

Separate Volume: Environment Facts & Figures

Sustainability Report 2012



TOYOTA LOOPS

Processing

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The ink used contains less than 1% VOC (volatile organic compound) as petroleum-based solvents are replaced by vegetable oil-based solvents, principally soybean oil.



Toyota has participated in activities of the WBCSD (World Business Council for Sustainable Development) as a member of this organization.

WBCSD engages in advocacy activities aimed at realizing sustainable development based on the three pillars of economic growth, environmental protection and social development.



World Business Council for Sustainable Development

Toyota is a supporter of Education for Sustainable Development (ESD). ESD activities are aimed at creating a sustainable society.



Education for Sustainable Development

Cover design

The tree on the cover represents the Toyota Global Vision and illustrates what kind of company Toyota wants to be: the firm roots stand for Toyota's shared values, the fruit for "always better cars" and enriching lives of communities, and the trunk for the stable base of business. The firm roots produce fruit and allow the trunk to grow thick and strong, ensuring the next crop of fruit. This virtuous circle reflects Toyota's vision to be a company achieving sustainable growth.

TOYOTA MOTOR CORPORATION

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Web version URL <http://www.toyota-global.com/sustainability/report/er/>

Editorial Policy

The goal of this report is to convey Toyota's efforts to realize harmony with people, societies, and the global environment, as well as a sustainable society through manufacturing.

In our 2011 report, our efforts were organized according to each stakeholder. Toyota is carrying out management based on the Toyota Global Vision we announced in March 2011, and from 2012 we are rearranging the report according to the three components ("Always better cars," "Enriching lives of communities," and "Stable base of business") of Toyota Visionary Management that aims for sustainable growth for society and Toyota alike. The information for each component includes 1) the fundamental message, 2) special features, and 3) information about initiatives.

This report is comprised of a printed version and a website. Information of particular importance is included in the printed version, while further initiatives and detailed information are available on the website. In addition, the name of the Environmental Report 2011 has been changed to "Sustainability Report 2012 Separate Volume: Environment Facts & Figures."

Disclosure of CSR Information

Sustainability Report 2012 Full Version (Website)

PDF <http://www.toyota-global.com/sustainability/report/sr/>
HTML <http://www.toyota-global.com/sustainability/>

Community/
Environment/
Financial Condition

Websites for overseas affiliates' reports
(15 countries and regions)

HTML <http://www.toyota-global.com/sustainability/report/overseas/>

Sustainability Report 2012 Digest version
(Printed version and website)

PDF <http://www.toyota-global.com/sustainability/report/sr/>
HTML <http://www.toyota-global.com/sustainability/>

Sustainability Report 2012 Separate Volume: Facts & Figures
(Printed version and website)

PDF <http://www.toyota-global.com/sustainability/report/er/>
HTML <http://www.toyota-global.com/sustainability/>

TOYOTA Annual Report 2012
(Website)

HTML http://www.toyota-global.com/investors/ir_library/annual/

Financial

* For plants' initiatives on the environment, please see separate volumes on the the Site Data of Toyota Global Website. http://www.toyota-global.com/sustainability/report/site_data/

Period Covered	The period covered in the report's data is from April 2011 to March 2012. For major ongoing initiatives, the most recent status update in FY2012 has been included.
Scope of Report	Included Toyota Motor Corporation's own initiatives and examples of those of its overseas consolidated affiliates, and so on.

Overseas Affiliates' Reports

In 2012 plans call for separate reports to be issued in a total 16 countries and regions (including Japan) in which Toyota overseas affiliates and other companies operate. The information disclosed globally by these reports will cover about 89% of Toyota vehicles sold worldwide.



Argentina



Australia



Brazil



China



Europe



India



Indonesia



Malaysia
* Issued in the UMW Holding Report



New Zealand



North America/
Canada



South Africa



The Philippines



Taiwan



Thailand



Vietnam

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- 02-03 Summary of Toyota's Initiatives on the Environment
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- Thoroughly conduct activities aimed at saving energy and reducing the volume of GHG emissions in production activities
- Pursue transport efficiency and reduce the volume of CO₂ emissions in logistics activities

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section 2
Establishing a Recycling-based Society

- 08-13 • Further promote the use of designs based on the recycling concept with effective utilization of resources borne in mind
- Reduce the volume of discarded materials and use resources effectively in production and logistics
- Promote effective use of resources on a global basis
- Conform to the laws and regulations concerning vehicle recycling in all countries and regions
- Promote new businesses that contribute to environmental improvement

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section 3
Environmental Protection and Establishing a Society in Harmony with Nature

- 14-16 • Reduce emissions to improve air quality in urban areas in each country and region
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- 17-19 • Enhance and promote consolidated environmental management
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- 26-30 • Status of Major Environmental Data
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- Environmental Data for New and Fully Changed Models (Passenger Vehicles) in Japan
- Status of ISO 14001 Certification
- Scope of Companies Subject to Consolidated EMS
- Main Companies Subject to Consolidated Environmental Management System (EMS) in Japan (alphabetical order)
- Environmental Awards (FY2011)
- CO₂ Conversion Coefficients to Calculate CO₂ Emissions Volume
- Environmental Accounting

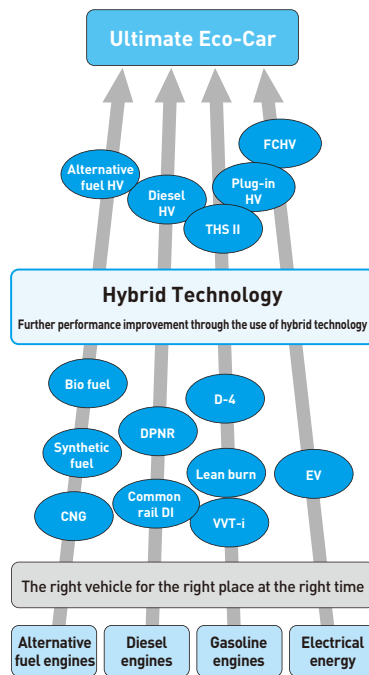
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Independent Report

Toyota aims at globally "establishing a low-carbon society," "establishing a recycling-based society," and "environmental protection and establishing a society in harmony with nature" to contribute to sustainable growth of society and the planet based on the Fifth Toyota Environmental Action Plan. To realize those aims, we reduce the environmental impact at all stages of vehicle life cycle from development and design, procurement, production and logistics, sales to waste and recycling, and promote environmental management.

Establishing a low-carbon society Significantly reduce GHG emissions

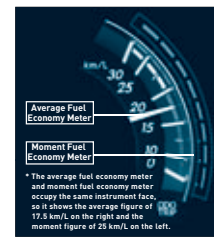
Various activities with an eye on energy-saving, lower greenhouse gas emissions at various stages of business activities including development of next-generation environmental vehicles to establish a low-carbon society



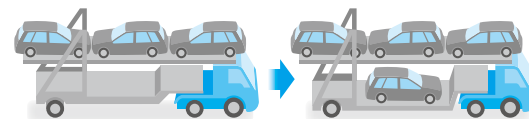
Use of renewable energy considering the characteristics of each nation and region (Photo: Tsutsumi Plant)



Promoting integrated actions on CO₂ reduction (Photo: Smart House collaboratively controls home electric appliances, cars and solar power to use home energy more effectively)



Eco-driving enlightenment activities (Photo: A Camry's average fuel economy meter and current fuel economy meter)



Activities to reduce CO₂ by further improvement of transport efficiency (Illustration shows reduction of total transport distance through transporter truck modification)

The Fifth Toyota Environmental Action Plan

Environmental protection and establishing a society in harmony with nature Receiving and continuing the blessings of nature

Contributing to the establishment of a society in harmony with nature by reducing the environmental impact and taking into consideration biodiversity



Toyota vehicles have been certified 50% lower than standard levels for 2005 or better.



Enhancing management of harmful chemical substances contained in products (Photo: REACH briefing session)



Expanding the use of waterborne paints worldwide



Promoting community- and society-based forestry initiatives (Photo: Toyota's Forestry brochure)



TOYOTA Shirakawa-Go Eco-Institute
The institute's Nature Coexistence Projects won the Minister of the Environment Award for Corporate Activities on Biodiversity



Commemorative ceremony marking the cumulative total of 100,000 visitors to the Forest of Toyota

Establishing a recycling-based society Enhancing recycling of resources through 3R

Promoting 3R (Reduce, Reuse, Recycle) and increase resource productivity on the assumption that various resources are limited



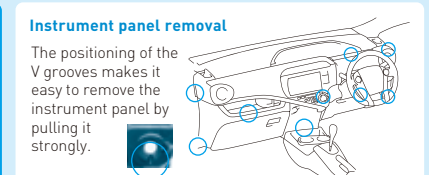
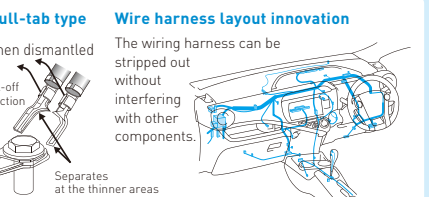
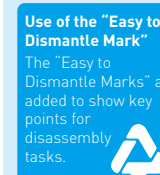
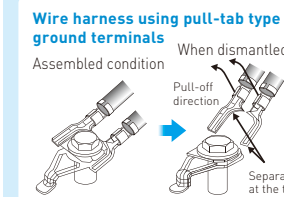
Promoting biotechnology and afforestation business (Photo: Example of roof greenery with easy-care slowgrowth Zoysia Grass (TM9))



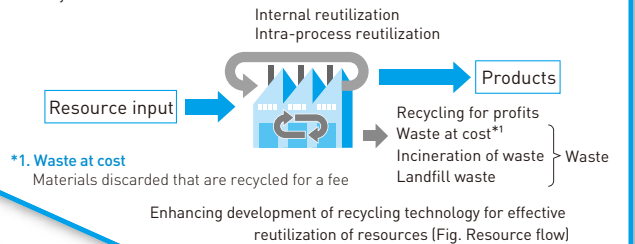
Continually reducing water use (Photo: Australian rain water project team)



Returnable containers

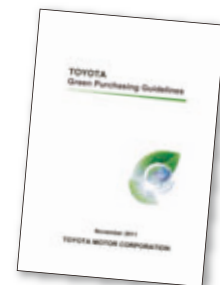


Examples of "easy to dismantle vehicles" items

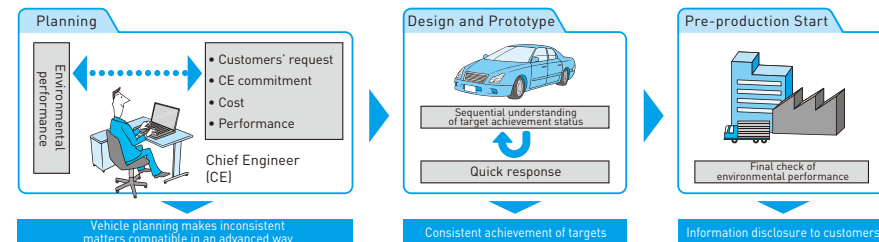


Environmental management

Promoting environmental management to stakeholders such as consolidated subsidiaries, business partners and employees. Assuming the basis for contributions that can achieve the three types of societies listed above.



Toyota Green Purchasing Guidelines



Tree planting event at the Sorocaba Plant in Brazil

Education Classifications	Name
Environmental awareness improvement education for employees	Toyota Global Environment Month Events (every June) Toyota Eco Drive Month (every November) • Environment e-Learning • Environment Handbook
Education by level	New Employee Education Manager Education Executive Development Program
Specialized education	Environmental Protection Leader Education Internal Environmental Auditor Education Overseas Environmental Protection Promoter Education Key Environmental Facility Worker Education

Environmental education system

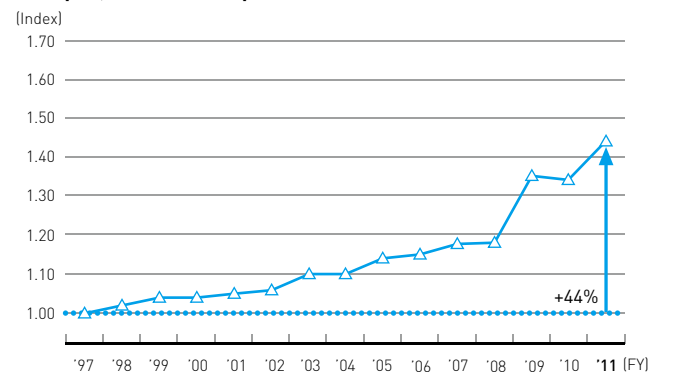
Toyota has promoted environmental management with three major themes: Establishing a low-carbon society; establishing a recycling-based society; and environmental protection and establishing a society in harmony with nature. Listed below are the main environmental data collected in Japan and overseas.

CO₂ Reduction

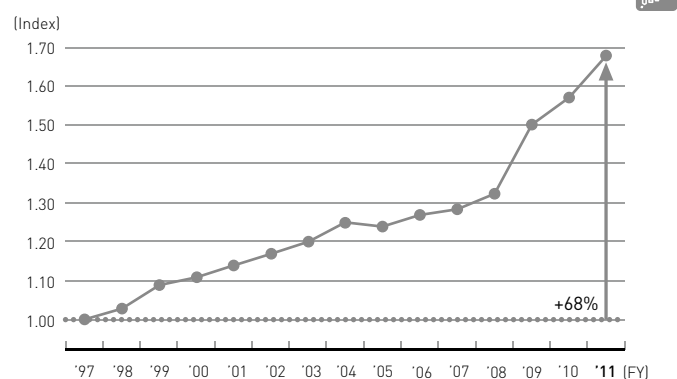
Increase of Average Fuel Efficiency

Average fuel efficiency in Japan, U.S. and Europe has improved significantly due to the increase in the number of hybrid vehicles (HVs), mainly the Prius and Aqua, and more fuel-efficient conventional vehicles.

Average Fuel Efficiency for Toyota Vehicles in Japan, U.S. and Europe

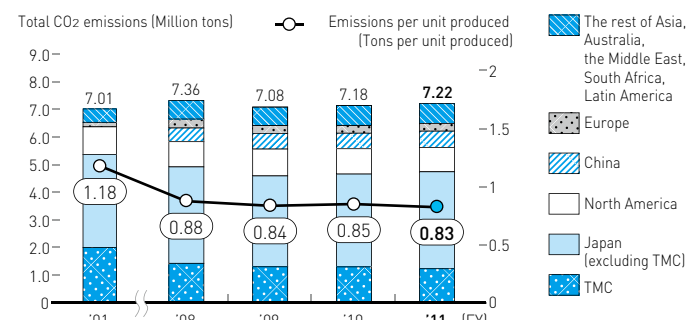


Average Fuel Efficiency for Toyota Vehicles in Japan



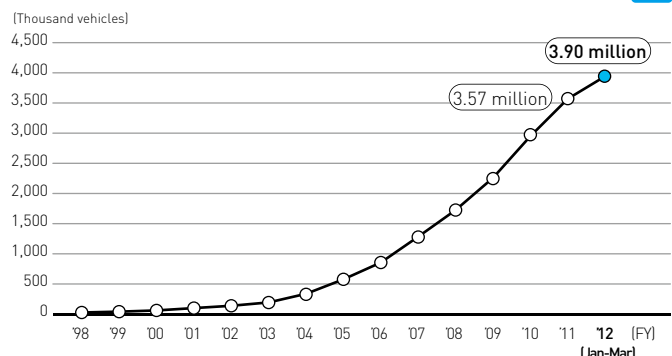
CO₂ Emissions (from Energy Sources) and CO₂ Emissions per Unit Produced (Stationary Sources such as Plants and Offices) (Global)

CO₂ emissions per unit produced have improved from FY2010 through activities to reduce CO₂ at affiliates in Japan and overseas. However, the total volume increased from the previous year due to an increase in the number of units produced. The index of "per sales unit" was changed to "per unit produced" starting with the Fifth Toyota Environmental Action Plan.



* 119 companies (TMC, consolidated subsidiaries and other companies in Japan and overseas)
Japan: Companies subject to consolidated EMS (including sub-subsidiaries; excluding Toyota Tsusho) listed in Groups 1-5 on page 29
Overseas: Production companies and production/sales companies listed on page 28 (excluding TMMR in Russia)
Note 1: In the case of companies for which FY2001 results could not be determined, the oldest subsequent data is used
Note 2: Affiliates in China have been included since FY2005
Note 3: The CO₂ conversion coefficient has been calculated with reference to the GHG Protocol (See page 29)

Cumulative Number of Hybrid Vehicles Sold (Worldwide)



HV Lineup (as of March 2012)

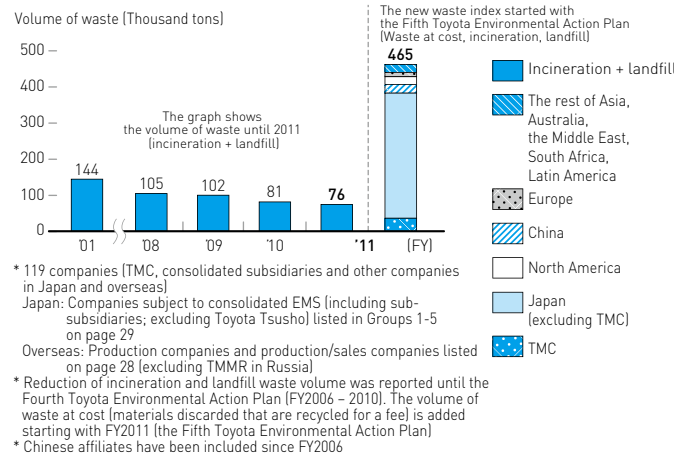
Toyota Brand	
Sedan	Camry, Crown Hybrid, SAI, Prius, Prius PHV
Wagon	Prius α
Minivan	Alphard hybrid model, Vellfire hybrid model, Estima Hybrid
Hatchback/Station wagon	Aqua, Auris Hybrid (overseas market only)
SUV	Harrier Hybrid, Highlander Hybrid (overseas market only)
Commercial	Dyna, Toyoace hybrid model

Lexus Brand	
Sedan	LS600h/LS600hL, GS450h, HS250h
Hatchback/Station wagon	CT200h
SUV	RX450h

Reduction of Waste Volume

Total Volume of Waste (Global)

Total volume of waste was reduced through activities at affiliates in Japan and overseas. The index of waste was changed starting with the Fifth Toyota Environmental Action Plan.



* 119 companies (TMC, consolidated subsidiaries and other companies in Japan and overseas)
Japan: Companies subject to consolidated EMS (including sub-subsidiaries; excluding Toyota Tsusho) listed in Groups 1-5 on page 29
Overseas: Production companies and production/sales companies listed on page 28 (excluding TMMR in Russia)
* Reduction of incineration and landfill waste volume was reported until the Fourth Toyota Environmental Action Plan (FY2006 - 2010). The volume of waste at cost (materials discarded that are recycled for a fee) is added starting with FY2011 (the Fifth Toyota Environmental Action Plan)
* Chinese affiliates have been included since FY2006

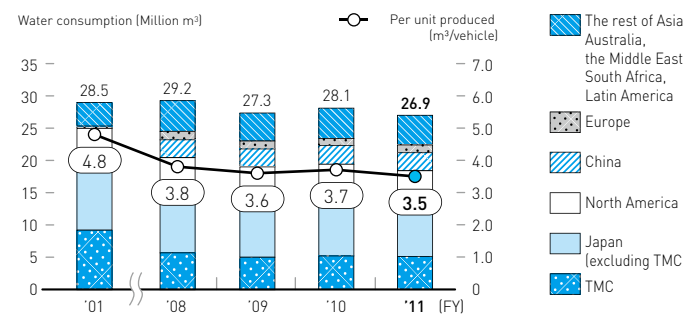
The icons categorize global and Japan data.
Japan data includes Toyota Motor Corporation (TMC)
non-consolidated and consolidated data.



Reduction of Water Consumption

Water Consumption at Vehicle Assembly Plants and Consumption per Unit Produced (Global)

Both water consumption per unit produced and total volume decreased through efforts at affiliates in Japan and overseas.



* 33 companies (TMC, consolidated and other companies in Japan and overseas)
* Chinese affiliates have been included since FY2006

Greenery of Emissions

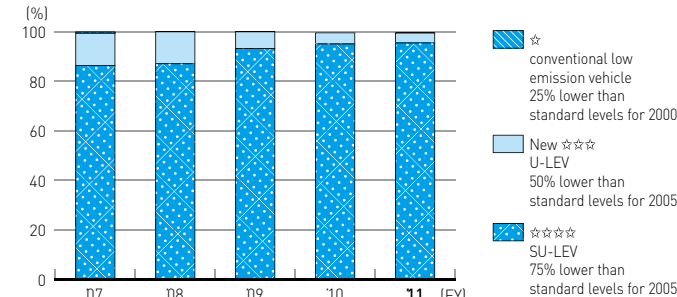
Vehicles that Meet LEV Emissions Standards in Japan

In FY2011, almost 100% of Toyota vehicles produced were certified as meeting the Ultra-Low Emission Vehicle (U-LEV) or higher levels in Ministry of Land, Infrastructure, Transport and Tourism.

FY2011 Vehicles that Meet Japanese LEV Emissions Standards

Low-emission level	★★★★ SU-LEV	★★★ U-LEV
Model	No. of Models	No. of Models
Prius α	2	0
Avensis	1	0
Camry	1	0
Pixis Space	0	2
Aqua	1	0
Prius PHV	1	0
GS	3	0
GS450h	1	0
Total	10	2

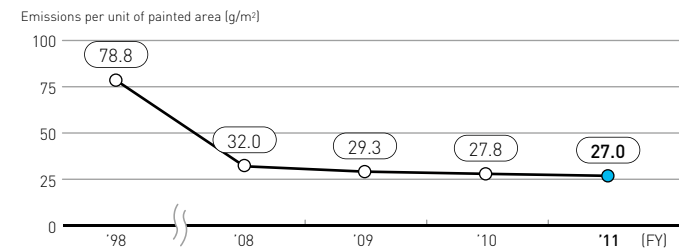
Low-Emission Vehicles as a Percentage of Total Production in Japan



Reducing Substances of Concern

VOC Emissions Volumes in Vehicle Body Painting Processes at Consolidated Companies in Japan

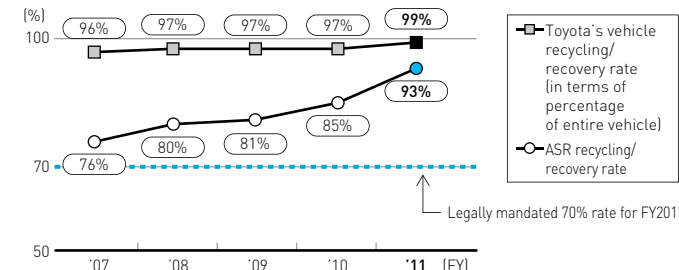
VOC emissions per unit of painted area were reduced through activities at vehicle production affiliates in Japan.



* 8 companies (TMC, consolidated and other companies in Japan)

Compliance with Automobile Recycling Laws

Toyota's Vehicle Recycling/Recovery Rate and ASR Recycling/Recovery Rate in Japan



* Vehicle recycling/recovery rate: Calculated as the approximate 83% recycling rate of materials recovered from the dismantling and shredding processes (as per documentation of the policy board of Japan, May 2003), plus a 93% ASR recycling/recovery rate multiplied by the 17% ASR remaining after recycling of materials recovered from the dismantling and shredding processes [83 + (93/100 x 17) = 98.81]

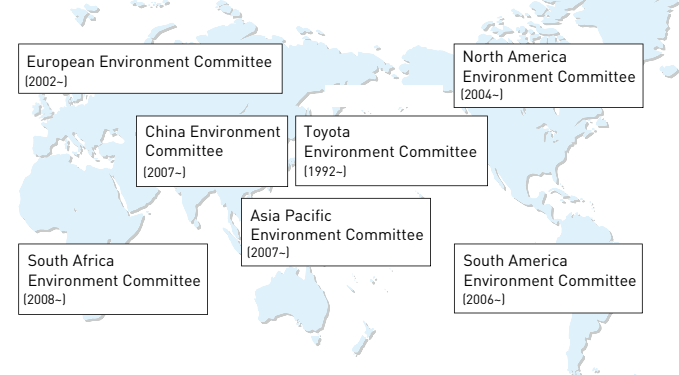
Enhancing Consolidated Environmental Management

Percentages by Companies Subject to Consolidated EMS Worldwide

Percentages of vehicles produced and sold by companies subject to the consolidated Environmental Management System (EMS) worldwide were:

99% of vehicles produced and 91% of vehicles sold.

Promotion Structure for Global Environmental Management



section 1 Establishing a Low-carbon Society

Development and Design

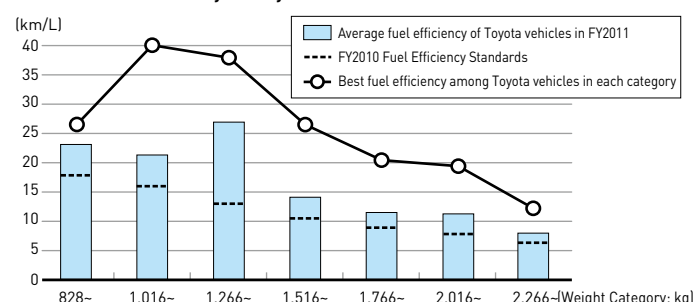
Action Plan Action Item 2

Develop technologies to achieve the best fuel-efficiency performance and conform to the laws and regulations in each country and region

All Vehicle Weight Categories Have Cleared FY2010 Fuel Efficiency Standards since 2005

- The FY2010 fuel efficiency standards are set by weight category, and all weight categories have continued to clear the standards since FY2005.
- Six out of eight new or fully changed models for FY2011 met the FY2010 fuel efficiency standards. (Note: Not including Prius PHV because of exemption from fuel economy regulations)
- 98% of Toyota's gasoline-powered passenger vehicles conformed to the FY2010 Fuel Efficiency Standards (a decrease of 0.2 percentage points over the previous year).

Conformity to Fuel Efficiency Standards and Actual Fuel Efficiency of Toyota Vehicles in FY2011



New and Fully Changed FY2011 Models that Meet FY2010 Fuel Efficiency Standards

Weight category (vehicle weight: kg)	Fuel efficiency standards (km/L)	FY2011 average fuel efficiency (km/L)	Qualifying new and fully changed FY2011-model vehicle series
828~1,015	17.9	23.2	Pixis Space
1,016~1,265	16.0	21.5	Aqua
1,266~1,515	13.0	27.0	Prius α, Avensis
1,516~1,765	10.5	14.1	Camry, GS250
1,766~2,015	8.9	11.5	GS450h, GS350*
2,016~2,265	7.8	11.3	
2,266~	6.4	8.0	

Note 1: *Some vehicles of the qualifying vehicle series may not meet the standards depending on individual models and specifications.
Note 2: [Blue box] indicates a category that has achieved the Fuel Efficiency Standards.
Note 3: Vehicles that achieved the efficiency standards before FY2010 are not included.
Note 4: All fuel efficiency values are based on the Ministry of Land, Infrastructure, Transport and Tourism's Japanese 10-15 test drive mode.

Production and Logistics

Action Plan Action Item 3

Thoroughly conduct activities aimed at saving energy and reducing the volume of GHG emissions in production activities

FY2011 CO₂ emissions reduction goal for production areas

- Reduce total CO₂ emissions to 1.34 million tons or less

Reduction of 4.6% per Unit Produced Compared to FY2010 Achieved by Consolidating and Optimizing Production Lines

As part of the strategy to reduce CO₂ emissions, a new integrated goal was established for production bases and non-production bases such as offices. In FY2011, production lines were further consolidated and energy use was optimized. The resulting annual CO₂ emissions were 1.17 million tons, or 44% lower than the FY1990 level, achieving the goal. CO₂ emissions totaled 0.46 tons per unit produced.

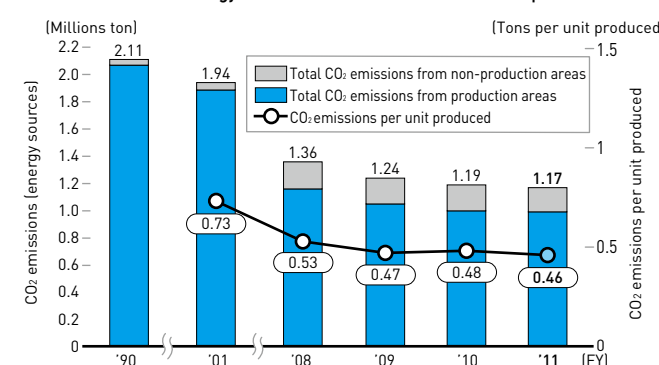
Key Measures that were Effective in Reducing CO₂ Emissions

Theme to implement	Details	Reduction Volume (Thousand tons)
Consolidation	Consolidating engine production lines	2.7
	Integrating paint pretreatment processes	2.0
Optimization	Optimizing supply of chilled water for air conditioning systems	1.6
	Lowering air supply pressure in production line	0.2

Caloric Energy Use Ratio at TMC



CO₂ Emissions from Energy Sources at TMC and CO₂ Emissions per Unit Produced



Note 1: For facilities in non-production areas for which FY1990 emissions data is not available, the oldest subsequent data available is used for the graph.
Note 2: CO₂ emissions volume covers both production and non-production divisions (excluding Biotechnology & Afforestation Lab and employee benefit facilities).
Note 3: Changed to the Nippon Keidanren's FY1990 CO₂ conversion coefficient (see page 29).

Promoting the Use of Renewable Energy

In March 2008, the Toyota Tsutsumi Plant installed a solar power generating system rated at 2,000 kW (sufficient to provide power for some 500 households). During FY2011, the system generated 2,059 MWh of electricity.

Production and Logistics

Action Plan Action Item 4

Pursue transport efficiency and reduce the volume of CO₂ emissions in logistics activities

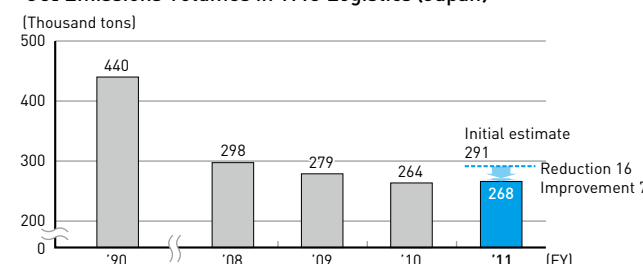
FY2011 CO₂ emissions reduction goal in logistics area

- Reduce CO₂ emissions volume to 286,000 tons or less

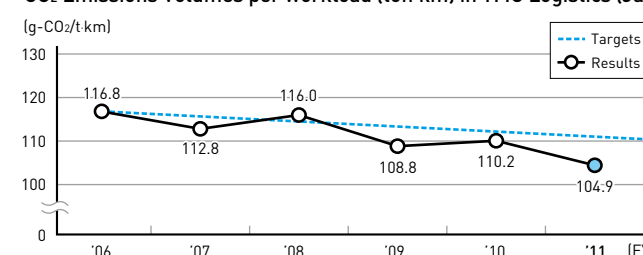
CO₂ Emissions Reduction Goal Achieved with Emissions of 268,000 Tons

In FY2011, Toyota reduced CO₂ emissions from logistics operations by 7,000 tons through various *kaizen* initiatives, including activities to increase the loading efficiency of trucks, promotion of the modal shift and continual fuel-efficiency improvement activities taken jointly with logistics partners. In addition, a decrease in production volume in the initial plan contributed to reduced emissions. The result was total emissions volume of 268,000 tons. CO₂ emissions per workload (ton-km) totaled 104.9g-CO₂/t-km.

CO₂ Emissions Volumes in TMC Logistics (Japan)



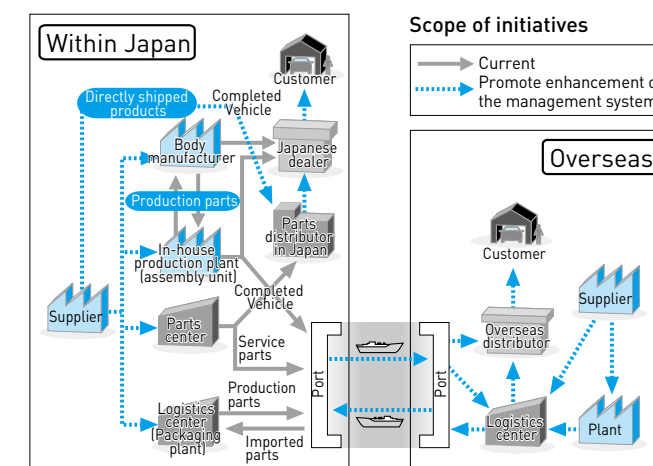
CO₂ Emissions Volumes per workload (ton-km) in TMC Logistics (Japan)



Results of Activities to Reduce CO₂ Emissions

Topics	Products	Key improvements	Reduction Volume (Thousand tons)
Reduction in total distance transported	Completed vehicles	Increased the number of vehicles to load, joint transport from Iwate to Sendai, etc.	2.9
	Production parts	Activities to increase loading efficiency, etc.	2.8
	Service parts	Reviewed allocation of vehicles and delivery routes, increased loading efficiency, etc.	0.4
Modal shift	Completed vehicles	Increased marine transport of vehicles for dealers in Saitama, etc.	0.6
Total			6.7

Scope of CO₂ Emissions Calculations in TMC Logistics Operations



Toyota Grasps CO₂ Emissions Volumes and Reduction Activities at Overseas Affiliates

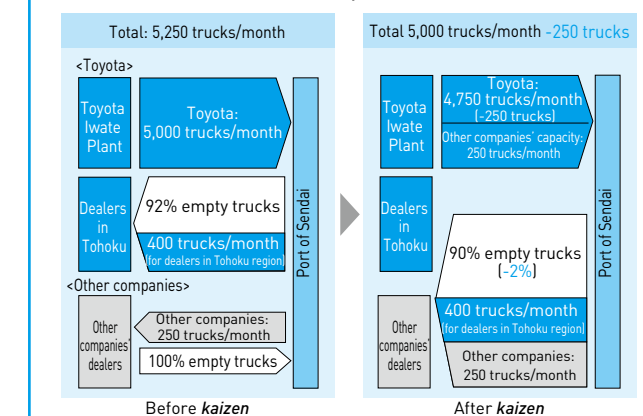
Starting in FY2007, Toyota began to grasp CO₂ emissions volumes at overseas affiliates and in FY2008 set targets and initiated activities to reduce emissions. In addition, Toyota is working to grasp the CO₂ emissions volumes associated with marine transport among overseas regions.

Column

Reducing Total Travel Distance by Joint Transport

Completed vehicles produced in the Iwate Plant had been transported to Port of Sendai by trucks—30,000 units monthly via 5,000 truck trips. On the return, 400 trucks carry completed cars from the Port of Sendai to dealers in the Tohoku region, but the other 4,600 trucks were empty. On the other hand, other automobile companies operate 250 trucks a month from the Port of Sendai to dealers because they don't have production plants there, so trucks going to the port were all empty.

Toyota focused on other companies' empty trucks bound for the Port of Sendai from all over the Tohoku region, and proposed joint service, allowing for a reduction of 250 truck trips per month. This reduction of the total travel distance reduced annual CO₂ emissions by 244 tons.



* Waste at cost: Materials discarded that are recycled for a fee

section 2 Establishing a Recycling-based Society

Since the Lehman Shock of 2008, resource markets have fluctuated due to economic growth in emerging nations, the impact of European economic crises and other factors. Under such circumstances, global demand for metal resources including iron, copper, gold, platinum, vanadium, nickel and aluminum, are expected to continually increase as a result of economic growth and increasing population — especially in emerging nations. In addition, rare earths, called the “vitamins of modern industry,” are drawing increasing attention.

Water consumption has risen in step with increasing production of agricultural crops due to population growth in addition to expanding industrial output and other factors, making water an ever more important resource.

In automobile production, iron, copper and aluminum are used in engines and bodies, platinum and vanadium in catalytic converters used in exhaust systems, while rare earth is essential for the motors of hybrid vehicles and nickel and lithium are used in the batteries. Water is used in the painting process.

Effective use of these resources will minimize waste and reduce our industry’s impact on the global environment. Waste is expected to increase in a global scale, and the capacity of landfills will run short. This makes it even more important than ever to establish a recycling-based society.

Realizing that all resources are limited, Toyota has strived toward conservation of resources, recycling of resources at every stage of vehicle lifecycle — development/design, production/logistics, sales and end-of-life.

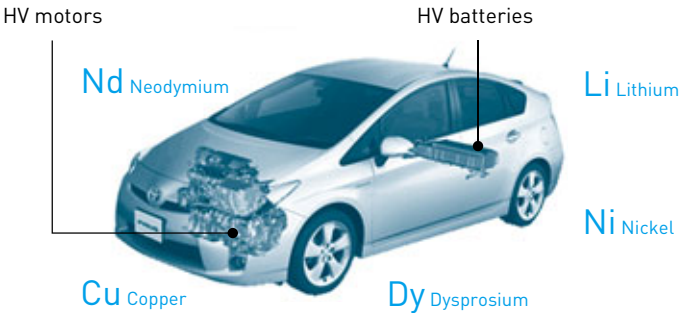
Production of Nonferrous Metal Resources

Resource	2009 Major Producing Countries (based on ore production)						Top 3 Share of Total
	1st		2nd		3rd		
Rare Earth	China	97%	India	2%	Brazil	0.5%	99%
Vanadium	China	37%	South Africa	35%	Russia	26%	98%
Platinum	South Africa	79%	Russia	11%	Zimbabwe	3%	93%
Tungsten	China	81%	Russia	4%	Canada	3%	88%
Molybdenum	China	39%	U.S.	25%	Chile	16%	80%
Lithium	Chile	41%	Australia	24%	China	13%	78%
Indium*	China	50%	Korea	14%	Japan	10%	74%
Cobalt	Congo	40%	Australia	10%	China	10%	60%
Manganese	China	25%	Australia	17%	South Africa	14%	56%
Nickel	Russia	19%	Indonesia	13%	Canada	13%	45%

* Indium is not measured as the amount of mineral ore production, but as the amount of unprocessed indium produced as a by-product.

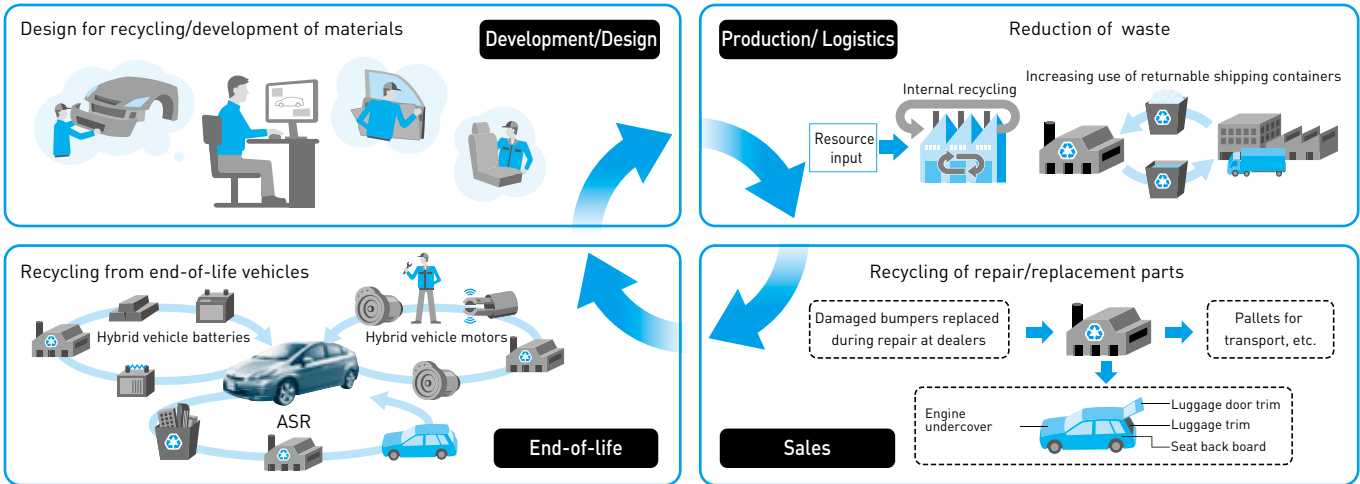
Source: Annual Report on the Environment in Japan 2012 by the Ministry of the Environment

Main Uses of Rare Earth in Hybrid Vehicles



In recent years, vehicles have come to use numerous motors and circuit boards. Compared to previous vehicles, hybrid vehicles, in particular, have increasing numbers of components, such as batteries and motors that use rare metals and rare earths.

Concept of Car-to-car Recycling



Development and Design

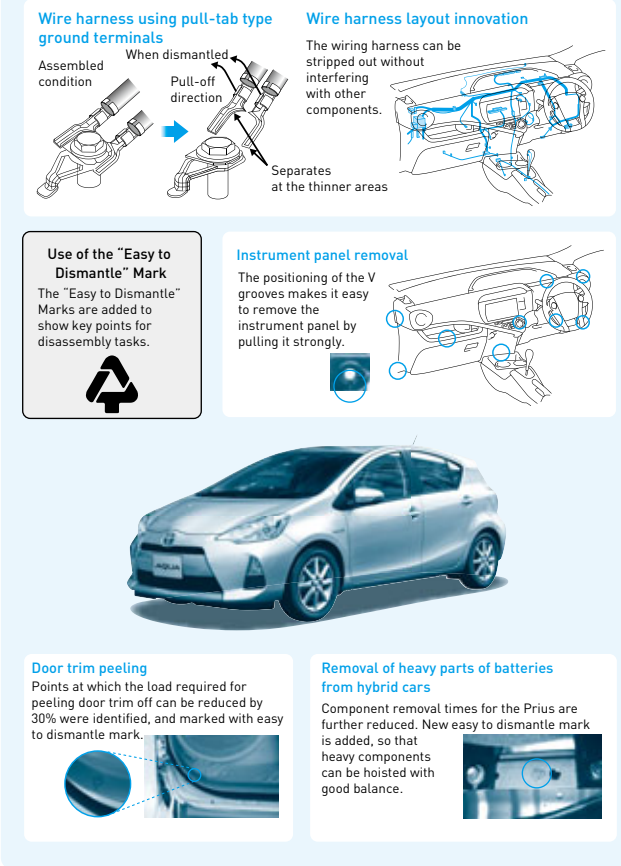
Action Plan Action Item 8

Further promote the use of designs based on the recycling concept with effective utilization of resources borne in mind

Ensuring Ongoing Development of Vehicles with Improved Dismantlability

To improve resource recycling for end-of-life vehicles, Toyota has developed structural designs that make easy to dismantle and separate parts, based on site visits to dismantlers to see actual conditions, and aggressively adopted these designs for new models.

Examples of ‘Easy to Dismantle Vehicles’ Parts



Introduction of New Vehicle Dismantlability Performance Index

To promote resource recycling, vehicles must be designed in a way that allows easy removal of resources, and this begins in the development stage. Conventionally, vehicle dismantlability assessment was based on the speed at which the parts could be separated, and then fed back to the design.

But achieving a higher level of resource recycling demands a different approach, requiring designers to consider not just how quickly, for example, a wiring harness can be removed, but how much of the resources in the harness can be recovered after it is stripped out. So Toyota introduced a new performance index to express “dismantling efficiency” by component dismantling time and resource recovery quantities.

Based on this performance index, Toyota promotes resource recycling by assessing dismantling efficiency of components that use higher-value resource materials, such as precious rare earths in the motors and batteries of hybrid vehicles, and by reflecting that assessment in vehicle design.

Production and Logistics

Action Plan Action Item 9

Reduce the volume of discarded materials and use resources effectively in production and logistics

FY2011 production area goals

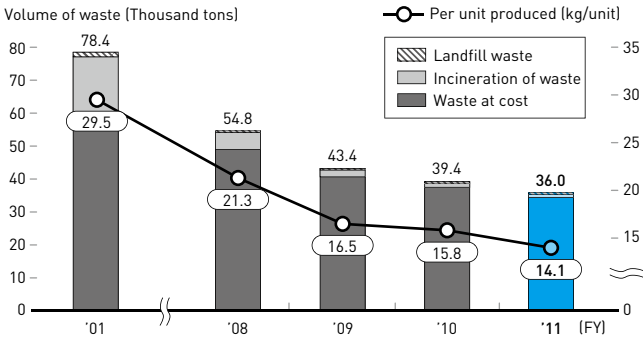
- Reduction of the volume of waste to 44,000 tons

Efforts Continue to Reduce Waste Volume per Unit Produced, 10.8% Less than FY2010

The conventional term “materials discarded” was changed to “waste” starting with the Fifth Toyota Environmental Action Plan.

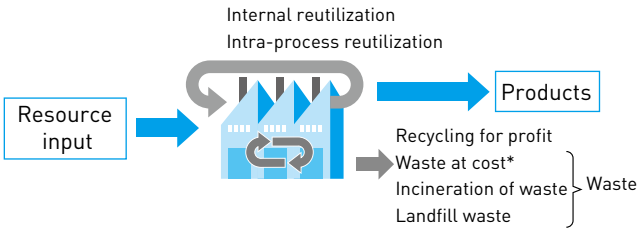
Waste volume in FY2011 totaled 36,000 tons, or 8.6% less than the previous fiscal year, and waste volume per unit produced declined to 14.1kg/unit, or 10.8% less than the previous fiscal year, through measures to reduce waste such as disposal by sale of shot blast waste.

TMC Waste Volume and Waste Volume per Unit Produced



(Note) Waste volume covers both production and non-production divisions (excluding employee benefit facilities)

Image of Resource Effective Use



Effective Countermeasures for Waste Reduction

Measures	Reduction Volume (Thousand tons)
Disposal by sale of shot blast waste	0.5

FY2011 Goals in Logistics Area

- Reduce usage of packaging and wrapping materials to 57,600 tons or less

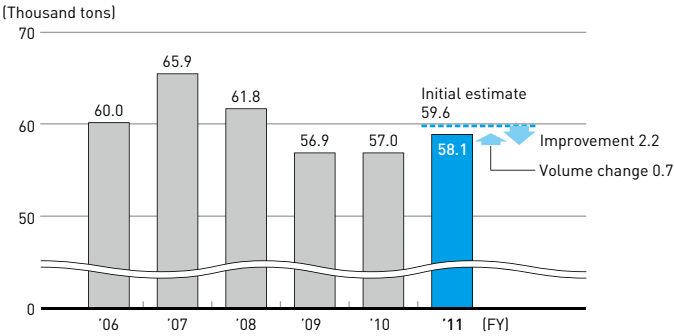
Efforts Continue to Reduce Usage of Packaging and Wrapping Materials

In order to reduce the use of packaging and wrapping materials, Toyota implemented measures that included simplifying wrapping specifications and expanding the use of returnable shipping containers.

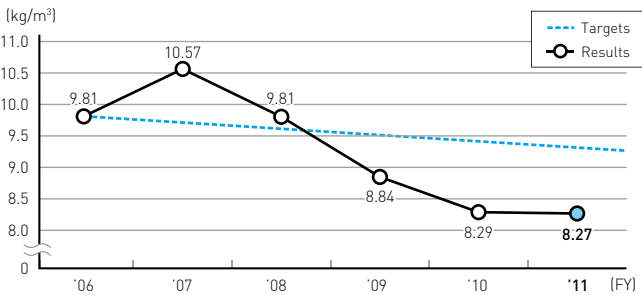
As a result of these measures, usage decreased by 2,200 tons but totaled to 58,100 due to impacts on volume changes, etc. Usage of packaging and wrapping materials per packaging unit was 8.27kg/m³.

In FY2008, Toyota began to grasp its global use of packaging and wrapping materials, and has already completed the assessments for all regions excluding North America and Europe. Toyota plans to expand the scope of its assessment to every part of the world in FY2012.

Use of Packaging and Wrapping Materials by TMC (Japan)



Use of Packaging and Wrapping Materials per Unit of Shipping Volume by TMC (Japan)



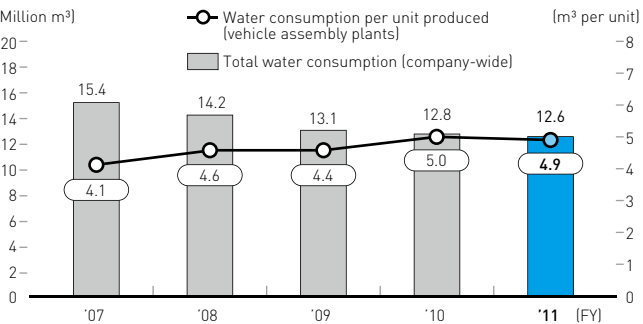
Results of Activities to Reduce Packaging and Wrapping Materials

Topics	Products	Details	Reduction Volume (Thousand tons)
Increasing lean specifications for wrapping, etc.	Service parts	Changing packaging specifications, reuse, etc.	0.9
	Production parts	Increasing lean specifications for wrapping	0.2
Increasing returnable containers	Service parts	Expanding the use of returnable containers (expanding items)	0.4
	Production parts	Expanding the use of returnable containers (expanding items, adding new sizes, etc.)	0.2
Total			2.2

Efforts Continue to Reduce Water Consumption per Unit Produced (0.4% Reduction over FY2010)

The total water consumption in FY2011 was 12.6 million m³, or 1.6% reduction over the previous fiscal year through continuous reduction activities. Meanwhile, water consumption per unit produced was 4.9m³, a 0.4% decrease from the previous fiscal year.

TMC Total Water Consumption and Consumption per Unit Produced



Note 1: Water consumption includes the volume consumed at both production and non-production divisions (excluding employee benefit facilities)
Note 2: Water consumption per unit produced indicates the consumption per unit produced at vehicle assembly plants

Sales and Recycling

Action Plan Action Item 10

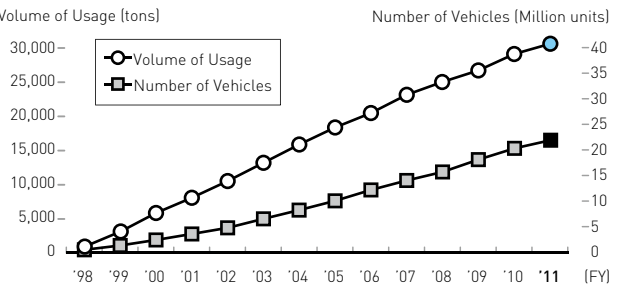
Promote effective use of resources

Further Promotion of ASR Recycling

[Development of RSPP]

Toyota has implemented a recycling process to sort out urethane foam and fiber materials — the most bulky component substances in shredder residue — for use as Recycled Sound-Proofing Products (RSPP), which have appropriate air layers, in various new car applications. The process yields a completely new high-performance material that offers a better mix of sound-absorbing and sound-isolating features compared to conventional sound-proofing products and has been used in 21.9 million vehicles up to FY2011.

RSPP: Cumulative Volume of Usage and Number of Vehicles



Steady Progress in Recycling at Dealers and Parts Distributors

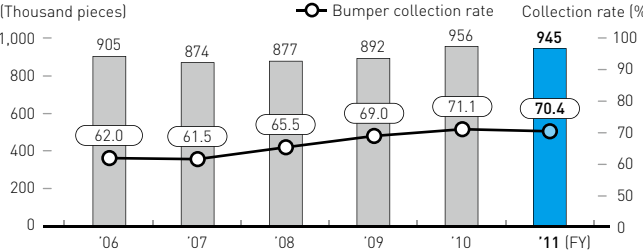
[Promoting the Collection and Recycling of End-of-Life Parts]

Parts distributors and dealers nationwide have conventionally played important roles in the resource recycling loop, addressing the recovery of such end-of-life parts as bumpers and lead wheel balance weights, using tank trucks instead of drums to transport oil and sales of used parts.

FY2011 Results of the Collection and Recycling of End-of-Life Parts

Bumpers	945,000 (Collection rate 70.4%)
Lead wheel balance weights	44.2 tons
Amount of oil delivered using tank trucks (in the bulk supply system)	60.6% of the total

Number of Bumpers Collected



[Supply of Used and Rebuilt Parts]

FY2011 Supply of Used and Rebuilt Parts

Parts Name	Number supplied	
	Used Parts/Rebuilt Parts	New Parts (Ref.)
Rebuilt parts	Automatic transmissions	4,975
	Power steering units	10,919
	Torque converters	4,429
Used parts	52,999	—

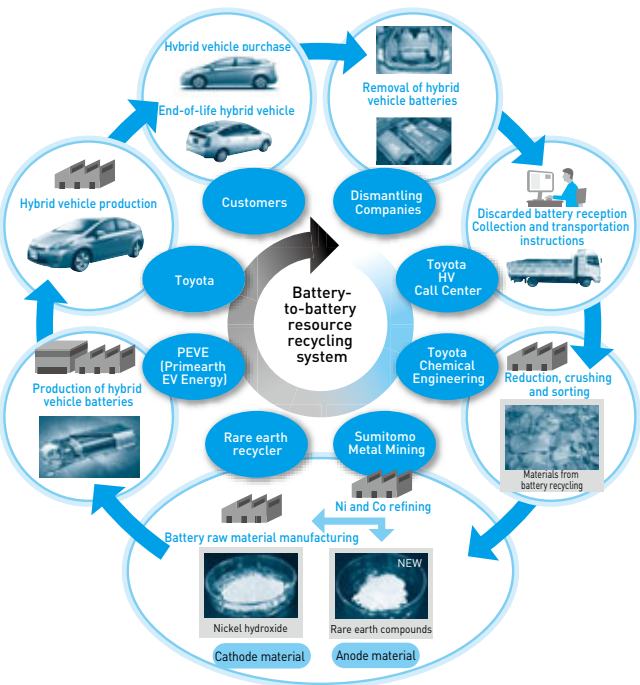
Efforts to Recover Rare Earth as Well as Nickel

Toyota has promoted the "battery-to-battery" business to recover nickel from used hybrid-vehicle nickel-metal-hydride batteries for use in new batteries. Currently, nickel included in the batteries is recycled as material for new batteries. Toyota established a unique network to collect used batteries, accepting batteries from all over Japan. [FY2011 result: about 80% of used batteries were collected.]

HV batteries contain rare earth in addition to nickel and cobalt, and we have reached the final validation stage for such rare earth resource recycling.

When collection technology is fully established and recycling of hybrid vehicle batteries is commercialized, Toyota can shift to real "battery-to-battery" recycling initiatives, and build the recycling system on a global scale in the near future.

Battery Material Recycling Business Structure



Sales and Recycling

Action Plan Action Item 11

Conform to the laws and regulations concerning vehicle recycling in all countries and regions

Ensuring a Proper Response to the Automobile Recycling Law in Japan

Toyota has been steadily working with dismantling and recycling companies to ensure compliance with the Automobile Recycling Law effective January 2005. The law mandates automotive manufacturers with collection and recycling/recovery of specified items generated from end-of-life vehicles: CFCs/HFCs, airbags and ASR*. Toyota is duly carrying out its recycling duties.

The ASR recycling/recovery rate of Toyota reached 76% in FY2007, surpassing the legally mandated rate of 70% for FY2015, and rose to 93% in FY2011 as a result of a decrease in the number of vehicles collected for ASR, maximum reduction in incineration and landfill disposal, and high-priority use of facilities that can achieve higher recycling rate because of the effects of the Great East Japan Earthquake. The vehicle recycling/recovery rate*, converted into a per-vehicle value, reached 99%, exceeding the Toyota Recycling Vision's goal of 95%.

FY2011 Results of Recycling and Recovery

		Results
No. of vehicles collected for ASR		660,000
No. of vehicles collected for airbag recovery		419,000
No. of vehicles collected for CFC/HFC recovery		551,000
Recycling/recovery rate	ASR	93%
	Airbags	94%

*EFTA: Switzerland, Norway, Iceland, Liechtenstein

Compliance with Automobile Recycling Laws Overseas

All EU member states have enacted automobile recycling laws based on EU ELV Directive of 2000, and as of January 2007 automakers started to take back end-of-life vehicles (ELVs) in most member states.

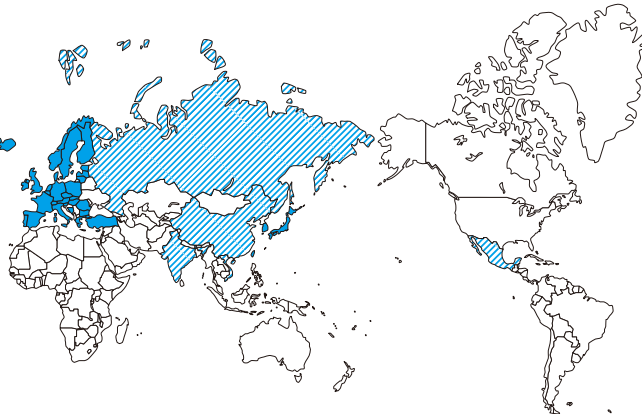
In cooperation with TME and distributors, Toyota has completed construction of a network ELV collection in 23 of the 27 EU member states, and is proceeding with the necessary action in the remaining four member states in accordance with government authorization of dismantlers.

In countries outside Europe, particularly China, Toyota is diligently pursuing similar responses, working closely with its local affiliates as the Recycling Working Group, a subordinate body of the China Environment Committee, to promote ongoing compliance with laws, including ascertaining local regulatory trends and studying local infrastructure. In cooperation with a local affiliate, it supports the activities of group company Toyota Tsusho Corporation to develop the recycling business in China.

Toyota also works closely with local affiliates in other nations to collect and analyze the information related to the enactment of new laws.

Legislation Status

Status	Country/Region	Legend
Enacted	EU, EFTA*, Japan, Taiwan, Korea, Turkey	<div></div>
Under Study	Russia, India, China, Mexico, Vietnam	<div></div>



Working Together with Society

Action Plan Action Item 12

Promote new businesses that contribute to environmental improvements

[Promotion of New Biotechnology and Afforestation Businesses]

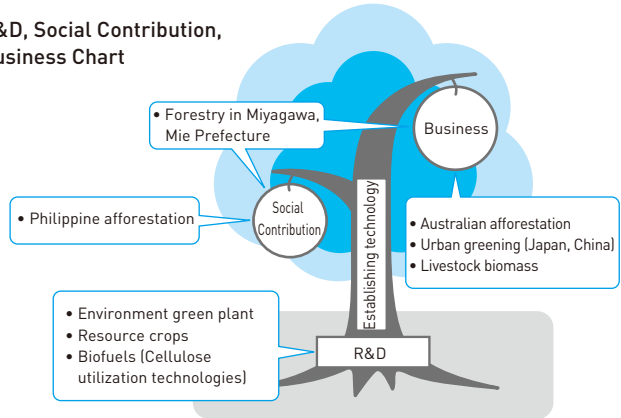
New Environment Contribution Businesses Move ahead Vigorously

Toyota not only recognized the need to develop next-generation environmental vehicles and environmental initiatives in plants, but also saw the importance of businesses that contribute to the environment. Toyota established the Toyota Biotechnology and Afforestation Business Department in January 1998 and in May of the following year, the Toyota Biotechnology and Afforestation Laboratory was constructed, starting R&D and commercialization of environmental technologies.

The Direction and Vision

1. Contribute to the global natural environment through new business by developing excellent biotechnologies and afforestation-related technologies.
2. Develop afforestation businesses that contribute to the environment in response to problems such as global warming and the destruction of forests.
3. Develop resource recycling-based businesses in response to problems such as food shortages and air and water pollution.

R&D, Social Contribution, Business Chart



Urban Greening Business

Affiliate	Business
Toyota Roof Garden Co., Ltd.	Developed businesses utilizing green walls and materials for green parking areas in addition to roof greenery with the goal of easing the urban heat-island effect. Produced and sold easy-care slowgrowth Zoysia Grass (TM9) and other new types of grasses developed by Toyota.

Florist Business

Affiliate	Business
Toyota Floritech Co., Ltd.	The venture was established in Rokkasho Village, Aomori Prefecture, jointly with a general flower trader, Hakusan Co., Ltd. Using a tri-generation system and other environmentally considerate large-scale greenhouse facilities as the operational base, it produces and distributes potted plants including miniature flowers and ornamental foliage.

Livestock Biomass Business

Affiliate	Business
Toyota Roof Garden Co., Ltd.	Developed a manure composting process for the livestock industry called resQ45 in cooperation with Menicon Co., Ltd. As of March 2012, approximately 70 farms, mostly large-scale ones, are using it continuously. In June 2011, released a new deodorizer for composting swine discharge called Buta resQ.

Overseas Afforestation Business

Affiliate	Business
Australian Afforestation Pty. Ltd.	Working towards the afforestation of eucalyptus trees, which grow extremely fast, and by the end of FY2008, about 1,760 hectares of these trees had been planted. In 2009, harvesting began, and it is shipped to Japan as pulp and paper.

* FSC (Forest Stewardship Council®):

A nonprofit international membership organization that operates the Forest Certification System, established by environmental groups, forestry companies, groups of native people, etc.

Column

Development of Cellulosic Ethanol Biofuel with a Much Lower Impact on Global Food Supplies

The Toyota Biotechnology and Afforestation Laboratory has succeeded in using gene recombination technology to develop a yeast that increases the production yield of cellulosic ethanol biofuel. The yeast more efficiently ferments xylose, a process that is difficult with naturally occurring yeasts. As a result, the yeast has achieved one of the highest ethanol fermentation density levels in the world, approximately 63 g/L (May 2012).

This is expected to improve biofuel yield and significantly reduce production costs. Toyota is focusing on ways to produce cellulosic ethanol from non-edible plants, significantly reducing the impact of biofuels on worldwide food supplies with the long-term goal of commercializing cellulosic ethanol by 2020.



Evaluation of yeast

Column

Suntory Midorie and TMC Set up Urban Greenery Company in China

Toyota has teamed up with Suntory Midorie Ltd., a wholly owned subsidiary of Suntory Ltd., to establish Toyota Suntory Midorie (Shanghai) Co., Ltd. in China.

Suntory Midorie has developed and sold new alternative soil materials and has greening business projects already under way in China, while Toyota has developed numerous plants specifically designed for greening purposes and marketed them in Japan.

The joint venture will sell greening materials and plants from both companies with the aim of launching jointly developed products in the Chinese market in 2013. It will also promote the urban greening business mainly in Shanghai, contributing to regional environments and to the creation of lush, greenery-filled urban landscapes in China.



Flower wall (Beijing Motor Show)



Green parking area (Beijing Motor Show)

Mie Miyagawa Forest Project

Seventy percent of all land in Japan is forested, of which 40% is land that has been reforested in cedar and cypress. Mountain forests have many functions such as landslide prevention, watershed protection and carbon dioxide fixation, but they have fallen into neglect with the decline of the nation's forest products industry.

Toyota thought of using its experience in overseas forest projects and manufacturing know-how based on standardization and *mieruka* (visualization) accumulated at automobile manufacturing sites and applying it to the forestry industry. In October 2007, it acquired a mountain forest of about 1,700 hectares in the town of Odai, Taki-gun, Mie Prefecture., where people have engaged in forestry since the Meiji Era (1868-1912), and launched a 50-year forest revitalization program.

By March 2012, Toyota conducted thinning, maintenance and other forest activities on a total of 956 hectares, promoting *mieruka* of the forestry business by integrating the forest information in the Geographical Information System (GIS). (Toyota acquired Forest Stewardship Council (FSC)®* certification in May 2010.)

Toyota also plans to continue operations to restore neglected forests to a healthy condition by 2017.



Appropriately preserved forest

Continuing Phase II of the Philippine Rainforest Restoration Project

Toyota started reforestation activities in northern Luzon Island in partnership with the Philippine Department of Environment and Natural Resources (DENR), Peñablanca Municipal Government and the environmental NGO Conservation International in September 2007. It conducted forestry activities in a 1,772-hectare area during Phase I (up to July 2010).

In the Phase II (August 2010 – July 2013), Toyota has supported the cultivation of mangoes and other agricultural products, and now will begin sales of those products to further help improve the livelihood of people in communities and focus on training them to play a major ongoing role in operating the local forest business independently.

Mango trees that were planted in the first year of the project are growing and beginning to bear fruit, and we expect increasing crop yields in the future.



The first mango crop

* VOC: Volatile Organic Compounds

section 3 Environmental Protection and Establishing a Society in Harmony with Nature

Development and Design

Action Plan Action Item 13

Reduce emissions to improve air quality in urban areas in each country and region

Percentage of Total Production in FY2011 Qualifying as Low-emission Vehicles Based on 2005 Exhaust Emissions Standards

Category	Reduction level	Percentage of total production
New☆☆☆ U-LEV	50% lower than standard levels for 2005	4.0% (19)
☆☆☆☆ SU-LEV	75% lower than standard levels for 2005	95.5% (135)

[] No. of models

Development and Design

Action Plan Action Item 14

Strengthen the management of chemical substances in products

Management and Reduction of 4 Key SOCs
Status of Actions on 4 Major SOCs

4 SOCs	All Production in Japan	Key Overseas Plants
Lead, Mercury, Cadmium and Hexavalent Chrome	All eliminated since August 2006*	Almost all eliminated since the end of 2007*

* Excluding use for exemption of Europe ELV Directive

Ensuring Compliance with Global Regulations on Chemical Substances

Starting with the European "Registration, Evaluation, Authorization, and restriction of Chemicals" (REACH) effective since 2007, regulations on chemical substances have been strengthened throughout the world.

The regulations generally require companies to collect information of chemical composition and control them through the supply chains. Toyota must respond firmly to such regulations beyond national borders, as the company expands its purchasing, production and distribution network on a global scale.

In fiscal year 2011, Toyota started an inter-functional division task force within the organization and set up new rules on chemical substances including those for packaging, revising the Toyota Green Purchasing Guidelines.

The company will continue to work closely with overseas affiliates to promote further actions to meet regulations around the world.

VOC Levels within Vehicle Cabins Reduced in All New and Fully Changed Models

It is generally accepted that, of VOC* emitted by vehicle interior parts, toluene, xylene and formaldehyde may have a particularly detrimental effect on human health. In order to reduce the amount of VOCs generated, Toyota is continuing to review the materials, processing methods and adhesives used for interior parts.

New Models and Fully Redesigned Models for FY2011	Compliance Status
Prius α, Pixis Space, Camry, Aqua, Prius PHV, GS, GS450h	Achieved voluntary goal of the Japan Automobile Manufacturers Association

Production and Logistics

Action Plan Action Item 15

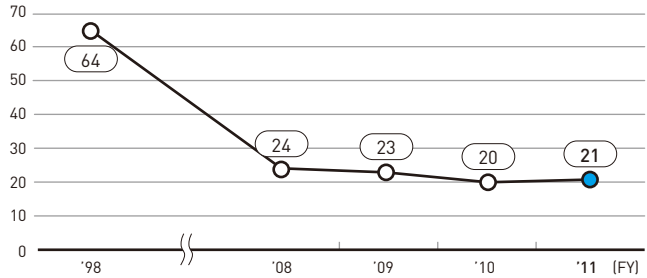
Reduce substances of concern (SOC) in production activities

VOC Emissions from Paint Reduced to an Average of 21g/m² in Body Painting Processes

Since the previous year, Toyota continued efforts to limit use of solvents in washing processes and recapture a larger percentage of solvent and use deionized water (DI water) for washing instead of waterborne cleaning solvent. As a result of these VOC reduction activities, total VOC emissions from Toyota body paint lines averaged 21g/m² in FY2011.

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

Emissions per unit of painted area [g/m²]



Working Together with Society

Action Plan Action Item 16

Implement initiatives to address biodiversity conservation

Promoting Measures in Accordance with the Toyota Biodiversity Guidelines

Along with climate change, conserving biodiversity is a major environmental issue of global concern, and measures are in progress on a global scale. Toyota is taking a variety of actions under the Toyota Biodiversity Guidelines announced in March 2008.

2011 was designated by the UN as "the International Year of Forests," in which initiatives for preserving forests, said to be the "treasury of biodiversity," were implemented in Japan and around the world, and Toyota drove forward a number of activities such as forest conservation and environmental education.

Furthermore, the Fifth Toyota Environmental Action Plan 2011-2015, the company's new mid-term plan that took effect in April 2011, incorporated two additional approaches — Implement initiatives to address biodiversity conservation, and Promote social contribution activities that contribute to a society in harmony with nature — to drive specific actions.

Meanwhile, construction of the new Toyota R&D Center, reflecting the company's concerns for the environment, ecology and energy, is now under way in a *satoyama* mountainous area that extends over the cities of Toyota and Okazaki, Aichi Prefecture. Before construction started, Toyota and the Aichi Public Enterprise Bureau jointly organized the Environmental Monitoring Committee for Environmental Considerations at the New Toyota R&D Center, comprised of environmental experts and representatives of local environmental organizations, to review the plans and provide technical suggestions and direction from their respective viewpoints.

The committee has also promoted the public disclosure of a wide range of previously unknown information about rare species and so on, obtained through its investigation, and published it in various papers and brochures. In addition, Toyota is fostering meaningful, positive exchanges with local communities through the activities of the Shimoyama Satoyama Council, a volunteer initiative organized by local residents.

Main Examples of Toyota's Biodiversity Conservation Activities

Category	Action Item	Details
Contribution by technologies	Global warming countermeasures	● Improved global fuel efficiency ● CO ₂ reduction in production and logistics activities
	Response to atmospheric environmental problems	● Reduction in emissions gases ● Reduction of VOC emissions
	Promotion of resources recycling	● Promotion of recyclable designs ● Expansion of recyclable material use
	Afforestation activities at plant sites	● Planting of native natural vegetation types around plants in Japan and oversea
	Reforestation	● Restoration of undergrowth through tree thinning (Mie Prefecture)
Collaboration and Cooperation with Society	Consideration of a new R&D facility in harmony with community	● Preservation of habitats for rare animals and plants ● Environmental improvements around Yatsuda ● Maintenance of <i>satoyama</i> (mountain) forest areas
	Human resource development and the protection of rare species	● Natural environment education at the Shirakawa ● Shirakawa-Go Eco-Institute and the Forest of Toyota
	Global afforestation	● Afforestation using native species (China, Philippines)
Information disclosure	Toyota Environmental Activities Grant Program	● Initiatives focusing on biodiversity and global warming
	Reports and Web sites	● Introduction of initiatives in the Environmental Report and Web site
	Announcement of Toyota's Forestry Initiatives brochure	● Published the brochure and distributed to concerned parties
	Initiatives at the new Toyota R&D Center	● Announcement of <i>Toward Harmony with Satoyama Ecosystems</i> brochure (September 2010)

* For initiatives at the new Toyota R&D Center, please visit the following Web site:
http://www.toyota-global.com/sustainability/environmental_responsibility/basic_stance_on_the_environment/initiatives_rd/overview/index.html

Working Together with Society

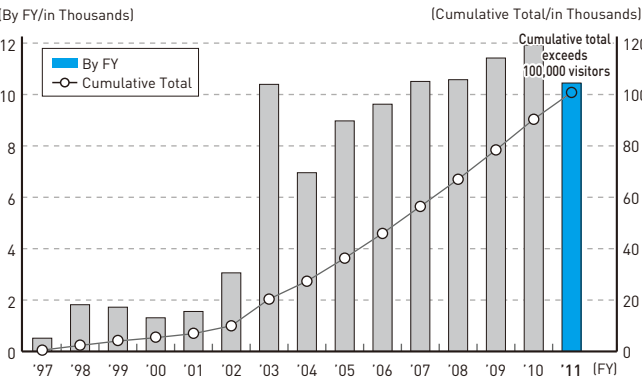
Action Plan Action Item 17

Promote social contribution activities that contribute to a society in harmony with nature

A total of 100,000 people have visited the Forest of Toyota since its opening

The Forest of Toyota was established as model case of satoyama restoration in a company-owned forest in a suburban area of Toyota City in October 1997, and is open to the public. It not only improves the forest and conducts research aimed at protecting the forest and wildlife, but also provides environmental education programs in collaboration with local communities. More than 55,000 elementary school students have so far visited the site, which is now highly regarded for providing hands-on experience in learning about nature. Incidentally, Toyota's company-owned bus service transports students visiting the site. On February 23, 2012, the cumulative number of visitors reached 100,000 and certificates and mementos were presented to 23 first-grade students from Toyota City's Hirai Elementary School to mark this milestone.

Total Number of Visitors



Experiencing nature at the Forest of Toyota



Commemorative ceremony marking the cumulative total of 100,000 visitors

TOYOTA Shirakawa-Go Eco-Institute Wins Ministry of Environment Award for Nature Coexistence Projects

The TOYOTA Shirakawa-Go Eco-Institute, located in the World Heritage site Shirakawa-Go, opened in April 2005 with the goal of promoting environmental education. Since then, more than 100,000 people have visited the institute to date.

The institute is dedicated to the enrichment of society with unique educational programs that teach the wisdom of nature and to the development of a broad range of environmental education programs. It received the “Minister’s Prize, Ministry of Environment” in the “2nd Contest for Corporate Activities on Biodiversity” for one of its programs, the Nature Coexistence Projects.

These projects consist of long-term activities, mainly the “*Satoyama, Okuyama* (deep mountains), Living Creature Project,” and ecological surveys and conservation activities for animals such as the Gifu swallowtail butterfly, the Asiatic black bear and the dormouse.

The Tree-planting Project is cultivating trees on a hillside made barren with soil excavated from a tunnel dug for the Tokai-Hokuriku Expressway. The institute conveys the importance of coexistence between humans and nature to all of its visitors.

Toyota, through the institute, is dedicated to the enrichment of society with unique educational programs that teach the wisdom of nature and to the development of a broad range of environmental education programs with close community ties.



Environmental Minister's Award ceremony

Support of Toyota Environmental Activities Grant Program Cumulative Number of Projects Exceeds 200

Since FY2000, under the theme of “Environmental Technology and Human Resource Development Contributing to Environment Revitalization and Conservation,” the program has supported projects conducted by NPOs and other non-profit private groups in commemoration of Toyota’s receipt of the Global 500 Award in 1999 from the United Nations Environment Programme.

As with FY2011, “biodiversity” and “global warming” were adopted as themes for the grants, and considering that 2011 was also the United Nations’ International Year of Forests, applicants were encouraged to focus on a “forest-preservation” perspective under those two themes. A total of 91 applications were received in two grant categories (overseas and Japan-based). The committee reviewed applications according to criteria including appropriateness of the project and continuity and future development, and selected 11 overseas projects, including the “Vietnam Forest Conservation Project,” and 10 Japan-based projects, including the “Children’s Life-giving Forest Building Project” and the “Kujukuri Conservation through Afforestation Project.” The program has supported 214 projects in 47 countries over the past 12 years since FY2000 when the program started.

Representatives of the selected projects were invited to a grant certificate presentation ceremony in December 2011. Toyota and grant recipient NGOs also held meetings to exchange opinions and discuss the challenges involved in completing the projects.

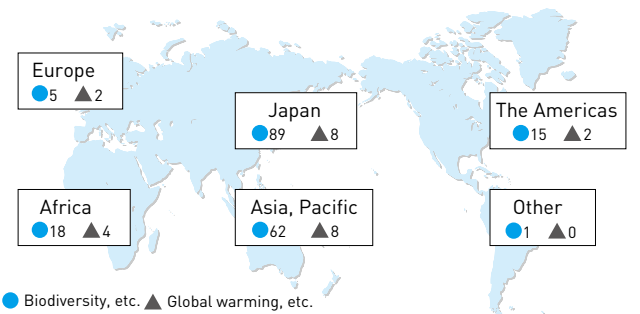


Children's Life-giving Forest Building Project



Kujukuri Conservation through Afforestation Project

Toyota Environmental Activities Grant Program Grant Projects Statistics



Country/region of implementation	Asia, Pacific	The Americas	Africa	Europe	Japan	Other	Total
FY2011	8	0	3	0	10	0	21
Cumulative total	70	17	22	7	97	1	214

section 4 Environmental Management

Management

Action Plan Action Item 18

Enhance and promote consolidated environmental management

FY2011 Consolidated Environmental Management Action Policies and Results

In FY2011, Toyota promoted initiatives to ensure the achievement of annual environmental goals in production, sales and other areas. In the area of production, systematic measures were implemented and almost all goals were achieved. With respect to sales and other areas, each company formulated annual environmental action plans and promoted initiatives based on these plans.

	FY2011 Action Policy and Results			FY2012 Action Policy	
	Action Policy	Goals	Activity Results	Action Policy	Goals
Overall	• Enhance environmental management to strengthen cooperation with each region • Encourage implementation of the Fifth Toyota Environmental Action Plan	• Hold periodic regional environmental committee meetings and achieve a smooth launch of the Fifth Toyota Environmental Action Plan	• Further enhanced environmental actions on a global level with participation of all regional organizations and held the first global environment meeting. Also held each regional environment committee according to schedule. • Started activities of the Fifth Toyota Environmental Action Plan	• Enhance environmental management to strengthen cooperation with each region	• Achieve the goals for each area
Production (85 companies)	Japan (42 companies)	• Strengthen activities to prevent non-compliance, complaints and recurrence of problems • Strengthen initiatives through environmental meetings in Japan and regional environmental committees toward achieving the FY2011 goals	• Zero non-compliance and complaints • All companies to achieve FY2011 goals	• Strengthen activities to prevent recurrence of problems • Ensure absolute achievement of goals	• Zero non-compliance and complaints • Achieve all FY2012 domestic and regional goals
	Overseas (43*1 companies)		• Proactive preventive measures were implemented, but there were cases of minor non-compliance (4*2 non-compliance cases and 1 complaint). All relevant response measures were completed • All relevant companies implemented systematic measures to achieve FY2011 goals and almost all goals were achieved		
Sales (79 companies)	Japan (33 companies)	1) Ensure follow-up of FY2010 activity results and creation of FY2011 action plan	• Achieve FY2011 plan goals	• All companies created their own annual action plans and are promoting implementation	• Achieve FY2012 plan goals
		2) Determine direction for further enhancement in approaches to the environment, and launch the approaches	• Start trial acquisition of EMS certificate and determine the future direction	• 3 companies participated in trial acquisition of EMS certificate • Launched result feedback services of CSR check list from TNDAC*3	• Establish a supporting structure for acquisition of third-party EMS certificate
	Overseas (44*1 companies)	3) Ensure management by unit, and year-on-year comparison management of quantitative data	• Establish EPI	• Data input by all relevant companies • Feedback by unit data, etc., to dealers	• Ensure management by unit, and year-on-year comparison management of quantitative data • Continue management data feedback
Other (67 companies)	Japan (51 companies)	1) Ensure follow-up of FY2010 activity results and creation of FY2011 action plan	• Achieve FY2011 plan goals	• All companies created their own annual action plans and are promoting implementation	• Ensure follow-up of FY2011 activity results and creation of FY2012 action plan • Achieve FY2012 plan goals
	Overseas (16 companies)	2) Improve management of quantitative data	• Establish EPI	• Data input by all relevant companies	• Improve management of quantitative data • Establish EPI

*1. Including 10 production/sales companies *2. 4 in Japan, zero overseas *3. TNDAC: Toyota National Dealers' Advisory Council

Eco-factory Activities

Toyota continues with Eco-factory activities for plants being newly constructed and converted or expanded on a large scale to ensure that its factories set the highest worldwide standards for environmental consideration and sustainability. Activities include on-site verification of ongoing environmental solutions in each phase — namely planning, engineering, trial production and full-scale operation — and, should a failure be discovered, corrective actions are taken and the process is re-examined. In FY2011, three plants in North America, India and China completed these activities.

Eco-Factory Activities

	Numbers indicate planned year of implementation				
	North America	India	Brazil	China	Europe
	TMMMS	TMM Plant No.2	TDB Sorocaba	SFTM Sichuan	SFTM Changchun New Plant
Planning stage					
Paper audit					
On-site audit			12		12
Compliance and risk evaluation	12		12		12
Performance evaluation (energy, VOC emissions, etc.)	12	13	14	14	12

*1 TDB: Toyota do Brasil Ltda.
*2 Non-compliance near misses: Cases that pose high potential risks although they did not result in incidents.

Management

Action Plan Action Item 19

Promote environmental activities in cooperation with business partners

Promoting Third-party Environmental Management System Certification

Dealers have pressed ahead with voluntary activities based on the Toyota Dealer CSR Guidelines set forth in December 2005. A CSR Workshop of the Toyota National Dealers' Advisory Council recognized the need to further accelerate such initiatives due increasing public concerns about market penetration of next-generation environmental vehicles and environmental actions by companies and called for the promotion of ISO14001, Eco Action 21 and other third-party certification on environmental management system assessment.

The council's three member companies implemented a trial program for acquiring Eco Action 21 Certificate. The results showed the effectiveness of actions such as power saving efforts and rising compliance and environmental consciousness, encouraging dealers nationwide to look seriously at third-party certification.

Estimated Reduction in Electricity Use by 3 Companies Participating in Trial

3 Trial Company	Estimated Reduction %
Toyota Corolla Nagoya Co., Ltd.	25%
Netz Toyota Hamamatsu Co., Ltd.	32%
Toyota Corolla Gifu Co., Ltd.	36%
Total	30%

Briefings Held for Suppliers to Enhance Chemical Substance Management Structure

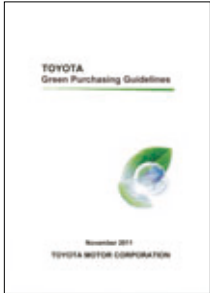
Against the background of an international agreement to minimize the impact of manufacturing and use of chemical substances on human health and the environment by 2020, an increasing number of countries have introduced relevant regulations like the European "End of Life Vehicles (ELV) Directive" and "Registration, Evaluation, Authorization and Restriction of Chemicals" (REACH) since the turn of the century. There was also a trend shift with the REACH regulation: companies were bound to grasp the use and composition of chemical substances with increased responsibilities for registration, notification and disclosure, while previously governments were responsible for defining and restricting hazardous materials.

In accordance with this international trend in regulation of chemical substances, Toyota strengthened supplier management of chemical substances and revised the previously published Toyota Green Purchasing Guidelines. Suppliers were briefed on these changes at a meeting held on October 27, 2011 with representatives from 523 affiliates.

Toyota will continue to track and respond promptly to changing regulations on chemical substances.



Briefing session for suppliers in October 2011



Cover page of the revised Guidelines

Key Revision Points

- Managing substances of environmental concern during parts development and production
- Managing substances of environmental concern contained in raw materials, supplementary materials and packaging materials

Primary Actions at Japanese Dealers during FY 2011

Toyota has been promoting environmental efforts, creating and rolling out "Toyota Dealer Environmental Guidelines" since 1999 and "Toyota Dealer CSR Guidelines" since 2005. These guidelines are in a self-check format that covers and divides the items that must be followed by dealers in relation to a variety of environmental aspects among headquarters and outlets so that dealers can take action on their own.

In September 2011, result feedback services were launched to allow dealers to self-check the results and recognize their own strengths. The system was also improved to allow year-on-year comparison of results.

Dealer Environmental Risk Audit Program (DERAP)

Number of Dealers Achieving Goals Increases from 80% to 84%

Toyota continues to carry out the Dealer Environmental Risk Audit Program (DERAP) to evaluate environmental risks at overseas dealer service shops. This program is aimed at establishing a structure to fulfill five environmental elements including treatment of hazardous waste materials and water, the basis for reducing risks and introducing environmental management systems.

In FY 2011, the program covered 2,815 dealers (of 39 distributors) in 36 countries around the world and the percentage of dealers satisfying the five requirements increased from 80% to 84% of all. Globally, a number of dealers have not adopted the program, so the company will continue to encourage more dealers will move ahead with these activities.

Management

Action Plan Action Item 21

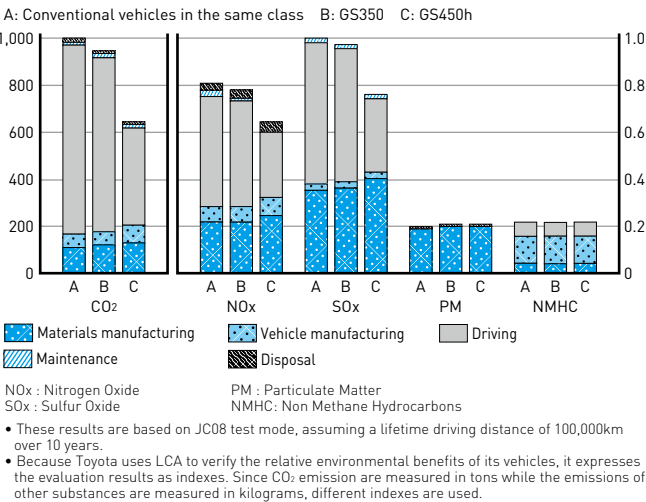
Promote Eco-VAS (Eco Vehicle Assessment System) in product development

Application of LCA to New and Fully Changed Vehicles in Eight Vehicle Series

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

In FY2011, Toyota used Eco-VAS to conduct LCA on eight new and fully-changed models (Prius α, Avensis, Camry, Pixis Space, Aqua, Prius PHV, GS, GS450h). The system has enabled Toyota to reduce CO₂ emissions over the entire lifecycle of the GS450h by about 37% compared with similar class vehicles.

GS LCA Results



Management

Action Plan Action Item 22

Promote sustainable plant activities

Reaching Milestone of 500,000 Trees Planted

Toyota has been pursuing sustainable plant activities since 2007, with its Prius-producing Tsutsumi Plant as a model plant, to bring the concept of sustainability into *monozukuri*. With the concept of "a plant that fully utilizes natural resources while operating in harmony with the natural environment," efforts are under way toward the following three points:

(1) Reducing energy consumption	Development and introduction of low CO ₂ -emitting production technologies and daily <i>kaizen</i> activities
(2) Switching Energy Sources	Utilization of renewable energy (solar, etc.)
(3) Community Involvement and ecosystem conservation	Tree-planting activities at plants

As part of its ecosystem conservation activities, Toyota held tree-planting events involving employees and community residents. Employees also increased their environmental awareness by cultivating seedlings and making compost. The tree-planting events were held

at the Shimoyama Plant, the Motomachi Environment Center, the Kinuura Plant and some overseas manufacturing sites such as the TDB*1 Sorocaba Plant in Brazil, and the cumulative number of trees planted was about 500,000 (as of March 2012).

Primary Activities in FY 2011

April 2011	Shimoyama Plant	Planted 5,000 trees
June 2011	Kinuura Plant	Implemented an environmental education program for local elementary school students at the plant's biotope
October 2011	Takaoka Plant	Implemented an environmental education program for local elementary school students
	Sorocaba Plant (Brazil)	Planted 80,000 trees
November 2011	Motomachi Environment Center	Planted 4,800 trees
December 2011	Tsutsumi Plant	Installed a biotope exhibition site at welfare facilities
	Tahara Plant	Supported Tahara City's Nanohana Eco Project and planted Nanohana flowers at the plant entrance
March 2012	Kinuura Plant	Planted 2,000 trees

Management

Legal compliance activities

Key Advancements during FY2011

Achieving Zero Non-compliance and Complaints
In FY2011, Toyota took preventive measures for non-compliance near-misses*2 that occurred during the year by holding meetings in which participants identified the root causes of near-miss incidents and discussed corrective actions. The results were fed back to each plant to share conclusions and implement preventive measures. However, one complaint resulted from heavy oil leakage at an employee dormitory. The cause was due to deteriorating facilities. Toyota did repairs and took measures including comprehensive checks of all similar facilities within the company to ensure that no other problems existed.
Reporting and Storing Electrical Devices Containing PCBs
Since FY2005, Toyota has been using outside subcontractors to process electrical devices containing polychlorinated biphenyl (PCB). To date, 4,178 transformers and condensers have already been processed. The remaining 1,069 units will continue to be handled on an outsourcing basis in FY2012 and beyond.
Soil and Groundwater-related Measures
In 1997, Toyota completed the implementation of measures to prevent outflow of groundwater at six production plants. Toyota has continued groundwater remediation using pump and aeration treatment and reports on the levels of trichloroethylene to the government and to local councils in the surrounding communities

Trichloroethylene Measurement Values

Environmental standard: 0.03 Unit: mg/L

Plant	Levels in groundwater
Head Office	Less than 0.002-2.19
Motomachi	Less than 0.002-0.16
Kamigo	Less than 0.002-0.17
Takaoka	Less than 0.002-0.38
Miyoshi	Less than 0.002-0.13
Tsutsumi	Less than 0.002-0.02

Note 1: Measurements are taken at all plants
Note 2: Has not been detected in plants other than those listed
Note 3: The level has a range since each plant includes multiple measurement points

Air and Water Quality Data

	Item	2007	'08	'09	'10	'11
Air	SOx	32	25	20	18	15
Water	Total nitrogen	64.0	71.6	61.6	54.1	50.9
	Total phosphorus	4.6	4.6	4.4	4.3	3.9
	COD	91.3	84.5	76.7	66.9	61.4

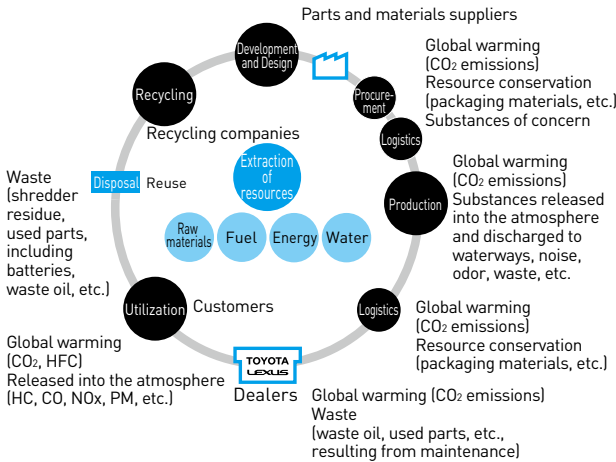
Note 1: The unit for air quality data is 1,000m³ N/year and for water quality data tons/year.
Note 2: See separate volumes on the Site Data of Toyota Global Website for NOx data.

section 5 Environmental Philosophy, Policies and the Toyota Environmental Action Plan

In FY2011, Toyota began our Fifth Toyota Environmental Action Plan, which will set the directions for the years 2020-2030. The new plan will cover three key themes: “Establishing a low-carbon society,” “Establishing a recycling based society” and “Environmental protection and establishing a society in harmony with nature.”

In Toyota’s environmental actions, not only TMC but also all subsidiaries in Japan and overseas work together to move forward on consolidated environmental management.

Toyota also set the 2020 Vision, which aims at the corporate vision to be aimed by 2020. The environment is the main pillar of this vision.

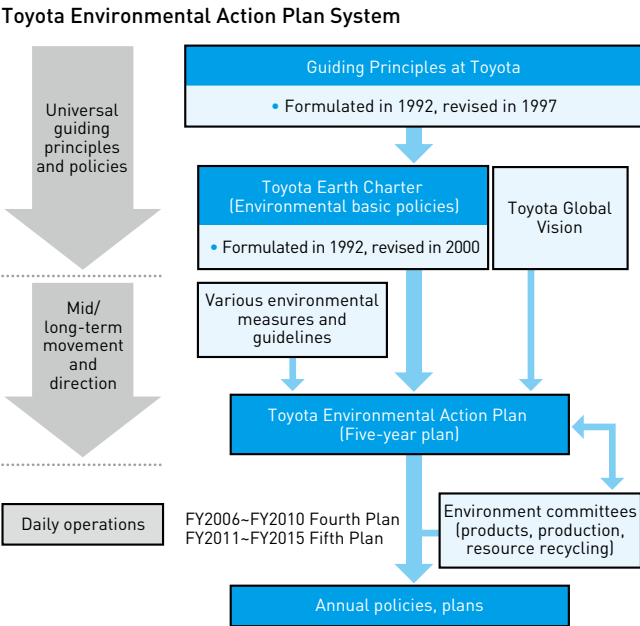


Philosophy, Policies and the Toyota Environmental Action Plan

The Toyota Earth Charter (formulated in 1992, revised in 2000) is based on the Guiding Principles at Toyota formulated in 1992 (revised in 1997), and embodies Toyota’s comprehensive approach to environmental issues. The Toyota Earth Charter has been adopted by 561 affiliates worldwide to date.

In March 2011, Toyota announced the Toyota Global Vision to share the direction to be taken by all companies. This clarifies the stance in accordance with the Toyota Earth Charter, and Toyota will carry this vision through to specific activities. The vision states “constant respect for the planet” urges, and clarifies commitment to CO₂ reduction in activities from production to sales, initiatives on recycling and human resource development and afforestation activities toward co-existence with nature.

Based on those philosophies and policies, we will launch about 10 hybrid models in the market by 2015, and advance development of PHVs, EVs and FCVs in parallel. Toyota also continually develops high efficiency engines for further improvement of fuel economy.



*1 TMC: Toyota Motor Corporation
*2 EMS: Environmental Management System

Promotion of Consolidated Environmental Management

As Toyota’s business expands on a global scale, TMC*1 introduced a consolidated environmental management system (consolidated EMS*2) in FY2000 to promote environmental action in concert with consolidated subsidiaries.

TMC presents its environmental policies and guidelines to all companies subject to consolidated EMS, and requests that all

companies adopt and implement five-year environmental action plans, create environmental management systems and undertake environmental activities at the highest levels in their each country or region. TMC also supports environmental management by affiliates through the sharing of best practices and exchanges of information to mutually strengthen relationships.

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.

III. Organization in Charge

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

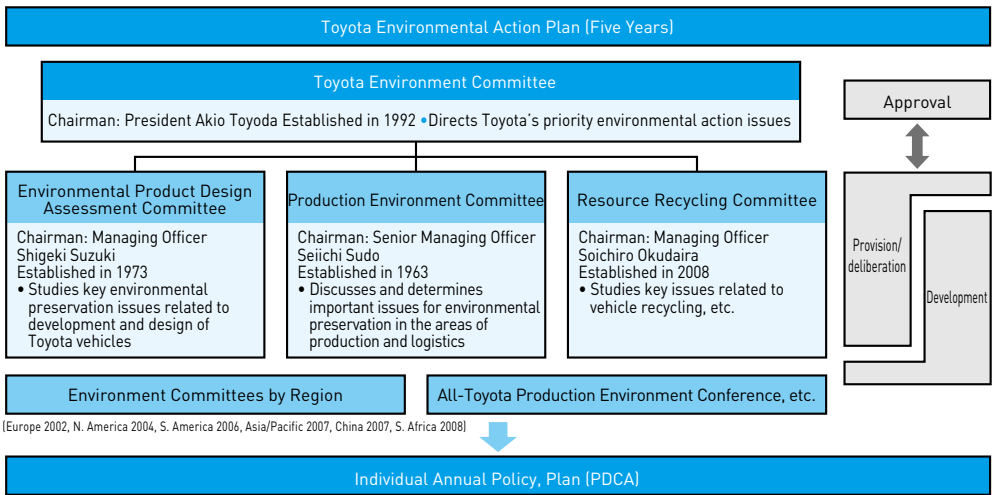
II. Action Guidelines

- 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 activities
(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

Implementation Structure

The “Environmental Product Design Assessment Committee,” “Production Environment Committee” and the “Resource Recycling Committee” were established under the Toyota Environment Committee, which is chaired by the president, to investigate issues and develop response policies in their respective areas of responsibility. Each committee collaborates with all relevant divisions to promote company-wide action.

Organization Framework (As of June 30, 2012)



The Fifth Toyota Environmental Action Plan (FY2011- FY2015)

— Goals of Activities: ‘Contributing to growth of sustainable society and Earth’ —
through *monozukuri*, coexisting with the global environment, making cars and offering quality products and services

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

		Action Items	Specific Actions and Goals	Results	Future Issues and FY2012 Action Policy	Related Pages
Contribution to a Low Carbon Society	Development and Design	①Develop next-generation vehicles that use electricity for propulsion, and ensure wider market acceptance of the vehicles based on their characteristics	• HV: Aim to achieve annual sales volume of 1 million units and total accumulated sales volume of 5 million units in the early 2010s. Further develop HV technologies and stimulate the HV market by introducing new models and expand field	• HV: 630,000 HV units sold in 2011, for a cumulative total of 3.9 million units (as of March 31, 2012) The compact class HV purpose-built Aqua began sales in December 2011, expanding the lineup	• Promote HV development with the aim of promoting further popularization	4
			• PHV: Promote as HV with EV drive for daily use; launch in 2012 and aim for annual sales in the tens of thousands	• PHV: Sales of the Prius PHV began in January 2012	• Promote PHV development with the aim of promoting further popularization	
	Production and Logistics	②Develop technologies to achieve the best fuel-efficiency performance and conform to the laws and regulations in each country and region	• By 2015, improve average fuel efficiency in all regions by 25% compared to that of 2005 (Passenger vehicles in Japan, U.S., Europe and China are included. In the U.S., LDT is also included.)	• Increased fuel efficiency in each country and region, aiming for a 25% increase for 2015	• Steadily increase fuel efficiency in each country and region, aiming to achieve targets	4 6
			• Meet the fuel-efficiency standards in each country and region - Japan: Steadily meet the FY2015 fuel efficiency standard - U.S.: Meet new CAFE standards in passenger vehicle and LDT categories - Europe: Promote initiatives and meet next standards and long-term goal - China: Meet the new fuel-efficiency standard - Other regions: Steadily introduce technologies to improve fuel efficiency	• Steady achievement of each country and region’s fuel efficiency standards - Japan: Development underway in an effort to meet the 2015 fuel efficiency standard - U.S.: Met fuel efficiency/greenhouse gas standards in passenger vehicle and LDT categories, and maintain top level passenger vehicle average fuel efficiency - Europe: Promoted steady initiatives towards meeting upcoming regulations - China: Developed fuel efficiency improvement technology to meet the third stage fuel-efficiency regulations - Other regions: Steadily introduced technologies to improve fuel efficiency	• Steadily achieve, maintain and increase fuel efficiency in each country and region, aiming to achieve targets	
Contribution to a Recycling-based Society	Development and Design	③Thoroughly conduct activities aimed at saving energy and reducing the volume of GHG emissions in production activities	• Promote activities to reduce CO ₂ emissions through development and introduction of innovative low CO ₂ -emitting production technologies, and daily improvement activities (Pursue productivity improvement, promotion of improvement activities, including at offices)	• Systematically promoted CO ₂ reduction activities at domestic and overseas affiliates (consolidation of production lines, optimization of energy usage, etc.)	• Continue CO ₂ reduction activities • Set 2015 targets and draw up action plans	4 6 7
			• Utilize renewable energies considering characteristics of each country and or region • Management of GHG emissions from sources other than energy sources CO ₂	• TMUK: Cooperated with power companies for onsite installation of photovoltaic panels (4100 kW)		
	Production and Logistics	④Pursue transport efficiency and reduce the volume of CO ₂ emissions in logistics activities	• Promote CO ₂ reduction activities by further improving transport efficiency CO ₂	• Systematically promoted CO ₂ reduction activities in distribution (reduction of total mileage, promotion of modal shift, etc.) CO ₂		
			Region Item Base year Target (FY2012) Global Emissions per unit produced FY2001 29% reduction TMC Emissions per unit produced FY2001 37% reduction Total emissions volume FY1990 25% reduction* Overseas Promote reduction activities that are the highest level in each country * Average value from FY2008 to FY2012	Region Item Base year Target (FY2012) FY2011 results Global* Emissions per unit produced FY2001 29% reduction 29% reduction TMC Emissions per unit produced FY2001 37% reduction 37% reduction Total emissions volume FY1990 25% reduction 44% reduction Overseas Promote reduction activities that are the highest level in each country * TMC + consolidated subsidiaries and other companies in Japan and overseas (in manufacturing)		
Contribution to a Low Carbon Society	Development and Design	⑤Actively contribute to and propose climate change initiatives	• Conform to the Energy Saving Act and reduce per-unit energy at the annual rate of 1% or more, in line with the plan	• Confirmed conformity to the Energy Saving Act of newly applicable companies (8 directly managed companies confirmed)	• Continue to confirm the compliance of companies subject to the Energy Saving Act	18
			• Designated model dealerships and promote energy saving activities (Corolla Nagoya, Netz Hamamatsu, Corolla Gifu)	• Lateral expansion of the results of model dealerships		
	Production and Logistics	⑥Thoroughly conduct activities to save energy and reduce the volume of CO ₂ emissions in sales activities	• Promote environmental measures to contribute to the low carbon society proposed by Nippon Keidanren, JAMA, WBCSD, and industry organizations	• Participated in and promoted the creation of Keidanren and JAMA’s practicable plan for a low-carbon society • Participated in the planning of Keidanren’s “Toward the Construction of a New Post Kyoto Protocol International Framework” toward COP17, and participate in the COP17 (Durban) Keidanren Mission • Expanded activities for the understanding of consolidated measures globally as an automobile manufacturers association, and in close cooperation with the Japanese, US and European automobile manufacturers associations • Participated in the planning of the WBCSD proposal (Changing Pace), and participate in the WBCSD Business Day at COP17	• Ascertain the influence of the basic energy plan review and continuously promote the buildup of a low-carbon society • Continue timely and more effective initiatives that contribute to the appeal of our stance as a Japanese industry • Consider places (including COP) for activities for effective understanding of the appeal of Japanese, U.S. and European automobile manufacturer associations’ integrated measures • Continue to make an appeal of the importance of diversity in mobility and multimodal	Full Version 43
			• Participate in debates, both in Japan and overseas, concerning governmental environmental policies and frameworks	• Participated in the Japan Preparation Committee (stakeholders) in the planning of an input proposal for the United Nations government declaration Zero Draft in anticipation of Rio+20 in June 2012 • Participated in the Rio+20 Keidanren task force [participate in the “International Discussion toward Rio+20 (April, Tokyo)”]	• Avoid forced licensing of intellectual property rights related to technology transfer and excessive preferential description of emerging nations • Continue to appeal the past contributions from industry in anticipation of Rio+20	
Contribution to a Recycling-based Society	Development and Design	⑦Promote integrated approach to reduce CO ₂ emissions in the road transport sector	• Promote integrated approach with JAMA and other groups	• Worked with JAMA* and other groups to participate in conference bodies and business hosted by government ministries, and cooperate to promote initiatives	• Continue to cooperate with promotional initiatives	Full Version 25
			• Implement initiatives to contribute to traffic-flow improvement using IT & ITS technologies	• Provided traffic information to the areas affected by the Great East Japan Earthquake using Probe communication traffic information service • Continued development of systems that work in collaboration with infrastructure to improve traffic flow, such as a system that uses traffic signal information to prevent delayed startup at traffic signals • Cooperated with Toyota City on its development as a low-carbon society (“Eco-Model City” concept), based on the “Hybrid City” basic concept Currently carrying out PHV and low-carbon traffic system demonstration tests • Sales begun of a navigation system interlink type ITS spot DSRC unit (from June 2011)	• Make effective use of Probe information (traffic congestion alleviation, etc.) • Promote initiatives to improve traffic flow in harmony with road infrastructure and vehicle systems • Continue to cooperate with Toyota City on its development as a low-carbon society (“Eco-Model City” concept) [up to 2014]	
	Production and Logistics		• Implement initiatives to promote eco-driving	• Actively cooperated in activities to widespread eco-driving by participating in lectures and talk shows hosted by JAMA and other groups • Participated in the revised “Ten Tips on Eco Driving” conference to make it an easier to understand educational tool as part of efforts to widespread eco-driving	• Continue lecture activities	

* JAMA: Japan Automobile Manufacturers Association, Inc.

FY 2011 Review

For the 24 targeted items, actions were pursued almost as planned and goals were achieved with the following results.

- (1) Contribution to a Low-carbon Society

As the HV system further evolved in performance and expanded to more models, the cumulative number of HVs sold exceeded 3.9 million [at the end of March 2012]. The mass-produced plug-in hybrid production model, the Prius PHV, was launched in Japan, the United States and Europe. With fuel efficiency improvement in conventional vehicles also driven forward, Toyota not only responded to each country’s regulations but also achieved best-in-class fuel economy in all three regions. On the production side, the company also implemented fuel-saving solutions and other measures on a global scale through engineering innovation and productivity improvement, steadily showing positive results toward CO₂ reduction.
- (2) Contribution to a Recycling-based Society

Toyota promoted development of recycling technologies to ensure more effective use of resources. These initiatives included development of hybrid vehicle battery-to-battery recycling technologies, trials of hybrid vehicle magnet recycling technologies and so on. Results show steady progress in improving per-unit waste volume and reducing usage of packaging and wrapping materials.
- (3) Environmental Protection and Contribution to a Society in Harmony with Nature

The percentage of total production meeting ultra-low vehicle emission standards in Japan reached nearly 100% as a result of advances in ultra-low emission technology. Management and reduction of substances of concern contained in materials for product design and production progressed as planned and actions were steadily implemented in response to Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) and other regulations. Toyota has also steadily promoted initiatives that contribute to biodiversity and establishment of a society in harmony with nature.
- (4) Environmental Management

Toyota expanded activities by regional environment committees in each of the world’s six regions outside Japan and promoted initiatives to reduce its environmental impact in cooperation with distributors, dealers, suppliers and other business partners. It also pushed ahead with environment-related social contributions and enhanced the disclosure of relevant information to deepen partnerships with communities.

		Action Items	Specific Actions and Goals	Results	Future Issues and FY2012 Action Policy	Related Pages																																			
Contribution to a Recycling-based Society	Development and Design	①Further promote the use of designs based on the recycling concept with effective utilization of resources borne in mind	• Further enhance ease of parts removal to effectively utilize resources, implement new initiatives to improve separation and sorting of materials • Establish a technology that enables 20% usage of Ecological Plastic and recycled resin materials in resin parts by 2015, promote use of recycled materials at the highest level in the industry	• Clarification of designated parts selection/selection criteria: Completed • Completed list of parts adaptable to Ecological Plastic and recycled materials	• Create ease-of-removal index/Expand the number of parts subject to design requirements • Cope with operational issues by switching to recycled resin products	9																																			
	Production and Logistics	②Reduce the volume of discarded materials and use resources effectively in production and logistics	• Reduce the volume of materials discarded by taking action at the source, such as improving yields and other measures, and promote effective use of resources • Promote activities to reduce total resource loss such as the reduction of the volume of reclaimed valuable materials and waste • Promote efficient use of resources in all Toyota subsidiaries and affiliates <table><tr><th>Region</th><th>Target</th><th>Target (FY2012)</th></tr><tr><td>Japan</td><td>Materials discarded</td><td>Promote activities to reduce the volume of scrap metal, etc., and efficient use of resources in all Toyota</td></tr><tr><td>Japan</td><td>Materials discarded</td><td>Volume per vehicle Cut by 31% from 2001 level</td></tr><tr><td>Japan</td><td>TMC</td><td>Volume per vehicle Cut by 45% from 2001 level</td></tr><tr><td>Overseas</td><td>Waste*</td><td>Promote reduction activities that are the highest level in each country</td></tr></table> <p>*1 Waste: Waste at cost, incineration of waste, landfill waste *2 Definition of zero landfill waste: A reduction in direct landfill waste to less than 1% of the FY1995 level</p>	Region	Target	Target (FY2012)	Japan	Materials discarded	Promote activities to reduce the volume of scrap metal, etc., and efficient use of resources in all Toyota	Japan	Materials discarded	Volume per vehicle Cut by 31% from 2001 level	Japan	TMC	Volume per vehicle Cut by 45% from 2001 level	Overseas	Waste*	Promote reduction activities that are the highest level in each country	• Systematically promoted activities to reduce waste at affiliates in Japan and overseas (Disposed shot blast waste by sale, increased yield of die-cast materials, etc.) <table><tr><th>Region</th><th>Target</th><th>Target (FY2012)</th><th>FY2011 results</th></tr><tr><td>Japan</td><td>Materials discarded</td><td>Promote activities to reduce the volume of scrap metal, etc., and efficient use of resources in all Toyota</td><td>978 thousand tons</td></tr><tr><td>Japan</td><td>Materials discarded</td><td>Volume per vehicle Cut by 31% from 2001 level</td><td>32% reduction</td></tr><tr><td>Japan</td><td>TMC</td><td>Volume per vehicle Cut by 45% from 2001 level</td><td>52% reduction</td></tr><tr><td>Overseas</td><td>Waste</td><td>Promote reduction activities that are the highest level in each country</td><td>Continue zero</td></tr></table> <p>* TMC + consolidated subsidiaries and other companies in Japan and overseas (in manufacturing)</p>	Region	Target	Target (FY2012)	FY2011 results	Japan	Materials discarded	Promote activities to reduce the volume of scrap metal, etc., and efficient use of resources in all Toyota	978 thousand tons	Japan	Materials discarded	Volume per vehicle Cut by 31% from 2001 level	32% reduction	Japan	TMC	Volume per vehicle Cut by 45% from 2001 level	52% reduction	Overseas	Waste	Promote reduction activities that are the highest level in each country	Continue zero	• Continue waste reduction activities • Set targets for FY2015 and formulate action plans	4 9 10
	Region	Target	Target (FY2012)																																						
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Overseas	Waste	Promote reduction activities that are the highest level in each country	Continue zero																																						
		• Logistics: Simplify and reduce packaging and wrapping materials, increase use of returnable containers Packaging and wrapping materials <table><tr><th>Region</th><th>Item</th><th>Base year</th><th>Target (FY2012)</th></tr><tr><td>Japan</td><td>Volume per packaging unit</td><td>FY2006</td><td>6% reduction</td></tr><tr><td>Overseas</td><td>Promote reduction activities that are the highest level in each country</td><td></td><td></td></tr></table>	Region	Item	Base year	Target (FY2012)	Japan	Volume per packaging unit	FY2006	6% reduction	Overseas	Promote reduction activities that are the highest level in each country			• Systematically promoted activities to reduce packing materials used in logistics (promoted lean specifications for wrapping, returnable packaging, etc.) Packaging and wrapping materials (production parts, supply parts) <table><tr><th>Region</th><th>Item</th><th>Base year</th><th>Target (FY2012)</th><th>FY2011 results</th></tr><tr><td>Japan</td><td>Volume per packaging unit</td><td>FY2006</td><td>6% reduction</td><td>16% reduction</td></tr><tr><td>Overseas</td><td>Promote reduction activities that are the highest level in each country</td><td></td><td></td><td></td></tr></table>	Region	Item	Base year	Target (FY2012)	FY2011 results	Japan	Volume per packaging unit	FY2006	6% reduction	16% reduction	Overseas	Promote reduction activities that are the highest level in each country														
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Overseas	Promote reduction activities that are the highest level in each country																																								
		• Water consumption: Set goals according to the water environment in respective countries and regions and continue implementing measures to reduce water consumption		• Actively promoted reduction activities and reduced by 5% over the previous year at each company (3.7→3.5 m³/vehicle, globally)	• Continue activities to reduce water consumption																																				
Contribution to a Recycling-based Society	Sales and Recycling	③Promote effective use of resources on a global basis	• Promote the development of recycling technologies to effectively use resources • Develop methods and tools for effective dismantling and disseminate information worldwide • Promote activities to develop and establish a system for collecting and recycling resources on a global scale	• <Develop reusable hybrid vehicle battery technology> • Currently developing fixed charging system for nickel-hydride batteries • <Develop hybrid vehicle battery material recycling technology> • Currently promoting the examination of methods to process Li batteries equipped with HV/EV vehicles • <Recycle magnets used in hybrid vehicles> • Currently examining magnet removal technologies and recycling • Held opinion exchanges about efficient wire harness dismantling processes by heavy-duty nibbler machines • Provided processing support of HV cars damaged in the Great East Japan Earthquake • Presented lectures on proper recovery and recycling methods of HV batteries (Li) to the dismantling industry [U.S.] <Ni batteries> Currently examining collection from the market <Li batteries> Currently building a system that utilizes existing collection networks and major local recycling companies [Europe] <Ni batteries> Completed creation of a collection and recycling system in major countries that utilizes local recycling companies <Li batteries> Currently building a system that utilizes existing collection networks and major local recycling companies [China] <Ni batteries> Currently building a collection system conforming to national laws	• <Develop reusable hybrid vehicle battery technology> • Development proving tests of a fixed charging system • <Develop hybrid vehicle battery material recycling technology> • Develop rare earth recycling technology • <Recycle magnets used in hybrid vehicles> • Develop technology to remove magnets • Compare and evaluate ease-to-dismantle light and compact vehicles • Steadily promote support in each country	10 11																																			
		④Conform to the laws and regulations concerning vehicle recycling in all countries and regions	• Japan: Maintain the highest level of recycling rate and establish technologies to achieve higher recycling rates • Europe: Achieve early by formulating a scenario to achieve a vehicle recycling/recovery rate target of 95% by 2015 and an implementation plan by country and region • China, emerging countries: Continue conforming to laws and regulations concerning vehicle recycling in close collaboration with regional holding companies according to the circumstances in each country and region	• Recycle rate Continued on track from FY2007 to achieve our FY2015 recycle success rate objective (95%) Promoted a steady increase in recycling rate by pioneering new resource recovery facilities and reducing landfill and incineration facilities • Promoted material recycling (car-to-car recycling) Examined expanding use of recycled materials [already developed three new recycling companies] Continued use of RSPP (total of 21.9 million vehicles in which it is used up to FY2011) • Continued information gathering with TME. Obtained detailed initiative information for the leading country (the Netherlands) • China: Currently tracking legal trends and public relations activities in cooperation with local offices, affiliates, JAMA and other groups	• Maintain top-level recycle rates through continued pioneering of new resource recovery facilities, etc. • Promote greater technological gains towards advancement of material recycling • Continue to monitor legislative trends in each country • Continue to track legal trends in cooperation with related departments inside and outside the company	11																																			

Environmental Philosophy, Policies and the Toyota Environmental Action Plan

		Action Items	Specific Actions and Goals	Results	Future Issues and FY2012 Action Policy	Related Pages																																	
Contribution to a Recycling-based Society	Working Together with Society	●Promote new activities and businesses including biological technology that contribute to a recycling based society	<ul style="list-style-type: none">• Promote biological and afforestation businesses• Promote technological development towards environmental improvement and the creation of a recycling based society• Share the company's sustainable Environmental Afforestation Model worldwide to conserve and revive forests	<ul style="list-style-type: none">• Launched urban green products for the greening of parking areas and a new wire-based greening wall (Smart Green Parking/Wall)• Launched deodorizer for composting swine discharge (Buta resQ) to contribute to production of compost at swine farms• Worked to develop cool spot creation technology through greening, and established a method of accurately measuring the amount of transpiration from trees, as well as thermal environmental simulation model• Worked to develop a technology to ensure consistent manufacturing cellulose ethanol, which is produced from non-edible plants, and developed the yeast, which is more efficiently ferments xylose, a process that is difficult with naturally occurring yeasts• Promoted mountain and forest management towards a sustainable forest industry revitalization in the town of Odai in Mie Prefecture• Promoted rainforest restoration activities in the Philippines• Began harvesting timber with the Australia afforestation business. Contributed to environmental conservation (preventing salt corrosion, erosion, etc.) by implementing proper cultivation practices, such as using natural regeneration from sprouts and management after harvesting	<ul style="list-style-type: none">• Promote wider use of urban green products and improve performance• Promote wider use of Buta resQ• Work to develop cool spot creation technology through greening, and establish a method of accurately measuring the amount of transpiration from trees and thermal environmental simulation model• Work to develop a technology for consistent manufacture of cellulose ethanol, which is produced from non-edible plants, and develop the yeast, which is more efficiently ferments xylose, a process that is difficult with naturally occurring yeasts• Continue establishment of forestry management foundation through utilization of geographical information systems (GIS) and technological development• Develop a system for the continuation of tree planting activities after project completion by the residents• Maintain the environment while securing profits, and continue afforestation business in Australia	12 13																																	
		●Reduce emissions to improve air quality in urban areas in each country and region	<ul style="list-style-type: none">• Introduce low-emission vehicles that contribute to the improvement of air quality in urban areas in each country and region-Japan: Continuously introduce vehicles that achieve or surpass U-LEV levels (3⇔4⇔)- U.S.: Take initiatives to conform to new regulations (LEVIII, SFTPII)- Europe: Appropriately conform to EURO5, take initiatives to quickly conform to new regulations EURO6- China: Promote introduction of countrywide regulations equivalent to EURO5- Other countries: Promote introduction of a low emission vehicle (to level of EURO3 or EURO4)	<ul style="list-style-type: none">• Introduced low-emission vehicles that contribute to the improvement of air quality in urban areas in each country and region-Japan: 100% of vehicles introduced achieve or surpass U-LEV levels (3⇔4⇔), with more than 95% achieving 4⇔ level- U.S.: Developing technology to conform to new regulations (LEVIII, SFTPII)- Europe: All models conformed to EURO5,- China: Steadily conformed to current regulations (EURO4)- Other countries: Promoted introduction of a low-emission vehicle (to level of EURO3 or EURO4)	<ul style="list-style-type: none">• Implement measures that anticipate regional regulation trendsIntroduce vehicles conforming to EURO5 in China (Beijing) from July 2012	5 14																																	
		●Strengthen the management of chemical substances in products	<ul style="list-style-type: none">• Promote the management of chemical substances in products on a global basis- Transition to the management of various chemical substances in products in addition to conventional 4 key SOCs*- Develop technology enabling a switch to substances with less environmental impact and promote the switch to those substances* 4 Substances of Concern (SOC): Lead, Mercury, Cadmium and Hexavalent Chrome	<ul style="list-style-type: none">• Reviewed the system for advanced chemical management beginning with the European REACH- Strengthened the system for chemical management in product development- Introduced quality management to manage asbestos and flame retardant materials, etc. in addition to the usual 4 SOCs- Revised the "TOYOTA Green Purchasing Guidelines" based on a new system, and distributed it to suppliers• Developed chemical substances with a low environmental impact in the development and design stages, and promoted the switch to those substances	<ul style="list-style-type: none">• Introduce a chemical substance management system in all Toyota subsidiaries and affiliates, suppliers and overseas affiliates• Promote development of materials technologies that work toward lowering environmental impact	14																																	
Environmental protection and contribution to a Harmony with Nature Society	Production	●Reduce substances of concern (SOC) in production activities	<ul style="list-style-type: none">• Continuously promote VOC reduction activities through improvement of daily operations including the reduction of the volume of paint materials and cleaning solvent used in the painting process <table><tr><th>Process</th><th>Region</th><th>Target (FY2012)</th></tr><tr><td rowspan="2">Body paint</td><td>Japan</td><td>32g/m² or less* (average of all lines)</td></tr><tr><td>TMC</td><td>24g/m² or less* (average of all lines)</td></tr><tr><td colspan="2">Overseas</td><td>Highest level in each country</td></tr><tr><td>Other paint</td><td>Japan & Overseas</td><td>Promote activities to reduce VOC emission volume</td></tr></table> <p>* Emissions/unit of painted area</p>	Process	Region	Target (FY2012)	Body paint	Japan	32g/m ² or less* (average of all lines)	TMC	24g/m ² or less* (average of all lines)	Overseas		Highest level in each country	Other paint	Japan & Overseas	Promote activities to reduce VOC emission volume	<ul style="list-style-type: none">• Reduced use volume of cleaning solvent (water purification, etc.) <table><tr><th>Process</th><th>Region</th><th>Target (FY2012)</th><th>FY2011 results</th></tr><tr><td rowspan="2">Body paint</td><td>Japan*</td><td>32g/m² or less (average of all lines)</td><td>26g/m²</td></tr><tr><td>TMC</td><td>24g/m² or less (average of all lines)</td><td>21g/m²</td></tr><tr><td colspan="2">Overseas</td><td>Highest level in each country Implemented reduction activities</td><td></td></tr><tr><td>Other paint</td><td>Japan & Overseas</td><td>Promote activities to reduce VOC emission volume</td><td></td></tr></table> <p>* TMC + consolidated subsidiaries and other companies in Japan and overseas (in manufacturing)</p>	Process	Region	Target (FY2012)	FY2011 results	Body paint	Japan*	32g/m ² or less (average of all lines)	26g/m ²	TMC	24g/m ² or less (average of all lines)	21g/m ²	Overseas		Highest level in each country Implemented reduction activities		Other paint	Japan & Overseas	Promote activities to reduce VOC emission volume		<ul style="list-style-type: none">• Continue VOC reduction activities• Set FY2015 targets and formulate action plans	5 14
		Process	Region	Target (FY2012)																																			
		Body paint	Japan	32g/m ² or less* (average of all lines)																																			
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Working Together with Society	Working Together with Society	●Implement initiatives to address biodiversity conservation	<ul style="list-style-type: none">• Promote environmental activities based on the Toyota Biodiversity Guidelines	<ul style="list-style-type: none">• Assessed and coordinated International Year of Forests initiatives of internal divisions, and appealed initiatives by creating pages of Toyota's afforestation activities in the Environmental Report 2011 as an enhancement of information disclosure	<ul style="list-style-type: none">• Strengthen provision of information related to biodiversity conservation in the Shimoyama Project, Shirakawa-Go Eco-Institute, etc.	14 15																																	
		●Promote social contribution activities that contribute to a society in harmony with nature	<ul style="list-style-type: none">• Utilize the Toyota Environmental Activities Grant Program to support activities in Japan and overseas	<ul style="list-style-type: none">• Accepted submissions that show it is good to consider a "forest-preservation" perspective under themes of "biodiversity" and "global warming" for the grandsFrom among the 91 submissions, 21 projects that focused on forest conservation and Great East Japan Earthquake disaster restoration support were selected	<ul style="list-style-type: none">• Further increase name value of the grands program and strengthen friendly relations with influential NGOs• Create project plan for the 4th term program from 2013 onwards (2013-2017)																																		
		●Enhance environmental education at Forest of Toyota and TOYOTA Shirakawa-Go Eco-Institute	<ul style="list-style-type: none">• Forest of Toyota• Cumulative total of visitors reached 100,000 persons on February 23, 2012Local representatives including the director of the Toyota City Education Administration Department were invited to a ceremony commemorating this milestone• The hands-on nature program was further enhanced through the addition of the "living in <i>satoyama</i>" series aimed at conveying a new <i>satoyama</i> culture, as well as the original "fun in the forest" etc.<TOYOTA Shirakawa-Go Eco-Institute>• Through the addition of new projects, appeals to the media, cooperation with other organizations and enhancement of environmental education, the number of environmental program participants increased by 3,646 compared to the previous year (Loggers in FY2011: 13,563; Environmental program participants: 15,500)	<ul style="list-style-type: none">• <Toyota's Forest>• Establish a new operational management structure (from July 2012) and carry out the mid-term development plan• Share information and know-how with municipalities that are carrying out advanced environmental education<TOYOTA Shirakawa-Go -Institute>• Early develop <i>mieruka</i> (visualization) of the entire program (daily, holiday, and order based), and provide easy-to-understand guides (brochures, web sites)• Enhance programs that appeal to repeat visitors, such as the incorporation of the Shirakawa-Go historical culture studies	15 16																																		

TMC Environment-related Accidents

One complaint resulted from heavy oil leakage at an employee dormitory. The cause was due to deteriorating facilities. Toyota did repairs and took measures including comprehensive checks of all similar facilities within the company to ensure that no other problems existed.

		Action Items	Specific Actions and Goals	Results	Future Issues and FY2012 Action Policy	Related Pages
Environmental Management	Management	①Enhance and promote consolidated environmental management	<ul style="list-style-type: none">Implement activities to ensure the best environmental performance in each country and region through enhancement of environmental-committee activities in Japan and overseasConform to environmental laws and regulations in all countries and regions, and enhance activities to prevent environmental risks	<ul style="list-style-type: none">Systematically worked on improvement activities at affiliates in Japan and overseas, and generally achieved FY2011 targetsPromoted top-down activities through periodically holding a meeting to review about activity results at each regional environmental committeeFY2011 non-compliance and complaints (global) Non-compliance=4 (4 for all Toyota subsidiaries and affiliates) Complaints=1 (1 for TMC)Conducted site inspections to strengthen each company's activities and review the status of initiatives, and incidents decreased dramatically compared to the previous year (non-compliance: 13)	<ul style="list-style-type: none">Achieve FY2012 targets for affiliates in JapanFormulate FY2015 targets and draw up specific action plansThorough <i>yokoten</i> (lateral development) of recurrence preventionContinue local inspections for each company	5 17
		②Promote environmental activities in cooperation with business partners	<ul style="list-style-type: none">Suppliers: Promote compliance from suppliers, enhance management of SOCs in parts, raw materials, resources and other items supplied to Toyota and request and or support voluntary initiatives to improve environmental performanceDealerships in Japan: Promote and enhance environmental initiatives by thoroughly following the Toyota Dealer CSR (Environment) GuidelinesDistributors overseas: Promote and enhance dealer environmental initiatives led by regional distributors in each countryDealerships overseas: Promote and enhance the Dealer Environmental Risk Audit Program (DERAP)	<ul style="list-style-type: none">Published the revised "TOYOTA Green Purchasing Guidelines" to strengthen chemical substance management (November 2011)The Toyota National Dealers' Advisory Council conducted trial acquisition of third-party certificates, and the model dealerships (3 companies) acquired certificatesHeld energy saving seminars for dealerships, and implemented education (Districts served by Chubu Electric Power and Tohoku Electric Power)Promoted environmental initiatives that meet regional circumstancesDistributors overseas: Acquired EMS third-party certificate (Europe/U.S.)Dealerships Overseas: Systematically developed the Dealer Environmental Risk Audit Program (DERAP) (except Europe/U.S.)	<ul style="list-style-type: none">Promote the revised Green Purchasing Guidelines to affiliates in Japan and overseasPromote acquisition of third-party certificates for dealershipsContinue to hold energy-saving seminars to dealerships (Districts served by Chubu Electric Power and Tohoku Electric Power)Continue to promote initiatives that meet regional circumstances	18
		③Promote CO ₂ management worldwide	<ul style="list-style-type: none">Plan and promote total CO₂ management in global business operations	<ul style="list-style-type: none">Reviewed CO₂ reduction scenarios by region in accordance to changes in each region's global warming policies, etc.	<ul style="list-style-type: none">Create automobile and plant CO₂ reduction scenarios, and reflect those in development planning	—
		④Promote Eco-VAS (Eco Vehicle Assessment System) in product Development	<ul style="list-style-type: none">Steadily promote management of target values concerning environmental impact of vehicles by using Eco-Vehicles Assessment System (Eco-VAS) at the development stage	<ul style="list-style-type: none">Expanded Eco-VAS in new and fully changed models in JapanSteadily decreased the lifecycle CO₂ in each previous modelAnnounced results on Web sites and brochures	<ul style="list-style-type: none">Steadily promote environmental target management through Eco-VAS	19
		⑤Promote sustainable plant activities	<ul style="list-style-type: none">Establish a plant that fully utilizes natural resources and operates in harmony with the natural environment, and share resulting knowledge and expertisePromote development of low CO₂-emitting production technologies, improvement of daily operations, use of renewable energy and tree-planting activities at production plants	<ul style="list-style-type: none">Began initiatives on sustainable plant activity in 2007 with the Tsutsumi Plant as a model plantImplemented a tree-planting event at the Shimoyama Plant in April 2011Cumulative trees planted totaled 500,000 (as of January 2012, Japan and overseas)Established a system to steadily incorporate in environment responsiveness in newly built, renovated and expansion construction works, and began operations from 2006 (eco factory activities)Participating plants in 2011: TMMMS, TKM Plant No.2, TDB Plant No.3, SFTM Changchun Plant No.2, SFTM Sichuan relocation, TMMR	<ul style="list-style-type: none">Continue to promote tree-planting events at plants in Japan and overseasContinue to promote eco factory activities	17 19
		⑥Enhance and promote environmental education activities	<ul style="list-style-type: none">Raise employee environmental awareness, formulate and implement a systematic environmental education program that contributes to operational improvementsPromote environmental education globally in cooperation with consolidated companiesImplement Toyota Environment Month events on a global scale	<ul style="list-style-type: none">Implemented hierarchical environmental lectures (new employees, newly appointed department general managers/GMs)Implemented delivery environmental classroomsImplemented e-learning on environmental basicsCalled on consolidated subsidiaries and affiliates to cooperate and participate with the national policies (cool biz, warm biz, lights down campaigns, etc.)Promoted the Toyota Global Environment Month activitiesShared company president's message, publicized activities with posters, and implemented independent environmental events in each country	<ul style="list-style-type: none">Continue to promote internal environmental educationPromote active cooperation with national policiesContinue to promote Toyota Global Environment Month eventsContinue to educate about the importance of holding events so that each affiliate can continue with the Environment Month events	3
		⑦Actively increase disclosure of environmental information and communication	<ul style="list-style-type: none">Further enhance provision of technological information on environmental products in all countries and regionsContinuously issue sustainability reports and improve their content in each country and regionConduct environmental communication activities in all countries and regions	<ul style="list-style-type: none">Thoughts on the environment from Chief Engineers of major models, starting with the Prius aWeb release, overseas, South AfricaPromoted HV during new sales campaigns for the Auris HVContinued to publish reports in 16 countries and regions globally (EU, Thailand, etc.)(In Japan, separated the environmental report from the Sustainability Report)Currently promoting in consideration of regional circumstances	<ul style="list-style-type: none">Continue to promote product environmental informationContinue to publish reports	Back Cover

TMC Environment-related Recalls

Toyota experienced no environment-related recalls in FY2011.

Appendix

Status of Major Environmental Data (FY2011)

Area	Item	Key indicator (unit)	FY1990	FY1995	FY1998	FY2001	FY2009	FY2010	FY2011	Related pages	
Product	Exhaust gases	Percentage of total production that achieves emission levels 25% lower than 2000 gasoline standards (No. of models)	—	—	—	—	—	—	—	14	
		Percentage of total production that achieves emission levels 50% lower than 2000 gasoline standards (No. of models)	—	—	—	—	—	—	—		
		Percentage of total production that achieves emission levels 75% lower than 2000 gasoline standards (No. of models)	—	—	—	—	—	—	—		
		Percentage of total production that achieves emission levels 50% lower than 2005 gasoline standards (No. of models)	—	—	—	—	6.7% [35]	4.5% [29]	4.0% [19]		
		Percentage of total production that achieves emission levels 75% lower than 2005 gasoline standards (No. of models)	—	—	—	—	93.3% [126]	95.1% [134]	95.5% [135]		
	Clean-energy vehicles	Number of units sold [units]	—	—	—	—	347,698	343,645	456,936	—	
		Electric vehicles [units]	—	—	—	—	0	0	0		
		Hybrid vehicles [units]	—	—	—	—	347,518	343,542	456,873		
		CNG vehicles [units]	—	—	—	—	180	103	63		
	Fuel efficiency ^(Note 1)	Average fuel efficiency by weight category [km/L] (Gasoline-powered passenger vehicles) ^(Note 1)	703 ~827kg	17.6	17.6	—	—	—	—	6	
			828 ~1,015kg	12.3 (average)	12.3 (average)	—	—	21.7	22.6		23.2
			1,016 ~1,265kg					18.5	19.1		21.5
			1,266 ~1,515kg					24.2	26.5		27.0
			1,516 ~1,765kg	8.5 (average)	8.0 (average)	—	—	13.5	13.8		14.1
			1,766 ~2,015kg					12.0	11.7		11.5
			2,016 ~2,265kg					10.3	9.8		11.3
			2,266kg ~					8.6	8.2		8.0
Production	CO ₂ ^(Note 2)	Total emissions volume [calculated in CO ₂ equivalent in 10 thousand tons/year]	211 ^(Note 4)	—	—	—	124	119	117	6	
		Emissions volume per unit produced [calculated in CO ₂ equivalent in tons/unit/year]	—	—	—	—	0.47	0.48	0.46		
	Substances of concern	VOC emissions volume per body area [g/m ²]	—	—	64	—	23	20	21	14	
	Waste ^(Note 3)	Volume of waste per unit produced [kg/unit]	—	—	—	29.5	16.5	15.8	14.1	9	
	Recycling	Recycling rate	Vehicle recycling/recovery rate [%]	—	—	—	—	97	97	99	5

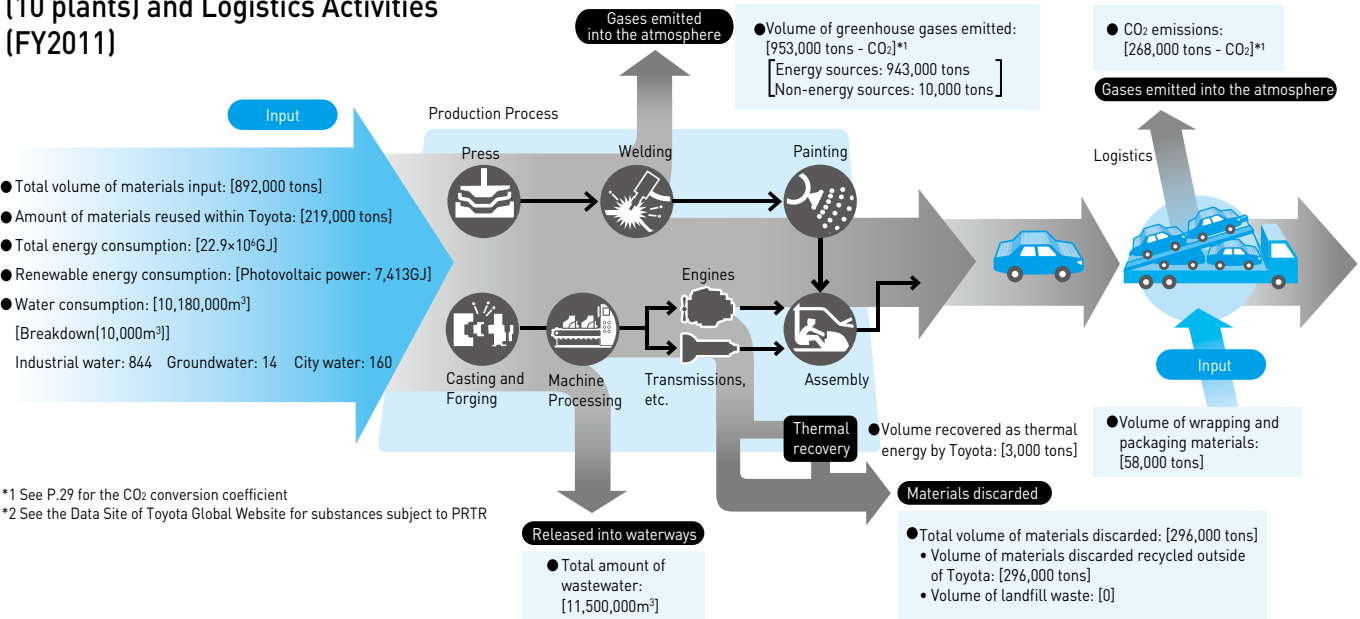
Note 1: The fuel efficiency figures for FY1990 were calculated by converting the figures obtained in the Japanese 10-15 test-drive mode

Note 2: Since non-production bases were also brought under the scope of the reduction goals in FY2005, figures include company-wide emissions from FY1990

Note 3: Zero landfill waste was achieved in FY2000 and has been maintained ever since

Note 4: Total figure for the period from January to December 1990

Volume of Resources Input and Volume of Substances Discharged from Production Plants (10 plants) and Logistics Activities (FY2011)



*1 See P.29 for the CO₂ conversion coefficient

*2 See the Data Site of Toyota Global Website for substances subject to PRTR

Environmental Data for New and Fully Changed Models (Passenger Vehicles) in Japan (FY2011)

	Name	Prius α	Avensis	Camry	Pixis Space	Aqua	Prius PHV	GS350	GS450h
Specifications	Vehicle model	DAA-ZVW40W	DBA-ZRT272W	DAA-AVW50	DBA-L575A	DAA-NHP10	DLA-ZVW35	DBA-GRL10	DAA-GWL10
	Engine model	2ZR-FXE	3ZR-FAE	2AR-FXE	KF	1NZ-FXE	2ZR-FXE	2GR-FSE	2GR-FXE
	Transmission	*1	CVT	*1	CVT	*1	*1	6 Super ECT	*1
Start of sales		May 2011	September 2011	September 2011	September 2011	December 2011	January 2012	January 2012	March 2012
Greenhouse gases	Amount of HFC134-a used [g] as air conditioning refrigerant	470	440	530	300	420	470	500	500
Fuel efficiency	CO ₂ emissions [g/km] (calculated from 10-15 Japanese test mode fuel efficiency values)	75	159	88	91	58	38.0 ^{*2}	232	113
	Fuel efficiency (10-15 Japanese test mode) [km/L] (Figure reviewed by Ministry of Land, Infrastructure, Transport and Tourism)	31.0	14.6	26.5	25.5	40.0	61.0 ^{*3}	10.0	20.5
External vehicle noise	Regulation figures for acceleration noise (dB-A)	76	76	76	76	76	76	76	76
	Specification figures for acceleration noise (dB-A)	74	74	73	73	74	74	75	75
Exhaust emission levels (2005 Exhaust Emissions Standards)	75% lower than standard levels (SU-LEV)	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★
	50% lower than standard levels (U-LEV)	—	—	—	—	—	—	—	—
Substances of concern used in parts	Lead	JAMA voluntary goals achieved	JAMA voluntary goals achieved	JAMA voluntary goals achieved	JAMA voluntary goals achieved	JAMA voluntary goals achieved	JAMA voluntary goals achieved	JAMA voluntary goals achieved	JAMA voluntary goals achieved
	Mercury								
	Cadmium								
	Hexavalent chromium								
	Parts that use easy-to-recycle materials (TSOP)	Instrument panels, bumper covers, rocker panel molding	—	Bumpers, instrument panels, console boxes, glove boxes	Instrument panels, pillar garnish, door trim, front/rear bumpers, etc.	Bumpers, rear console boxes, instrument panels	Bumper covers, pillar garnish, front grilles, rocker panel molding	Deck undertrays, bumpers, rocker panel molding	Deck undertrays, bumpers, rocker panel molding
Recycling	Natural materials	—	—	Package tray trim, Luggage mats [Kenaf]	—	—	Scuff plates, driver's seat cushions, [Ecological Plastic]	Door trim, package tray trim, front seats [Kenaf]	Door trim, package tray trim, front seats [Kenaf]
	Use of recycled resins	—	Front deck boxes, side deck boxes, front fender liners	—	Dash inner/ outer silencers, fender extensions, etc.	—	Engine undercovers, rear seat side covers, front seat shields	Floor undercovers (front, rear), tank undercovers, lower fender seals, luggage door trim	Floor undercovers (front, rear), tank undercovers, lower fender seals, luggage door trim
	Soundproofing material made from recycled shredder residue (RSPP)	Front floor silencers	—	—	—	—	Floor silencers	Floor silencers	Floor silencers

* In principle, the data above relates to the best-selling grade of each vehicle model

*1 Electronically controlled continuously variable transmission

Note 1: Refer to the chart right below for levels of emission gases from passenger vehicles

*2 Calculated by converting Plug-in Hybrid fuel efficiency value. Emissions during driving. CO₂ emissions by power generation are not included.

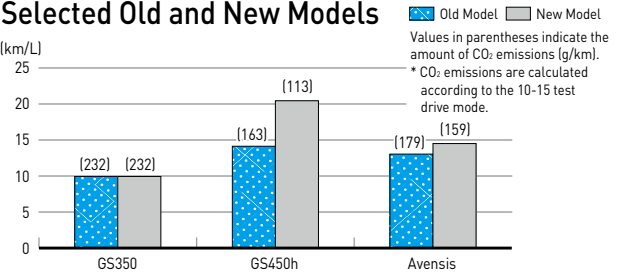
*3 Plug-in Hybrid fuel efficiency (JC08 mode)

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

Regulated substances	New model*	Regulation value	50% lower than 2005 standards (☆☆☆)	75% lower than 2005 standards (☆☆☆☆)
CO [g/km]		1.15	←	←
NMHC [g/km]		0.05	0.025	0.013
NOx [g/km]		0.05	0.025	0.013

* New model: 10-15 mode measured value ×0.88 +(11 mode measured value)×0.12

Fuel Efficiency Comparison between Selected Old and New Models



Status of ISO14001 Certification

With seven already certified firms having joined, Toyota now has a total of 41 certified manufacturers in Japan. Among overseas manufacturing companies, TMMR newly obtained certification. Meanwhile, the cumulative number of ISO14001 certified dealers/service shops overseas is now about 1,250 in 17 countries thanks to the support of our distributors.

Number of Companies in Japan and Overseas that Have Acquired ISO Certification

	Production companies	Production/Sales companies	Sales companies/ Other types of businesses
Japan	41	—	14
Overseas	32	10	21

Scope of Companies Subject to Consolidated EMS

Toyota’s consolidated EMS covers a total of 561 companies. This includes not only all financially consolidated subsidiaries, but also major production companies, overseas distributors and other companies not subject to consolidated accounting. Specifically, companies subject to consolidated EMS fall into the following four major categories: (1) 167 subsidiaries which are financially consolidated and under the direct control of TMC; (2) 53 major production companies and overseas distributors that are not subject to consolidated accounting; (3) one organization from other types of businesses; (4) 340 subsidiaries that are financially consolidated and under the indirect control of TMC (managed via consolidated subsidiaries).

Organization/Structure

1. Jointly adopt the Toyota Earth Charter and draft individual environmental policies
2. In production, set quantitative goals and follow up on those goals
3. In sales, create an environmental management system; 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 CO₂ emissions during logistics activities
4. Implement top level environmental responses based on actual conditions in each country and region

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

● Production companies

□ Production/Sales companies

○ Sales companies

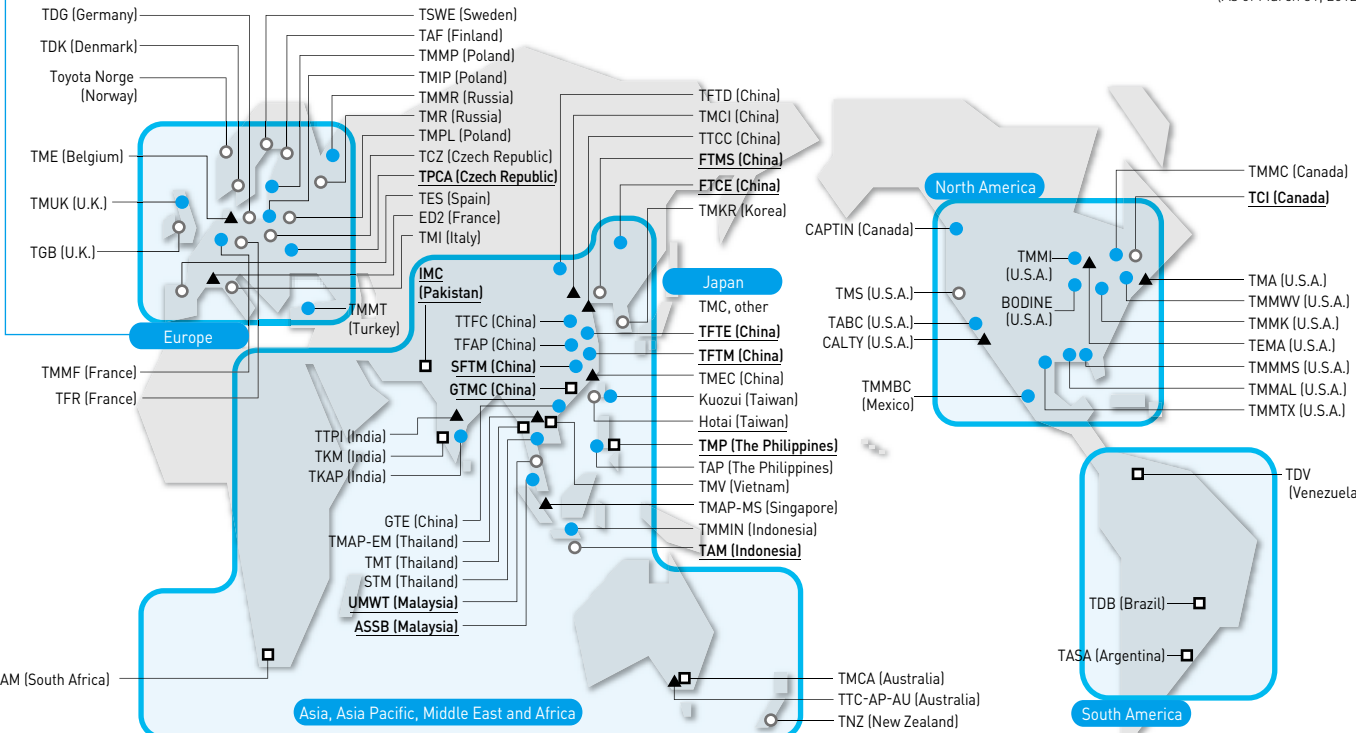
▲ Other types of businesses (regional manufacturing headquarters, etc.)

* Companies whose names are indicated in black are financially consolidated subsidiaries
Companies whose names are underlined and are indicated in bold are not subject to consolidated accounting

(As of March 31, 2012)

Main Companies Subject to Consolidated EMS

European affiliates that have voluntarily participated
Toyota Hellas (Greece) Toyota Ireland (Ireland) Louwman & Parqui (The Netherlands)
Toyota AG (Switzerland) Toyota SA (Turkey) 11 other companies
16 non-consolidated distributors in Europe are voluntarily implementing EMS, including acquisition of ISO certification, with TME support



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

Production Companies					Sales Companies	Other Businesses
Group 1	Group 2	Group 3	Group 4	Group 5	Toyota Home Tokyo Co., Ltd. Toyota Tokyo Parts Distributor Co., Ltd. Toyota Tokyo Rental & Leasing Co., Ltd. Tokyo Toyopet Motor Sales Co., Ltd. and others Total of 33 companies	Aichi Rikuun Co. Tacti Corporation Toyofuji Shipping Co., Ltd. Toyota Central R&D Labs, Inc. Toyota Enterprises Inc. Toyota Modellista International Corporation Toyota Technocraft Co. Toyota Transportation, and others Total of 51 companies *Includes 1 company that is not subject to consolidated accounting
• Consolidated subsidiaries • Automotive production companies and others • Toyota secondary companies	• Companies not subject to consolidated accounting • Main parts manufacturers • Body manufacturers, etc.	• Consolidated subsidiaries • Parts manufacturers	• Consolidated subsidiaries • Various other products production companies	• Companies not subject to consolidated accounting • Parts manufacturers		
Central Motor Co., Ltd.*1 Daihatsu Motor Co., Ltd. Gifu Auto Body Industry Co., Ltd. Hino Motors, Ltd. Kanto Auto Works, Ltd.*1 Toyota Auto Body Co., Ltd. Toyota Motor Hokkaido, Inc. Toyota Motor Kyushu, Inc. Toyota Motor Tohoku, Inc.*1	Aichi Steel Corporation Aisan Industry Co. Ltd. Aisin AI Co., Ltd. Aisin AW Co., Ltd. Aisin Seiki Co., Ltd. Aisin Takaoka Co., Ltd. Denso Corporation JTEKT Corporation Tokai Rika Co., Ltd. Toyoda Gosei Co., Ltd. Toyota Industries Corporation Toyota Tsusho Corporation Toyota Boshoku Corporation	Cataler Corporation Central Motor Wheel Co., Ltd. Kyoho Machine Works, Ltd. Primearth EV Energy Co., Ltd. Toyota Housing Corporation*2 Yutaka Seimitsu Kogyo, Ltd.	Admatechs Co., Ltd. Japan Chemical Industries Co., Ltd. Shintec Hozumi Co., Ltd. Toyota Turbine and Systems Inc.	Chuo Spring Co., Ltd.*2 Chuhoh Pack Industry Co., Ltd. *2 Fine Sinter Co., Ltd.*2 FTS Co., Ltd. Koito Manufacturing Co., Ltd.*2 Kyowa Leather Cloth Co., Ltd.*2 Taiho Kogyo Co., Ltd. Toyoda Iron Works Trinity Industrial Corporation Tsuda Industries Co., Ltd. *2		
All-Toyota Production Environment Conference Members					All-Toyota Production Environment Meeting Members	

*1 Kanto Auto Works, Ltd., Central Motor Co., Ltd. and Toyota Motor Tohoku, Inc. merged to create Toyota Motor East Japan, Inc. as of July 2012. *2 Newly joined in FY2011

Environmental Awards (FY2011)

Organization	Award Title	Award for
16th Inverse Manufacturing System Symposium Executive Committee	Best Award	Development and introduction of the industry's first industrial heat-pump air conditioning system with an energy-saving operation control feature, enabling it to also reduce CO ₂ emission and respond to production system changes. This turned out to be a highly efficient system.
	Chunichi Shimbun Award	Improvement of coolant devices in the aluminum processing line along with the use of water-soluble long-life liquid coolant realized a "no liquid change and zero waste" status
	Aichi Science & Technology Foundation President Award	Automatic conveyor systems focused on the ability to "create, fix and change on site" with minimal power consumption were developed and introduced as part of the SSCI* initiative in automotive assembly and resulted in significant energy savings.
Society of Automotive Engineers of Japan	FY2011 Technological Development Award	Zone coat catalyst technology. It is becoming a pressing issue to enhance the self-cleansing function of three-way catalysts in accordance with tightening of exhaust gas regulations. The cleansing function relies on the amount of rare metals, which present increasing concerns over resource risks. It is therefore desirable not only to reduce cost, but also significantly reduce their usage if only to avoid a crisis. The award-winning technology allows a substantial reduction in the use of Rh (rhodium) and improve dispersion using the zone coating technology, a process to differentiate the thickness of catalyst layers by zones. Zone coating is a unique catalytic technology featuring functional separation, which works for engines of various capacities. The result is a 45% reduction in consumption of Rh, which will potentially broaden flexibility in catalyst design and further reduce rare metal usage in the future.

* SSCI [Simple Smart Compact for Assembly Innovation]
SSCI initiatives in device development at assembly plants resulted in a 90% reduction in CO₂ emissions compared to conventional assembly and conveying equipment.

CO₂ Conversion Coefficients to Calculate CO₂ Emissions Volume

(1) Environmental Data in Japan (excluding logistics)

Electricity	0.3707kg-CO ₂ /kWh	LPG	3.0040kg-CO ₂ /kg
Heavy oil A	2.6958kg-CO ₂ /L	Natural gas	2.1570kg-CO ₂ /Nm ³
Heavy oil C	2.9375kg-CO ₂ /L	Coke	3.2426kg-CO ₂ /kg
Kerosene	2.5316kg-CO ₂ /L	Coal	2.3557kg-CO ₂ /kg

* CO₂ conversion coefficient source: the Nippon Keidanren's FY1990 coefficient
* Coefficients from other sources have been used in some instances
"CO₂ Emissions from Energy Sources at TMC and CO₂ Emissions per Unit Produced" on P.6 and "Volume of Resources Input and Volume of Substances Discharged from Production Plants (10 plants) and Logistics Activities (FY2011)" on P.26.

(2) Global Production Environmental Data

• IPCC 2006, 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Prepared by the National Greenhouse Gas Inventories Programme, Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (eds). Published: IGES, Japan.
• The 2001 conversion coefficient in CO₂ Emissions from Fuel Combustion, 2007 edition, IEA, Paris, France, was used.
• The conversion coefficients specified in the Act on Promotion of Global Warming Countermeasures was used with respect to natural gas, steam, hot water, cooling water and coke furnace gas.
* Corresponds to P.4: CO₂ Emissions (from Energy Sources) and CO₂ Emissions per Unit Produced (stationary sources such as plants and offices) [Global].

(3) Logistics Data

	FY2006 and earlier	FY2007 and later
Railway (Japan Railway Cargo)	21.7g-CO ₂ /ton-kilometer	22g-CO ₂ /ton-kilometer
Diesel (truck)	2.62kg-CO ₂ /L	2.62kg-CO ₂ /L
Heavy oil C (vessel)	2.99kg-CO ₂ /L	2.98kg-CO ₂ /L

* CO₂ conversion coefficient source used for FY2006 and earlier:
Railway (Japan Railways Cargo) transport: 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)
* Corresponds to P.7: "TMC CO₂ Emissions Volumes in Logistics (Japan)"
* CO₂ conversion coefficient source used for FY2007 and later CO₂ Emissions Calculation Method for Logistics Operations Joint Guidelines, Ver.3.0 (METI/MLIT)
* Corresponds to P.7 "TMC CO₂ Emissions Volumes in Logistics (Japan)," and P.26 "Volume of Resources Input and Volume of Substances Discharged from Production Plants (10 plants) and Logistics Activities (FY2011)."

Environmental Accounting

Environmental accounting at Toyota is based on a classification of environmental costs into “environmental investments*1” and “maintenance costs*2.” Toyota also calculates economic effects and eco-efficiency. For details on the effects of measures to reduce environmental impact, please see “Status of Major Environmental Data for FY2011” on page 26.

*1 **Environmental investments:** Environmental investments: Environmental costs, such as those for research and development of environment-considerate products, whose effects are judged to extend beyond the current term into the future
*2 **Maintenance costs:** Environmental costs other than environmental investments

Environmental Costs

Total environmental costs in FY2011 were 288.8 billion yen, an increase of 47.4 billion yen from the previous fiscal year and accounted for 3.5% of net sales. The increase was the result of ongoing research and development.

Economic Effects

(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.”

(2) Customer Effects

Total customer effects resulting from replacement by hybrid vehicles were 133.6 billion yen in Japan and 440.3 billion yen worldwide, and cumulative effects since the launch of the first-generation Prius in December 1997 were 411.3 billion yen (Japan) and 1,435.1 billion yen (worldwide).

Customer Effects Calculation Method for Japan;

$$\begin{aligned} & (10,000 \text{ km}^*/\text{gasoline-powered vehicle's fuel consumption}^*2 \\ & - 10,000 \text{ km/hybrid vehicle's fuel consumption}^*2) \\ & \times 147.2 \text{ yen}^*3 \times \text{FY2011 hybrid vehicle sales volume} \end{aligned}$$

*1 Average annual distance traveled by passenger cars according to the Japanese Ministry of Land, Infrastructure, Transport and Tourism's "Automobile Transportation Statistics"
*2 10-15 Japanese test mode fuel consumption converted into actual fuel consumption
*3 National average gasoline price (including consumption tax) in FY2011, according to the Oil Information Center in Japan

Economic Effects (actual effects) (Unit: Billion yen)				
	FY09	FY10	FY11	*FY2011 results of 6 body manufacturers
Reduction in energy costs	1.3	1.5	0.8	1.2
Reduction in waste processing costs	1.0	0.3	0.2	0
Sales of recyclable goods	4.4	6.7	6.5	7.9
Other (income from environment-related technologies, etc.)	0.6	6.8	0.2	0
Total	7.3	15.3	7.7	9.1

Eco-efficiency

Toyota calculates eco-efficiency using the formula below and monitors the results in the form of the eco-efficiency index. CO₂ emissions volume and the volume of waste generated by the Production Group were used to determine the environmental impact starting with data from FY1990. For 21 years until FY2011, the CO₂ index had increased by 200%, and the waste index by 500%. In the future, Toyota will continue to pursue production that minimizes environmental impact and to enhance eco-efficiency.

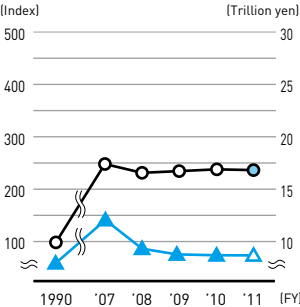
Eco-efficiency Formula

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

Trends in Eco-efficiency (10 Plants only)

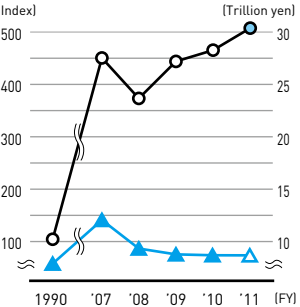
(CO₂ Index due to Automobile Production)

○ Index ▲ Net sales



(Waste Index due to Automobile Production)

○ Index ▲ Net sales



* The "CO₂ index" means the ratio of net sales to the volume of CO₂ emissions, with a value of 100 assigned to the FY1990 level

* The "waste index" means the ratio of net sales to the volume of waste generated, with a value of 100 assigned to the FY1990 level

Actual Results of Environmental Expenses

Actual Results Based on Toyota's Format

(Unit: Billion yen)

Classification	Item		Details	FY09	FY10	FY11
Environmental investments	Research and development			193.1	215.4	262.4
	Recycling-related			1.0	0.7	0.7
	Other expenses (social contribution, ISO certification, education & training, etc.)			1.7	1.1	1.1
	*Plant and equipment investment	Plant and equipment investment primarily for environmental action	Prevention of global warming	1.4	0.7	0.4
			Waste processing	0	0	0.1
			Pollution prevention, etc.	0.4	0.9	1.1
				1.8	1.6	1.6
			Expenses for environmental action included in normal plant and equipment investment	6.3	6.2	6.8
Subtotal for environmental investments			203.9	225.0	272.6	
Maintenance costs	Expenses related to environmental measures	Waste processing	2.1	2.0	1.9	
		Wastewater treatment	0.4	0.3	0.3	
		Atmospheric pollution and odor abatement	0.8	0.8	0.8	
		Global environmental preservation	0.9	0.8	0.8	
	Awareness-building	Advertising, public relations, etc.	7.6	10.3	10.3	
	Professional environmental staff	Personnel	1.9	1.9	1.8	
	Environmental restoration	Vehicle recalls	0	0	0	
		Soil and groundwater remediation	0.2	0.3	0.3	
Subtotal for maintenance costs			13.9	16.4	16.2	
Total (As a percentage of net sales)			217.8 (2.5%)	241.4 (2.9%)	288.8 (3.5%)	

* Depreciation expenses of investments in plant and equipment are not included in these costs
Reference: FY2011 Total R&D expense: 690.0 billion yen, Total capital expenditure: 139.0 billion yen
[Note] The figure in FY2009 has been revised due to inclusion of biological and afforestation businesses.

FY2011 Actual Results Based on

the Ministry of the Environment's Format

(Unit: Billion yen)

Classification		Toyota		6 body manufacturers*	
		Investment	Cost	Investment	Cost
(1) Business area costs	(1) Pollution prevention	0.4	1.1	0.8	2.3
	(2) Global environmental preservation	7.6	0.8	2.7	0.4
	(3) Resource circulation	0.1	1.9	1.4	1.7
(2) Upstream/downstream costs	Amount allocated by recycling-related industry organizations	0	0.7	0.2	0.2
(3) Administration costs	Environmental advertisements, environmental report publication, professional environmental staff, etc.	—	13.0	0	1.9
(4) Research and development costs	R&D for reducing substances of concern	—	262.4	1.7	32.1
(5) Social activity costs	Contribution to environmental preservation organizations, etc.	—	0.2	0	0
(6) Environmental remediation costs	Soil and groundwater remediation, etc.	0.3	0.3	0	0
Total		8.4	280.4	6.8	38.6
		288.8		45.4	

* 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 685 million yen; economic effects: 16 million yen

* Kuozui Motors (Taiwan): Environmental costs 466 million yen; economic effects: 19 million yen

Independent Report

To improve the accuracy and objectivity of the Sustainability Report 2012 Separate Volume: Environment Facts & Figures, the quantitative information concerning Toyota's environmental activities in FY2011, described in pages 4-30 of this report (excluding general information unrelated to Toyota's environmental performance), has undergone a third-party review conducted by Deloitte Tohmatsu Evaluation and Certification Organization Co., Ltd., a subsidiary of Deloitte Touche Tohmatsu LLC and member-firm of Deloitte Touche Tohmatsu. The procedure for the third-party review of this report is as follows:

(1) Review plan development ▶ (2) Review execution ▶ (3) Review reporting ▶ (4) Check the final version ▶ (5) Submit an independent report

(TRANSLATION)

Independent Review Report

August 24, 2012

Mr. Akio Toyoda,
President, Toyota Motor Corporation

Deloitte Tohmatsu Evaluation and
Certification Organization Co., Ltd.
Chief Executive Officer Hiroshi Inanaga

1. Scope of the Review

We have reviewed the "Sustainability Report 2012 Separate Volume: Environment Facts & Figures" ("Report") prepared by Toyota Motor Corporation ("Company"). The purpose of our review was to provide limited assurance from an independent practitioner about whether quantitative environmental information (excluding publicly released data and column) for the period from April 1, 2011 to March 31, 2012 included in pp. 4-30 of the Report was accurately measured and calculated in accordance with calculation methods adopted by the Company.

2. Responsibility of the Management and Responsibility of the Independent Practitioner

The Report is the responsibility of the Company's management. Our responsibility is to provide limited assurance with respect to the review performed on the Report from in our role as 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 of the quantitative environmental information (excluding publicly released data and column) for the period from April 1, 2011 to March 31, 2012 included in pp. 4-30 of 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; 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 quantitative environmental information (excluding publicly released data and column) for the period from April 1, 2011 to March 31, 2012 included in pp. 4-30 of the Report was not accurately measured or calculated in accordance with calculation methods adopted by the Company, in all material respects.

Company Outline

Name	TOYOTA MOTOR CORPORATION	Number of shareholders:	668,186
Date of establishment:	August 28, 1937	Total number of shares issued:	3,447,997 thousand
Principal operations:	Manufacturing and sales of automobiles, etc.	Stock exchanges on which the shares are listed:	Japan: Tokyo, Nagoya, Osaka, Fukuoka and Sapporo Overseas: New York and London
Capital:	397.0 billion yen	Note: Capital amounts and number of shareholders are as of the end of March 2012 Capital less than 0.1 billion yen is rounded off	

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

Automobiles: Honsha Plant, Motomachi Plant, Kamigo Plant, Takaoka Plant, Miyoshi Plant, Tsutsumi Plant, Myochi Plant, Shimoyama Plant, Kinuura Plant, Tahara Plant, Teiho Plant, Hirose Plant