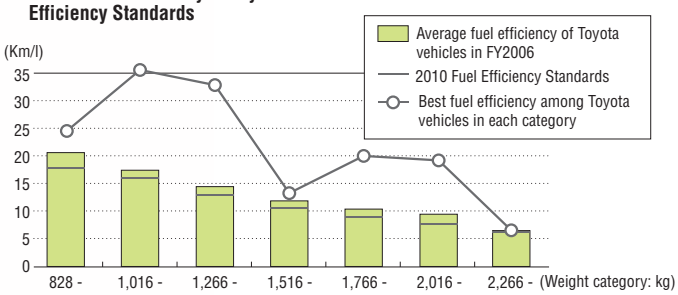
The newly developed 1.8-liter engine 2ZR-FE installed in the Corolla Axio, Corolla Fielder and Auris launched in FY2006 is equipped with the Dual VVT-i (Dual Variable Valve Timing-intelligent for both the intake and exhaust valve timing), and has achieved even higher fuel efficiency by using ultra-light pistons and reducing frictional loss.

Corolla Axio

Fuel Efficiency Comparison between Selected Old and New Models



Actual Fuel Efficiency of Toyota Vehicles in FY2006 and 2010 Fuel Efficiency Standards



Models that Meet the 2010 Fuel Efficiency Standards among FY2006 New Models and those that Underwent Complete Redesign (Passenger Vehicles)

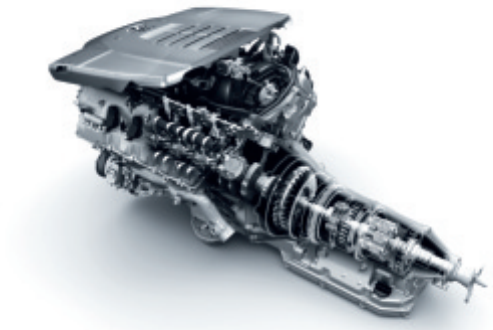
Weight category (vehicle weight: kg)	Fuel efficiency standard (km/l)	FY2006 average fuel efficiency (km/l)	Qualifying vehicle series of FY2006 new models and those that underwent complete redesign
828 - 1,015	17.9	20.7	
1,016 - 1,265	16.0	17.3	Corolla Axio, Corolla Fielder, Auris
1,266 - 1,515	13.0	14.5	Corolla Axio, Corolla Fielder, Auris, Blade*
1,516 - 1,765	10.5	11.9	
1,766 - 2,015	8.9	10.3	Estima Hybrid, LS460
2,016 - 2,265	7.8	9.5	Estima Hybrid, LS460
2,266 -	6.4	6.5	

*Some vehicles of the qualifying vehicle series may not meet the standards depending on individual models and specifications
Note 1: ■ indicates a category that has achieved the 2010 Fuel Efficiency Standards
Note 2: Vehicles that achieved the efficiency standards before FY2006 are not included
Note 3: All fuel efficiency values are based on the Ministry of Land, Infrastructure and Transport's 10-15 Japanese test cycle

Introduction of High-efficiency Transmission

The newly developed 8-speed, Super ECT transmission installed in the Lexus LS460 offers a wide gear ratio range and close gear ratios. It has simultaneously achieved excellent acceleration performance and improved fuel efficiency by optimally utilizing the high-output and high-efficiency ranges according to operating conditions. During high-speed cruising, the Super ECT further improves fuel efficiency by achieving high engine performance even in the low-rpm range. Additionally, reducing the sizes of individual parts and improving the gear train efficiency has kept the external dimensions of the 8-speed Super ECT transmission the same as those of a conventional 6-speed automatic transmission, while reducing its weight by approximately 10%.

Furthermore, the use of the Super CVT-i (Super Continuously Variable Transmission-intelligent), which improves the efficiency of the transmission and enhances fuel efficiency, was expanded to the Corolla Axio, Corolla Fielder, Auris and Blade launched in FY2006.



The newly developed 8-speed Super ECT transmission installed in the LS460

Reducing Air Resistance

In the Lexus LS460, the gaps between the vehicle body panels were made as small as practical to minimize differences in surface height. The differences in surface height in the engine hood, headlamps, and windshield glass were also minimized to reduce airflow divisions. To increase stability during high-speed operation, aerodynamic parts were used for the tire fairing, fuel tank, and rear suspension cover, and the vehicle underbody was made flatter. As a result, an aerodynamic performance level that is one of the best among sedans (Cd value of 0.26) was achieved.

Use of Eco Drive Indicator

Beginning with the new Corolla launched in October 2006, Toyota began installing the Eco Drive Indicator, a feature meant to encourage environmentally sound driving practices, in a number of models.

The Eco Drive Indicator lights up when the vehicle is being driven in a fuel-efficient manner. It is hoped that this will raise driver awareness toward environmentally considerate driving and contribute to fuel efficiency. Although results may vary, depending on the traffic volume and conditions such as starting and acceleration frequency, as well as distance driven, the Eco Drive Indicator can improve fuel efficiency by approximately 4% (as measured by TMC).

Eco Drive Indicator

Toyota also created a pamphlet in Japanese (Numerous Benefits of Eco Driving) on environmentally considerate driving practices. Full of illustrations to make the content easy to understand, the pamphlet is being used to promote environmentally considerate driving practices in customer presentations and on the Toyota website.

Pamphlet on environmentally considerate driving practices

http://www.toyota.co.jp/jp/environment/communication/ecodrive/ (Japanese only)

In Focus — Production Start of the Camry Hybrid in North America

In response to the increase in the demand for hybrid vehicles in North America, Toyota began producing the Camry Hybrid at Toyota Motor Manufacturing Kentucky (TMMK) in October 2006.

Since launching the Prius in 2000, Toyota has added the Highlander Hybrid, the RX400h, and the GS450h to its line of hybrid vehicles sold in North America. The cumulative number of Toyota hybrid vehicles sold reached 534,000 units (as of the end of March 2007). Of this total, the Camry Hybrid launched in May 2006 accounts for approximately 46,000 units (as of the end of March 2007).

The annual production capacity for the Camry Hybrid in North America is 48,000 units, and TMMK is hoping to reach this level soon.

The first Camry Hybrid to be produced in North America

Development and Design — Promote the development of clean-energy vehicles, and encourage their effective introduction to ensure wider market acceptance

Launch of the Estima Hybrid

In June 2006, Toyota began selling the completely redesigned Estima Hybrid. The new Estima Hybrid is based on the THS-II hybrid system, which is a complete redesign of the THS-C and combines a reduction mechanism and a high-performance front motor. The new Estima Hybrid achieves a compact-car-like fuel efficiency of 20km/liter while maintaining high driving performance, and has achieved a fuel efficiency that exceeds the level called for by the FY2010 Fuel Efficiency Standards by 20%.

Furthermore, the new Estima Hybrid adopts an exhaust heat recovery system to recover thermal energy from the exhaust and use it to heat engine coolant. This reduces engine warm-up time, contributing to further improvements in actual fuel efficiency.

Estima Hybrid

FCHV-BUS Begins Operation within the Central Japan International Airport

In March 2006, Toyota began trial operation of the FCHV-BUS (Fuel Cell Hybrid Bus) in the area surrounding the Central Japan International Airport (Centrair). When the Centrair Hydrogen Station opened in July of the same year, the bus began operating as part of a fleet of buses to transport passengers between aircraft and the passenger terminal within the restricted area of the airport.

Cumulative Sales of Hybrid Vehicles Top One Million Units

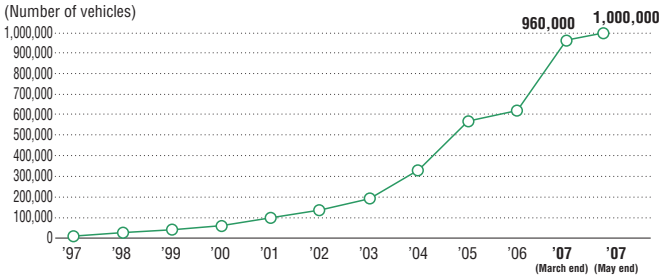
In FY2006, Toyota sold 81,324 clean-energy vehicles in Japan, which accounted for 5.0% of all Toyota vehicles sold in the country. Since the launch of the first generation Prius in December 1997, a cumulative total of over one million hybrid vehicles have been sold worldwide as of the end of May 2007. According to Toyota calculations, this has resulted in a reduction of CO_2 emissions by approximately 3.5 million tons, compared to gasoline engine vehicles of the same class (same vehicle size and dynamic performance).

Note: As of March 2007, cumulative sales of hybrid vehicles were 960,000 units

Number of Toyota's Clean-energy Vehicles Sold in Japan

	FY2002	FY2003	FY2004	FY2005	FY2006
Electric vehicles	23	7	0	0	0
Hybrid vehicles	15,390	42,021	64,877	57,756	81,118
CNG vehicles	162	222	277	208	206
Total	15,575	42,250	65,154	57,964	81,324
Percentage relative to all Toyota vehicles sold	0.9%	2.4%	3.7%	3.4%	5.0%

Cumulative Number of Hybrid Toyota Vehicles Sold Worldwide



Development and Design — Develop technologies to respond to the diversification of energy and fuel sources

Development of Technologies to Respond to the Diversification of Energy and Fuel Sources

Globally rising energy demand, surging petroleum prices, and concerns about remaining petroleum reserves are increasing the need for diverse energy sources. However, many issues surrounding current alternative fuels remain to be resolved, such as securing stable volumes, establishing production technologies, and creating the necessary infrastructure. Therefore, Toyota is studying methods to maximize their benefits based on the characteristics of each of the alternative fuels.

With regard to using bioethanol, all new Toyota passenger vehicles introduced in FY2006 and later are E10 (a gasoline blend containing 10% bioethanol) compatible. In the Brazilian market, where bioethanol is readily available, Toyota introduced an FFV* in late May 2007. In FY2007, in a joint effort with Nippon Oil Corporation, Toyota also began research on a hydrogenated biodiesel fuel obtained from a second-generation biodiesel fuel.

*FFV: Flexible Fuel Vehicle
A vehicle that is specially designed to run on gasoline alone or on any blend of gasoline and ethanol

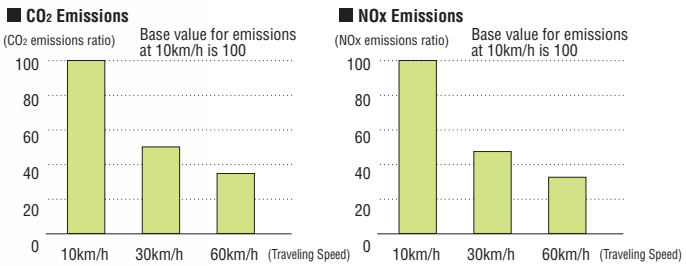
Development and Design — Promote initiatives to improve traffic flows using a variety of networking technologies

Easing Traffic Congestion by Increasing the Number of Commuter Shuttle Buses

Easing traffic congestion increases the average moving speed of vehicles, and this in turn reduces CO_2 emissions. Since February 2003, Toyota has been operating commuter shuttle buses in the Head Office Area in Toyota City in order to ease traffic congestion during commute hours, and has also expanded the bicycle parking lot for employees.

As of November 19, 2003, a total of 1,561 employees were utilizing 97 service runs on three routes. On February 20, 2007, the service was expanded to 202 service runs on six routes, and is being used by a total of 4,238 employees. Commuters have responded very positively, pleased that they can effectively utilize their commute time reading books or newspapers, for example.

Relationship Between Traveling Speed* and Exhaust Emissions Per Unit of Time



*Traveling speed: Speed measured in a state close to actual traveling conditions
Source: Japan Automobile Research Institute

A commuter shuttle bus arrives at the Toyota Head Office

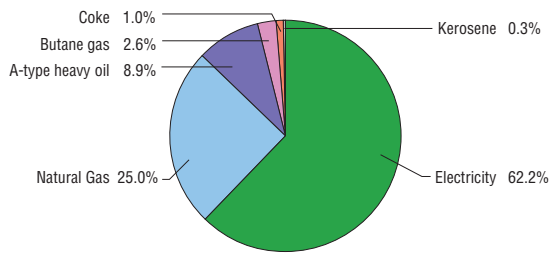
Reduce CO_2 emissions in TMC's production activities

FY2006 CO_2 emissions reduction goal in the production area
- Reduce total CO_2 emissions volume per year to 1.7 million tons or less

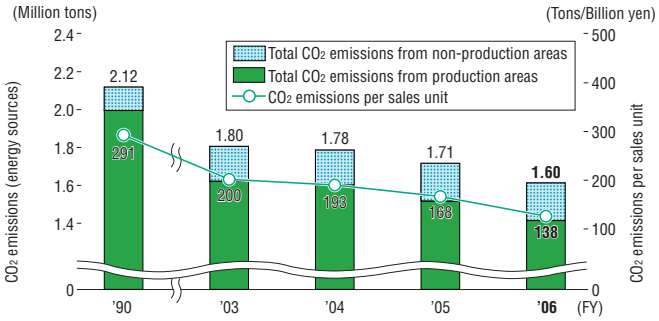
Beginning in FY2005, Toyota added its non-production sites, such as offices, to the scope of its CO_2 emissions reduction activities for stationary emission sources and carried out activities with the goal of reducing total CO_2 emissions per year to 1.7 million tons or less. Actual total CO_2 emissions in FY2006 were 1.6 million tons.

Key measures included the introduction of gas cogeneration systems in the Tsutumi and Myochi plants, switching the fuel used at the Honsha and Motomachi plants from heavy oil to LNG, and consolidation of production lines in machining processes.

Calorific Energy Use Ratio at TMC



CO_2 Emissions (Energy Sources) and CO_2 Emissions per Sales Unit at TMC Production and Non-production Bases in Japan

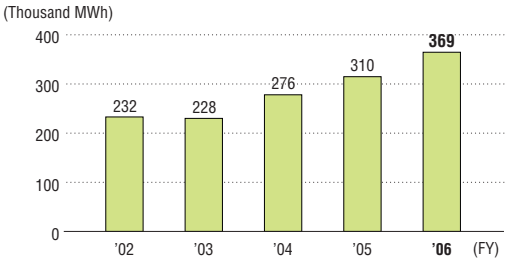


Note: For facilities in non-production areas for which FY1990 emissions data is not available, the oldest subsequent data available is used for the graph

Expanded Use of New Energy by TMC

In FY2006, the amount of electricity generated using new energy sources such as natural gas cogeneration and power generation from waste was 369,000MWh, accounting for approximately 13% of Toyota's total electricity consumption.

Use of New Energy by TMC



Note: Data for previous years has been revised due to a change in the calculation method

Purchase of Green Power

Toyota concluded a Green Power Certification System agreement with Japan Natural Energy Company Limited, based on which it used 1.8 million kWh of wind-generated power in FY2006.

In Focus — ESCO Awarded the Minister's Prize from the Ministry of Economy, Trade and Industry

ESCO (Energy Service Company) is an internal organization that evolved from the ESCO Group of the Plant Engineering Division, and its mission is to promote energy conservation measures mainly in cooperation with production divisions of Toyota plants. In FY2006, based on the Fourth Toyota Environmental Action Plan goal of reducing CO_2 emissions by 20% from the 1990 level by FY2010, ESCO set as its annual goal a reduction of 5,000 tons of CO_2 emissions. To this end, ESCO worked with the Environment Team of the Motomachi Plant Final Assembly Division to reduce the energy consumption of its paint chillers. After issues were identified through initial and detailed analyses, various steps were taken that included improvements in the operating hours and the running conditions of the chiller, and heat recovery from the deodorizing oven, leading to an annual reduction of 7,900 tons of CO_2 emissions.

This project was recognized by the Energy Conservation Center, Japan and was awarded the Minister's Prize from the Ministry of Economy, Trade and Industry at the FY2006 National Convention of Excellent Successful Cases. ESCO is expanding the scope of its work by continuing to cooperate with Toyota's production divisions in Japan to expand energy conservation actions, while also supporting overseas affiliates in implementing independent energy conservation initiatives.

Receiving the Minister's Prize from the Ministry of Economy, Trade and Industry

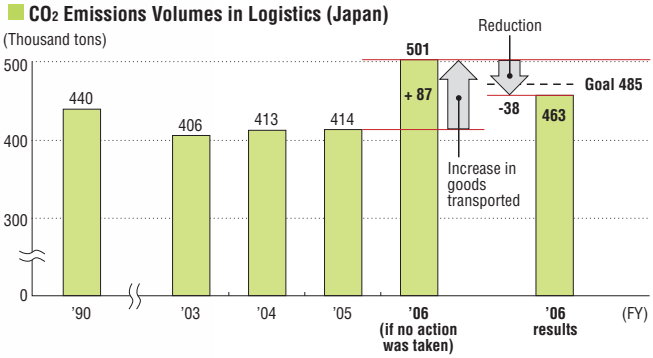
Production and Logistics — Reduce CO_2 emissions in the logistics activities of each country and region

FY2006 CO_2 emissions reduction goal in the logistics area
- Reduce CO_2 emissions volume per year to 485,000 tons or less

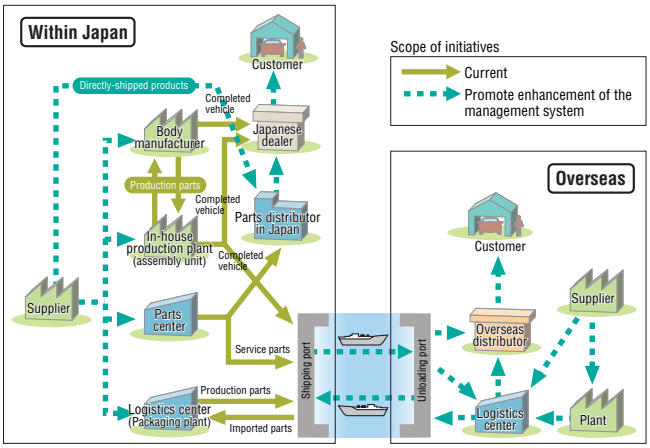
CO_2 Emissions Reduction Activities in Japan

In FY2006, increases in production at distant plants (in Kyushu and Tohoku) would have increased Toyota's total CO_2 emissions by 21% from the previous year to 501,000 tons. However, by implementing various measures, including the shift to a mode of transport with low CO_2 emissions per unit such as trains and large ships, a reduction in the total distance driven, and fuel efficiency improvements made in cooperation with transport companies, Toyota was able to restrict this increase by 38,000 tons. As a result, total CO_2 emissions from logistics activities in FY2006 were 463,000 tons, an increase of only 12% from FY2005.

CO_2 Emissions Volumes in Logistics (Japan)



Scope of CO_2 Emissions Calculations in TMC Logistics



CO_2 Emissions Reduction Activities Worldwide

Since FY2004, Toyota has been promoting the creation of structures to calculate and determine CO_2 emissions volumes at overseas affiliates. Measures have almost completely been implemented in Europe and the U.S., and data is currently being verified. In FY2006, creation of similar structures in South America and China was begun.

In FY2007, plans call for expansion to other parts of Asia, Australia, and the Middle East. Toyota will analyze results, set goals and implement reduction initiatives on a global scale. Plans are also in place to gain a clearer understanding of CO_2 emissions from open-sea marine transport.

Results of CO_2 Emissions Reduction Activities

Topic		Product	Details	Reduction in CO_2
Shift to a mode of transport with low CO_2 emissions per unit	Modal shift	Production parts	• Switched to railway transport for shipping production parts to the Iwate Plant of Kanto Auto Works • Switched to marine transport for shipping engines to Toyota Motor Kyushu, Inc.	2,600 tons/year 3,000 tons/year
	Use of large ships	Completed vehicles	• Began using large, high-efficiency ships on the Kyushu and Tohoku routes	12,500 tons/year
Reduction of total transportation distance	Reassessment of routes/Improvements in loading rate	Production parts	• Switched the unloading port (from Hakata Port to Shin-Moji Port) for the Kyushu route	1,200 tons/year
		Completed vehicles	• Reduced the number of ships used by utilizing large ships and through effective use of space on ships carrying parts • Reduced the number of ships used by changing the Hokkaido route to include stops at Tohoku	7,900 tons/year 1,300 tons/year
		Service parts	• Integrated Toyota Hokkaido Parts Distributor Co., Ltd. head office warehouses (Sapporo warehouse and Tomakomai warehouse)	200 tons/year
Improvements in fuel efficiency		Production parts/Completed vehicles/Service parts	• Further promoted Eco Driving through driver education, etc.	5,000 tons/year
Other				4,700 tons/year
Total reduction in CO_2 emissions				38,400 tons/year

In Focus — Modal Shift — Toyota Long Pass Express Railway Service for Delivering Parts to Distant Plants

In an effort to reduce its CO_2 emissions from logistics operations through a modal shift, in November 2006 Toyota began operating a dedicated railway service, in cooperation with Toyota Transportation Co., Ltd., Nippon Express, and Japan Freight Railway Company. This service, being operated under the name Toyota Long Pass Express, is used to ship certain production parts to the Iwate Plant of Kanto Auto Works, Ltd. Using this railway service is expected to reduce total CO_2 emissions by approximately 7,000 tons/year compared to truck transport. (The reduction in FY2006 was 2,600 tons.)
Service points: Nagoya South Cargo Station - Morioka Terminal Station (approximately 900km)
Operation: 244 days a year, in sync with the plant's operating schedule
Number of services: 1 round trip a day;
Transported volume: Forty 31-foot containers a day

Launch of Toyota Long Pass Express

TMT Participates in National Biodiesel Development Project

TMT, Thailand

Toyota Motor Thailand (TMT) is participating in a national biodiesel development project that started in April 2006 following a call from His Majesty the King of Thailand to TMC Honorary Chairman Shoichiro Toyoda. The project is expected to contribute to reducing Thailand's dependence on petroleum products, the development of agriculture, and creating jobs. TMT and the Toyota Technical Center Asia Pacific (currently Toyota Motor Asia Pacific Engineering & Manufacturing) conducted experiments with PTT Public Company Limited, Thailand's national petroleum company, and Kasetsart University to create biodiesel fuel from the fruit of the jatropha plant, a crop that can be grown even on barren land.

Total investment in the three-year project will be 33 million baht (approximately 120 million yen). The project will research jatropha varieties suitable for the Thai climate, production methods, and oil extraction methods and will investigate biodiesel production techniques, compatibility with engines and fuel supply systems, durability, emissions, and cost effectiveness in pursuit of the King's request for the efficient use of alternative fuels.

Signing ceremony to mark the start of the project

Involving its Entire Workforce to Reduce CO_2 Emissions

TMUK, UK

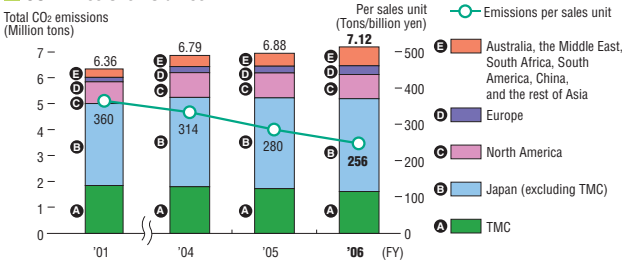
Toyota Motor Manufacturing UK (TMUK) is aware of the impact on climate change of its production activities and sets challenging targets in its five year Environmental Action Plan. In 2005 TMUK was presented with a "business as usual" reduction target of 15% under the UK National Allocation Plan as part of the European Emissions Trading Scheme, even though production volume was increasing.

TMUK had already reduced its energy consumption per unit of production by over 70% since the start of operations. Reducing energy usage further was a strong challenge, so TMUK engaged its entire workforce to implement additional energy management measures in order to meet the target without purchasing CO_2 allowances. At the Burnaston Plant, initiatives such as refining start-up schedules of certain equipment to establish minimum warm-up times, and reducing steam pressure to the minimum required for each season, contributed to the improved energy efficiency and a reduction in CO_2 emissions amounting to a 21% saving, exceeding the set target. Facilities Senior Manager, Dave Chapman, comments "Our success in our continued energy reduction since the start of production is due to the involvement of all our team members and their dedication in doing a good job on behalf of the environment, but we realize that we can make a further contribution in reducing our environmental impact."

TMUK members inspect boilers

Toyota has set the goal of reducing global Toyota CO_2 emissions per sales unit by 20% compared to FY2001 by FY2010, and consolidated affiliates in Japan and overseas are implementing measures to reduce consumption of electricity, gas, fuel and other forms of energy. As a result, CO_2 emissions per sales unit have reduced significantly.

CO_2 Emissions Volumes



Note 1: Includes 116 companies including TMC and consolidated companies in Japan and overseas
Japan: Consolidated subsidiaries listed in Groups 1~5 on P. 49 (excluding Toyota Tsusho and Panasonic EV Energy)
Overseas: Production companies and production/sales companies listed on P. 30 (excluding TMMTX (US) and TMMR (Russia)
Note 2: TMC sub-subsidiaries as of FY2001 have been included
(For those companies that FY2001 data could not be determined, the oldest subsequent data is used)
Note 3: Affiliates in China have been included since FY2006

Examples of Overseas Initiatives

Improved Return Trips Reduces Fuel Consumption by 43%

Hotai, Taiwan

Hotai Motor Co., Ltd. (Hotai) has been making improvements to its logistics systems since 2004 to improve transportation efficiency, reduce the environmental impact of logistics activities, and cut costs by increasing utilization of delivery truck return trips. The first improvements were made in eastern Taiwan by contracting delivery trucks to deliver parts from parts manufacturers (suppliers) to plants and logistics centers on their return trips. As a result, loading efficiency at the time of delivery was increased from 75% to 90% and that on return was raised from 15% to 95%, producing a 43% reduction in fuel use. In addition, parts manufacturers enjoyed a 30% reduction in shipping costs, and Hotai was not only able to reduce costs, but also able to generate income from transportation.

Hotai has successfully collaborated with numerous suppliers in making efforts to reduce costs through improved routes.

Utilizing truck return trips in cooperation with suppliers

Promoting Carpooling to Reduce CO_2 Emissions

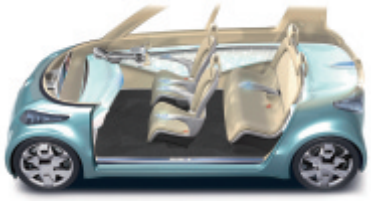
NUMMI, USA

New United Motors Manufacturing (NUMMI), which is located in California, promotes carpooling, the shared use of a car or van by several employees. Carpooling contributes to reducing the number of commuting vehicles, which leads to reduction of CO_2 emissions and mitigates traffic jams. Mr. Titus Turner, an Assembly Conveyance team member, comments on one of the merits of carpooling, “It's a good way to conserve energy.” It is good for employee pockets as well because when one team member shares a vehicle with other commuters, everyone shares the fuel and toll costs. Also, as they take turns sharing their vehicles and driving with others, carpooling reduces the stress of driving.

In order to promote carpooling, NUMMI holds a special fair for all employees, suppliers, and contractors. At the fair, NUMMI introduces how to start carpooling and how one can contribute to the society by using it. Representatives from local carpooling organizations or NGOs participate in the fair to provide information. In 2006, about 2000 people visited the fair.

The special fair held to promote carpooling

Carpooling by employees



Recycling of Resources

Full Utilization of Valuable Resources toward Building a Recycling-based Society

The world is facing a large number of serious issues. For example, global population increase and the rapid economic growth of developing nations are leading to greater consumption of metals and other resources. In many countries, including in developing nations, water shortage is also becoming a concern. Additionally, the amount of available landfill space is shrinking and illegal dumping and trans-boundary movement of hazardous waste is increasing.

In order to help build a recycling-based society and improve resource productivity, Toyota is promoting the effective utilization of resources, reducing water consumption, and encouraging the development and increased use of designs for recycling (DfR) in vehicles.

- **Production and Logistics** — **Promote the effective use of resources to further contribute to the realization of a recycling-based society**
- **Production and Logistics** — **Reduce TMC water consumption**
- **Recycling** — **Further promote and expand the use of designs based on the designs for recycling concept**
- **Recycling** — **Steadily implement recycling systems in Japan and Europe**

Production and Logistics — TMC initiatives to promote the effective use of resources to further contribute to the realization of a recycling-based society

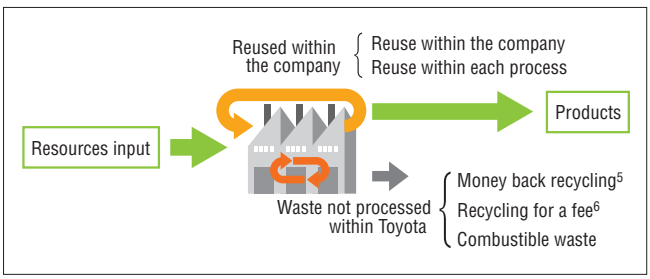
FY2006 Production Area Goals
- Reduction of the volume of waste not processed within Toyota to 515,000 tons or less
- Maintain zero landfill waste

Activities to Reduce the Volume of Waste not Processed within Toyota

In addition to achieving zero landfill waste, Toyota has set reducing the volume of combustible waste generated as one of its goals and has made steady progress in this area. To further promote effective resource utilization toward building a recycling-based society, however, it is essential to reduce overall resource loss[1] from the perspective of improving resource productivity, including enhanced money-back recycling and reuse within the company. To achieve this, beginning in FY2006, Toyota set goals to reduce the volume of waste not processed within the company,[2] (including that for money-back recycling) and implemented various measures such as improving yields and reducing material loss caused by defects, using net-shaping technologies to reduce the amount of machining necessary, and carrying out merging and discontinuance of processes.[3] As a result, the volume of waste not processed within Toyota was reduced to 524,000 tons[4] in FY2006, significantly reducing the volume discharged per unit of sales.

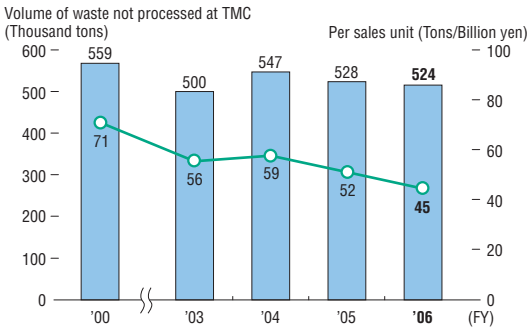
1. Resource loss: Volume of waste reused within the company + volume not processed within Toyota
2. Volume of waste not processed within Toyota: Please refer to the diagram "Flow of Resources" on the right
3. Merging and discontinuance of processes: Consolidation of production lines to enhance operational efficiency
4. Includes figures for non-production bases

Flow of Resources



5. Money-back recycling: Waste that is sold to be recycled
6. Recycling for a fee: Waste that is recycled for a fee

Total Volume of Waste not Processed within TMC and Volume per Sales Unit



Zero Landfill of Fly Ash Generated by Toyota's Incineration Furnace and Difficult-to-process Waste

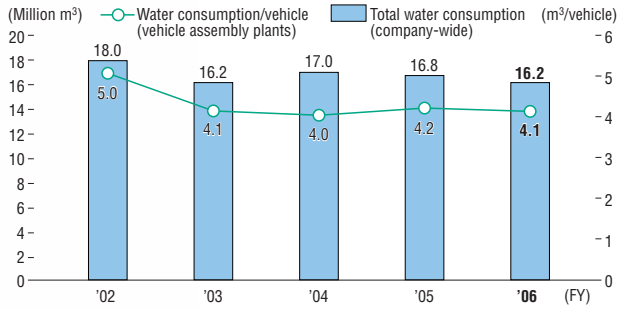
Toyota achieved near zero landfill waste[1] at its production plants in December 2000 and at its non-production bases (offices and other areas) in December 2003, and continued to maintain this goal in FY2006. In addition, in order to reduce the final landfill volume to as close to zero as possible, Toyota promoted efforts to recycle the entire volume of fly ash generated by its incineration furnace as a raw material for cement manufacturing, instead of sending it to a landfill. Toyota also began evaluating methods for recycling the small quantities of difficult-to-process waste currently being sent directly to landfills. For example, automobile glass, insulation materials, and metal-plastic composites could all be gasified and melted for use as roadbed materials, while glass and ceramic scraps could be used as raw materials for cement.

As a result, with respect to all waste that is disposed of, Toyota has been maintaining zero landfill waste[2] since April 2007, excluding the volume of fly ash generated at incineration furnaces outside the company and waste sent to landfills at some testing facilities.

1. Near zero landfill waste:
   FY2000 to FY2004: A reduction in direct landfill waste to less than 5% of the FY1995 level
   Since FY2005: A reduction in direct landfill waste to less than 1% of the FY1995 level
2. Zero landfill waste: Complete elimination of landfill waste (since April 2007)

Production and Logistics Reduce TMC water consumption

TMC Water Consumption



Note 1: Water consumption includes the volume consumed at automobile production plants, housing works and non-production divisions
Note 2: Water consumption/vehicle indicates the consumption per unit produced at vehicle assembly plants

Third Sino-Japanese Environmental Management Seminar

In November 2006, the Third Sino-Japanese Environmental Management Seminar was held at Sichuan University in China by TMC, SFTM, TTCC, Tsinghua University, and Sichuan University under the theme of "Water and the Environment." The principal purpose of the seminar was to discuss the possibility of technology transfer to China with respect to water and the environment, a leading environmental theme in China, and the contribution this could make to Chinese society, as well as to wastewater treatment and water conservation by SFTM. An environmental officer from SFTM commented that, "We have been encouraged to promote Toyota's water conservation initiatives by the praise of local university lecturers regarding the effectiveness of the initiatives."

The Third Sino-Japanese Environmental Management Seminar

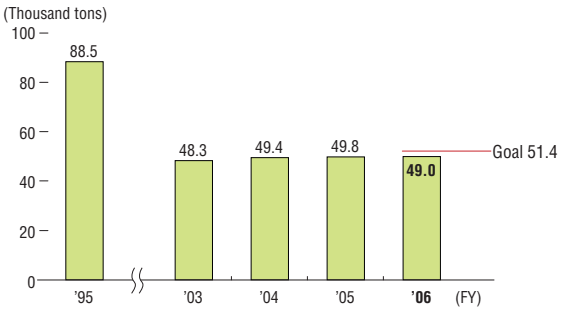
FY2006 Goals in Logistics
- Reduce usage of packaging and wrapping materials to 51,400 tons or less

Reduction of Packaging and Wrapping Materials

In FY2006, Toyota further expanded the use of returnable containers and changed wrapping specifications. As a result, the total usage volume of packaging and wrapping materials was 49,000 tons, a reduction of 3,000 tons.

To reduce usage volumes at overseas affiliates too, in FY2006 Toyota began preparations to determine usage volumes and will start collecting data in FY2007.

Usage of Packaging and Wrapping Materials by TMC (Japan)



Results of Activities to Reduce Packaging and Wrapping Materials

Topic	Product	Details	Reduction
Increasing the use of returnable containers, change of specifications, etc.	Production parts	• Expanded use of returnable plastic boxes • Change in packaging formats and material	300 tons/year 200 tons/year
	Service parts	• Expanded use of returnable steel boxes • Change of wrapping specifications	700 tons/year 1,800 tons/year
Total reduction			3,000 tons/year

In Focus Expanding the Use of Returnable Containers

In the area of service parts logistics, Toyota initiated the use of returnable containers for shipments to North America in FY1996, expanded their use to Europe in FY2000, and then for shipments to Australia in FY2006. By changing from corrugated cardboard boxes to returnable steel containers Toyota reduced the usage volume of packaging materials by 700 tons in FY2006. As a result of action implemented this far, the usage rate of returnable containers has reached 32%.

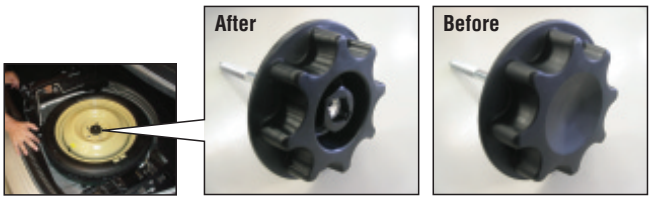
Before
Corrugated cardboard box

After
Returnable steel containers

Recycling — Further promote and expand the use of designs based on the designs for recycling concept

Development of Vehicles with Improved Dismantlability and Recyclability

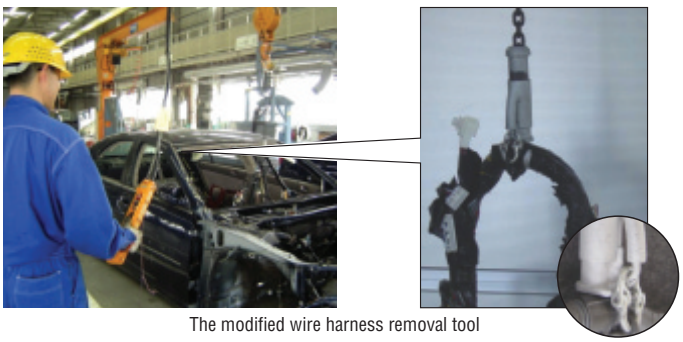
Toyota incorporated the Easy to Dismantle Mark, which indicates efficient dismantling points, and easy-to-dismantle designs for plastic parts first into the Raum (launched in May 2003) and into all vehicle series launched since then (six vehicle series that were new or underwent complete redesign in FY2006). In the Lexus LS460 launched in FY2006, the plastic part of the spare tire carrier and bolt were made so that the plastic can be easily separated from the steel during recycling. Additionally, a hexagonal protrusion was added to the carrier so that it can be more easily removed using a power tool.



Spare tire carrier

Development and Widespread Use of Dismantling Methods and Tools

At the Automobile Recycle Technical Center established inside Toyota Metal, Toyota has been promoting research on designs for recycling, and tools that simplify the dismantling process. In FY2006, Toyota made improvements to the wire harness removal tool. Modifications were made to the part of the tool that wraps a chain around the wire harness to ensure that the wire harness does not slip during removal. The new tool reduces removal time by 41% compared to the previous one that used a special hook.


The modified wire harness removal tool

Information on dismantling tools developed by Toyota is disclosed on Toyota's website

http://www.toyota.co.jp/en/environment/recycle/scrap/index.html

As part of its efforts to disseminate information to dismantling companies, continuing from the previous year the Automobile Recycle Technical Center held two study meetings in February 2007 on methods to recover copper from end-of-life vehicles, which is essential to complete resource recovery.[1] Employees from a large number of dismantling companies attended each meeting. The Center has created a manual for dismantling companies, in which information on minivan dismantling techniques was recently added. Based on this manual, effective methods of removing wiring harnesses, wiper motors, power seat motors, door motors etc., were demonstrated at the study meetings.

1. Complete resource recovery: Process in which dismantling companies perform precise dismantling operations for removing wiring harnesses, motors, and other copper parts to prepare end-of-life vehicles to be fed into an electric furnace or converter to be processed into raw steel. Complete removal of all copper impurities in advance is the key to ensuring the quality of the steel.


Front wiper motor removal demonstration

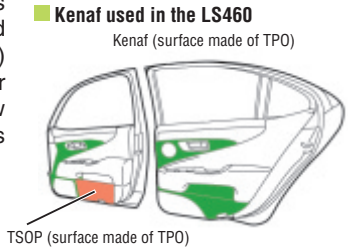
Information on dismantling technologies is also explained on Toyota's website

http://www.toyota.co.jp/jp/environment/recycle/scrap/efficiency/01.html

Expansion of the Use of Renewable Resources and Recycled Materials

Toyota used Toyota Eco-Plastic, derived from sugar cane, in the Raum that was launched in May 2003. Toyota also initiated the use of kenaf fibers in the Corolla and Celsior launched in 2000, and in 2006 expanded its usage to the package tray and door trim of the Lexus LS460 and the package tray trim of the Corolla Axio. Toyota adopts recycled materials made from discarded bumpers in the engine undercover and other vehicle parts. In the instrument panel of the Corolla Axio and Corolla Fielder, Toyota uses insulation material recycled from discarded PET bottles. Toyota also continues to use Toyota Super Olefin Polymer (TSOP), a thermoplastic material with excellent recyclability, in the bumpers and cowl louvers, and Thermo Plastic Olefin (TPO) in the door glass run and rear window molding of all new vehicle models and models that have been redesigned.

Kenaf used in the LS460



Recycling — Steadily implement recycling systems in Japan and Europe

Responses to the Automobile Recycling Law in Japan

In response to the Law Concerning Recycling Measures for End-of-life Vehicles (Automobile Recycling Law) that went into effect in Japan in January 2005, Toyota has created systems to ensure the proper collection, recycling/recovery and treatment of airbags, ASR[2] and CFCs/HFCs, generated from ELVs. Working with dismantling and recycling companies to reliably recycle/recover and treat these three items, in FY2006, Toyota achieved an ASR recycling/recovery rate of 66%, equivalent to a vehicle recycling/recovery rate[3] of 94%.

2. ASR (Automobile Shredder Residue): Non-metallic waste from shredded end-of-life vehicles

Recycling/Recovery of the Three Specified Items (FY2006 results)

		Results		Results
No. of vehicles collected for ASR		957,000	Funds paid from JARC*	8,092 million yen
No. of vehicles collected for airbag recovery		186,000		
No. of vehicles collected for CFC/HFC recovery		713,000	Expense for recycling/ recovery and treatment	8,434 million yen
Recycling/ recovery rate	ASR	66%		
	Airbags	94%	Balance	-342 million yen

*Japan Automobile Recycling Promotion Center

3. Vehicle recycling/recovery rate: Calculated as the approximate 83% recycling rate of materials recovered from the dismantling and shredding processes (as per joint meeting documentation, May 2003), plus a 66% ASR recycling/recovery rate of the 17% ASR remaining after recycling of materials recovered from the dismantling and shredding processes [83 + (66 / 100 x 17) = 94]

Responses to Automobile Recycling Laws Overseas

Automobile recycling laws have been enacted in many other countries as well. For example, in Europe, all EU member states enacted such laws based on the EU ELV Directive 2000. Automakers have built specific networks, and beginning in January 2007 started to take-back all ELVs, excluding in a few member states.

In cooperation with TME and distributors in various countries, Toyota in FY2006 completed the building of its networks in 22 EU member states, and will proceed to build networks in the remaining five member states in accordance with the respective government rules and regulations.

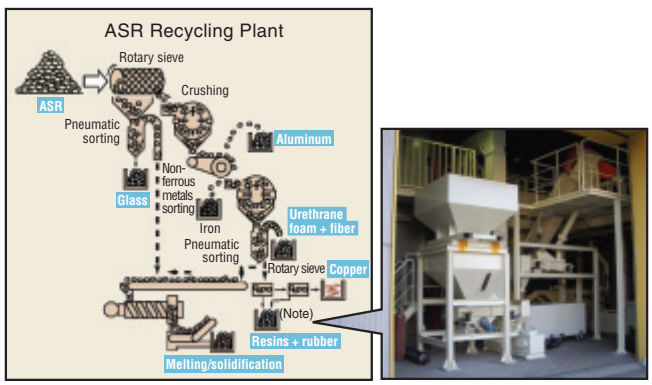
In China, an automobile recycling law was promulgated in February 2006, and is to be enacted by 2010. Toyota participates in deliberative council meetings and, based on its experience in Japan and Europe, is helping build an effective recycling system that will be appropriate for China.

Promotion of ASR Recycling/Recovery

Toyota, together with Toyota Metal Co., Ltd., promoted the development of ASR recycling/recovery[1] technologies at the ASR Recycling Plant, the world's first mass-production recycling plant built in 1998 with a recycling capacity of approximately 15,000 ELVs per month. This ASR Recycling Plant recycles the insulating material RSPP,[2] copper, and glass, and sorts resins and rubber. In FY2006, 5,833 tons of resins and rubber were sorted and used as an alternative to kerosene fuel.

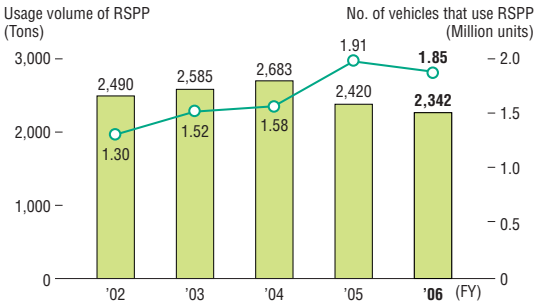
To further advance ASR recycling/recovery technologies, the plant has been working on expanding the use of ASR as a fuel in electricity generating furnaces, and in January 2007 began verification testing of a method to sort resin from ASR.

1. ASR recycling/recovery: Refers to material recycling and thermal recovery of ASR
2. RSPP: Recycled Sound-Proofing Products



Note: Equipment for verification testing of technologies to sort resin from ASR

Usage Volume of RSPP Materials (Urethane and Fibers)



Steady Progress in Recycling at Dealers and Parts Distributors

Supplies of used and rebuilt parts

In FY2006, 72,000 used parts and 31,000 rebuilt parts were sold at dealers and parts distributors in Japan. To further promote the use of used and rebuilt parts, Toyota also conducted market surveys, created response policies and distributed them to dealers and parts distributors.

Supplies of Rebuilt Parts

Rebuilt parts	Number supplied
Automatic transmissions	10,678 (202)
Power steerings	17,158 (9,116)
Torque converters	3,581 (3,565)

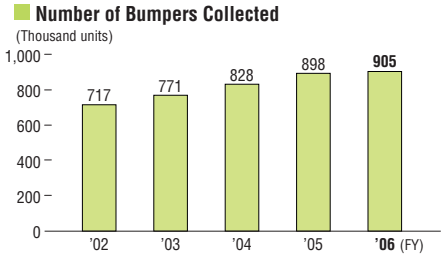
( ) indicates supply of new parts

Promoting the Collection and Recycling of End-of-life Parts

Parts distributors and dealers nationwide collected end-of-life parts, and the number of end-of-life bumpers collected and recycled increased to 905,000 units. The number of lead balance weights collected and recycled also increased to 81 tons (from 68 tons in FY2005). 54.9% of all oil supplied to parts distributors in FY2006 was through the bulk supply[3] system.

3. Bulk supply:
A tanker truck transports the motor oil to dealers, who then store it in tanks. This helps reduce the number of drums used.

Number of Bumpers Collected



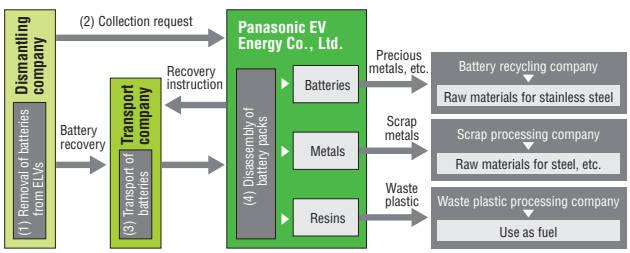
Development of Hybrid Vehicle Recycling Technologies and Creation of a Collection Network

Since 1998, in connection with the launch of the Prius Hybrid in December 1997, Toyota and Panasonic EV Energy have worked together to create a nationwide collection and recycling system for hybrid batteries.

In FY2006, 489 battery packs were collected and recycled. Although the number of hybrid ELVs is currently very small, this number is expected to grow considerably in the future. In order to thoroughly implement the collection and recycling system, in March 2007 the revised version of the Hybrid Battery Unit Collection and Recycling Manual was distributed to approximately 6,200 dismantling companies nationwide. Relevant information was also updated on Toyota's website.

http://www.toyota.co.jp/jp/environment/recycle/law/recycle_fee/battery.html (Japanese only)

Hybrid Vehicle Battery Collection and Recycling Flow



Winning Top Environmental Awards

TMUK, UK

Toyota Motor Manufacturing (UK) (TMUK) became the first car manufacturing plant in the UK to achieve zero waste to landfill in FY2003. The five year goal set in 2001 was met two years ahead of schedule. To reduce waste, production teams identified all waste streams and ensured segregation at the source. In the assembly department, for example, it was found that of 244 different parts, 211 could be recycled, 30 eliminated at the source, and three incinerated for energy recovery.

In recognition of these efforts, TMUK won a Business in the Community (BITC) 'Big Tick' award in 2004 and 2005. In 2006 TMUK also won a Premier Business Commitment to the Environment (BCE) Award. The BCE awards are regarded as a top accolade among environmental awards in UK.

Project team that received the Premier BCE award

Halving Water Consumption Per Vehicle Produced

TMMF, France

As part of efforts to reduce water consumption, Toyota Motor Manufacturing France (TMMF) installed a wastewater treatment facility at its plant in 2004. Approximately 5% of the wastewater generated is currently treated at this facility and reused for sludge recovery in painting processes, cooling, shower tests and other uses. As a result, with only 1.3m^3 of water consumed for every vehicle produced, TMMF has reduced its daily consumption by more than 50% since the start of production in 2001. Annual water consumption has been reduced by 13,000m^3. In recognition of these efforts, in November 2006, TMMF was awarded the Environmental Performance Trophy by the Nord Pas-de Calais Regional Chamber of Commerce and Industry. TMMF is committed to reducing water consumption even further. In FY2007, the company aims to enhance the wastewater recycling rate to 20%, further reducing water consumption by approximately 15%.

TMMF's water conservation project team

Using Recycled Water for the Shower Test

TMMTX, USA

Toyota Motor Manufacturing, Texas (TMMTX) evaluated local conditions during the site selection process and determined that water was an environmentally sensitive issue in the area. Therefore, TMMTX started using recycled water to reduce fresh water consumption during construction and pilot operations in February 2006. Recycled water is received from the local publicly owned treatment works, and used throughout the plant, including for the shower test booth in Assembly. Some of the recycled water used in the plant is recirculated at paint sludge pools. Because of the use of recycled water, TMMTX is saving 43,000m^3 of fresh water per month.

Shower test for the Tundra using recycled water

Organic Agricultural Methods Developed from Food Waste

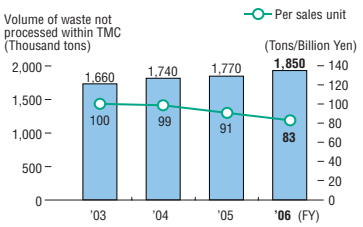
TAP, Philippines

Toyota Autoparts Philippines (TAP) reclaimed 3.25 hectares of unused land on its site in cooperation with a local agricultural corporation to educate local residents on environmentally friendly agricultural methods and promote sustainable agriculture. The land, known as the Organic Techno-Farm, utilizes organic methods to grow crops. A fence was made around the field with recyclable materials from the plant, and recycled bricks were used for footpaths. In addition, organic compost made from cafeteria food waste and treated wastewater are being used. The field is open to local elementary school children and serves as a place for the children to experience agriculture.

Members of an agricultural organization tour the TAP fields

Production Environment Data (Japan)

Volume of Waste not Processed within TMC

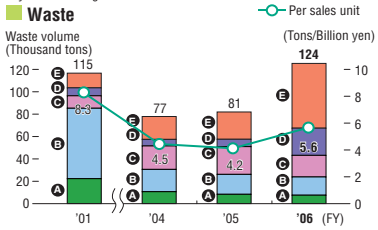


*33 companies (TMC, consolidated and other companies in Japan) (For consolidated companies in Japan, excluding Toyota Tsusho and Panasonic EV Energy, please see P.49)

Global Production Environment Data

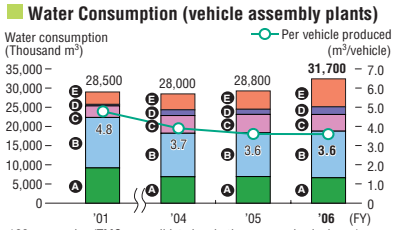
Total volumes and volumes per sales unit have increased due to the inclusion of Chinese affiliates in the calculation scope since FY2006. Toyota will strengthen initiatives to restrict further increases.

Waste



*Excludes recycling for a fee
*74 companies (TMC, consolidated and other companies in Japan)
*For sales and sales/production companies (excluding TMMTX (US) and TMMR (Russia), please see P.30)

Water Consumption (vehicle assembly plants)



*33 companies (TMC, consolidated and other companies in Japan) (For consolidated companies in Japan, excluding Toyota Tsusho and Panasonic EV Energy, please see P.49)

A TMC B Japan (excluding TMC) C North America D Europe E Australia, the Middle East, South Africa, South America, China, and the rest of Asia

Substances of Concern

Further Reduction in the Use of Substances of Concern Based on Toyota Global Standards

Currently, approximately 100,000 kinds of chemical substances are being manufactured throughout the world. Some of these chemical substances are suspected of having adverse effects on the environment or human health. Toyota is managing substances of concern in its company-wide system, under a basic policy of implementing thorough measures to totally eliminate the four banned substances of concern (lead, mercury, cadmium, and hexavalent chromium) from all vehicles, and is taking actions globally, in the areas of both products and production. Toyota has almost achieved the voluntary goals set by the Japan Automobile Manufacturers Association in August 2006, and is promoting actions toward complete elimination of the four substances of concern on a global scale in 2007. Toyota is also working to reduce the discharge of substances subject to the PRTR (Pollutant Release and Transfer Register) law* during production.

*PRTR Law: Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management

Development and Design Promote management and further reductions in the use of substances of concern

Production and Logistics Reduce the TMC discharge of substances subject to the PRTR law

Development and Design — Promote management and further reductions in the use of substances of concern

Introduction of Vehicles that Completely Eliminate the Usage of the Four Substances of Concern

Based on the Toyota Global Standards, Toyota has been taking action to achieve the early elimination of the use of the four substances of concern (lead, mercury, cadmium, and hexavalent chromium). In August 2006, their usage was completely eliminated at all production affiliates in Japan. Parts containing hexavalent chromium were the most numerous and eliminating its usage required considerable effort. In accordance with voluntary standards established by the automobile industry in Japan banning their use beginning in 2008, Toyota has completed, well in advance, the implementation of responses to eliminate usage of the four substances. The Lexus LS460 launched in Japan in September 2006 and the Corolla launched the following month in October mark the first two vehicles that completely eliminate the usage of the four substances of concern.

Reduction of VOC Inside the Cabin

Toyota has reviewed the materials, adhesives and processing methods used for interior parts to limit the amount of volatile organic compounds (VOCs) generated, thus improving the air quality inside the cabin. Interior VOC levels have been reduced in six vehicle series, namely the Estima Hybrid, LS, Corolla Axio, Corolla Fielder, Auris, and Blade.

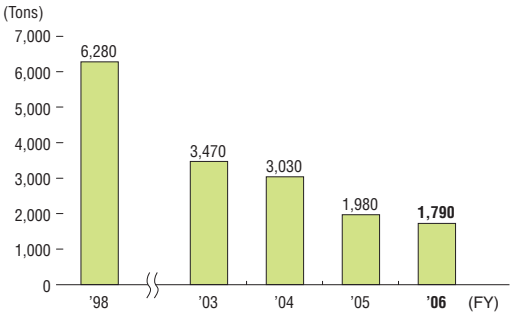
Production and Logistics — Reduce the discharge of substances subject to PRTR due to TMC production activities

FY2006 Goal
- Reduce yearly discharge volumes of toluene, xylene and other substances subject to PRTR to 1,950 tons or less

Reduce the Discharge Volume of Substances Subject to PRTR

Toyota took various steps to promote and establish measures to reduce the usage of toluene, xylene, ethylbenzene, and 1,3,5-trimethylbenzene, which account for 95% of the total volume of the substances subject to PRTR. Through measures such as converting topcoat paints to the water-borne type and enhancing the recovery rate of cleaning solvents after usage, Toyota reduced the annual released volume of substances subject to PRTR to 1,790 tons, thus achieving the FY2006 goal.

TMC Discharge Volumes of Substances Subject to PRTR



In Focus Reducing Cleaning Solvent Usage through Innovation

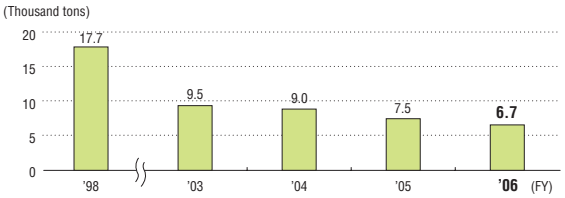
In its efforts to further reduce discharge volumes of substances subject to PRTR, Toyota has tried various approaches to reduce the volume of cleaning solvents used at the Takaoka Plant No. 2 Painting Line. Cleaning solvents are used for cleaning paint tubes and painting equipment before changing the color to be applied to a vehicle. In the process of trying to reduce usage, first the minimum pressure necessary for cleaning was calculated and the pressure-regulating valve was locked at that pressure. This ensured that only the absolutely necessary amount of cleaning solvents would be used while quality was maintained. Furthermore, adding spikes to the ring installed at the mouth of the paint injector as an antistatic measure significantly reduced the amount of paint adhesion caused by static electricity. This reduction in turn made it possible to use a water-borne cleaning solvent (consisting of 85% pure water and 15% alcohol) instead of a conventional type consisting of 100% solvent. As a result, the amount of VOC emissions generated from cleaning solvents was reduced from 8.1g/m^2 to 6.6g/m^2. Furthermore, in FY2007, flow meters will be installed inside the painting tubes to begin monitoring and indicating usage. Tsuyoshi Kamikubo, an engineer who led the efforts to recover cleaning solvents, says, "Simultaneously achieving both quality and a reduction in cleaning solvent usage under extremely tight conditions is the kind of challenge that allows an engineer to demonstrate his or her skill." Toyota is looking into applying what was achieved at the Takaoka Plant to various other plants, which operate under different conditions.


Conventional paint injector after 2 hours usage (left) and injector fitted with spikes (right)

Production Environment Data (Japan)

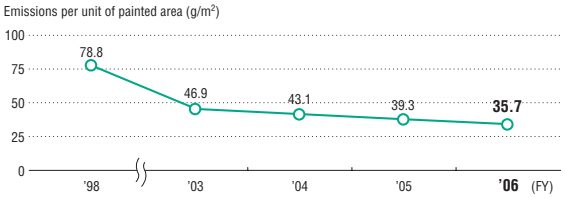
In FY2006, Toyota steadily reduced the discharge of substances subject to PRTR and VOC emissions through systematic switches to water-borne paints and efforts to recover and reduce usage of cleaning solvents and other substances by vehicle body manufacturing companies.

Discharge Volumes of Substances Subject to PRTR



Note: 33 companies (TMC, consolidated and other companies in Japan)
(For consolidated companies in Japan, excluding Toyota Tsusho and Panasonic EV Energy, please see P. 49)

VOC Emissions Volumes in Automobile Painting Processes



Note: 8 companies (TMC, consolidated and other companies in Japan)

Examples of Overseas Initiatives

Reducing Substances of Concern through Cooperation with Suppliers

TEMA (USA)

In 2004, Toyota Motor Engineering & Manufacturing North America (TEMA) set a goal of minimizing the use of the four substances of concern (lead, mercury, cadmium, and hexavalent chromium) in vehicles, service parts, and accessories sold in North America and conducted an analysis of these substances contained in products. Based on this goal and the analysis results, TEMA adopted a reduction plan and worked with its domestic and overseas suppliers to identify parts that contain substances of concern. Plans for reduction and the use of alternatives were established, and specific actions based on those plans were implemented. As a result, TEMA began using mercury-free discharge headlights in mid-2005. Lead use in the Solara (Camry coupe) was drastically reduced through the adoption of a lead-free radiator and other parts. TEMA also initiated the use of lead-free crankshafts in the Avalon beginning mid-2005.

TEMA engineers discuss the reduction of substances of concern with suppliers

Atmospheric Quality

Improving Atmospheric Quality by Addressing Both Mobile and Stationary Pollution Sources

Improving atmospheric quality will require measures that address both stationary sources of atmospheric pollution such as plants and mobile sources such as automobiles.

Advances in technologies used in cleaning automobile exhaust emissions, including catalytic converters and air-fuel ratio compensation systems, have reduced automobile emissions during the use stage to about one one-hundredth over the past 30 years. Increased global motorization in conjunction with the economic growth of developing countries is, however, expected to result in increases in emissions of CO, NOx and other exhaust gases, and therefore further reduction efforts are needed. Measures are also required to reduce VOC emissions at plants by switching to water-borne paints and reducing the volume of cleaning solvents used.

Toyota has included “reducing emissions to improve urban air quality” and “reducing VOC emissions” as action items in the Fourth Toyota Environmental Action Plan, and is developing low emissions technologies and introducing low emissions vehicles according to the local conditions in various countries. Toyota is also promoting initiatives to reduce VOC emissions during production.

Development and Design **Reduce emissions to improve air quality in urban areas in all countries and regions**

Production and Logistics **Implement initiatives to reduce VOC emissions**

Development and Design — Reduce emissions to improve air quality in urban areas in all countries and regions

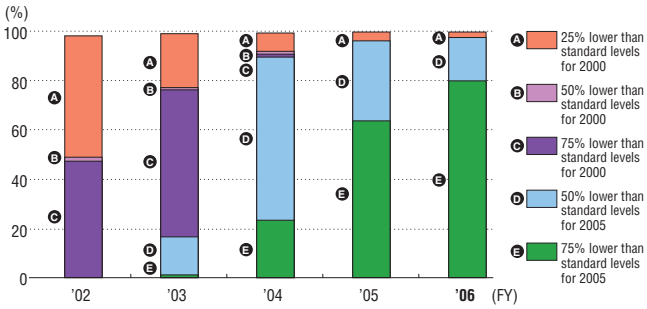
Promotion of Widespread Adoption of Low-Emission Vehicles

In FY2006, Toyota increased the number of vehicles that meet the 2005 Exhaust Emissions Standards in the Ministry of Land, Infrastructure and Transport’s Approval System for Low-Emission Vehicles. As a result, the combined total number of low-emission vehicles including those that meet the 2000 Exhaust Emissions Standards reached 99.8% of total production. The number of vehicles that achieved an exhaust emission level 75% lower than the 2005 Exhaust Emissions Standards (Super Ultra-Low Emission Vehicle level) reached 78.8% of total production, up by 15.1 percentage points compared to the previous year. The number of vehicles that meet or surpass the Ultra Low-Emission Vehicle level and also meet the 2000 and 2005 Exhaust Emissions Standards reached 97.7% of total production in FY2006, increasing by 1.4 percentage points from FY2005. In FY2006, among Toyota’s gasoline-powered passenger vehicles, 16 models were approved as achieving a level 75% lower than the 2005 Exhaust Emissions Standards.

Vehicles that Met the Approval System for Low-Emission Vehicles in FY2006 (2005 Exhaust Emissions Standards)

Low-Emission Vehicle level	☆☆☆☆ SU-LEV (Super Ultra-Low Emission Vehicle)
Vehicle series	**No. of models**
Corolla Axio	4
Corolla Fielder	4
Auris	4
Blade	2
Estima Hybrid	1
LS460	1
Total	16

Low-Emission Vehicles as a Percentage of Total Production



Percentage of Total Production that Met the Approval System for Low-Emission Vehicles in FY2006 based on the 2000 Exhaust Emissions Standards

( ) No. of models

Category	Reduction level	Percentage of total production
☆ Conventional Low-Emission Vehicles	25% lower than standard levels for 2000	2.1% (19)

Percentage of Total Production that Met the Approval System for Low-Emission Vehicles in FY2006 based on the 2005 Exhaust Emissions Standards

( ) No. of models

Category	Reduction level	Percentage of total production
New ☆☆☆ U-LEV	50% lower than standard levels for 2005	18.9% (61)
☆☆☆☆ SU-LEV	75% lower than standard levels for 2005	78.8% (84)

Responses to the Approval System for Low-Emission Vehicles

The number of vehicle series that meet or surpass the Ultra Low-Emission Vehicle level and also meet the 2010 Fuel Efficiency Standards reached 86.1% of total production, an increase of 1.6 percentage points over FY2005.

Percentage of Total Production that Meet Both the 2010 Fuel Efficiency Standards and the Low-Emission Vehicle Level

(Meet or surpass the Ultra Low-Emission Vehicle level)

	Category	Percentage of total production		
		FY2004	FY2005	FY2006
2010 Fuel Efficiency Standards	☆☆☆ Ultra Low-Emission Vehicles	0.1%	0.0%	0.0%
	New ☆☆☆ U-LEV	59.6%	25.6%	12.7%
	☆☆☆☆ SU-LEV	21.7%	58.9%	73.4%

Cleaner Diesel Engines

In October 2006, Toyota made minor design changes to its Dyna/Toyoace hybrid vehicles, reducing both NOx and PM emissions to levels 10% lower than required by the 2005 (New Long-term) Exhaust Emissions Standards. As a result, both vehicles obtained certification as low-emission heavy duty vehicles.

The two main enhancements made were:

1) Improved the Cool EGR (exhaust gas recirculation) system and adopted a more advanced DPR (Diesel Particulate active Reduction) system that cleans diesel emissions
2) Improved performance by reducing the size and increasing the output of the drive motor in the hybrid system, and by increasing both the capacity of the inverter and the battery output.
Toyota also introduced a hybrid version of the Quick Delivery 200 (delivery van).

Toyoace aluminum van S diesel hybrid

Production and Logistics — TMC's VOC emissions reduction activities

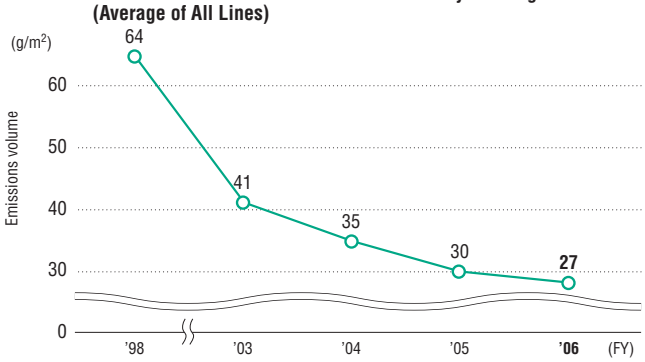
FY2006 Goal

- Body painting process: Reduce VOC emissions to an average of 30g/m^2 or less on all lines

Reduction of VOC Emissions from Paints

As a measure to reduce VOC emissions, Toyota introduced water-borne paints for the top coat in body painting lines, and strengthened measures to recover used cleaning solvents. As a result, average VOC emissions per unit of painted area on all vehicle body painting lines was reduced to 27g/m^2.

VOC Emissions Volumes in TMC Vehicle Body Painting Processes (Average of All Lines)



Examples of Overseas Initiatives

Halving VOC Emissions at the New Bumper Plant

TMCA, Australia

A new bumper bar facility was constructed in preparation for the launch of new models, and started full operation in FY2006. For Toyota Motor Corporation Australia (TMCA), it was imperative that the company install the environmentally best possible technology and stay inside the government emissions license which restricts the total amount of VOC emissions. Under this policy, TMCA searched for ways to reduce its environmental impact and VOC emissions by such measures as introducing waterborne paints and reducing the amount of cleaning solvents through the use of a cartridge based painting system. As a result, the total amount of VOC emissions were reduced to 118 tons per year. VOC emissions per bumper were halved compared to the old bumper bar facility.

The reduction in VOC emissions has been positively received by local authorities too, with the project recently being nominated as a finalist for the national 2007 Banksia 'Eco Innovation' Environmental Award.

Bumper bar inspection

Environmental Management

Reinforcement of Consolidated Environmental Management and Collaboration with Society

Toyota has positioned the environment as a management priority and strives to be a company that uses technological innovation to address environmental issues. Toyota has created environmental management systems in all areas of operation in each country and region of the world and promotes environmental measures at the highest levels. The Fourth Toyota Environmental Action Plan clearly states the environmental responses that Toyota will undertake between FY2006 and FY2010. In drafting the plan, Toyota addressed four main topics—energy/global warming, recycling of resources, substances of concern, and atmospheric quality—and adopted action items and set goals in the areas of development and design, procurement and production, logistics, sales, and recycling, keeping in mind environmental issues that are expected to intensify between 2020 and 2030.

In FY2006, the first year of the Fourth Toyota Environmental Action Plan, Toyota began steady action in line with the plan. As operations expand and become increasingly global in the future, Toyota will respond to these developments by bolstering global consolidated environmental management, and strengthening collaboration with society, to further promote environmental management.

Management	**Strengthen consolidated environmental management**
Management	**Further promote environmental management to business partners**
Management	**Enhance environmental education**
Management	**Promote new businesses that contribute to environmental improvement**
Management	**Promote initiatives to improve traffic flows using a variety of networking technologies**
Management	**Steadily reduce environmental impact over the entire lifecycle of the product through full-scale implementation and establishment of Eco-Vehicle Assessment System (Eco-VAS)**
Cooperation with Society	**Contribute to the development of a recycling-based society (see pages 72-81)**
Cooperation with Society	**Improved disclosure of environmental information and two-way communication (see pages 13, 82 and 83)**

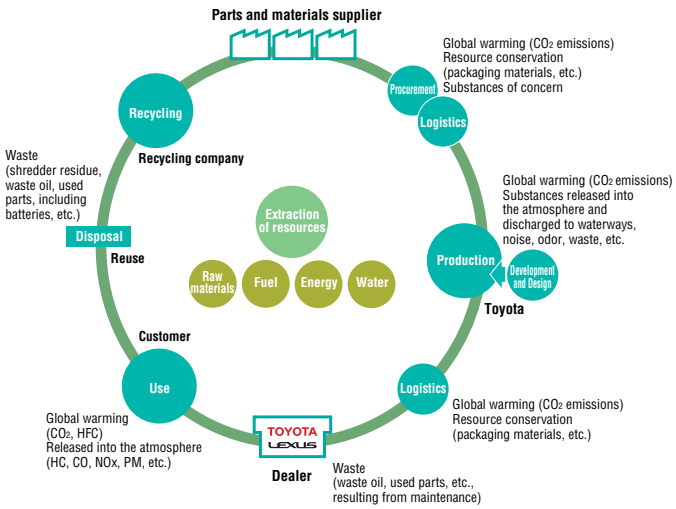
Management **Basic concepts with regard to the environment**

Basic Concepts with Regard to the Environment

In addition to working to reduce environmental impact at all stages from vehicle development to production, use, disposal, and recycling, Toyota undertakes environmental activities in all its business areas, including housing, information technology, biotechnology, and afforestation. Additionally, in order to conduct environmental activities at the highest levels in every country and region, Toyota has established environmental management systems in all regions and areas of operation and works with related companies in Japan and overseas to implement consolidated environmental management and promote environmental management on a global scale.

Principles and Policies

The Toyota Earth Charter (adopted in 1992, revised in 2000) is based on the Guiding Principles at Toyota adopted in 1992 (revised in 1997), and embodies Toyota's comprehensive approach to global environmental issues. The Toyota Earth Charter has been adopted by approximately 580 affiliates worldwide to date. The Toyota Environmental Action Plan is a medium- to long-term plan that summarizes specific activities and goals in order to promote environmental preservation activities in accordance with the Toyota Earth Charter.



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, that 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 Toyota Environment Committee which consists of top management (chaired by the president)

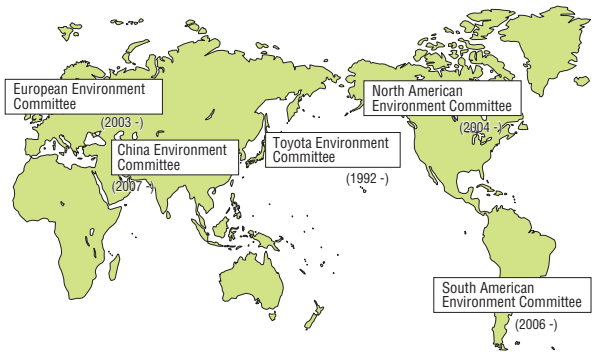
Implementation structure

Implementation Structure

Three committees were established under the Toyota Environment Committee, which is chaired by the president and meets twice a year to address issues and response policies in each area. In FY2006, the Recycling Committee was expanded into the Environmental Management Committee. All related departments promote company-wide environmental action in cooperation with each other. In FY2000, TMC introduced consolidated environmental management and has been implementing environmental action in concert with consolidated affiliates in Japan and overseas. In order to further strengthen consolidated environmental management and environmental initiatives by overseas affiliates, Toyota is establishing regional environment committees. As such, the China Environment Committee was established in March 2007.

China Environment Committee

Promotion Structure for Global Environmental Management



Organization Framework

Toyota Environment Committee
Chairman: President Katsuaki Watanabe
Established in 1992
Directs Toyota's priority environmental action issues

Environmental Product Design Assessment Committee
Chairman: Managing Officer Tatehito Ueda
Established in 1973
Studies key environmental preservation issues related to development and design of Toyota vehicles

- Fuel Efficiency and Exhaust Emissions Committee
- Noise Reduction Subcommittee
- Clean-energy Vehicle Subcommittee
- ISO 14001 Promotion Subcommittee
- SOC Subcommittee
- Recycling Technology Subcommittee
- Eco-VAS Subcommittee
- Working Group by Topics

Production Environment Committee
Chairman: Senior Managing Director Shoji Ikawa
Vice Chairman: Senior Managing Director Koichi Ina
Established in 1963
Discusses and determines important issues for environmental preservation in the area of production and logistics

- Production Environment Technology Subcommittee
- Overseas Production Environmental Subcommittee
- Plant Production Environmental Subcommittee
- Environmental Manager by Region (Plant General Manager)
- Environmental Preservation Secretariat by Plant
- Production Environment Logistics Subcommittee

All-Toyota Production Environment Conference
All-Toyota Production Environment Meeting

CSR & Environmental Affairs Division
Secretariat of Environmental Committees
Established in 1998, and reorganized in 2007
Manages action policies and goals. Drafts environmental action plans and annual company-wide environmental policies
Executives in charge of CSR and environmental affairs
Executive Vice President Mitsuo Kinoshita
Senior Managing Director Satoshi Ozawa
Managing Officer Toshiki Hayama

Environmental Management Committee
Chairman: Managing Officer Toshiki Hayama
Established in 2006
Studies key issues related to environmental management

Management Strengthen consolidated environmental management

Promotion of Consolidated Environmental Management

TMC conducts business on a global level, and in addition to undertaking environmental initiatives on an unconsolidated basis, started implementation of consolidated environmental management (consolidated EMS) in FY2000 to unite group companies subject to consolidation all over the world in concerted action. TMC presents its environmental policy and guidelines to all companies subject to consolidated EMS, and requests that all companies adopt and implement environmental action plans, create environmental management systems and undertake environmental activities at the highest levels in their respective country or region. TMC also supports environmental management by affiliates through the sharing of best practices, exchanges of information, and audits. The percentage of vehicles produced and sold by companies subject to consolidated EMS was 99% and 95% respectively worldwide.

Companies Subject to Consolidated EMS

The consolidated EMS covers a total of 581 companies. This includes not only all financially consolidated subsidiaries, but also major production companies, overseas distributors and others not subject to consolidated accounting. Specifically, companies subject to consolidated EMS fall into the following four major categories:

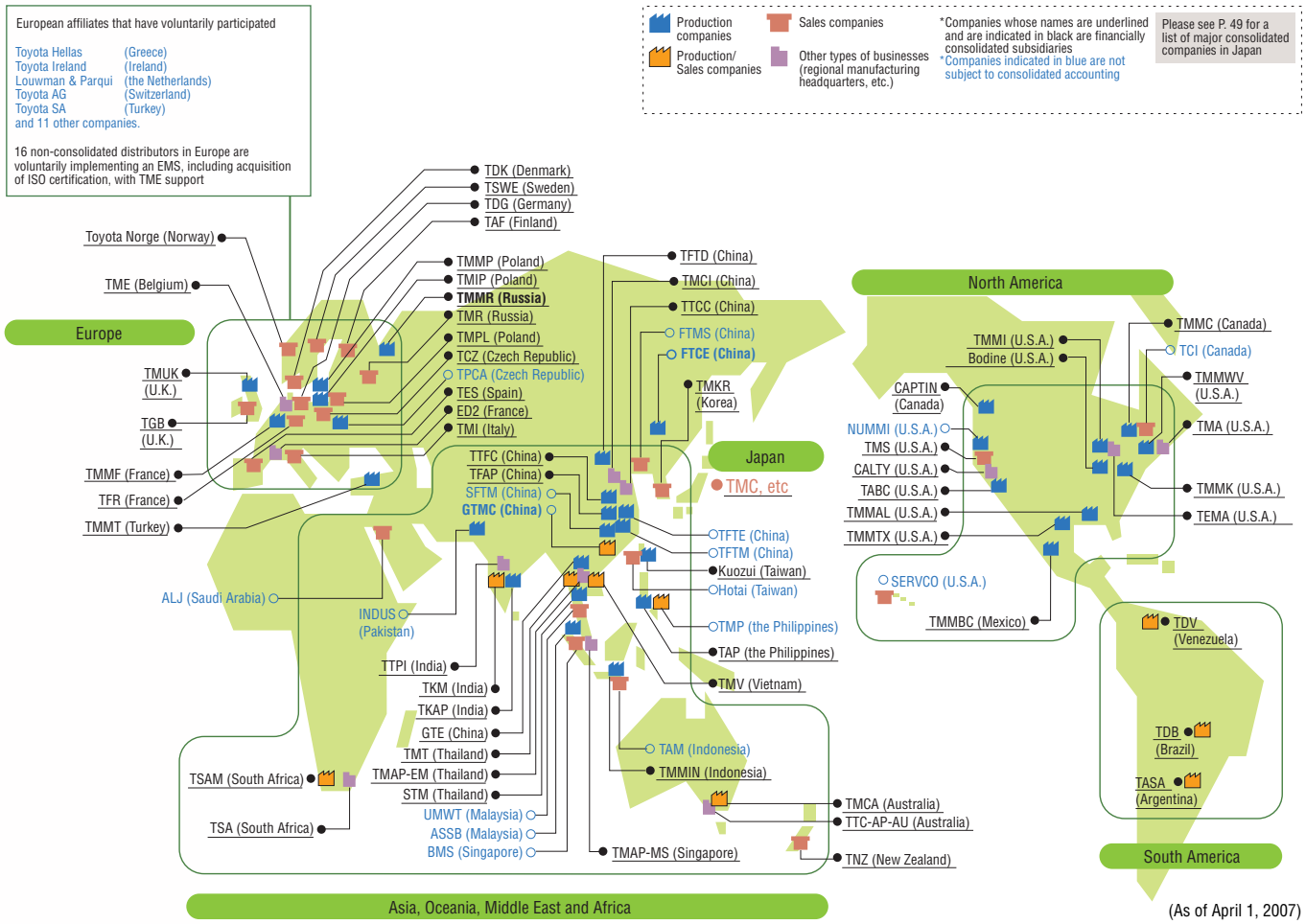
1) 172 subsidiaries which are financially consolidated and under the direct control of TMC
2) 53 major production companies and overseas distributors which are not subject to consolidated accounting
3) 6 organizations from other types of businesses, including academic institutions and cooperative societies
4) 350 subsidiaries which are financially consolidated and under the indirect control of TMC (managed via consolidated subsidiaries)

TMC's Requirements from Companies Subject to Consolidated EMS

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; reduce environmental impact, make social contributions, and carry out environmental communication in line with the nature of business
   In FY2006 begin quantitative management of environmental impact such as CO_2 emissions during logistics activities
4. Implement top level environmental responses based on actual conditions in each country and region

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

Main Companies Subject to Consolidated EMS



(As of April 1, 2007)

FY2006 Consolidated Environmental Management Action Policies and Results

In FY2006, the first year of implementation of the Fourth Toyota Environmental Action Plan, Toyota promoted initiatives to ensure the achievement of annual environmental goals in production, sales and other areas. In the area of production, almost all goals were achieved at consolidated companies in Japan and overseas. With respect to sales and other areas, each company has formulated annual environmental action plans and is promoting initiatives based on these plans.

			FY2006 action policy and results			FY2007 action policy	
			Action policy	Goal	Activity results	Action policy	Goal
Overall			• Revitalize regional environment committees and enhance communication with the Toyota Environment Committee and other committees	• Hold periodic regional environment committee meetings	• Established the South American Environment Committee (May 2006) • Established the China Environment Committee (March 2007)	• Revitalize regional environment committees and promote greater self-reliance	• Hold periodic regional environment committee meetings • Establish the Asia & Oceania Environment Committee (October 2007)
Production (81 companies)	Japan (35 companies)		• Achieve goals (CO_2 emissions, substances discharged, VOC emissions, PRTR substances, water) by fully implementing FY2006 action plans at each company • Strengthen efforts to eliminate cases of non-compliance and complaints • Create and strengthen implementation structure to achieve 2010 goals	• All companies to achieve FY2006 goals and eliminate cases of non-compliance and complaints	• Consolidated production companies in Japan and overseas implemented systematic measures to achieve FY2006 goals, and almost all goals were achieved • Follow-up measures were implemented at the All-Toyota Production Environment Conference in Japan and at overseas regional environment committee meetings • A compilation of best practices to help prevent global warming was created and distributed to all companies (Japan and overseas) • There were four cases of non-compliance and three complaints regarding wastewater and foul odors. Relevant response measures are in the final stages of implementation.	• Achieve goals by fully implementing FY2007 action plans at each company • Create and strengthen structures to eliminate cases of non-compliance and complaints • Revise 2010 global production goals	• All companies to achieve FY2007 goals and eliminate cases of non-compliance and complaints
	Overseas* (46 companies)						
Sales (87 companies)	Japan (37 companies)		• Assist each dealer in promoting the environmental action plan and establish global management of environmental performance data (Japan and overseas)	• Achieve FY2006 plan goals • Establish EPI	• All companies created an annual action plan and are promoting its implementation • Data input by all relevant companies	• Ensure follow-up of FY2006 activity results and FY2007 action plan • Ensure management by unit, and year-on-year comparison of quantitative data	• Achieve FY2007 plan goals • Establish EPI
			• Establish the Toyota Dealers Association CSR Guidelines at dealers (Japan) • Each dealer to implement self-checks and follow-up on the status of progress (twice/year) (Japan)	• CSR action declaration at all dealers by July	• CSR action declaration at 40 of 42 companies (95%) under direct dealer control* (car dealers, parts distributors and Rental/Lease dealers, Toyota Home dealers and L&F dealers) • Implemented improvement activities based on a checklist at 29 of 32 car dealers and parts distributors (91%) (based on a February 2007 Toyota National Dealers' Advisory Council (TNDAC) questionnaire)	• Continue implementation of current initiatives • Revise the content of the checklist based on amendments to relevant laws and recent examples of best practices	• Complete CSR action declaration at all dealers
	Overseas* (50 companies)		• Conduct dealer environmental education campaigns in 2006 to help establish environmental management systems at each dealer (Overseas)	• Conduct voluntary audits at all dealers • Work towards improvements in 20 key countries	• Implemented in 30 out of 36 countries; audits conducted at 85% of all dealers • 10 distributors in 20 key countries are working towards improvements	• Continue implementation of dealer environmental education campaigns	• Work towards improvements in 12 key countries
Other (73 companies)	Japan (57 companies)		• Assist each company to promote its environmental action plan; establish global management of environmental performance data	• Achieve FY2006 plan goals • Establish EPI	• All companies created an annual action plan and are promoting its implementation • Data input by all relevant companies	• Follow-up on FY2006 activity results and creation of the FY2007 action plan • Improve management of quantitative data (by unit and year-on-year comparison)	• Achieve FY2007 plan goals • Establish EPI
	Overseas (16 companies)		• Explore new environmental performance improvement measures, such as reducing energy consumption, and share information	• Verify improvement measures	• Implemented the first stage of trial energy conservation measures	• Implement the larger scale second stage of trial energy conservation measures	• Analyze trial implementation and evaluate performance

*Ten companies that perform both production and sales are included in both categories

Fifth Global EMS Liaison Meeting

More than 108 people from 62 overseas affiliates subject to consolidated environmental management participated in the Fifth Global EMS Liaison meeting held from May 22 to 25, 2007. The conference has been held once every two years since 1999. At this year's meeting President Watanabe addressed the participants in his position as Chairman of the Toyota Environment Committee, and presentations were made by senior managing directors in charge of sales, engineering and production regarding implementation of the Fourth Toyota Environmental Plan. A plant tour of Toyota Motor Kyushu, an environmentally advanced plant, was also conducted. Overseas affiliates reported on the status of implementation of regional environmental initiatives. The meeting provided an opportunity for active discussion and served to enhance communication between TMC and overseas affiliates. After the meeting, participants noted that they now had a better understanding of TMC expectations regarding environmental initiatives by affiliates, and that they were able to develop a sense of unity with participants from other affiliates.

Fifth Global EMS Liaison meeting participants tour the Toyota Motor Kyushu Plant

Production Environment Training

The China Production Affiliate Environment Study Group met with 20 participants from 10 Chinese affiliates from July 5 to 7, 2006 in Japan. In addition, a Global Production Environment Training program was held from November 14 to 17, 2006 with 40 participants representing 26 overseas affiliates in 18 countries. From December 4 to 7 of the same year, an All Toyota EMS training program was held, participated by 39 people from 36 companies of the Toyota Group. Officers in charge of environmental matters and product division general managers completed three curricula with lectures,* plant tours, and a final test with the objectives of promoting greater self-reliance among environmental personnel and other employees at overseas affiliates and maintaining Toyota environmental quality. Participants' self evaluation of their knowledge and technical skills increased from an average of 2.9 points prior to the training to 4.3 points (out of a total of five points) following the training. One participant said, "I thought that it was necessary to change our norms to raise both quality and environmental performance."

*Lectures: Priority production environment policies, elimination of abnormalities and complaints, and minimizing risks

China Production Affiliate Environment Study Group

Global Production Environment Training program

Continued Global Expansion of Eco-Factory Activities

Eco-Factory activities conducted at the planning and design, implementation and initial operation stages are designed to ensure that environmental measures are properly incorporated when new plants are built or major renovation or extension work is carried out.

In FY2006, Eco-Factory activities were conducted on an ongoing basis at 17 plants in North America, Europe, China, Thailand, Russia and Japan, and on-site audits were conducted at six of these plants during the construction stage. Plants that have begun stable operations are subject to the Global Audit carried out once every three years.

Eco-Factory Activities

Implementation completed by FY2005
Implementation completed in FY2006

Numbers indicate planned year of implementation

	North America			Europe			China									Thailand	Russia	Japan
	BODINE	TMMTX	TMMC Plant 2	TPCA	TMMP	TMIP	FTCE	TFTM Plant 2	TFTD	GTE	GTMC	TFTE Plant 2	TFTM Plant 3	GTE Plant 2	TMT Plant 3	TMMR	Takaoka Plant 1
Planning stage			07														
Paper audit			07														07
On-site audit			07													07	07
*Performance evaluation	07	07	08		07	07	07	07	07	07	07	08	08	07	08	09	08

*In FY2007, in addition to facility audits after vehicle line-off, measurements after the start of stable operation was added as a performance evaluation item. Plants that have already completed performance evaluation will now conduct new evaluations.

Please see P. 50 for full company names

Switch to Next-Generation EPI

In 2002, Toyota began operation of an environmental information network that uses environmental performance indicators (EPI) to quantitatively manage the environmental performance of companies subject to consolidated environmental management. In April 2006, the EPI network was replaced by a new system.

The next-generation EPI information network allows uploading of the sheets in which the necessary data has been input, thus simplifying input procedures. The number of input items has been increased from 10 to 28 and the number of affiliates using the network has been expanded from 50 to 580. The collected data is centrally managed, and e-mail reminders are sent to correct any information that is improperly input. Even after the switch to the new system, TMC continues to listen to the requests of participating divisions and is working to make the system even easier to use.

Next-generation EPI information network information meeting

Further promotion of environmental management at business partners

Suppliers

Adoption of the Revised Green Purchasing Guidelines

Toyota requests suppliers of parts and materials to proactively promote environmental initiatives in accordance with the "TOYOTA Green Purchasing Guidelines."

The Environmental Purchasing Guidelines adopted in March 1999 were revised and renamed and have been implemented since April 2006. The recent revision expanded the scope of supplier categories targeted. Approximately 550 suppliers of equipment and construction and logistics services were added to the existing list of parts and materials suppliers, increasing the total number of companies covered by the new guidelines to about 1,000. Initiatives related to social contribution aspects of business activities have also been included in order to enhance the content of the Guidelines and Toyota aims to further enhance the level of activity for each action item.

TOYOTA Green Purchasing Guidelines

Japanese Dealers

First stage of Trial Energy Conservation Measures

Three sales outlets operated by three vehicle dealers in the Tokyo region are implementing energy conservation measures on a trial basis in an attempt to reduce CO_2 emissions by non-production affiliates.

Each sales outlet has installed an electric power monitoring system, and as a result of precise control of air conditioning systems, optimization of sign and street lights, elimination of unneeded lights, and other measures, a certain level of results has been achieved.

Toyota plans to expand the trial measures in FY2007 and to investigate future implementation methods based on the results.

Overseas Distributors

Overseas Dealer Environmental Risk Audit Program (DERAP)

Based on the recognition that dealers are the point of contact with customers, Toyota continued implementation of the Dealer Environmental Risk Audit Program (DERAP), which establishes five fundamental requirements. In FY2006, audits were conducted in 30 of the 36 countries where the program has been introduced. In FY2006, the percentage of dealers that met requirements in all five categories rose from 19% in the previous fiscal year to 32%.

Going forward, Toyota will conduct activities geared towards all dealers meeting all of the requirements. In addition, direct talks will be held with senior management and other parties responsible for environmental matters in regions where introduction of the system is lagging to encourage activities that will enhance awareness.

In Focus — Toyota's Environmentally Friendly Nagoya Office in Midland Square

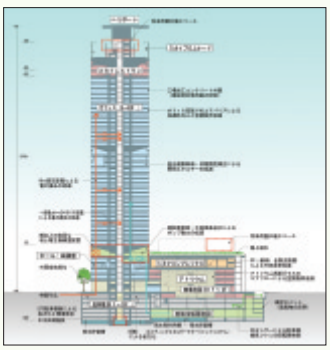
Operations at Toyota's Nagoya office in Midland Square, located in front of Nagoya Station, began in January 2007. The building enhances functionality as a downtown office while reducing environmental impact. Midland Square received a "Class S" rank environmental performance rating, Japan's highest rating, under the Comprehensive Assessment System for Building Environmental Efficiency (CASBEE). Toyota participated as one of the main actors from the earliest planning stages to ensure that the structure would have high environmental performance including minimal environmental impact and efficient energy use.

DHC Corporation Nagoya, located on the fifth basement level of Midland Square, uses a highly efficient cogeneration system as an energy source. The system burns natural gas to generate electricity, and the waste heat created by the turbines is used for heating and cooling in the vicinity of the Nagoya Station. In addition, measures have been taken to recycle water resources. Wastewater from heaters and general wastewater is processed and rainwater is filtered for use in toilets and watering the rooftop garden on the seventh floor.

In addition, numerous innovations have been adopted to enhance environmental performance, including "air barriers"[1] installed around windows to reduce air-conditioning loads, a rooftop garden to enhance insulating effects, natural ventilation and heating and cooling utilizing outside air, high efficiency illumination that adjusts brightness according to ambient light, recycled materials such as cement from blast furnaces and steel materials from electric furnaces, HFC coolants to reduce CFC and halon emissions, and plant processed, eco-grade exterior walls that do not use tropical timber frames.

In addition, FSC[2] certified materials, carpet tiles made from polylactate material, and desks without dividers that can be used to respond flexibly to changes in the number of personnel are used in the Toyota office floors (17th through 40th floors). When moving to the new building, existing tables and chairs were used to the greatest extent possible, with left over items being removed by recycling companies. When moving, only items that can be reused were employed and waste generation was kept to a minimum.

1. "Air barrier": A system that uses a small fan in the building interior (in the vicinity of windows) to reduce the thermal impact on the building from sunlight
2. Forest Stewardship Council certified materials: Materials certified by the FSC for their environmental consideration



Environmentally-considerate features of Midland Square

The VIP room (CG) that uses FSC certified materials and carpet tiles made from polylactate material

Management Enhance the content of environmental education

Global Environment Month Activities

In conjunction with the national Environment Month, Toyota has been holding the Toyota Global Environment Month since 1973. The theme in 2006 was "Initiatives to tackle climate change issues" and events were held under the slogan "Think and Act" with the participation of 158 of 188 consolidated affiliates. A message from the president and globally common posters were distributed and voluntary inspections conducted at production companies with the goal of completely eliminating environmental accidents. TMC held a lecture on "Climate change issues" and presented environmental exhibits at MEGAWEB (see page 83) and Amlux, Toyota's auto showrooms in Tokyo.

A Global Environment Month poster bearing the president's speech

First Global Environment Awards

Toyota presented the First Global Environment Awards in November 2006 to further promote environmental measures at consolidated affiliates around the world and to foster a greater sense of unity with regard to environmental management between TMC and its consolidated affiliates. A total of 10 projects were submitted by nine affiliates in six countries and regions, and the best candidates in production fields in each country were selected for awards. Presentations on best practices were also made to share information among affiliates. During the initial screening phase in each country and region, a total of 94 projects were submitted. The projects are expected to reduce total Toyota CO_2 emissions by 14,000 tons/year.

First Global Environment Awards winners

Environmental Handbook

In response to the diversification and increasing complexity of environmental issues, the Environmental Textbook (issued in 2000) for employees was revised and issued in June 2007 under the name Environmental Handbook.

In line with the Fourth Toyota Environmental Action Plan, the new Environmental Handbook has sections on energy and global warming, recycling of resources, substances of concern, atmospheric quality, biological diversity, and environmental management.

It explains Toyota's action items, adopted in line with the Fourth Toyota Environmental Action Plan, and serves to help promote implementation of the plan.

Environmental Handbook

In Focus Tsutsumi Eco-Factory Project

The Tsutsumi Plant is the main plant for hybrid vehicle production and produces the Prius and Camry hybrids. In FY2006, the plant launched the Tsutsumi Eco-Factory Project under the slogan "Providing customers with environmentally considerate vehicles from an environmentally conscious plant."

Under the project, activities are promoted in three main areas: environmental improvement activities to raise employee environmental performance; activities to showcase the Plant's initiatives; and activities to raise environmental awareness. Specific activities included questionnaires and quizzes, solicitation of ideas for the Tsutsumi eco-character, various events at the fall festival, and an eco-stamp rally.

The Tsutsumi Plant environmental logo, selected from among numerous employee suggestions

In Focus Developing Biotopes that Contribute to Enhancing the Environmental Awareness of Local Communities

As a part of the activities to commemorate the 30th anniversary in July 2008 of the construction of the Kinuura Plant, a water-recycling biotope with an area of 2,220m^2 was created in November 2006 next to the Health Center using treated wastewater. Taking "school biotope" as its theme, the biotope is a place where local children can observe and learn about the environment to better their understanding of environmental issues. Approximately 20 different water plants are growing in the biotope, including the Japanese iris that is indigenous to the Hekinan City region where the Kinuura Plant is located. In the future, e-mails will be sent to students so they can keep in contact with the biotope and observe changes, including the expansion of the beach (350m^2), and construction of a walkway with the cooperation of the Hekinan Sea Side Aquarium and Hekinan Maritime Science Museum.

Water-recycling biotope that uses treated wastewater

Promote Biotechnology and Afforestation Businesses that Contribute to Environmental Improvement

Bio-plastics Project

In May 2005, Toyota began operating the Hirose Pilot Plant to establish mass-production technologies for bio-plastics (polylactic acid). In addition to using the bio-plastics manufactured here as a raw material for automobile parts, Toyota is also marketing a bioplastic under the product name "TOYOTA Eco Plastic U'z" for use in a wide range of plastic products.

In FY2006, the usage of TOYOTA Eco Plastic U'z was expanded to mobile phone holders, floor mats, and other items.

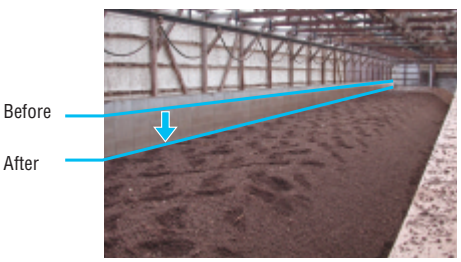
Roof Garden Business

In FY2006, Toyota developed a modular grass turf tile, the TM9 Turf Mat, that uses the easy-care, slow-growth Zoysia Grass "TM9," and began sales through Toyota Roof Garden Co., Ltd. TM9 Turf Mats facilitate the installation of roof gardens and can help in alleviating the urban heat island effect and reducing atmospheric CO_2. Installation times are short and the lawn can be used immediately after laying. The grass grows only half as tall as conventional grass and requires mowing only once or twice a year, thus resulting in easy maintenance and reduction of waste.

TM9 Turf Mat

Livestock Biomass Business

Toyota and Menicon Co., Ltd. (Menicon) jointly developed an efficient and environmentally friendly manure composting process for the livestock industry called resQ45. resQ45 uses a new enzymatic agent called *Tokubetsu-Kyuko* to promote decomposition and a thermophilic bacteria called Thermo Master, both developed based on decomposition enzymes and microorganisms. In the case of chicken droppings, resQ45 slashes to approximately two weeks (from approximately one month) the period required to complete composting. In addition, ammonia gas, a source of offensive odors, is reduced by 40%-90% and substantial volume reduction effects are also exhibited (all figures are based on Menicon testing).



Note: The odor eliminating and volume reduction effects of the system will vary depending on local environmental conditions of the livestock farm.

Overseas Afforestation Business (Australia)

Toyota established Australian Afforestation Pty. Ltd. in 1998. The company plants eucalyptus trees that grow extremely fast. By the end of FY2006, Toyota had already planted 1,763ha of these trees, which are continuing to grow well. In 2009, Toyota plans to begin harvesting 10-year old trees and shipping them for use as pulp for paper manufacturing.

Please see P. 73 (Social Contribution Activities) for reforestation activities in China

Eucalyptus tree planting in Australia

Other Businesses

Joint Development of VOC Emissions Reduction Devices

Toyota, Nihon Dengi Co., Ltd. Fujimori Kogyo Co., Ltd., and Toyota Turbine and Systems, Inc. jointly developed a VOC emissions processing system that uses a 300kW class microturbine cogeneration system. The system incinerates VOCs within the microturbine and uses the energy to generate electricity and steam, making it possible to recover the costs of system installation and to reduce environmental impact.

Overview of the Microturbine VOC Processing System

Items	Performance
Rated power generation output (25ºC)	285 kW
Volume of generated steam	1,700 kg/h
Rated fuel consumption	145.1 m^3 N/h: At intake VOC concentration of 0 ppmC (Processed natural gas 13A: 41.609 MJ/m^3 N) (Reference: 71.4 m^3 N/h: At intake VOC concentration of 21,000 ppmC)
NOx emission concentration (Equivalent of 16% O_2)	28.5 ppm: At intake VOC concentration of 0 ppmC (Reference: 19 ppm: At intake VOC concentration of 21,000 ppmC)
VOC processing concentration	Intake air: 21,000 ppmC → Exhaust gas: 400 ppmC or less
Processed air volume	7,401m^3 N/h
Sales target	20 units/year

Toyota Participates in Trials of Household Fuel Cells

Toyota and Aisin Seiki Co., Ltd. jointly developed the household fuel cell system, and provided 24 systems to the Large-Scale Stationary Fuel Cell Demonstration Project being implemented by the Japanese government. By providing the system to this large-scale project Toyota hopes to clarify issues related to its energy saving features and future commercialization, and accelerate product development.

Management — Steadily reduce environmental impact over the entire vehicle lifecycle through implementation of Eco-VAS (Eco-Vehicle Assessment System)

Application of Eco-VAS to All New Models

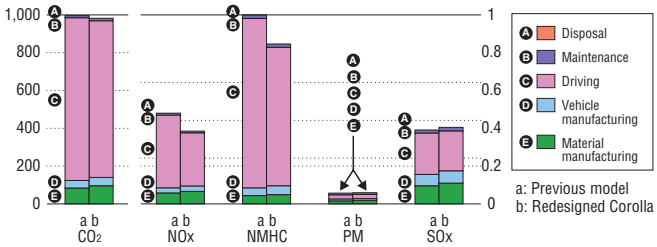
Eco-VAS is a comprehensive environmental impact assessment system that strengthens environmental management by the person directly in charge of development of a vehicle and allows the systematic assessment of the impact a vehicle will have on the environment throughout the entire vehicle development process as well as during production, use and disposal.

Assessment of environmental impact using Eco-VAS is carried out covering a wide range of items, including fuel efficiency, emissions and noise during vehicle use, and volumes of greenhouse gases and air pollutants emitted, the volume of depletable resources used, vehicle recovery rates, and the volume of substances of concern used throughout the entire lifecycle of the vehicle.

In FY2006, Toyota used Eco-VAS to conduct LCA (Life Cycle Assessment) on six vehicle series (Estima Hybrid, LS460, Corolla Axio, Corolla Fielder, Auris, and Blade) that were new or underwent complete redesign. The results have enabled Toyota to reduce CO_2 emissions over the entire lifecycle of the Estima Hybrid by 20% or more compared to the mean value for vehicles of the same class.

Toyota is expanding the application of Eco-VAS to its overseas production, applying it, for example, to conduct LCA of the Yaris and Corolla being sold in Europe.

LCA Results of the Corolla Sold in Europe



PM: Particulate Matter
NMHC: Non Methane Hydrocarbons
Note 1: These results are based on an EU test cycle, assuming a lifetime driving distance of 150,000km over 10 years.
Note 2: Because Toyota uses LCA to verify the relative environmental benefits of its vehicles, it expresses the evaluation results as indexes. Since CO_2 emissions are measured in tons while the emissions of other substances are measured in kilograms, different indexes are used

Management — TMC's production environment management

TMC conducts production environment management based on the policies on production environment.* With respect to communication with local communities, TMC is broadening the scope of participants and making further efforts to explain and have people see first hand its environmental preservation activities that have been highly rated by local residents who participated in facility tours.

*Policies on production environment: Thorough compliance, proactive prevention and enhancement of environmental performance

Legal Compliance Activities

Achieving Zero Cases of Non-compliance and Complaints

With regard to the cases of non-compliance and "near-miss" accidents* that occurred in FY2006, Toyota did not stop at implementing responses to the immediate causes. Issues related to management structures at the source were identified, and preventive measures taken to ensure non-recurrence. As a result, the framework to establish activities aimed at achieving zero cases of non-compliance and complaints was further strengthened.

*Near-miss accidents: Potentially high-risk incidents that do not lead to actual accidents

Reporting and Storing Electrical Devices Containing PCB

Since 2005, Toyota has been using outside subcontractors to process electrical devices containing PCB. 1,852 units have been processed to date. The remaining 3,395 transformers and condensers will be completely processed by subcontractors by the end of FY2008.

Soil and Groundwater-related Measures

Toyota completed the soil remediation measures that it had been carrying out at six plants in FY2001. In terms of groundwater contamination prevention, Toyota completed an effluent-prevention measure in 1997 which involved the digging of barrier-type wells and has continued groundwater remediation using pump and treat technology. Toyota reports levels of trichloroethylene to the government, as well as to local councils in the surrounding communities.

Trichloroethylene Measurement Values

Environmental standard: 0.03 Unit: mg/l

Plant	Levels in groundwater
Honsha	Less than 0.002 - 1.90
Motomachi	Less than 0.002 - 0.64
Kamigo	Less than 0.002 - 0.35
Takaoka	Less than 0.002 - 1.16
Miyoshi	Less than 0.002 - 0.91
Tsutsumi	Less than 0.002 - 1.48

Note 1: Measurements are taken at all plants and business sites
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

Air and Water Quality Data

Item		'02	'03	'04	'05	**'06**
Air	NOx	494	472	444	526	**419**
	SOx	157	148	139	111	**68**
Water	Total nitrogen	83	71	59	46	**40**
	Total phosphorous	6.9	6.1	6.8	3.9	**3.8**
	COD	96	89	86	68	**65**

Note: The unit for air quality data is 1000m^3 N/year and for water quality data tons/year

Proactive Preventive Measures

Prevention of Soil and Groundwater Contamination by Oil Leakage

To prevent soil and groundwater contamination from oil leakage, Toyota completed all necessary facility-related measures by the end of FY2006. In the future, Toyota will implement initiatives to ensure meticulous monitoring on a daily basis.

Dealer Environmental Risk Audit Program Implemented

Hotai, Taiwan

In response to the Dealer Environmental Risk Assessment Program (DERAP) that TMC introduced in 2004 to encourage activities by dealers designed to reduce environmental risks, Hotai Motor Co., Ltd. (Hotai) conducts audits of its dealer facilities. According to the results of FY2006 audits, all 135 dealer service shops achieved their goals. The audits revealed that wastewater treatment is the most significant issue at dealers, and measures are being taken to make improvements.

Mr. Hung, engine technician leader at An-Keng Service Shop of Taipei Motors, one of Hotai's dealers, says, "Implementation of DERAP led to a heightened awareness by all staff members about improving environmental management and reducing environmental impact at the service shop."

HFC recovery at Taipei Motors

Energy Reduction Contest Conducted

TMT, Thailand

Acting in response to the introduction by TMC of the first Toyota Global Environmental Awards, Toyota Motor Thailand (TMT) conducted an Energy Reduction Contest between April and December 2006 to encourage reductions in the use of heavy oil, electricity, and LPG in production processes.

Twenty nine teams participated in the contest with measures such as the development of a sealing process that does not use an oven. A team of two that succeeded in controlling boiler steam pressure was selected as the winning team. The winners participated in an awards ceremony held at the TMC head office and in a plant tour. Mr. Seri, a member of the winning team, said, "Our steady improvements were recognized, and this served as encouragement." Among the contest activities, measures concerning batch electrodeposition won first place in Thailand's Prime Minister Industry Award 2007 on Energy Management.

Members of the winning team

Environmental Construction Standards Introduced for Dealers

TMS, USA

Toyota Motor Sales (TMS), is encouraging Toyota and Lexus dealers to take environmental measures at sales outlets. As a result of these efforts, a Toyota dealer in the United States became the first dealer to achieve LEED "green building" certification. LEED stands for Leadership in Energy and Environmental Design, and is a benchmark standard established by the U.S. Green Building Council, which calls for energy conservation and the use of environmentally friendly materials. TMS has also applied the standards to its South Campus head office and the vehicle distribution center in Portland. Pat Lobb Toyota of McKinney, Texas, whose facility became the nation's first LEED-certified automotive dealer facility, was built in August 2006. The facility uses 20% less energy and 35% less water than conventional structures. These energy conservation measures have led to reduced costs and direct benefits for the dealer. The president of Pat Lobb Toyota takes pride in being an industry leader in terms of energy conservation too.

Pat Lobb Toyota president and the water tank of the LEED-certified facility

Waste Processed Properly in Conjunction with Plant Closing

TMP, the Philippines

In conjunction with the integration of the Toyota Motor Philippines (TMP) Bicutan Plant, the first automotive plant in the Philippines to obtain ISO 14001 certification, into the Santa Rosa Plant, the Bicutan Plant was closed in 2005. The plant started operating in the 1970s as Delta Motors. Following its acquisition by TMP in 1988, it assembled Corollas, Crowns, and Coronas. When a plant is closed, a large volume of waste is generated, but at the end of 2004 all equipment and leftover materials were inspected and sorted into those that could be reused, sold, and processed for final disposal. A total of 151.8 tons of hazardous waste, including electrodeposition filters, electrodeposition solvents, sludge generated from electrodeposition processes, sludge from wastewater treatment, paint whose use deadline had expired, and chemicals were processed into non-hazardous materials.

Authorities inspect the Bicutan Plant prior to its closure

Management **FY2006 status of company-wide environmental policies**

FY2006 Status of Implementation of Environmental Policies

In FY2006, Toyota set annual goals and promoted initiatives based on the main topics of the Fourth Environmental Action Plan. The results of key initiatives and future issues in each area are as below:

(1) Energy/Global warming: Toyota steadily implemented responses to fuel efficiency standards in various countries and regions. In the area of production, the volume of CO_2 emissions per unit produced was significantly reduced through systematic implementation of measures by consolidated companies in Japan and overseas. Containing increases in total CO_2 emissions and further reductions in emissions per unit produced, in conjunction with plans for increased production, is a future issue.

(2) Recycling of resources: Toyota steadily implemented responses to automobile recycling laws in Japan and overseas and is working to ensure more stable establishment of recycling systems in Japan and Europe and enhance the usage of recycled materials.

(3) Substances of concern: Toyota completely eliminated the usage of the four substances of concern in Japan and Europe. Elimination on a global scale is a future issue.

(4) Atmospheric quality: Toyota launched, according to plan, class-leading low emissions vehicles in Japan, the US, Europe, and China. Continued introduction of low emissions vehicles is required in the future.

(5) Environmental management: Toyota initiated operation of the next generation EPI system. The China Environment Committee was established in March 2007, and plans call for the Asia & Oceania Environment Committee to be established in October 2007.

Energy/Global Warming

Action Item in the Fourth Toyota Environmental Action Plan (FY2006 - FY2010)	Environmental Policies for FY2006	FY2006 Implementation Status	Issues and Direction for FY2007
1. Further reduce CO_2 emissions in Toyota's global operations 2. Promote the development of technologies to achieve the best fuel efficiency performance in each country and region Goals • Japan: Steadily promote improvements in fuel efficiency that surpasses the 2010 Fuel Efficiency Standards • Europe: Steadily implement initiatives to realize Japan Automobile Manufacturers Association's commitment to reduce CO_2 emissions to 140g/km by 2009 • North America: Steadily promote the development of technologies aiming to achieve the best fuel efficiency among competing vehicles of the same class	• Prepare medium- and long-term global environmental technology strategies • Achieve class leading levels of fuel efficiency and further enhance performance	• Studied scenarios with regard to energy issues, CO_2 emissions, and air quality	• Study implementation of plans according to scenario • Japan: Develop technologies to enable improvements in fuel efficiency that surpass the 2010 Fuel Efficiency Standards • North America: Steadily launch vehicles with the best fuel efficiency among competing vehicles of the same class • Europe: Steadily implement initiatives to reduce CO_2 emissions to 140g/km
3. Reduce CO_2 emissions in the production and logistics activities of each country and region FY2010 goals Production • Dramatically increase productivity through measures such as the development of innovative production technologies, thus reducing CO_2 emissions	Production • As the world's most environmentally advanced company, enhance environmental performance in the production area and strengthen Toyota's position • Enhance activity structures to respond to global expansion of production and promote further CO_2 emissions reductions	• Significantly reduced the volume of CO_2 emissions per unit in the areas of production and logistics Production • Significantly reduced the volume of CO_2 emissions per unit of production through systematic implementation of measures by consolidated companies in Japan and overseas	Production • Improve measures to contain increases in total CO_2 emissions and reduce CO_2 emissions per unit produced in conjunction with plans for increased production • Detailed investigation and review of global CO_2 emissions goals in the production area
Logistics • Promote CO_2 emissions reduction activities through improvements in transportation efficiency	Logistics • Promote CO_2 emissions reduction in cooperation with logistics partners	Logistics • Promoted CO_2 emissions reduction through a shift to modes of transport with low CO_2 emissions per unit, reduction of total transportation distance, and fuel efficiency improvements	Logistics • Collaborate with logistics partners to promote further CO_2 emissions reductions • Gather data on global CO_2 emissions in global logistics activities

Recycling of Resources

Action Item in the Fourth Toyota Environmental Action Plan (FY2006 - FY2010)	Environmental Policies for FY2006	FY2006 Implementation Status	Issues and Direction for FY2007
9. Steadily implement recycling systems in Japan and Europe Steadily implement initiatives to increase vehicle recovery rates to reach 95% by 2015 FY2010 goals • Enhance Automobile Shredder Residue (ASR) recycling/recovery technology • Develop and promote the use of dismantling methods and tools • Expand utilization of used parts	• Steadily implement responses to automobile recycling laws in Japan and overseas	Japan • Recycling system currently in its second year of operation • Investigated a HV battery recycling system Europe • Completed the creation of a recovery network in 22 EU member states Other countries • China is working towards adoption of a law in 2010	Japan • Further stabilize the establishment of recycling systems in Japan and Europe • Verify the establishment of recovery systems from a global perspective in preparation for increasing recovery volumes Europe • Quickly complete the construction of networks in the remaining five EU member states • Follow up in other regions Other countries • Implement initiatives suited to actual conditions in China
10. Further promote and expand the use of designs based on the designs for recycling (DfR) concept FY2010 goals • Promote and expand the development of vehicles that are easy to dismantle and recycle • Expand the usage of renewable resources such as Toyota Eco-Plastic, and of recycled materials (establish technologies that enable use of 15% resin parts by 2010)	• Further promote the use of designs based on the designs for recycling (DfR) concept	• Adopt new recycling technologies to vehicles • Steadily incorporated the DfR concept in new vehicles launched in 2006	• Implement initiatives towards enhanced usage of recycled materials

Substances of Concern

Action Item in the Fourth Toyota Environmental Action Plan (FY2006 - FY2010)	Environmental Policies for FY2006	FY2006 Implementation Status	Issues and Direction for FY2007
11. Promote management and further reductions in the use of substances of concern FY2010 goal • Early elimination of use of four substances of concern (lead, mercury, cadmium and hexavalent chromium) globally by the end of 2007	• Reduce usage of substances of concern on a global scale	• Completely eliminated usage of the four substances of concern in Japan and Europe • Promoting complete elimination in North America, South America, China, and other countries of Asia by the end of 2007 • Reduced cabin VOC levels in all new vehicle series	• Work towards complete elimination at all production affiliates • Establish systems to maintain non-use at all production affiliates • Reduce cabin VOC levels in all new vehicle series (Achieve the voluntary standards set by the Japanese automobile industry)

Atmospheric Quality

Action Item in the Fourth Toyota Environmental Action Plan (FY2006 - FY2010)	Environmental Policies for FY2006	FY2006 Implementation Status	Issues and Direction for FY2007
13. Reduce emissions to improve air quality in urban areas in all countries and regions Goal • Promote the development of ultra-low emissions technologies and introduce the best-performing low-emissions vehicles according to conditions in each country • Further promote the development and market penetration of high-efficiency, clean diesel vehicles	• Steadily develop and introduce class-leading low-emissions vehicles	• Introduced low-emissions vehicles as planned	• Steadily introduce low-emissions vehicles

Environmental Management

Action Item in the Fourth Toyota Environmental Action Plan (FY2006 - FY2010)	Environmental Policies for FY2006	FY2006 Implementation Status	Issues and Direction for FY2007
15. Strengthen consolidated environmental management FY2010 goal Production affiliates • Achieve leading levels of environmental performance in each country and region • Minimize instances of non-compliance and complaints, and environmental risks Non-production affiliates • Manage and enhance environmental performance (CO_2 emissions, etc.) on a global scale	• Hold the Global EMS Liaison meeting (May 2007) • Revitalize regional environment committees and strengthen cooperation	Production • Consolidated production companies in Japan and overseas: Individual goals for FY2006 were almost achieved by all companies • South American Environment Committee established in May 2006 • China Environment Committee established in March 2007	• Continue initiatives to maintain leading levels of environmental performance in each country and region • Establish the Asia & Oceania Environment Committee • Revitalize regional environment committees and provide for greater self-reliance
16. Further promote environmental management to business partners		• Issued the revised Green Purchasing Guidelines for consolidated vehicle body manufacturing companies in Japan and overseas	• Issue a revised Purchasing Guidelines in China and other countries
Goal Supplier Further enhance environmental activities in cooperation with suppliers Dealers in Japan Review Toyota Japanese Dealer Guidelines Overseas distributors Strengthen environmental management by overseas distributors	• Strengthen environmental management, including at suppliers • Promote initiatives at overseas distributors and dealers in Japan and overseas	Dealers in Japan • Reviewed the Toyota Dealer CSR Guidelines • Implemented the first stage of trial energy conservation measures at dealers Overseas Dealers • Promoting implementation of DERAP (Dealer Environmental Risk Audit Program)	Dealers in Japan • Continue implementing trial energy conservation measures at dealers

Cooperation between TMC and Society

Action Item in the Fourth Toyota Environmental Action Plan (FY2006 - FY2010)	Environmental Policies for FY2006	FY2006 Implementation Status	Issues and Direction for FY2007
20. Contribute to the development of a recycling-based society FY2010 goal • Promote basic environmental research, such as development of technology to reduce CO_2 emissions, and make proposals • Implement programs that contribute to environmental education, and the preservation of biodiversity 21. Improve disclosures of environmental information and two-way communication	• Promote basic environmental research, such as development of technology to reduce CO_2 emissions • Promote independent management of the Toyota Shirakawa-Go Eco-Institute • Further enhance the content of programs that are implemented jointly with environmental NGOs • Further enhance communication with local communities as part of CSR activities	• Adopted the Basic Principles for the Toyota Shirakawa-Go Eco-Institute • Increased the number of applicants to the Toyota Environmental Activities Grant Program and established as a regular program • The "Environmental & Social Report" was issued under the new name of "Sustainability Report" • Stakeholder dialogs were held to discuss the issue of CSR	• Make management of the Toyota Shirakawa-Go Eco-Institute independent and reinforce internal structures • Draft program plans for FY2008 and later • Further enhance information disclosures • Expand the CSR Policy to include overseas affiliates

*Important items only excerpted from the total of 22 items

TMC Environment-related Accidents

In May 2006, the BOD (Biochemical Oxygen Demand) in the water discharged from the Motomachi Plant exceeded the concentration standard set in an agreement with Toyota City. This incident occurred because of insufficient communication and confirmation of details with the division in charge of operation of the wastewater treatment facility at the time of the switchover to water-borne paint. Structures to confirm notice regarding switchovers at production processes were improved and measures taken to ensure thorough implementation.

In July, a construction company performing foundation work at the completed vehicles yard of Toyota's Yokohama office (vehicle logistics center) discharged rainwater that had turned alkaline after coming into contact with recently laid concrete, into the nearby sea without first neutralizing the water. As a result, both the construction company and Toyota, which had ordered the work, were cited for violating wastewater standards. After this incident, Toyota took various recurrence-prevention measures, such as strengthening environmental awareness towards work contracted out, and providing additional environmental education to relevant employees and contractors.

Housing Business

Aiming to Achieve the Dual Goals of Affluent Living for Customers and Environmental Friendliness for the Earth

Toyota's Housing Group engages in comprehensive operations stretching from the sale of environmentally considerate houses to projects for condominiums and proposals for urban planning. In terms of environmental initiatives, Toyota is developing new products which meet "Next generation energy-saving standards,[1]" and is taking measures to reduce CO_2 emissions at both the production and occupation stages and the volume of waste not processed by Toyota. In FY2006, the first year of the Environmental Action Plan 2010, Toyota completed two environmental management reviews. Although CO_2 reduction goals were met, the goal to reduce the volume of waste not processed within Toyota was not achieved. Going forward, Toyota will aim to achieve the dual goals of affluent living for its customers and environmental friendliness for the earth in accordance with the 2010 Environmental Action Plan.

1. Next-generation energy-saving standards: Hermetically sealed and well insulated housing able to reduce by 20% the amount of energy needed for heating and air conditioning as a means of reducing CO_2 emissions to prevent global warming

Healthy Homes

In recent years Toyota's housing business has enhanced its product lineup focusing on safety and peace of mind. In April 2007, Toyota began marketing the Sincé Smart Stage mew, Sincé Vietrois, and Sincé Piana series of homes with improved insulation performance and other enhanced features, based on a new concept of "healthy homes."

Healthy homes are characterized by their bright and open designs (wide doors, earthquake resistant), low emissions of hazardous substances (use of F☆☆☆☆standard materials[2], 24-hour ventilation), cool in summer, warm in winter, and low temperature differentials (comfortable insulation performance). Substantially improved insulation performance achieved through the standard use of materials with higher insulation performance in walls, floors, and ceilings, insulating sashes at openings, and high-thermal insulation double-pane windows contributes to energy savings while maintaining comfort.

The Sincé Smart Stage mew series launched in 2007

2. F☆☆☆☆ standard materials: Materials with the lowest permissible emission levels of formaldehyde

Initiatives at Production Plants

Reduction in CO_2 Emissions

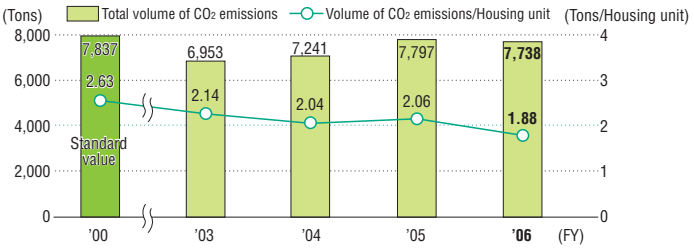
In FY2006, although total production volume (prefabricated houses conversion basis[3]) at the three housing works rose by approximately 9%, Toyota achieved FY2006 goals for both total CO_2 emissions volume and CO_2 emissions per housing unit produced. Major CO_2 emissions reduction initiatives at the three housing works are as below.

3. Prefabricated houses conversion basis: Calculated from the environmental impact by production at the housing works using conversion coefficients of: prefabricated houses = 1; iron frame houses = 0.5; steel-frame houses = 0.25.

Major CO_2 Emissions Reduction Initiatives at the Three Housing Works

Kasugai Housing Works	• Cation electro-deposition drying furnace temperature settings and operating times reviewed • Exterior wall drying furnace preheating temperature settings reviewed
Tochigi Housing Works	• Exterior wall preheating operating conditions improved • Use of infrared heaters prior to using exterior wall drying furnace terminated
Yamanashi Housing Works	• Condenser board with an improved power factor added • Inverter type water pumps (for drinking and industrial-use water) adopted

CO_2 Emissions in Production Processes



Note: There was an error in the calculation period for previously reported CO_2 emissions volumes. Previous figures have been recalculated.

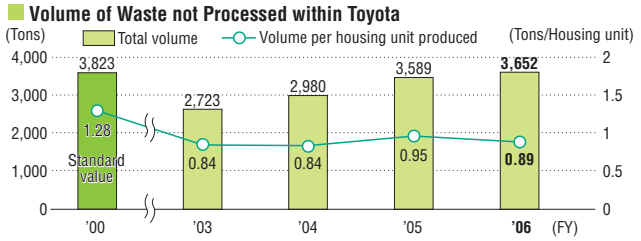
Toyota's Housing Business Environmental Action Plan 2010 and Results of Initiatives in FY2006

Action guideline	Item	2010 environmental scenario	FY2006 results	
Realization of Factor 4: Achievement of both affluent living for customers and environmental friendliness for the earth	Product development	• By the end of FY2010, all buildings constructed will exceed the next-generation, energy-saving performance standards • The use of energy-conserving and energy-creating devices such as the EcoCute (a heat-pump hot-water supply unit) and photovoltaic power generators will be actively promoted	Next-generation energy-saving standards achievement rate	82.9%
			EcoCute installation rate	23.6%
			Photovoltaic power generators installation rate	3.4%
	Establishment of CO_2 emissions goals for the three housing works	• FY2010 total CO_2 emissions: 3% reduction from the FY2000 level 7,837 tons (three housing works) → 7,602 tons	Total CO_2 emissions (compared to FY2000)	7,738 tons (1.3% reduction)
		• FY2010 CO_2 emissions per housing unit produced: 44% reduction from the FY2000 level 2.63 tons/housing unit (average of three housing works) → 1.47tons/housing unit	CO_2 emissions per housing unit produced (compared to FY2000)	1.88 tons/unit (29% reduction)
	Establishment of goals for waste not processed within the three housing works	• FY2010 total volume of waste not processed within Toyota: 20% reduction from the FY2000 level 3,823 tons (three housing works) → 3,058 tons	Total volume of waste not processed within Toyota (compared to FY2000)	3,652 tons (4% reduction)
		• FY2010 volume of waste not processed within Toyota per housing unit produced: 54% reduction from the FY2000 level 1.28 tons/housing unit (average of three housing works) → 0.59 tons/housing unit	Volume of waste not processed within Toyota per housing unit produced (compared to FY2000)	0.89 tons/unit (30% reduction)
	Transportation	• FY2010 energy consumption per housing unit produced: 4% reduction from the FY2006 level	Results will be used as data for the base year	
			Volume transported	45.55 million ton-kilos
			Energy consumption per unit of production	2.16MJ/ton-kilos
	Construction sites	• FY2010 zero emissions at construction sites for new homes (zero landfill waste excluding fly ash)	Survey on current waste processing routes completed	

Reduction of Waste not Processed within Toyota

To promote the effective use of resources, in FY2006 Toyota's housing business began taking steps to reduce the volume of waste not processed within the company, including that for money-back recycling. Although reduction measures such as improving recovery rates of exterior wall, iron, and gypsum scraps were implemented, it was found that the volume of waste not processed within the company can be effectively reduced only through measures implemented at the source (unlike waste volumes that can be reduced through recycling), and goals in this area were not met. In the future, equipment to solidify and dehydrate wastewater from painting processes will be installed and measures taken to reduce the volume of sludge generated from wastewater treatment.

Volume of Waste not Processed within Toyota

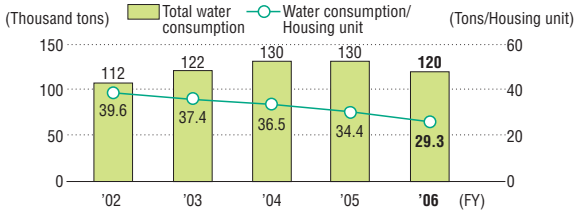


Note: Beginning in 2007, data will be collected for the volume of waste not processed within Toyota instead of for the volume of waste generated

Conservation of Water Resources

Toyota promoted water conservation through measures such as more efficient operation of the system for recycling rainwater. Total water consumption in FY2006 was 120,000 tons, a 7% reduction from the previous fiscal year.

Total Water Consumption



Note: There was an error in the calculation period for previously reported water consumption volumes. Previous figures have been recalculated.

Achieving Zero Cases of Non-compliance and Complaints

Toyota has established the Waste Water Processing Liaison Committee and has taken measures to prevent non-compliance in wastewater treatment. Specific measures include the installation of ion exchange resin filters at the three housing works, elimination of metals, including manganese and nickel, and improvement in water quality with regard to BOD.

Measures in Transportation Fields

Determination of Energy Consumption in Logistics in Accordance with the Revised Law Concerning the Rational Use of Energy

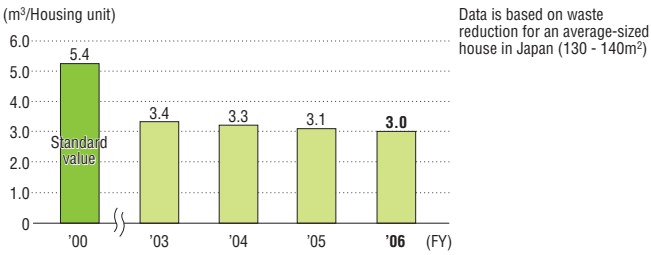
Under revision to the Law Concerning the Rational Use of Energy that came into effect on April 1, 2006, companies that handle shipments above a certain volume are required to report their energy consumption, and accordingly, a determination was made of energy used in transportation during FY2006. Using the values for FY2006 as a standard, Toyota will implement measures to achieve reduction goals beginning in FY2007.

Initiatives at Construction Sites

Materials Shipment Volumes Reviewed and Recycling Areas Confirmed

The volume of waste generated was reduced to 3.0m^3 per housing unit through improvements in shipment volumes, a reduction of 44% compared to FY2000. To achieve zero emissions at new construction sites, Toyota reviewed the waste processing routes from the new construction sites of all housing dealers, and investigated the status of waste disposal using manifests. It was confirmed that recycling of waste was possible in certain areas. In the future, waste processing routes will be developed with a focus on those areas in which recycling is possible, to achieve zero emissions as soon as possible.

Results of Waste Reduction Measures at Construction Sites



In Focus — Urban Planning that Accommodates Automobiles based on a Concept of Safety, Peace of Mind, and a Sense of Community

Sales of lots in Riverside Hills Sakuradai, a development project based on the concepts of beautiful views, community-wide safety, and harmonious coexistence with the natural environment and located in Okazaki City, Aichi Prefecture, began in April 2005.

The main features of the development are: (1) Underground installation of electrical and other wiring to improve views and prevent secondary fires from falling utility poles in the event of a disaster; (2) Town security that utilizes information technology (CCTV security cameras); (3) Town development with abundant greenery, making use of existing trees based on a theme of harmonious coexistence with the natural environment (such as moving the soil on the site containing firefly larvae to safer locations to protect their natural habitats); and (4) Adoption of a Town Development Agreement designed to create an attractive town that stirs feelings of unity throughout the community. Measures to improve traffic safety include the installation of imitation speed humps that encourage drivers to stop at intersections (made using eco-bricks) and resin humps that encourage drivers to drive slowly.

This community is the culmination of the Toyota Home idea of developing model communities based on the concept of sustainable communities.

Underground installation of electrical wiring enhances views all over the town

Special Story

Opening of Toyota Motor Thailand's Third Plant

with the Goal of Achieving World-leading Environmental Performance

The Ban Pho Plant, the third plant of Toyota Motor Thailand (TMT), officially started operation in January 2007. The Ban Pho Plant employs the latest environmental measures in its aim to achieve world-leading environmental performance.

The Ban Pho Plant, the third plant of Toyota Motor Thailand, is located in Ban Pho, Chachoengsao Province, 65km southeast of the Thai capital city of Bangkok. The plant has 2,000 employees and an annual production capacity of approximately 100,000 vehicles.

On March 13, 2007, Her Royal Highness Princess Maha Chakri Sirindhorn graciously presided over the official opening ceremony of the Ban Pho Plant, unveiling the corporate logo and planting a commemorative tree. Akio Toyoda, Executive Vice President of Toyota Motor Corporation made the following remarks: "We are proud to grow with Thai society and have the opportunity to contribute to industrial and economic vitality in this friendly and promising nation."

Goal of Creating an Environmentally Advanced Plant as a Key Toyota Global Production Base

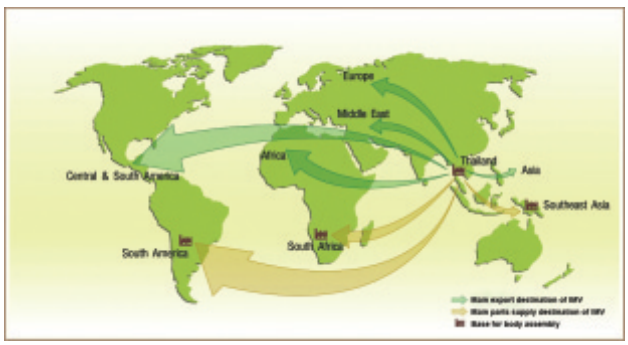
The story goes back to early 2005. In order to increase the production volume of the IMV (Innovative International Multi-purpose Vehicle), one of Toyota's global projects, it was necessary to increase TMT's production capacity. However, since even the combined capacity of the existing Samrong and Gateway plants was insufficient, Toyota decided to build another plant in Thailand.

Toyota selected Ban Pho, near Bangkok, as the plant site from among several candidate sites because of the following three factors: (1) It is within easy commuting distance of Bangkok and is centrally located between the existing Samrong and Gateway plants, making it easy to exchange personnel; (2) It is located in the center of an area where many parts suppliers are located, and has easy access to the New Suvarnabhumi Airport; and (3) It was possible to acquire land in time for the January 2007 startup, with room for future expansion.

The new plant project was approved in April 2005, but TMT had been keen to improve its environmental performance even before that time.

The new plant was to become one of Toyota's key overseas production sites, with the goal of becoming a leader globally in terms of production volume, quality, and productivity. At the same time, it aimed to become a global leader in terms of environmental initiatives as well. The planned plant site consisted of former agricultural land and a shrimp farm. TMT implemented environmental measures related to issues such as wastewater, in order to maintain harmony with the local community. Additionally, given the Thai Royal Family's keen concern about environmental protection and the resulting high level of environmental interest in Thai society, TMT decided to aim to make the Ban Pho Plant the top manufacturing plant worldwide in terms of environmental performance.

Speaking about the construction of the Ban Pho Plant, the leader of an environmental organization active in the Chachoengsao Province issued the following statement: "We must adapt to the changes in the global situation. Thailand is currently undergoing a transformation from an agriculture-based nation to an industry-based one. We cannot deny that industrialization is becoming more and more important for the country in terms of both job creation and massive revenue potential. Fully understanding and finding a good balance between agriculture and industry will lead to the sustainable development of Thailand."



Major vehicle exports from Thailand and parts supply destinations

World-Leading Level in Environmental Performance

Incorporating this sentiment, the Ban Pho Plant was completed at the end of 2006 as a manufacturing plant with a world-leading level of environmental performance. The use of a cogeneration system coupled with solar panels reduced CO_2 emissions by 6,100 tons a year. Additionally, 30% of the plant's wastewater is recycled, water-borne paints have been adopted for the topcoat base paint, and zero landfill waste was achieved from the start of operation. Employee training has already begun with the goal of obtaining certification for OHSHS (ISO 18001), ISO 9001, and ISO 14001, the international standards for labor safety and sanitation, quality, and environmental performance, between 2007 and 2008. From the start of operation, these activities have been made visible to the general public through a plant tour, which has become a platform for environmental education. On average, approximately 1,400 visitors per month take the tour, listening to explanations about production and viewing the latest environmental facilities.

Toyota's initial goal for the Ban Pho Plant—to create the most advanced plant in the Asia Pacific region in terms of production technology and environmental measures—was achieved for the most part from the very start of operation. For the future, Toyota will strive to achieve two remaining goals: To transfer technologies to Thailand to develop human resources, and to make Thailand a key automobile production and export base for Toyota.

"We have successfully created the physical structure of a world-leading plant. Now, our challenge is to instill "spirit" into this plant and produce results," declared Vice President Charnchai Suppayakorn. The true test for the Ban Pho Plant will be how successfully this spirit will be incorporated.

Major environmental facilities installed at the Ban Pho Plant

Facility	Overview
Cogeneration system	• Two 5,700kw/h gas systems (Energy efficiency of 69%. Supplies 57% of the electricity, 75% of the steam, and 22% of the cooling water needed by the plant)
Large-scale solar panel	• 50kw/h (Supplies 16% of the electricity needed by the management building)
Wastewater treatment and recycling facility	• Recycles 30% of the wastewater • The water quality of treated water is constantly monitored, and the data is sent to the local government every 15 minutes
Painting line that uses water-borne paints	• Introduction of water-borne paints in the top coat painting process



From left to right: Cogeneration system, large-scale solar panel, wastewater treatment and recycling facility, and painting line that uses water-borne paints

Installing the Latest Safety Systems

The Ban Pho Plant is pursuing the highest level of performance in terms of safety aspects, as well as environmental aspects. For example, a lock-down system has been installed that keeps equipment in the stopped state during maintenance operations. The zones in which operators perform their tasks are clearly separated from zones in which equipment runs, ensuring as much isolation as possible between people and machines. As a result, a safe working environment has been created for the people working at the plant.

Furthermore, using a method called CCCF (Completely Check and Completely Find-out), manufacturing operators, maintenance personnel, engineers, and safety and sanitation staff cooperated with each other to identify dangerous areas and ensure equipment safety. Well before the start of operation, preventive measures were implemented for all Rank A locations that could lead to serious accidents.

Operation zones and equipment zones are separated to increase worker safety

Appendix

Fourth Toyota Environmental Action Plan

In the Global Vision 2010, Toyota describes the "arrival of a revitalized, recycling-based society" as one image of what society is expected to be like from around 2020 to around 2030. Keeping this in mind, Toyota adopted the Fourth Toyota Environmental Action Plan that specifies activities that must be implemented between FY2006 and FY2010 in order to achieve the corporate image that Toyota seeks to pursue—"a leader and driving force in global regeneration by implementing the most advanced environmental technologies."

In drafting the plan, Toyota reconfirmed the environmental issues that are projected to intensify between 2020 and 2030, and addressed four main topics, namely, energy/global warming, recycling of resources, substances of concern, and atmospheric quality.

For each of these four topics, Toyota has adopted action items, specific measures, and goals in all areas of business activity, from development and design, procurement and production, to logistics, sales and marketing, and recycling, and will continue to promote and strengthen its environmental management.

The Fourth Toyota Environmental Action Plan (FY2006 - FY2010)

Action items			Specific actions and goals
Energy/ Global Warming	Management	1) Reduce CO_2 emissions in Toyota's global operations	• Create medium to long-term scenarios for reduction of CO_2 emissions and ensure implementation
	Development and Design	2) Promote the development of technologies to achieve the best fuel efficiency performance in each country and region	• Japan: Steadily promote improvements in fuel efficiency to surpass the 2010 Fuel Efficiency Standards • Europe: Steadily implement initiatives to realize Japan Automobile Manufacturers Association's commitment to reduce CO_2 emissions to 140g/km by 2009 • North America: Steadily promote the development of technologies aiming to achieve the best fuel efficiency among competing vehicles of the same class • China: Achieve the new fuel efficiency standards in the short-term and realize leading fuel efficiency levels by vehicle class • Other regions: Actively introduce technologies that improve fuel efficiency • Develop and apply related technologies that will contribute to improvements in fuel efficiency
		3) Promote the development of clean-energy vehicles, encourage their effective introduction and ensure wider market acceptance	• Further improve the performance of hybrid systems, increase the number of hybrid vehicle series and introduce them in more markets • Develop and quickly introduce next-generation fuel cell vehicles to contribute to realizing a hydrogen-based society in the future
		4) Develop technologies to respond to the diversification of energy and fuel sources	• Assess and develop corresponding technologies for various types of bio fuels and synthetic fuels that will contribute to reductions in CO_2 emissions and energy security
		5) Promote initiatives to improve traffic flows using a variety of networking technologies	• Promote initiatives to improve traffic flows in cooperation with relevant organizations, aiming to introduce to society traffic systems that use ITS from the three-fold perspective of "cars," "traffic infrastructure" and "people"
	Production and Logistics	6) Reduce CO_2 emissions in the production and logistics activities of each country and region	Production • Dramatically increase productivity through measures such as the development of innovative production technologies, thus reducing CO_2 emissions (expand activities to include offices and other sites) • Develop technologies that will enable the use of "new energy" and study their introduction Logistics • Promote CO_2 emissions reduction activities through improvements in transportation efficiency FY2010 Goals

	Region		Item	Goal
Production	Worldwide		Emissions volume/sales unit	20% reduction from FY2001
		TMC	Emissions volume/sales unit	35% reduction from FY1990
			Emissions volume	20% reduction from FY1990
Logistics	Japan*		Emissions volume	10% reduction from FY1990
	Overseas		Grasp overseas CO_2 emissions volumes and expand reduction activities Determine actual CO_2 emissions volumes by FY2007 and make a shift to goal management	

*Scope: Transport of production parts, vehicles and service parts

Recycling of Resources	Production and Logistics	7) Promote the effective use of resources to further contribute to the realization of a recycling-based society	Production • Reduce the volume of materials discarded by taking action at the source, such as improving yields and other measures (reduce the volume of valuable materials such as scrap metal and waste and maintain zero landfill waste generation) Logistics • Reduce packaging and wrapping material usage by keeping packaging to a minimum and increasing the use of returnable containers FY2010 Goals

	Region		Target	Item	Goal
Production	Japan		Materials discarded	Materials discarded/sales unit	3% reduction from FY2003
		TMC	Materials discarded	Materials discarded/sales unit	20% reduction from FY2000
	Overseas		Waste	Promote reduction activities that are at leading levels in each country	
Logistics	Japan[1]		Packaging material	Usage volume	43%[2] reduction from FY1995
	Overseas		Grasp usage volumes of packaging material and expand reduction activities		

1. Scope: Transport of production parts and service parts
2. The goal has been revised in conjunction with an expansion in the scope of service parts covered.

		8) Reduce water consumption	• Set separate goals for each country and region and continue implementing measures to reduce water consumption
	Vehicle Recycling	9) Steadily implement recycling systems in Japan and Europe • Steadily implement initiatives to increase vehicle recovery rates in Japan and to reach 95% by 2015 Recovery rates: Japan: equivalent to 92% in FY2010 Europe: 85% in 2006	• Further strengthen initiatives to enhance Automobile Shredder Residue (ASR) recycling/recovery technology • Develop and promote the use of dismantling methods and tools (disclose dismantling information) • Expand utilization of used parts (Japan: Increase sales ten-fold by 2010 compared to 2002) • Develop recycling technologies for newly developed parts (FC and HV parts, etc.) and create collection networks
		10) Further promote and expand the use of designs based on the designs for recycling (DfR) concept	• Promote and expand the development of vehicles that are easy to dismantle and recycle • Expand the usage of renewable resources such as Toyota Eco-Plastic, and of recycled materials (establish technologies that enable use of 15% resin parts by 2010) • Develop and increase use of designs based on the DfR concept for newly developed parts (FC and HV parts, etc.)

Action items			Specific actions and goals
Substances of Concern	Development and Design	11) Promote management and further reductions in the use of substances of concern (SOC) • Eliminate use of four SOCs (lead, mercury, cadmium and hexavalent chromium) globally	• Introduce vehicles in Japan and Europe that use zero amounts of the four banned substances starting in 2006 (complete elimination, with some exemptions, by 2007) • Eliminate worldwide usage of the four banned substances in accordance with Toyota's global standards in the short term • Increase the number of SOCs subject to management • Reduce cabin VOC levels in all new vehicles launched globally by 2010 • Develop air conditioners that use coolants with a small global warming potential
	Production and Logistics	12) Reduce the discharge of substances subject to the PRTR law* *Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management	• Reduce the discharge of substances subject to the PRTR law, focusing on vehicle painting processes FY2010 Goals Production: Japan: Discharge volume: 55% reduction from FY1998 Production: Japan: TMC: Discharge volume: 70% reduction from FY1998 Production: Overseas: Set goals that are stricter than each country's regulations and implement reduction activities
Atmospheric Quality	Development and Design	13) Reduce emissions to improve air quality in urban areas in all countries and regions	• Promote the development of ultra-low emissions technologies and introduce the best-performing low-emissions vehicles according to conditions in each country Japan: Expand phased introduction of SU-LEVs U.S.: Respond appropriately to Tier2 and LEV2 regulations China: Introduce Euro 4 level vehicles in the short term Other countries: Introduce Euro 3 and 4 level vehicles in the short term • Further promote the development and market penetration of high-efficiency, clean diesel vehicles Japan: Further market penetration focusing on commercial vehicles Europe: Develop and quickly introduce low-emissions vehicles with even cleaner emissions
	Production and Logistics	14) Implement initiatives to reduce VOC emissions	• Implement measures to further reduce the volume of cleaning solvents used in vehicle painting processes and expand the use of water-borne paints FY2010 Goals Production: Body painting processes: Japan: Emissions/unit of painted area: 35g/m^2 or less (average of all lines) Production: Body painting processes: Japan: TMC: Emissions/unit of painted area: 25g/m^2 or less (average of all lines) Production: Body painting processes: Overseas: Conduct activities to reduce VOC emissions at the highest levels in each country Production: Other painting processes: Japan/Overseas: Implement VOC emissions reduction activities
Environmental Management	Management	15) Strengthen consolidated environmental management	Production affiliates • Implement global Eco-Factory activities that ensure the incorporation of environmental measures from the planning stages (zero instances of non-compliance and complaints, minimizing environmental risks, and achieving leading levels of environmental performance in each country and region) Non-production affiliates • Manage and enhance affiliates' environmental performance (CO_2 emissions, etc.) on a global scale
		16) Further promote environmental management to business partners	Suppliers • Further enhancement of environmental activities in cooperation with suppliers • Management of SOCs contained in parts, raw materials, production facilities and other items supplied to Toyota • Request voluntary initiatives by suppliers to improve environmental performance Japanese dealers • Review Toyota Japanese Dealer Environmental Guidelines and support dealer responses to medium-term environmental issues · In addition to proper disposal of waste and treatment of wastewater, undertake active steps to address a broad range of issues such as reducing CO_2 emissions · Promote the establishment of initiatives based on the Automobile Recycling Law response guidelines • Support dealer initiatives to reinforce and enhance their environmental management functions · Set key indicators for Toyota dealers and develop monitoring structures Overseas distributors • Support initiatives to assess, manage and reduce emissions of CO_2 and other substances generated by overseas distributor operations • Support initiatives to ensure appropriate disposal of waste, wastewater and air conditioner coolants at overseas dealers
		17) Enhance environmental education	• In addition to raising employee environmental awareness, continue conducting environmental training that contributes to improvement in actual work activities • Enhance global environmental education and include consolidated affiliates
		18) Promote new businesses that contribute to environmental improvement	• Expand existing and establish new biotechnology and reforestation businesses • Promote development and launch of stationary fuel cells • Expand businesses that reduce environmental risk, such as management of SOCs, etc.
		19) Steadily reduce environmental impact over the entire lifecycle of the product through full-scale implementation and establishment of Eco-Vehicle Assessment System (Eco-VAS)	• Implement on models that undergo redesigns and new models in Japan and expand to all vehicles, including those produced in Europe and America
	Cooperation with Society	20) Contribute to the development of a recycling-based society	• Promote basic environmental research, such as development of technology to reduce CO_2 emissions, and make proposals • Implement philanthropic programs that contribute to development of environmental technologies, environmental education, and the preservation of biodiversity · Continue implementing and further enhance the content of activities such as the Toyota Environmental Activities Grant Program (in commemoration of winning the Global 500 Award) and the establishment of the TOYOTA Shirakawa-Go Eco-Institute
		21) Improve disclosures of environmental information and two-way communications	• Enhance disclosures of information concerning environmental product technologies in each country and region • Provide information on environmentally considerate driving (eco-drive) to consumers • Further enhance the content of environmental reports in each country and region • Further enhance communications with local communities at Toyota operations worldwide • Improve dialogues with and engage in communication with a broader range of stakeholders, and increase mutual understanding
		22) Actively contribute to and propose environmental initiatives based on sustainable development	• Participate in debates concerning the creation of governmental environmental policies and frameworks both in Japan and overseas • Promote environmental measures proposed by the World Business Council for Sustainable Development (WBCSD), Nippon Keidanren, Japan Automobile Manufacturers Association and industry organizations

Environmental Accounting

Basic Policy

Environmental accounting at Toyota is based on a classification of environmental costs into "environmental investments"[1] and "maintenance costs."[2] Toyota also calculates economic effects and eco-efficiency.

For details on the effects of measures to reduce environmental impact, please see "Status of Major Environmental Data for FY2006" on page 47.

1. Environmental investments:
   Environmental costs whose effects are judged to extend beyond the current term into the future
2. Maintenance costs:
   Environmental costs other than environmental investments

Environmental Costs in FY2006

Total environmental costs in FY2006 were 249.8 billion yen. This represents an increase of 12 billion yen from the previous fiscal year and accounts for 2.2% of net sales. The increase was the result of greater developmental costs for hybrid vehicles.

Economic Effects in FY2006

1) Actual Effects

Toyota calculates actual effects by adding savings, such as from "reduction in energy costs" achieved through energy conservation, to income, such as that from "sales of recyclable goods." In FY2006, total actual effects were 13.3 billion yen, an increase of 2.9 billion yen from FY2005.

Economic Effects (Actual effects)

(Unit: Billion yen)

	FY 2004	FY 2005	FY 2006	FY2006 results of 6 body manufacturers*
Reduction in energy costs	1.1	2.1	**2.8**	2.0
Reduction in waste processing costs	0.3	0.4	**0.1**	0.1
Sales of recyclable goods	5.9	5.8	**8.3**	5.6
Other (income from environment-related technologies, etc.)	2.5	2.1	**2.1**	0.1
Total	9.8	10.4	**13.3**	7.8

http://www.toyota.co.jp/SR/en07repo/envac/

2) Customer Effects

In FY2006, total customer effects resulting from the introduction of new models and models that underwent complete redesign were 0.9 billion yen and total effects through to the end-of-life vehicle stage were approximately 10.3 billion yen.

3) Inferred Effects

Since FY2003, Toyota has determined inferred effects based on preliminary calculations of the "contribution to profits from environmental responses." In FY2006, total inferred effects were 450 billion yen.

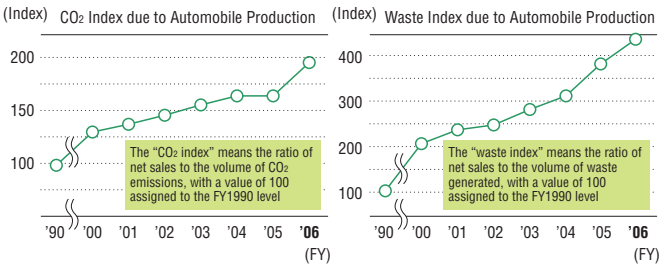
Eco-efficiency

Toyota calculates eco-efficiency using the formula below and monitors the results in the form of the eco-efficiency index. CO_2 emissions volume and the volume of waste generated by the Production Group were used to determine the environmental impact starting with data from FY1990. Over 16 years, the CO_2 index has increased by about 95%, and the waste index by approximately 340%. In the future, Toyota will continue to pursue production that minimizes environmental impact and to enhance eco-efficiency.

Eco-efficiency Formula

$$\text{Eco-efficiency} = \frac{\text{Net sales}}{\text{Environmental impact}}$$

Trend in Eco-efficiency



Actual Results of Environmental Expenses

Actual Results Based on Toyota's Format (Unit: Billion yen)

Classification	Item		Details	FY2004	FY2005	FY2006
Environmental investments	Research and development			192.3	191.5	**210.0**
	Recycling-related			1.3	2.1	**1.5**
	Other expenses (social contribution, ISO certification, education & training, etc.)			4.9	2.8	**1.9**
	Plant and equipment investment*	Plant and equipment investment primarily for environmental action	Prevention of global warming	0.8	1.4	**1.5**
			Waste processing	0.7	0.3	**0.3**
			Pollution prevention, etc	6.9	5.5	**4.0**
				8.4	7.2	**5.8**
		Expenses for environmental action included in normal plant and equipment investment		12.9	19.4	**18.6**
	Subtotal for environmental investments			219.8	223.0	**237.8**
Maintenance costs	Expenses related to environmental measures		Waste processing	2.6	2.6	**2.8**
			Wastewater treatment	0.5	0.5	**0.5**
			Atmospheric pollution and odor abatement	1.2	0.9	**1.0**
			Global environmental preservation	0.6	0.9	**0.6**
	Awareness-building		Advertising, public relations, etc.	4.2	6.0	**4.7**
	Professional environmental staff		Personnel	2.0	2.2	**2.2**
	Environmental restoration		Recall	—	1.5	**0**
			Soil and groundwater remediation	0.2	0.2	**0.2**
	Subtotal for maintenance costs			11.3	14.8	**12.0**
Total				231.1	237.8	**249.8**

*Depreciation expenses of investments in plant and equipment are not included in these costs
(Reference) FY2006 Total R&D expenses: 760.7 billion yen
Total plant and equipment investment: 379.9 billion yen

FY2006 Actual Results Based on the Ministry of the Environment's Format (Unit: Billion yen)

Classification		Toyota Investments	Toyota Cost	6 body manufacturers* Investments	6 body manufacturers* Cost
(1) Business area costs	[1] Pollution prevention	2.3	1.5	1.2	2.5
	[2] Global environmental preservation	20.9	0.6	4.6	0.4
	[3] Resource circulation	0.3	2.8	2.8	2.8
(2) Upstream/downstream costs	Amount allocated by recycling-related industry organizations	0	1.6	0	0.4
(3) Administration costs	Environmental advertisements, environmental report publication, professional environmental staff, etc.	0	8.3	0	2.0
(4) Research and development costs	R&D for reducing substances of concern	0	210.0	0.2	28.5
(5) Social activity costs	Contribution to environmental preservation organizations, etc.	0	0.4	0	0.1
(6) Environmental remediation costs	Soil and groundwater remediation, etc.	0.9	0.2	0	0
Total		24.4	225.4	8.9	36.8
		249.8		45.7	

*6 body manufacturers: Kanto Auto Works, Daihatsu Motor, Toyota Auto Body, Hino Motors, Toyota Motor Kyushu, and Central Motor
(Calculations made on the basis of standards used by each company)

Figures for environmental accounting by overseas affiliates
- TMT (Thailand): Environmental costs: 318 million yen; economic effects: 133 million yen
- Kuozui Motors (Taiwan): Environmental costs: 343 million yen; economic effects: 57 million yen

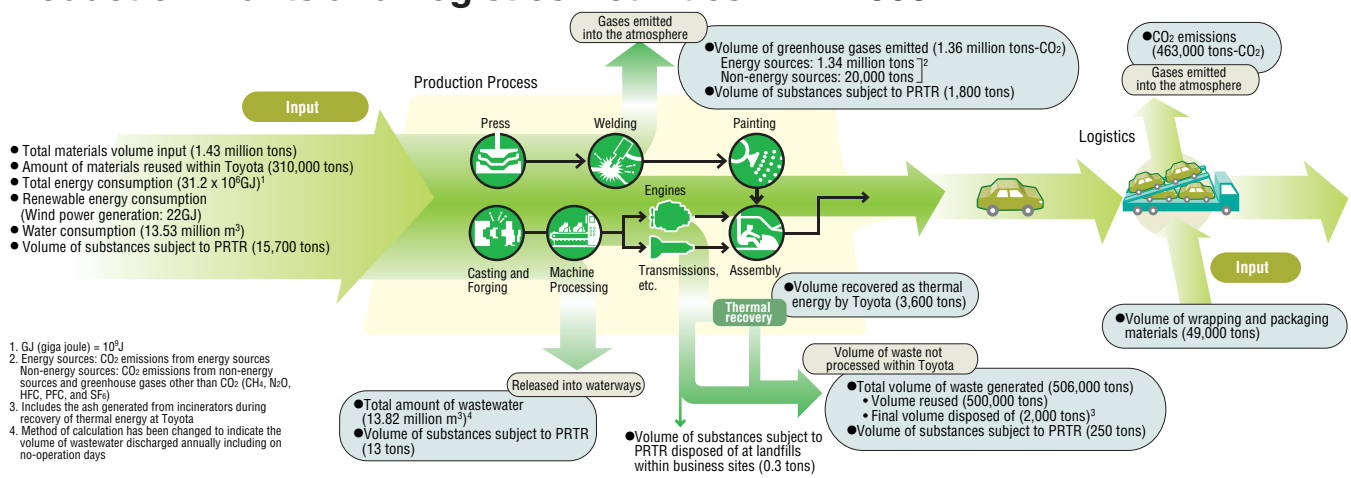
Status of Major Environmental Data for FY2006

(In order to look at the medium and long-term trends, the figures for FY1990 and FY1995 are listed in addition to those for the past three years)

Area	Item	Key indicator (unit)	FY1990	FY1995	FY2004	FY2005	FY2006	Related pages in this report
Product	Exhaust gases	Vehicles that achieved levels 25% lower than 2000 gasoline standards [Percentage of total production (No. of models)]	—	—	8.5% (54)	3.4% (34)	2.1% (19)	26
		Vehicles that achieved levels 50% lower than 2000 gasoline standards [Percentage of total production (No. of models)]	—	—	0.2% (7)	—	—	
		Vehicles that achieved levels 75% lower than 2000 gasoline standards [Percentage of total production (No. of models)]	—	—	0.1% (9)	—	—	
		Vehicles that achieved levels 50% lower than 2005 gasoline standards [Percentage of total production (No. of models)]	—	—	67.2% (104)	32.6% (101)	18.9% (61)	
		Vehicles that achieved levels 75% lower than 2005 gasoline standards [Percentage of total production (No. of models)]	—	—	23.5% (26)	63.7% (69)	78.8% (84)	
	Clean-energy vehicles	Number of units sold (units)	—	—	65,154	57,964	81,324	14
		Electric vehicles (units)	—	—	0	0	0	
		Hybrid vehicles (units)	—	—	64,877	57,756	81,118	
		CNG vehicles (units)	—	—	277	208	206	
	Fuel efficiency[1]	Average fuel efficiency by weight category [km/l] (Gasoline-powered passenger vehicle)[1] 703 - 827kg	17.6	17.6	—	—	—	12
		828 - 1,015kg	12.3 (average)	12.3 (average)	19.5	20.2	20.7	
		1,016 - 1,265kg			16.9	17.0	17.3	
		1,266 - 1,515kg			14.3	14.1	14.5	
		1,516 - 1,765kg	8.5 (average)	8.0 (average)	11.5	11.8	11.9	
		1,766 - 2,015kg			9.3	9.8	10.3	
		2,016 - 2,265kg			11.1	9.9	9.5	
		2,266kg -			6.1	6.5	6.5	
Production	CO_2 emissions[2]	Total emissions volume (calculated in CO_2 equivalent in 10 thousand tons/year)	212[3]	211	178	171	160	15
		Emissions volume per sales unit (calculated in CO_2 equivalent in tons/100 million yen/year)	29.1[3]	31.2	19.3	16.8	13.8	
	Substances of concern	VOC emissions volume per body area (g/m^2)	—	—	35	30	27	27
		Discharge volume of PRTR substances (tons/year)	—	—	3,030	1,980	1,790	24
	Waste[4]	Volume of combustible waste generated (thousand tons/year)	62	41	10.5	8.2	6.0	19
Recycling	Recovery rate	Vehicle recycling/recovery rate (%)	—	—	92[5]	93	94	21

1. The fuel efficiency figures for FY1990 have been obtained by converting the figures obtained in the 10 Japanese test cycle to the 10-15 Japanese test cycle
2. Since non-production bases were also brought under the scope of the reduction goals in FY2005, figures include company-wide emissions from FY1990
3. Total figure for the period from January to December 1990
4. Zero landfill waste was achieved in FY2000 and has been maintained ever since
5. Results for the period between January and March 2005, after the Automobile Recycling Law came into effect

Volume of Resources Input and Volume of Substances Discharged from Production Plants and Logistics Activities in FY2006



1. GJ (giga joule) = 10^9J
2. Energy sources: CO_2 emissions from energy sources
   Non-energy sources: CO_2 emissions from non-energy sources and greenhouse gases other than CO_2 (CH_4, N_2O, HFC, PFC, and SF_6)
3. Includes the ash generated from incinerators during recovery of thermal energy at Toyota
4. Method of calculation has been changed to indicate the volume of wastewater discharged annually including on no-operation days

CO_2 Conversion Coefficients to Calculate CO_2 Emissions Volume

(1) Toyota's Automobile Production Process

Electricity	0.3817 kg-CO_2/kWh	**Butane gas**	3.0094 kg-CO_2/kg
A-type heavy oil	2.7000 kg-CO_2/l	**Natural gas**	2.3576 kg-CO_2/m^3
C-type heavy oil	2.9419 kg-CO_2/l	**Coke**	3.2502 kg-CO_2/kg
Kerosene	2.5308 kg-CO_2/l	**Coal**	2.3536 kg-CO_2/kg

Note 1: CO_2 conversion coefficient source: Japan Automobile Manufacturers Association, Inc.
Note 2: Coefficients from other sources have been used in some instances
Note 3: China uses both steam and hot water. In FY2006, 0.060t-CO_2/GJ of steam and 0.057t-CO_2/GJ of hot water were used.

(2) Logistics

Railway (Japan Railway Cargo)	21.7 g-CO_2/ton-kilometer
Diesel (truck)	2.62 kg-CO_2/l
C-type heavy oil (ship)	2.99 kg-CO_2/l

Note 1: CO_2 conversion coefficient source:
Railway (Japan Railways Cargo): The Environment, Traffic and Transport, Institution For Transport Policy Studies (ton-kilometer method)
Diesel (truck) and C-type heavy oil (ship): Japanese Ministry of the Environment (fuel method)

Environmental Data for FY2006 Japanese New Models and Redesigns (Passenger Vehicles)

	Name	Estima Hybrid	LS460	Corolla Axio	Corolla Fielder	Auris	Blade
Specifications	Vehicle model	DAA-AHR20W	DBA-USF40	DBA-NZE141	DBA-NZE141G	DBA-NZE151H	DBA-AZE156H
	Engine model	2AZ-FXE	1UR-FSE	1NZ-FE	1NZ-FE	1NZ-FE	2AZ-FE
	Transmission	Electronically-controlled continuously variable transmission	8-speed AT	CVT	CVT	CVT	CVT
Start of sales		June 2006	September 2006	October 2006	October 2006	October 2006	December 2006
Greenhouse gases	Amount of HFC134-a used (g) as air conditioning refrigerant	800	600	440	440	440	440
	CO_2 emissions (g/km) (calculated from 10-15 Japanese test cycle fuel efficiency values)	116	255	128	129	132	173
Fuel efficiency	Fuel efficiency (10-15 Japanese test cycle) (km/l) (Figure reviewed by Ministry of Land, Infrastructure and Transport)	20.0	9.1	18.2	18.0	17.6	13.4
External vehicle noise	Regulation figures for acceleration noise (dB-A)	76	76	76	76	76	76
	Specification figures for acceleration noise (dB-A)	73	75	72	72	74	74
Exhaust emission levels (2005 Exhaust Emissions Standards)[1]	75% lower than standard levels (SU-LEV)	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★
	50% lower than standard levels (U-LEV)	—	—	—	—	—	—
Substances of concern used in parts	Lead (1/10 or less than the 1996 figure)	JAMA goals achieved	JAMA goals achieved	JAMA goals achieved	JAMA goals achieved	JAMA goals achieved	JAMA goals achieved
	Mercury (usage banned since January 2005)	JAMA goals achieved	JAMA goals achieved	JAMA goals achieved	JAMA goals achieved	JAMA goals achieved	JAMA goals achieved
	Cadmium (usage banned since January 2007)	JAMA goals achieved	JAMA goals achieved	JAMA goals achieved	JAMA goals achieved	JAMA goals achieved	JAMA goals achieved
	Hexavalent chromium (usage banned from January 2008)	JAMA goals achieved	JAMA goals achieved	JAMA goals achieved	JAMA goals achieved	JAMA goals achieved	JAMA goals achieved
Recycling	Parts that use easy-to-recycle materials (TSOP)	Bumpers and interior parts	Bumpers and interior parts	Bumpers and interior parts	Bumpers and interior parts	Bumpers and interior parts	Bumpers and interior parts
	Natural materials	—	○ (Kenaf)	○ (Kenaf)	—	—	—
	Use of recycled materials	—	—	○	○	—	—
	Soundproofing material made from recycled shredder residue (RSPP)	—	—	—	—	○[2]	—

1. Refer to the table on the right for levels of emission gases from passenger vehicles
2. Included in the Takaoka Plant production volume
Note 1: In principle, the data above relates to the best-selling grade of each vehicle model
Note 2: The vehicles listed above do not use CFC 12, which is an ozone-depleting substance. Parts in these vehicles also do not use sodium azide, a substance of concern.

*Environmental data for new models and completely redesigned vehicles (passenger cars) is available in product catalogs as "Environmental Specifications" and on the website below

http://www.toyota.co.jp/SR/07repo/envac (Japanese only)

■ **Exhaust Emissions Levels for Gasoline-powered Passenger Vehicles (2005 Standards)**

Regulated substances \ New mode*	Regulation value	50% lower than 2005 standards (☆☆☆)	75% lower than 2005 standards (☆☆☆☆)
Carbon monoxide CO (g/km)	1.15	←	←
NMHC (g/km)	0.05	0.025	0.013
NOx (g/km)	0.05	0.025	0.013

*New mode: (Value measured in the 10-15 Japanese test cycle) x 0.88 + (Value measured in the 11 Japanese test cycle) x 0.12

Environment-related Awards (FY2006)

Organization	Award title	Award for
The Energy Conservation Center, Japan (ECCJ)	Energy conservation best practices Minister of Economy, Trade and Industry Prize	In-house ESCO initiatives - improvements in energy conservation from the provider right through to the end user
Gas Turbine Society of Japan	GTSJ Prize	Pressure-type MCFC/MGT Hybrid System
Inverse Manufacturing System Research Association	Research Encouragement Award	Activities to reduce waste by reducing waste fluids from forging processes and recycling used oil
Renewable Energy 2006	Best Paper Award	Hydrogen/Fuel Cell Session
Institute of Electrical and Electronics Engineers (IEEE)	Corporate Innovation Recognition	Development and promotion of a hybrid combustion-electric power train for automobiles that significantly improves fuel economy and reduces emissions without sacrificing vehicle dynamic performance
Gordon Research Conferences	Best Presentation Award (The Proud Papa Award)	Development of vertically oriented CNT electrodes
Society of Automotive Engineers of Japan, Inc. (JSAE)	The Asahara Award of Merit in Technology The Technological Development Award The Outstanding Technical Paper Award	Vehicle engine control and construction of an environment conducive to developing control systems Development of a hybrid system for rear-wheel drive passenger vehicles Development of a new hybrid transmission for front-wheel drive SUVs

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

Production companies					Sales companies	Other businesses
(Group 1) · Consolidated subsidiaries · Automotive production companies, and others · Toyota secondary companies	(Group 2) · Companies not subject to consolidated accounting · Main parts manufacturers · Body manufacturers, etc.	(Group 3) · Consolidated subsidiaries · Parts manufacturers	(Group 4) · Consolidated subsidiaries · Various other products production companies	(Group 5) · Companies not subject to consolidated accounting · Parts manufacturers	Toyota Home Toyota Tokyo Parts Distributor Co., Ltd. Toyota Tokyo Rental & Leasing Co., Ltd. Tokyo Toyopet Motor Sales Co., Ltd., and others Total of 37 companies	Aichi Rikuun Co. Tacti Corporation Toyota Central R&D Labs, Inc. Toyota Enterprises Inc. Toyota Modellista International Toyofuji Shipping Co., Ltd. Toyota Technocraft Co. Toyota Transportation, and others Total of 57 companies *Includes 6 companies that are not subject to consolidated accounting
Central Motor Co., Ltd. Daihatsu Motor Co., Ltd. Hino Motors, Ltd. Kanto Auto Works, Ltd. Toyota Auto Body Co., Ltd. Toyota Motor Hokkaido, Inc. Toyota Motor Kyushu, Inc. Toyota Motor Tohoku, 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 Gifu Auto Body Industry Co., Ltd. JTEKT Corporation Tokai Rika Co., Ltd. Toyoda Gosei Co., Ltd. Toyoda Machine Works, Ltd. Toyota Boshoku Corporation Toyota Tsusho Corporation	Cataler Corporation Chuo Precision Industrial Co., Ltd. Horie Metal Co., Ltd. Kyoho Machine Works, Ltd. Panasonic EV Energy Co., Ltd. Yutaka Seimitsu Kogyo, Ltd.	Admatechs Co., Ltd. Japan Chemical Industries Co., Ltd. Toyota Turbine and Systems Inc. Shintec Hozumi Co., Ltd.	Taiho Kogyo Co., Ltd. Toyoda Iron Works Trinity Industrial Corporation		
All-Toyota Production Environment Conference members		All-Toyota Production Environment Meeting members				

Note: In the global production environment data on pages 17, 23 and 25, the 33 companies listed in Groups 1 - 5 above (excluding Toyota Tsusho Corporation and Panasonic EV Energy) are included in the calculation scope for Japan. The list of companies on P.17 includes the 33 companies above and Toyota sub-subsidiaries.

Continued Reporting

Due to editorial policy or space limitations, some features included in the Sustainability Report 2006 could not be included in this year's report. In the interest of continued reporting, major developments in these areas are reported below.

	Area	Page no. in 2006 report	Details	Current status
Environmental Aspects	Production and Logistics	P31	In FY2006, with the goal of further improving the effectiveness of internal audits, Toyota will conduct audits based on a framework of ensuring zero non-compliance and complaints.	Tools were created for verifying the measures put in place to prevent non-compliance, complaints, and "near-miss" accidents and to ensure company-wide usage of these tools. Subsequently, managers checked the effectiveness of these tools and issued a series of reports. Detailed information was made available on the Toyota Intranet for wider internal use. In FY2006, in order to prevent legal non-compliance, other types of non-compliance, and complaints, Toyota surveyed the actual status of divisions that are not included in the Production Engineering EMS.
Environmental Aspects	Production and Logistics	P31	In order to prevent the recurrence of accidents involving leakage of turbid water into public waterways, Toyota will implement countermeasures in locations that have been identified from the viewpoints of vulnerability and impact.	Toyota identified a total of 33 locations that pose a danger of direct or indirect leakage of turbid water into public waterways, and in FY2006 completed the implementation of countermeasures at all of the 16 locations with direct leakage risk. In FY2007, Toyota is continuing to implement countermeasures at the remaining 17 locations with indirect leakage risk.
Social Aspects	Employees	P54	With regard to asbestos, Toyota has been taking corrective actions on equipment and buildings; actions related to equipment will be completed in August 2006 and those related to buildings, at the end of FY2007.	Toyota plans to complete the corrective measures, including additional measures, for both equipment and buildings by the end of December 2007.

Status of ISO 14001 Certification

In order to strengthen environmental responses and at the same time ensure transparency of initiatives, Toyota constantly renews ISO 14001 certification at all major plants and housing works in Japan, as well as in specific areas such as engineering, production engineering and logistics. Toyota is also promoting ISO 14001 acquisition among consolidated affiliates both in Japan and overseas, with a focus on consolidated companies. In FY2006, Panasonic EV Energy, which had already acquired ISO certification, became subject to consolidated environmental management. However, because Toyota Macs merged with Toyota Technical Development, a non-consolidated company, the total number of ISO certified affiliates in Japan did not change. Overseas, parts manufacturer FTCE in China, distributor ALJ in Saudi Arabia, and distributor TNO in Norway all acquired ISO 14001 certification. This means that of the 231 companies subject to consolidated environmental management around the world, the number of ISO certified affiliates has grown to 116 companies.

The number of overseas dealers and service shops in Thailand, India, Taiwan and Malaysia that have acquired ISO certification with the support of local distributors increased, while dealers and service shops in Vietnam and Indonesia acquired certification for the first time. There are now more than 400 Toyota bases across 15 countries that have acquired ISO 14001 certification.

Number of Companies in Japan and Overseas that have Acquired ISO 14001 Certification

	Production companies	Production/Sales companies	Sales companies/ Other types of businesses
Japan	34	————	24
Overseas	25	9	24

http://www.toyota.co.jp/SR/en07plantdata/

List of Overseas Affiliates in the Report

Country/Region		Abbreviation	Campany name	Areas of operation	Related pages in this report
North America	Canada	TCI	Toyota Canada Inc.	Toyota distributor in Canada	56
	Canada	TMMC	Toyota Motor Manufacturing Canada Inc.	Manufacture of the Corolla, Matrix, and RX, and engines	32
	USA	BODINE	Bodine Aluminum, Inc.	Manufacture of engine brackets, engine blocks, and cylinder heads	32
	USA	NUMMI	New United Motor Manufacturing Inc.	Manufacture of the Corolla and Tacoma	18
	USA	TMA	Toyota Motor North America, Inc.	North American holding company (sales and manufacturing)	72, 81
	USA	TEMA	Toyota Motor Engineering & Manufacturing North America, Inc.	Holding company (engineering and manufacturing)	25, 72
	USA	TMS	Toyota Motor Sales, U.S.A, Inc.	Toyota distributor in the US	37, 72, 79
	USA	TMMTX	Toyota Motor Manufacturing, Texas, Inc.	Manufacture of the Tundra	23, 32
South America	Venezuela	TDV	Toyota de Venezuela Compania Anonima	Manufacture of the Corolla, Hilux, Fortuner, Dyna and other vehicles	85
Europe	Poland	TMMP	Toyota Motor Manufacturing Poland SP.zo.o	Manufacture of engines and transmissions	32, 85
	Poland	TMIP	Toyota Motor Industries Poland SP.zo.o	Manufacture of engines	32
	Norway	TNO	Toyota Norge AS	Toyota distributor in Norway	50
	UK	TMUK	Toyota Motor Manufacturing (UK) Ltd.	Manufacture of the Avensis and Corolla, and engines	17, 23
	France	TMMF	Toyota Motor Manufacturing France S.A.S	Manufacture of the Yaris	23
	Belgium	TME	Toyota Motor Europe n.v./s.a	European holding company	22, 72, 80
	Turkey	TMMT	Toyota Motor Manufacturing Turkey Inc.	Manufacture of the Corolla	32, 80
	The Czech Republic	TPCA	Toyota Peugeot Citroen Automobiles Czech, s.r.o	Manufacture of the Aygo	32
	Russia	TMMR	Toyota Motor Manufacturing Russia LLC.	Manufacture of the Camry (scheduled to begin in December 2007)	32
Africa	South Africa	TSAM	Toyota South Africa Motors (Pty) Ltd.	Manufacture of the Corolla, Hiace, Hilux, Fortuner and Dyna	63, 80
Asia	China	GTMC	Guangzhou Toyota Motor Co., Ltd.	Manufacture and sales of the Camry	32, 68, 83
	China	FTCE	FAW Toyota (Changchun) Engine Co., Ltd.	Manufacture of engines	32, 50
	China	TFTD	Toyota FAW (Tianjin) Dies Co., Ltd.	Manufacture of stamping dies for vehicles	32
	China	TFTE	Tianjin FAW Toyota Engine Co., Ltd.	Manufacture of engines	32
	China	TFTM	Tianjin FAW Toyota Motor Co., Ltd.	Manufacture of the Vios, Corolla, Crown, Reiz and other vehicles	32
	China	GTE	Guangqi Toyota Engine Co., Ltd.	Manufacture of engines	32
	China	SFTM	Sichuan FAW Toyota Motor Co., Ltd.	Manufacture of the Coaster, Land Cruiser and other vehicles	20
	China	TTCC	Toyota Technical Center Co., Ltd.	Consulting services regarding R&D and technologies to enhance local content of parts and automobiles	20
	China	TMCI	Toyota Motor (China) Investment Co., Ltd	Holding company in China	79
	Korea	TMKR	Toyota Motor Korea Co., Ltd.	Toyota distributor in Korea	81
	Taiwan	Kuozui	Kuozui Motors, Ltd.	Manufacture and sales of the Camry, Corolla, and other vehicles, and manufacture of engines	46
	Taiwan	Hotai	Hotai Motor Co., Ltd.	Toyota distributor in Taiwan	18, 37
	Thailand	TMAP-EM	Toyota Motor Asia Pacific Engineering & Manufacturing Co., Ltd.	Holding company in charge of production and engineering in Oceania	63
	Thailand	TMT	Toyota Motor Thailand	Manufacture and sales of the Hilux, Fortuner, Camry, Corolla and other vehicles	17,32,37,42,46,63,85
	The Philippines	TAP	Toyota Autoparts Philippines Inc.	Manufacture of transmissions and continuous velocity joints	23
	The Philippines	TMP	Toyota Motor Philippines Corp.	Manufacture of the Camry, Corolla and Innova	37
	India	TKM	Toyota Kirloskar Motor Private Ltd.	Manufacture of the Corolla and Innova	85
	Indonesia	TAM	PT. Toyota-Astra Motor	Toyota distributor in Indonesia	78
	Indonesia	TMMIN	Toyota Motor Manufacturing Indonesia	Manufacture and sales of the Innova, and manufacture of engines	68, 78
The Middle East	Saudi Arabia	ALJ	Abdul Latif Jameel Import & Distribution	Toyota distributor in Saudi Arabia	50
Oceania	Australia	TMCA	Toyota Motor Corporation Australia Ltd.	Manufacture and sales of the Camry	27, 78

Environmental Glossary

An explanation of Toyota's environmental terminology can be found on Toyota's website

http://www.toyota.co.jp/en/environment/communication/glossary/index.html

Highlights in FY2006
Social Aspects
Sustainability Report 2007

Relations with Customers

Based on the "*kaizen* (continuous improvement)" philosophy at the heart of its manufacturing activities, Toyota is working hard to continuously improve customer satisfaction through initiatives in all areas of its business activities, including development, purchasing, production, sales and after-sales services, throughout the entire Toyota Group.

Relations with Employees

Based on mutual trust and respect between labor and management, long-term employment stability, and communication, each Toyota employee is taking measures to improve teamwork, work-related skills and work ethic.

Relations with Business Partners

Showing respect for all business partners, Toyota works to contribute to the sustainable development of society through cooperation with business partners.

Relations with Shareholders

Toyota believes that the balanced pursuit of three basic priorities (growth, efficiency and stability) over the medium to long term will lead to increased corporate value.

Global Society/Local Communities (Initiatives toward Improving Traffic Safety)

In addition to making safer vehicles with a focus on reducing injury to people, Toyota is taking a comprehensive approach based on the "Safety: Basic Concept," which seeks to achieve a working harmony with society.

Global Society/Local Communities (Social Contribution)

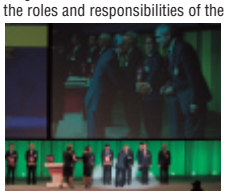
Seeking to contribute to the enrichment of society and its sustainable development, Toyota has been engaged in various social contribution activities in Japan and overseas with the goal of becoming "a good corporate citizen of the world."

Global Society/Local Communities (Communication)

Toyota presents information concerning its vision and corporate activities at numerous cultural facilities. The Toyota Motor Corporation Global Website underwent major redesign, to enhance the dissemination of information.

In-line measurement sensor gate on a Prius line

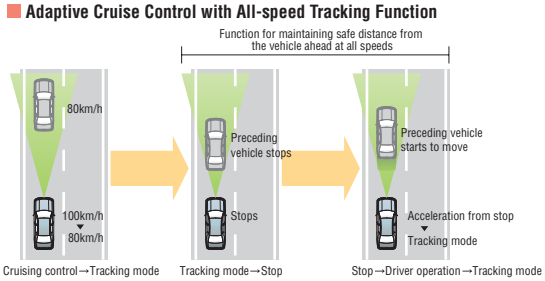
The "Design Engineers Attitude of Mind" course serves to reconfirm the roles and responsibilities of the designer



Awards being presented at the Toyota Global Suppliers Convention

General Shareholders Meeting

Adaptive Cruise Control with All-speed Tracking Function



Children learn about air resistance during a lecture on aerodynamic bodies

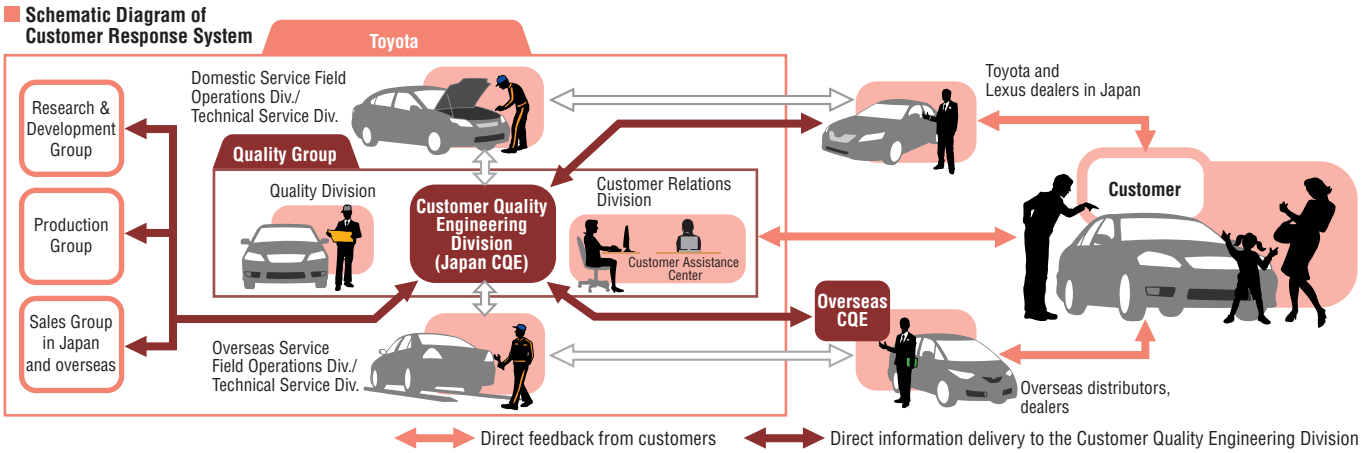
The sixth Toyota Stakeholder Dialogue

Relations with Customers

Aiming to Achieve Zero Customer Complaints

Fully aware that support from customers is essential to its continued success, Toyota is striving to provide its customers with the highest-quality products and services under its "Customer First" policy. Based on the "*kaizen* (continuous improvement)" philosophy at the heart of its manufacturing activities, Toyota is working hard to continuously improve customer satisfaction through initiatives in all areas of its business activities, including development, purchasing, production, sales and after-sales services, throughout the entire Toyota Group.

Schematic Diagram of Customer Response System

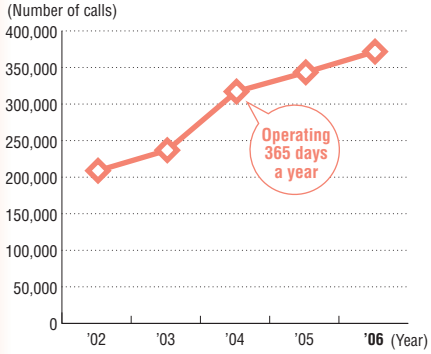


History of Improvements in the Customer Assistance Center

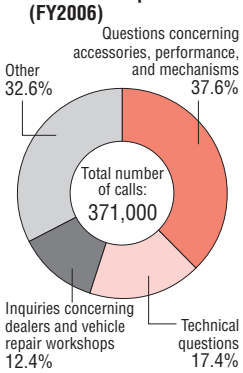
In 1982, when Toyota Motor Co., Ltd. and Toyota Motor Sales Co., Ltd. merged into Toyota Motor Corporation, the customer support functions of various divisions were consolidated into the Customer Assistance Center. In addition, the Customer Relations Division was established to help produce better products and provide enhanced services based on customer feedback. Since then, in order to improve customer convenience and collect as much customer feedback as possible, Toyota advertised the establishment of the Customer Relations Division through vehicle catalogs, set up a toll-free number, and began accepting requests for catalogs 24 hours a day. Beginning in 2004, Toyota expanded operations to 365 days a year. The Center now receives more than 300,000 calls a year that include a wide range of customer comments not related to products themselves but to the sophistication and complexity of technical advances, as well as to corporate activities, including Toyota's social contributions. All the comments are utilized to strengthen and improve Toyota's corporate culture.

In conjunction with the 2005 launch of the Lexus brand in Japan, the Lexus Customer Center and the Lexus Owner's Desk were established (operating 24 hours a day, 365 days a year) to further improve the quality of customer response.

Number of Calls to the Customer Assistance Center



Content of Inquiries (FY2006)



Improving the Quality of Customer Response

In FY2006, Toyota made many improvements aimed at both "Not making customers wait" and "Providing swift and sure responses." For example, Toyota worked with related divisions inside the company to increase the number of call center staff, send direct mailings drawing attention to special aspects of vehicle operation, and introduced the Recall Search System (on the Toyota website).

In FY2007, Toyota is aiming to further improve the quality of its customer response to achieve even higher customer satisfaction by actively providing relevant information to customers. One example is Toyota's plan to enhance the content of catalogs on specially equipped vehicles for disabled people.

Recall search page

http://toyota.jp/recall/ (Japanese only)

Group-wide "Customer First" Activities

The core of Toyota's "Customer First" (CF) policy is to establish Toyota's superiority with regard to quality by ensuring that each employee always gives the utmost attention to manufacturing quality from the customer's perspective. In FY2005, Toyota established the CF Activity Promotion Committee, chaired by the company president, and has been promoting CF activities throughout the entire Toyota Group, including among suppliers. Against the background of increasingly sophisticated and complex technologies and the higher expectations held by society of Toyota, the company is committed to fulfilling its responsibility as an automaker and has positioned quality improvements as a top priority item.

The Quality Division, which oversees Toyota's CF activities, has been carrying out educational activities using posters, logos, and logo badges, in order to build an autonomous implementation structure that brings the entire group together in the CF initiative. It has also conducted three e-learning seminars for divisions related to production, including purchasing, as well as for the Customer Service Operations Group. A cumulative total of 55,000 employees attended these seminars.

CF activity poster

Enhancing Organizations and Frameworks through Improved Audits

In addition to carrying out educational activities for all employees, the Quality Division works to improve the audit system for products, organizations, and frameworks. In FY2006, the Quality Division conducted a review of division-wide auditing functions, focusing on quality.

In FY2007, to firmly establish company-wide CF activities, the entire Toyota Group will strive to build-in even higher quality from the viewpoint of prevention of defects, by ensuring the implementation of *jikotei kanketsu*[1] at every process.

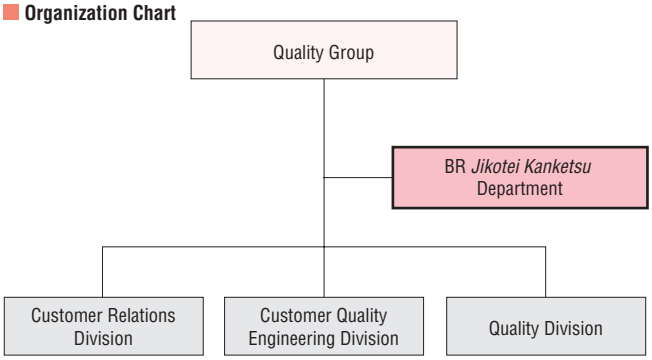
1. *Jikotei kanketsu*: The concept of defect-free process completion to ensure that no defective product leaves any production process

Establishment of the BR *Jikotei Kanketsu* Department

In June 2006, Toyota assigned a director exclusively responsible for quality and two executive vice presidents to the Quality Group. Furthermore, in January 2007, the BR[2] *Jikotei Kanketsu* Department was established. The purpose of this Department is to instill, in all Toyota personnel, a renewed awareness that "quality must be built-in within each process." All employees at all stages from development, purchasing, and production, to sales, and after-sales service have begun taking action to ensure that no defects occur in their area and that defective items are never passed on to the next process.

2. BR: Business Reform Department — an office set up to handle a specific issue

Organization Chart



Early Detection and Early Resolution of Quality Issues

In January 2005, Toyota reorganized the Domestic Service Division, Overseas Customer Service Technical Division and organizations in charge of quality related issues within the Quality Division to launch the Customer Quality Engineering (CQE) Division. The CQE Division engages in early detection and early resolution (EDER) of quality-related issues from the customer's perspective. This requires that quality related issues be detected early and resolved immediately, and that the results of enhancements and improvements be communicated to customers quickly. The Customer Quality Engineering Division is equipped with an organizational structure that enables Toyota to achieve the quality, volume, and speed necessary for achieving this objective. For example, in FY2006, enhancements were made to the quality and volume of improvement information feedback to dealers, and global CQE functions being extended to North America, Europe, and other parts of Asia were strengthened.

In Focus — EDER during the Launch of New Vehicle Models

The Customer Quality Engineering Division pays particularly close attention to the promotion of EDER activities during the launch of a new vehicle model. By collecting relevant data early and quickly in response to the valuable feedback provided by customers and dealers nationwide, and implementing improvements at the related divisions early, Toyota can provide higher-quality vehicles to its customers. Furthermore, developing accurate diagnostic and repair methods early means Toyota can minimize customer inconvenience.

To implement EDER activities during the launch of a new vehicle model, members from all relevant divisions, including the Customer Quality Engineering Division, Domestic and/or Overseas Service Field Operations Divisions, design divisions and plant quality control divisions gather in one place as a team to handle the various types of information collected through reports and phone calls. This team verifies any reported problems with actual vehicles at reporting sites, makes immediate decisions on improvement plans, and follows up on the progress of the planned improvements.

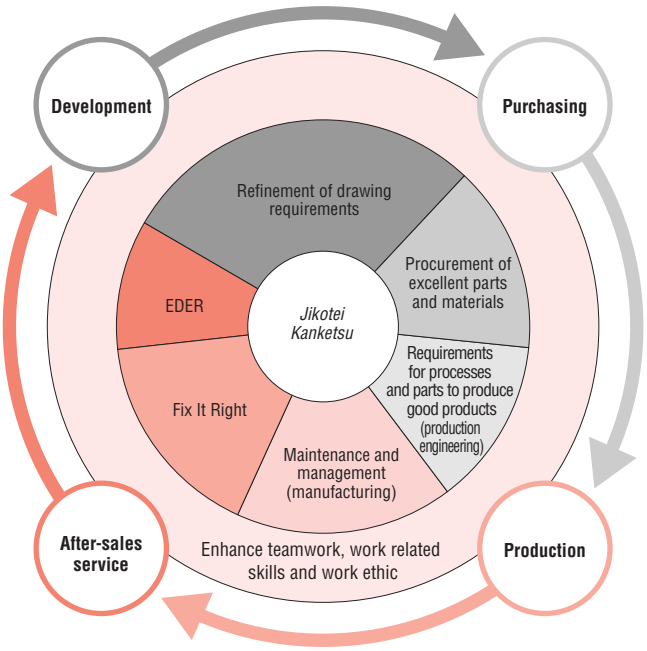
For example, when analyzing incoming quality information, the team promotes early implementation of improvement measures by verifying the issue at the production site, as well as immediately dispatching members to the location where the issue has been reported to identify the cause, and reporting the findings back to the relevant division. The improvement results are quickly communicated to dealers nationwide in an effort to minimize any potential inconvenience to customers.

Quality Determined by Collaboration among Many Areas

Toyota recognizes quality as the most important aspect affecting customer satisfaction and trust. All Toyota employees consistently strive to take actions to ensure customer satisfaction based on the slogans, "Quality as Toyota's Lifeline" and "Aiming to Achieve Zero Customer Complaints," adopted by senior management who direct Toyota's CF activities. In recent years in particular, advances in automobile technologies, increases in complexity of functions from the use of electronic controls, longer vehicle ownership, and heightening customer expectations have led to ever-tighter quality requirements in the market. Based on the concept of *mieruka* (visualization of issues), which seeks to identify the cause of quality related issues and implement fundamental solutions, Toyota strives to ship only high quality products to the market, and is also advancing the concept of *jikotei kanketsu*. Even if only one vehicle in a million is defective at Toyota, for the customer who purchases that vehicle, the defect rate is 100%. Based on this recognition, Toyota, as a company committed to quality, is renewing all employees' awareness in this area. Not only working to address current quality related issues, Toyota also strives to anticipate the situation ten years out, and is honestly, steadfastly and earnestly taking the necessary steps to keep making improvements and enhancements.

Quality is created through collaboration among personnel in development, purchasing, production, and after-sales service divisions. If efforts in any one of these areas were missing, Toyota would not be able to deliver quality that fully met customer expectations. Therefore, in CF activities, development, puchasing, production, and after-sales service divisions all maintain close cooperation with each other and work within a consistent flow to continue making improvements with the goal of enhancing quality based on the concept of *jikotei kanketsu*.

Quality Improvements through CF Activities



Development and Design Activities

In order to further improve quality, it is crucial to maintain collaboration and communication among various divisions to handle the increasing sophistication and complexity of automobile technologies, particularly the rapid advances in electronic technologies. These changes further necessitate improvements in the basic capability of staff members, as well as increases in the comprehensiveness of design drawings. Toyota has established a development structure that can handle complex automobile functions and systems by, for example, extending the standard process time for development processes to allow sufficient time for necessary discussions among the various divisions, and by increasing the number and capability of the development staff. Additionally, to ensure Toyota employees' understanding of technologies in the increasingly large number of parts that are outsourced, Toyota has reviewed and reassessed task allocation and OJT, with an eye toward future development of human resources. Moreover, the design staff work together with the production staff, starting at the development phase, to incorporate easy-to-manufacture features into design drawings, and validate the comprehensiveness of drawings through a *genchi genbutsu* design review (a design review of the actual product using a prototype).

Development staff reassessing a design by reviewing an actual prototype

Purchasing

The Purchasing Division acts as the interface with suppliers to communicate Toyota's quality policy through presentations and meetings on the quality of purchased parts. Currently, the Purchasing Division is focusing on joint activities with suppliers to raise quality. Through this initiative, Toyota development, production and purchasing personnel visit suppliers to attempt to see products from their point of view. Then, sharing responsibility for addressing any issue found on-site with actual products, the Toyota personnel work together with the suppliers to find solutions.

Toyota staff checking a manufacturing process at a supplier

Production Activities

To produce a product according exactly to design, Toyota is making strong efforts to design production lines based on the "requirements for processes and parts to produce good products," for instance, the temperature and speed settings of machines. Toyota introduced inline measurements to achieve "built-in" quality, and thoroughly ensure processing parameters and product quality at each process. Furthermore, by analyzing and utilizing this data, Toyota is developing innovative manufacturing technologies, in order to refine its long promoted concept of *jikotei kanketsu*. Additionally, addressing the need for more detailed technical supervision and human resource development, Toyota in January 2007 introduced the Team Leader System, in which teams are formed, each consisting of a small number of workers, with the objective of strengthening the management structure on the production floor.

In-line measurement sensor gate on a Prius production line

After-sales Service

Toyota provides its dealers with fast and accurate improvement information, and is also promoting the Fix It Right Activity with the goal of achieving "Fix It Right at First Repair," in order to minimize customer inconvenience. Because functional enhancements and environmental measures have increased the complexity of the systems installed in modern automobiles, repairing them requires advanced skills. The Fix It Right Activity is intended to promote vehicle designs that are easy to diagnose and repair, to improve the diagnostic and repair capabilities at dealers, to ensure reliable and fast repair, and to promote appropriate explanations of the repair results and follow-ups to ensure that the customer is completely satisfied with the repair quality. Specifically, personnel from after-sales service and vehicle development divisions work together to clearly identify problems at repair sites, and correct them according to priority. Additionally, in order to enhance the diagnostic capabilities of dealers in Japan and overseas distributors, Toyota provides technical training on difficult repair diagnostics for complex engine control systems, such as those used in hybrid vehicles. Toyota is also offering enhanced information related to the skills required for repairing vehicles at dealers and is developing the diagnostic tools that will be needed for coping with future evolutions in vehicles.

Seminar on Fix It Right Activity at Technoshops

In Focus — Ensuring and Improving Toyota Quality is My Mission

Shinichi Sasaki
Senior Managing Director
Chief Quality Officer, Quality Group

Ever since I joined Toyota 30 years ago, I have been involved in quality control. From this experience, I hold the belief that "Delivering quality is one of the most fundamental responsibilities that Toyota has to customers" and that "Toyota must aim to achieve zero customer complaints."

In order for Toyota vehicles to continue being accepted by customers and society in general, Toyota must continue to meet the increasing demand for higher quality. In responding to specific dealer requests regarding quality and meeting the expectations of customers and society, I strongly believe that Toyota must place ever greater importance on awareness of quality issues.

Since Toyota prides itself on how well it builds its products, insufficient responses to customer critiques and expectations from society make Toyota extremely uncomfortable, causing the company to do something about them. This trait has been continuously passed down in the Toyota DNA, and is beginning to show through in quality. The entire company is working towards realizing "zero customer complaints" through the various divisions, including development, purchasing, and production, with renewed determination. For example, to thoroughly ensure production based on the concept of *jikotei kanketsu* (defect-free process completion to ensure that no defective product leaves any production process), the production division is reevaluating each process and re-assessing standard operational procedures.

In order to achieve a sustainable improvement in quality, it is important to pass on the current effort level to the younger generation of employees. Naturally, we must strive to prevent issues from arising in the first place. More importantly, however, we must improve Toyota quality further, so that the market will recognize Toyota saying "I'm glad I chose a Toyota," "I'm enjoying my Toyota car," or "That's what I like about Toyota." Toward this end, my mission is to further strengthen the Toyota DNA related to making products, and to ensure and improve Toyota Quality all over the world, by re-assessing Toyota's company-wide system and rebuilding it if necessary.

Universal Design

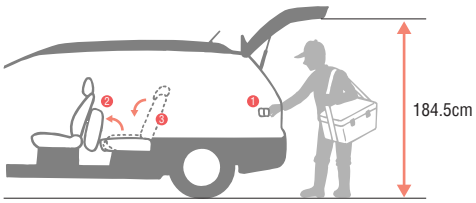
User-friendly Universal Design

Today, vehicles are used in many different situations by people with a wide variety of needs. Based on the idea of "diversifying needs and the vehicles to respond to them," Toyota has adopted the concept of universal design (UD) in its development of user-friendly vehicles, incorporating its ergonomic expertise and knowledge of the many scenarios in which vehicles are used. In 2003, in order to organize its many years of efforts into a system and implement its approach to UD in a more pragmatic way, Toyota established two unique UD evaluation indices. The first index, Toyota's Ergo-index,* evaluates vehicle performance from an ergonomic point of view, taking into account differences in physical characteristics and functioning. The second index, Toyota's Situational Suitability Index is used to quantify the degree to which a vehicle meets customers' needs (usage situations and uses). Toyota is applying these two indices to its efforts to promote UD and is actively incorporating customer feedback into the design of its vehicles in response to customers' increasingly diversifying needs.

Toyota applied the UD concept to the new Corolla, the Blade, and other models launched in FY2006, developing features such as one-touch double-folding rear seats and a rearview monitor.

*Ergo-index: Coined by Toyota from "ergonomics" and "index"

Examples of the Universal Design Situational Suitability Index Adopted in Vehicle Series Launched in FY2006



❶ Pull the lever
❷ The seat springs up and forward
❸ The backrest folds down and forward

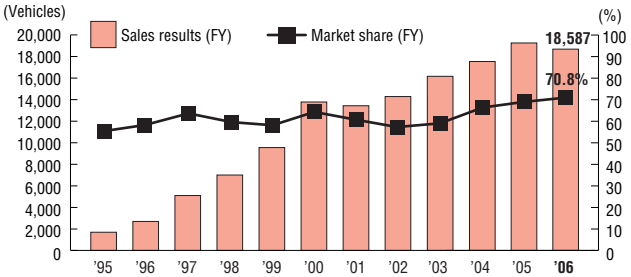
One-touch double-folding rear seats with backrests that can be folded flat from the rear cargo space
Long and large objects can be easily loaded

Providing the Freedom of Mobility to All People
— Specially Equipped Welcab Vehicles

Toyota has positioned the Welcab series (specially equipped vehicles with factory-installed features for disabled people) as one form of Toyota universal design and has undertaken the development and popularization of Welcab vehicles under the philosophy of providing the freedom of mobility in comfort to all people. Against the background of an aging population and the development of an increasingly people-oriented society, the need for vehicles for disabled people is growing every year. In response Toyota has enhanced its lineup of Welcab vehicles, offering 68 variations in 34 vehicle series as of the end of April 2007. To enable potential customers to see and touch the actual vehicles, Toyota has created dedicated Welcab display locations, known as Toyota Heartful Plazas, in ten locations nationwide, including Tokyo, Nagoya, and Kobe. In FY2006, Toyota introduced the self-operated Porte Welcab Friendmatic Seat Weldrive model, which enables the driver to get in and out of the vehicle without assistance, using a driver seat (Weldrive Seat) that can also be used as a motorized wheelchair.

The Porte Welcab Friendmatic Seat Weldrive Model

Sales of Welcab Vehicles and Market Share (Japan)



Examples of Overseas Initiatives

New CustomerOne Department Improves Customer Service

TCI, Canada

Toyota Canada Corporation Inc. (TCI) established the CustomerOne Department to respond to the rapid increase in sales and to raise the quality of customer service. The CustomerOne Department advances TCI's long-standing customer-oriented corporate culture even further. TCI integrated customer information from Toyota Financial Service and the dealer network into a single, shared database. By using this shared information, TCI can provide customized services and further raise customer satisfaction. It is now possible to obtain customer information throughout the automobile lifecycle and for the related divisions to engage in appropriate communications at the appropriate times. TCI will continue to make improvements and enhance customer service on an ongoing basis.

A integrated customer information database enables detailed responses

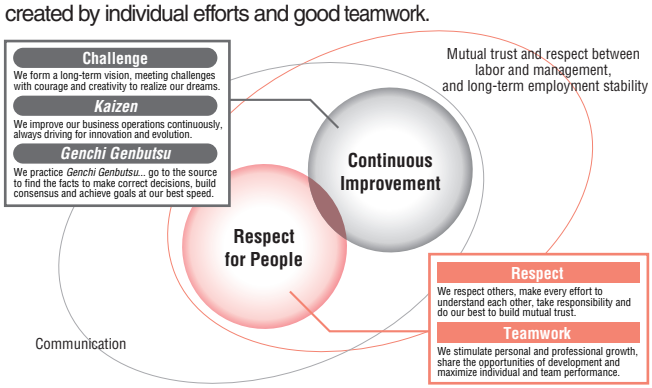
Relations with Employees

Sharing the Toyota Way to Improve Teamwork, Work-related Skills and Work Ethic; Acting on an Individual Level

To manufacture high-quality products and achieve customer satisfaction throughout the world, it is essential that TMC share the beliefs and values that it deems important with its overseas affiliates. The Toyota Way 2001 gathers and organizes the management beliefs and values that TMC has handed down as implicit knowledge since its establishment and serves as the foundation for the company's personnel policies. Based on mutual trust and respect between labor and management, long-term employment stability, and communication, each Toyota employee is taking measures to enhance work-related skills and work ethic.

Sharing the Toyota Way

Stability in the lives of employees, and opportunities for self-realization and growth as well as corporate development are interdependent and all find their foundations in mutual trust and respect between labor and management, long-term employment stability, and communication. Based on these, the Toyota Way 2001 is supported by the two main pillars of "Continuous Improvement" and "Respect for People" and can be summed up in five key terms—challenge, *kaizen*, *genchi genbutsu*, respect, and teamwork. All Toyota employees, at every level, use these two values in their daily work, without letting themselves become complacent about the status quo, and put forth their best ideas and efforts based on an awareness of issues. Toyota respects all stakeholders and believes that the success of its business is created by individual efforts and good teamwork.



Labor-Management Relations Based on Mutual Trust and Respect

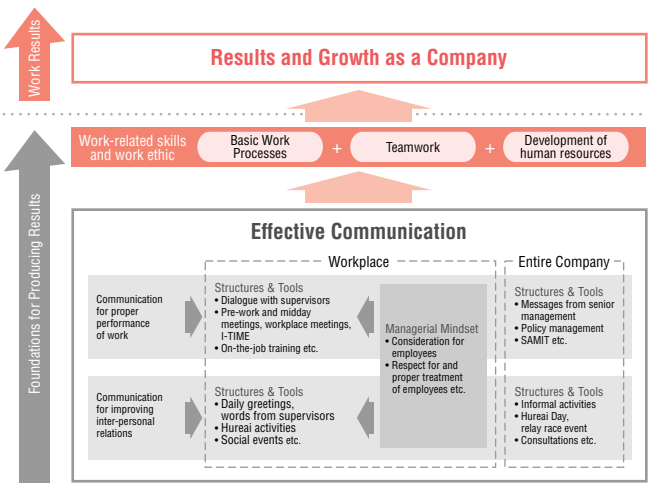
The 1947 Dodge Line, a financial and monetary contraction policy drafted for Japan to gain economic independence after World War II, caused sharp fluctuations in automobile demand. Large-scale personnel reductions resulted in a labor dispute in 1950. Following discussions between labor and management, it was agreed to reduce the total number of employees by 2,000, primarily by asking for voluntary resignations. At the management level, president Kiichiro Toyoda and all of his executive staff resigned. Following the lesson of this labor dispute, mutual trust between labor and management was adopted as the foundation of the Labor-Management Joint Declaration concluded in 1962. Also, in the Labor-Management Resolve for the 21st Century signed by labor and management representatives in 1996, mutual respect was added as a basic principle of labor-management relations. Since then, Toyota has been working to further develop mutual understanding and trust between labor and management through repeated discussions.

Labor union members gather at the former head office for collective bargaining in 1950

Enhanced Communication to Improve Teamwork, Work-related Skills and Work Ethic

TMC conducted company-wide "80,000-person Workplace Communications Inspection Activities" from June through December 2006. This was to determine if communication in the workplace is being conducted effectively and efficiently. Currently, more than 80,000 people, including fixed contract employees, work at Toyota. Sincere communication is the basis for building teamwork and mutual trust and is a fundamental requirement for achieving high-quality work throughout the organization. TMC will continue to set specific and quantitative goals within the process of policy management and conduct PDCA activities to improve teamwork, work-related skills and work ethic.

Enhanced Communication to Improve Teamwork, Work-related Skills and Work Ethic



In Focus — Unity Established at Off-site Meetings

The General Assembly Engineering Division conducted its own off-site meetings as a part of the "80,000-person Workplace Communications Inspection Activities." The objective was to gather at a location away from the workplace to eliminate differences in rank and encourage open and honest discussion to address workplace issues. One participant commented, "The meetings serve to clarify issues concerning work methods and communication and foster unity among the participants."

Human Resource Development

The core of Toyota's human resource development is putting the Toyota Way into practice. Educational programs are conducted based on the five keywords of the Toyota Way. As the phrase "making automobiles is about developing people" indicates, developing outstanding production skills and passing them down to future generations requires human resource development through day-to-day work at the workplace. Thus, Toyota undertakes human resource development based on OJT (on-the-job training). Toyota also strives to create workplaces with abundant vitality while establishing and improving educational systems that focus on sharing and conveying appropriate values in accordance with the Toyota Way.

Toyota Institute Promotes the Toyota Way

The mission of the Toyota Institute is to develop people in the practicing of the Toyota Way. The Institute was created in 2002 to promote implementation of the Toyota Way by overseas affiliates. The Institute develops and deploys training programs on the core aspects of the Toyota Group and also provides management training. Emphasis is placed on problem solving techniques to raise both the quality and pace of human resource development and to create sustainable structures.

In-House Lectures Convey the Toyota Way
"The Things I Learned from Mr. Ohno and Mr. Suzumura"

Based on the desire of then Vice Chairman Fujio Cho (currently chairman) to "convey the Toyota Way properly and accurately," Toyota held a series of in-house lectures entitled "The Things I Learned from Mr. Ohno and Mr. Suzumura" (a total of 14 lectures from April 2006 to February 2007). Nine individuals who worked directly under former Executive Vice President Taiichi Ohno, who systematized the Toyota Production System, and Kikuo Suzumura, former Project General Manager of OMCD who put the system into practice, were asked to present the lectures. Vice Chairman Cho gave the first lecture, during which he discussed passionately the Toyota Production System as well as human resource development, importance of the workplace, and thoughts on *kaizen* improvements. One participant commented, "The opportunity to hear explanations about the Toyota Production System directly from its earliest practitioners was extremely significant for learning about management philosophy."

Taiichi Ohno (then Managing Director)

Smaller Groups Created to Enhance Work-related Skills and Work Ethic

TMC implemented an organizational restructuring in 1989 to make the decision-making structure less vertical. This process was taken further in 2006 when smaller groups were created to enhance teamwork and work-related skills, and reinforce the work ethic in light of the importance of raising the skills of organizations and groups. Toyota continues to take measures to enhance work-related skills and teamwork. This includes the introduction of the Team Leader System for technical positions in January 2007 and of a system to support less vertical decision-making structures for administrative positions in July. This seeks to create a workplace where personnel development is a common practice for both senior and junior team members alike.

R&D Learning Center Opens — Technical Center

TMC reviewed its new employee training systems and opened the R&D Learning Center in April 2006. Its purpose is to reinforce the foundations for development of exciting products and to maintain and enhance Toyota's high-quality (putting into practice the Customer First activities) by development and design engineers at TMC, TTDC,* and overseas affiliates. With the cooperation of TTDC, a total of 90 instructors with extensive experience have been conducting two-month educational programs in seven core technology fields since June. The courses are designed to provide participants with practical knowledge and techniques that they can put to immediate use and essential and fundamental knowledge necessary for performing work at Toyota. In FY2006, 350 employees participated in the program, and approximately 900 people are scheduled to participate in FY2007. One participant evaluated the program by stating, "With simple support I have gained a better understanding of my work and can work more efficiently with other employees."

* TTDC: Toyota Technical Development Corporation —a design and development partner company

The "Design Engineers Attitude of Mind" course serves to reconfirm the roles and responsibilities of the designer

Pro-WIN—Cultivating Production and Production Engineering Professionals — Production Area

In conjunction with rapidly expanding globalization of business, there is a growing demand for professionals in various areas of Toyota's business, including production preparation, production management, logistics, plant operation, and TPS. To help meet this demand, Toyota is developing the Pro-WIN education program.

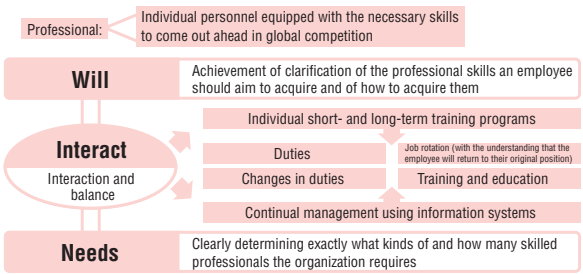
Pro-WIN is a mechanism allowing planned and continued training and education for individuals to achieve their respective goals in production and production engineering.

The program has the following three characteristics:

1) Allows young employees to achieve their skill acquisition goals within three years through overseas training;
2) Clarifies what professional skills an employee should aim to acquire; and
3) Includes carefully planned training and job rotations

Specifically, the program creates an open environment for two-way communication between an employee and his or her supervisor. This will clarify what professional skills an employee should aim to acquire and what needs to be done to acquire those skills, through the setting of specific goals each year.

Pro-WIN (Professional-Will Interact Needs)

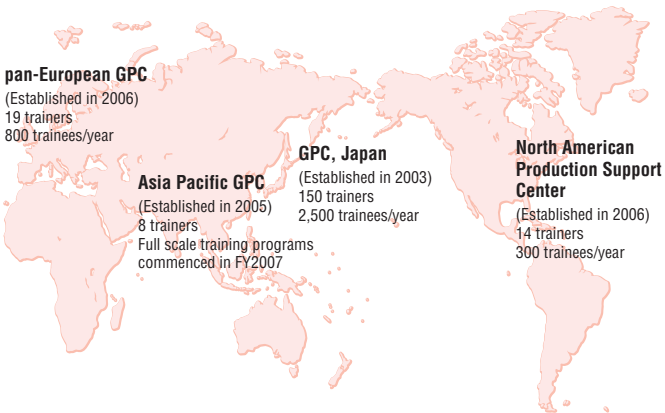


Global Expansion of the GPC
— Global Production Center

In response to the rapid globalization of Toyota's business, the Global Production Center (GPC) was created at the Motomachi Plant in July 2003. Its purpose is to raise the efficiency and pace of technical skills acquisition through technical training of employees hired at overseas sites. Veteran technical personnel from Toyota plants in Japan gather at the GPC to develop and create training equipment for teaching technical skills, and training methods using manuals that employ animation, video, and other techniques, drastically reducing the time necessary for skills acquisition. As of March 2006, overseas GPCs were established in the United States, the United Kingdom, and Thailand to expand and accelerate GPC training methods at overseas affiliates. Overseas GPC personnel who have undergone training in Japan to become trainers receive "trainer's trainer" certification (to date, a total of 41 persons at the three locations have received certification) and conduct training on GPC methods at the regional centers.

In conjunction with the full-scale implementation of training at the overseas GPCs, approximately 3,600 personnel were trained in Japan and at the three overseas GPCs in 2006. In addition, a Die-GPC was established in 2006 in the Machine Tool Division to train die manufacturing and maintenance management personnel who can adapt globally and promote localization of manufacturing. The Center is working to train personnel rapidly and achieve uniform quality levels with respect to stamping, forging, casting, and resin mold production and maintenance.

Global Expansion of the GPC



ICT Expands the Toyota Way Globally
— International Personnel Exchange and Training Program

The ICT (Intra Company Transferee) program is an educational program for employees of overseas affiliates designed to promote the global expansion of the Toyota Way and to train personnel and encourage personnel exchanges. Since this program was established in 1992, practical training on the Toyota Way has been performed primarily through on-the-job training in Japan to foster employees of overseas affiliates who can make significant contributions to their companies and communities after returning to their home countries. Training periods last from 18 to 24 months. The number of participants has been increasing since 2000 in conjunction with the increasing globalization of Toyota's business. Approximately 350 participants are accepted each year and there are currently 467 people working and learning at TMC under this program (as of April 1, 2007).

In Focus — Robot Contest Fosters Employee Dreams

Technological innovation requires that one discover, invent, or create new technology through one's own efforts. The Toyota Engineering Society, an organization with approximately 31,000 members (see page 75 for details) that promotes inter-divisional exchanges among engineers, has been holding robot contests since 1975 to foster creativity. In 2004, the event expanded into the TES Festival with "Toward the Future" and "Making things" as its key phrases. A competition of walking robots and a race of model cars that use natural energy, including gravity, were held in FY2006. Groups of employees make the competition entries on their days off and during other nonworking hours. Many participants commented enthusiastically that the event significantly enhances a technology development mindset and creativity.

Walking robot competition

In Focus — Foreign Employee Develops ICT System

Monika Wojcik, a Polish national who works in the HR Division, is in charge of designing the ICT implementation system. Ms. Wojcik studied technical engineering and business management in Japan and was subsequently hired by TMC. Her work includes planning systems for ICTs and extends to training, management, and lifestyle support. A new system concerning treatment of ICTs was introduced in June 2006, and a system designed to support families who accompany trainees to Japan was launched in December. Ms. Wojcik explains, "People from a number of different countries participate in the program, making coordination a rather difficult job. I am able to provide support based on my own experiences, however, which makes it a highly meaningful job."

Monika Wojcik speaks with ICTs

Respect for Diversity

Achieving harmony with the global environment and working together with society are essential for sustainable corporate activities in the twenty-first century. To do this requires an awareness of current major trends, one of which is changes in demographics. Developed countries are facing issues such as aging societies and low birth rates, while many developing countries are confronting population explosions. It is important for today's businesses to employ a diverse range of human resources while raising the skills of each individual through human resource development activities.

Toyota strives to be a company with a working environment that promotes self-realization while respecting diversity of values and ideas among its employees. The focus of respect for diversity varies in different countries and regions. Issues in Japan include providing greater opportunities for women, disabled persons, senior citizens, and part time employees. Toyota believes that employing people with diverse abilities and values will be an extremely effective stimulus that will lead to innovation.

Promotion of Gender Diversity

Since the Diversity Project to promote gender diversity was launched in 2002, TMC has implemented initiatives to help women balance work and family responsibilities. This includes a system of reduced working hours and the establishment of on-site daycare facilities. As a result, the number of employees choosing to take childcare leave, rather than resigning, has increased yearly resulting in longer terms of employment. Measures planned for the future include greater emphasis on career formation support to provide employees with meaningful jobs and lively work environments. To implement these measures, Toyota established the BR* Career And Life Design Department in January 2007. The department supports the development of careers by women and has been taking measures to raise understanding in the workplace concerning the development of workplace environments that enable women to realize their full potential at work.

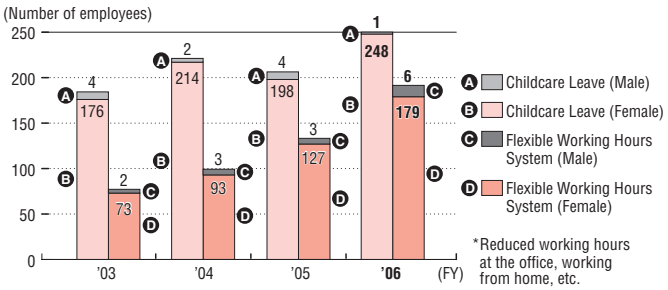
*BR: Business Reform Department: An office set up to handle a specific issue

Full-time Toyota Employees (On an Unconsolidated Basis)

	Male	Female	Total
Number of full-time employees	61,624	6,306	67,930
Average age	39.3	29.1	38.4
Average service years	18.5	9.0	17.6

*As of end of the March 2007

Trends in Number of Employees Taking Childcare Leave and Using the Flexible Working Hours System*



*Reduced working hours at the office, working from home, etc.

Initiatives Since the Launch of the Diversity Project

FY	Support for balancing work with childcare	Support for career building
2002	• Extended childcare leave periods • Introduction of flexible working hours system · Reduced working hours · Elimination of core time from the flextime system · Work from home permitted • Leave to take care of sick children • Enhanced childcare services under an optional benefit system • Creation of on-site daycare facilities	• Held a Career Design Forum • Conducted company-wide campaigns • Introduced career consultation form for returning to work after taking childcare leave
2005	• Introduction of Professional Career Re-employment Program	
2006	• Extended maternity leave (applicable to female employees who work standing up) • Distribution of a handbook titled "To keep working while raising children"	

Increased Employment of People with Disabilities

Toyota is continuing its efforts to hire people with disabilities. Efforts have been made to create a workplace environment that is safe and easy to work in by devising various ways to adapt facilities that accommodate the nature of employees' disabilities. Toyota conducts both annual and mid-year hiring. In FY2006, Toyota hired 15 persons with disabilities from schools for the deaf and general high schools during annual hiring. Over the course of a year, Toyota also hired 25 people with disabilities through mid-year hiring. Mid-year hiring has been conducted year-round since July 2006 via public employment offices and national vocational skills development schools throughout Japan. Toyota currently employs 11 people with intellectual disabilities to work on production lines and in other positions. In 2007, Toyota started sign language courses to enhance communication with people with hearing impairments, thereby creating a better work environment. As of the end of April 2007, total employment of people with disabilities was 921 persons, or 1.81% of the total workforce.

In Focus — Creating Workplace Environments Accepting of Diversity Using Sodatete Net

Toyota created the Sodatete Net, a website on the Toyota Intranet, to encourage the development of workplace environments that are accepting of diversity. The current focus is on promoting gender diversity. To do away with fixed notions of gender roles in a company and enhance mutual understanding between men and women, the Sodatete Net carries articles on female managers, and women who are working and raising children, and presents issues and concerns of women and their workplaces in a question and answer format. When all employees are able to exhibit their full potential, the overall abilities of the team are enhanced. In the pursuit of this type of workplace, Toyota provides a variety of information so that all team members can support the growth of other members.

Sodatete Net website

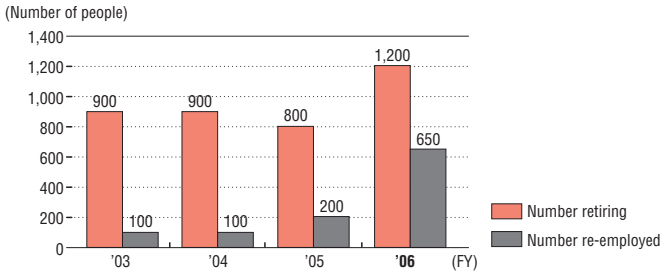
System for Re-employment of People 60 Years and Older

Toyota is improving its system of rehiring employees who retire at the retirement age. The objective is to increase employment opportunities for highly-skilled workers and raise competitiveness. The Skilled Partner System introduced in 1991 encourages re-employment of skilled workers, and the Optional Re-employment Program introduced in 2001 offers employment to former workers at group companies and affiliates. In 2002, a joint venture, OJT Solutions Co., Ltd., was established with Recruit Co., Ltd. to provide solutions for workplace improvements and give technical guidance based on the Toyota Production System. Toyota also creates employment opportunities for retired employees at the CX (Chief Expert) rank.

Furthermore, Toyota conducted a review of its system for re-employment of people aged 60 years and older in April 2006. This was in response to a changing awareness concerning employment after 60 and revisions to the Law concerning Stabilization of Employment of Older Persons. The selection standards were made clearer and expanded to cover all employees. Management level employees are now re-employed as "professional partners," and employees with administrative and technical skills, medical workers, and other skilled workers are rehired as "skilled partners." With regard to the Optional Re-employment Program, Toyota is further expanding the scope of re-employment.

Looking ahead to the future, Toyota is conducting human resource training for employees in their 50s in preparation for re-employment after age 60. The program promotes participation in "life planning seminars" for personnel in their 40s and 50s to support planning after retirement, and introducing part-time employment for skilled plant workers after retirement.

Number of Retiring Technical Employees and Number Re-employed



System for Fixed-term Contract Employees and Other Non-fulltime Employees to become Full-time Employees

In addition to fulltime employees, Toyota employs short-term employees, seconded employees of other companies, temporary employees, and fixed-term contract employees. To increase the employment security of the more than 10,000 fixed-term contract employees, contract terms have been extended to a maximum of three years. In June 2005, Toyota introduced the Senior Fixed-term contract Employee system for fixed-term contract employees who have entered the second year of their contracts. Employees who extend their term of employment are subject to preferential revisions to daily pay and are provided the opportunity to improve their skills by participating in training and acquiring specific work-related qualifications. Toyota instituted a system for fixed-term contract employees who have worked for a specific period, and who wish to work fulltime and are recommended by their workplace supervisors, to become full-time employees. In April 2007, Toyota Smile Life, Inc. began a program that offers the opportunity of fulltime employment to people who are scheduled to soon complete three years of work. Of the approximately 10,200 fixed-term contract employees as of April 2007, approximately 4,500 work under the Senior Fixed-term contract Employees System. In FY2006, 943 fixed-term contract employees became fulltime employees. Hiring is to be expanded in FY2007, with approximately 1,200 fulltime employees to be added from this group.

In Focus — Toyota Design Creates Synergy Effects through Diversity

Simon Humphries, originally from England, started working for TMC in 1994. After working in various positions, including concept car design development in the Advanced Design Group of the Design Division and as design manager of advanced design, including navigation system and human-machine interface design, he was assigned to the Global Design Management Division in 2001. He has been involved in brand management development, anticipation of future trends, and public relations activities to convey Toyota design values around the world. In 2007 he was appointed general manager of the Global Design Management Division, responsible for Toyota and Lexus design brand strategy.

Mr. Humphries explains that "in the design world, creation of synergy through diversity is extremely important." Take Lexus, for example. For Lexus to become a global premium brand, it must have its own design philosophy. Not limiting designs to traditional Japanese concepts, Mr. Humphries and his colleagues have incorporated the "J-factor," a globally accepted sense of values and aesthetics unique to Japan, as their fundamental design value for Lexus and Toyota vehicles. The driving force behind the creation of this original value is the synergy created through wide-ranging discussions by personnel from diverse backgrounds, which becomes a harmonizing and sublimating force towards creativity.

"In an organization with diverse range of employees, a wide range of opinions are injected and new things are constantly being created. Diversity will be a key word in the coming global era. The importance of design as a point of contact with increasingly diverse customers will grow, and consequently it is essential that we make use of the advantages of a diverse work environment."

A Japanese-style meeting room designed by Mr. Humphries

Safety and Health

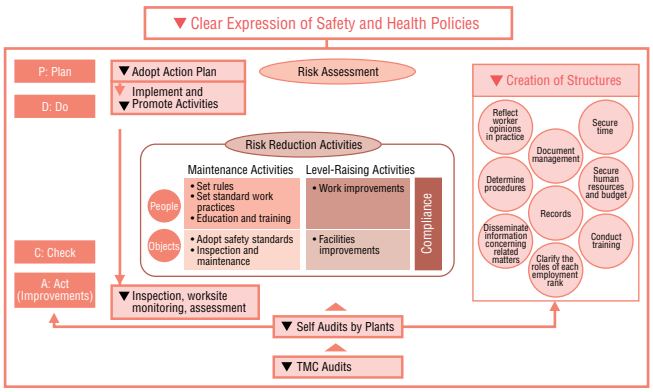
Toyota considers ensuring the safety and health of its workers as one of its most important activities. Based on the fundamental principle that "safety is essential for sustaining and developing the company and placing safety first is everyone's responsibility, from senior executives to every employee at the workplace," Toyota seeks the development of lively workplace environments that promote good physical and mental health.

The fifth Five-Year Safety and Health Policy adopted in FY2005 promotes activities from the perspective of maintaining the safety and health of every employee. The policy uses a variety of visual representation indicators (safety and health activities and lifestyle habits related to building good health) to improve employee safety and health.

Promoting Occupational Safety and Health Management

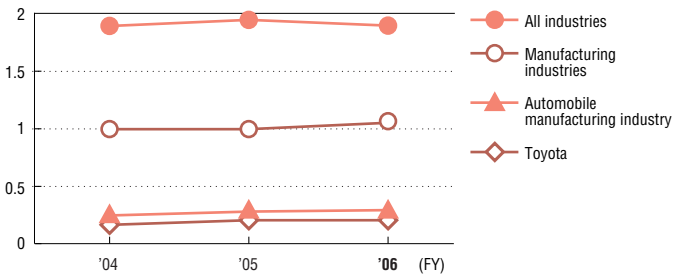
Toyota employs the Toyota Occupational Safety and Health Management System (OSHMS) with a focus on reducing workplace risks through safety and health activities. In FY2006, Toyota defined basic action items (i.e., actions that should be taken in the workplace) and held study groups to promote those items in all departments with relevant on-site operations. Toyota also conducted audits to confirm the status of implementation. The action items and audit methods were reviewed based on the results, and even higher-level activities are planned for FY2007.

Structure of the Occupational Safety and Health Management System



OSHMS Study group

Industrial Accident Frequency (Frequency Rate of Lost Workday Cases)

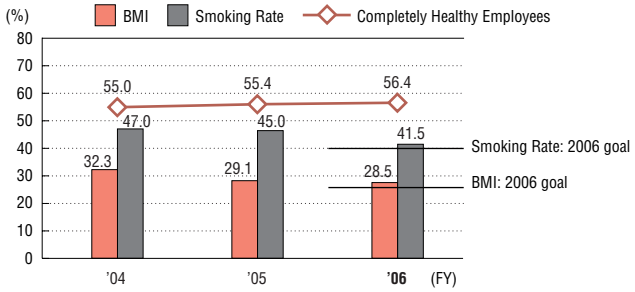


Building Good Health

In FY2006, Toyota focused on improving BIP2 activity* and reinforcing workplace activities that promote good health practices. Activities include lifestyle improvement programs, including health training workshops and anti-smoking clinics. As a result of activities and environments tailored to workplace needs, improvements were seen in both BMI (body mass index) and reduced smoking rates.

*BIP2 activity: Behavior Change Innovation Program, a lifestyle improvement campaign with targets set for BMI and smoking rate

Trend in Percentage of Completely Healthy Employees, BMI, and Smoking Rate



Mental Healthcare

Toyota holds active listening courses for managers and supervisors to raise awareness of the importance of, and provide expertise regarding, mental healthcare in the workplace. Based on data from Japan Mental Health Inventory surveys and health consultations, Toyota conducts recurrence prevention activities, monitors changes in the health of personnel through follow-up health checks after transfers and promotions, and rapid detection of and responses to mental health issues. In addition, Toyota provides self-care training by industrial healthcare personnel (industrial physicians) for assistant managers to increase understanding of stress management. General mental healthcare information is provided and follow-ups conducted using the Toyota Intranet.

In Focus — Encouraging Energetic Lifestyles

"An increasingly advanced and complex society leads to stress in the workplace, making mental healthcare activities essential," explains Dr. Toshihiko Uragami, an industrial physician who works at the TMC Head Office and Honsha Plant. "Being healthy means not just having a healthy body, but also includes mental soundness. Our job is to maintain the good physical and mental health of employees. This requires the development of workplaces with open communication, active self-care by employees, and the formation of mental attitudes that can deal with stress."

Dr. Toshihiko Uragami, industrial physician

Regional Production Center Develops Local Personnel and Provides Skills Training

TMAP-EM, Thailand

The Asia-Pacific Global Production Center (AP-GPC) was established in Bangkok, Thailand in August 2005 as one of Toyota's Global Production Centers (GPC; see page 59). Its operations cover Toyota's production affiliates in nine countries and regions from Pakistan in the west to Australia in the east. AP-GPC has eight workfloors, including painting, stamping, molding, and assembly shops and uses visual manuals like those employed at the GPC in Japan to conduct skills and equipment training to ensure that each affiliate can maintain the quality, safety, and efficiency that Toyota requires.

After its establishment, AP-GPC initially trained approximately 3,000 Toyota Motor Thailand (TMT) personnel. Starting in 2006, a trainer's course for the personnel of other affiliates was launched and started with two employees from Vietnam. The trainer's course is a 10-day program that focuses on technical skills. After their skills are confirmed on actual production equipment, participants receive "trainer's trainer" certification valid for three years. Following completion of the course, they travel to different affiliates to train personnel.

Mr. Pratheep Krasaesom, an AP-GPC trainer's trainer said, "When I was first appointed, I was not confident that I could become a trainer's trainer, but when I saw the visual manuals at the GPC in Japan, I knew that everything would be fine." He continued, "The training is conducted in English, so language is the biggest problem for both me and the trainees. In the end, however, we are able to make a true personal connection. I believe that it is very important for me to understand completely the visual and other manuals and to get to know my trainees on a personal level. I love my job training others."

An AP-GPC trainer's trainer with Toyota employees from Vietnam

HIV/AIDS Countermeasures Implemented to Maintain Employee Health

TSAM, South Africa

It is estimated that of South Africa's population of 43 million people, 5.5 million are infected with HIV. The spread of AIDS among employees can result in decreased productivity, causing serious problems, even for private companies. Toyota South Africa Motors (TSAM) produces 140,000 vehicles annually and employs approximately 10,000 people, making it one of the largest employers in KwaZulu Natal, South Africa. Under a labor-management agreement that allows employees infected with HIV to continue working as long as they are able, TSAM began implementing HIV/AIDS countermeasures in 1993. These countermeasures are a top priority among the programs for maintaining good employee physical and mental health.

A health team in the personnel division made up of 10 industrial physicians, health specialists, nurses specializing in HIV and AIDS treatment, and social workers provides services to prevent further infections and to support the provision of proper treatment and care for employees who are infected. The team conducts HIV/AIDS education for employees and their families, encourages HIV testing, and provides care to infected employees.

Employee education includes training volunteers as peer educators to conduct educational activities for other employees during working hours. Treatment includes the free provision of nutrition guidance and distribution of foods that help maintain immunity to employees and their families at the company clinic and the use of antiretroviral drugs to prevent the outbreak of AIDS.

Many employees live in the vicinity of the plant, where infections are spreading, so TSAM works with local groups to conduct educational activities such as displaying posters and holding events. According to Dr. Minty, an industrial physician and team leader of the HIV/AIDS team, "Our activities are having a steady effect, including improvements over the past five years in HIV testing rates, reduced infection rates, and reducing the percentage of employees who are unable to work because of a deterioration of their health condition."

Peer educators

Relations with Business Partners

Sustainable Growth Achieved through Cooperation with Business Partners

As a global enterprise, Toyota undertakes open and fair business activities that honor the language and spirit of the law of every nation. Showing respect for suppliers, dealers, and other stakeholders as business partners, Toyota works to realize mutual benefit based on mutual trust and through cooperation with business partners and contribute to the sustainable development of society and the world.

Collaboration with Suppliers

Since its establishment, Toyota has sought to work closely with its suppliers in its manufacturing activities. Facing the same challenges and the same problems together, Toyota has built up strong and close relationships with suppliers based on mutual support and coexistence. These ties with suppliers are among Toyota's greatest assets. Today, as the reach of Toyota's activities becomes increasingly global, Toyota intends to further develop these ties, including building relationships with new partners.

Toyota's Basic Purchasing Policies

In order to ensure "long-term and stable procurement of the best products at the lowest price in the most speedy and timely manner," it is essential to have a close relationship with suppliers in the various countries and regions in which Toyota operates. Toyota believes that the most important task in purchasing is the creation of a relationship in which the supplier and Toyota do business on an equal footing based on mutual respect, thus building firm links of trust and promoting mutual growth and development. Toyota's global purchasing activities are based on the three basic policies outlined below.

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 Toyota before. Toyota's choice of suppliers is on the basis of purely business considerations. Toyota evaluates the overall strengths of prospective suppliers, including their quality, cost, technological capabilities, and reliability in delivering the required quantities on time, as well as their potential strengths, as evidenced in such ways as their amenability to continuing *kaizen* (improvements).
2) Mutual benefit based on mutual trust
Toyota believes in developing mutually beneficial, long-term relationships based on mutual trust. To foster that trust, Toyota pursues close and wide-ranging communication with suppliers.
3) Contribution to local economic vitality through localization: good corporate citizenship
As Toyota moves to globalize its operations, production outside Japan is increasing rapidly. Toyota will work to make an economic and industrial contribution that is fully commensurate with its market presence in each region. This includes purchasing parts and materials from local suppliers.

Procurement Embracing Corporate Social Responsibility

The Environmental Purchasing Guidelines (adopted in March 1999) were expanded and amended for issuance in March 2006 as the TOYOTA Green Purchasing Guidelines (for details see page 33). Reflecting the importance of the social aspects of business activity, these guidelines support and share the Contribution towards Sustainable Development, which is Toyota's basic policy on corporate social responsibility. Additionally, they stipulate compliance as one item in the basic contract. Brought into operation in April, the new guidelines cover a range of business types which was expanded to include not only the original parts and materials suppliers but also an additional 550 suppliers from equipment supply, construction, logistics and other sectors, bringing the total to around 1,000.

In Focus | **Holding of Exhibition on Best Practices of Quality Improvement by Suppliers**

As part of a joint initiative with suppliers to improve quality, Toyota organizes an Exhibition on Best Practices of Quality Improvement by Suppliers, held every year at the Toyota Head Office. In November 2006, the seventh year of the exhibition, it was held for around two weeks. The content focused on how suppliers had solved past quality issues and the lessons learned from them, Toyota's Customer First activities, and quality improvement best practices by suppliers. Also available to participants were audio tapes presenting opinions "straight from the customer" and a video on Toyota's approach to quality entitled Everyone Has Their Part to Play in Guaranteeing Quality. The exhibition was visited by around 16,000 people. Their comments, for instance that opinions straight from the customer had a tremendous impact or that they intended to take on board the best practices in their own workplace, showed a high level of interest towards quality improvement.

Suppliers listen to audiotapes presenting customer opinions

Toyota Global Suppliers Convention Held

The Toyota Global Suppliers Convention was held in February 2007 to convey Toyota's priority purchasing policies to its suppliers. Approximately 670 people from 431 companies, including 91 overseas companies and 340 Japanese companies, attended the convention. After announcing the FY2007 Global Purchasing Policy, Toyota presented "Ensuring Safety" and "Ensuring Quality" as its key initiatives. The importance of creating a zero-risk workplace and quality improvement activities to be carried out in concert with suppliers were explained, allowing all parties to confirm each other's initiatives. Corporate social responsibility as the basis of business activity was also raised as a subject of discussion and presentations covered topics such as the background to the establishment of Toyota's CSR & Environmental Affairs Division and the growing level of expectation which society is placing on companies. As an expression of thanks, awards were also given to suppliers who demonstrated significant achievements in quality, cost, technological development, and other areas.

Awards being presented at the Toyota Global Suppliers Convention

Study Meeting on Compliance Held

Compliance is a core area for initiatives in corporate social responsibility activity. At Toyota, compliance study meetings are organized in partnership with suppliers at which Toyota requests suppliers to take action to ensure thorough legal compliance. In FY2006, a legal seminar on labor affairs was held in October, one on the Japanese Subcontracting Law in December, and one on export business management in March, while in January a symposium on legal affairs was organized.

Support to Suppliers in Occupational Safety and Health

Adopting the employee-centered key phrase 'creating a worry-free and safe work environment,' Toyota asks suppliers to reinforce action related to occupational safety and health through a range of recommendations, for instance checking based on the *genchi genbutsu* approach, and training of "safety guardians." In FY2006, leading executives from member companies of the Toyota suppliers' association, the Kyohokai, were invited to a study meeting at the Tsutsumi Plant's Toyota Global Safety and Health Education Center. As they attended presentations on specific work training in dealing with irregularities and the training of employees on simulated production lines, the course participants developed an awareness of the importance of executive management personally checking safety on-site and of presenting a strong management approach. In FY2007, this training will be expanded to include middle management as well in an effort to further reinforce safety.

Study meeting for executive management at the Tsutsumi Plant's Toyota Global Safety and Health Education Center

In Focus — Relationships with Suppliers Based on Mutual Trust and Benefit

Kyoji Sasazu
TMC Executive Vice President

Toyota views suppliers as indispensable partners in our aim to provide customers with attractive products, the cornerstone of market creation and activation. The manufacture of attractive products is only possible through the sharing of a common business philosophy with suppliers possessing technological capability, and having them provide Toyota with cost competitive, quality parts in a timely fashion. To this end, Toyota bases its relationship with suppliers on the concept of mutual trust and benefit. This means growing together by encouraging each other and offering advice when necessary while working collectively in the manufacturing process.

In 2007, Toyota marks its 70th anniversary. We offer our sincerest thanks to our customers around the world and also to our suppliers in materials, equipment, parts, logistics and other areas.

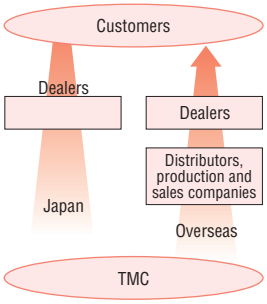
Toyota is where it is today by having overcome many trials and tribulations—wars, economic depressions, oil shocks, emissions regulations, trade frictions, periods of the strong yen, fierce global competition—with the support of its suppliers. The future is bound to hold more such difficulties. And we must also meet the challenge of achieving sustainable growth in terms of both the environment and society.

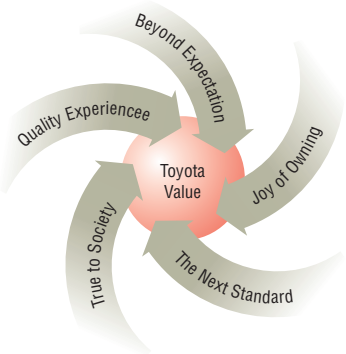
This will require a philosophy of creating a better world by setting and abiding by rules that are even stricter than those already established.

It is my firm belief that based on our common foundation of "making things," and by constantly communicating with one another, working even more closely together than before, and combining our knowledge and innovations, together Toyota and its suppliers will be able to contribute to create a new and prosperous world.

Collaboration with Sales Networks

The sales network is the point of direct application of Toyota's "Customer First" policy. Toyota and dealers work as one linked by solid bonds of trust to enhance customer satisfaction and convey Toyota Value—a statement of shared values that are emphasized in the superiority of Toyota products and services. In the relentless pursuit of enhancing customer satisfaction, Toyota and dealers engage in activities based on constant and close communication, including various forms of support by Toyota and feedback of customer opinions and comments by dealers.





Dealers in Japan

Within Japan, TMC has concluded contracts directly with approximately 300 dealers who operate 5,700 sales outlets (including used car outlets). The Toyota Way in Japan Sales and Marketing, adopted in 2000, sets forth fundamental principles such as putting the "Customer first, dealer second, manufacturer third." Based on the "Customer First" policy, Toyota believes that dealer development, which ultimately means growth of Toyota, is achieved by enhanced support of dealer initiatives to improve customer satisfaction through the implementation of PDCA from the perspective of meeting the expectations of customers and dealers.

Kaizen Development & Support Division Established

Toyota reorganized and established the *Kaizen* Development & Support Division in January 2006 to collaborate with dealers around the world in improving operations and enhancing customer satisfaction by supporting related activities at dealers in Japan and overseas. The division's main support activities are: (1) Expanding TPS improvement activities to sales and distribution; (2) Differentiating Toyota dealers from competitors through improvements (enhancing competitiveness); (3) Enhancing customer satisfaction from the customer's perspective by implementing on-site improvements; and (4) Fostering human resources with the ability to make improvements and reforms using their own skills. In FY2006, the division conducted activities in Japan and overseas to foster the development of industry-leading dealers. In Japan, activities were held under the new themes "dealer work method reforms" and "program for making suggestions to after-sales service customers," while overseas the division supported the introduction of e-CRB, a sales and after-sales service support system that uses IT tools developed exclusively by Toyota.

Support for Dealer Corporate Social Responsibility Activities

In 2005, the Toyota National Dealers' Advisory Council (TNDAC) created the CSR Committee, and issued the Toyota National Dealers' Advisory Council CSR Guidelines. In January 2006, Toyota dealers nationwide adopted the CSR Declaration at the TNDAC general conference. The guidelines define the three pillars of Toyota dealer CSR as compliance, environmental responses, and social contribution activities, with the aim of dealers working to raise levels of satisfaction by all stakeholders, and the entire Toyota Group working in concert to become a presence that is respected and liked by people all over the world.

In FY2006, all dealers confirmed their compliance and environmental activities and identified issues based on a 400-item checklist concerning applicable laws and regulations and the environment. In addition, CSR briefings conducted by attorneys were conducted for managers of all dealers nationwide. These briefings will be continued in the future. TNDAC also conducted educational activities for all dealers and issued a comic-book style handbook on CSR aspects of dealer activities. Toyota assisted in the production of the handbook and provided legal information to dealers concerning compliance with the Automobile Recycling Law, the Act on the Protection of Personal Information and other related laws.

Handbook on CSR aspects of dealer activities issued by TNDAC

In Focus — New Product Marumaru Clean Launched

TMC is providing support for the introduction by dealers of *Marumaru Clean*, a new after-sales service product designed to achieve greater customer satisfaction and build good relations with customers.

Marumaru Clean is a high-quality vehicle cleaning service developed by U-Car (Toyota used car dealers) intended to provide customers high levels of satisfaction with their vehicles until they replace them. The cleaning processes are broadly divided into exterior and interior cleaning. The exterior cleaning involves application of a vehicle body coat, glass coat, and aluminum wheel coat and cleaning the engine compartment, while the interior cleaning includes removal and cleaning of the seats and washing and deodorization of the vehicle interior. Each process is performed with specially designed technologies, including cleaning agents, high-pressure cleaners, and steam cleaners to create a finish like that of a new car. TMC is providing support and guidance for the introduction of the service by dealers to ensure uniformly high quality services and high customer satisfaction. The service was introduced on a trial basis at some dealers in January 2006, and expansion to other dealers started in June 2007.

Removing the seats enables careful cleaning under the seats and in other hard to reach areas

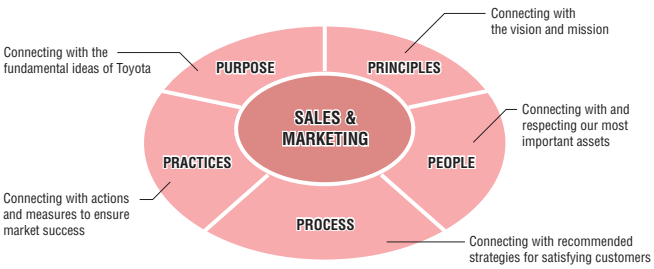
Relationship with Overseas Distributors

Overseas, Toyota has concluded contracts with approximately 7,500 dealers through distributors and regional holding companies. As in Japan, dealers are Toyota's direct customers and serve to directly communicate Toyota Value to end customers throughout the world. Toyota engages in a variety of activities to ensure that it shares Toyota Value and The Toyota Way in Sales and Marketing with all on-site staff and distributors, who play an essential role in supporting sales.

Toyota Way in Sales and Marketing Linked to Toyota Way 2001

The Toyota Way in Sales and Marketing (TWSM) was prepared in 2001 to systemize and organize Toyota sales experience and expertise accumulated in accordance with Toyota's vision and conduct guidelines in the sales and marketing fields based on "continuous improvement" and "respect for people." TWSM consists of five key words, based on which TMC, distributors, and dealers work together to continuously pursue and implement best practices to raise customer satisfaction through repeated PDCA (Plan, Do, Check, Act) activities.

The Five Ps of the Toyota Way in Sales and Marketing



GKC Shifts from Theory to Practice

The Global Knowledge Center (GKC) created by Toyota Motor Sales, U.S.A., Inc. is an organization that supports practice of the Toyota Way in Sales and Marketing by distributors in their day-to-day activities. In FY2006, the GKC strengthened ties with regional divisions in TMC and held Toyota Value workshops, created customer management simulation programs, and continued sales consulting in China, making a shift in FY2005 from theory to practice.

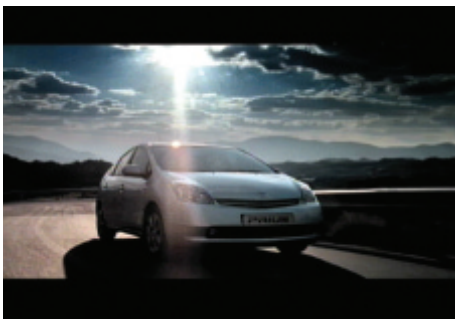
Communicating the Toyota Way

Toyota publishes and distributes 40,000 copies of a bimonthly internal magazine, Team TOYOTA, to distributors worldwide. Team TOYOTA provides information on the philosophy of TWSM with specific examples of best practices presented in an accessible format.

In FY2006, executive vice presidents in charge of different regions discussed and encouraged human resource development through respect for the individual. Also, the Best Practice Bulletin presented specific information on improvement activities, one of the pillars of the Toyota Way.

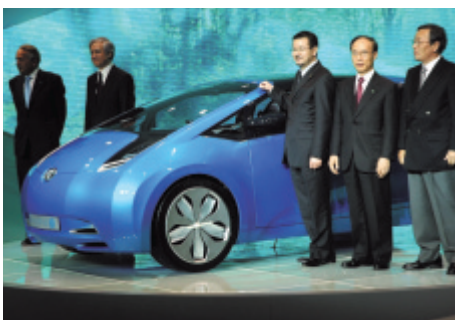
Global Marketing Policies

In FY2005, Toyota conducted a global advertising campaign emphasizing the four benefits of the Hybrid Synergy Drive—fuel efficiency, low emissions, acceleration and quietness—as part of marketing measures utilizing hybrid vehicles to enhance brand strength. Toyota narrowed the topics to fuel efficiency and environmental performance in FY2006 to conduct an even easier to understand campaign.



TV commercial that was aired worldwide

Toyota exhibited numerous concept hybrid vehicles at the North American International Auto Show in January 2007, and at the Geneva Motor Show in March, proposing new ideas for the future direction of hybrid vehicles.



The Hybrid X exhibited at the Geneva Motor Show in March 2007

Toyota also conducts regional new vehicle sales support activities, including product presentations and test drives for marketing personnel and trainers at distributors worldwide. In FY2006, Toyota held workshops for new vehicles that are scheduled for launch in the next fiscal year. These activities are designed to allow participants from distributors to feel, touch and ride the actual vehicles so they can experience firsthand the quality of the vehicles and convey Toyota Value to dealers and customers.

A workshop on new vehicles held in 2007

Examples of Overseas Initiatives

Support Provided to Three Suppliers Damaged by Flooding

TMMIN, Indonesia

Severe flooding in Jakarta, Indonesia in February 2007 inundated 70% to 80% of the city and displaced more than 10,000 people. The damage extended to 24 of Toyota Motor Manufacturing Indonesia's 130 suppliers. Sixteen suppliers suspended production and the remaining eight were not able to deliver parts, resulting in a 10-day production shutdown at TMMIN. To conduct efficient production, manufacturers require on-time supply of high-quality parts from suppliers, and when suppliers suspend operations, this hinders production. Consequently, TMMIN provided support to three suppliers, including advice, repair of equipment, and provision of spare parts. TMMIN dispatched engineers to suppliers whose equipment was damaged to make repairs and provide guidance concerning the creation of provisional production systems until facilities could be restored. Assistance was also provided to improve sluice gates and raise levees to prevent damage in the event of future flooding.

An employee of IGT, which supplies propeller shafts to TMMIN, comments, “We are extremely grateful for the supply of spare parts that we couldn't find in the market and for the on-site assistance from TMMIN employees.”

Moving equipment parts to prevent damage from floodwater

e-CRB Cutting-Edge Sales System Helps Provide Just-in-Time Service to Customers

GTMC, China

Guangzhou Toyota Motor Company (GTMC) completed production of its first Camry in May 2006 and began official sales in June. The Guangqi Toyota sales channel, a new sales network, opened about 100 dealer facilities all at once and began implementing specific sales measures based on its “Personal & Premium” channel concept. Cumulative sales from the start of operations through the end of May 2007 were 122,000 vehicles, and the channel also achieved the highest share of sales every month from January to May 2007.

The central system for construction of the Guangqi Toyota sales channel is e-CRB (evolutionary Customer Relationship Building). GTMC introduced e-CRB, a state-of-the-art sales operations system, at all dealer facilities. e-CRB is an operations system that consolidates the considerable expertise that TMC has accumulated through its business improvement activities at dealers in Japan. This cutting-edge tool was adapted and introduced in China keeping in mind Toyota’s late entry into the Chinese market.

The e-CRB system provides accurate information to customers in a timely manner at various stages, including sales and after-sales service, to provide customers with a sense of convenience and security and to maximize customer satisfaction. e-CRB consists of a variety of systems and devices, including a TCV negotiation support system, the i-CROP integrated CR management system, the SMB after-sales service reservation and work management system, a CS board located in the lounge to indicate to customers when their vehicles will be delivered, and EM for achieving a rapid and high-quality service experience. In addition, the e-CRB system is effective at promoting standard work processes in sales activities among young and inexperienced GTMC and dealer personnel. One customer stated, “The system makes follow-ups easy after a vehicle delivery and is a significant difference compared to other vehicle dealers; to tell you the truth, I was quite surprised.”

GTMC has positioned 2007 as the inaugural year for development of the sales channel and is committed to using the e-CRB system to perform high quality sales operations and raise customer satisfaction levels even higher.

Sales staff use the TCV 3D negotiation support system to negotiate a deal

Relations with Shareholders

Realizing Stable Growth

Toyota's basic management principle is to benefit society through its business activities, while realizing stable growth founded on a long-term perspective. Toyota believes that improving corporate value in this way will not only benefit shareholders, but also lead to greater trust in and understanding of the company over the long term.

Enhancing Corporate Value Through Long-term, Stable Growth

The three key components of Toyota's financial strategy are Growth, Efficiency, and Stability. Toyota believes that the balanced pursuit of those three priorities over the medium-to-long term will enable the achievement of steady and sustainable growth as well as increase corporate value.

1. Growth: Improving technology, supply, and marketing through continued forward-looking investments

Toyota believes that developing technology to create new markets, strengthening supply to meet global demands, and improving marketing to accurately reflect market demand require continued active investment in research and development and capital expenditures.

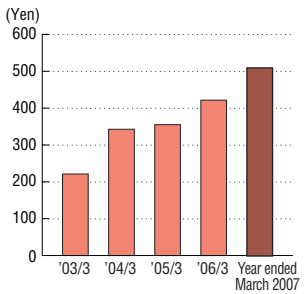
2. Efficiency: Maintaining and improving profitability and capital efficiency

Toyota will maintain high levels of profitability by introducing products efficiently through the development of core global models, realizing the benefits of innovative VI Activity cost reductions, expanding production systems that link plants in Japan and abroad, and developing and introducing highly efficient production engineering of the kind typified by the Takaoka plant's innovative production line. Furthermore, Toyota will continue to acquire its own shares with a view to maintaining and improving profitability and capital efficiency.

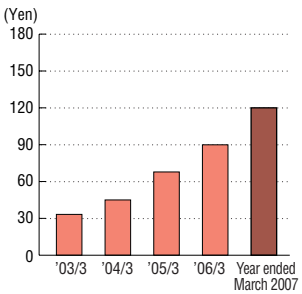
3. Safety: Maintaining a solid financial base

Toyota maintains a solid financial base by ensuring sufficient liquidity and stable shareholders' equity. Toyota's sound financial position enables it to continue investing for growth, even during rapid fluctuations in business and market conditions, and underpins the high credit ratings that enable access to low-cost, stable financing.

Consolidated Net Income per Share



Trend in Cash Dividends per Share



Return of Profits to Shareholders

Toyota regards distribution of profits to its shareholders as one of its priority management policies and continuously strives to increase per share earnings. With respect to the payment of dividends, Toyota seeks to enhance the distribution of profits by striving to secure a consolidated dividend payout ratio of 30% over the medium- to long-term, while giving due consideration to factors such as the business results of each term and new investment plans. Reflecting its dividend policy, in fiscal 2007 Toyota paid a significantly higher annual dividend of 120 yen per share, up 30 yen per share from the previous fiscal year.

Timely and Fair Disclosure of Corporate and Financial Information

Toyota considers the timely and fair disclosure of corporate and financial information to shareholders and investors to aid in investment decisions as crucial for obtaining their long-term and stable support. Therefore, Toyota works to enhance its accountability to shareholders and other investors. As part of company-wide activities, Toyota has established the Disclosure Committee to ensure the accurate, fair, and timely disclosure of financial and other important information.

List of Information Disclosed

Financial Results http://www.toyota.co.jp/en/ir/financial_results/2007/index.html
Semi-annual Report http://www.toyota.co.jp/en/ir/library/business_report/2006/index.html
Annual Report http://www.toyota.co.jp/en/ir/library/annual/index.html
Securities Report http://www.toyota.co.jp/jp/ir/library/negotiable/2007_3/index.html (Japanese only)
SEC Filings http://www.toyota.co.jp/en/ir/library/sec/index.html
Corporate Governance Report http://www.toyota.co.jp/en/ir/library/cg/index.html
Toyota Up Close http://www.toyota.co.jp/en/about_toyota/pdf2006_2/index.html
Sustainability Report http://www.toyota.co.jp/en/environmental_rep/07/index.html

Global Society/Local Communities (Initiatives toward Improving Traffic Safety)

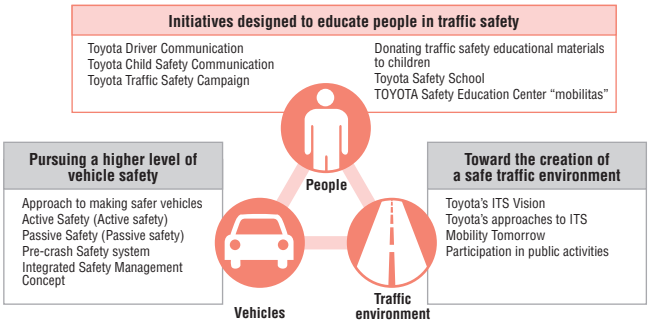
Striving toward the Complete Elimination of Traffic Accidents

In order for automobiles to continue developing as a means of transportation that will provide the convenience of mobility in the future, it is important to minimize the negative effects of environmental impact, traffic accidents and traffic congestion. In terms of safety, in addition to making safer vehicles with a focus on reducing injury to people, Toyota is taking a comprehensive approach based on "Safety: Basic Concept," which seeks to achieve a working harmony with society.

Initiatives for Traffic Safety by Viewing People, Vehicles and the Traffic Environment as an Integrated Whole

Advances in vehicle technologies alone cannot eliminate traffic accidents. Achieving this ultimate goal will require the manufacture of safer vehicles, educating people, and actively making proposals toward the creation of a safe traffic environment.

Toyota is aiming for the complete elimination of traffic deaths and injuries, the ultimate goal of a mobile society, and is advancing initiatives for traffic safety by viewing people, vehicles and the traffic environment as an integrated whole.



Safety: Basic Concept

1) Contribution to an affluent mobile society
Toyota always focuses on "people" and on striving toward a mobile society without any traffic casualties in which "people" are able to travel comfortably via vehicles.
2) Cooperation with human society
As a member of our global society, Toyota strives to improve the traffic safety environment. We are safety conscious and want to cooperate with various groups, such as local and national governments.
3) Development of safe vehicles
Taking accident analysis data into consideration, Toyota develops technologies for "Active safety" and "Passive safety" to lead the world, and protect/assist consumers.

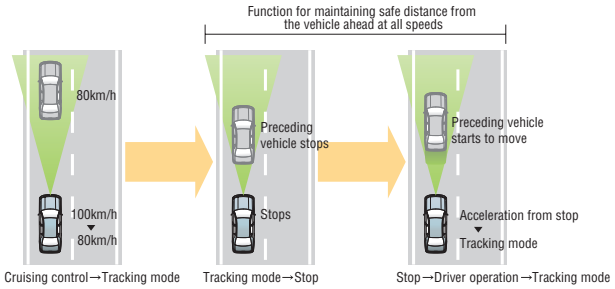
Integrated Safety Management Concept

In August 2006, Toyota announced its Integrated Safety Management Concept, an expression of the direction of Toyota's future technology development. The concept aims to provide optimal driving support in all stages of vehicle operation, including parking, active safety, pre-crash safety, passive safety and emergency response, in addition to the conventional comprehensive vehicle movement control. Under this integrated management, information detected by various sensors that act as "eyes" in the vehicle, including information on the driver's condition and the vehicle's behavior, is accumulated in the DSS (Driver Support System) computer which acts as the "brain." This computer activates the active safety system, which works as "the hands and feet," to determine the optimal support to give the driver in order to prevent a dangerous situation from occurring, and it controls the various technologies and systems concerned. The new safety technologies based on this concept have been adopted in the LS460, launched in September 2006.

Advances in Active Safety —Adaptive Cruise Control

Toyota enhanced the capability of the earlier cruise control system that helps the driver maintain a safe distance from the vehicle ahead based on information obtained by millimeter-wave radar, etc. The new Adaptive Cruise Control system can be used at much lower speeds and can cover a wider speed range (between 0 and approximately 100km/h). When the vehicle in front has come to a stop, the system is activated to keep a proper distance behind the preceding vehicle. When the system recognizes that the vehicle ahead is once again moving, it begins tracking based on the activation of a switch or the driver's acceleration. In this way, the system reduces the operational burden on the driver over a wide speed range from high speeds to stop-and-go traffic. The new Adaptive Cruise Control system has been incorporated into the LS460.

Adaptive Cruise Control



Rearview Monitor

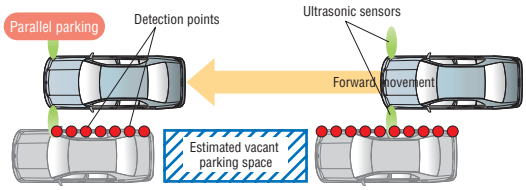
The rearview monitor displays the view behind the vehicle captured by a camera when backing, helping to reduce the effort required by new or elderly drivers. This system was incorporated as a standard feature in the Corolla Axio launched in October 2006.

Rearview monitor display

Intelligent Parking Assist System

Toyota commercialized the world's first Intelligent Parking Assist system, which supports steering operations when parallel parking or backing into a parking space, and later added functions that use newly developed front ultrasonic sensors (a world first) to detect other parked vehicles. Based on information gained, the new system can estimate the physical dimensions of the vacant parking space and set the target parking position. As a result, even when there are no white lines demarcating the parking space, the driver can easily park the vehicle using video images displayed on a screen from a rear camera. This new system has been adopted in the LS460, the Corolla Axio, and other models.

Parking Space Recognition Using Ultrasonic Sensors



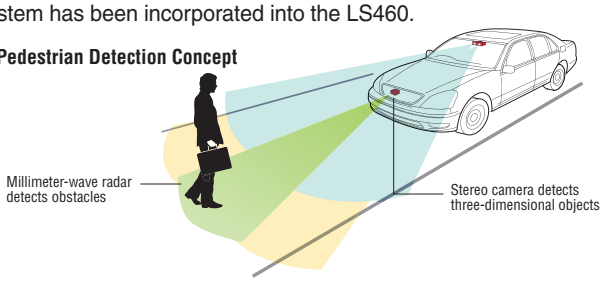
Advances in the Pre-crash Safety System

The Pre-crash Safety system helps reduce collision injury by foreseeing unavoidable collisions and warns the driver when it determines a high possibility of a collision. Since it was first installed in the Harrier in 2003, Toyota has expanded its usage to the Celsior and a wide range of other vehicle series. In FY2006, it was adopted in the LS460, Corolla Axio, and other models.

Pedestrian Detection Function

The new Pre-crash Safety System features millimeter-wave radar and a newly developed stereo camera that enable the system to detect not only vehicles and obstacles, but also pedestrians, who were previously difficult to detect. When the system determines that a collision is imminent, it warns the driver with a buzzer, and activates the Pre-Crash Brake and retracts the seatbelts. This system has been incorporated into the LS460.

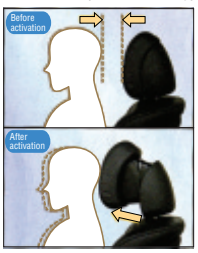
Pedestrian Detection Concept



Rear Pre-Crash Safety System

A millimeter-wave radar device installed in the rear bumper detects a vehicle approaching from behind. If it is determined that there is a risk of collision, the hazard lights flash to warn the driver of the rear vehicle. If the vehicle continues to approach, sensors implanted inside the front headrests of the forward vehicle detect the position of both the driver's and front passenger's heads, and prior to impact the Pre-crash Intelligent Headrests shift to appropriate positions to reduce the risk of whiplash injury sustained upon collision. The system has been incorporated into the LS460.

Activation Concept of the Pre-crash Intelligent Headrest (rear-end safety)



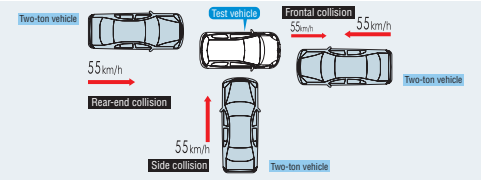
Steering and Obstacle-Avoidance Assist System

When the driver recognizes an obstacle and performs an emergency avoidance maneuver, the system helps the driver avoid the obstacle by adjusting the steering gear ratio and the suspension attenuation force. This system has been incorporated into the LS460.

Advances in Passive Safety —Omni-directional Compatibility

Based on the concept of omni-directional compatibility, which attempts to promote crash safety for both vehicles in a collision of two vehicles of different weights and heights, Toyota conducted frontal, side, and rear-end collision tests between a smaller test vehicle and a heavier vehicle. The results satisfied Toyota's own stringent goals, demonstrating further advances in passive-safety body structure. In the LS460, Toyota made the cabin safer by adopting a cabin structure that effectively absorbs collision impact by diffusing it at the front and sides of the vehicle body, allowing the impact to be absorbed by a wider area and lessening the damage to the other vehicle, which may be lighter than the LS460.

Omni-directional Compatibility

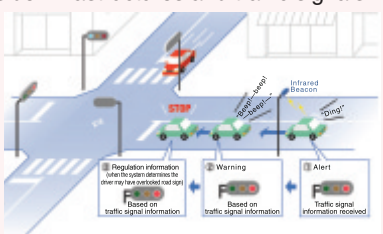


Pedestrian Injury Lessening Body

In order to help reduce injury to the head and lower extremities of a pedestrian during an accident, Toyota has adopted impact-absorbing structures in the hood, cowl, fenders, and bumpers. In FY2005, the RAV4 became the first vehicle in Japan to receive the Level 5 (the highest) rating in the Pedestrian Head Protection Performance Test conducted by the Ministry of Land Infrastructure and Transport in Japan. The Estima received the Level 5 rating in FY2006.

Traffic Environment | **Driving Test on Public Roads with the Aim of Reducing Traffic Accidents**

In order to enhance the functionality of cars and help create a more sophisticated transport system, Toyota is working to develop and commercialize ITS (Intelligent Transport Systems) and has been carrying out research and validation of Driving Safety Support Systems (DSSS*). For six months beginning in December 2006, Toyota participated in a public-road test of DSSS in Toyota City, Aichi Prefecture. Data on the behavior of drivers under various driving conditions on public roads was collected and analyzed from one hundred vehicles equipped with drive recorders. Toyota is examining the data and researching ways to help reduce traffic accidents. For example, Toyota is estimating the accident-reduction effects of vehicle-infrastructure cooperative systems that support safe driving practices by providing drivers with traffic information transmitted from roadside infrastructures and traffic signals.



Traffic signal information system used in the public-road test in Toyota City

*DSSS: Driving Safety Support Systems, which transmits traffic control information from transport infrastructure

For information about Toyota's safety education (initiatives designed to educate people about traffic safety), see Social Contribution Activities on P.74

Global Society/Local Communities (Social Contribution)

Social Contribution Activities that Help Strengthen Communities and Contribute to the Enrichment of Society

Seeking to contribute to the enrichment of society and its sustainable development, Toyota has been engaged in various social contribution activities with the goal of becoming "a good corporate citizen of the world."

Principles and Policies of Social Contribution Activities

Under the Guiding Principles at Toyota, Toyota seeks to be a good corporate citizen of the world and to contribute to economic and social development through corporate activities in the communities it conducts business in. The explanation paper entitled Contribution Towards Sustainable Development, which interprets the Guiding Principles, explains how Toyota actively promotes and engages in social contribution activities that help strengthen communities and contribute to the enrichment of society. Based on these concepts, Toyota's approach to social contribution activities, its activities and goals are expressed clearly in the principles and policies that are shared with all Toyota companies throughout the world.

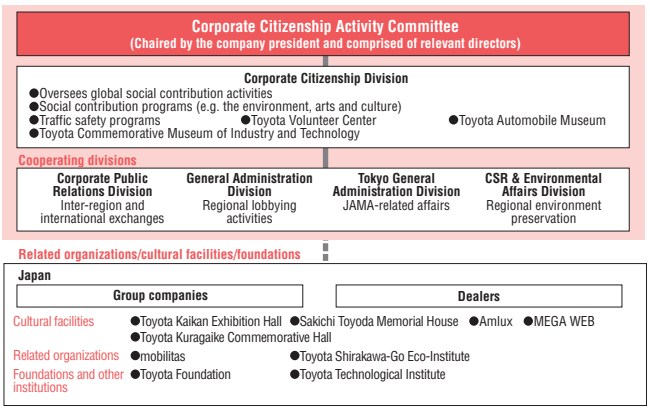
Principles and Policy for Social Contribution Activities

Purpose	We in the Toyota Group will undertake social contribution activities to contribute to sustainable social vitality.
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 fostering human resources who will lead the next generation.
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.
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.

Implementation Structures in Japan

In 1989, Toyota established the Corporate Citizenship Activity Committee chaired by the company president and comprised of relevant directors to act as the highest level decision-making body. The Corporate Citizenship Division was organized in January 2006 as a specialized division to reinforce corporate social contribution activities and integrate corporate social contribution functions that had been performed by multiple divisions.

Implementation Structures in Japan



Overseas Implementation Structures

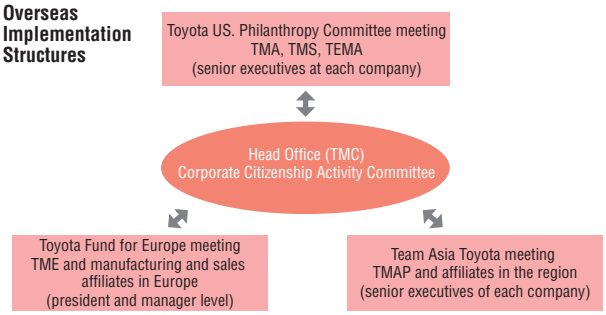
Since the creation in December 2006 of the Toyota US Philanthropy Committee, Toyota has been establishing a network linking its head office with bases in North America, Europe, and Asia. Toyota reviews regional policies and action plans in close collaboration with Toyota Motor North America, Inc. (TMA), Toyota Motor Europe S.A./N.V. (TME), and Toyota Motor Asia Pacific Co., Ltd. (TMAP).

U.S. : Toyota US Philanthropy Committee meeting, chaired by TMA and held twice annually; reviews budgets, policies and individual projects related to strategic donation.

Europe : Toyota Fund for Europe, chaired by TME and held twice annually; assess projects submitted by affiliates and support outstanding projects.

Asia : Team Asia Toyota, chaired by TMAP and held several times each year; senior management of affiliates announce social contribution activity plans.

Overseas Implementation Structures



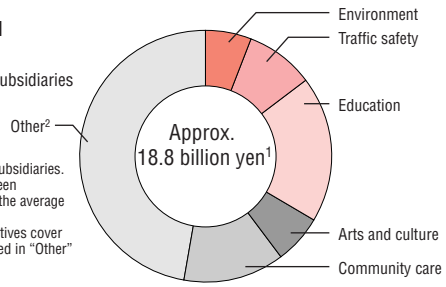
Results of Social Contribution Activities

All Toyota affiliates conduct independent social contribution activities centered on three focus fields, the environment, traffic safety, and education, with other fields added in accordance with local societal needs.

In Japan support of the arts and culture, and community care have been added to the three focus fields. Emphasis is also placed on employee volunteer activities, with programs promoted through maximum utilization of Toyota's expertise and resources.

FY2006 Activities by Field

Social contribution activities by TMC and major consolidated subsidiaries are as shown on the right.



1. On a consolidated basis, and major subsidiaries. Results for overseas affiliates have been calculated in Japanese yen based on the average exchange rate for FY2006
2. Facilities whose operations and objectives cover more than one area have been included in "Other"

The Environment

As a step towards realizing sustainable development of society and the earth, Toyota is committed to making social contributions in areas such as environmental education, support for environmental action, preservation of biological diversity, and afforestation.

The Anti-desertification Initiative in China

Since 2001, Toyota has, together with the NPO Green Earth Center (headquartered in Tokyo), participated in the 21st Century Greater Beijing Reforestation Model, an afforestation initiative in Fengning Man Autonomous County, Hebei Province, where significant desertification has occurred.

Afforestation activities began in April 2001. Over the six years of the first and second terms of the initiative, trees were planted on approximately 2,500 hectares of land using Toyota's biotechnology and afforestation technologies and the participation of many volunteers, contributing to the environmental protection of Fengning Man Autonomous County, which is an important water source for Beijing and Tianjin. The third term of the initiative (April 2007-March 2011), calls for afforestation of another 500 hectares of land, as well as construction of the 21st Century Greater Beijing Afforestation Center (scheduled to open in June 2008) to foster afforestation experts and disseminate information on greening technology. Through these measures, Toyota aims to create a structure to further expand afforestation activities in China.

Reforested land (2006)

The Forest of Toyota

In 1996, Toyota began carrying out plans to create the Forest of Toyota. This model forest was established within Foresta Hills, on the outskirts of Toyota City in Aichi Prefecture, to revitalize *satoyama* (forests and wetlands near populated areas). Toyota shares the knowledge on reforestation acquired from this model forest with the public and contributes to environmental education through initiatives such as the Experience Nature program.

In FY2006, ten years after the model forest was established, a total of 58 information signs and guideposts were upgraded to include color illustrations, a Walking for Health program was initiated to help refresh the mind and body while walking through the forest, and an information guidebook was created. Events such as Parent and Child Forest Exploration—A One-day Program, where people can enjoy the forest, were held five times with the help of the local community. A total of 172 people took part. In FY2006, 9,623 people (5,081 elementary students) visited the Forest of Toyota, bringing the total since its establishment to approximately 48,000 people.

Elementary students participate in the Experience Nature program

Toyota Environmental Activities Grant Program

Since FY2000, Toyota has been accepting applications to the Environmental Activities Grant Program to support projects involved in research and other activities centered on the theme "Environmental Technology and Human Resource Development Contributing to Environment Revitalization and Conservation." 548 applications were received in FY2006. The program's selection committee, consisting of a group of experts from Japan and elsewhere around the world, deliberated intensely and judged the entries on criteria such as appropriateness of the projects and continuity and future development. Thirteen projects were selected under the category of "general grants" (for overseas projects), and 12 under the category of "small-scale grants" (projects in Japan). Grants amounted to a total of approximately 170 million yen. Also, site visits were conducted for projects that were awarded grants in the past to follow-up on their progress.

The Toyota Environmental Activities Grant Program was launched in commemoration of TMC's receipt of the Global 500 Award,* in 1999, from the United Nations Environment Programme (UNEP). Since it began in FY2000, 113 projects in 40 countries have received a total of approximately 1.24 billion yen worth of funding.

*Global 500 Award: Established by UNEP to recognize individuals or organizations that contribute to environmental protection or improvement in terms of sustainable development (1987 - 2003)

Some of the FY2006 Awardees of the Toyota Environmental Activities Grant Program ("General grants" Category)

Project title	Implementation site
Ground Water Recharge and Water & Soil Conservation Technology for Poor Farmers in Rajasthan	India
Environmental Education and Economic Empowerment For Today's Youths: A Strategy for Sustaining Our Tomorrow	Nigeria
Community Based Environmental Restoration and Conservation Project in Critically Damaged Areas of Puerto Princesa, Palawan	The Philippines
Wild Silk and Honey Bee Farming for Income Generation and Biodiversity Conservation through Value Chain Approach	Kenya

In Focus — Site Visit to India

Toyota carries out site visits to monitor the progress of projects that were awarded grants in the past. In January 2007, Senior Technical Executive Hiroyuki Watanabe and a member of the selection committee made a visit to the Project on Environmental Education Leading to Awareness Generation and Capacity Building for Sustainable Development in Rural Areas of Haryana, India, which was selected in FY2004 (implementing organization: Aravali Vikas Sangathan). Views were exchanged regarding environmental education that aims at securing safe drinking water, sustainable agricultural development, and capacity building. Villagers have voluntarily participated and created a plan of action, confirming that changes in awareness and consideration of sustainable development have indeed occurred.

A sign indicating initiatives being taken in the model village of Daulah

Traffic Safety

As one part of initiatives that aim to achieve zero traffic deaths and injuries, Toyota has been actively engaged in traffic safety activities since the 1960s, including safe-driving courses for drivers and traffic safety education for children.

Toyota Traffic Safety Campaign

Since 1969, Toyota has been conducting the Toyota Traffic Safety Campaign together with dealers every spring and autumn, coinciding with Japan's Nationwide Traffic Safety Campaigns. In FY2006, the campaigns focused on preventing accidents that could occur if children suddenly run out into the street, the promotion of the use of rear-seat seatbelts, and traffic safety for the elderly. Approximately 1.5 million copies of an educational leaflet, created in line with the main themes, were distributed. Toyota also donated 2.65 million traffic safety picture books and 44,000 traffic safety storytelling cards to children entering kindergartens and nursery schools nationwide.

Storytelling cards and picture books distributed in FY2006

Toyota Driver Communication

Toyota has been conducting unique nationwide safe-driving courses called Toyota Driver Communication, which were begun in 1987 with the goal of reducing the number of accidents involving drivers.

In April 2005, Toyota completed the construction of the TOYOTA Safety Education Center "mobilitas," inside Fuji Speedway in Shizuoka Prefecture, where Toyota Driver Communication courses are offered on a regular basis. "mobilitas" encompasses a total area of 130,000m^2 and is complete with a large flat course, a circuit with a 35-degree bank, a straight low-resistance course, and a winding low-resistance course. With instructors who train Toyota test drivers, students can safely experience the performance of vehicles at their limits through such exercises as high-speed emergency braking, and driving and braking on a low-resistance road surface.

In FY2006, 5,800 drivers attended classes at "mobilitas." In addition, to help prevent drunk driving, in October 2006 Toyota added a new course that allows students to experience hands-on the dangers of driving after drinking by putting on goggles that simulate symptoms of intoxication and actually driving a car at normal city speeds (40-50 km/h).

Safe-driving courses at "mobilitas"

Students drive with goggles that simulate symptoms of intoxication

Toyota Safety School

Every year Toyota has been inviting children from kindergartens and nursery schools in and around Toyota City, Japan to safety classes held at Toyota Kaikan Exhibition Hall. In FY2006, approximately 5,700 children from 130 kindergartens and nursery schools participated in safety classes held at Toyota Kaikan. The class was also held at the TOYOTA Safety Education Center "mobilitas" located in Shizuoka Prefecture, with an attendance of 340 children and their caregivers. The cumulative total attendance of children since 1975 is approximately 210,000 from 2,557 kindergartens and nursery schools.

Safety class held at "mobilitas"

In Focus Mobile Educational Events

In FY2006, Toyota began holding mobile events where people can learn about traffic safety through various hands-on experiences to spread traffic safety awareness in the local community. Beginning with the Industrial Festa 2006 held in September at the Toyota Stadium, traffic safety events were held at seven major commercial facilities throughout Aichi Prefecture with the cooperation of Aeon Inc. and other companies. Approximately 4,300 people participated in activities, including Toyota Driver Communication courses, demonstrations on the proper use of child restraint systems, experiencing first-hand deterioration of physical abilities due to age, and a simulation of walking while intoxicated. Participants said that through the simulations they could understand the dangers of reduced physical response due to age and intoxication.

A mobile traffic safety educational event held at Aeon Higashiura Shopping Center (January 2007)

Education

Toyota cooperates with various segments of society while using its resources effectively to implement educational programs that will develop future leaders.

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

Toyota has been holding free science and engineering workshops for elementary and middle school students since 1996 to address the social issue of the declining interest in the sciences by youth. Employees who are members of the Toyota Engineering Society* serve as volunteer instructors of the workshops, which are held at science and other museums and Toyota and affiliates' facilities in various sites throughout Japan.

Participants can gain an understanding of the importance of science and experience the fun of "making things" through 10 original programs developed by Toyota, including electric power recovery vehicles, two-legged robots, and collision-safety bodies. After learning the basic principles and structures, the children make the various devices themselves, enabling them to use their imagination and creativity. Surveys of participants have included responses such as "I feel very happy when I can learn through my own ideas what will happen when I do a certain thing." In FY2006, 25 workshops were held, including at 11 new locations, with a total of 2,200 participants. To date, some 223 workshops have been held with 18,700 children participating.

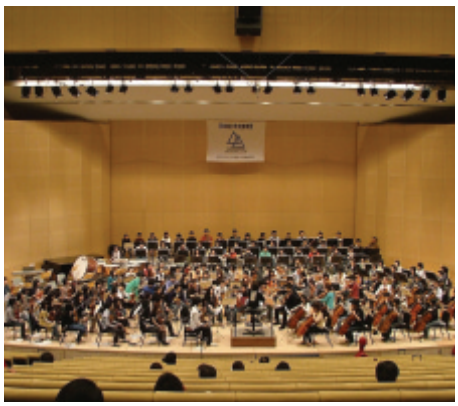
*Toyota Engineering Society: An internal organization designed to contribute to the development of various business technology fields, including the automotive manufacturing and sales business, by raising engineering skills and promoting friendship. Currently, there are approximately 31,000 members.

Children learn about air resistance during a lecture on aerodynamic bodies

Toyota Youth Orchestra Camp

The Toyota Youth Orchestra Camp is a program designed to cultivate future leaders through music. The program has been conducted since 1985 in collaboration with the Federation of Japan Amateur Orchestras.

In FY2006, 152 participants from around Japan attended a four-day camp in Kisarazu-shi, Chiba Prefecture, where they learned Sibelius Symphony No. 2 in D minor under the guidance of 17 leading professional musicians and directors. The participants also planned and operated the camp, where they made new friends and learned the importance of teamwork before returning to their hometowns to help promote local arts and cultural activities. While at camp, in addition to practicing, the participants also engaged in local contribution activities and held one-day training sessions on specific instruments for approximately 200 elementary and middle school students. A cumulative total of more than 4,000 people have attended the camp to date.



Students practice Sibelius Symphony No. 2 in D minor at the Toyota Youth Orchestra camp

Toyota Children Meet Artists Program

The "Toyota Children Meet Artists" is a program aimed at fostering children's values and rich aesthetic sense through interactions with artists. Conducted in cooperation with the NPO Artist's Studio in a School (ASIAS) and other local NPOs, this educational program has been carried out throughout Japan since 2004. Dancers and contemporary artists visit schools, children's centers, and hospitals where they create workshop-style classes employing integrated learning with a local flavor. In FY2006, a dancer created a joint production with students at an Aichi Prefecture elementary school, and a sculptor spent two weeks creating an igloo at a school in Hokkaido. In Okinawa, an artist worked with children at the "Ideas, People, and Things" workshop to discuss ways to convey regional characteristics to people from other countries, and put them into practice. The participating children were inspired by the diversity of lifestyles and the ability to express themselves freely. Comments from teachers and parents included, "I was surprised by how seriously and enthusiastically the children discussed their ideas" and "this was an opportunity to reevaluate optimal teaching methods."

In FY2006, workshops were held at seven locations in three regions around Japan and a symposium for educators, artists, and the general public was held in Okinawa. To date, events have been held at 17 locations in four regions, and approximately 1,900 children have participated.

The "Ideas, People, and Things" workshop held in Okinawa

Culture and the Arts

Toyota operates the Toyota Automobile Museum and the Toyota Commemorative Museum of Industry and Technology, two unique museums, with an emphasis on passing on the culture of making automobiles and *monozukuri* (making things). In addition, Toyota collaborates with NPOs and other organizations to actively support the arts and culture with the aim of enhancing cultural foundations.

Museum Activities

The Toyota Automobile Museum (located in Nagakute-cho, Aichi Prefecture), which Toyota opened in 1989 to commemorate the 50th anniversary of its founding, systematically traces the development of the gasoline-powered automobile over the more than 100 years since its invention. The museum attracts approximately 250,000 visitors each year, and the cumulative number of visitors surpassed the 4 million mark in April 2007.

The museum displays about 140 vehicles, all of which are maintained in drivable condition, and used to offer rides to visitors at various events. The results of research, one of the core activities of the museum, are presented in special exhibitions. The special exhibitions held in FY2006 were "Japanese Cars in the 1980s: The Models Favored by Young People for Dating," "Special-Purpose Vehicles on Show!," "The American Dream as Reflected in Car Advertising Art," and "The Exciting World of Plastic Models and Slot Cars."

Exhibits on the second floor of the Toyota Automobile Museum main building

The Toyota Commemorative Museum of Industry and Technology was established in 1994 by 13 Toyota group companies in Nagoya City, the birthplace of Toyota, for the purpose of conveying the the philosophy underlying "making things" and the "spirit of being studious and creative." The museum features a wide range of displays, including looms and automobiles as well as valuable industrial legacies such as a 100-year-old German steam engine that went on display in January 2007. In FY2006, the Toyota Collection, a collection of scientific and technological materials mainly from the Edo Period (1603-1867), were displayed, an automotive "Industrial Robots" exhibit was held, and summer vacation workshops for children and cultural seminars that allow participants to disassemble and assemble actual engines were conducted.

Toyota Commemorative Museum of Industry and Technology

Support for Culture and the Arts

Since 1981, Toyota and its Japanese sales companies have jointly held the Toyota Community Concerts, in conjunction with the Federation of Japan Amateur Orchestras, which supports amateur orchestras in various regions, to promote local culture through music. In FY2006, the 25th year of holding the concerts, approximately 50,000 guests attended 51 concerts in 27 prefectures. Concerts have been held 1,190 times in 130 municipalities in 44 prefectures, and a cumulative total of 950,000 people have attended the concerts to date.

In addition, since 2000 Toyota has been the main host of orchestral performances throughout Japan by the Toyota Master Players, Wien, a chamber orchestra made up of distinguished musicians from the Vienna Philharmonic Orchestra to promote appreciation of world-class music. The group gives joint concerts with the Nagoya Philharmonic Orchestra and young soloists in Japan. In FY2006, the group gave six performances in five cities, attended by approximately 11,000 people.

In order to discover and foster choreographers who will be the driving force behind the next generation of dance, Toyota, in cooperation with the Setagaya Public Theatre in Tokyo, has been presenting the TOYOTA Choreography Award since 2001. Winners are awarded the opportunity to present their work at the theatre in the following year with Toyota shouldering part of the cost of their production. In FY2006, there were 186 applicants, and approximately 900 people attended the screening performances.

Toyota Community Concert

In Focus **NetTAM**

In 2004, Toyota established NetTAM, a comprehensive information site on art management, in collaboration with the Association for Corporate Support of the Arts to train personnel who will be responsible for maintaining, or otherwise involved in, the arts. The site, which posts art-related employment information, had approximately 770,000 hits in FY2006. In March 2007, Toyota held the Toyota Art Management Forum 2007 at the Toyota Tokyo Head Office as a forum for NPOs, artists, and other experts to discuss the social value of art.

Toyota Art Management Forum 2007

http://www.nettam.jp (Japanese only)

Community Care

Toyota is working toward creating a harmonious, self-sustaining society where a diverse range of people respect one another and work together, by assisting with local social contribution projects, supporting welfare services, encouraging self-reliance and other initiatives while utilizing both tangible and intangible resources, such as technology and know-how.

Toyota Lobby Concerts

Since 1995, Toyota Lobby Concerts have been held twice a year on the 1st floor lobby of Toyota Motor Corporation's Tokyo Head Office, for those in nursing-care facilities and local residents who have few opportunities to attend a concert. In FY2006, Toyota employee volunteers and local residents helped organize the 23rd Marimba Concert by Hideki Ikegami and the 24th Paraguayan Harp Concert by Mika Agematsu. Approximately 800 people enjoyed the performances.

Toyota Telephone Counseling for Kids

In 1979, Toyota set up a telephone counseling service for children from elementary school through high school, and has helped children to grow by encouraging them to think for themselves. By FY2006, approximately 450,000 calls had been taken.

Volunteer Activities
—8th Toyota Volunteer Plaza Held

Toyota, in conjunction with 13 related companies, held the Toyota Volunteer Plaza during the All Toyota Big Holiday held in October, 2006, in Aichi Prefecture. A total of around 400 volunteers from the companies involved showcased employee volunteer activities and other volunteer initiatives, and invited physically disabled persons to join in the festivities.

A charity bazaar was also held on the day, with items donated from the staff and management of the participating companies. The resulting 720,000 yen was divided and donated to five different facilities in the local community.

Volunteer Activities Held as Part of Toyota Technical Training Courses

As a part of the training for technicians, 63 employees between 24 and 30 years of age experienced volunteering first-hand for three days in November 2006. They visited the homes of elderly people living alone in Toyota City, and secured their furniture to prevent it from falling over during an earthquake. Together with social workers they visited about fifteen homes each day. The recipients of the volunteer service were extremely grateful, expressing that they felt a lot safer after their furniture had been secured. The participants said it was a meaningful experience, and voiced the desire to continue contributing to the community.

Volunteers secure furniture at an elderly person's home to prevent it from falling

Taking the Elderly on a Field Trip to Centrair

Since 2000, Toyota together with the NPO, *Nukumori no Kai*, which hosts luncheons for the elderly who live alone in Toyota City, has planned field trips to support their physical and psychological health. In FY2006, a field trip was organized to Central Japan International Airport (Centrair). Forty-four employees lent a hand, and one of the thirty participants stated, "I ventured to take part and it was a wonderful day."

Helping the elderly participants during the tour of Centrair

Helping out at a Wheelchair Basketball Tournament

In April 2006, sixteen Toyota employees volunteered their time and participated in a basketball tournament for individuals who have a disability affecting their limbs. The purpose of the tournament was to improve fitness and to deepen friendships. The volunteers helped by cleaning the tires of the sports-specific wheelchairs, working at the reception desk, giving assistance to participants when needed, and providing directions to participants and spectators alike. Players expressed their gratitude, commenting that without everyone's support the tournament could not have been held.

Employees clean wheelchair tires

The Toyota Foundation

The Toyota Foundation is a private, non-profit, grant-providing organization dedicated to realizing a more people-oriented society and greater individual happiness, and was established by Toyota in 1974. The Foundation views projects from a global perspective as it works to support activities for the benefit of society in the following areas: 1) Human and natural environments; 2) Social welfare; and 3) Education and culture. Grants are provided for research and projects consistent with these interests. At the end of FY2006, the total endowment was approximately 35 billion yen, and grants in FY2006 totaled approximately 480 million yen.

In Focus | **Helping the Visually Impaired at *Oiden Matsuri***

Since 2000, Toyota employee volunteers have participated with the visually impaired and performed the *Oiden* dance at the *Oiden Matsuri* in Toyota City. To master the dance, each volunteer pairs up with a visually impaired partner, and they practice diligently once a week for three months. In the first year, Toyota received a special award from the mayor. In FY2006, 14 visually impaired people participated and 22 employees volunteered support. The participants enjoyed the experience of being able to feel part of Toyota City.

Oiden Matsuri 2006

Examples of Overseas Social Contribution Activities

In the pursuit of its goal of being a truly global company that is respected and liked by people around the world, Toyota conducts a variety of activities overseas, primarily through its overseas affiliates, tailored to the conditions and needs of each region. A few examples of the activities of overseas affiliates concerning the environment, traffic safety, education, and community care are presented in the following pages.

Examples of Overseas Initiatives — The Environment

Environmental Improvement Contests at Schools Expanded

TMMIN/ TAM, Indonesia

Environmental issues are becoming increasingly serious in Indonesia, but awareness of such issues is still low among the general public. In response, Toyota Motor Manufacturing Indonesia (TMMIN) and Toyota-Astra Motor (TAM) started the Toyota Eco Youth program, an environmental improvement contest held in schools, with the aim of raising awareness of environmental issues. The project was first conducted by UMW Toyota in Malaysia, and evaluations were high, so it was decided to expand implementation to Indonesia. Each school selected for participation forms a team, and with the guidance of faculty members each team plans and implements environmental improvement projects such as saving electricity and wastewater treatment in facilities such as school buildings.

The first contest was held from November 2005 to June 2006. 60 students from ten schools in the Jakarta region participated. The second contest was held with cooperation from environmental NGOs. 90 students from 15 schools in the Jakarta region participated. The participating students attend workshops on methods of identifying and addressing environmental issues and deciding the issue they would like to address. TMMIN personnel then visit each school and verify the appropriateness of the projects. After receiving approval, measures are taken to improve the school environments.

One participating student commented, "This program has enriched our environmental knowledge. We can also make more friends from Java and Bali. It's a lot of fun." Mr. Partomihardjo, Plant Ecologist of the Indonesian Institute of Sciences Center Research praised the program: "The Toyota Eco Youth program provides a good opportunity to encourage our young generation to be concerned about environmental issues." In the future, the two companies hope to include dealers and expand the program nationwide.

A team creates an alternative energy source by carbonizing dried leaves

Supporting Penguin Habitat Improvement and Tracking Study

TMCA, Australia

Phillip Island, located off the southeast shore of Melbourne, is home to some 26,000 penguins, including the Little Penguin, which stands only 40 centimeters tall and weighs about one kilogram. The Little Penguin is the smallest member of the penguin family and is a symbol for environmental conservation activities in Australia.

Melbourne-based Toyota Motor Corporation Australia (TMCA) has been working with Phillip Island Nature Park since 2001. Employee volunteers work alongside park rangers in building penguin homes of timber and making improvements in the nesting habitat for the penguins. Since 2005, TMCA has also been funding a study in which researchers have fit 12 penguins with transmitters and monitor their movements through satellite communications links. This study will help identify factors in fluctuations in the penguin population. Meanwhile, the nest building is making a visible contribution to the vitality of the park's penguin colony with new penguin families living in them.

For the state of Victoria in which Philip Island is located, the diminutive penguins are a tourist magnet. Their sustainability is a big concern for the state government and for the general public. Lending a helping hand to the penguins was a natural choice for TMCA, a responsible corporate citizen of Victoria. As a result of such contribution, opinion surveys rank TMCA among the most highly regarded corporations in Australia. Yet another benefit is the satisfaction and learning by employees, all of whom said that they enjoyed the activities and learned a lot from the experience.

The Little Penguin, the world's smallest penguin

Toyota Driver Communication Program Conducted in China

TMCI, China

Toyota conducted Toyota Driver Communication, a 4-day hands-on safe driving course in Beijing in October 2005 and in Guangzhou in November 2006. Approximately 200 people responsible for safety management at taxi companies and driving schools participated. With the cooperation of the Ministry of Public Security of each city, participants were taught how to conduct vehicle inspections prior to operation and safe driving, confirming blind spots, emergency braking on slippery road surfaces, and other topics concerning driving skills for avoiding accidents. The programs were conducted by veteran instructors who teach the same course in Japan.

Chinese society is becoming rapidly motorized, and drastic measures were taken in 2004 in major urban areas under the direct guidance of the national government to prevent traffic accidents. One of the main objectives was to enhance safe driving training for drivers. The Toyota Driver Communication program, which has achieved significant results in Japan, is in agreement with this objective. Toyota has been conducting the program in various regions around Japan since 1987 as a part of its social responsibility to promote traffic safety. In China too, Toyota seeks to be a good corporate citizen that contributes to society through environmental preservation, traffic safety, and the development of human resources, and believes that contributing to the development of Chinese society is one of its missions. Toyota is committed to continuing its contributions to the development of a sound motorized society in China through safe driving education.

Toyota Driver Communication course participants learn how to inspect a vehicle

Teaching Teens Defensive Driving Nationwide

TMS, USA

Toyota Driving Expectations is a free four-hour program for newly licensed teenaged drivers between 16 and 19 and their parents or guardians. It comprises a combination of classroom instruction and behind-the-wheel guidance. The teenagers learn about such subjects as the kinds of hazards that arise on the road and the financial ramifications of driving. The adults receive presentations about ways to demonstrate safe driving practices to their children. A special characteristic of Toyota Driving Expectations is to include instruction in skills and techniques for avoiding collisions when hazards arise suddenly. At the end of the session, the teenagers and their parents agree on terms about how often the youngsters will take the wheel, how long they will be able to drive at a time, and how many passengers they will be able to carry. They put the elements of their agreement in writing in a formal "contract." That helps ensure that the participants will continue to benefit from what they learned in the program.

Teenage drivers account for nearly 14% of fatal traffic accidents in the United States, though they account for only 6.6% of the licensed drivers there. Toyota Driving Expectations is an effort to redress that disconcerting statistic. "Toyota is committed to providing teens with the tools they need to be better prepared on the road and to become better drivers," says Michael Rouse, corporate manager of national philanthropy and community affairs at Toyota Motor Sales (TMS). TMS developed the Toyota Driving Expectations curriculum in cooperation with the U.S. National Safety Council. The company began sessions on a limited, trial basis in 2004 and refined the content in advance of the nationwide launch in 2006. TMS has held Toyota Driving Expectations clinics in eight locations across the United States, from California to Washington D.C. More than 4,000 people have taken part in the sessions to date.

Parents and children participate in the program

Examples of Overseas Initiatives

Education

Supporting Science and Technology Education for Middle and High School Students

TMMT, Turkey

Toyota Motor Manufacturing Turkey (TMMT) launched a technical project competition in 2006 for middle and high school students in the vicinity of Adapazari City in Sakarya Province, Turkey, where its plant is located. Teams of one or two students participated in the competition by selecting a topic in one of four fields (the environment, automation, telecommunications, and energy), conducting scientific research and experiments, and preparing a report. A total of 205 teams from 16 middle schools and 13 high schools participated in the second competition in 2007.

TMMT has an annual production capacity of 150,000 vehicles and was the largest exporting company in Turkey for three consecutive years through 2006, making significant contributions to the Turkish economy. The company engages in active social contribution activities with a focus on supporting education. TMMT donates computers as well as engines, transmissions, and vehicles for training purposes to schools and was searching for an activity that could make effective contributions when it decided on the competition. Some of the operating finances are provided by a fund established by Toyota Motor Europe (TME) for philanthropic activities.

Mr. Murat Yazici, the head of the Sakarya Province's Department of Education comments, "Turkey has a large population. Industrial and economic development is proceeding too rapidly to provide students with sufficient opportunities to explore state of the art science and technology. Along with deepening children's understanding of science, the competition encourages them to take the initiative in carrying out projects." TMMT plans to hold the competition every year.

A student exhibits his research results

Supporting the Independence of Women through Agricultural Training

TSAM, South Africa

Since 2002, Toyota South Africa Motors (TSAM) has supported the Gardens for Africa project in cooperation with Newlands Mashu Permaculture Learning Centre (NMPLC), a nonprofit organization to provide agricultural training to unemployed women in the Folweni region, where many employees live.

TSAM places emphasis on employment in the area of the Durban Plant. There are poor communities in the vicinity of the plant, but the employees are attached to their communities and wish to continue living there. Out of respect for this wish, TSAM began supporting the Gardens for Africa project to contribute to community development and raise employee morale.

Under the project, about 20 women form a group to cultivate a field and grow organic vegetables, including carrots, tomatoes, onions, taro, cabbages, and cauliflowers, in an area of about 60m^2 per person, using sustainable techniques that are environmentally friendly. The NMPLC instructs the participants in techniques for creating organic fertilizer, preventing runoff, selecting crop varieties, using only rainwater for irrigation, and eliminating insect pests, while providing support for obtaining the required tools and materials. TSAM supports these activities for women in about 50 locations.

One woman who underwent the training says, "Growing crops has given me a new sense of purpose. I am currently harvesting enough food to feed my family and sell some to neighbors. Next year, I will ship it to market and hope to obtain even more income. My dream is to buy a sewing machine with the money I save and achieve a more stable lifestyle."

TSAM hopes to serve the food grown in these gardens in its employee cafeterias and is considering expanding sales routes, including sales within the company, and also plans to train project participants on basic recordkeeping for selling their crops in market.

Women participate in the agricultural project and grow organic vegetables

Employees Volunteer at a Facility for Homeless People

TMKR, South Korea

In South Korea, activities to support homeless people are considered one of the most important social contribution activities. In conjunction with its environmental, safety, and educational activities, Toyota Motor Korea (TMKR) wanted to engage in contribution activities that go beyond donations. To that extent, TMKR and Lexus dealers began employee volunteer activities in July 2005. Employees of TMKR and dealers located in Seoul volunteer once or twice per month on a rotation basis at Anna House, a center that provides assistance to homeless people. Anna House was established in 1998 in Seongnam city, near Seoul, and provides free meals to 400 to 450 homeless people each day. Dealers in other regions are also participating in similar volunteer activities at local facilities.

A representative of an NGO that assists the homeless praised the enthusiasm of the employees of TMKR and the dealers, whose efforts have also been recognized by other volunteers. Many employees participate with their families, and the president of one participating sales company comments, "These activities have made employees feel even prouder to be a part of the Lexus dealer network."

Volunteer activities by TMKR and dealer employees at a facility for homeless people

Supporting the Fund for Homeless

TMA, North America

Homelessness is a pressing social issue in New York. Well-intentioned individuals and organizations have undertaken diverse measures to address the issue, but none of those measures have succeeded in resolving the root causes of homelessness. Only by severing homeless persons' dependence on drugs and alcohol can programs steer those individuals toward lasting self-reliance. The Doe Fund has achieved impressive results in breaking the vicious cycle of substance abuse and homelessness. Since its establishment in 1987, The Doe Fund has helped steer more than 2,000 homeless persons off of the street and back to productive lives of self-reliance.

Participants in The Doe Fund's program typically do street-cleaning work. That work imparts a sense of self-worth and nurtures the spirit of self-reliance. It is the first step toward returning to society in a productive role. In addition to that, the participants master other useful skills, such as the basic knowledge to live in the society or computer competence. Individuals who receive assistance from The Doe Fund live in transitional residences. It now has four centers in New York that house more than 700 individuals. There, residents need to comply with strict rules and a demanding regimen. Unannounced urine checks to monitor drug abuse, for example, are routine. Some of the trainers of the Fund used to be homeless, so they can put themselves in participants' places. People spend about one year in the centers before returning to society.

Toyota Motor North America (TMA) has supported the Fund's program since 1994, as its first corporate sponsor. Apart from providing direct financial support to manage the centers, it hosts an annual fundraising dinner for the Fund and donates vehicles for the charity auction, raising a huge amount of donations every year. Also, employee volunteers participate in the work training program for the homeless as trainers. Support from TMA has helped broaden the reach of The Doe Fund's socially invaluable activities. Some of the homeless people, who returned to society after taking part in Doe Fund's program, are hired as full time employees by corporations. Currently, TMA has a Doe Fund participant working in their office.

Participants in The Doe Fund's program engaging in street-cleaning work

Global Society/Local Communities (Communication)

To Be a Good Corporate Citizen of the World

Toyota conducts vigorous social contribution activities and presents information concerning its vision, corporate activities, and environmental initiatives at numerous cultural facilities. The Toyota Motor Corporation Global Website (www.toyota.co.jp), a core information portal, underwent major redesign in June 2006 to make the site easier to use. To enhance corporate information, unique content designed specifically for overseas viewers, including information on the history of Toyota, was improved and expanded. Going forward, Toyota is committed to disseminating information through various facilities and websites to raise understanding of its activities.

Toyota Stakeholder Dialogue

Based on the recognition by Toyota senior management that "In 21st century business management, communication with all stakeholders, including NPOs, consumers, and business partners, must be given greater attention," Toyota Stakeholder Dialogues have been held each fiscal year since 2001. To ensure neutrality of the Dialogue, the Institute for Global Environmental Strategies (IGES) is charged with the running of the Dialogue secretariat.

The sixth dialogue, held on January 19 and 20, 2007 at Shonan Village, with the participation of approximately 20 people, including four NPO representatives, four experts from various fields, three corporate representatives, three government representatives and Toyota executives and employees. Toyota's CSR and environmental activities were discussed in light of the establishment of a dedicated CSR organization within Toyota. Toyota explained its CSR and environmental activities, and the experts and others made presentations on their impressions of "Toyota from the outside" and "CSR activities throughout the world." A wide range of opinions and ideas were exchanged, including those on expectations towards Toyota by various stakeholder groups.

Major Opinions Expressed by Stakeholders

CSR policies and structures	• Raise the level of communications with stakeholders even further • Disclose information not only on what Toyota has done but also on negative aspects of Toyota's activities
Employees	• Increase emphasis on policies and actions concerning respect for diversity • Encourage greater participation in social activities by employees
Global and social issues	• Toyota is expected to engage in activities addressing issues in developing countries on par with those of leading Western companies • Toyota should engage in activities for the preservation of biodiversity that address food supply and raw materials procurement issues
Quality and the environment	• Greater disclosure of information concerning quality and safety activities • Clarify policies for reducing CO_2 released throughout the entire lifecycle of Toyota vehicles

The sixth Toyota Stakeholder Dialogue

World Business Council for Sustainable Development

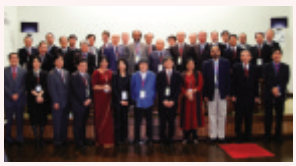
Headquartered in Geneva, the World Business Council for Sustainable Development (WBCSD) is a coalition of 190 international companies from more than 30 countries, united by a shared commitment to sustainable development. Honorary Chairman Shoichiro Toyoda serves as Vice Chairman of the organization.

In 2006, WBCSD selected Energy and Climate, Development, Business Roles, and Ecosystems as focus areas. TMC is a lead company for Mobility for Development, one of the workstreams, and at the Council Meeting in New York in October 2006 presented concepts concerning workstreams on the subjects of (1) the importance of mobility as a driver for economic development, (2) the need to narrow the mobility divide, and (3) sustainable mobility solutions for rapidly growing cities in the developing world.

World Business Council for Sustainable Development

In Focus — WSDF Held in Shirakawa-Go

The first Regional Sustainable Development Summit organized by The Energy and Resources Institute (TERI) and supported by Toyota, was held at the Toyota Shirakawa-Go Eco-Institute, Japan on October 5 and 6, 2006 under the aegis of the World Sustainable Development Forum (WSDF). A total of 43 experts from six countries, including Japan, the United Kingdom, and India, gathered to discuss clean energy technologies in emerging economies such as China and India where rapid economic development is leading to explosive growth in energy consumption. Honorary Chairman Shoichiro Toyoda and three other Toyota executives participated in the discussions. Honorary Chairman Toyoda said in his opening address, "Toyota is engaged in active development of environmental technologies...and strives to become a leader of global regeneration through its outstanding environmental technologies. We believe that raising people's awareness is extremely important, and we are taking necessary measures and making all possible contributions."



43 experts from six countries participated

Cumulative Number of Visitors to MEGA WEB Exceeds 50 Million

On December 17, 2006 the total number of visitors to MEGA WEB topped the 50 million mark. MEGA WEB opened on March 19, 1999 in Koto Ward, Tokyo, and was created as a communication network center that brings Toyota and its customers together. The spacious exhibit hall, located within a 24,000m^2 space, is divided into three zones, which showcase separate themes, and a special driving area. Toyota holds various events at MEGA WEB in an effort to enhance awareness of its initiatives among a broad range of the general public, including test drives of environmentally considerate Toyota vehicles and vehicles that incorporate the barrier-free concept.

The 50 millionth visitor said, "Our 4-year old son loves cars so we often come as a family. The children enjoy it, and this has become a particularly memorable day."

The 50 millionth visitor and his family express their joy

Toyota Kaikan Exhibition Hall Redesigns "Toyota Role in Society" Display Area

At the Toyota Kaikan Exhibition Hall (Toyota City, Aichi Prefecture) the "Toyota Role in Society" display area, which introduces Toyota's CSR concept and initiatives, has been redesigned.

The display is divided into three zones—a Toyota social contribution activity zone, an education zone, and a zone on Toyota's new businesses. There is an easily understood display explaining Toyota's position vis-à-vis various stakeholders such as customers, local communities, stockholders and investors, suppliers, and employees. A touch panel display explains each social contribution activity conducted by Toyota, while another display details best practices at affiliates around the world. Since its opening in 1977, a cumulative total of over 13 million people have visited the Toyota Kaikan Exhibition Hall (as of the end of March 2007).


The social contribution activity zone displays overseas best practices in a simple manner

Examples of Overseas Initiatives

Observation Course Created from Start to Develop Strong Community Ties

GTMC, China

Guangzhou City-based Guangzhou Toyota Motor Company (GTMC) is a production and sales company that employs approximately 4000 people and has an annual production capacity of 200,000 vehicles. The company currently produces the Camry and plans to start production of the Yaris in mid-2008. GTMC decided that it would be open to the public right from the start of operations in May 2006 in order to promote consideration for the environment and develop strong community ties. Based on safety and visibility considerations, the company established an observation course, creating a walkway that circles the assembly line on the second floor. This makes it easy to view operations and equipment on the line. Observers are provided explanations of the Toyota Production System as well as environmental initiatives while they observe automobile production up close.

GTMC President Toru Kuzuhara explains the reasons for this arrangement: "One reason is that we want to show our enthusiasm for automobile manufacturing to our customers including children and to convey a sense of the importance of manufacturing. Another reason is that making it possible for customers to watch gives the employees a greater sense of meaning to their work."

To raise understanding among local residents and the community of its operations, TMC has opened its plants and created observation courses at the Motomachi and other plants. In FY2006, TMC began disseminating the expertise that it had gained concerning opening plants to the public and began supporting these activities by affiliates in various countries. The two employees who give tours at GTM have traveled to Japan twice to study methods of explaining plant operations. Through May 2007, a total of 10,000 people have toured the plant, and GTMC also plans to create a space within the observation course where visitors can experience assembly firsthand.

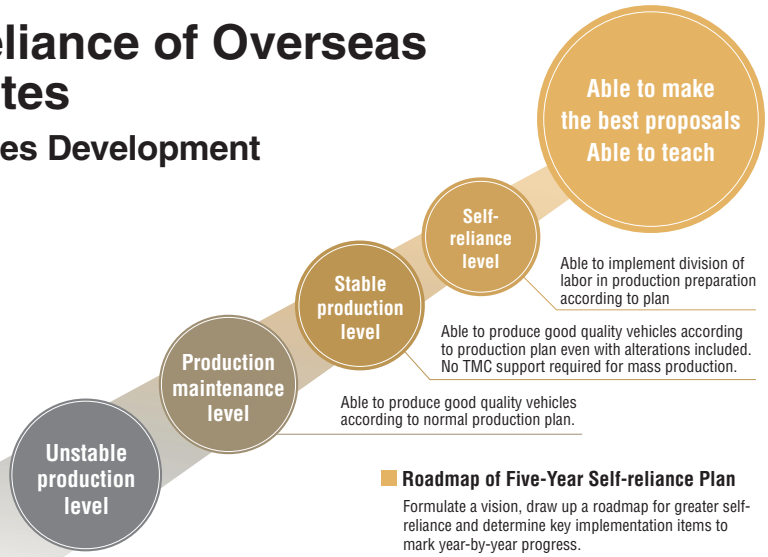

The GTMC observation course that draws visitors from local schools and other members of the local community

Special Story

Promoting Self-reliance of Overseas Production Affiliates

through Human Resources Development

Under the principle of producing vehicles in the country or region where demand exists, Toyota has expanded its production activities globally to embrace 52 plants in 26 countries around the world, and the number of vehicle units produced has increased rapidly in recent years. Against this background, Toyota has been accelerating the move toward greater self-reliance of its overseas production affiliates. But what do we mean by this greater self-reliance which Toyota now regards as an urgent task? Here we trace this issue from the Global Production Strategy Summit that was its origin.



Roadmap of Five-Year Self-reliance Plan

Formulate a vision, draw up a roadmap for greater self-reliance and determine key implementation items to mark year-by-year progress.

Announcement of Five-Year Self-reliance Plan in Conjunction with Global Expansion of Production

On April 11, 2006, the first Global Production Strategy Summit was held. Executive Vice President Takeshi Uchiyamada gave a presentation titled "Strengthening the Global Production System—Promoting Greater Self-reliance" in front of senior management and plant general managers from production affiliates around the world. This was the announcement to affiliates worldwide of an ambitious project which called on them to stand on an independent footing and move forward as part of the worldwide Toyota family. For the sake of TMC, and for the sake of overseas affiliates too, action needed to be taken. To further develop the global production system, partnership also needs to be strengthened. Executive Vice President Uchiyamada spoke with passion and candor to the assembled participants and his words hit home.

On November 29, 2006, the second summit was held. A total of 263 participants gathered once more at the TMC Head Office. Overseas senior management were themselves now seeking greater self-reliance and one by one they stood before EVP Uchiyamada and presented individual five-year plans for self-reliance.

EVP Uchiyamada and senior management from overseas production affiliates

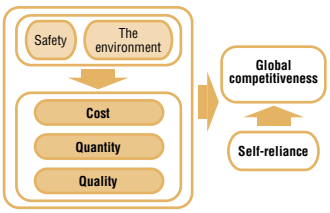
Why is Self-reliance Necessary Now and what Kind of Self-reliance is Toyota Aiming for?

In recent years the number of vehicles produced by Toyota worldwide has been increasing at a rate of around 500,000 to 600,000 units a year. Looking at the number of production line conversions being implemented to keep pace with this increase, we find ourselves launching a new product somewhere in the world every week. The rapid expansion in global production also means that the support TMC provides to overseas production affiliates has peaked. Meanwhile, our overseas affiliates have also begun to sense a risk in remaining indefinitely dependent on guidance and instruction from TMC.

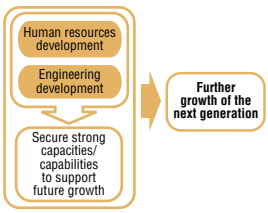
Says Takeshi Uchiyamada: "In order to further enhance international competitiveness and continue to supply high-quality vehicles in a timely manner and at reasonable prices to the whole world, it is important to accelerate the move to greater self-reliance of overseas production affiliates. The level of self-reliance which we are aiming for is one where the affiliate constantly has its own awareness of issues relating to what it can do and needs to do to enhance customer satisfaction and is capable of implementing the corresponding innovation and improvement. That means not only being able to produce good-quality vehicles according to plan. It is also important for the affiliate to have its own 'business sense' and to progress through action on its own initiative. On the basis of this approach, our ultimate goal is that all affiliates should be able to make their own proposals regarding the roadmap to greater self-reliance and grow to be able to give guidance to other affiliates."

The first goal of promoting greater self-reliance (orientation goal), starting from the baseline of guaranteeing worker safety and taking environmental measures relating to business operations, is to satisfy quality, quantity, and cost requirements at a high level and exploit this achievement to enhance global competitiveness. The second goal, designed to secure strong capacities and capabilities to support future growth, is to engage in continuous human resources and engineering development from a medium-to long-term perspective.

Orientation goal 1



Orientation goal 2



TMC's Job is to Foster Human Resources Beneficial to Affiliates and to their Respective Countries

In July 2006, the Global Strategic Production Planning Division and BR Production Human Resources Development Department were reorganized, and a new Production Affiliate Support Department was set up. This signalled the creation of a new Global Strategic Production Planning Division with reinforced support systems in all areas, including human resources development, production engineering, and management.

For overseas affiliates working toward greater self-reliance, the greatest benefit TMC can provide is to put in place systems and structures for human resources development. That means developing frameworks in which employees around the world can realize their potential, can use their abilities in the worldwide Toyota network, and where these human resources can contribute to the economic development of the country. That is TMC's goal. However, simply passing on technical skills will not result in true self-reliance. Affiliates must have an independent awareness of what they can do and need to do and an ability to carry out improvement. So that they acquire this 'business sense' and an ability to independently develop ideas and initiatives in relation to their business, we have given the greatest emphasis to developing and implementing educational measures, starting with an understanding of the Toyota Way.

At the core of Toyota human resources development is on-the-job training. An example of the kind of human resources this aims to create can be seen in Parameswaran Balakrishnan of Toyota Kirloskar Motor (TKM), India, who came to Japan on the ICT[1] program. Through learning on the job every day, he acquired a high level of job awareness and a commitment to improvement. He subsequently elected to take PMR[2] training and as a program disseminator reached a level that qualified him to provide guidance to European and American affiliates. He returned to India after two years and is still active as a core staff member at TKM, considering as he works his contribution to the development of India.

After reaching agreement with TMC on goals set at a realistic level for their current capabilities, overseas affiliates formulate an individual plan and embark on a series of graded steps toward greater self-reliance. For instance, Toyota de Venezuela (TDV) has set its initial goal at the level of maintaining production and is concentrating on mastering standard procedures based on the 5S's—*seiri* (tidiness), *seiton* (orderliness), *seiketsu* (cleanliness), *seiso* (sweeping), and *shitsuke* (discipline) and applying them thoroughly. Toyota Motor Thailand (TMT) meanwhile took on the challenge of setting up a new plant using its existing Samrong Plant as the parent plant rather than relying on a parent plant in Japan. The project has been completed with great success. Through examples like these, the shift to greater self-reliance is progressing steadily. Says Takeshi Uchiyamada: "Initiatives toward greater self-reliance are established on the basis of the advantages they offer to both TMC and overseas affiliates. For TMC, they are a source of encouragement to try even harder. That's because as the teacher, TMC always has to stay ahead of the students (overseas affiliates). For the overseas affiliates, it is the human resources development leading to greater self-reliance and the resulting creation of skilled personnel useful to the company and to the region that is the most important goal. We hope that this leads to further contribution to the economy and society of the various countries and regions in which Toyota affiliates are active."

1. ICT: Intra-company transferee, Toyota's international human resources exchange and development program (see P. 59)
2. PMR: Plant management requirement, standard requirements for management of a plant

Staff of TMMP (Toyota Motor Manufacturing Poland) listen to an explanation on PMR activity from Parameswaran Balakrishnan (left)

TKM Establishes Toyota Technical Training Institute in India

Toyota Kirloskar Motor (TKM) began operations in December 1999, and as a production and sales company produces approximately 50,000 Innova IMV[1] project vehicles and Corollas annually and has approximately 2,400 employees.

TKM is currently developing future plans to expand production and raise quality even further in preparation for the expected future growth of the Indian market. Bangalore, the city on the Deccan plateau in South India where TKM is based, is known as an IT hub, but the number of qualified personnel is not sufficient for the automobile industry. To promote its plans for the future, TKM established the Toyota Technical Training Institute, an Indian version of the Toyota Technical Skills Academy.[2] The school will open in August 2007 with the goal of training manufacturing experts. The school's objectives are to train outstanding technical personnel to support future self-reliance as well as to open doors to middle school graduates who have skills but cannot continue their education because of financial reasons. Entrance fees and tuition are paid in full by the school and all students live in dorms to undergo specialized technical training over a period of three years. The curriculum includes technical courses as well as specialized programs: painting, welding, automobile technology (assembly and maintenance), and mechatronics. In addition, instruction on Toyota working methods such as the Toyota Way are incorporated into the curriculum and practical training is conducted at TKM with an emphasis on hands-on experience. TKM expects that graduates of the school will become key personnel in its production operations, and the company will actively recruit graduates. The school aims not only to train outstanding personnel who are unable to continue their education for economic reasons but also to participate in and contribute to the development of Indian industry.

1. IMV project: The Innovative International Multi Purpose Vehicle project is a part of Toyota's global operations to manufacture vehicles that are best suited to the particular locales of developing countries. All processes, including purchasing, production, sales and exports are carried out by local affiliates.
2. Toyota Technical Skills Academy: Established within Toyota in 1938 as a school for young people, the academy aims to develop technical personnel who will become key personnel in Toyota's production operations.

The Toyota Technical Training Institute, India, prior to its opening

Financial Results

Business Results and Geographic Segment Information

In the fiscal year ended March 31, 2007, Toyota posted record business results across the board. On a consolidated basis, Toyota achieved a year-on-year increase of 550,000 units in vehicle sales, to 8,524,000 vehicles; 13.8% increase in net revenues, to 23,948.0 billion yen; 19.2% increase in operating income, to 2,238.6 billion yen; and 19.8% increase in net income, to 1,644.0 billion yen. Also, Toyota's operating income surpassed 2 trillion yen for the first time.

Toyota engages in global business based on the basic policy of "manufacturing products where the demand is." As a part of this process, Toyota is expanding local procurement and creating local jobs, thereby contributing positively to the economic development of numerous regions around the world. As a result of these efforts, Toyota now has 52 production sites in 26 countries and regions, and its consolidated employment has reached 299,000 people.

Toyota will continue to work towards achieving stable, long-term growth by taking in opportunities while avoiding or absorbing risks in all product segments and regions.

http://www.toyota.co.jp/en/ir/library/annual/

Region		Number of Employees* (People)	Production	
			Country/ Region	Number of bases
Japan (1)		185,427	1	22
	North America	36,643	2	11
	Europe	21,297	6	7
	Asia	33,539	9	25
	Other Regions	22,488	9	9
Overseas total (2)		113,967	26	52
Total(1+2)		299,394	27	74

*Includes employees from non-production bases

Consolidated basis	Year ended March 2006 (April 2005 through March 2006)	Year ended March 2007 (April 2006 through March 2007)	Compared to previous year	Reference: Unconsolidated basis Year ended March 2007 (April 2006 through March 2007)
1. Net revenues	21,036.9 bil. yen	23,948.0 bil. yen	+13.8%	11,571.8 bil. yen
2. Operating income	1,878.3 bil. yen	2,238.6 bil. yen	+19.2%	1,150.9 bil. yen
3. Net income	1,372.1 bil. yen	1,644.0 bil. yen	+19.8%	1,060.1 bil. yen
4. Total assets	28,731.5 bil. yen	32,574.7 bil. yen	+13.4%	10,661.1 bil. yen
5. Shareholder's equity	10,560.4 bil. yen	11,836.0 bil. yen	+12.1%	7,150.6 bil. yen
6. ROE	14.0%	14.7%	—	15.3%
7. Vehicle production	7,711 thousand units	8,180 thousand units	+6.1%	4,185 thousand units
8. Vehicle sales	7,974 thousand units	8,524 thousand units	+6.9%	4,256 thousand units

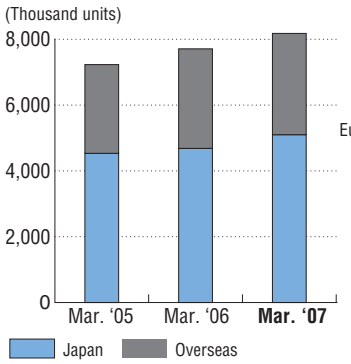
Vehicle Production (Consolidated Basis)

In response to increased sales, Toyota increased production in Japan, Europe and other regions. Consolidated worldwide production increased significantly by 460,000 units from the previous fiscal year.

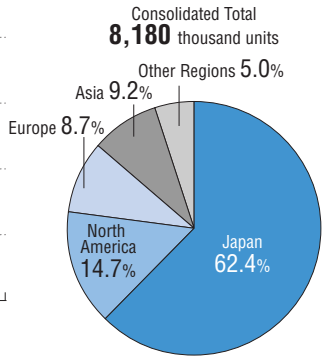
Vehicle Sales (Consolidated Basis)

Vehicle sales increased mainly in North America, Europe and the Other Regions sector. Consolidated worldwide sales increased significantly by 550,000 units from the previous fiscal year.

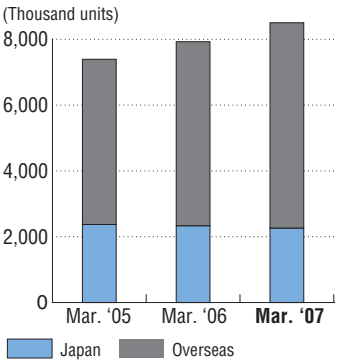
Vehicle Production



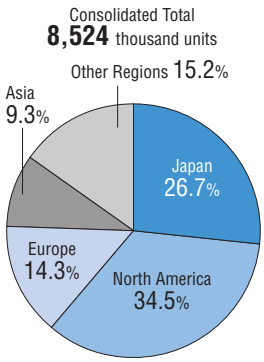
Vehicle Production by Region



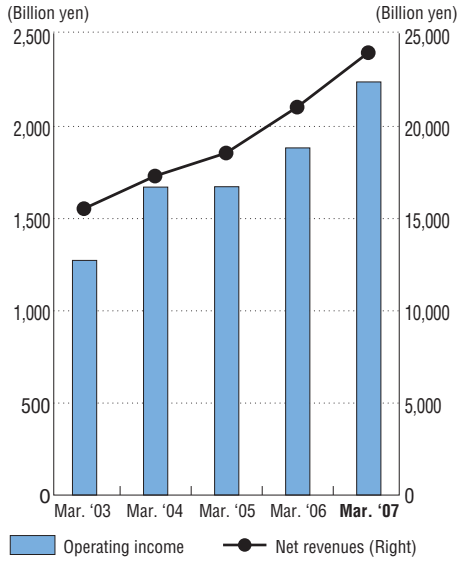
Vehicle Sales



Vehicle Sales by Region



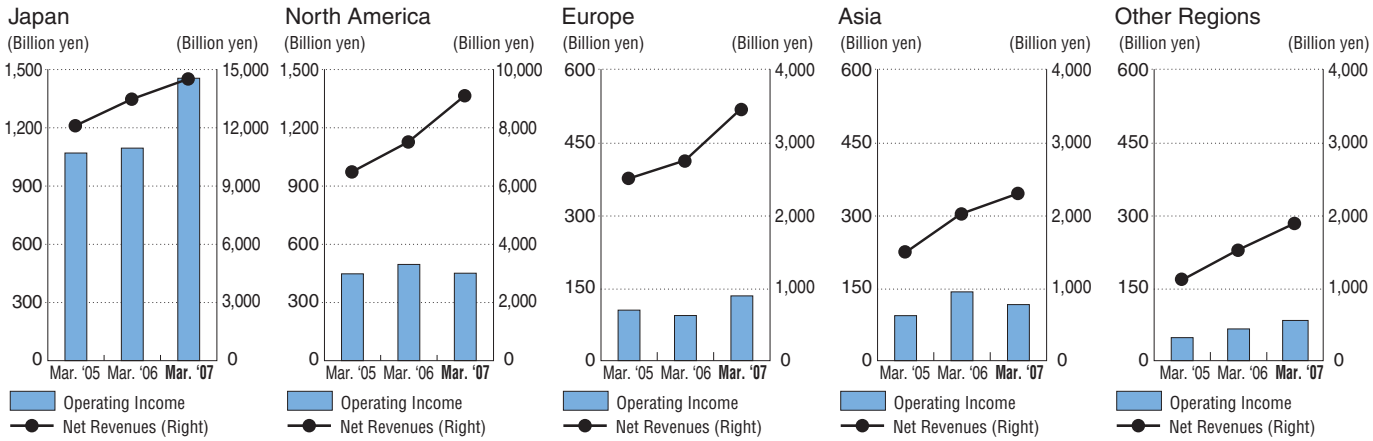
Net Revenues and Operating Income (Consolidated Basis)



Geographic Segment Information

- In Japan, earnings were significantly higher, with a 13.0% increase in net revenues, to 14,815.3 billion yen, and a 35.4% rise in operating income, to 1,457.2 billion yen. Earnings were up due to an increase in vehicle exports to meet heavier overseas demand, and favorable sales of the Lexus LS leading to an improvement in the model mix.
- In North America, net revenues increased 17.5%, to 9,029.7 billion yen, while operating income decreased 9.3%, to 449.6 billion yen. Despite incurring temporary expenses related to the start-up of the Texas plant, Toyota maintained high income levels due to strong sales of such new models as the RAV4, Camry, FJ Cruiser, and Yaris.
- In Europe, Toyota recorded a large rise in earnings, with increases of 29.9% in net revenues, to 3,542.1 billion yen, and 46.2% in operating income, to 137.3 billion yen. Favorable sales of core models, including the Yaris, Aygo, and RAV4, contributed to higher earnings.
- In Asia, net revenues were up 8.9%, to 2,225.6 billion yen, but operating income was down 19.2%, to 117.6 billion yen. The decrease in operating income was mainly attributable to lower vehicle production and sales associated with downturns in certain markets, such as Indonesia and Taiwan.
- In Other Regions, net revenues grew 20.0%, to 1,922.7 billion yen, and operating income was up 24.3%, to 83.5 billion yen. This increase resulted from strong sales of the IMV series in Central and South America and Africa and the Camry in Oceania.

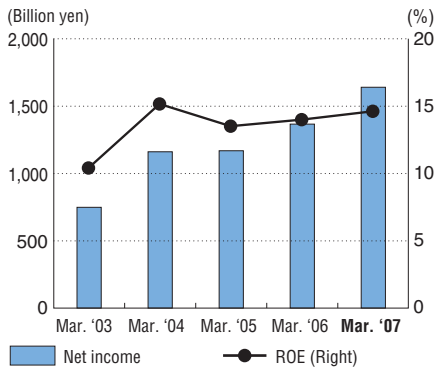
Net Revenues and Operating Income by Geographic Segment (The figures for net revenues include intra-region net revenues)



Net Income and ROE (Consolidated Basis)

Net income surpassed one trillion yen for the fourth consecutive year, and ROE on a consolidated basis increased by 0.7% from the previous fiscal year.

Net Income and ROE

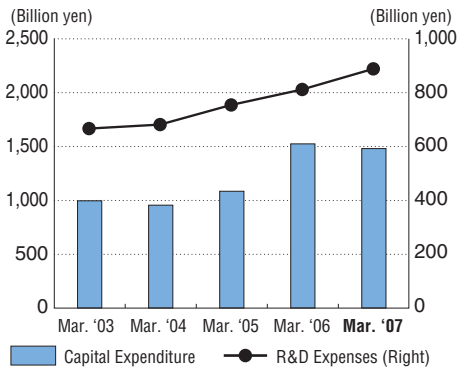


Capital Expenditure* and R&D Expenses (Consolidated Basis)

Toyota continued active investment in research and development and capital expenditures required to maintain high quality in design, and forward-looking investments to enhance technological prowess.

*Excluding leased assets

Capital Expenditure* and R&D Expenses



Three-Year Chronology Summary of Overseas Initiatives (Social Aspects) by Stakeholder Group

As a global enterprise, Toyota engages in activities that are tailored to the needs of each country and region. This report, which takes the form of an annual report, presents information on new initiatives implemented during the year as well as examples of overseas activities that have made significant progress, many of which are being carried out on an ongoing basis. In response to calls from readers for additional information concerning social aspects of ongoing activities, the following summaries have been included and information concerning overseas activities addressing different stakeholder groups for the past three years has been posted on the Toyota website.

Relations with Customers

Improving Customer Satisfaction

TKM, India

Toyota Kirloskar Motor Private Limited (TKM) has set up 55 sales, service and service parts facilities throughout India, servicing Toyota vehicles across the country. TKM has developed the concept of a Mobile Service Van (MSV) for maintenance and repairs, targeting customers located far from their nearest dealer.

(Please see Sustainability Report 2006 for details)

Relations with Employees

Improving Work Efficiency

TMT, Thailand

In 1997, the Thai baht plunged drastically. The Thai economy took an abrupt downturn and production at Toyota Motor Thailand Co., Ltd. (TMT) fell sharply. Employee lay-offs were avoided through thorough cost reduction efforts, and TMT was able to the develop the fundamental strength required to achieve the growth it is enjoying today.

(Please see Sustainability Report 2005 for details)

Relations with Employees

Employee Housing Construction

TMMIN, Indonesia

PT. Toyota Motor Manufacturing Indonesia (TMMIN) had the Indonesia Public Housing Corporation and other organizations construct employee housing in conjunction with the construction of a new plant and transfer of employees. For employees who could not move out of Jakarta, some operations were retained at the old plant. Through these measures, TMMIN has maintained an absentee rate of just 3%, half that of the national average.

(Please see Sustainability Report 2006 for details)

Cooperation with Business Partners

Training for Suppliers

TSAM, South Africa

Toyota South Africa Motors (Pty) Ltd. (TSAM) has established the School for Supplier Training and Development, which primarily focuses on assisting core suppliers with the development of their staff, with the view to improved productivity levels, enhanced quality products, and reduced costs. The school has recently expanded its scope and enhanced the content of training programs.

(Please see Sustainability Report 2006 for details)

Global Society/Local Communities

Nature Conservation

TMS, USA

Toyota Motor Sales, U.S.A., Inc. (TMS) participated in a project to develop a renewable nonpolluting energy supply for the Galapagos Islands. TMS has provided support in the areas of both technology and funding.

(Please see Sustainability Report 2004 for details)

Global Society/Local Communities

Improving Driver Awareness and Enhancing Driver Skills

TNZ, New Zealand

Toyota New Zealand (TNZ) has been working together with an NGO to implement a driver skills program targeted at high school students. The program improves driver awareness and enhances driver skills. TNZ has provided a fleet of training vehicles, and also covers the cost of servicing the cars.

(Please see Sustainability Report 2006 for details)

Global Society/Local Communities

Helping Educate Children about the Environment

TMUK, U.K.

Toyota Motor Manufacturing (UK) Ltd. (TMUK) developed the Toyota Technology Challenge to contribute to the protection of the environment whilst investing in local communities. This competition aims to stimulate the interest of young students in technology and engineering whilst enhancing pupils' consideration for the environment.

(Please see Sustainability Report 2005 for details)

Global Society/Local Communities

Enhancing Communication with Local Communities

TMMF, France

Toyota Motor Manufacturing France S.A.S. (TMMF), in cooperation with an NGO, conducted wildlife protection activities such as surveys of wildlife within its plant site, development of paths for strolling through the site, and tree planting to increase bird watching opportunities. Environmental education programs for children were also begun and are being participated in by local children.

(Please see Sustainability Report 2006 for details)

To read about many more examples of initiatives by overseas affiliates, please visit: http://www.toyota.co.jp/SR/en07repo/activities/

Websites for Overseas Affiliates' Reports

As of August 2007

Region/Country	URL
North America	http://www.toyota.com/about/environment/news/index.html
Canada	http://www.toyota.ca/cgi-bin/WebObjects/WWW.woa/17/wo/Home.Environment-ELbvFSZ5bfTwmqktj64YuM/3.9?e200000e%2ehtml
Taiwan	http://www.toyota.com.tw/about/about_contribution_sub.asp?CategoryID=443
Australia	http://www.toyota.com.au/environment/0,1821,,00.html
Europe	http://www.toyota.eu/04_environment/08_sustainability_report/index.aspx
Thailand	http://www.toyota.co.th/environment/en/a_home.asp
India	http://www.toyotabharat.com/inen/environment/index.asp
Argentina	http://www.toyota.com.ar/environment/reporte_ambiental_06.html
South Africa	http://www.toyota.co.za/toyotaworld/environment.aspx
The Philippines	http://www.toyota.com.ph/ecosafety/index.asp
New Zealand	http://www.toyota.co.nz/MOTMPages/sustainabilityFEB04120920061538/
Brazil	http://www.toyota.com.br/environment/environment.html

Where no direct URL to an affiliate's report is available, the URL to the environmental page of the corresponding affiliate's website has been provided.

Independent Report

To improve accuracy and objectivity of the Sustainability Report 2007, the quantitative information in this report concerning Toyota's environmental activities has undergone a third-party review conducted by Tohmatsu Environmental Research Institute Ltd, a subsidiary of Deloitte Touche Tohmatsu (Japan), which is a member firm of Deloitte Touche Tohmatsu (a Swiss Verein).

The procedure for the third-party review is:

▶①Review plan development; ▶②Review execution; ▶③Review reporting; and ▶④Final version report check and independent report submission.

(TRANSLATION)

Independent Review Report

June 21, 2007

Mr. Katsuaki Watanabe,
President, Toyota Motor Corporation

Tohmatsu Environmental Research Institute Ltd.
Chief Executive Officer Komuro, Masamitsu

Executive Officer and Lead Auditor authorized
under the JEMAI AE100 Mase, Mizuko

1. Scope of the Review

We have reviewed the "Sustainability Report 2007" ("Report") prepared by Toyota Motor Corporation ("Company"). The purpose of our review was to provide limited assurance from an independent practitioner about whether certain quantitative environmental information (excluding "In Focus" and "Special Story" sections) for the period from April 1, 2006 to March 31, 2007 included in the Report was accurately measured and calculated in accordance with calculation methods adopted by the Company.

2. Responsibility of the Management

The Report is the responsibility of the Company's management. Our responsibility is to provide our limited assurance with respect to the review performed on the Report from an independent practitioner.

3. Summary of Review

To obtain an adequate and valid standard of basis for providing limited assurance with respect to our conclusions, we performed our review with reference to the International Standard on Assurance Engagements (ISAE) 3000 (issued by the International Federation of Accountants in December 2003) and the Proposed Environmental Report Review Standard (issued by the Japanese Ministry of Environment in March 2004).

The review procedures performed for the certain quantitative environmental information (excluding "In Focus" and "Special Story" sections) for the period from April 1, 2006 to March 31, 2007 included in the Report consisted of; 1) agreeing information to summary tables and supporting documents on a sample basis; 2) interviewing the responsible personnel and the persons in charge; 3) reviewing and agreeing information to the relevant minutes, the Company's regulations, and ISO related documents and so on; 4) site visits; and 5) comparing information with other available supporting internal and external materials.

4. Conclusions

On the basis of the review procedures described in the preceding paragraph, nothing has come to our attention that caused us to believe the certain quantitative environmental information (excluding "In Focus" and "Special Story" sections) for the period from April 1, 2006 to March 31, 2007 included in the Report was not accurately measured or calculated in accordance with calculation methods adopted by the Company, in all material respects.

5. Special Interests

There are no interests between the Company and Tohmatsu Environmental Research Institute Ltd. or its engagement personnel, requiring disclosure referred to the provisions of the Certified Public Accountants Law of Japan.

Company Outline

Name	TOYOTA MOTOR CORPORATION
Date of establishment	August 28, 1937
Principal operations	Manufacturing and sales of automobiles and housing
Capital	397.0 billion yen

Number of shareholders	408,504
Total number of shares issued	3,609,997,000
Stock exchanges on which the shares are listed — Japan:	Tokyo, Nagoya, Osaka, Fukuoka and Sapporo
Overseas:	New York and London

*Capital and number of shareholders are as of the end of March 2007.
Capital less than 0.1 billion yen is omitted.

Head Office:	1, Toyota-cho, Toyota City, Aichi Prefecture, Japan 471-8571	TEL: +81-565-28-2121
Tokyo Head Office:	4-18, Koraku 1-chome, Bunkyo-ku, Tokyo, Japan 112-8701	TEL: +81-3-3817-7111
Nagoya Office:	4-7-1 Meieki, Nakamura-ku, Nagoya City, Aichi prefecture 450-8711	TEL: +81-52-552-2111

Major production bases in Japan

Automobile: Honsha Plant, Motomachi Plant, Kamigo Plant, Takaoka Plant, Miyoshi Plant, Tsutsumi Plant, Myochi Plant, Shimoyama Plant, Kinuura Plant, Tahara Plant, Teiho Plant, Hirose Plant

Housing: Kasugai Housing Works, Tochigi Housing Works, Yamanashi Housing Works

Participating in "Team Minus 6%" - national campaign to help prevent global warming

Toyota participates in "Team Minus 6%," a national campaign to help prevent global warming and is making further efforts to reduce CO_2 emissions by ensuring that the air-conditioning temperature is set to 28° and encouraging employees to wear light clothes in summer, etc.

Stop Global Warming!
Team minus 6%

Color Universal Design
In order to ensure this report is produced with due consideration to "color universal design" Toyota has had the NPO Color Universal Design Organization (http://www.cudo.jp/) check the color usage in the report with persons with color vision deficiency to confirm that information is communicated correctly.

TOYOTA MOTOR CORPORATION

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http://www.toyota.co.jp/SR/en07repo/

Editing, Plate making
This report is compiled using the Computer to Plate (CTP) system, resulting in the total elimination of film, an intermediate material, during the plate making process.

Paper
The cover pages of the report consist of paper made from 70% post-consumer recycled paper pulp and 30% pulp derived from wood from Forest Stewardship Council (FSC) approved and managed forests. The pages inside the report consist of paper made from 60% post-consumer recycled paper pulp, 10% thinned wood pulp and 30% pulp derived from wood from FSC approved forests and wood cut-offs. All paper contained in the report has been elemental chlorine free (ECF) bleached. In contrast to conventional pulp bleaching using chlorine gas, EFC pulp bleaching uses oxygen and chlorine dioxide, which avoids the generation of dioxins such as chlorinated organic compounds.

Ink
VOC (volatile organic compound) free ink is used, in which petroleum-based solvents are completely replaced by vegetable oil based solvents, principally soybean oil.

Printing
For the printing, no alkaline developing solutions or acid fixing solutions are used during the plate development and damping water containing elements such as isopropyl alcohol is not used in ink transfer; instead, a waterless process is employed, reducing VOC emissions by 60% or more.

Processing
The adhesive for the binding is a polyurethane-type adhesive that is easy to separate and remove for paper recycling. Also, 19.3% of the blank sheets generated from sheet cutting during processing for this report is sent to a paper manufacturing company, and this is used as raw material for recycled paper.

This report utilizes materials (paper, ink, plate and adhesives) that were produced by ISO 14001 certified companies and plants.
The editing and printing was also done by an ISO 14001 certified company.

EA-0709